Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMLC0063798

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.
BELL LAKE / NMNM 068292X

8. Lease Name and Well No.
BELL LAKE UNIT SOUTH [316706]
405H

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

9. API Well No. 30-025-48207

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

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

10. Field and Pool, or Exploratory [98266]
BELL LAKE/WOLFCAMP, SOUTH

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface NESE / 2639 FSL / 1286 FEL / LAT 32.2466026 / LONG -103.5216814
At proposed prod. zone SWSE / 330 FSL / 1410 FEL / LAT 32.225738 / LONG -103.522074

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 1/T24S/R33E/NMP

14. Distance in miles and direction from nearest town or post office*
25 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)
2639 feet

16. No of acres in lease
2480

17. Spacing Unit dedicated to this well
480.0

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

19. Proposed Depth
11935 feet / 19859 feet

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

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3631 feet

22. Approximate date work will start*
03/01/2020

23. Estimated duration
40 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature
(Electronic Submission)

Name *(Printed/Typed)*
STORMI DAVIS / Ph: (918) 491-0000

Date
12/19/2019

Title
Regulatory Analyst

Approved by *(Signature)*
(Electronic Submission)

Name *(Printed/Typed)*
Cody Layton / Ph: (575) 234-5959

Date
11/23/2020

Title
Assistant Field Manager Lands & Minerals

Office
Carlsbad Field Office

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

GCP Rec 12/08/2020

KZ
12/20/2020

SL

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 11/23/2020

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

(Continued on page 3)

Additional Operator Remarks

Location of Well

0. SHL: NESE / 2639 FSL / 1286 FEL / TWSP: 24S / RANGE: 33E / SECTION: 1 / LAT: 32.2466026 / LONG: -103.5216814 (TVD: 0 feet, MD: 0 feet)

PPP: NWNE / 0 FNL / 1363 FEL / TWSP: 24S / RANGE: 33E / SECTION: 12 / LAT: 32.239349 / LONG: -103.521995 (TVD: 11935 feet, MD: 14907 feet)

PPP: NWSE / 2600 FSL / 1370 FEL / TWSP: 24S / RANGE: 33E / SECTION: 1 / LAT: 32.2464966 / LONG: -103.5219534 (TVD: 11935 feet, MD: 12306 feet)

BHL: SWSE / 330 FSL / 1410 FEL / TWSP: 24S / RANGE: 33E / SECTION: 12 / LAT: 32.225738 / LONG: -103.522074 (TVD: 11935 feet, MD: 19859 feet)

BLM Point of Contact

Name: Deborah Ham
Title: Legal Landlaw Examiner
Phone: (575) 234-5965
Email: dham@blm.gov

Review and Appeal Rights

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

AFMSS

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

Application Data Report

11/24/2020

APD ID: 10400052237 **Submission Date:** 12/19/2019

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 405H

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

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400052237 **Tie to previous NOS?** N **Submission Date:** 12/19/2019

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

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

Lease number: NMLC0063798 **Lease Acres:** 2480

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

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

Agreement number: NMNM068292X

Agreement name: BELL LAKE

Keep application confidential? Y

Permitting Agent? YES **APD Operator:** KAISER FRANCIS OIL COMPANY

Operator letter of designation:

Operator Info

Operator Organization Name: KAISER FRANCIS OIL COMPANY

Operator Address: 6733 S. Yale Ave.

Zip: 74121

Operator PO Box: PO Box 21468

Operator City: Tulsa **State:** OK

Operator Phone: (918)491-0000

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO **Master Development Plan name:**

Well in Master SUPO? NO **Master SUPO name:**

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 405H **Well API Number:**

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

Is the proposed well in an area containing other mineral resources? POTASH

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 405H

Is the proposed well in an area containing other mineral resources? POTASH

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

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** SOUTH BELL LAKE UNIT **Number:** 4

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: 25 Miles **Distance to nearest well:** 30 FT **Distance to lease line:** 2639 FT

Reservoir well spacing assigned acres Measurement: 480 Acres

Well plat: BLUS_405H_C102_20191210162141.pdf

BLUS_405H_Pymt_20191210171851.pdf

Well work start Date: 03/01/2020 **Duration:** 40 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 6863 **Reference Datum:** GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	2639	FSL	1286	FEL	24S	33E	1	Aliquot NESE	32.2466026	-103.5216814	LEA	NEW MEXICO	NEW MEXICO	S	STATE	3631	0	0	N
KOP Leg #1	2108	FNL	1371	FEL	24S	33E	1	Aliquot SWNE	32.248071	-103.521944	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-7731	11406	11362	N

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 405H

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	2600	FSL	1370	FEL	24S	33E	1	Aliquot NWSE	32.2464966	-103.5219534	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-8304	12306	11935	Y
PPP Leg #1-2	0	FNL	1363	FEL	24S	33E	12	Aliquot NWNE	32.239349	-103.521995	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	-8304	14907	11935	Y
EXIT Leg #1	330	FSL	1410	FEL	24S	33E	12	Aliquot SWSE	32.225738	-103.522074	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	-8304	19859	11935	Y
BHL Leg #1	330	FSL	1410	FEL	24S	33E	12	Aliquot SWSE	32.225738	-103.522074	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	-8304	19859	11935	Y

Melanie Wilson

From: notification@pay.gov
Sent: Tuesday, December 10, 2019 5:17 PM
To: mjp1692@gmail.com
Subject: Pay.gov Payment Confirmation: BLM Oil and Gas Online Payment


An official email of the United States government

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

Application Name: BLM Oil and Gas Online Payment
Pay.gov Tracking ID: 26M33BPP
Agency Tracking ID: 75903619963
Transaction Type: Sale
Transaction Date: 12/10/2019 07:16:32 PM EST
Account Holder Name: GEORGE B KAISER
Transaction Amount: $10,230.00
Card Type: Visa
Card Number: **********0061

Company: Kaiser-Francis Oil Company
APD IDs: 10400052237
Lease Numbers: NMLC-0063798
Well Numbers: 405H
Note: You will need your Pay.gov Tracking ID to complete your APD transaction in AFMSS II. Please ensure you write this number down upon completion of payment.

THIS IS AN AUTOMATED MESSAGE. PLEASE DO NOT REPLY.


Pay.gov is a program of the U.S. Department of the Treasury, Bureau of the Fiscal Service

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

Drilling Plan Data Report
11/24/2020

APD ID: 10400052237
Submission Date: 12/19/2019
Operator Name: KAISER FRANCIS OIL COMPANY
Well Name: BELL LAKE UNIT SOUTH
Well Number: 405H
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
606739	---	3631	0	0	OTHER : Surface	NONE	N
606740	RUSTLER	2231	1400	1400	SANDSTONE	NONE	N
606741	SALADO	1831	1800	1800	SALT	NONE	N
606742	TOP SALT	1506	2125	2125	SALT	NONE	N
606743	BASE OF SALT	-1469	5100	5100	SALT	NONE	N
606744	LAMAR	-1644	5275	5275	SANDSTONE	NATURAL GAS, OIL	N
606745	BELL CANYON	-1719	5350	5350	SANDSTONE	NATURAL GAS, OIL	N
606746	CHERRY CANYON	-2594	6225	6225	SANDSTONE	NATURAL GAS, OIL	N
606747	BRUSHY CANYON	-4069	7700	7700	SANDSTONE	NATURAL GAS, OIL	N
606748	BONE SPRING	-5169	8800	8800	LIMESTONE	NATURAL GAS, OIL	N
606749	AVALON SAND	-5342	8973	8973	SANDSTONE	NATURAL GAS, OIL	N
606750	BONE SPRING 1ST	-6269	9900	9900	SANDSTONE	NATURAL GAS, OIL	N
606751	BONE SPRING 2ND	-6854	10485	10485	SANDSTONE	NATURAL GAS, OIL	N
606752	BONE SPRING LIME	-7329	10960	10960	LIMESTONE	NATURAL GAS, OIL	N
606753	BONE SPRING 3RD	-7639	11270	11270	SANDSTONE	NATURAL GAS, OIL	N
606754	WOLFCAMP	-8104	11735	11735	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 405H

Pressure Rating (PSI): 10M **Rating Depth:** 18000

Equipment: A 10M system will be installed according to Onshore Order #2 consisting of a 5M Annular Preventer, BOP with two rams, a blind ram and safety valves and appropriate handles located on the rig floor. BOP will be equipped with 2 side outlets (choke side shall be a minimum 3 line, and kill side will be a minimum 2 line). Kill line will be installed with (2) valves and a check valve (2 min) of proper pressure rating for the system. Remote kill line (2 min) will be installed and ran to the outer edge of the substructure and be unobstructed. A manual and hydraulic valve (3 min) will be installed on the choke line, 3 chokes will be used with one being remotely controlled. Fill up line will be installed above the uppermost preventer. Pressure gauge of proper pressure rating will be installed on choke manifold. Upper and lower kelly cocks will be utilized with handles readily available in plain sight. A float sub will be available at all times. All connections subject to well pressure will be flanged, welded, or clamped.

Requesting Variance? YES

Variance request: Flex Hose Variance Well Head Variance 5M Annular 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_405H_Choke_Manifold_20191210164737.pdf

BOP Diagram Attachment:

BLUS_405H_Well_Control_Plan_20191210164804.pdf

BLUS_405H_BOP_20191210164804.pdf

BLUS_405H_Multi_Bowl_Wellhead_20191210164804.pdf

BLUS_405H_Flex_Hose_Data_20191210164805.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	1460	0	1460	3631	2171	1460	J-55	40.5	ST&C	2.3	4.6	DRY	7.1	DRY	10.6
2	INTERMEDIATE	9.875	7.625	NEW	API	N	0	11306	0	11262		-7631	11306	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	19859	0	11935		-8304	19859	P-110	20	OTHER - Eagle SF	1.8	1.9	DRY	2.6	DRY	3.1

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 405H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUS_405H_Casing_Assumptions_20191210165204.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUS_405H_Casing_Assumptions_20191210165001.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUS_405H_Prod_Csg_Specs_20191210165109.pdf

Section 4 - Cement

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 405H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1460	704	1.75	13.5	1216	50	ExtendaCem	Poly E Flake
INTERMEDIATE	Lead		0	11306	852	2.7	11	2327	25	NeoCem	Extender
INTERMEDIATE	Tail		0	11262	582	1.2	15.6	696	25	Halcem	none
PRODUCTION	Lead		9000	19859	850	1.2	14.5	1039	15	Versacem	Halad@

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all 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
11262	11935	OIL-BASED MUD	10	12							
1460	11262	OTHER : Diesel-Brine Emulsion	8.8	9.2							
0	1460	OTHER : Fresh Water	8.4	9							

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 405H

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:

GAMMA RAY LOG,MUD LOG/GEOLOGIC LITHOLOGY LOG,

Coring operation description for the well:

None planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 7447 **Anticipated Surface Pressure:** 4821

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_Pad_4_H2S_Plan_20191210165726.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

BLUS_405H_Directional_Plan_20191210165744.pdf

Other proposed operations facets description:

