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.
NMLC0063993

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

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

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

7. If Unit or CA Agreement, Name and No.
BELL LAKE / NMNM068292X

8. Lease Name and Well No.
BELL LAKE UNIT SOUTH
402H (316706)

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

9. API Well No.
30-025-45522

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)
~~ANTELOPE RIDGE WEST~~ / WOLFCAMP, So.

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface SWNW / 2030 FNL / 295 FWL / LAT 32.248281 / LONG -103.533656
At proposed prod. zone SWSW / 330 FSL / 1230 FWL / LAT 32.225754 / LONG -103.530629

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*	12. County or Parish	13. State
22 miles	LEA	NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
295 feet	160	240

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
2624 feet	12135 feet / 20065 feet	FED: WYB000055

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
3632 feet	03/01/2018	40 days

24. Attachments

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

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

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Melanie Wilson / Ph: (575)914-1461	01/11/2018
Title: Regulatory Analyst		
Approved by *(Signature)* (Electronic Submission)	Name *(Printed/Typed)* Cody Layton / Ph: (575)234-5959	Date 08/04/2018
Title: Assistant Field Manager Lands & Minerals	Office: CARLSBAD	

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

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

GCP Rec 01/23/19

KZ 1/24/19

APPROVED WITH CONDITIONS

REQUIRES NSL

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 08/04/2018

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 OE 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.

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Additional Operator Remarks

Location of Well

1. SHL: SWNW / 2030 FNL / 295 FWL / TWSP: 24S / RANGE: 33E / SECTION: 1 / LAT: 32.248281 / LONG: -103.533656 (TVD: 0 feet, MD: 0 feet)
   PPP: NWSW / 2640 FSL / 1230 FWL / TWSP: 24S / RANGE: 33E / SECTION: 12 / LAT: 32.23256 / LONG: -103.530637 (TVD: 12135 feet, MD: 17749 feet)
   PPP: NWNW / 0 FNL / 1230 FWL / TWSP: 24S / RANGE: 33E / SECTION: 12 / LAT: 32.23938 / LONG: -103.530646 (TVD: 12135 feet, MD: 15109 feet)
   PPP: NWSW / 2600 FSL / 1240 FWL / TWSP: 24S / RANGE: 33E / SECTION: 1 / LAT: 32.246524 / LONG: -103.530604 (TVD: 12135 feet, MD: 12509 feet)
   BHL: SWSW / 330 FSL / 1230 FWL / TWSP: 24S / RANGE: 33E / SECTION: 12 / LAT: 32.225754 / LONG: -103.530629 (TVD: 12135 feet, MD: 20065 feet)

BLM Point of Contact

Name: Judith Yeager
Title: Legal Instruments Examiner
Phone: 5752345936
Email: jyeager@blm.gov

Review and Appeal Rights

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

PECOS DISTRICT
DRILLING OPERATIONS
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Kaiser Francis Oil
LEASE NO.:	NMLC066438
WELL NAME & NO.:	Bell Lake Unit South 402H
SURFACE HOLE FOOTAGE:	2030'/N & 295'/W
BOTTOM HOLE FOOTAGE	330'/S & 1230'/W
LOCATION:	Section 1, T.24 S., R.33 E., NMPM
COUNTY:	Lea County, New Mexico

H2S	Yes	No	
Potash	None	Secretary	R-111-P
Cave/Karst Potential	Low	Medium	High
Variance	None	Flex Hose	Other
Wellhead	Conventional	Multibowl	Both
Other	4 String Area	Capitan Reef	WIPP

Commercial Well Determination
The proposed well is not within a participating area. A commercial well determination must be submitted to the BLM Carlsbad Office.

Unit Wells
The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

A. **Hydrogen Sulfide**

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM. Note to Operator, H2S has been reported within two miles of location in the lower Wolfcamp formation.

B. **CASING**

1. The **10-3/4** inch surface casing shall be set at approximately **1350 feet** (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

    - Cement to surface. If cement does not circulate see B.1.a, c-d above.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

    - Cement should tie-back at least 300 feet into previous casing string. As proposed by operator. Operator shall provide method of verification. **Additional cement may be required – excess calculates to 14%.**

C. **PRESSURE CONTROL**

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M)** psi. As proposed by operator

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☐ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 3933612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
   - Notify the BLM when moving in and removing the Spudder Rig.
   - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
   - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. **Wait on cement (WOC) for Water Basin**: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
    e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

5. The appropriate BLM office shall be notified a minimum of hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin

after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

a. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

b. The tests shall be done by an independent service company utilizing a test plug. The results of the test shall be reported to the appropriate BLM office.

c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

d. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

e. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes. This test shall be performed prior to the test at full stack pressure.

f. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

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

Waste Minimization Plan (WMP)

In the interest of resource development, submission of additional well gas capture development plan information is deferred but may be required by the BLM Authorized Officer at a later date.

EGF 040218

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Kaiser Francis Oil
LEASE NO.:	NMLC066438
WELL NAME & NO.:	Bell Lake Unit South 402H
SURFACE HOLE FOOTAGE:	2030'/N & 295'/W
BOTTOM HOLE FOOTAGE	330'/S & 1230'/W
LOCATION:	Section 1, T.24 S., R.33 E., NMPM
COUNTY:	Lea County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

Approval Date: 08/04/2018

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Hydrology:

Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The berm shall be maintained through the life of the well and after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion.

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

The BLM Hydrologist worked closely with Kaiser Francis to develop mitigation methods in order to maintain the integrity and minimize impacts to a playa, also known as Jog Tank (livestock and wildlife water source). The northeast corner of the well pad will be clipped 30' on the eastern boundary and 42' on the northern boundary. The eastern portion of the pad will be bermed and the pad will be graded 1° or greater to promote western or southwestern draining as opposed to draining into the feature on the eastern side. Sedimentation runoff controls will be implemented per the Carlsbad Soil and Water District's recommendation. Additionally, the road will tie in via the southeast corner.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching
Ditching shall be required on both sides of the road.

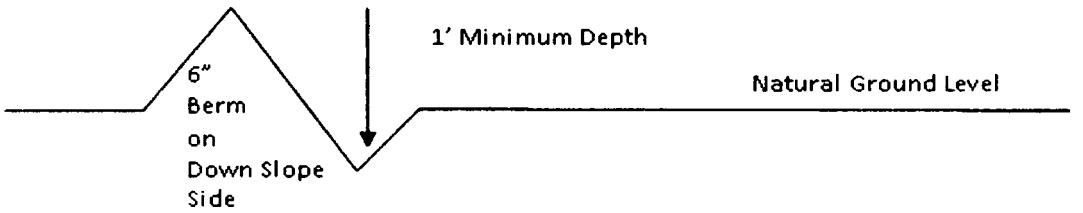
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Cattle guards
An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement
Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access
Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

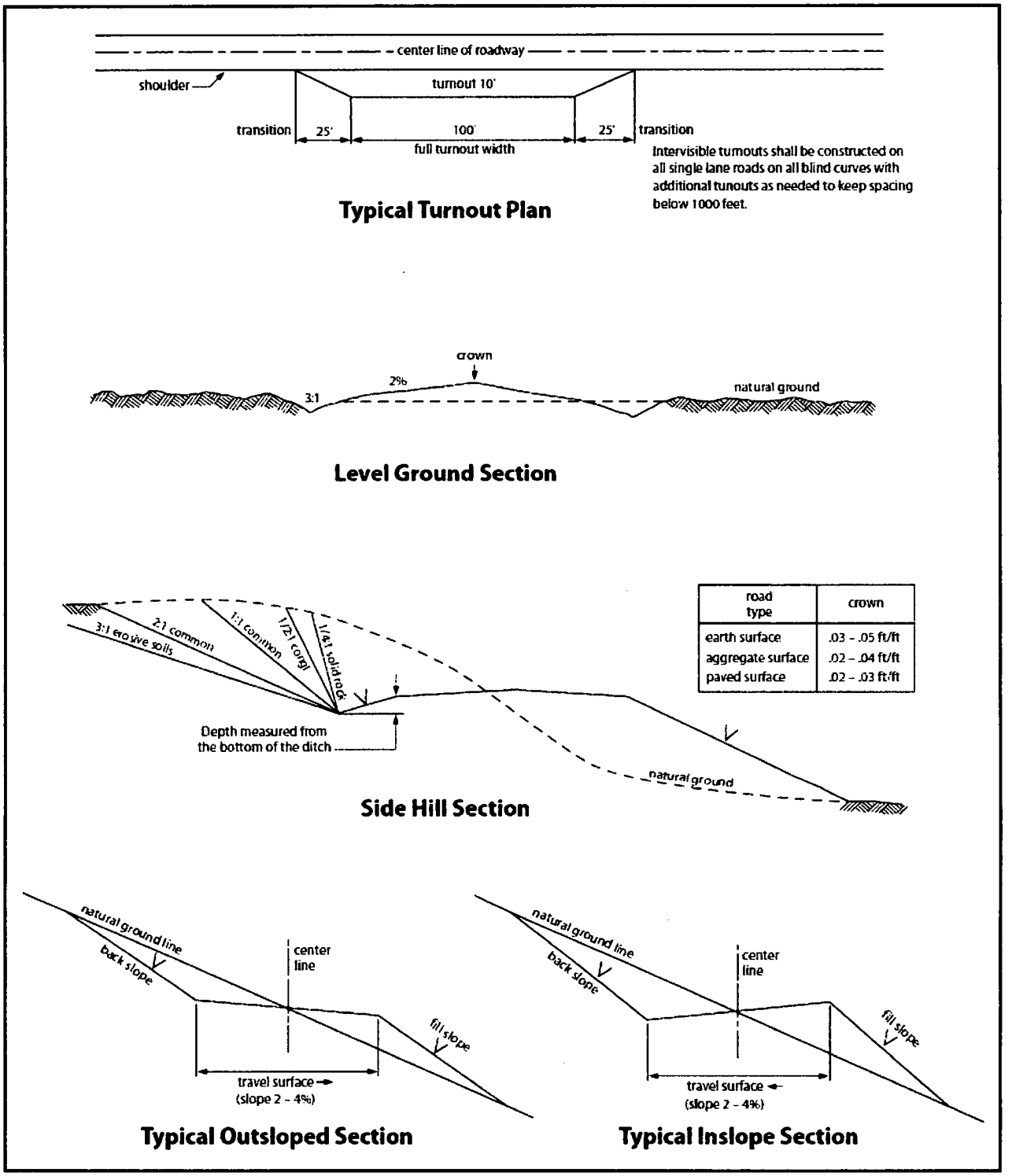


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory

revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

Approval Date: 08/04/2018

AFMSS

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

Operator Certification Data Report

09/19/2018

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Melanie Wilson **Signed on:** 01/11/2018

Title: Regulatory Analyst

Street Address: 106 W. Riverside Drive

City: Calsbad **State:** NM **Zip:** 88220

Phone: (575)914-1461

Email address: mjp1692@gmail.com

Field Representative

Representative Name: Robert Sanford

Street Address: 6733 S Yale Ave

City: Tulsa **State:** OK **Zip:** 74136

Phone: (918)770-2682

Email address: roberts@kfoc.net

AFMSS

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

Application Data Report

09/19/2018

APD ID: 10400025660 **Submission Date:** 01/11/2018

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 402H

Highlighted data reflects the most recent change

Show Final Text

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

Section 1 - General

APD ID: 10400025660 **Tie to previous NOS?** **Submission Date:** 01/11/2018

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: NMLC0063993 **Lease Acres:** 160

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

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

Agreement number: NMNM068292X

Agreement name:

Keep application confidential? YES

Permitting Agent? NO **APD Operator:** KAISER FRANCIS OIL COMPANY

Operator letter of designation:

Operator Info

Operator Organization Name: KAISER FRANCIS OIL COMPANY

Operator Address: 6733 S. Yale Ave.

Zip: 74121

Operator PO Box: PO Box 21468

Operator City: Tulsa **State:** OK

Operator Phone: (918)491-0000

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO **Mater 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:** 402H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** ANTELOPE RIDGE WEST **Pool Name:** WOLFCAMP

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:** 402H

Describe other minerals:

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** SOUTH BELL LAKE UNIT **Number:** 0

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: 22 Miles **Distance to nearest well:** 2624 FT **Distance to lease line:** 295 FT

Reservoir well spacing assigned acres Measurement: 240 Acres

Well plat: Bell_Lake_Unit_South_402H_C102_20180111110942.pdf

Bell_Lake_Unit_South_402H_Pymt_Confirmation_20180111132609.pdf

Well work start Date: 03/01/2018 **Duration:** 40 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number:

	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
SHL Leg #1	2030	FNL	295	FWL	24S	33E	1	Aliquot SWNW	32.248281	-103.533656	LEA	NEW MEXICO	NEW MEXICO	S	STATE	3632	0	0
KOP Leg #1	2089	FNL	1239	FWL	24S	33E	1	Aliquot SWNW	32.248713	-103.663809	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-7930	11609	11562
PPP Leg #1	2600	FSL	1240	FWL	24S	33E	1	Aliquot NWSW	32.246524	-103.530604	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-8503	12509	12135

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 402H

	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
PPP Leg #1	0	FNL	1230	FWL	24S	33E	12	Aliquot NWNW	32.23938	-103.530646	LEA	NEW MEXICO	NEW MEXICO	F	NMLC063993	-8503	15109	12135
PPP Leg #1	2640	FSL	1230	FWL	24S	33E	12	Aliquot NWSW	32.23256	-103.530637	LEA	NEW MEXICO	NEW MEXICO	F	NMLC063798	-8503	17749	12135
EXIT Leg #1	330	FSL	1230	FWL	24S	33E	12	Aliquot SWSW	32.225754	-103.530629	LEA	NEW MEXICO	NEW MEXICO	F	NMLC063798	-8503	20065	12135
BHL Leg #1	330	FSL	1230	FWL	24S	33E	12	Aliquot SWSW	32.225754	-103.530629	LEA	NEW MEXICO	NEW MEXICO	F	NMLC063798	-8503	20065	12135

APD ID: 10400025660 **Submission Date:** 01/11/2018

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 402H

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
1	---	3632	0	0		NONE	No
2	RUSTLER	2412	1220	1220		NONE	No
3	SALADO	2017	1615	1615		NONE	No
4	TOP SALT	1507	2125	2125		NONE	No
5	BASE OF SALT	240	3392	3392		NONE	No
6	LAMAR	-1435	5067	5067		NATURAL GAS,OIL	No
7	BELL CANYON	-1868	5500	5500		NATURAL GAS,OIL	No
8	CHERRY CANYON	-3168	6800	6800		NATURAL GAS,OIL	No
9	BRUSHY CANYON	-4760	8392	8392		NATURAL GAS,OIL	No
10	BONE SPRING	-4985	8617	8617		NATURAL GAS,OIL	No
11	AVALON SAND	-5347	8979	8979		NATURAL GAS,OIL	No
12	BONE SPRING 1ST	-6335	9967	9967		NATURAL GAS,OIL	No
13	BONE SPRING 2ND	-6808	10440	10440		NATURAL GAS,OIL	No
14	BONE SPRING LIME	-7385	11017	11017		NATURAL GAS,OIL	No
15	BONE SPRING 3RD	-7910	11542	11542		NATURAL GAS,OIL	No
16	WOLFCAMP	-8210	11842	11842		NATURAL GAS,OIL	Yes

Section 2 - Blowout Prevention

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 402H

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

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

Variance request: Flex Hose Variance

Testing Procedure: BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all of the components installed will be functional and tested.

Choke Diagram Attachment:

Bell_Lake_Unit_South_402H_Chk_Man_Rev1_20180403091333.pdf

BOP Diagram Attachment:

Bell_Lake_Unit_South_402H_BOP_Rev1_20180403091343.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	14.75	10.75	NEW	API	N	0	1350	0	1350			1350	J-55	40.5	STC	2.5	5	DRY	7.7	DRY	11.5
2	INTERMEDIATE	9.875	7.625	NEW	API	N	0	11558	0	11558			11558	HCP-110	29.7	LTC	1.3	1.8	DRY	2.2	DRY	2.7
3	PRODUCTION	6.75	5.5	NEW	API	N	0	20065	0	20065			20065	P-110	20	OTHER - Hydril 521	1.5	1.7	DRY	1.9	DRY	2.6

Casing Attachments

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 402H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Bell_Lake_Unit_South_402H_Csg_Assump_Rev1_20180403091433.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Bell_Lake_Unit_South_402H_Csg_Assump_Rev1_20180403091419.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Bell_Lake_Unit_South_402H_Csg_Assump_Rev1_20180403091411.pdf

Bell_Lake_Unit_South_402H_5.5_Csg_Specs_20180403091632.pdf

Section 4 - Cement

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 402H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1350	715	1.73	13.5	1230	100	BJ Lead	IntegraSeal
SURFACE	Tail		0	1350	225	1.34	14.8	296	100	BJ Tail	IntegraSeal
INTERMEDIATE	Lead		0	11558	1295	2.55	11.3	3301	100	BJ Premium	Extender
INTERMEDIATE	Tail		0	11558	605	1.76	13.2	1059.9	50	BJ Premium	Extender
PRODUCTION	Lead		11258	20065	665	1.28	14.2	849.8	15	BJ Tail	Extender

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
11558	20065	OTHER : Cut Brine	9	9.3							
1350	11558	OTHER : Brine	9	10.2							
0	1350	OTHER : Fresh Water	8.4	9							

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 402H

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

None planned

List of open and cased hole logs run in the well:

DS,GR,MUDLOG

Coring operation description for the well:

None planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 7572 **Anticipated Surface Pressure:** 4902.3

Anticipated Bottom Hole Temperature(F): 175

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Bell_Lake_Unit_South_402H_H2S_Plan_20180111124759.pdf

Bell_Lake_Unit_South_402H_Well_Site_Layout_20180111124816.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

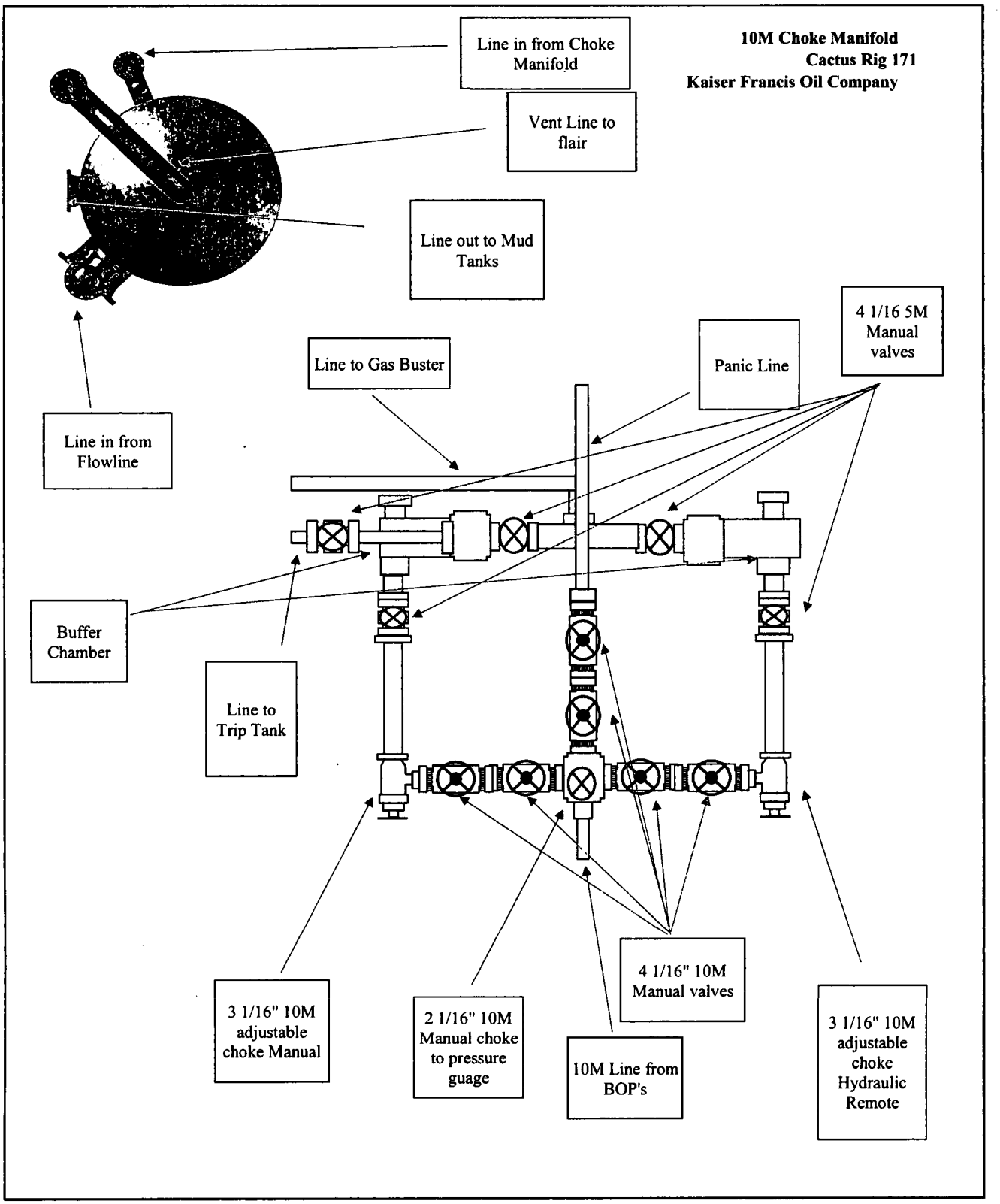
Bell_Lake_Unit_South_402H_Directional_Plan_20180111124842.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

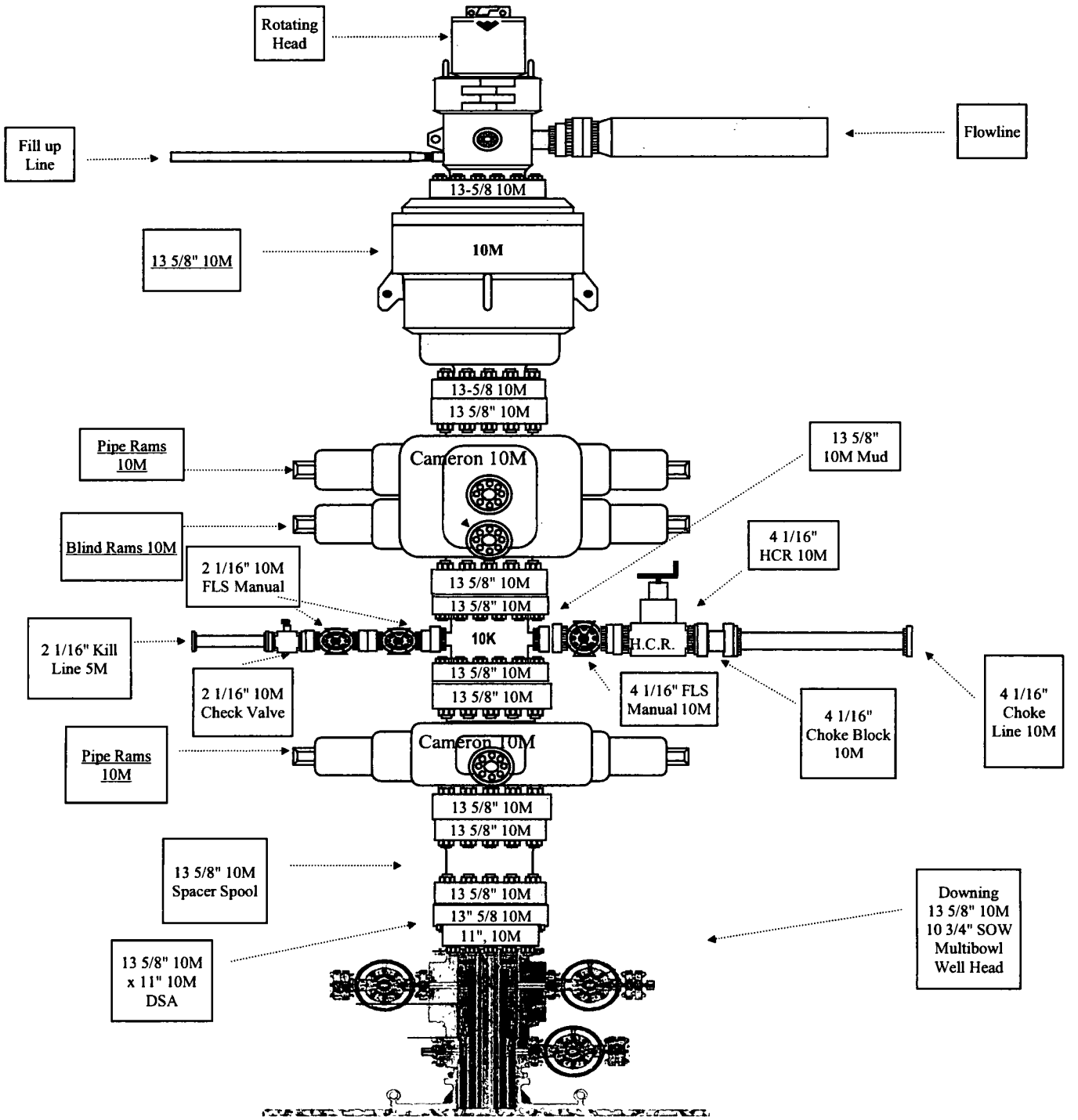
Other Variance attachment:

Bell_Lake_Unit_South_402H_Flex_Hose_Data_20180111124900.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 Remote

Cactus Rig 171
10M BOP with 10M Annular
Kaiser Francis Oil Company

Hole Sections Utilized
***9 7/8" Hole below Surface Casing**
***6 3/4"Hole below Intermediate casing**



Kaiser-Francis Oil Company
Bell Lake Unit South 402H
Casing Assumptions - Revised 3/1/2018

Formation Name	Formation Top TVD
Rustler	1400
Salado	1825
Top of Salt	2000
Base of Salt	5000
Lamar	5200
Bell Canyon	5400
Cherry Canyon	6250
Brushy Canyon	7725
Bone Spring	8865
Avalon	9057
1 BSS	10100
2 BSS	10635
3 BSL	11150
3 BSS	11630
Wolfcamp	11935

Interval	Length	Casing Size	Weight (#/ft)	Grade	Thread	Condition	Hole Size	TVD (ft)
Conductor	120	20"				New		120
Surface	1350	10-3/4"	40.5	J-55	STC	New	14-3/4"	1350
Intermediate	11558	7-5/8"	29.7	HCP110	LTC	New	9-7/8"	11512
Production	20064	5-1/2"	20	P110 HP	USS Eagle SFH	New	6-3/4"	12135

Mud Type	Mud Weight Hole Control	Depth	Viscosity	Fluid Loss
FW	8.4 - 9.0	1350	32 - 34	NC
Brine	8.7 - 9.0	11558	28	NC
OBM	11.5-12.5	20064	55 - 70	

Anticipated Mud Weight (ppg)	Max Pore Pressure (psi)	Collapse (psi)	Burst (psi)	Body Tensile Strength	Joint Tensile Strength
9	632	1580	3130	629000	420000
8.9	5328	6700	9460	940000	769000
12	7572	13150	14360	729000	629000

Collapse Safety Factor (Min 1.1)	Burst Safety Factor (Min	Body Tensile Safety Factor	Joint Tensile Safety Factor
2.5	5.0	11.5	7.7
1.3	1.8	2.7	2.2
1.7	1.9	3.0	2.6

Kaiser-Francis Oil Company
Bell Lake Unit South 402H
Casing Assumptions - Revised 3/1/2018

Formation Name	Formation Top TVD
Rustler	1400
Salado	1825
Top of Salt	2000
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Lamar	5200
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Cherry Canyon	6250
Brushy Canyon	7725
Bone Spring	8865
Avalon	9057
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3 BSL	11150
3 BSS	11630
Wolfcamp	11935

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Brine	8.7 - 9.0	11558	28	NC
OBM	11.5-12.5	20064	55 - 70	

Anticipated Mud Weight (ppg)	Max Pore Pressure (psi)	Collapse (psi)	Burst (psi)	Body Tensile Strength	Joint Tensile Strength
9	632	1580	3130	629000	420000
8.9	5328	6700	9460	940000	769000
12	7572	13150	14360	729000	629000

Collapse Safety Factor (Min 1.1)	Burst Safety Factor (Min	Body Tensile Safety Factor	Joint Tensile Safety Factor
2.5	5.0	11.5	7.7
1.3	1.8	2.7	2.2
1.7	1.9	3.0	2.6

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).

U. S. Steel Tubular Products
10343 Sam Houston Park Dr., #120
Houston, TX 77064

1-877-893-9461
connections@uss.com
www.usstubular.com

Kaiser-Francis Oil Company
Bell Lake Unit South 402H
Casing Assumptions - Revised 3/1/2018

Formation Name	Formation Top TVD
Rustler	1400
Salado	1825
Top of Salt	2000
Base of Salt	5000
Lamar	5200
Bell Canyon	5400
Cherry Canyon	6250
Brushy Canyon	7725
Bone Spring	8865
Avalon	9057
1 BSS	10100
2 BSS	10635
3 BSL	11150
3 BSS	11630
Wolfcamp	11935

Interval	Length	Casing Size	Weight (#/ft)	Grade	Thread	Condition	Hole Size	TVD (ft)	Mud Type	Mud Weight Hole Control	Depth	Viscosity	Fluid Loss	Anticipated Mud Weight (ppg)	Max Pore Pressure (psi)	Collapse (psi)	Burst (psi)	Body Tensile Strength	Joint Tensile Strength	Collapse Safety Factor (Min 1.1)	Burst Safety Factor (Min	Body Tensile Safety Factor	Joint Tensile Safety Factor
Conductor	120	20"				New		120															
Surface	1350	10-3/4"	40.5	J-55	STC	New	14-3/4"	1350	FW	8.4 - 9.0	1350	32 - 34	NC	9	632	1580	3130	629000	420000	2.5	5.0	11.5	7.7
Intermediate	11558	7-5/8"	29.7	HCP110	LTC	New	9-7/8"	11512	Brine	8.7 - 9.0	11558	28	NC	8.9	5328	6700	9460	940000	769000	1.3	1.8	2.7	2.2
Production	20064	5-1/2"	20	P110 HP	USS Eagle SFH	New	6-3/4"	12135	OBM	11.5-12.5	20064	55 - 70		12	7572	13150	14360	729000	629000	1.7	1.9	3.0	2.6

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

BELL LAKE UNIT SOUTH #402H
SECTION 1 -T24S-R33E
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
Matt Warner	918/491-4379	720/556-2313

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:

$X = [(1.589)(\text{concentration})(Q)]^{(0.6258)}$

Calculation for the 500 ppm ROE:

$X+[(0.4546)(\text{concentration})(Q)]^{(.06258)}$

(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.

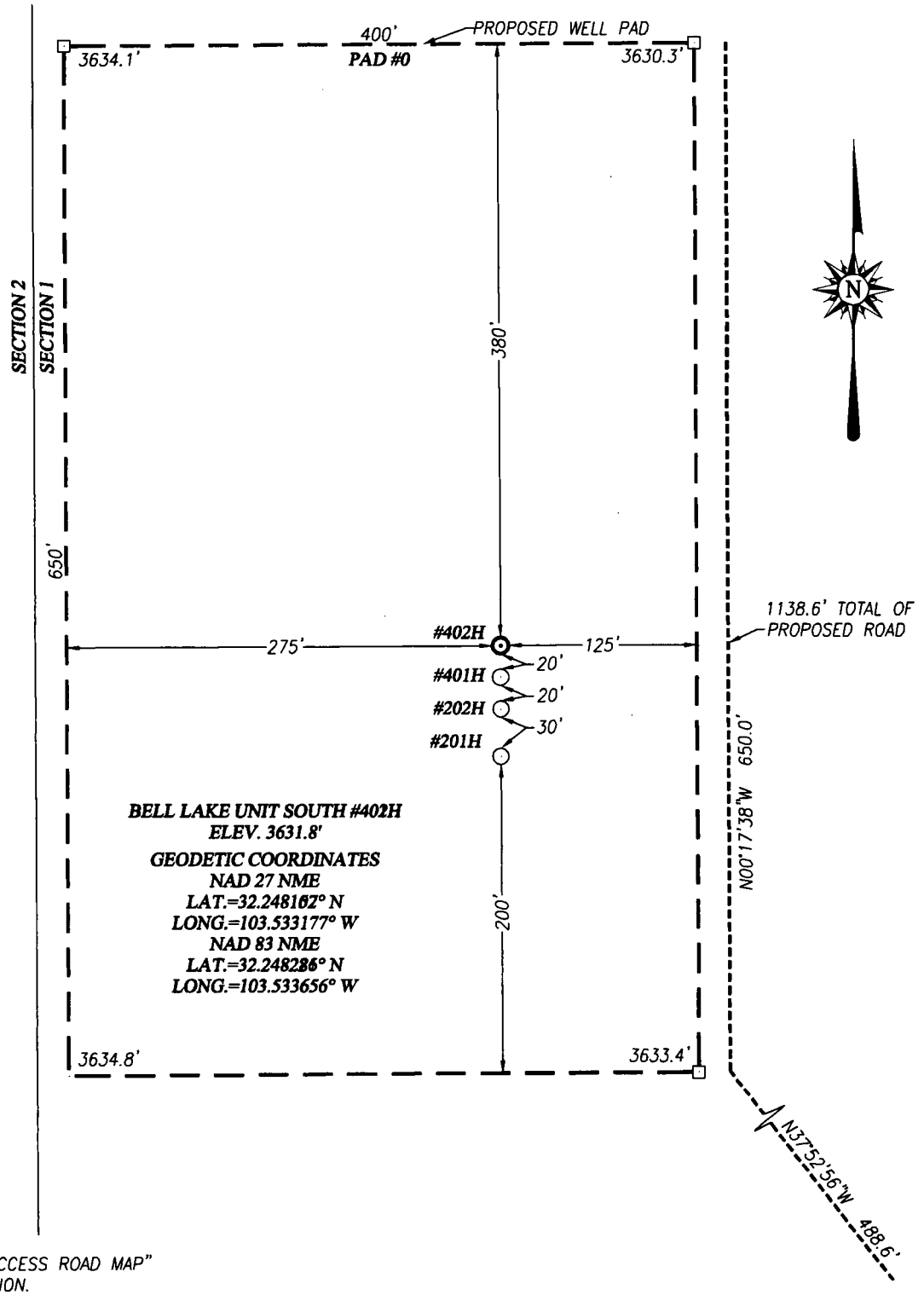
PUBLIC RELATIONS

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.