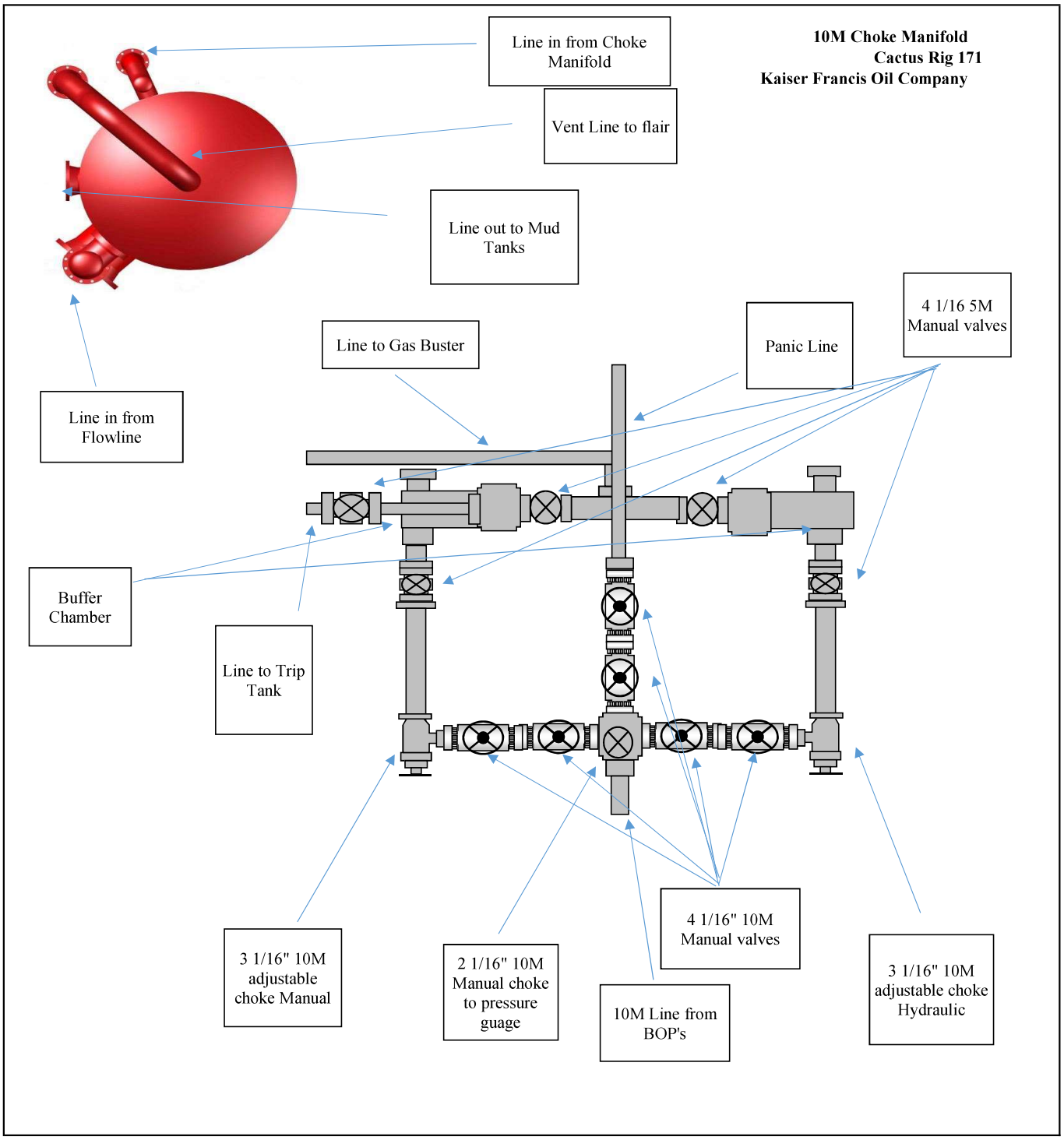
Gas Capture Plan attached

Other proposed operations facets attachment:

BLUS_405H_GCP_20191210165755.pdf

Other Variance attachment:

BLUS_405H_Well_Control_Plan_20191210165819.pdf
BLUS_405H_Flex_Hose_Data_20191210165820.pdf
BLUS_405H_Multi_Bowl_Wellhead_20191210165821.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
Line to Gas Buster
Panic Line
Line in from Flowline
Buffer Chamber
Line to Trip Tank
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

copper state rubber

Visual Inspection / Hydrostatic Test Report

Manufacturer	Copper State Rubber Inc.
Hose Type	Rotary Hose Re-Test
Pressure Rating	10,000 PSI MAWP X 15,000 PSI T/P
Spec Number	090-1915C - 48

Serial Number	33974A
Size ID	3"
Length	35'
Date	October 3, 2019
Shop Order Number	32367

Connections Description: 4 1/16" 10,000 PSI API SWIVEL FLANGE
4 1/16" 10,000 PSI API FIXED FLANGE

Traceability of Terminating Connectors

	Insert	Male	Nut	Female	Flanges	Hubs	Other
Connector 1	14B2				V4760		81401-1
Connector 2	14C1				V5468		H1264

Comments

Calibrated Devices

Pressure Recorder	CAL242	Calibration Date	8/8/2019

*This report signifies that the product has been visually inspected for defects in the interior tube, recess, gasket, cover and branding and all have been found to be conforming.

Comments Hose recess was repaired and then tested to factory test pressure as new.

Hydrostatic Testing Requirements

15 Min @ 15,000 psi (-0/+500 psi)

Length after test

35' OAL

Witness By: _____
Kyle Winters, Supervisor

Final OK: _____
Robert Snider, Quality Manager

copper state rubber

Borescope / Visual Inspection

Manufacturer	Copper State Rubber Inc.
Hose Type	Vibrator / Rotary Hose
Pressure Rating	10,000 PSI MAWP X 15,000 PSI T/P
Spec Number	090-1915C - 48

Serial Number	33974A
Size ID	3"
Length	35'
Date	October 3, 2019

	Remarks
Gasket Faces	Pass
Recesses	Pass
Hose Bore	Pass
Bubbles or Bulges	None Noted
Visual Inspection	Pass

Comments: Hose is confirmed to be in factory new condition.

Witness By: _____

Robert Snider, Quality Manager

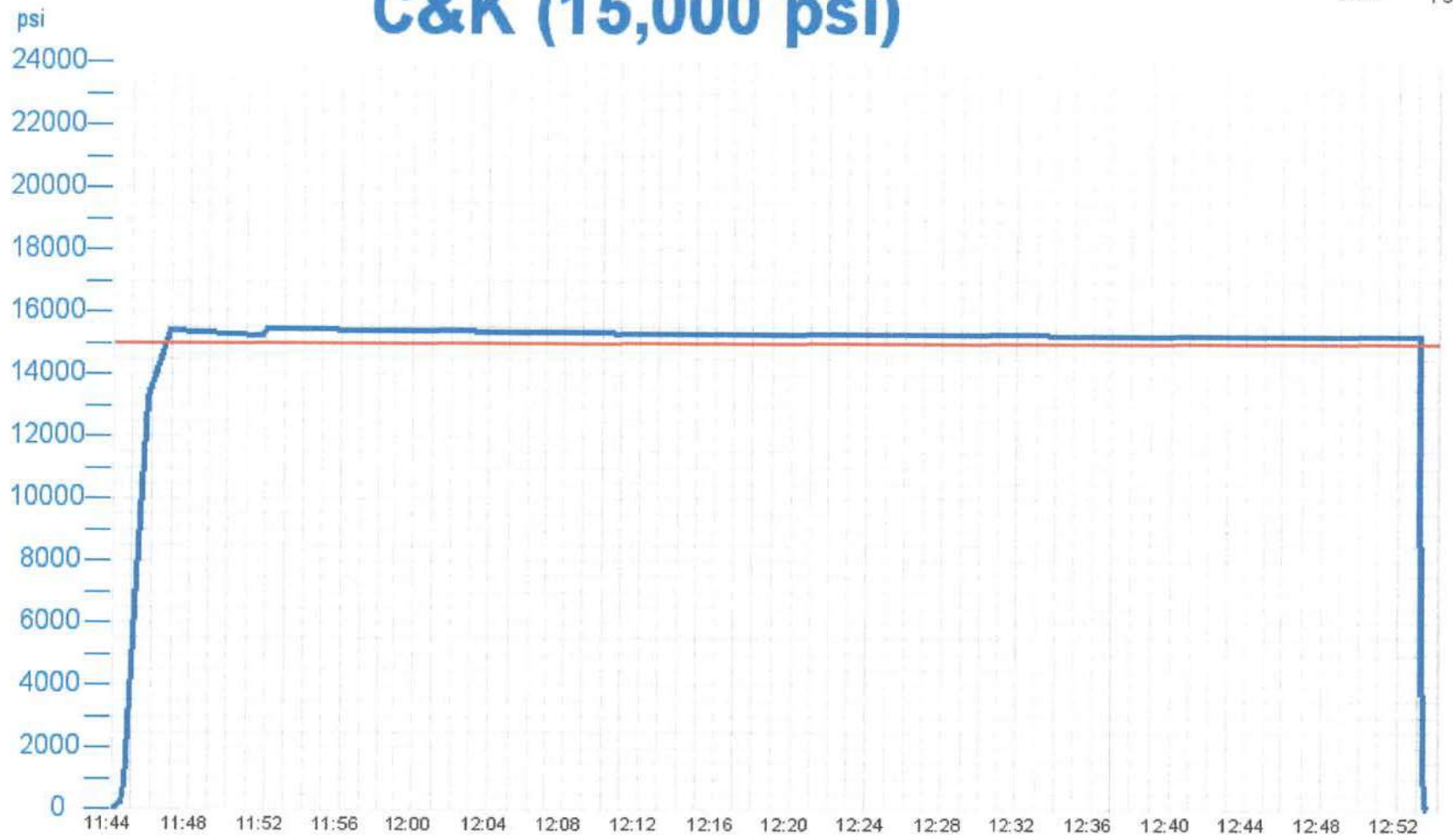
COPPER STATE CR RUBBER

C&K (15,000 psi)

Date 10/03/

Working Pressure	
10000	psi
Test Pressure	
15000	psi
Final Pressure	
15229	psi

Pressure Recorder ID
CAL242
Calibration Date
08/08/19



Serial	Work Order	Hose I.D.	Length	End Fitting A	End Fitting B
33974A	32367	3"	35 ft 0.00 in	4-1/16" 10,000# API SWIVEL FLANG	4-1/16" 10,000# API FLANGE

Operator	Reviewer	3rd Party Witness
Ruben Martinez	Kyle Winters	Robert Snyder II

Signature/Date

Signature/Date

Signature/Date

QA-91 Rev 0 01/18

Kaiser-Francis Oil Company
Bell Lake Unit South 405H
Casing Assumptions

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

Interval	Length	Casing Size	Weight (#/ft)	Grade	Thread	Condition	Hole Size	TVD (ft)
Conductor	120	20"				New		120
Surface	1460	10-3/4"	40.5	J-55	STC	New	14-3/4"	1460
Intermediate	11306.75	7-5/8"	29.7	HCP110	LTC	New	9-7/8"	11262
Production	19859.21	5-1/2"	20	P110 HP	USS Eagle SFH	New	6-3/4"	11935

Mud Type	Mud Weight Hole Control	Depth	Viscosity	Fluid Loss
FW	8.4 - 9.0	1350'	32 - 34	NC
Brine	8.7 - 9.0	11426'	28-29	NC
OBM	10.0-12.0	19882'	55-70	

Anticipated Mud Weight (ppg)	Max Pore Pressure (psi)	Collapse (psi)	Burst (psi)	Body Tensile Strength	Joint Tensile Strength
9	683	1580	3130	629000	420000
9	5271	6700	9460	940000	769000
12	7447	13150	14360	729000	629000

Collapse Safety Factor (Min 1.1)	Burst Safety Factor (Min 1.0)	Body Tensile Safety Factor (Min 1.8)	Joint Tensile Safety Factor (Min 1.8)
2.3	4.6	10.6	7.1
1.3	1.8	2.8	2.3
1.8	1.9	3.1	2.6

Generated: 10/26/2017

U. S. Steel Tubular Products

5 1/2 20.00 lb (0.361) P110 HP

USS-EAGLE SFH™

	PIPE	CONNECTION	
MECHANICAL PROPERTIES			
Minimum Yield Strength	**125,000**		*psi*
Maximum Yield Strength	**140,000**		*psi*
Minimum Tensile Strength	**130,000**		*psi*
DIMENSIONS			
Outside Diameter	**5.500**	**5.830**	*in.*
Wall Thickness	0.361		*in.*
Inside Diameter	4.778	4.693	*in.*
Drift - API	4.653	4.653	*in.*
Nominal Linear Weight, T&C	**20.00**		*lbs/ft*
Plain End Weight	19.83		*lbs/ft*
SECTION AREA			
Cross Sectional Area | Critical Area	5.828	5.027	*sq. in.*
Joint Efficiency		86.25	%
PERFORMANCE			
Minimum Collapse Pressure	13,150	13,150	*psi*
External Pressure Leak Resistance		10,000	*psi*
Minimum Internal Yield Pressure	14,360	14,360	*psi*
Minimum Pipe Body Yield Strength	729,000		*lbs*
Joint Strength		629,000	*lbs*
Compression Rating		629,000	*lbs*
Reference Length		21,146	*ft*
Maximum Uniaxial Bend Rating		89.9	*deg/100 ft*
MAKE-UP DATA			
Minimum Make-Up Torque		14,200	*ft-lbs*
Maximum Make-Up Torque		16,800	*ft-lbs*
Maximum Operating Torque		25,700	*ft-lbs*
Make-Up Loss		5.92	*in.*

Notes:

1) Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
2) Compressive & Tensile Connection Efficiencies are calculated by dividing the connection critical area by the pipe body area.
3) Uniaxial bending rating shown is structural only, and equal to compression efficiency.
4) Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
5) Reference length is calculated by joint strength divided by plain end weight with 1.5 safety factor.
6) Connection external pressure resistance has been verified to 10,000 psi (Fit-For-Service testing protocol).

Kaiser-Francis Oil Company
Bell Lake Unit South 405H
Casing Assumptions

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Top of Salt	2125
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Wolfcamp	11735

Interval	Length	Casing Size	Weight (#/ft)	Grade	Thread	Condition	Hole Size	TVD (ft)
Conductor	120	20"				New		120
Surface	1460	10-3/4"	40.5	J-55	STC	New	14-3/4"	1460
Intermediate	11306.75	7-5/8"	29.7	HCP110	LTC	New	9-7/8"	11262
Production	19859.21	5-1/2"	20	P110 HP	USS Eagle SFH	New	6-3/4"	11935

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2.3	4.6	10.6	7.1
1.3	1.8	2.8	2.3
1.8	1.9	3.1	2.6

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

Bell Lake Unit South
SECTION 1 -T24S-R33E
SECTION 6 -T24S-R34E
SECTION 5 -T24S-R34E

LEA COUNTY, NM

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

TABLE OF CONTENTS

EMERGENCY RESPONSE ACTIVATION AND GENERAL RESPONSIBILITIES

Activation of the Emergency Action Plan

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

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

General Responsibilities

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

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

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

3) Always use the "buddy system".

4) Isolate the well/problem if possible.

5) Account for all personnel

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

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

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

INDIVIDUAL RESPONSIBILITIES DURING AN H_2S RELEASE

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

All Personnel:

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

Rig Manager/Tool Pusher:

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

Two People Responsible for Shut-in and Rescue:

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

All Other Personnel:

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

Kaiser-Francis Oil Company Representative:

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

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

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

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

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

INSTRUCTIONS FOR IGNITION:

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

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

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

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

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

CONTACTING AUTHORITIES

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

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

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

EMERGENCY RESPONSE NUMBERS: Lea County, New Mexico

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

PROTECTION OF THE GENERAL PUBLIC/ROE:

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

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

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

Calculation for the 100 ppm ROE:

X = [(1.589)(concentration)(Q)] (0.6258)

Calculation for the 500 ppm ROE:

X+[(0.4546)(concentration)(Q)] (.06258)

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

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

ROE for 100 PPM X=[(1.589)(.0150)(200)] (0.6258)
X=2.65'
ROE for 500 PPM X=[(.4546)(.0150)(200)] (0.6258)
X=1.2'

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

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

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

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

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

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

CHARACTERISTICS OF H_2S AND SO_2

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

TRAINING:

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

PUBLIC RELATIONS

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

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

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

Kaiser-Francis Oil Company

Project: Permian NM E'83
County: Lea
Site: Bell Lake S. 405-406 Pad
Well: Bell Lake Unit South 405H
Wellbore: #405H OH
Design: Plan #1

TITAN Directional Drilling

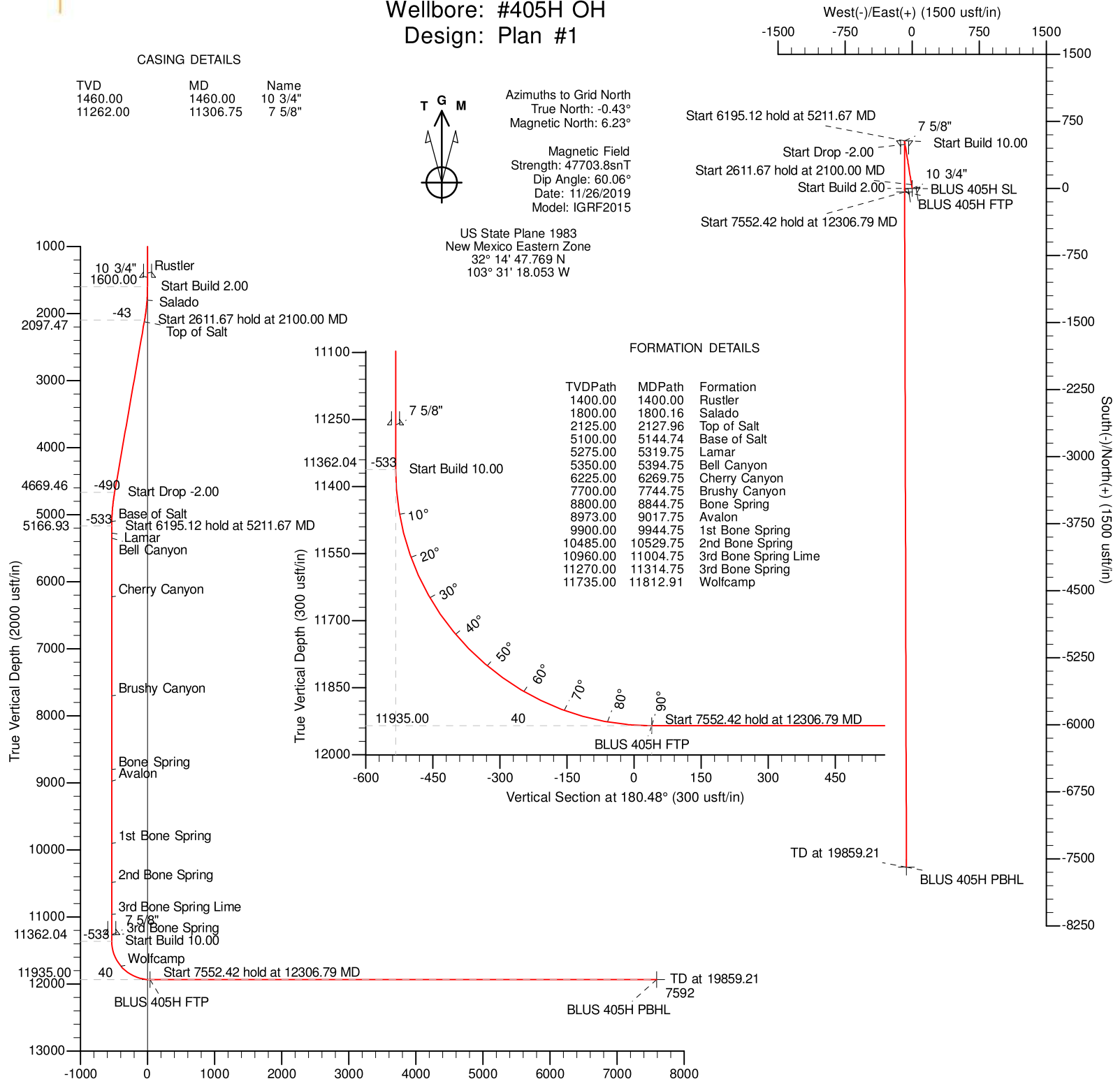
CASING DETAILS

TVD	MD	Name
1460.00	1460.00	10 3/4"
11262.00	11306.75	7 5/8"

Azimuths to Grid North
True North: -0.43°
Magnetic North: 6.23°

Magnetic Field
Strength: 47703.8snT
Dip Angle: 60.06°
Date: 11/26/2019
Model: IGRF2015

US State Plane 1983
New Mexico Eastern Zone
32° 14' 47.769 N
103° 31' 18.053 W



FORMATION DETAILS

TVDPath	MDPath	Formation
1400.00	1400.00	Rustler
1800.00	1800.16	Salado
2125.00	2127.96	Top of Salt
5100.00	5144.74	Base of Salt
5275.00	5319.75	Lamar
5350.00	5394.75	Bell Canyon
6225.00	6269.75	Cherry Canyon
7700.00	7744.75	Brushy Canyon
8800.00	8844.75	Bone Spring
8973.00	9017.75	Avalon
9900.00	9944.75	1st Bone Spring
10485.00	10529.75	2nd Bone Spring
10960.00	11004.75	3rd Bone Spring Lime
11270.00	11314.75	3rd Bone Spring
11735.00	11812.91	Wolfcamp

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
BLUS 405H SL	0.00	0.00	0.00	454395.79	792267.83	32° 14' 47.769 N	103° 31' 18.053 W
BLUS 405H FTP	11935.00	-39.18	-83.80	454356.61	792184.03	32° 14' 47.388 N	103° 31' 19.032 W
BLUS 405H PBHL	11935.00	-7591.56	-64.15	446804.37	792203.68	32° 13' 32.657 N	103° 31' 19.467 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	0.00	
3	2100.00	10.00	350.92	2097.47	42.98	-6.87	2.00	350.92	-42.92	
4	4711.67	10.00	350.92	4669.46	490.81	-78.43	0.00	0.00	-490.13	
5	5211.67	0.00	0.00	5166.93	533.79	-85.29	2.00	180.00	-533.05	
6	11406.79	0.00	0.00	11362.04	533.79	-85.29	0.00	0.00	-533.05	
7	12306.79	90.00	179.85	11935.00	-39.17	-83.80	10.00	179.85	39.88	
8	19859.21	90.00	179.85	11935.00	-7591.56	-64.15	0.00	0.00	7591.83	BLUS 405H PBHL

S1-T24S-R33E SL
2639'FSL 1286'FEL
S1-T24S-R33E FTP
2600'FSL 1370'FEL
S12-T24S-R33E PBHL
330'FSL 1410'FEL

Titan Directional Drilling

Survey Report

Company:	Kaiser-Francis Oil Company	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 405H
Project:	Permian NM E'83	**TVD Reference:**	est.GL+KB @ 3656.00usft (planning)
Site:	Bell Lake S. 405-406 Pad	**MD Reference:**	est.GL+KB @ 3656.00usft (planning)
Well:	Bell Lake Unit South 405H	**North Reference:**	Grid
Wellbore:	#405H OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 5k-14