WELL SITE PLAN



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

DIRECTIONS TO LOCATION:

FROM THE INTERSECTION OF ST. HWY. 128 AND CO. RD. E21 (DELAWARE BASIN RD.), GO NORTH ON CO. RD. E21 APPROX. 2.6 MILES. TURN LEFT AND GO WEST ON BELL LAKE ROAD APPROX. 1.3 MILES TO PROPOSED ACCESS ROAD. FOLLOW ACCESS ROAD NORTHWEST-NORTH 1138.6 FEET TO THE NORTHEAST CORNER OF THE PAD.

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

KAISER-FRANCIS OIL COMPANY

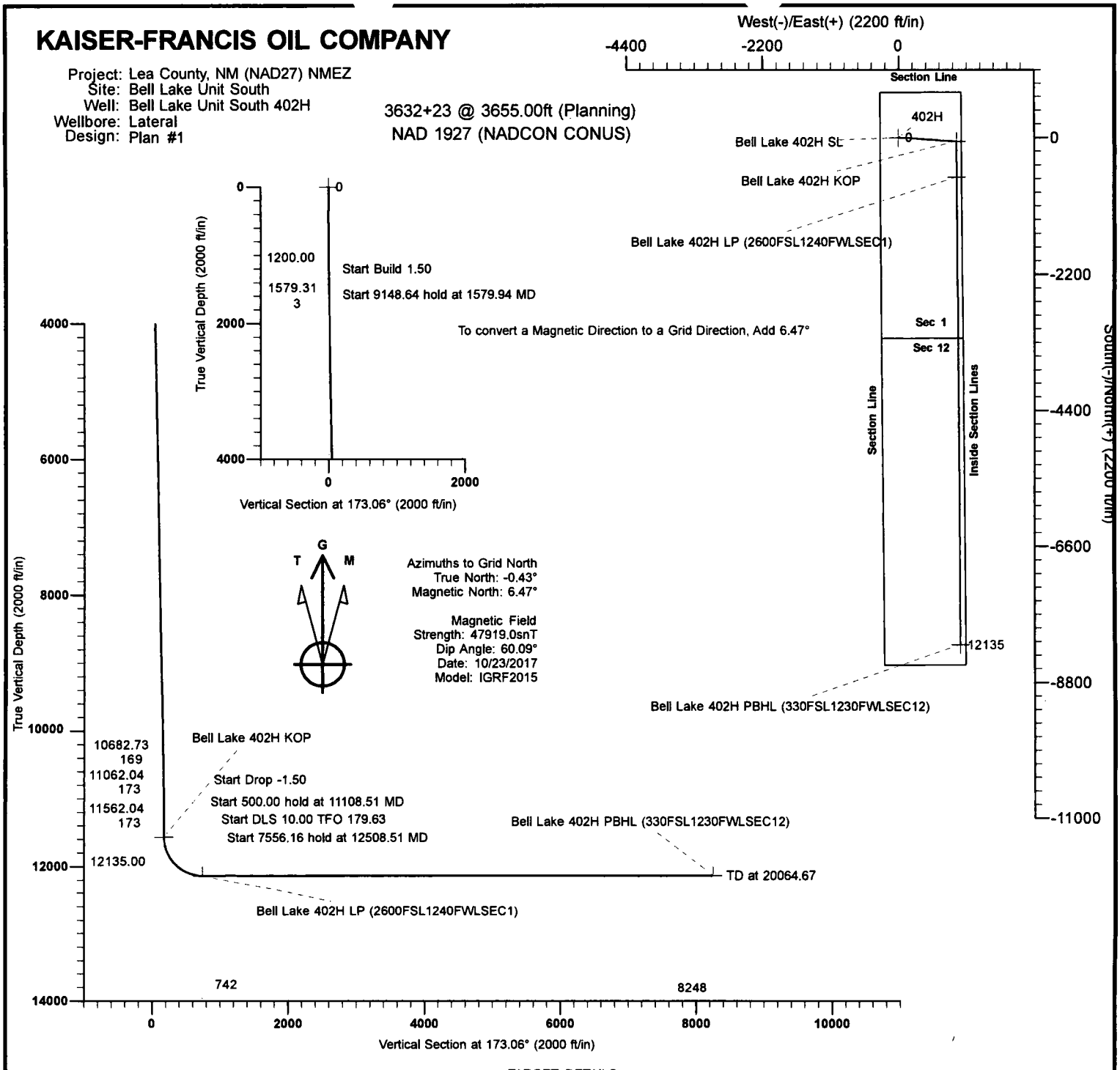
BELL LAKE UNIT SOUTH #402H WELL LOCATED 2030 FEET FROM THE NORTH LINE AND 295 FEET FROM THE WEST LINE OF SECTION 1, TOWNSHIP 24 SOUTH, RANGE 33 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Survey Date: 10/03/17	CAD Date: 10/17/17	Drawn By: ACK	
W.O. No.: 17110954	Rev: 11/14/17	Rel. W.O.:	Sheet 1 of 1

KAISER-FRANCIS OIL COMPANY

Project: Lea County, NM (NAD27) NMEZ
Site: Bell Lake Unit South
Well: Bell Lake Unit South 402H
Wellbore: Lateral
Design: Plan #1

3632+23 @ 3655.00ft (Planning)
NAD 1927 (NADCON CONUS)



TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Bell Lake 402H SL	0.00	0.00	0.00	454919.60	747377.20	Point
Bell Lake 402H KOP	11562.04	-59.05	944.41	454860.55	748321.61	Point
Bell Lake 402H LP (2600FSL1240FWLSEC1)	12135.00	-632.00	948.10	454287.60	748325.30	Point
Bell Lake 402H PBHL (330FSL1230FWLSEC12)	12135.00	-8188.00	996.80	446731.60	748374.00	Point

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.00	
1579.94	5.70	93.58	1579.31	-1.18	18.84	1.50	93.58	3.45	
10728.57	5.70	93.58	10682.73	-57.87	925.56	0.00	0.00	169.30	
11108.51	0.00	0.00	11062.04	-59.05	944.41	1.50	180.00	172.75	
11608.51	0.00	0.00	11562.04	-59.05	944.41	0.00	0.00	172.75	Bell Lake 402H KOP
12508.51	90.00	179.63	12135.00	-632.00	948.10	10.00	179.63	741.94	
20064.67	90.00	179.63	12135.00	-8188.00	996.80	0.00	0.00	8248.45	Bell Lake 402H PBHL (330FSL1230FWLSEC12)

Plan: Plan #1 (Bell Lake Unit South 402H/Lateral)
Created By: Mekka Williams
eSomina Well Design
mekka@esominawelldesign.com
14:46, October 23 2017

VON DIRECTIONAL
12074 FM 3083 Conroe, Texas 77301
936-756-2400

VON DIRECTIONAL SERVICES, LLC.

Database:	VON_EDM	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 402H - Slot 402H
Company:	KAISER-FRANCIS OIL COMPANY	**TVD Reference:**	3632+23 @ 3655.00ft (Planning)
Project:	Lea County, NM (NAD27) NMEZ	**MD Reference:**	3632+23 @ 3655.00ft (Planning)
Site:	Bell Lake Unit South	**North Reference:**	Grid
Well:	Bell Lake Unit South 402H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #1		

Project	Lea County, NM (NAD27) NMEZ		
Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Bell Lake Unit South, Centered on 402H				
Site Position:		**Northing:**	454,919.60 ft	**Latitude:**	32° 14' 53.357 N
From:	Map	**Easting:**	747,377.20 ft	**Longitude:**	103° 31' 59.456 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.20 in	**Grid Convergence:**	0.43 °

Well	Bell Lake Unit South 402H - Slot 402H					
Well Position	**+N/-S**	0.00 ft	**Northing:**	454,919.60 ft	**Latitude:**	32° 14' 53.357 N
	+E/-W	0.00 ft	**Easting:**	747,377.20 ft	**Longitude:**	103° 31' 59.456 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**		**Ground Level:**	3,632.00 ft

Wellbore	Lateral				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	10/23/17	6.90	60.09	47,919

Design	Plan #1				
Audit Notes:					
Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**	
	0.00	0.00	0.00	173.06	

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,579.94	5.70	93.58	1,579.31	-1.18	18.84	1.50	1.50	0.00	93.58	
10,728.58	5.70	93.58	10,682.73	-57.87	925.56	0.00	0.00	0.00	0.00	
11,108.51	0.00	0.00	11,062.04	-59.05	944.41	1.50	-1.50	0.00	180.00	
11,608.51	0.00	0.00	11,562.04	-59.05	944.41	0.00	0.00	0.00	0.00	Bell Lake 402H KOP
12,508.51	90.00	179.63	12,135.00	-632.00	948.10	10.00	10.00	19.96	179.63	
20,064.67	90.00	179.63	12,135.00	-8,188.00	996.80	0.00	0.00	0.00	0.00	Bell Lake 402H PBHL

Database:	VON_EDM	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 402H - Slot 402H
Company:	KAISER-FRANCIS OIL COMPANY	**TVD Reference:**	3632+23 @ 3655.00ft (Planning)
Project:	Lea County, NM (NAD27) NMEZ	**MD Reference:**	3632+23 @ 3655.00ft (Planning)
Site:	Bell Lake Unit South	**North Reference:**	Grid
Well:	Bell Lake Unit South 402H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	1.50	93.58	1,299.99	-0.08	1.31	0.24	1.50	1.50	0.00
1,400.00	3.00	93.58	1,399.91	-0.33	5.22	0.96	1.50	1.50	0.00
1,500.00	4.50	93.58	1,499.69	-0.73	11.75	2.15	1.50	1.50	0.00
1,579.94	5.70	93.58	1,579.31	-1.18	18.84	3.45	1.50	1.50	0.00
1,600.00	5.70	93.58	1,599.27	-1.30	20.83	3.81	0.00	0.00	0.00
1,700.00	5.70	93.58	1,698.78	-1.92	30.74	5.62	0.00	0.00	0.00
1,800.00	5.70	93.58	1,798.29	-2.54	40.65	7.44	0.00	0.00	0.00
1,900.00	5.70	93.58	1,897.79	-3.16	50.56	9.25	0.00	0.00	0.00
2,000.00	5.70	93.58	1,997.30	-3.78	60.48	11.06	0.00	0.00	0.00
2,100.00	5.70	93.58	2,096.80	-4.40	70.39	12.87	0.00	0.00	0.00
2,200.00	5.70	93.58	2,196.31	-5.02	80.30	14.69	0.00	0.00	0.00
2,300.00	5.70	93.58	2,295.81	-5.64	90.21	16.50	0.00	0.00	0.00
2,400.00	5.70	93.58	2,395.32	-6.26	100.12	18.31	0.00	0.00	0.00
2,500.00	5.70	93.58	2,494.83	-6.88	110.03	20.13	0.00	0.00	0.00
2,600.00	5.70	93.58	2,594.33	-7.50	119.94	21.94	0.00	0.00	0.00
2,700.00	5.70	93.58	2,693.84	-8.12	129.85	23.75	0.00	0.00	0.00
2,800.00	5.70	93.58	2,793.34	-8.74	139.76	25.57	0.00	0.00	0.00
2,900.00	5.70	93.58	2,892.85	-9.36	149.67	27.38	0.00	0.00	0.00
3,000.00	5.70	93.58	2,992.35	-9.98	159.59	29.19	0.00	0.00	0.00
3,100.00	5.70	93.58	3,091.86	-10.60	169.50	31.00	0.00	0.00	0.00
3,200.00	5.70	93.58	3,191.37	-11.22	179.41	32.82	0.00	0.00	0.00
3,300.00	5.70	93.58	3,290.87	-11.84	189.32	34.63	0.00	0.00	0.00
3,400.00	5.70	93.58	3,390.38	-12.46	199.23	36.44	0.00	0.00	0.00
3,500.00	5.70	93.58	3,489.88	-13.08	209.14	38.26	0.00	0.00	0.00
3,600.00	5.70	93.58	3,589.39	-13.70	219.05	40.07	0.00	0.00	0.00
3,700.00	5.70	93.58	3,688.89	-14.32	228.96	41.88	0.00	0.00	0.00
3,800.00	5.70	93.58	3,788.40	-14.94	238.87	43.69	0.00	0.00	0.00
3,900.00	5.70	93.58	3,887.91	-15.56	248.78	45.51	0.00	0.00	0.00
4,000.00	5.70	93.58	3,987.41	-16.18	258.70	47.32	0.00	0.00	0.00
4,100.00	5.70	93.58	4,086.92	-16.80	268.61	49.13	0.00	0.00	0.00
4,200.00	5.70	93.58	4,186.42	-17.42	278.52	50.95	0.00	0.00	0.00
4,300.00	5.70	93.58	4,285.93	-18.03	288.43	52.76	0.00	0.00	0.00
4,400.00	5.70	93.58	4,385.43	-18.65	298.34	54.57	0.00	0.00	0.00
4,500.00	5.70	93.58	4,484.94	-19.27	308.25	56.38	0.00	0.00	0.00
4,600.00	5.70	93.58	4,584.45	-19.89	318.16	58.20	0.00	0.00	0.00
4,700.00	5.70	93.58	4,683.95	-20.51	328.07	60.01	0.00	0.00	0.00
4,800.00	5.70	93.58	4,783.46	-21.13	337.98	61.82	0.00	0.00	0.00
4,900.00	5.70	93.58	4,882.96	-21.75	347.89	63.64	0.00	0.00	0.00
5,000.00	5.70	93.58	4,982.47	-22.37	357.81	65.45	0.00	0.00	0.00
5,100.00	5.70	93.58	5,081.97	-22.99	367.72	67.26	0.00	0.00	0.00
5,200.00	5.70	93.58	5,181.48	-23.61	377.63	69.07	0.00	0.00	0.00

Database:	VON_EDM	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 402H - Slot 402H
Company:	KAISER-FRANCIS OIL COMPANY	**TVD Reference:**	3632+23 @ 3655.00ft (Planning)
Project:	Lea County, NM (NAD27) NMEZ	**MD Reference:**	3632+23 @ 3655.00ft (Planning)
Site:	Bell Lake Unit South	**North Reference:**	Grid
Well:	Bell Lake Unit South 402H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,300.00	5.70	93.58	5,280.99	-24.23	387.54	70.89	0.00	0.00	0.00
5,400.00	5.70	93.58	5,380.49	-24.85	397.45	72.70	0.00	0.00	0.00
5,500.00	5.70	93.58	5,480.00	-25.47	407.36	74.51	0.00	0.00	0.00
5,600.00	5.70	93.58	5,579.50	-26.09	417.27	76.33	0.00	0.00	0.00
5,700.00	5.70	93.58	5,679.01	-26.71	427.18	78.14	0.00	0.00	0.00
5,800.00	5.70	93.58	5,778.51	-27.33	437.09	79.95	0.00	0.00	0.00
5,900.00	5.70	93.58	5,878.02	-27.95	447.00	81.76	0.00	0.00	0.00
6,000.00	5.70	93.58	5,977.53	-28.57	456.92	83.58	0.00	0.00	0.00
6,100.00	5.70	93.58	6,077.03	-29.19	466.83	85.39	0.00	0.00	0.00
6,200.00	5.70	93.58	6,176.54	-29.81	476.74	87.20	0.00	0.00	0.00
6,300.00	5.70	93.58	6,276.04	-30.43	486.65	89.02	0.00	0.00	0.00
6,400.00	5.70	93.58	6,375.55	-31.05	496.56	90.83	0.00	0.00	0.00
6,500.00	5.70	93.58	6,475.06	-31.67	506.47	92.64	0.00	0.00	0.00
6,600.00	5.70	93.58	6,574.56	-32.29	516.38	94.45	0.00	0.00	0.00
6,700.00	5.70	93.58	6,674.07	-32.91	526.29	96.27	0.00	0.00	0.00
6,800.00	5.70	93.58	6,773.57	-33.53	536.20	98.08	0.00	0.00	0.00
6,900.00	5.70	93.58	6,873.08	-34.15	546.11	99.89	0.00	0.00	0.00
7,000.00	5.70	93.58	6,972.58	-34.77	556.03	101.71	0.00	0.00	0.00
7,100.00	5.70	93.58	7,072.09	-35.39	565.94	103.52	0.00	0.00	0.00
7,200.00	5.70	93.58	7,171.60	-36.01	575.85	105.33	0.00	0.00	0.00
7,300.00	5.70	93.58	7,271.10	-36.63	585.76	107.14	0.00	0.00	0.00
7,400.00	5.70	93.58	7,370.61	-37.25	595.67	108.96	0.00	0.00	0.00
7,500.00	5.70	93.58	7,470.11	-37.87	605.58	110.77	0.00	0.00	0.00
7,600.00	5.70	93.58	7,569.62	-38.49	615.49	112.58	0.00	0.00	0.00
7,700.00	5.70	93.58	7,669.12	-39.11	625.40	114.40	0.00	0.00	0.00
7,800.00	5.70	93.58	7,768.63	-39.72	635.31	116.21	0.00	0.00	0.00
7,900.00	5.70	93.58	7,868.14	-40.34	645.22	118.02	0.00	0.00	0.00
8,000.00	5.70	93.58	7,967.64	-40.96	655.14	119.84	0.00	0.00	0.00
8,100.00	5.70	93.58	8,067.15	-41.58	665.05	121.65	0.00	0.00	0.00
8,200.00	5.70	93.58	8,166.65	-42.20	674.96	123.46	0.00	0.00	0.00
8,300.00	5.70	93.58	8,266.16	-42.82	684.87	125.27	0.00	0.00	0.00
8,400.00	5.70	93.58	8,365.66	-43.44	694.78	127.09	0.00	0.00	0.00
8,500.00	5.70	93.58	8,465.17	-44.06	704.69	128.90	0.00	0.00	0.00
8,600.00	5.70	93.58	8,564.68	-44.68	714.60	130.71	0.00	0.00	0.00
8,700.00	5.70	93.58	8,664.18	-45.30	724.51	132.53	0.00	0.00	0.00
8,800.00	5.70	93.58	8,763.69	-45.92	734.42	134.34	0.00	0.00	0.00
8,900.00	5.70	93.58	8,863.19	-46.54	744.33	136.15	0.00	0.00	0.00
9,000.00	5.70	93.58	8,962.70	-47.16	754.25	137.96	0.00	0.00	0.00
9,100.00	5.70	93.58	9,062.20	-47.78	764.16	139.78	0.00	0.00	0.00
9,200.00	5.70	93.58	9,161.71	-48.40	774.07	141.59	0.00	0.00	0.00
9,300.00	5.70	93.58	9,261.22	-49.02	783.98	143.40	0.00	0.00	0.00
9,400.00	5.70	93.58	9,360.72	-49.64	793.89	145.22	0.00	0.00	0.00
9,500.00	5.70	93.58	9,460.23	-50.26	803.80	147.03	0.00	0.00	0.00
9,600.00	5.70	93.58	9,559.73	-50.88	813.71	148.84	0.00	0.00	0.00
9,700.00	5.70	93.58	9,659.24	-51.50	823.62	150.65	0.00	0.00	0.00
9,800.00	5.70	93.58	9,758.74	-52.12	833.53	152.47	0.00	0.00	0.00
9,900.00	5.70	93.58	9,858.25	-52.74	843.44	154.28	0.00	0.00	0.00
10,000.00	5.70	93.58	9,957.76	-53.36	853.35	156.09	0.00	0.00	0.00
10,100.00	5.70	93.58	10,057.26	-53.98	863.27	157.91	0.00	0.00	0.00
10,200.00	5.70	93.58	10,156.77	-54.60	873.18	159.72	0.00	0.00	0.00
10,300.00	5.70	93.58	10,256.27	-55.22	883.09	161.53	0.00	0.00	0.00
10,400.00	5.70	93.58	10,355.78	-55.84	893.00	163.34	0.00	0.00	0.00
10,500.00	5.70	93.58	10,455.28	-56.46	902.91	165.16	0.00	0.00	0.00
10,600.00	5.70	93.58	10,554.79	-57.08	912.82	166.97	0.00	0.00	0.00

Database:	VON_EDM	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 402H - Slot 402H
Company:	KAISER-FRANCIS OIL COMPANY	**TVD Reference:**	3632+23 @ 3655.00ft (Planning)
Project:	Lea County, NM (NAD27) NMEZ	**MD Reference:**	3632+23 @ 3655.00ft (Planning)
Site:	Bell Lake Unit South	**North Reference:**	Grid
Well:	Bell Lake Unit South 402H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,700.00	5.70	93.58	10,654.30	-57.70	922.73	168.78	0.00	0.00	0.00
10,728.58	5.70	93.58	10,682.73	-57.87	925.56	169.30	0.00	0.00	0.00
10,800.00	4.63	93.58	10,753.86	-58.27	931.98	170.47	1.50	-1.50	0.00
10,900.00	3.13	93.58	10,853.63	-58.70	938.73	171.71	1.50	-1.50	0.00
11,000.00	1.63	93.58	10,953.54	-58.96	942.87	172.47	1.50	-1.50	0.00
11,108.51	0.00	0.00	11,062.04	-59.05	944.41	172.75	1.50	-1.50	0.00
11,200.00	0.00	0.00	11,153.53	-59.05	944.41	172.75	0.00	0.00	0.00
11,300.00	0.00	0.00	11,253.53	-59.05	944.41	172.75	0.00	0.00	0.00
11,400.00	0.00	0.00	11,353.53	-59.05	944.41	172.75	0.00	0.00	0.00
11,500.00	0.00	0.00	11,453.53	-59.05	944.41	172.75	0.00	0.00	0.00
11,608.51	0.00	0.00	11,562.04	-59.05	944.41	172.75	0.00	0.00	0.00
11,650.00	4.15	179.63	11,603.49	-60.55	944.42	174.24	10.00	10.00	0.00
11,700.00	9.15	179.63	11,653.14	-66.34	944.45	179.99	10.00	10.00	0.00
11,750.00	14.15	179.63	11,702.09	-76.43	944.52	190.01	10.00	10.00	0.00
11,800.00	19.15	179.63	11,749.98	-90.75	944.61	204.24	10.00	10.00	0.00
11,850.00	24.15	179.63	11,796.44	-109.19	944.73	222.56	10.00	10.00	0.00
11,900.00	29.15	179.63	11,841.12	-131.61	944.87	244.83	10.00	10.00	0.00
11,950.00	34.15	179.63	11,883.67	-157.84	945.04	270.89	10.00	10.00	0.00
12,000.00	39.15	179.63	11,923.77	-187.67	945.24	300.53	10.00	10.00	0.00
12,050.00	44.15	179.63	11,961.12	-220.89	945.45	333.53	10.00	10.00	0.00
12,100.00	49.15	179.63	11,995.43	-257.24	945.68	369.63	10.00	10.00	0.00
12,150.00	54.15	179.63	12,026.45	-296.43	945.94	408.57	10.00	10.00	0.00
12,200.00	59.15	179.63	12,053.93	-338.19	946.21	450.05	10.00	10.00	0.00
12,250.00	64.15	179.63	12,077.66	-382.17	946.49	493.75	10.00	10.00	0.00
12,300.00	69.15	179.63	12,097.47	-428.06	946.79	539.34	10.00	10.00	0.00
12,350.00	74.15	179.63	12,113.21	-475.50	947.09	586.47	10.00	10.00	0.00
12,400.00	79.15	179.63	12,124.75	-524.14	947.40	634.78	10.00	10.00	0.00
12,450.00	84.15	179.63	12,132.01	-573.59	947.72	683.91	10.00	10.00	0.00
12,500.00	89.15	179.63	12,134.93	-623.49	948.05	733.48	10.00	10.00	0.00
12,508.51	90.00	179.63	12,135.00	-632.00	948.10	741.94	10.00	10.00	0.00
12,600.00	90.00	179.63	12,135.00	-723.48	948.69	832.83	0.00	0.00	0.00
12,700.00	90.00	179.63	12,135.00	-823.48	949.33	932.17	0.00	0.00	0.00
12,800.00	90.00	179.63	12,135.00	-923.48	949.98	1,031.51	0.00	0.00	0.00
12,900.00	90.00	179.63	12,135.00	-1,023.48	950.62	1,130.86	0.00	0.00	0.00
13,000.00	90.00	179.63	12,135.00	-1,123.48	951.27	1,230.20	0.00	0.00	0.00
13,100.00	90.00	179.63	12,135.00	-1,223.47	951.91	1,329.54	0.00	0.00	0.00
13,200.00	90.00	179.63	12,135.00	-1,323.47	952.56	1,428.89	0.00	0.00	0.00
13,300.00	90.00	179.63	12,135.00	-1,423.47	953.20	1,528.23	0.00	0.00	0.00
13,400.00	90.00	179.63	12,135.00	-1,523.47	953.85	1,627.57	0.00	0.00	0.00
13,500.00	90.00	179.63	12,135.00	-1,623.46	954.49	1,726.91	0.00	0.00	0.00
13,600.00	90.00	179.63	12,135.00	-1,723.46	955.13	1,826.26	0.00	0.00	0.00
13,700.00	90.00	179.63	12,135.00	-1,823.46	955.78	1,925.60	0.00	0.00	0.00
13,800.00	90.00	179.63	12,135.00	-1,923.46	956.42	2,024.94	0.00	0.00	0.00
13,900.00	90.00	179.63	12,135.00	-2,023.46	957.07	2,124.29	0.00	0.00	0.00
14,000.00	90.00	179.63	12,135.00	-2,123.45	957.71	2,223.63	0.00	0.00	0.00
14,100.00	90.00	179.63	12,135.00	-2,223.45	958.36	2,322.97	0.00	0.00	0.00
14,200.00	90.00	179.63	12,135.00	-2,323.45	959.00	2,422.31	0.00	0.00	0.00
14,300.00	90.00	179.63	12,135.00	-2,423.45	959.65	2,521.66	0.00	0.00	0.00
14,400.00	90.00	179.63	12,135.00	-2,523.45	960.29	2,621.00	0.00	0.00	0.00
14,500.00	90.00	179.63	12,135.00	-2,623.44	960.94	2,720.34	0.00	0.00	0.00
14,600.00	90.00	179.63	12,135.00	-2,723.44	961.58	2,819.69	0.00	0.00	0.00
14,700.00	90.00	179.63	12,135.00	-2,823.44	962.22	2,919.03	0.00	0.00	0.00
14,800.00	90.00	179.63	12,135.00	-2,923.44	962.87	3,018.37	0.00	0.00	0.00
14,900.00	90.00	179.63	12,135.00	-3,023.44	963.51	3,117.72	0.00	0.00	0.00

Database:	VON_EDM	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 402H - Slot 402H
Company:	KAISER-FRANCIS OIL COMPANY	**TVD Reference:**	3632+23 @ 3655.00ft (Planning)
Project:	Lea County, NM (NAD27) NMEZ	**MD Reference:**	3632+23 @ 3655.00ft (Planning)
Site:	Bell Lake Unit South	**North Reference:**	Grid
Well:	Bell Lake Unit South 402H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
15,000.00	90.00	179.63	12,135.00	-3,123.43	964.16	3,217.06	0.00	0.00	0.00
15,100.00	90.00	179.63	12,135.00	-3,223.43	964.80	3,316.40	0.00	0.00	0.00
15,200.00	90.00	179.63	12,135.00	-3,323.43	965.45	3,415.74	0.00	0.00	0.00
15,300.00	90.00	179.63	12,135.00	-3,423.43	966.09	3,515.09	0.00	0.00	0.00
15,400.00	90.00	179.63	12,135.00	-3,523.43	966.74	3,614.43	0.00	0.00	0.00
15,500.00	90.00	179.63	12,135.00	-3,623.42	967.38	3,713.77	0.00	0.00	0.00
15,600.00	90.00	179.63	12,135.00	-3,723.42	968.02	3,813.12	0.00	0.00	0.00
15,700.00	90.00	179.63	12,135.00	-3,823.42	968.67	3,912.46	0.00	0.00	0.00
15,800.00	90.00	179.63	12,135.00	-3,923.42	969.31	4,011.80	0.00	0.00	0.00
15,900.00	90.00	179.63	12,135.00	-4,023.42	969.96	4,111.14	0.00	0.00	0.00
16,000.00	90.00	179.63	12,135.00	-4,123.41	970.60	4,210.49	0.00	0.00	0.00
16,100.00	90.00	179.63	12,135.00	-4,223.41	971.25	4,309.83	0.00	0.00	0.00
16,200.00	90.00	179.63	12,135.00	-4,323.41	971.89	4,409.17	0.00	0.00	0.00
16,300.00	90.00	179.63	12,135.00	-4,423.41	972.54	4,508.52	0.00	0.00	0.00
16,400.00	90.00	179.63	12,135.00	-4,523.40	973.18	4,607.86	0.00	0.00	0.00
16,500.00	90.00	179.63	12,135.00	-4,623.40	973.83	4,707.20	0.00	0.00	0.00
16,600.00	90.00	179.63	12,135.00	-4,723.40	974.47	4,806.55	0.00	0.00	0.00
16,700.00	90.00	179.63	12,135.00	-4,823.40	975.11	4,905.89	0.00	0.00	0.00
16,800.00	90.00	179.63	12,135.00	-4,923.40	975.76	5,005.23	0.00	0.00	0.00
16,900.00	90.00	179.63	12,135.00	-5,023.39	976.40	5,104.57	0.00	0.00	0.00
17,000.00	90.00	179.63	12,135.00	-5,123.39	977.05	5,203.92	0.00	0.00	0.00
17,100.00	90.00	179.63	12,135.00	-5,223.39	977.69	5,303.26	0.00	0.00	0.00
17,200.00	90.00	179.63	12,135.00	-5,323.39	978.34	5,402.60	0.00	0.00	0.00
17,300.00	90.00	179.63	12,135.00	-5,423.39	978.98	5,501.95	0.00	0.00	0.00
17,400.00	90.00	179.63	12,135.00	-5,523.38	979.63	5,601.29	0.00	0.00	0.00
17,500.00	90.00	179.63	12,135.00	-5,623.38	980.27	5,700.63	0.00	0.00	0.00
17,600.00	90.00	179.63	12,135.00	-5,723.38	980.92	5,799.97	0.00	0.00	0.00
17,700.00	90.00	179.63	12,135.00	-5,823.38	981.56	5,899.32	0.00	0.00	0.00
17,800.00	90.00	179.63	12,135.00	-5,923.38	982.20	5,998.66	0.00	0.00	0.00
17,900.00	90.00	179.63	12,135.00	-6,023.37	982.85	6,098.00	0.00	0.00	0.00
18,000.00	90.00	179.63	12,135.00	-6,123.37	983.49	6,197.35	0.00	0.00	0.00
18,100.00	90.00	179.63	12,135.00	-6,223.37	984.14	6,296.69	0.00	0.00	0.00
18,200.00	90.00	179.63	12,135.00	-6,323.37	984.78	6,396.03	0.00	0.00	0.00
18,300.00	90.00	179.63	12,135.00	-6,423.37	985.43	6,495.38	0.00	0.00	0.00
18,400.00	90.00	179.63	12,135.00	-6,523.36	986.07	6,594.72	0.00	0.00	0.00
18,500.00	90.00	179.63	12,135.00	-6,623.36	986.72	6,694.06	0.00	0.00	0.00
18,600.00	90.00	179.63	12,135.00	-6,723.36	987.36	6,793.40	0.00	0.00	0.00
18,700.00	90.00	179.63	12,135.00	-6,823.36	988.00	6,892.75	0.00	0.00	0.00
18,800.00	90.00	179.63	12,135.00	-6,923.35	988.65	6,992.09	0.00	0.00	0.00
18,900.00	90.00	179.63	12,135.00	-7,023.35	989.29	7,091.43	0.00	0.00	0.00
19,000.00	90.00	179.63	12,135.00	-7,123.35	989.94	7,190.78	0.00	0.00	0.00
19,100.00	90.00	179.63	12,135.00	-7,223.35	990.58	7,290.12	0.00	0.00	0.00
19,200.00	90.00	179.63	12,135.00	-7,323.35	991.23	7,389.46	0.00	0.00	0.00
19,300.00	90.00	179.63	12,135.00	-7,423.34	991.87	7,488.80	0.00	0.00	0.00
19,400.00	90.00	179.63	12,135.00	-7,523.34	992.52	7,588.15	0.00	0.00	0.00
19,500.00	90.00	179.63	12,135.00	-7,623.34	993.16	7,687.49	0.00	0.00	0.00
19,600.00	90.00	179.63	12,135.00	-7,723.34	993.81	7,786.83	0.00	0.00	0.00
19,700.00	90.00	179.63	12,135.00	-7,823.34	994.45	7,886.18	0.00	0.00	0.00
19,800.00	90.00	179.63	12,135.00	-7,923.33	995.09	7,985.52	0.00	0.00	0.00
19,900.00	90.00	179.63	12,135.00	-8,023.33	995.74	8,084.86	0.00	0.00	0.00
20,000.00	90.00	179.63	12,135.00	-8,123.33	996.38	8,184.21	0.00	0.00	0.00
20,064.67	90.00	179.63	12,135.00	-8,188.00	996.80	8,248.45	0.00	0.00	0.00

Database:	VON_EDM	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 402H - Slot 402H
Company:	KAISER-FRANCIS OIL COMPANY	**TVD Reference:**	3632+23 @ 3655.00ft (Planning)
Project:	Lea County, NM (NAD27) NMEZ	**MD Reference:**	3632+23 @ 3655.00ft (Planning)
Site:	Bell Lake Unit South	**North Reference:**	Grid
Well:	Bell Lake Unit South 402H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #1		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Bell Lake 402H SL - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	454,919.60	747,377.20	32° 14' 53.357 N	103° 31' 59.456 W
Bell Lake 402H KOP - plan hits target center - Point	0.00	0.00	11,562.04	-59.05	944.41	454,860.55	748,321.60	32° 14' 52.703 N	103° 31' 48.465 W
Bell Lake 402H PBHL (3 - plan hits target center - Point	0.00	0.00	12,135.00	-8,188.00	996.80	446,731.60	748,374.00	32° 13' 32.260 N	103° 31' 48.563 W
Bell Lake 402H LP (260(- plan hits target center - Point	0.00	0.00	12,135.00	-632.00	948.10	454,287.60	748,325.30	32° 14' 47.033 N	103° 31' 48.472 W