Project Permian NM E'83

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

Site Bell Lake S. 405-406 Pad, Centered on 405H

Site Position:		**Northing:**	454,395.79 usft	**Latitude:**	32° 14' 47.769 N
From:	Map	**Easting:**	792,267.83 usft	**Longitude:**	103° 31' 18.053 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.43 °

Well Bell Lake Unit South 405H

Well Position	**+N/-S**	0.00 usft	**Northing:**	454,395.79 usft	**Latitude:**	32° 14' 47.769 N
	+E/-W	0.00 usft	**Easting:**	792,267.83 usft	**Longitude:**	103° 31' 18.053 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,631.20 usft

Wellbore #405H OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	11/26/19	6.67	60.06	47,703.81759625

Design Plan #1

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	180.48

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
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,460.00	0.00	0.00	1,460.00	0.00	0.00	0.00	0.00	0.00	0.00
10 3/4"									
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	2.00	350.92	1,699.98	1.72	-0.28	-1.72	2.00	2.00	0.00
1,800.00	4.00	350.92	1,799.84	6.89	-1.10	-6.88	2.00	2.00	0.00
1,800.16	4.00	350.92	1,800.00	6.90	-1.10	-6.89	0.00	0.00	0.00
Salado									
1,900.00	6.00	350.92	1,899.45	15.50	-2.48	-15.48	2.00	2.00	0.00
2,000.00	8.00	350.92	1,998.70	27.53	-4.40	-27.49	2.00	2.00	0.00
2,100.00	10.00	350.92	2,097.47	42.98	-6.87	-42.92	2.00	2.00	0.00
2,127.96	10.00	350.92	2,125.00	47.77	-7.63	-47.71	0.00	0.00	0.00
Top of Salt									
2,200.00	10.00	350.92	2,195.95	60.12	-9.61	-60.04	0.00	0.00	0.00

Titan Directional Drilling

Survey Report

Company:	Kaiser-Francis Oil Company	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 405H
Project:	Permian NM E'83	**TVD Reference:**	est.GL+KB @ 3656.00usft (planning)
Site:	Bell Lake S. 405-406 Pad	**MD Reference:**	est.GL+KB @ 3656.00usft (planning)
Well:	Bell Lake Unit South 405H	**North Reference:**	Grid
Wellbore:	#405H OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 5k-14

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)
2,300.00	10.00	350.92	2,294.43	77.27	-12.35	-77.16	0.00	0.00	0.00
2,400.00	10.00	350.92	2,392.91	94.42	-15.09	-94.29	0.00	0.00	0.00
2,500.00	10.00	350.92	2,491.39	111.57	-17.83	-111.41	0.00	0.00	0.00
2,600.00	10.00	350.92	2,589.87	128.71	-20.57	-128.54	0.00	0.00	0.00
2,700.00	10.00	350.92	2,688.35	145.86	-23.31	-145.66	0.00	0.00	0.00
2,800.00	10.00	350.92	2,786.83	163.01	-26.05	-162.78	0.00	0.00	0.00
2,900.00	10.00	350.92	2,885.31	180.16	-28.79	-179.91	0.00	0.00	0.00
3,000.00	10.00	350.92	2,983.79	197.30	-31.53	-197.03	0.00	0.00	0.00
3,100.00	10.00	350.92	3,082.27	214.45	-34.27	-214.15	0.00	0.00	0.00
3,200.00	10.00	350.92	3,180.75	231.60	-37.01	-231.28	0.00	0.00	0.00
3,300.00	10.00	350.92	3,279.23	248.74	-39.75	-248.40	0.00	0.00	0.00
3,400.00	10.00	350.92	3,377.72	265.89	-42.49	-265.52	0.00	0.00	0.00
3,500.00	10.00	350.92	3,476.20	283.04	-45.23	-282.65	0.00	0.00	0.00
3,600.00	10.00	350.92	3,574.68	300.19	-47.97	-299.77	0.00	0.00	0.00
3,700.00	10.00	350.92	3,673.16	317.33	-50.71	-316.89	0.00	0.00	0.00
3,800.00	10.00	350.92	3,771.64	334.48	-53.45	-334.02	0.00	0.00	0.00
3,900.00	10.00	350.92	3,870.12	351.63	-56.19	-351.14	0.00	0.00	0.00
4,000.00	10.00	350.92	3,968.60	368.78	-58.93	-368.26	0.00	0.00	0.00
4,100.00	10.00	350.92	4,067.08	385.92	-61.67	-385.39	0.00	0.00	0.00
4,200.00	10.00	350.92	4,165.56	403.07	-64.41	-402.51	0.00	0.00	0.00
4,300.00	10.00	350.92	4,264.04	420.22	-67.15	-419.64	0.00	0.00	0.00
4,400.00	10.00	350.92	4,362.52	437.37	-69.89	-436.76	0.00	0.00	0.00
4,500.00	10.00	350.92	4,461.00	454.51	-72.63	-453.88	0.00	0.00	0.00
4,600.00	10.00	350.92	4,559.48	471.66	-75.37	-471.01	0.00	0.00	0.00
4,700.00	10.00	350.92	4,657.97	488.81	-78.11	-488.13	0.00	0.00	0.00
4,711.67	10.00	350.92	4,669.46	490.81	-78.43	-490.13	0.00	0.00	0.00
4,800.00	8.23	350.92	4,756.67	504.63	-80.63	-503.93	2.00	-2.00	0.00
4,900.00	6.23	350.92	4,855.87	517.06	-82.62	-516.34	2.00	-2.00	0.00
5,000.00	4.23	350.92	4,955.45	526.07	-84.06	-525.34	2.00	-2.00	0.00
5,100.00	2.23	350.92	5,055.28	531.64	-84.95	-530.90	2.00	-2.00	0.00
5,144.74	1.34	350.92	5,100.00	533.01	-85.17	-532.28	2.00	-2.00	0.00
Base of Salt									
5,200.00	0.23	350.92	5,155.25	533.76	-85.29	-533.02	2.00	-2.00	0.00
5,211.67	0.00	0.00	5,166.93	533.79	-85.29	-533.05	2.00	-2.00	0.00
5,300.00	0.00	0.00	5,255.25	533.79	-85.29	-533.05	0.00	0.00	0.00
5,319.75	0.00	0.00	5,275.00	533.79	-85.29	-533.05	0.00	0.00	0.00
Lamar									
5,394.75	0.00	0.00	5,350.00	533.79	-85.29	-533.05	0.00	0.00	0.00
Bell Canyon									
5,400.00	0.00	0.00	5,355.25	533.79	-85.29	-533.05	0.00	0.00	0.00
5,500.00	0.00	0.00	5,455.25	533.79	-85.29	-533.05	0.00	0.00	0.00
5,600.00	0.00	0.00	5,555.25	533.79	-85.29	-533.05	0.00	0.00	0.00
5,700.00	0.00	0.00	5,655.25	533.79	-85.29	-533.05	0.00	0.00	0.00
5,800.00	0.00	0.00	5,755.25	533.79	-85.29	-533.05	0.00	0.00	0.00

Titan Directional Drilling

Survey Report

Company:	Kaiser-Francis Oil Company	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 405H
Project:	Permian NM E'83	**TVD Reference:**	est.GL+KB @ 3656.00usft (planning)
Site:	Bell Lake S. 405-406 Pad	**MD Reference:**	est.GL+KB @ 3656.00usft (planning)
Well:	Bell Lake Unit South 405H	**North Reference:**	Grid
Wellbore:	#405H OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 5k-14

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)
5,900.00	0.00	0.00	5,855.25	533.79	-85.29	-533.05	0.00	0.00	0.00
6,000.00	0.00	0.00	5,955.25	533.79	-85.29	-533.05	0.00	0.00	0.00
6,100.00	0.00	0.00	6,055.25	533.79	-85.29	-533.05	0.00	0.00	0.00
6,200.00	0.00	0.00	6,155.25	533.79	-85.29	-533.05	0.00	0.00	0.00
6,269.75	0.00	0.00	6,225.00	533.79	-85.29	-533.05	0.00	0.00	0.00
Cherry Canyon									
6,300.00	0.00	0.00	6,255.25	533.79	-85.29	-533.05	0.00	0.00	0.00
6,400.00	0.00	0.00	6,355.25	533.79	-85.29	-533.05	0.00	0.00	0.00
6,500.00	0.00	0.00	6,455.25	533.79	-85.29	-533.05	0.00	0.00	0.00
6,600.00	0.00	0.00	6,555.25	533.79	-85.29	-533.05	0.00	0.00	0.00
6,700.00	0.00	0.00	6,655.25	533.79	-85.29	-533.05	0.00	0.00	0.00
6,800.00	0.00	0.00	6,755.25	533.79	-85.29	-533.05	0.00	0.00	0.00
6,900.00	0.00	0.00	6,855.25	533.79	-85.29	-533.05	0.00	0.00	0.00
7,000.00	0.00	0.00	6,955.25	533.79	-85.29	-533.05	0.00	0.00	0.00
7,100.00	0.00	0.00	7,055.25	533.79	-85.29	-533.05	0.00	0.00	0.00
7,200.00	0.00	0.00	7,155.25	533.79	-85.29	-533.05	0.00	0.00	0.00
7,300.00	0.00	0.00	7,255.25	533.79	-85.29	-533.05	0.00	0.00	0.00
7,400.00	0.00	0.00	7,355.25	533.79	-85.29	-533.05	0.00	0.00	0.00
7,500.00	0.00	0.00	7,455.25	533.79	-85.29	-533.05	0.00	0.00	0.00
7,600.00	0.00	0.00	7,555.25	533.79	-85.29	-533.05	0.00	0.00	0.00
7,700.00	0.00	0.00	7,655.25	533.79	-85.29	-533.05	0.00	0.00	0.00
7,744.75	0.00	0.00	7,700.00	533.79	-85.29	-533.05	0.00	0.00	0.00
Brushy Canyon									
7,800.00	0.00	0.00	7,755.25	533.79	-85.29	-533.05	0.00	0.00	0.00
7,900.00	0.00	0.00	7,855.25	533.79	-85.29	-533.05	0.00	0.00	0.00
8,000.00	0.00	0.00	7,955.25	533.79	-85.29	-533.05	0.00	0.00	0.00
8,100.00	0.00	0.00	8,055.25	533.79	-85.29	-533.05	0.00	0.00	0.00
8,200.00	0.00	0.00	8,155.25	533.79	-85.29	-533.05	0.00	0.00	0.00
8,300.00	0.00	0.00	8,255.25	533.79	-85.29	-533.05	0.00	0.00	0.00
8,400.00	0.00	0.00	8,355.25	533.79	-85.29	-533.05	0.00	0.00	0.00
8,500.00	0.00	0.00	8,455.25	533.79	-85.29	-533.05	0.00	0.00	0.00
8,600.00	0.00	0.00	8,555.25	533.79	-85.29	-533.05	0.00	0.00	0.00
8,700.00	0.00	0.00	8,655.25	533.79	-85.29	-533.05	0.00	0.00	0.00
8,800.00	0.00	0.00	8,755.25	533.79	-85.29	-533.05	0.00	0.00	0.00
8,844.75	0.00	0.00	8,800.00	533.79	-85.29	-533.05	0.00	0.00	0.00
Bone Spring									
8,900.00	0.00	0.00	8,855.25	533.79	-85.29	-533.05	0.00	0.00	0.00
9,000.00	0.00	0.00	8,955.25	533.79	-85.29	-533.05	0.00	0.00	0.00
9,017.75	0.00	0.00	8,973.00	533.79	-85.29	-533.05	0.00	0.00	0.00
Avalon									
9,100.00	0.00	0.00	9,055.25	533.79	-85.29	-533.05	0.00	0.00	0.00
9,200.00	0.00	0.00	9,155.25	533.79	-85.29	-533.05	0.00	0.00	0.00
9,300.00	0.00	0.00	9,255.25	533.79	-85.29	-533.05	0.00	0.00	0.00
9,400.00	0.00	0.00	9,355.25	533.79	-85.29	-533.05	0.00	0.00	0.00

Titan Directional Drilling

Survey Report

Company:	Kaiser-Francis Oil Company	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 405H
Project:	Permian NM E'83	**TVD Reference:**	est.GL+KB @ 3656.00usft (planning)
Site:	Bell Lake S. 405-406 Pad	**MD Reference:**	est.GL+KB @ 3656.00usft (planning)
Well:	Bell Lake Unit South 405H	**North Reference:**	Grid
Wellbore:	#405H OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 5k-14

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,500.00	0.00	0.00	9,455.25	533.79	-85.29	-533.05	0.00	0.00	0.00
9,600.00	0.00	0.00	9,555.25	533.79	-85.29	-533.05	0.00	0.00	0.00
9,700.00	0.00	0.00	9,655.25	533.79	-85.29	-533.05	0.00	0.00	0.00
9,800.00	0.00	0.00	9,755.25	533.79	-85.29	-533.05	0.00	0.00	0.00
9,900.00	0.00	0.00	9,855.25	533.79	-85.29	-533.05	0.00	0.00	0.00
9,944.75	0.00	0.00	9,900.00	533.79	-85.29	-533.05	0.00	0.00	0.00
1st Bone Spring									
10,000.00	0.00	0.00	9,955.25	533.79	-85.29	-533.05	0.00	0.00	0.00
10,100.00	0.00	0.00	10,055.25	533.79	-85.29	-533.05	0.00	0.00	0.00
10,200.00	0.00	0.00	10,155.25	533.79	-85.29	-533.05	0.00	0.00	0.00
10,300.00	0.00	0.00	10,255.25	533.79	-85.29	-533.05	0.00	0.00	0.00
10,400.00	0.00	0.00	10,355.25	533.79	-85.29	-533.05	0.00	0.00	0.00
10,500.00	0.00	0.00	10,455.25	533.79	-85.29	-533.05	0.00	0.00	0.00
10,529.75	0.00	0.00	10,485.00	533.79	-85.29	-533.05	0.00	0.00	0.00
2nd Bone Spring									
10,600.00	0.00	0.00	10,555.25	533.79	-85.29	-533.05	0.00	0.00	0.00
10,700.00	0.00	0.00	10,655.25	533.79	-85.29	-533.05	0.00	0.00	0.00
10,800.00	0.00	0.00	10,755.25	533.79	-85.29	-533.05	0.00	0.00	0.00
10,900.00	0.00	0.00	10,855.25	533.79	-85.29	-533.05	0.00	0.00	0.00
11,000.00	0.00	0.00	10,955.25	533.79	-85.29	-533.05	0.00	0.00	0.00
11,004.75	0.00	0.00	10,960.00	533.79	-85.29	-533.05	0.00	0.00	0.00
3rd Bone Spring Lime									
11,100.00	0.00	0.00	11,055.25	533.79	-85.29	-533.05	0.00	0.00	0.00
11,200.00	0.00	0.00	11,155.25	533.79	-85.29	-533.05	0.00	0.00	0.00
11,300.00	0.00	0.00	11,255.25	533.79	-85.29	-533.05	0.00	0.00	0.00
11,306.75	0.00	0.00	11,262.00	533.79	-85.29	-533.05	0.00	0.00	0.00
7 5/8"									
11,314.75	0.00	0.00	11,270.00	533.79	-85.29	-533.05	0.00	0.00	0.00
3rd Bone Spring									
11,406.79	0.00	0.00	11,362.04	533.79	-85.29	-533.05	0.00	0.00	0.00
11,450.00	4.32	179.85	11,405.21	532.16	-85.29	-531.42	10.00	10.00	0.00
11,500.00	9.32	179.85	11,454.84	526.22	-85.27	-525.48	10.00	10.00	0.00
11,550.00	14.32	179.85	11,503.77	515.98	-85.25	-515.24	10.00	10.00	0.00
11,600.00	19.32	179.85	11,551.61	501.52	-85.21	-500.78	10.00	10.00	0.00
11,650.00	24.32	179.85	11,598.02	482.94	-85.16	-482.20	10.00	10.00	0.00
11,700.00	29.32	179.85	11,642.62	460.38	-85.10	-459.65	10.00	10.00	0.00
11,750.00	34.32	179.85	11,685.09	434.03	-85.03	-433.29	10.00	10.00	0.00
11,800.00	39.32	179.85	11,725.11	404.07	-84.96	-403.34	10.00	10.00	0.00
11,812.91	40.61	179.85	11,735.00	395.78	-84.93	-395.05	10.00	10.00	0.00
Wolfcamp									
11,850.00	44.32	179.85	11,762.36	370.74	-84.87	-370.01	10.00	10.00	0.00
11,900.00	49.32	179.85	11,796.56	334.29	-84.77	-333.57	10.00	10.00	0.00
11,950.00	54.32	179.85	11,827.46	295.00	-84.67	-294.28	10.00	10.00	0.00
12,000.00	59.32	179.85	11,854.81	253.17	-84.56	-252.44	10.00	10.00	0.00

Titan Directional Drilling

Survey Report

Company:	Kaiser-Francis Oil Company	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 405H
Project:	Permian NM E'83	**TVD Reference:**	est.GL+KB @ 3656.00usft (planning)
Site:	Bell Lake S. 405-406 Pad	**MD Reference:**	est.GL+KB @ 3656.00usft (planning)
Well:	Bell Lake Unit South 405H	**North Reference:**	Grid
Wellbore:	#405H OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 5k-14

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)
12,050.00	64.32	179.85	11,878.41	209.11	-84.45	-208.39	10.00	10.00	0.00
12,100.00	69.32	179.85	11,898.09	163.16	-84.33	-162.44	10.00	10.00	0.00
12,150.00	74.32	179.85	11,913.68	115.67	-84.20	-114.95	10.00	10.00	0.00
12,200.00	79.32	179.85	11,925.08	67.00	-84.08	-66.29	10.00	10.00	0.00
12,250.00	84.32	179.85	11,932.19	17.53	-83.95	-16.82	10.00	10.00	0.00
12,300.00	89.32	179.85	11,934.96	-32.38	-83.82	33.09	10.00	10.00	0.00
12,306.79	90.00	179.85	11,935.00	-39.17	-83.80	39.88	10.00	10.00	0.00
12,400.00	90.00	179.85	11,935.00	-132.38	-83.56	133.08	0.00	0.00	0.00
12,500.00	90.00	179.85	11,935.00	-232.38	-83.30	233.08	0.00	0.00	0.00
12,600.00	90.00	179.85	11,935.00	-332.38	-83.04	333.07	0.00	0.00	0.00
12,700.00	90.00	179.85	11,935.00	-432.38	-82.78	433.06	0.00	0.00	0.00
12,800.00	90.00	179.85	11,935.00	-532.38	-82.52	533.06	0.00	0.00	0.00
12,900.00	90.00	179.85	11,935.00	-632.38	-82.26	633.05	0.00	0.00	0.00
13,000.00	90.00	179.85	11,935.00	-732.38	-82.00	733.05	0.00	0.00	0.00
13,100.00	90.00	179.85	11,935.00	-832.38	-81.74	833.04	0.00	0.00	0.00
13,200.00	90.00	179.85	11,935.00	-932.38	-81.48	933.03	0.00	0.00	0.00
13,300.00	90.00	179.85	11,935.00	-1,032.38	-81.22	1,033.03	0.00	0.00	0.00
13,400.00	90.00	179.85	11,935.00	-1,132.38	-80.96	1,133.02	0.00	0.00	0.00
13,500.00	90.00	179.85	11,935.00	-1,232.38	-80.70	1,233.02	0.00	0.00	0.00
13,600.00	90.00	179.85	11,935.00	-1,332.38	-80.44	1,333.01	0.00	0.00	0.00
13,700.00	90.00	179.85	11,935.00	-1,432.38	-80.18	1,433.00	0.00	0.00	0.00
13,800.00	90.00	179.85	11,935.00	-1,532.38	-79.92	1,533.00	0.00	0.00	0.00
13,900.00	90.00	179.85	11,935.00	-1,632.38	-79.66	1,632.99	0.00	0.00	0.00
14,000.00	90.00	179.85	11,935.00	-1,732.38	-79.40	1,732.98	0.00	0.00	0.00
14,100.00	90.00	179.85	11,935.00	-1,832.38	-79.14	1,832.98	0.00	0.00	0.00
14,200.00	90.00	179.85	11,935.00	-1,932.37	-78.88	1,932.97	0.00	0.00	0.00
14,300.00	90.00	179.85	11,935.00	-2,032.37	-78.62	2,032.97	0.00	0.00	0.00
14,400.00	90.00	179.85	11,935.00	-2,132.37	-78.36	2,132.96	0.00	0.00	0.00
14,500.00	90.00	179.85	11,935.00	-2,232.37	-78.10	2,232.95	0.00	0.00	0.00
14,600.00	90.00	179.85	11,935.00	-2,332.37	-77.84	2,332.95	0.00	0.00	0.00
14,700.00	90.00	179.85	11,935.00	-2,432.37	-77.57	2,432.94	0.00	0.00	0.00
14,800.00	90.00	179.85	11,935.00	-2,532.37	-77.31	2,532.94	0.00	0.00	0.00
14,900.00	90.00	179.85	11,935.00	-2,632.37	-77.05	2,632.93	0.00	0.00	0.00
15,000.00	90.00	179.85	11,935.00	-2,732.37	-76.79	2,732.92	0.00	0.00	0.00
15,100.00	90.00	179.85	11,935.00	-2,832.37	-76.53	2,832.92	0.00	0.00	0.00
15,200.00	90.00	179.85	11,935.00	-2,932.37	-76.27	2,932.91	0.00	0.00	0.00
15,300.00	90.00	179.85	11,935.00	-3,032.37	-76.01	3,032.91	0.00	0.00	0.00
15,400.00	90.00	179.85	11,935.00	-3,132.37	-75.75	3,132.90	0.00	0.00	0.00
15,500.00	90.00	179.85	11,935.00	-3,232.37	-75.49	3,232.89	0.00	0.00	0.00
15,600.00	90.00	179.85	11,935.00	-3,332.37	-75.23	3,332.89	0.00	0.00	0.00
15,700.00	90.00	179.85	11,935.00	-3,432.37	-74.97	3,432.88	0.00	0.00	0.00
15,800.00	90.00	179.85	11,935.00	-3,532.37	-74.71	3,532.87	0.00	0.00	0.00
15,900.00	90.00	179.85	11,935.00	-3,632.37	-74.45	3,632.87	0.00	0.00	0.00
16,000.00	90.00	179.85	11,935.00	-3,732.37	-74.19	3,732.86	0.00	0.00	0.00

Titan Directional Drilling

Survey Report

Company:	Kaiser-Francis Oil Company	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 405H
Project:	Permian NM E'83	**TVD Reference:**	est.GL+KB @ 3656.00usft (planning)
Site:	Bell Lake S. 405-406 Pad	**MD Reference:**	est.GL+KB @ 3656.00usft (planning)
Well:	Bell Lake Unit South 405H	**North Reference:**	Grid
Wellbore:	#405H OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 5k-14