Anticollision Report

Company:	KAISER-FRANCIS OIL COMPANY	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 402H - Slot 402H
Project:	Lea County, NM (NAD27) NMEZ	**TVD Reference:**	3632+23 @ 3655.00ft (Planning)
Reference Site:	Bell Lake Unit South	**MD Reference:**	3632+23 @ 3655.00ft (Planning)
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Bell Lake Unit South 402H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral	**Database:**	VON_EDM
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00ft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,000.00 ft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 10/23/17

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	20,064.67	Plan #1 (Lateral)	MWD	OWSG MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Bell Lake Unit South						
Bell Lake Unit South 401H - Lateral - Plan #1	1,304.94	1,304.93	19.85	10.94	2.229	CC
Bell Lake Unit South 401H - Lateral - Plan #1	1,400.00	1,400.09	20.21	10.64	2.111	ES, SF

Offset Design Bell Lake Unit South - Bell Lake Unit South 401H - Lateral - Plan #1 — Offset Site Error: 0.00 ft

Survey Program: 0-MWD — Offset Well Error: 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	179.42	-19.90	0.20	19.90				
100.00	100.00	100.00	100.00	0.14	0.14	179.42	-19.90	0.20	19.90	19.62	0.28	72.099	
200.00	200.00	200.00	200.00	0.50	0.50	179.42	-19.90	0.20	19.90	18.91	0.99	20.042	
300.00	300.00	300.00	300.00	0.85	0.85	179.42	-19.90	0.20	19.90	18.19	1.71	11.639	
400.00	400.00	400.00	400.00	1.21	1.21	179.42	-19.90	0.20	19.90	17.47	2.43	8.200	
500.00	500.00	500.00	500.00	1.57	1.57	179.42	-19.90	0.20	19.90	16.76	3.14	6.330	
600.00	600.00	600.00	600.00	1.93	1.93	179.42	-19.90	0.20	19.90	16.04	3.86	5.155	
700.00	700.00	700.00	700.00	2.29	2.29	179.42	-19.90	0.20	19.90	15.32	4.58	4.347	
800.00	800.00	800.00	800.00	2.65	2.65	179.42	-19.90	0.20	19.90	14.61	5.29	3.759	
900.00	900.00	900.00	900.00	3.01	3.01	179.42	-19.90	0.20	19.90	13.89	6.01	3.310	
1,000.00	1,000.00	1,000.00	1,000.00	3.36	3.36	179.42	-19.90	0.20	19.90	13.17	6.73	2.958	
1,100.00	1,100.00	1,100.00	1,100.00	3.72	3.72	179.42	-19.90	0.20	19.90	12.46	7.45	2.673	
1,200.00	1,200.00	1,200.00	1,200.00	4.08	4.08	179.42	-19.90	0.20	19.90	11.74	8.16	2.438	
1,300.00	1,299.99	1,300.01	1,299.99	4.43	4.44	89.62	-19.90	0.20	19.85	10.98	8.87	2.238	
1,304.94	1,304.93	1,304.93	1,304.93	4.45	4.46	90.00	-19.90	0.20	19.85	10.94	8.90	2.229	CC
1,400.00	1,399.91	1,400.09	1,399.91	4.77	4.80	100.80	-19.90	0.20	20.21	10.64	9.57	2.111	ES, SF
1,500.00	1,499.69	1,500.31	1,499.69	5.12	5.16	117.43	-19.90	0.20	22.38	12.10	10.28	2.177	
1,600.00	1,599.27	1,600.73	1,599.27	5.47	5.52	134.25	-19.90	0.20	27.78	16.79	10.99	2.528	
1,700.00	1,698.78	1,701.22	1,698.78	5.83	5.88	145.81	-19.90	0.20	35.44	23.74	11.70	3.030	
1,800.00	1,798.29	1,801.71	1,798.29	6.20	6.24	153.08	-19.90	0.20	44.02	31.61	12.41	3.548	
1,900.00	1,897.79	1,902.21	1,897.79	6.56	6.60	157.94	-19.90	0.20	53.07	39.96	13.12	4.046	
2,000.00	1,997.30	2,002.70	1,997.30	6.93	6.96	161.36	-19.90	0.20	62.39	48.57	13.83	4.512	
2,100.00	2,096.80	2,103.20	2,096.80	7.30	7.32	163.89	-19.90	0.20	71.88	57.34	14.54	4.943	
2,200.00	2,196.31	2,203.69	2,196.31	7.68	7.68	165.83	-19.90	0.20	81.47	66.21	15.26	5.340	
2,300.00	2,295.81	2,304.19	2,295.81	8.05	8.04	167.36	-19.90	0.20	91.13	75.16	15.97	5.706	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	KAISER-FRANCIS OIL COMPANY	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 402H - Slot 402H
Project:	Lea County, NM (NAD27) NMEZ	**TVD Reference:**	3632+23 @ 3655.00ft (Planning)
Reference Site:	Bell Lake Unit South	**MD Reference:**	3632+23 @ 3655.00ft (Planning)
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Bell Lake Unit South 402H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral	**Database:**	VON_EDM
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Bell Lake Unit South - Bell Lake Unit South 401H - Lateral - Plan #1 — **Offset Site Error:** 0.00 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
2,400.00	2,395.32	2,404.68	2,395.32	8.43	8.40	168.59	-19.90	0.20	100.85	84.16	16.69	6.044	
2,500.00	2,494.83	2,505.17	2,494.83	8.81	8.76	169.61	-19.90	0.20	110.60	93.20	17.40	6.356	
2,600.00	2,594.33	2,605.67	2,594.33	9.19	9.12	170.46	-19.90	0.20	120.38	102.26	18.12	6.644	
2,700.00	2,693.84	2,706.16	2,693.84	9.57	9.48	171.19	-19.90	0.20	130.19	111.35	18.84	6.912	
2,800.00	2,793.34	2,806.66	2,793.34	9.95	9.84	171.81	-19.90	0.20	140.01	120.46	19.55	7.160	
2,900.00	2,892.85	2,907.15	2,892.85	10.33	10.20	172.35	-19.90	0.20	149.85	129.57	20.27	7.392	
3,000.00	2,992.35	3,007.65	2,992.35	10.71	10.56	172.83	-19.90	0.20	159.69	138.70	20.99	7.608	
3,100.00	3,091.86	3,108.14	3,091.86	11.09	10.92	173.24	-19.90	0.20	169.55	147.84	21.71	7.810	
3,200.00	3,191.37	3,208.63	3,191.37	11.48	11.28	173.62	-19.90	0.20	179.42	156.99	22.43	7.999	
3,300.00	3,290.87	3,309.13	3,290.87	11.86	11.64	173.95	-19.90	0.20	189.29	166.14	23.15	8.177	
3,400.00	3,390.38	3,409.62	3,390.38	12.25	12.00	174.25	-19.90	0.20	199.17	175.30	23.87	8.344	
3,500.00	3,489.88	3,489.88	3,489.88	12.63	12.29	174.52	-19.90	0.20	209.05	184.54	24.52	8.527	
3,600.00	3,589.39	3,589.39	3,589.39	13.02	12.65	174.77	-19.90	0.20	218.94	193.71	25.23	8.677	
3,700.00	3,688.89	3,688.89	3,688.89	13.40	13.00	175.00	-19.90	0.20	228.83	202.88	25.95	8.818	
3,800.00	3,788.40	3,788.40	3,788.40	13.79	13.36	175.21	-19.90	0.20	238.73	212.06	26.67	8.952	
3,900.00	3,887.91	3,887.91	3,887.91	14.18	13.72	175.40	-19.90	0.20	248.62	221.24	27.39	9.079	
4,000.00	3,987.41	3,987.41	3,987.41	14.56	14.07	175.57	-19.90	0.20	258.52	230.42	28.10	9.199	
4,100.00	4,086.92	4,086.92	4,086.92	14.95	14.43	175.74	-19.90	0.20	268.42	239.60	28.82	9.314	
4,200.00	4,186.42	4,186.42	4,186.42	15.34	14.79	175.89	-19.90	0.20	278.33	248.79	29.54	9.422	
4,300.00	4,285.93	4,285.93	4,285.93	15.73	15.14	176.03	-19.90	0.20	288.23	257.98	30.26	9.526	
4,400.00	4,385.43	4,385.43	4,385.43	16.11	15.50	176.16	-19.90	0.20	298.14	267.17	30.98	9.625	
4,500.00	4,484.94	4,484.94	4,484.94	16.50	15.86	176.29	-19.90	0.20	308.05	276.36	31.69	9.720	
4,600.00	4,584.45	4,584.45	4,584.45	16.89	16.21	176.40	-19.90	0.20	317.96	285.55	32.41	9.810	
4,700.00	4,683.95	4,683.95	4,683.95	17.28	16.57	176.51	-19.90	0.20	327.87	294.74	33.13	9.896	
4,800.00	4,783.46	4,783.46	4,783.46	17.67	16.93	176.61	-19.90	0.20	337.79	303.94	33.85	9.979	
4,900.00	4,882.96	4,882.96	4,882.96	18.05	17.28	176.71	-19.90	0.20	347.70	313.13	34.57	10.058	
5,000.00	4,982.47	4,982.47	4,982.47	18.44	17.64	176.80	-19.90	0.20	357.61	322.33	35.29	10.135	
5,100.00	5,081.97	5,081.97	5,081.97	18.83	18.00	176.89	-19.90	0.20	367.53	331.52	36.01	10.208	
5,200.00	5,181.48	5,181.48	5,181.48	19.22	18.35	176.97	-19.90	0.20	377.45	340.72	36.72	10.278	
5,300.00	5,280.99	5,280.99	5,280.99	19.61	18.71	177.05	-19.90	0.20	387.36	349.92	37.44	10.345	
5,400.00	5,380.49	5,380.49	5,380.49	20.00	19.07	177.12	-19.90	0.20	397.28	359.12	38.16	10.410	
5,500.00	5,480.00	5,480.00	5,480.00	20.39	19.42	177.19	-19.90	0.20	407.20	368.32	38.88	10.473	
5,600.00	5,579.50	5,579.50	5,579.50	20.78	19.78	177.26	-19.90	0.20	417.12	377.52	39.60	10.533	
5,700.00	5,679.01	5,679.01	5,679.01	21.17	20.14	177.32	-19.90	0.20	427.04	386.72	40.32	10.591	
5,800.00	5,778.51	5,778.51	5,778.51	21.56	20.49	177.38	-19.90	0.20	436.96	395.92	41.04	10.647	
5,900.00	5,878.02	5,878.02	5,878.02	21.95	20.85	177.44	-19.90	0.20	446.88	405.12	41.76	10.701	
6,000.00	5,977.53	5,977.53	5,977.53	22.34	21.21	177.50	-19.90	0.20	456.80	414.32	42.48	10.754	
6,100.00	6,077.03	6,077.03	6,077.03	22.73	21.56	177.55	-19.90	0.20	466.72	423.52	43.20	10.804	
6,200.00	6,176.54	6,176.54	6,176.54	23.12	21.92	177.60	-19.90	0.20	476.64	432.72	43.92	10.853	
6,300.00	6,276.04	6,276.04	6,276.04	23.51	22.28	177.65	-19.90	0.20	486.56	441.92	44.64	10.900	
6,400.00	6,375.55	6,375.55	6,375.55	23.90	22.63	177.70	-19.90	0.20	496.48	451.13	45.36	10.946	
6,500.00	6,475.06	6,475.06	6,475.06	24.29	22.99	177.74	-19.90	0.20	506.41	460.33	46.08	10.990	
6,600.00	6,574.56	6,574.56	6,574.56	24.68	23.35	177.79	-19.90	0.20	516.33	469.53	46.80	11.033	
6,700.00	6,674.07	6,674.07	6,674.07	25.07	23.70	177.83	-19.90	0.20	526.25	478.74	47.52	11.075	
6,800.00	6,773.57	6,773.57	6,773.57	25.46	24.06	177.87	-19.90	0.20	536.18	487.94	48.24	11.116	
6,900.00	6,873.08	6,873.08	6,873.08	25.85	24.42	177.91	-19.90	0.20	546.10	497.14	48.96	11.155	
7,000.00	6,972.58	6,972.58	6,972.58	26.24	24.77	177.94	-19.90	0.20	556.02	506.35	49.68	11.193	
7,100.00	7,072.09	7,072.09	7,072.09	26.63	25.13	177.98	-19.90	0.20	565.95	515.55	50.40	11.230	
7,200.00	7,171.60	7,171.60	7,171.60	27.02	25.49	178.01	-19.90	0.20	575.87	524.76	51.12	11.266	
7,300.00	7,271.10	7,271.10	7,271.10	27.41	25.84	178.05	-19.90	0.20	585.80	533.96	51.84	11.301	
7,400.00	7,370.61	7,370.61	7,370.61	27.80	26.20	178.08	-19.90	0.20	595.72	543.17	52.56	11.335	
7,500.00	7,470.11	7,470.11	7,470.11	28.19	26.56	178.11	-19.90	0.20	605.65	552.37	53.28	11.368	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	KAISER-FRANCIS OIL COMPANY	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 402H - Slot 402H
Project:	Lea County, NM (NAD27) NMEZ	**TVD Reference:**	3632+23 @ 3655.00ft (Planning)
Reference Site:	Bell Lake Unit South	**MD Reference:**	3632+23 @ 3655.00ft (Planning)
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Bell Lake Unit South 402H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral	**Database:**	VON_EDM
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Bell Lake Unit South - Bell Lake Unit South 401H - Lateral - Plan #1 — **Offset Site Error:** 0.00 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7,600.00	7,569.62	7,569.62	7,569.62	28.58	26.91	178.14	-19.90	0.20	615.57	561.57	54.00	11.400	
7,700.00	7,669.12	7,669.12	7,669.12	28.97	27.27	178.17	-19.90	0.20	625.50	570.78	54.72	11.431	
7,800.00	7,768.63	7,768.63	7,768.63	29.36	27.63	178.20	-19.90	0.20	635.42	579.98	55.44	11.462	
7,900.00	7,868.14	7,868.14	7,868.14	29.75	27.98	178.23	-19.90	0.20	645.35	589.19	56.16	11.492	
8,000.00	7,967.64	7,967.64	7,967.64	30.14	28.34	178.26	-19.90	0.20	655.27	598.40	56.88	11.521	
8,100.00	8,067.15	8,067.15	8,067.15	30.53	28.70	178.28	-19.90	0.20	665.20	607.60	57.60	11.549	
8,200.00	8,166.65	8,166.65	8,166.65	30.92	29.05	178.31	-19.90	0.20	675.13	616.81	58.32	11.576	
8,300.00	8,266.16	8,266.16	8,266.16	31.31	29.41	178.33	-19.90	0.20	685.05	626.01	59.04	11.603	
8,400.00	8,365.66	8,365.66	8,365.66	31.70	29.77	178.36	-19.90	0.20	694.98	635.22	59.76	11.630	
8,500.00	8,465.17	8,465.17	8,465.17	32.09	30.12	178.38	-19.90	0.20	704.90	644.42	60.48	11.655	
8,600.00	8,564.68	8,564.68	8,564.68	32.49	30.48	178.40	-19.90	0.20	714.83	653.63	61.20	11.680	
8,700.00	8,664.18	8,664.18	8,664.18	32.88	30.84	178.42	-19.90	0.20	724.76	662.84	61.92	11.705	
8,800.00	8,763.69	8,763.69	8,763.69	33.27	31.19	178.44	-19.90	0.20	734.68	672.04	62.64	11.728	
8,900.00	8,863.19	8,863.19	8,863.19	33.66	31.55	178.46	-19.90	0.20	744.61	681.25	63.36	11.752	
9,000.00	8,962.70	8,962.70	8,962.70	34.05	31.91	178.49	-19.90	0.20	754.54	690.45	64.08	11.774	
9,100.00	9,062.20	9,062.20	9,062.20	34.44	32.26	178.50	-19.90	0.20	764.46	699.66	64.80	11.797	
9,200.00	9,161.71	9,161.71	9,161.71	34.83	32.62	178.52	-19.90	0.20	774.39	708.87	65.52	11.818	
9,300.00	9,261.22	9,261.22	9,261.22	35.22	32.98	178.54	-19.90	0.20	784.32	718.07	66.25	11.840	
9,400.00	9,360.72	9,360.72	9,360.72	35.61	33.34	178.56	-19.90	0.20	794.25	727.28	66.97	11.860	
9,500.00	9,460.23	9,460.23	9,460.23	36.00	33.69	178.58	-19.90	0.20	804.17	736.49	67.69	11.881	
9,600.00	9,559.73	9,559.73	9,559.73	36.39	34.05	178.60	-19.90	0.20	814.10	745.69	68.41	11.901	
9,700.00	9,659.24	9,659.24	9,659.24	36.78	34.41	178.61	-19.90	0.20	824.03	754.90	69.13	11.920	
9,800.00	9,758.74	9,758.74	9,758.74	37.18	34.76	178.63	-19.90	0.20	833.96	764.11	69.85	11.939	
9,900.00	9,858.25	9,858.25	9,858.25	37.57	35.12	178.65	-19.90	0.20	843.88	773.31	70.57	11.958	
10,000.00	9,957.76	9,957.76	9,957.76	37.96	35.48	178.66	-19.90	0.20	853.81	782.52	71.29	11.976	
10,100.00	10,057.26	10,057.26	10,057.26	38.35	35.83	178.68	-19.90	0.20	863.74	791.73	72.01	11.994	
10,200.00	10,156.77	10,156.77	10,156.77	38.74	36.19	178.69	-19.90	0.20	873.67	800.93	72.73	12.012	
10,300.00	10,256.27	10,256.27	10,256.27	39.13	36.55	178.71	-19.90	0.20	883.59	810.14	73.45	12.029	
10,400.00	10,355.78	10,355.78	10,355.78	39.52	36.90	178.72	-19.90	0.20	893.52	819.35	74.17	12.046	
10,500.00	10,455.28	10,455.28	10,455.28	39.91	37.26	178.73	-19.90	0.20	903.45	828.55	74.90	12.063	
10,600.00	10,554.79	10,554.79	10,554.79	40.30	37.62	178.75	-19.90	0.20	913.38	837.76	75.62	12.079	
10,700.00	10,654.30	10,654.30	10,654.30	40.70	37.97	178.76	-19.90	0.20	923.31	846.97	76.34	12.095	
10,800.00	10,753.86	10,753.86	10,753.86	41.08	38.33	178.78	-19.90	0.20	932.57	855.51	77.06	12.102	
10,900.00	10,853.63	10,853.63	10,853.63	41.46	38.69	178.79	-19.90	0.20	939.33	861.55	77.78	12.077	
11,000.00	10,953.54	10,953.54	10,953.54	41.81	39.04	178.79	-19.90	0.20	943.48	864.99	78.49	12.020	
11,100.00	11,053.53	11,053.53	11,053.53	42.15	39.40	178.80	-19.90	0.20	945.01	865.81	79.20	11.932	
11,200.00	11,153.53	11,153.53	11,153.53	42.47	39.76	-87.63	-19.90	0.20	945.02	865.13	79.89	11.829	
11,300.00	11,253.53	11,253.53	11,253.53	42.79	40.12	-87.63	-19.90	0.20	945.02	864.43	80.59	11.727	
11,400.00	11,353.53	11,353.53	11,353.53	43.12	40.48	-87.63	-19.90	0.20	945.02	863.74	81.28	11.626	
11,500.00	11,453.53	11,453.53	11,453.53	43.44	40.84	-87.63	-19.90	0.20	945.02	863.04	81.98	11.528	
11,600.00	11,553.53	11,553.53	11,553.53	43.76	41.20	-87.63	-19.90	0.20	945.02	862.34	82.68	11.430	
11,700.00	11,653.14	11,680.00	11,679.17	44.08	41.61	92.68	-31.94	1.36	944.08	860.62	83.46	11.311	
11,800.00	11,749.98	11,807.30	11,799.88	44.40	41.99	92.46	-71.36	5.15	940.98	856.79	84.19	11.177	
11,900.00	11,841.12	11,931.39	11,906.34	44.70	42.35	92.12	-134.35	11.22	935.93	851.05	84.88	11.026	
12,000.00	11,923.77	12,051.20	11,993.90	44.99	42.69	91.69	-215.43	19.03	929.28	843.70	85.58	10.859	
12,100.00	11,995.43	12,166.15	12,060.28	45.26	43.03	91.21	-308.61	28.00	921.41	835.10	86.31	10.676	
12,200.00	12,053.93	12,276.11	12,105.10	45.52	43.37	90.69	-408.38	37.61	912.74	825.68	87.06	10.484	
12,300.00	12,097.47	12,381.31	12,129.32	45.80	43.71	90.17	-510.12	47.40	903.68	815.86	87.82	10.290	
12,400.00	12,124.75	12,462.04	12,135.00	46.11	43.98	89.92	-590.22	55.12	894.79	806.37	88.42	10.119	
12,500.00	12,134.93	12,508.56	12,135.00	46.46	44.14	90.00	-636.66	57.69	890.45	801.67	88.79	10.029	
12,600.00	12,135.00	12,602.38	12,135.00	46.86	44.50	90.00	-730.47	58.44	890.28	800.74	89.53	9.943	
12,700.00	12,135.00	12,702.38	12,135.00	47.31	44.94	90.00	-830.47	59.23	890.14	799.69	90.44	9.842	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	KAISER-FRANCIS OIL COMPANY	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 402H - Slot 402H
Project:	Lea County, NM (NAD27) NMEZ	**TVD Reference:**	3632+23 @ 3655.00ft (Planning)
Reference Site:	Bell Lake Unit South	**MD Reference:**	3632+23 @ 3655.00ft (Planning)
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Bell Lake Unit South 402H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral	**Database:**	VON_EDM
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Bell Lake Unit South - Bell Lake Unit South 401H - Lateral - Plan #1 — **Offset Site Error:** 0.00 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
12,800.00	12,135.00	12,802.38	12,135.00	47.81	45.44	90.00	-930.46	60.01	890.00	798.54	91.46	9.731	
12,900.00	12,135.00	12,902.38	12,135.00	48.37	45.99	90.00	-1,030.46	60.79	889.86	797.27	92.59	9.611	
13,000.00	12,135.00	13,002.38	12,135.00	48.97	46.60	90.00	-1,130.46	61.58	889.72	795.90	93.81	9.484	
13,100.00	12,135.00	13,102.38	12,135.00	49.62	47.25	90.00	-1,230.45	62.36	889.58	794.43	95.14	9.350	
13,200.00	12,135.00	13,202.38	12,135.00	50.32	47.96	90.00	-1,330.45	63.15	889.44	792.87	96.56	9.211	
13,300.00	12,135.00	13,302.38	12,135.00	51.06	48.70	90.00	-1,430.45	63.93	889.29	791.22	98.08	9.067	
13,400.00	12,135.00	13,402.38	12,135.00	51.84	49.50	90.00	-1,530.44	64.72	889.15	789.48	99.68	8.920	
13,500.00	12,135.00	13,502.38	12,135.00	52.67	50.33	90.00	-1,630.44	65.50	889.01	787.66	101.36	8.771	
13,600.00	12,135.00	13,602.38	12,135.00	53.53	51.21	90.00	-1,730.44	66.29	888.87	785.76	103.12	8.620	
13,700.00	12,135.00	13,702.38	12,135.00	54.42	52.12	90.00	-1,830.43	67.07	888.73	783.78	104.95	8.468	
13,800.00	12,135.00	13,802.38	12,135.00	55.36	53.07	90.00	-1,930.43	67.86	888.59	781.73	106.86	8.315	
13,900.00	12,135.00	13,902.38	12,135.00	56.32	54.05	90.00	-2,030.43	68.64	888.45	779.62	108.83	8.163	
14,000.00	12,135.00	14,002.38	12,135.00	57.32	55.06	90.00	-2,130.43	69.43	888.31	777.44	110.87	8.012	
14,100.00	12,135.00	14,102.38	12,135.00	58.34	56.11	90.00	-2,230.42	70.21	888.17	775.21	112.97	7.862	
14,200.00	12,135.00	14,202.38	12,135.00	59.40	57.18	90.00	-2,330.42	71.00	888.03	772.91	115.12	7.714	
14,300.00	12,135.00	14,302.38	12,135.00	60.48	58.28	90.00	-2,430.42	71.78	887.89	770.56	117.33	7.568	
14,400.00	12,135.00	14,402.38	12,135.00	61.58	59.41	90.00	-2,530.41	72.57	887.75	768.16	119.59	7.423	
14,500.00	12,135.00	14,502.38	12,135.00	62.71	60.56	90.00	-2,630.41	73.35	887.61	765.72	121.89	7.282	
14,600.00	12,135.00	14,602.38	12,135.00	63.87	61.73	90.00	-2,730.41	74.14	887.47	763.23	124.24	7.143	
14,700.00	12,135.00	14,702.38	12,135.00	65.04	62.92	90.00	-2,830.40	74.92	887.33	760.69	126.64	7.007	
14,800.00	12,135.00	14,802.38	12,135.00	66.24	64.14	90.00	-2,930.40	75.70	887.19	758.12	129.07	6.874	
14,900.00	12,135.00	14,902.37	12,135.00	67.45	65.37	90.00	-3,030.40	76.49	887.05	755.51	131.54	6.743	
15,000.00	12,135.00	15,002.37	12,135.00	68.68	66.62	90.00	-3,130.39	77.27	886.91	752.86	134.05	6.616	
15,100.00	12,135.00	15,102.37	12,135.00	69.93	67.89	90.00	-3,230.39	78.06	886.77	750.18	136.60	6.492	
15,200.00	12,135.00	15,202.37	12,135.00	71.20	69.18	90.00	-3,330.39	78.84	886.63	747.46	139.17	6.371	
15,300.00	12,135.00	15,302.37	12,135.00	72.48	70.48	90.00	-3,430.38	79.63	886.49	744.72	141.77	6.253	
15,400.00	12,135.00	15,402.37	12,135.00	73.78	71.80	90.00	-3,530.38	80.41	886.35	741.94	144.41	6.138	
15,500.00	12,135.00	15,502.37	12,135.00	75.09	73.13	90.00	-3,630.38	81.20	886.21	739.14	147.07	6.026	
15,600.00	12,135.00	15,602.37	12,135.00	76.41	74.47	90.00	-3,730.37	81.98	886.07	736.32	149.75	5.917	
15,700.00	12,135.00	15,702.37	12,135.00	77.75	75.82	90.00	-3,830.37	82.77	885.93	733.47	152.46	5.811	
15,800.00	12,135.00	15,802.37	12,135.00	79.10	77.19	90.00	-3,930.37	83.55	885.79	730.59	155.20	5.707	
15,900.00	12,135.00	15,902.37	12,135.00	80.46	78.57	90.00	-4,030.36	84.34	885.65	727.70	157.95	5.607	
16,000.00	12,135.00	16,002.37	12,135.00	81.83	79.95	90.00	-4,130.36	85.12	885.51	724.78	160.73	5.509	
16,100.00	12,135.00	16,102.37	12,135.00	83.21	81.35	90.00	-4,230.36	85.91	885.37	721.84	163.53	5.414	
16,200.00	12,135.00	16,202.37	12,135.00	84.60	82.76	90.00	-4,330.36	86.69	885.23	718.89	166.34	5.322	
16,300.00	12,135.00	16,302.37	12,135.00	86.00	84.17	90.00	-4,430.35	87.48	885.09	715.92	169.17	5.232	
16,400.00	12,135.00	16,402.37	12,135.00	87.41	85.60	90.00	-4,530.35	88.26	884.95	712.93	172.02	5.144	
16,500.00	12,135.00	16,502.37	12,135.00	88.82	87.03	90.00	-4,630.35	89.04	884.81	709.92	174.89	5.059	
16,600.00	12,135.00	16,602.37	12,135.00	90.25	88.47	90.00	-4,730.34	89.83	884.67	706.90	177.77	4.977	
16,700.00	12,135.00	16,702.37	12,135.00	91.68	89.92	90.00	-4,830.34	90.61	884.53	703.86	180.66	4.896	
16,800.00	12,135.00	16,802.37	12,135.00	93.12	91.37	90.00	-4,930.34	91.40	884.39	700.81	183.57	4.818	
16,900.00	12,135.00	16,902.37	12,135.00	94.57	92.83	90.00	-5,030.33	92.18	884.25	697.75	186.50	4.741	
17,000.00	12,135.00	17,002.37	12,135.00	96.02	94.30	90.00	-5,130.33	92.97	884.11	694.68	189.43	4.667	
17,100.00	12,135.00	17,102.37	12,135.00	97.48	95.78	90.00	-5,230.33	93.75	883.97	691.59	192.38	4.595	
17,200.00	12,135.00	17,202.37	12,135.00	98.95	97.25	90.00	-5,330.32	94.54	883.83	688.49	195.34	4.525	
17,300.00	12,135.00	17,302.37	12,135.00	100.42	98.74	90.00	-5,430.32	95.32	883.69	685.38	198.31	4.456	
17,400.00	12,135.00	17,402.37	12,135.00	101.90	100.23	90.00	-5,530.32	96.11	883.55	682.26	201.29	4.389	
17,500.00	12,135.00	17,502.37	12,135.00	103.38	101.72	90.00	-5,630.31	96.89	883.41	679.13	204.28	4.325	
17,600.00	12,135.00	17,602.37	12,135.00	104.87	103.22	90.00	-5,730.31	97.68	883.27	675.99	207.28	4.261	
17,700.00	12,135.00	17,702.37	12,135.00	106.36	104.73	90.00	-5,830.31	98.46	883.13	672.84	210.29	4.200	
17,800.00	12,135.00	17,802.37	12,135.00	107.86	106.24	90.00	-5,930.30	99.25	882.99	669.68	213.30	4.140	
17,900.00	12,135.00	17,902.37	12,135.00	109.36	107.75	90.00	-6,030.30	100.03	882.85	666.52	216.33	4.081	

Company:	KAISER-FRANCIS OIL COMPANY	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 402H - Slot 402H
Project:	Lea County, NM (NAD27) NMEZ	**TVD Reference:**	3632+23 @ 3655.00ft (Planning)
Reference Site:	Bell Lake Unit South	**MD Reference:**	3632+23 @ 3655.00ft (Planning)
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Bell Lake Unit South 402H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral	**Database:**	VON_EDM
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Bell Lake Unit South - Bell Lake Unit South 401H - Lateral - Plan #1 — **Offset Site Error:** 0.00 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
18,000.00	12,135.00	18,002.37	12,135.00	110.86	109.27	90.00	-6,130.30	100.82	882.70	663.34	219.36	4.024	
18,100.00	12,135.00	18,102.37	12,135.00	112.37	110.79	90.00	-6,230.30	101.60	882.56	660.16	222.41	3.968	
18,200.00	12,135.00	18,202.37	12,135.00	113.89	112.32	90.00	-6,330.29	102.38	882.42	656.97	225.45	3.914	
18,300.00	12,135.00	18,302.37	12,135.00	115.41	113.84	90.00	-6,430.29	103.17	882.28	653.77	228.51	3.861	
18,400.00	12,135.00	18,402.37	12,135.00	116.93	115.38	90.00	-6,530.29	103.95	882.14	650.57	231.57	3.809	
18,500.00	12,135.00	18,502.37	12,135.00	118.45	116.91	90.00	-6,630.28	104.74	882.00	647.36	234.64	3.759	
18,600.00	12,135.00	18,602.37	12,135.00	119.98	118.45	90.00	-6,730.28	105.52	881.86	644.14	237.72	3.710	
18,700.00	12,135.00	18,702.37	12,135.00	121.51	119.99	90.00	-6,830.28	106.31	881.72	640.92	240.80	3.662	
18,800.00	12,135.00	18,802.37	12,135.00	123.05	121.54	90.00	-6,930.27	107.09	881.58	637.69	243.89	3.615	
18,900.00	12,135.00	18,902.37	12,135.00	124.58	123.08	90.00	-7,030.27	107.88	881.44	634.46	246.99	3.569	
19,000.00	12,135.00	19,002.37	12,135.00	126.13	124.63	90.00	-7,130.27	108.66	881.30	631.22	250.09	3.524	
19,100.00	12,135.00	19,102.37	12,135.00	127.67	126.19	90.00	-7,230.26	109.45	881.16	627.97	253.19	3.480	
19,200.00	12,135.00	19,202.37	12,135.00	129.22	127.74	90.00	-7,330.26	110.23	881.02	624.72	256.30	3.437	
19,300.00	12,135.00	19,302.37	12,135.00	130.76	129.30	90.00	-7,430.26	111.02	880.88	621.47	259.41	3.396	
19,400.00	12,135.00	19,402.37	12,135.00	132.32	130.86	90.00	-7,530.25	111.80	880.74	618.21	262.53	3.355	
19,500.00	12,135.00	19,502.37	12,135.00	133.87	132.42	90.00	-7,630.25	112.59	880.60	614.94	265.66	3.315	
19,600.00	12,135.00	19,602.37	12,135.00	135.43	133.99	90.00	-7,730.25	113.37	880.46	611.68	268.78	3.276	
19,700.00	12,135.00	19,702.37	12,135.00	136.98	135.55	90.00	-7,830.24	114.16	880.32	608.40	271.92	3.237	
19,800.00	12,135.00	19,802.37	12,135.00	138.54	137.12	90.00	-7,930.24	114.94	880.18	605.13	275.05	3.200	
19,900.00	12,135.00	19,902.37	12,135.00	140.11	138.69	90.00	-8,030.24	115.73	880.04	601.85	278.19	3.163	
20,000.00	12,135.00	20,002.37	12,135.00	141.67	140.26	90.00	-8,130.23	116.51	879.90	598.56	281.34	3.128	
20,064.67	12,135.00	20,067.04	12,135.00	142.69	141.28	90.00	-8,194.90	117.02	879.81	596.44	283.37	3.105	

Kaiser-Francis Oil Company
Bell Lake Unit South 402H
Flex Hose Data

GATES E & S NORTH AMERICA, INC.
7603 Prairie Oak Dr.
Houston, TX 77086

PHONE: 281-602-4119
FAX:
EMAIL: **Troy.Schmidt@gat**
WEB: **www.gates.com**

10K ASSEMBLY PRESSURE TEST CERTIFICATE

Customer :	A-7 AUSTIN INC DBA AUSTIN HOSE	Test Date:	10/3/2017
Customer Ref. :	4086301	Hose Serial No.:	H-100317-2
Invoice No. :	508588	Created By:	Irene Pizana

Product Description:	10K3.035.0CM4.1/16FLGE/E

End Fitting 1 :	4 -1/16 10K FLANGE - FIXED	End Fitting 2 :	4 -1/16 10K FLANGE - FLOATING
Gates Part No. :	68603010-9710398	Assembly Code :	L39789092117H-100317-2
Working Pressure :	10,000 PSI	Test Pressure :	15,000 PSI

Gates E & S North America, Inc. certifies that the following hose assembly has successfully passed all pressure testing requirements set forth in Section 9.7.7 and Table 10 of API 7K, Sixth Edition (December 2015).