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,100.00	90.00	179.85	11,935.00	-3,832.37	-73.93	3,832.86	0.00	0.00	0.00
16,200.00	90.00	179.85	11,935.00	-3,932.37	-73.67	3,932.85	0.00	0.00	0.00
16,300.00	90.00	179.85	11,935.00	-4,032.37	-73.41	4,032.84	0.00	0.00	0.00
16,400.00	90.00	179.85	11,935.00	-4,132.37	-73.15	4,132.84	0.00	0.00	0.00
16,500.00	90.00	179.85	11,935.00	-4,232.37	-72.89	4,232.83	0.00	0.00	0.00
16,600.00	90.00	179.85	11,935.00	-4,332.37	-72.63	4,332.83	0.00	0.00	0.00
16,700.00	90.00	179.85	11,935.00	-4,432.37	-72.37	4,432.82	0.00	0.00	0.00
16,800.00	90.00	179.85	11,935.00	-4,532.37	-72.11	4,532.81	0.00	0.00	0.00
16,900.00	90.00	179.85	11,935.00	-4,632.37	-71.85	4,632.81	0.00	0.00	0.00
17,000.00	90.00	179.85	11,935.00	-4,732.37	-71.59	4,732.80	0.00	0.00	0.00
17,100.00	90.00	179.85	11,935.00	-4,832.37	-71.33	4,832.80	0.00	0.00	0.00
17,200.00	90.00	179.85	11,935.00	-4,932.36	-71.07	4,932.79	0.00	0.00	0.00
17,300.00	90.00	179.85	11,935.00	-5,032.36	-70.81	5,032.78	0.00	0.00	0.00
17,400.00	90.00	179.85	11,935.00	-5,132.36	-70.55	5,132.78	0.00	0.00	0.00
17,500.00	90.00	179.85	11,935.00	-5,232.36	-70.29	5,232.77	0.00	0.00	0.00
17,600.00	90.00	179.85	11,935.00	-5,332.36	-70.03	5,332.76	0.00	0.00	0.00
17,700.00	90.00	179.85	11,935.00	-5,432.36	-69.77	5,432.76	0.00	0.00	0.00
17,800.00	90.00	179.85	11,935.00	-5,532.36	-69.51	5,532.75	0.00	0.00	0.00
17,900.00	90.00	179.85	11,935.00	-5,632.36	-69.25	5,632.75	0.00	0.00	0.00
18,000.00	90.00	179.85	11,935.00	-5,732.36	-68.99	5,732.74	0.00	0.00	0.00
18,100.00	90.00	179.85	11,935.00	-5,832.36	-68.73	5,832.73	0.00	0.00	0.00
18,200.00	90.00	179.85	11,935.00	-5,932.36	-68.47	5,932.73	0.00	0.00	0.00
18,300.00	90.00	179.85	11,935.00	-6,032.36	-68.21	6,032.72	0.00	0.00	0.00
18,400.00	90.00	179.85	11,935.00	-6,132.36	-67.95	6,132.72	0.00	0.00	0.00
18,500.00	90.00	179.85	11,935.00	-6,232.36	-67.69	6,232.71	0.00	0.00	0.00
18,600.00	90.00	179.85	11,935.00	-6,332.36	-67.43	6,332.70	0.00	0.00	0.00
18,700.00	90.00	179.85	11,935.00	-6,432.36	-67.17	6,432.70	0.00	0.00	0.00
18,800.00	90.00	179.85	11,935.00	-6,532.36	-66.91	6,532.69	0.00	0.00	0.00
18,900.00	90.00	179.85	11,935.00	-6,632.36	-66.65	6,632.69	0.00	0.00	0.00
19,000.00	90.00	179.85	11,935.00	-6,732.36	-66.39	6,732.68	0.00	0.00	0.00
19,100.00	90.00	179.85	11,935.00	-6,832.36	-66.13	6,832.67	0.00	0.00	0.00
19,200.00	90.00	179.85	11,935.00	-6,932.36	-65.87	6,932.67	0.00	0.00	0.00
19,300.00	90.00	179.85	11,935.00	-7,032.36	-65.61	7,032.66	0.00	0.00	0.00
19,400.00	90.00	179.85	11,935.00	-7,132.36	-65.35	7,132.65	0.00	0.00	0.00
19,500.00	90.00	179.85	11,935.00	-7,232.36	-65.09	7,232.65	0.00	0.00	0.00
19,600.00	90.00	179.85	11,935.00	-7,332.36	-64.83	7,332.64	0.00	0.00	0.00
19,700.00	90.00	179.85	11,935.00	-7,432.36	-64.57	7,432.64	0.00	0.00	0.00
19,800.00	90.00	179.85	11,935.00	-7,532.36	-64.31	7,532.63	0.00	0.00	0.00
19,859.21	90.00	179.85	11,935.00	-7,591.56	-64.15	7,591.83	0.00	0.00	0.00

Titan Directional Drilling

Survey Report

Company:	Kaiser-Francis Oil Company	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 405H
Project:	Permian NM E'83	**TVD Reference:**	est.GL+KB @ 3656.00usft (planning)
Site:	Bell Lake S. 405-406 Pad	**MD Reference:**	est.GL+KB @ 3656.00usft (planning)
Well:	Bell Lake Unit South 405H	**North Reference:**	Grid
Wellbore:	#405H OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 5k-14

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,460.00	1,460.00	10 3/4"	10-3/4	14-3/4
11,306.75	11,262.00	7 5/8"	7-5/8	9-7/8

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,400.00	1,400.00	Rustler			
1,800.16	1,800.00	Salado			
2,127.96	2,125.00	Top of Salt			
5,144.74	5,100.00	Base of Salt			
5,319.75	5,275.00	Lamar			
5,394.75	5,350.00	Bell Canyon			
6,269.75	6,225.00	Cherry Canyon			
7,744.75	7,700.00	Brushy Canyon			
8,844.75	8,800.00	Bone Spring			
9,017.75	8,973.00	Avalon			
9,944.75	9,900.00	1st Bone Spring			
10,529.75	10,485.00	2nd Bone Spring			
11,004.75	10,960.00	3rd Bone Spring Lime			
11,314.75	11,270.00	3rd Bone Spring			
11,812.91	11,735.00	Wolfcamp			

KFOC
Well Control Plan

A. Component and Preventer Compatibility Table

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

B. Well Control Procedures

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

II. General Procedures While Tripping:
- a. Sound alarm – alert crew
- b. Stab full opening safety valve and close
- c. Space out drill string
- d. Open HCR
- e. Shut well in, utilizing upper VBRs
- f. Close choke
- g. Confirm shut in
- h. Notify rig manager and KFOC. company representative
- i. Call KFOC. engineer

KFOC
Well Control Plan

j. Read and record:
   i. Shut in drill pressure and shut in casing pressure
   ii. Pit gain
   iii. Time
k. Regroup, identify forward plan

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

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

V. General Procedures While Pulling BHL Through BOP Stack:

1. Prior to pulling last joint of drill pipe through stack A.
   Perform flow check and if flowing:
   a. Sound alarm – alert crew
   b. Stab full opening safety valve and close
   c. Space out drill string with tool joint just beneath upper pipe ram
   d. Open HCR
   e. Shut well in utilizing upper VBRs
   f. Close choke
   g. Confirm shut in
   h. Notify rig manager and KFOC company representative
   i. Call KFOC engineer

KFOC
Well Control Plan

j. Read and record:
   i. Shut in drill pressure and shut in casing pressure
   ii. Pit gain
   iii. Time
k. Regroup, identify forward plan

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

3. With BHA in the BOP stack and no compatible ram preventer and pipe combo immediately available
   a. Sound alarm – alert crew
   b. If possible to pick up high enough, pull string clear of the stack and follow Open Hole scenario (III)
   c. If impossible to pick up high enough to pull the string clear of the stack:
      i. Stab crossover, make up one joint/stand of drill pipe and full opening safety valve and close
      ii. Space out drill string with tool joint just beneath the upper pipe ram
      iii. Open HCR
      iv. Shut in utilizing upper VBRs
      v. Close choke
      vi. Confirm shut in
      vii. Notify rig manager and Mesquite SWD, Inc. company representative
      viii. Read and record:
         1. Shut in drill pipe pressure and shut in casing pressure
         2. Pit gain
         3. Time
   d. Regroup and identify forward plan

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

QMS REGISTERED

Certificate of Registration

APIQR® REGISTRATION NUMBER

3042

This certifies that the quality management system of

COPPER STATE RUBBER, INC.
10485 W. Roosevelt Street
Avondale, AZ

has been assessed by the American Petroleum Institute Quality Registrar (APIQR®) and found it to be in conformance with the following standard:

ISO 9001:2015

The scope of this registration and the approved quality management system applies to the

Design and Manufacture of Oilfield, Marine and Other Industrial Hoses

APIQR® approves the organization's justification for excluding:

No Exclusions Identified as Applicable

Effective Date:	**APRIL 21, 2019**
Expiration Date:	**APRIL 21, 2022**
Registered Since:	**APRIL 21, 2016**

Vice President of Global Industry Services

Accredited by Member of the International Accreditation Forum Multilateral Recognition Arrangement for Quality Management Systems

ANAB ACCREDITED MANAGEMENT SYSTEMS CERTIFICATION BODY

IAF

This certificate is valid for the period specified herein. The registered organization must continually meet all requirements of APIQR's Registration Program and the requirements of the Registration Agreement. Registration is maintained and regularly monitored through annual full system audits. Further clarifications regarding the scope of this certificate and the applicability of ISO 9001 standard requirements may be obtained by consulting the registered organization. This certificate has been issued from APIQR offices located at 200 Massachusetts Avenue, NW Suite 1100, Washington, DC 20001-5571, U.S.A., it is the property of APIQR, and must be returned upon request. **To verify the authenticity of this certificate, go to www.api.org/compositelist.**

QUALITY REGISTRAR

2018-152 | 02.19
Digital

energy API

REGISTRATION NO. Q1-3217

Certificate of Registration

The American Petroleum Institute certifies that the quality management system of

COPPER STATE RUBBER, INC.
10485 W. Roosevelt Street
Avondale, AZ

has been assessed by the American Petroleum Institute and found to be in conformance with the following:

API Specification Q1

The scope of this registration and the approved quality management system applies to the:

Design and Manufacture of Oilfield, Marine and Other Industrial Hoses

API approves the organization's justification for excluding:

No Exclusions Identified as Applicable

API Spec Q1 Registered ®

Effective Date:	**APRIL 21, 2019**
Expiration Date:	**APRIL 21, 2022**
Registered Since:	**MAY 4, 2016**

Vice President of Global Industry Services

This certificate is valid for the period specified herein. The registered organization must continually meet all requirements of API Spec Q1, *Specification for Quality Programs for the Petroleum, Petrochemical and Natural Gas Industry*, and the requirements of the Registration Agreement. Registration is maintained and regularly monitored through annual full system audits. This certificate has been issued from API offices located at 200 Massachusetts Avenue, NW Suite 1100, Washington, DC 20001-5571, U.S.A. It is the property of API, and must be returned upon request. **To verify the authenticity of this certificate, go to www.api.org/compositelist.**

2018-154 | 02.19 | Digital

Certificate of Authority to use the Official API Monogram

License Number: 16C-0383 **ORIGINAL**

The American Petroleum Institute hereby grants to

COPPER STATE RUBBER, INC.
10485 W. Roosevelt Street
Avondale, AZ

the right to use the Official API Monogram® on manufactured products under the conditions in the official publications of the American Petroleum Institute entitled API Spec Q1® and **API-16C** and in accordance with the provisions of the License Agreement.