Quality:	QUALITY	Produciton:	PRODUCTION
Date :	10/3/2017	Date :	10/3/2017
Signature :		Signature :	

Form PTC - 01 Rev.0 2

Gates E&S North America, Inc.
7603 Prairie Oak Dr.
Houston, TX. 77086
PHONE :
FAX:
Troy.Schmidt@gates.com

CERTIFICATE OF CONFORMANCE

This is to verify that all Parts and/or Materials included in this shipment have been manufactured and/or processed in Conformance with applicable drawings and specifications, and that Records of Required Tests are on file and subject to examination. The following items were assembled at **Gates E & S, North America Inc.**, facilities in Houston, TX, USA. This hose assembly was designed and manufactured to meet requirements of API Spec 7K.

CUSTOMER: A-7 AUSTIN INC DBA AUSTIN HOSE
CUSTOMERS P.O.#: 4086301
PART DESCRIPTION: 10K3.035.0CM4.1/16FLGE/E
SALES ORDER #: 508588
QUANTITY: 1
SERIAL #: H-100317-2

SIGNATURE: 

TITLE: QUALITY ASSURANCE

DATE: 10/3/2017

APD ID: 10400025660 **Submission Date:** 01/11/2018

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 402H

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:

Bell_Lake_Unit_South_402H_Existing_Roads_20180111124947.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT **Row(s) Exist?** NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Bell_Lake_Unit_South_402H_Access_Road_Map_20180111125027.pdf

New road type: RESOURCE

Length: 1138.6 Feet **Width (ft.):** 25

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

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 15

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

New road access plan or profile prepared? NO

New road access plan attachment:

Access road engineering design? NO

Access road engineering design attachment:

Access surfacing type: OTHER

Access topsoil source: BOTH

Access surfacing type description: Native caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description: Material will be obtained from BLM caliche pit in SWSW Section 22-T24S-R34E or NENE Section 20- T23S-R33E
Onsite topsoil removal process: The top 6 inches of topsoil is pushed off and stockpiled along the side of the location. An approximate 160' X 160' area is used within the proposed well site to remove caliche. Subsoil is removed and stockpiled within the pad site to build the location and road. Then subsoil is pushed back in the hole and caliche is spread accordingly across proposed access road.
Access other construction information:

Access miscellaneous information:

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

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: Proposed access road will be crowned and ditched and constructed of 6 inch rolled and compacted caliche. Water will be diverted where necessary to avoid ponding, maintain good drainage, and to be consistentwith local drainage patterns.
Road Drainage Control Structures (DCS) description: The ditches will be 3' wide with 3:1 slopes

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Additional Attachment(s):

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Bell_Lake_Unit_South_402H_1Mile_Radius_20180111125627.pdf

Existing Wells description:

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

Submit or defer a Proposed Production Facilities plan? DEFER

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

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: INTERMEDIATE/PRODUCTION CASING **Water source type:** OTHER

Describe type: BRINE WATER

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT

Source land ownership: PRIVATE

Water source transport method: TRUCKING

Source transportation land ownership: OTHER **Describe transportation land ownership:**

Water source volume (barrels): 20000 **Source volume (acre-feet):** 2.577862

Source volume (gal): 840000

Water source use type: OTHER, STIMULATION, SURFACE CASING **Water source type:** OTHER

Describe type: FRESH WATER

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT

Source land ownership: PRIVATE

Water source transport method: TRUCKING

Source transportation land ownership: OTHER **Describe transportation land ownership:**

Water source volume (barrels): 250000 **Source volume (acre-feet):** 32.223274

Source volume (gal): 10500000

Water source and transportation map:

Bell_Lake_Unit_South_402H_Water_Source_Map_20180111130210.pdf

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

New water well? NO

New Water Well Info

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

Well target aquifer:

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

Aquifer comments:

Aquifer documentation:

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

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

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

Drilling method: **Drill material:**

Grout material: **Grout depth:**

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

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

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

Safe containmant attachment:

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

Disposal location description: Cuttings will be hauled to R360's facility on US 62/180 at Halfway, NM

Waste type: SEWAGE

Waste content description: Human waste and grey water

Amount of waste: 1000 gallons

Waste disposal frequency : One Time Only

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

Safe containmant attachment:

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

Disposal location description: Trucked to an approved disposal facility

Waste type: 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

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

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

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

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

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

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

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

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

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

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

Bell_Lake_Unit_South_402H_Well_Site_Layout_20180111130552.pdf
Bell_Lake_Unit_South_402H_Drlg_Layout_20180111130601.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: 0

Recontouring attachment:

Bell_Lake_Unit_South_402H_IR_20180403091656.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.

Well pad proposed disturbance (acres): 5.97	**Well pad interim reclamation (acres):** 3.44	**Well pad long term disturbance (acres):** 2.53
Road proposed disturbance (acres): 0.65	**Road interim reclamation (acres):** 0.39	**Road long term disturbance (acres):** 0.26
Powerline proposed disturbance (acres): 0	**Powerline interim reclamation (acres):** 0	**Powerline long term disturbance (acres):** 0
Pipeline proposed disturbance (acres): 0	**Pipeline interim reclamation (acres):** 0	**Pipeline long term disturbance (acres):** 0
Other proposed disturbance (acres): 0	**Other interim reclamation (acres):** 0	**Other long term disturbance (acres):** 0
Total proposed disturbance: 6.62	**Total interim reclamation:** 3.83	**Total long term disturbance:** 2.79

Disturbance Comments: Plan to reclaim 150' on the north side and 100' on the west side of well pad.

Reconstruction method: The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is

steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.
Topsoil redistribution: Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations
Soil treatment: To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
Existing Vegetation at the well pad: The historic climax plant community is a grassland dominated by black grama, dropseeds, and blue stems with sand sage and shinnery oak distributed evenly throughout. Current landscape displays mesquite, shinnery oak, yucca, desert sage, fourwing saltbush, snakeweed, and bunch grasses
Existing Vegetation at the well pad attachment:

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

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline:

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances:

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed type: **Seed source:**

Seed name:

Source name: **Source address:**

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre: **Proposed seeding season:**

Seed Summary	
Seed Type	**Pounds/Acre**

Total 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? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

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

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

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

Pit closure description: N/A

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: 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

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

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

Fee Owner: Mark T. McCloy & Annette E McCloy **Fee Owner Address:** PO Box 795 Tatum, NM 88267

Phone: (432)940-4459 **Email:**

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: Surface Use and Compensation Agreement dated October 4, 2016 between Mark T McCloy and Annette E McCloy Revocable Living Trust and Kaiser-Francis Oil Company
Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: 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

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 402H

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

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

Section 12 - Other Information

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

ROW Type(s):

ROW Applications

SUPO Additional Information: SUP Attached

Use a previously conducted onsite? YES

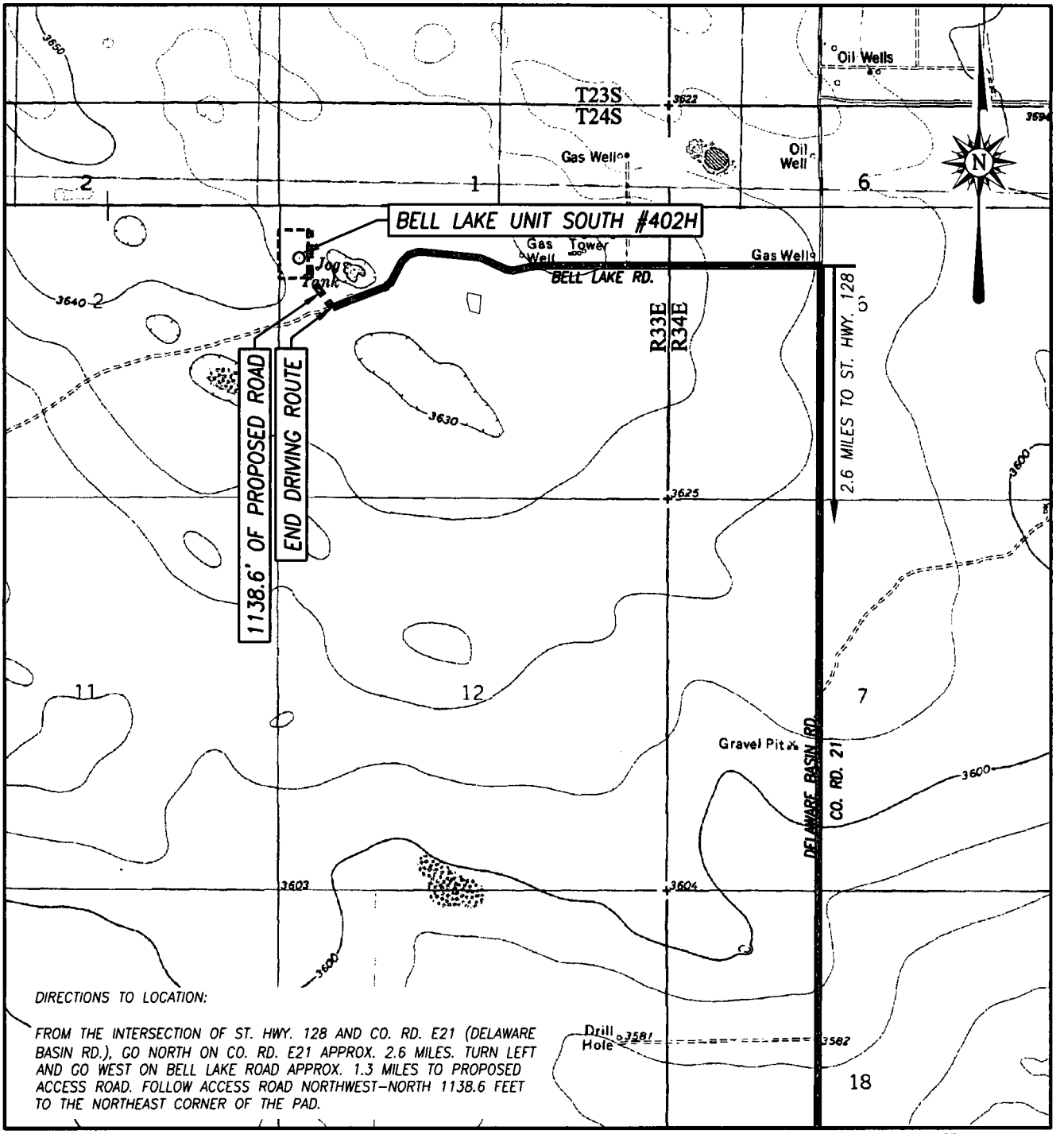
Previous Onsite information: Onsite held 7/20/17 with Fernando Banos (BLM), Matt Warner & Melanie Wilson (Kaiser-Francis), Jimmy Harrison (John West Surveying) and Jeff (APAC Archaeology)

Other SUPO Attachment

Bell_Lake_Unit_South_402H_SUP_20180111131857.pdf

Bell_Lake_Unit_South_402H_SPCC_Plan_20180111131905.pdf

TOPOGRAPHIC AND ACCESS ROAD MAP



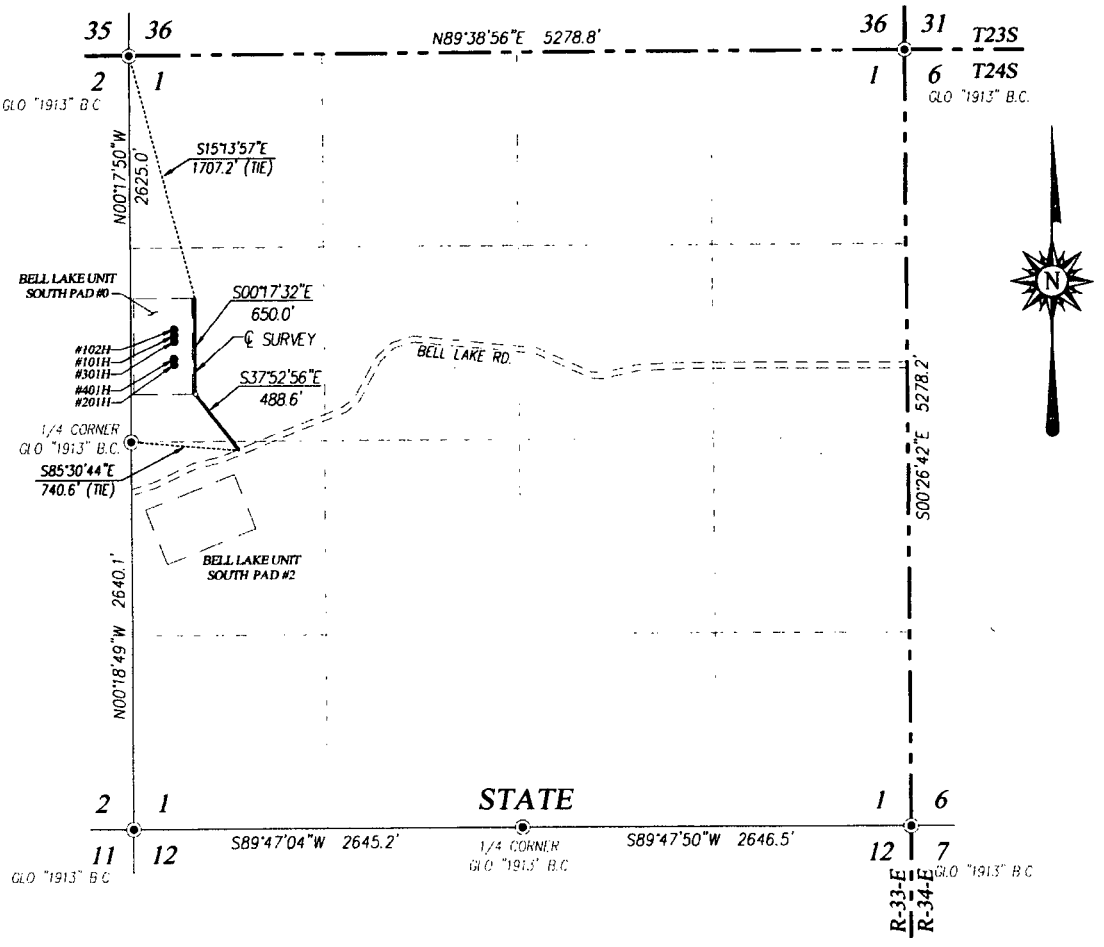
DIRECTIONS TO LOCATION:

FROM THE INTERSECTION OF ST. HWY. 128 AND CO. RD. E21 (DELAWARE BASIN RD.), GO NORTH ON CO. RD. E21 APPROX. 2.6 MILES. TURN LEFT AND GO WEST ON BELL LAKE ROAD APPROX. 1.3 MILES TO PROPOSED ACCESS ROAD. FOLLOW ACCESS ROAD NORTHWEST–NORTH 1138.6 FEET TO THE NORTHEAST CORNER OF THE PAD.

CONTOUR INTERVAL:
BELL LAKE, N.M. – 10'
WOODLEY FLAT, N.M. – 10'

SCALE: 1" = 2000'
SEC. 1 TWP. 24–S RGE. 33–E
SURVEY N.M.P.M.
COUNTY LEA STATE NEW MEXICO
DESCRIPTION 2030' FNL & 295' FWL
ELEVATION 3632'
OPERATOR KAISER–FRANCIS OIL COMPANY
LEASE BELL LAKE UNIT SOUTH
U.S.G.S. TOPOGRAPHIC MAP
BELL LAKE, N.M.

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



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 1, TOWNSHIP 24 SOUTH, RANGE 33 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO, AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT, WHICH LIES S15°13'57"E 1707.2 FEET FROM THE NORTHWEST CORNER; THEN S00°17'32"E 650.0 FEET; THEN S37°52'56"E 488.6 FEET TO A POINT, WHICH LIES S85°30'44"E 740.6 FEET FROM THE WEST QUARTER CORNER.