In all cases where the Official API Monogram is applied, the API Monogram shall be used in conjunction with this certificate number: **16C-0383**

The American Petroleum Institute reserves the right to revoke this authorization to use the Official API Monogram for any reason satisfactory to the Board of Directors of the American Petroleum Institute.

The scope of this license includes the following: Flexible Choke and Kill Lines atFSL 0, FSL 1, FSL 2, FSL 3

QMS Exclusions: No Exclusions Identified as Applicable

Effective Date: APRIL 21, 2019
Expiration Date: APRIL 21, 2022

To verify the authenticity of this license, go to www.api.org/compositelist.

Vice President of Global Industry Services

American Petroleum Institute

AMERICAN PETROLEUM INSTITUTE CORPORATE SEAL INCORPORATED 1919

2018-151 | Digital

copper state rubber
CSR Specialties Company

14141 S. Wayside Drive
Houston, Texas 77048

Phone 713-644-1491
Fax 713-644-9830
www.copperstaterubber.com
sales@copperstaterubber.com

October 7, 2019

Cactus Drilling LTR Fastener
11722 W. Hwy 80 E.
Odessa, TX 79765

Subject: Date: October 7, 2019
Specialties Company File No.: CSR-32367 / SPECO-83336

Equipment: Inspect, Borescope, and Recertify Customer's Choke & Kill Hose, API 16C Monogrammed, Fire Resistant, 10,000 PSI MAWP x 15,000 PSI Test, Complete With 4-1/16" 10,000 PSI API Flanged Ends (Swivel x Fixed).
1EA: 3" ID X 35 Ft. (S/N-33974A)

CERTIFICATE OF COMPLIANCE

This is to certify the above referenced equipment meets or exceeds the following requirements and were manufactured from same material specification and manufacturing methods as prototype assemblies for referenced specifications.

I. COMPLETE HOSE ASSEMBLY
- A. API Certificate of Accreditation for Spec: Q1 (Quality Programs) and Spec.: 16C
  1. Copper State Rubber, Inc. Certificate No.: 16C-0383
- B. **CSR** Specification No.: 090-1915C-48

II. PHYSICAL/CHEMICAL PROPERTIES OF METAL COMPONENTS
- A. **API** Spec. 6A, latest edition
- B. **API** Spec. 16A, latest edition
- C. **NACE** Standard MR0175, latest edition

Sincerely,

Wyatt D. Love,
Technical Department

copper state rubber

Visual Inspection / Hydrostatic Test Report

Manufacturer	Copper State Rubber Inc.
Hose Type	Rotary Hose Re-Test
Pressure Rating	10,000 PSI MAWP X 15,000 PSI T/P
Spec Number	090-1915C - 48

Serial Number	33974A
Size ID	3"
Length	35'
Date	October 3, 2019
Shop Order Number	32367

Connections Description: 4 1/16" 10,000 PSI API SWIVEL FLANGE
4 1/16" 10,000 PSI API FIXED FLANGE

Traceability of Terminating Connectors

	Insert	Male	Nut	Female	Flanges	Hubs	Other
Connector 1	14B2				V4760		81401-1
Connector 2	14C1				V5468		H1264

Comments

Calibrated Devices

Pressure Recorder	CAL242	Calibration Date	8/8/2019

*This report signifies that the product has been visually inspected for defects in the interior tube, recess, gasket, cover and branding and all have been found to be conforming.

Comments Hose recess was repaired and then tested to factory test pressure as new.

Hydrostatic Testing Requirements

15 Min @ 15,000 psi (-0/+500 psi)

Length after test

35' OAL

Witness By: _____
Kyle Winters, Supervisor

Final OK: _____
Robert Snider, Quality Manager

copper state rubber

Borescope / Visual Inspection

Manufacturer	**Copper State Rubber Inc.**
Hose Type	**Vibrator / Rotary Hose**
Pressure Rating	**10,000 PSI MAWP X 15,000 PSI T/P**
Spec Number	**090-1915C - 48**

Serial Number	33974A
Size ID	3"
Length	35'
Date	October 3, 2019

	Remarks
Gasket Faces	Pass
Recesses	Pass
Hose Bore	Pass
Bubbles or Bulges	None Noted
Visual Inspection	Pass

Comments: Hose is confirmed to be in factory new condition.

Witness By: _____

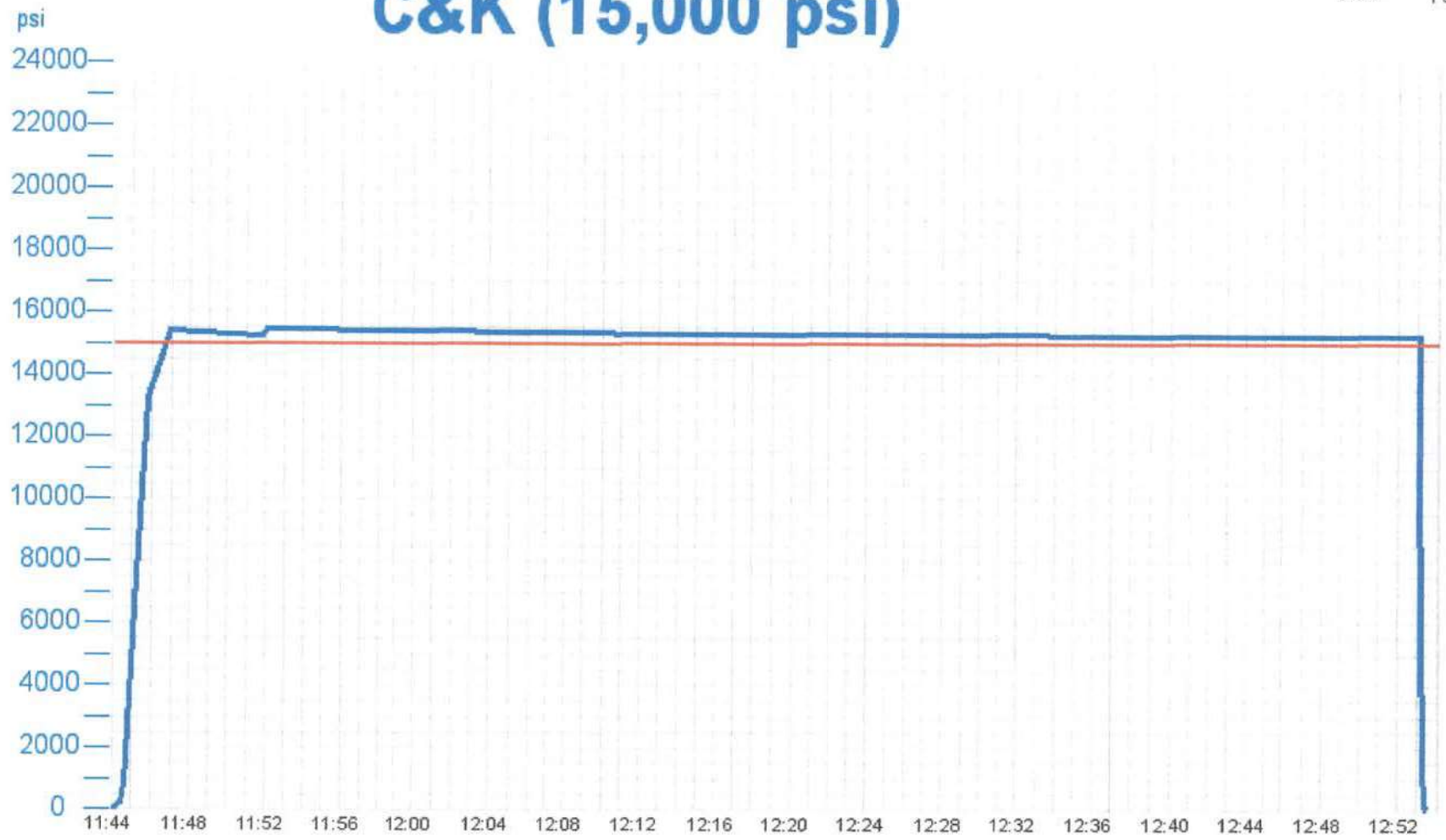
Robert Snider, Quality Manager

C&K (15,000 psi)

Date 10/03/

Working Pressure	
10000	psi
Test Pressure	
15000	psi
Final Pressure	
15229	psi

Pressure Recorder ID
CAL242
Calibration Date
08/08/19



Serial	Work Order	Hose I.D.	Length	End Fitting A	End Fitting B
33974A	32367	3"	35 ft 0.00 in	4-1/16" 10,000# API SWIVEL FLANG	4-1/16" 10,000# API FLANGE

Operator	Reviewer	3rd Party Witness
Ruben Martinez	Kyle Winters	Robert Snyder II

Signature/Date

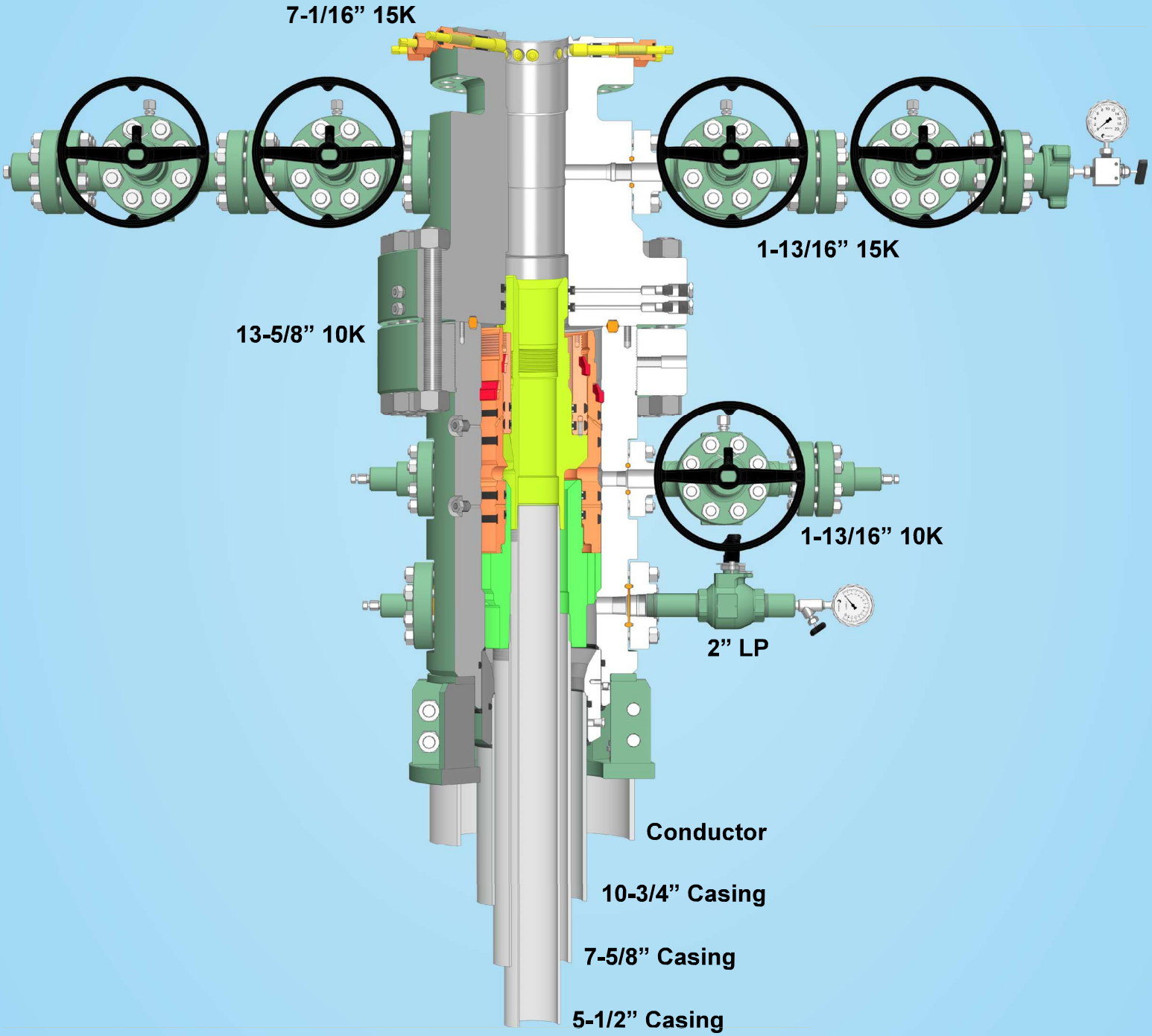
Signature/Date

Signature/Date

QA-91 Rev 0 01/18

CAMERON
A Schlumberger Company

13-5/8” 10K MN-DS Wellhead



Kaiser-Francis Oil Company

1678248

NOTE: All dimensions on this drawing are estimated measurements and should be evaluated by engineering.

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

SUPO Data Report
11/24/2020

APD ID: 10400052237
Submission Date: 12/19/2019
Operator Name: KAISER FRANCIS OIL COMPANY
Well Name: BELL LAKE UNIT SOUTH
Well Number: 405H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

BLUS_405H_Existing_Roads_20191210165845.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

BLUS_405H_Access_Road_20191210165904.pdf

New road type: RESOURCE

Length: 161 Feet **Width (ft.):** 30

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

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 20

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

New road access plan or profile prepared? N

New road access plan attachment:

Access road engineering design? N

Access road engineering design attachment:

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 405H

Turnout? N

Access surfacing type: OTHER

Access topsoil source: BOTH

Access surfacing type description: Native caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description: Material will be obtained from BLM caliche pit in the SWSW Section 22-T24S-R34E or NENE Section 20-T23S-R33E

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

Access other construction information:

Access miscellaneous information:

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

Drainage Control

New road drainage crossing: OTHER

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

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

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

BLUS_405H_1_Mile_Map_20191210170000.pdf

BLUS_405H_1_Mile_Data_20191210170001.pdf

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

Submit or defer a Proposed Production Facilities plan? DEFER

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

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 405H

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: OTHER

Describe type: FRESH WATER

Water source use type: STIMULATION
OTHER
SURFACE CASING

Describe use type: ROAD/PAD CONSTRUCTION ANI

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: PRIVATE

Source transportation land ownership: OTHER

Describe transportation land ownership: Water sour mixture of federal, state and private roads.

Water source volume (barrels): 250000

Source volume (acre-feet): 32.223274

Source volume (gal): 10500000

Water source type: OTHER

Describe type: BRINE WATER

Water source use type: INTERMEDIATE/PRODUCTION CASING

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: PRIVATE

Source transportation land ownership: OTHER

Describe transportation land ownership: Water sour mixture of federal, state and private roads.

Water source volume (barrels): 20000

Source volume (acre-feet): 2.577862

Source volume (gal): 840000

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 405H

Water source and transportation map:

BLUS_Pad_4_Water_Source_Map_20191210170209.pdf

Water source comments: Water source transportation is a mixture of federal, state and private roads.

New water well? N

New Water Well Info

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

Well target aquifer:

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

Aquifer comments:

Aquifer documentation:

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

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

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

Drilling method: **Drill material:**

Grout material: **Grout depth:**

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

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

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

Construction Materials source location attachment:

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drilling fluids and cuttings

Amount of waste: 3900 barrels

Waste disposal frequency : One Time Only

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

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 405H

Safe containmant attachment:

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

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

Waste type: SEWAGE

Waste content description: Human waste and grey water

Amount of waste: 1000 gallons

Waste disposal frequency : One Time Only

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

Safe containmant attachment:

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

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

Waste type: GARBAGE

Waste content description: Miscellaneous trash

Amount of waste: 500 pounds

Waste disposal frequency : One Time Only

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

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

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

Reserve Pit

Reserve Pit being used? N

Temporary disposal of produced water into reserve pit? NO

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

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

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

Reserve pit liner

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 405H

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? Y

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

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

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

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

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

BLUS_405H_Well_Site_Layout_20191210170658.pdf

BLUS_405H_Drlg_Layout_20191210170659.pdf

Comments:

Section 10 - Plans for Surface Reclamation

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

Multiple Well Pad Number: 4

Recontouring attachment:

BLUS_405H_IR_Plat_20191210170725.pdf

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

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

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 405H

Well pad proposed disturbance (acres): 5.97
Road proposed disturbance (acres): 0.111
Powerline proposed disturbance (acres): 0
Pipeline proposed disturbance (acres): 0
Other proposed disturbance (acres): 0

Total proposed disturbance: 6.0809999999999995

Well pad interim reclamation (acres): 0.92
Road interim reclamation (acres): 0
Powerline interim reclamation (acres): 0
Pipeline interim reclamation (acres): 0
Other interim reclamation (acres): 0

Total interim reclamation: 0.92

Well pad long term disturbance (acres): 5.05
Road long term disturbance (acres): 0.111
Powerline long term disturbance (acres): 0
Pipeline long term disturbance (acres): 0
Other long term disturbance (acres): 0

Total long term disturbance: 5.161

Disturbance Comments:

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

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

Existing Vegetation Community at the road attachment:

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

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: Refer to "Existing Vegetation at the well pad"

Existing Vegetation Community at other disturbances attachment:

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? N

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 405H

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: **Last Name:**

Phone: **Email:**

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment attachment:

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

Weed treatment plan attachment:

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

Monitoring plan attachment:

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

Pit closure description: N/A

Pit closure attachment:

Section 11 - Surface Ownership

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 405H

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office: COMMISSIONER OF PUBLIC LANDS, PO BOX 1148, SANTA FE, NM 87504-1148

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

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

Disturbance type: WELL PAD

Describe:

Surface Owner: STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office: COMMISSIONER OF PUBLIC LANDS, PO BOX 1148, SANTA FE, NM

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

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

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-48207	98266	Bell Lake;Wolfcamp, South

[4] Property Code	[5] Property Name	[6] Well Number
316706	BELL LAKE UNIT SOUTH	405H

[7] OGRID No.	[8] Operator Name	[9] Elevation
12361	KAISER-FRANCIS OIL CO.	3631.2

[10] Surface Location

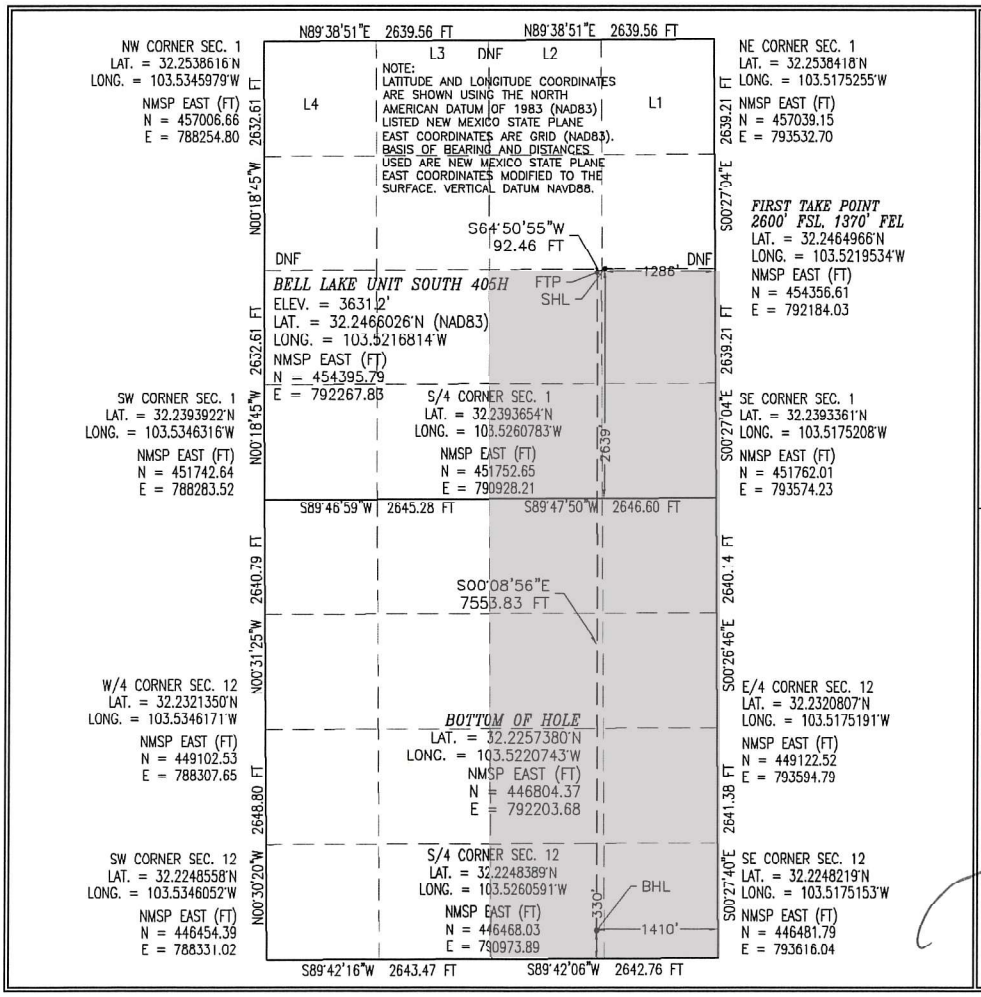
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	1	24 S	33 E		2639	SOUTH	1286	EAST	LEA

[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	12	24 S	33 E		330	SOUTH	1410	EAST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
480			R-14601

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.

Melanie Wilson 12/09/2019
Signature Date

Melanie Wilson
Printed Name

mjp1692@gmail.com
E-mail Address

[18] SURVEYOR CERTIFICATION

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

FEBRUARY 10, 2019
Date of Survey

FILIMON F. JARAMILLO NEW MEXICO 12797 REGISTERED PROFESSIONAL SURVEYOR

Signature and Seal of Professional Surveyor:

Certificate Number: FILIMON F. JARAMILLO, PLS 12797

SURVEY NO. 6863

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State of New Mexico
Energy, Minerals and Natural Resources Department

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

Submit Original to Appropriate District Office

GAS CAPTURE PLAN

Date: **07/02/2018**

☒ Original Operator & OGRID No.: Kaiser-Francis Oil Company, 12361
☐ Amended - Reason for Amendment: _____

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

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

Well(s)/Production Facility – Name of facility

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

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Bell Lake Unit South 406H	N/A	H-1-24S-33E	2669' FSL/1286' FEL	2000	0	
Bell Lake Unit South 405H	N/A 30-025-48207	H-1-24S-33E	2639' FSL/1286' FEL	2000		

Gathering System and Pipeline Notification

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

Flowback Strategy

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

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

Alternatives to Reduce Flaring

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

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

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

CONDITIONS

Action 12845

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
KAISER-FRANCIS OIL CO P.O. Box 21468 Tulsa, OK74121	12361	12845	FORM 3160-3

OCD Reviewer	Condition
pkautz	Will require a directional survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
pkautz	Oil base muds are not to be used until freshwater 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.