SAID STRIP OF LAND BEING 1138.6 FEET OR 69.01 RODS IN LENGTH, CONTAINING 0.784 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SW/4 NW/4 64.38 RODS OR 0.731 ACRES
NW/4 SW/4 4.63 RODS OR 0.053 ACRES

NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON Ronald J. Eidson

DATE: 08/16/2017

LEGEND

◉ DENOTES FOUND CORNER AS NOTED

1000 0 1000 2000 FEET

Scale: 1"=1000'

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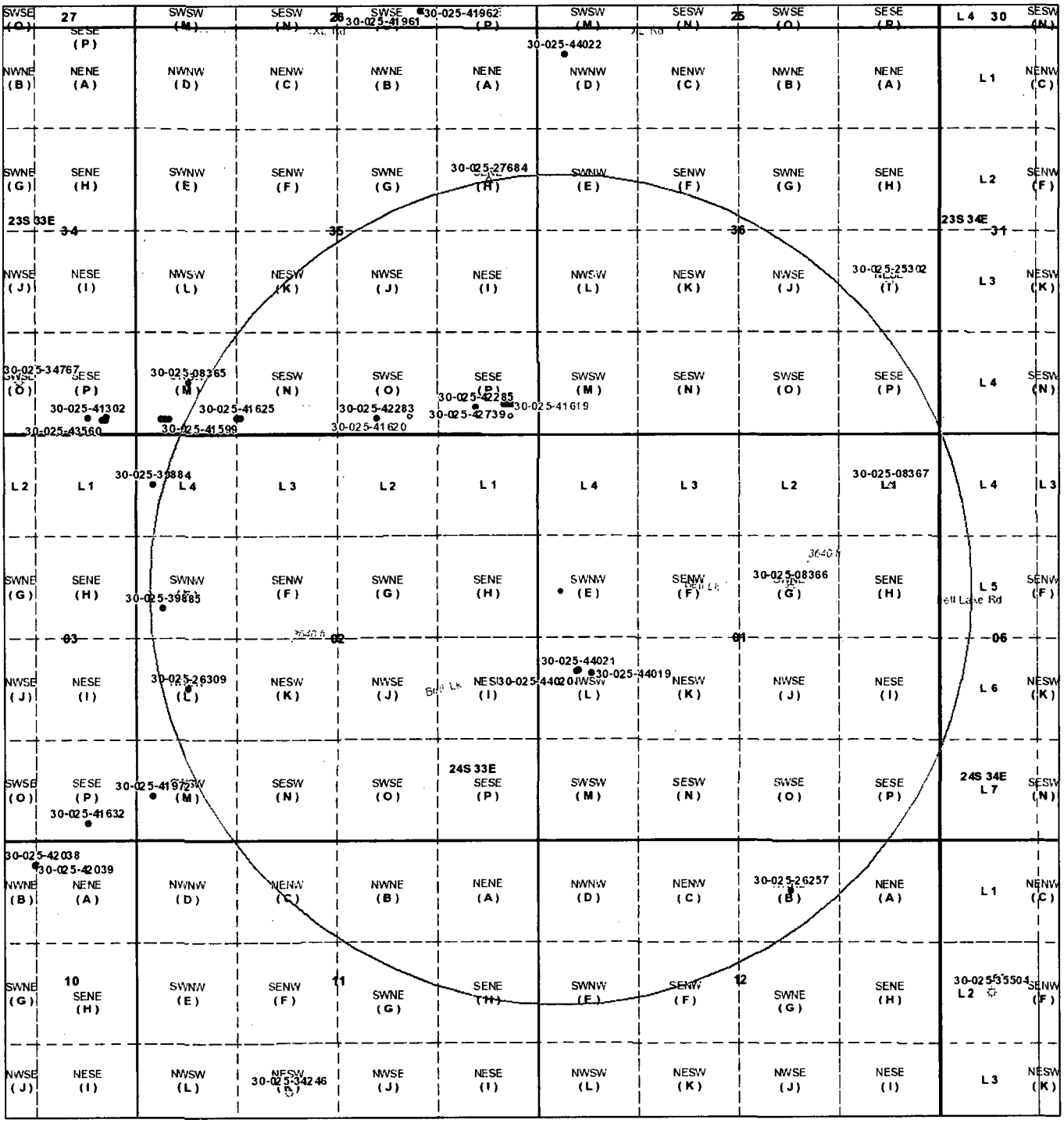
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

KAISER-FRANCIS OIL COMPANY

SURVEY FOR AN ACCESS ROAD TO THE BELL LAKE UNIT SOUTH #201H WELL PAD CROSSING SECTION 1, TOWNSHIP 24 SOUTH, RANGE 33 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Survey Date: 4/10/17	CAD Date: 8/15/17		Drawn By: ACK
W.O. No.: 17130816	Rev: .	Rel. W.O.: 17110296	Sheet 1 of 1

Bell Lake Unit South 402H One M Radius



1 / 11 / 2018 11 : 29 : 17 AM

1:18,056

0 0.175 0.35 0.7 mi

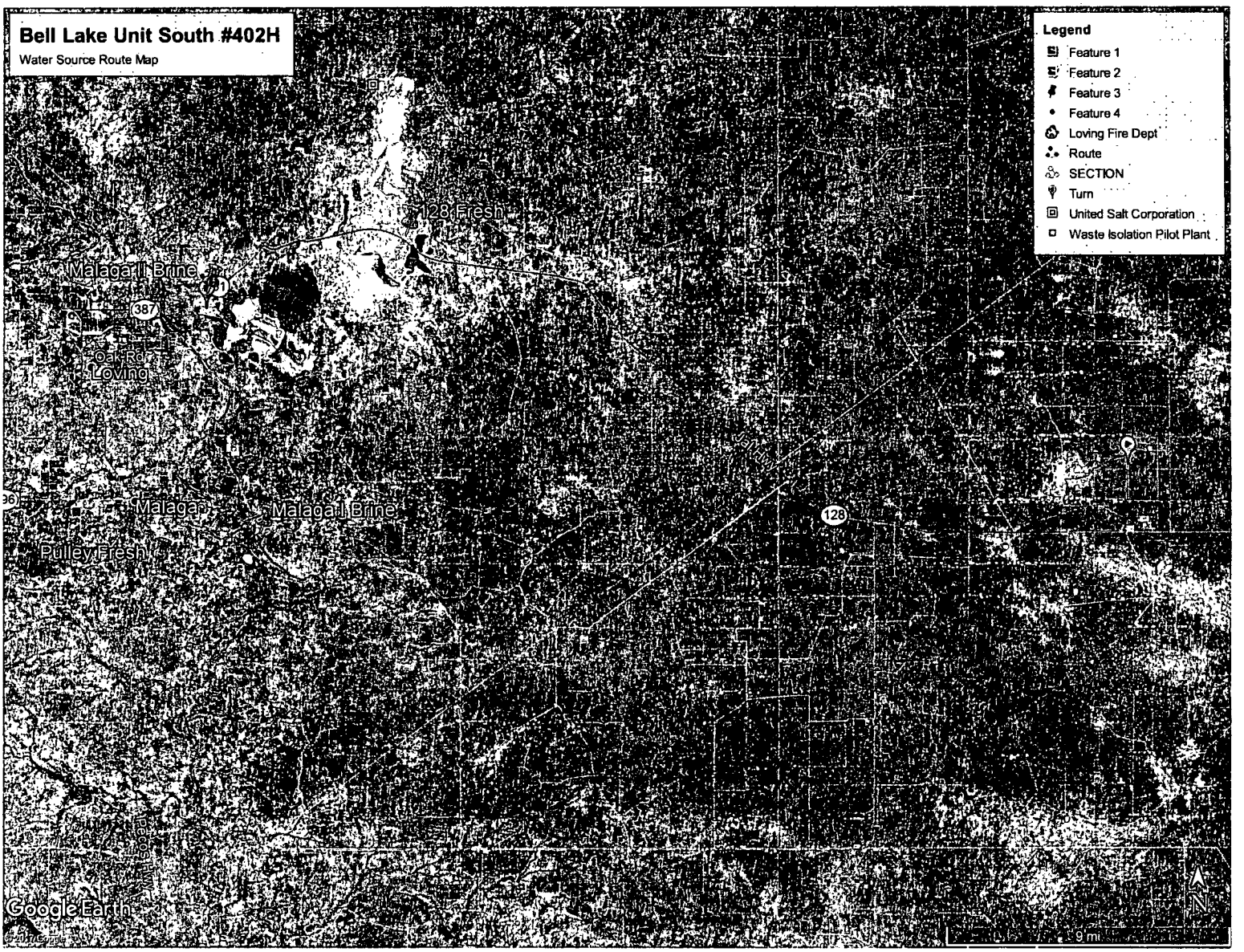
0 0.175 0.35 0.7 km

Areas

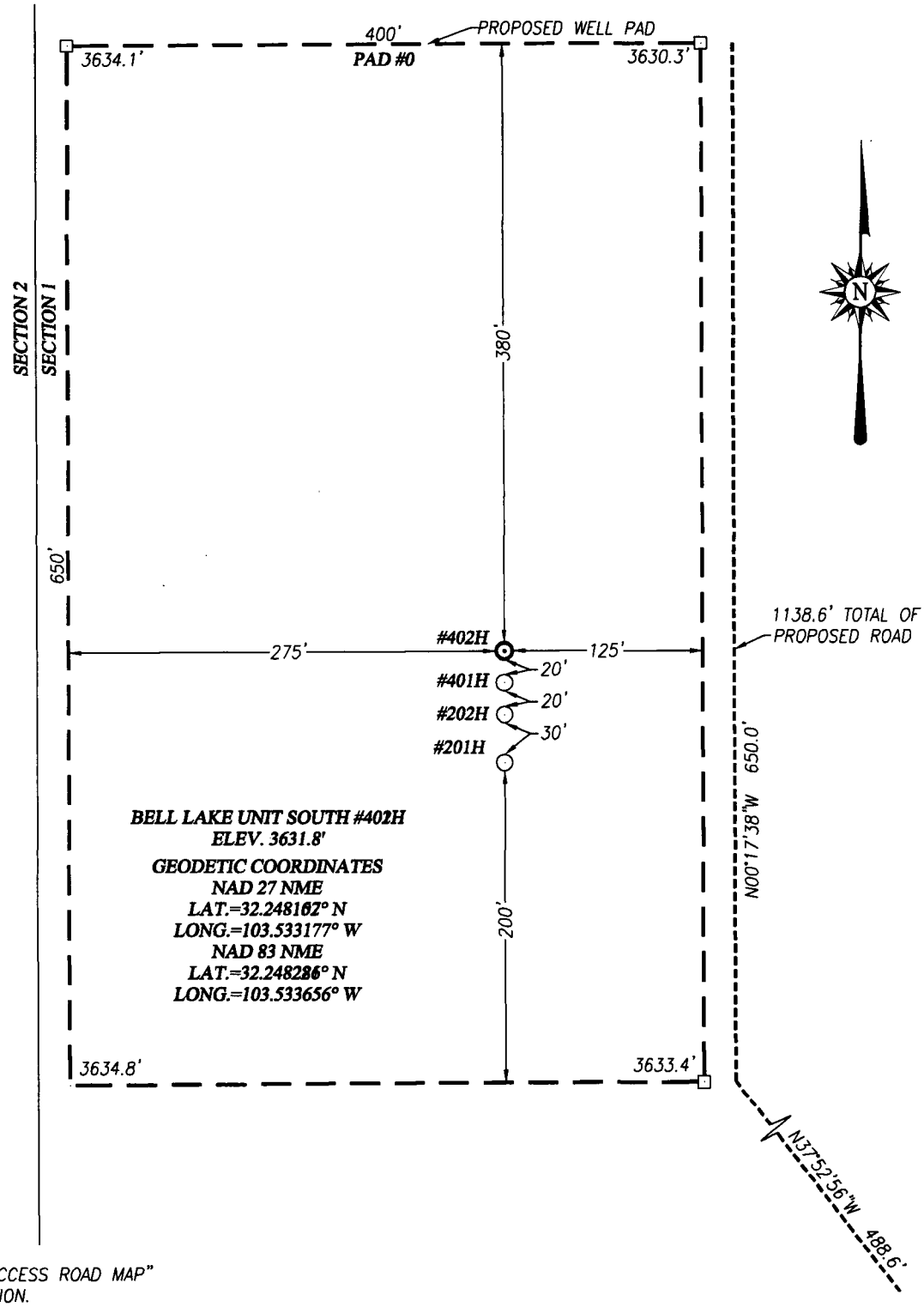
Override 1

Well Locations - Large Scale

- Miscellaneous
- CO2 Active
- CO2 Cancelled
- CO2 New
- CO2, Plugged
- CO2, Temporarily Abandoned
- Gas Active
- Gas, Cancelled, Never Drilled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged
- Oil, Temporarily Abondoned
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New
- Salt Water Injection, Plugged
- Salt Water Injection Temporarily Abandoned
- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged
- Water, Temporarily Abandoned
- OCD District Offices
- PLSS Townships
- PLSS Second Division
- PLSS First Division


Bell Lake Unit South #402H
Water Source Route Map
Legend
Feature 1
Feature 2
Feature 3
Feature 4
Loving Fire Dept
Route
SECTION
Turn
United Salt Corporation
Waste Isolation Pilot Plant
128 Fresh
Malaga Brine
387
Oak Rd
Loving
Malaga
Malaga Brine
Pulley Fresh
128
Google Earth
9 mi
N

WELL SITE PLAN



BELL LAKE UNIT SOUTH #402H
ELEV. 3631.8'

GEODETIC COORDINATES
NAD 27 NME
LAT.=32.248162° N
LONG.=103.533177° W
NAD 83 NME
LAT.=32.248286° N
LONG.=103.533656° W

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

DIRECTIONS TO LOCATION:

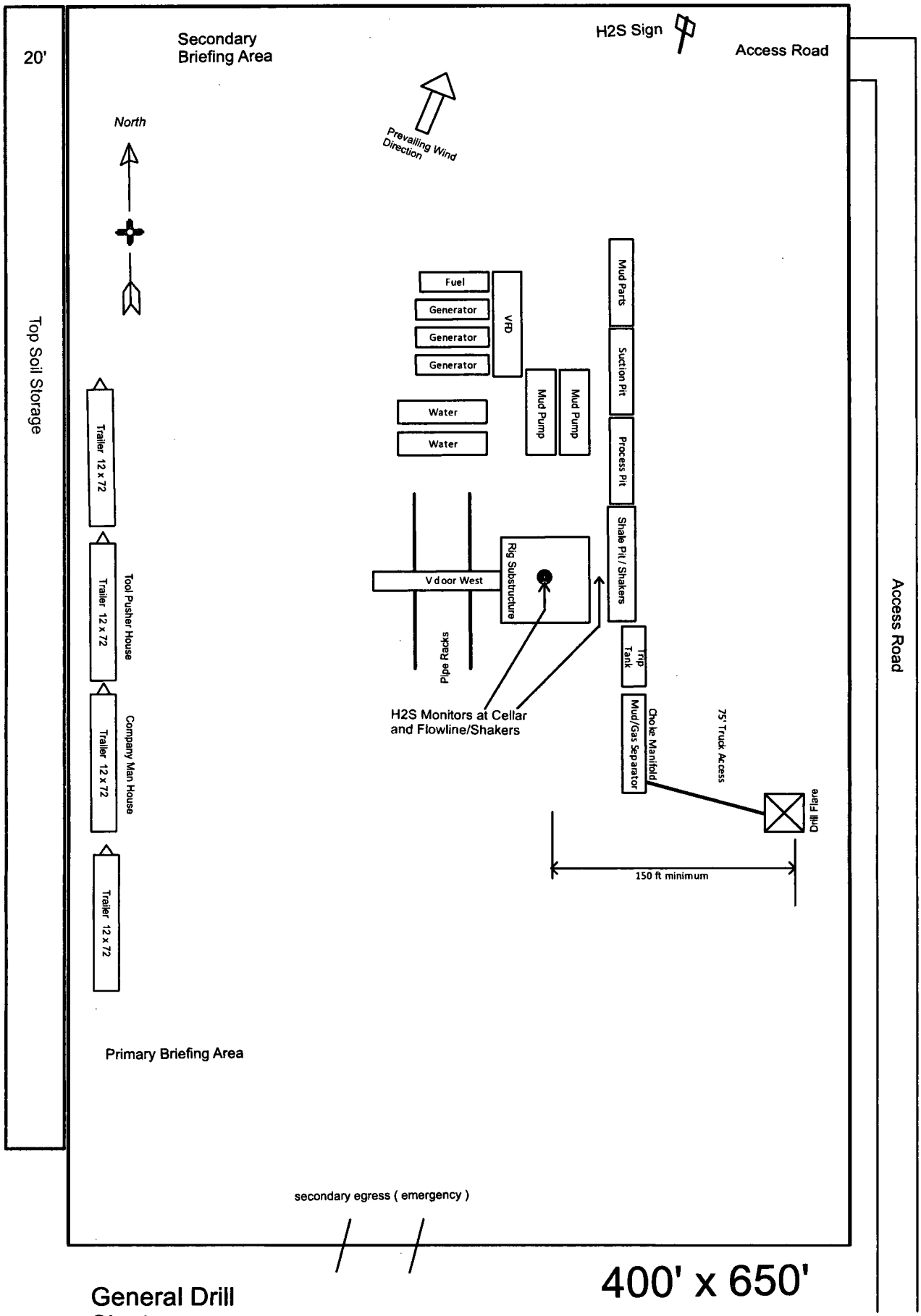
FROM THE INTERSECTION OF ST. HWY. 128 AND CO. RD. E21 (DELAWARE BASIN RD.), GO NORTH ON CO. RD. E21 APPROX. 2.6 MILES. TURN LEFT AND GO WEST ON BELL LAKE ROAD APPROX. 1.3 MILES TO PROPOSED ACCESS ROAD. FOLLOW ACCESS ROAD NORTHWEST-NORTH 1138.6 FEET TO THE NORTHEAST CORNER OF THE PAD.

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

KAISER-FRANCIS OIL COMPANY

BELL LAKE UNIT SOUTH #402H WELL LOCATED
2030 FEET FROM THE NORTH LINE AND 295 FEET FROM THE WEST LINE OF SECTION 1, TOWNSHIP 24 SOUTH, RANGE 33 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Survey Date: 10/03/17	CAD Date: 10/17/17	Drawn By: ACK
W.O. No.: 17110954	Rev: 11/14/17	Rel. W.O.:	Sheet 1 of 1

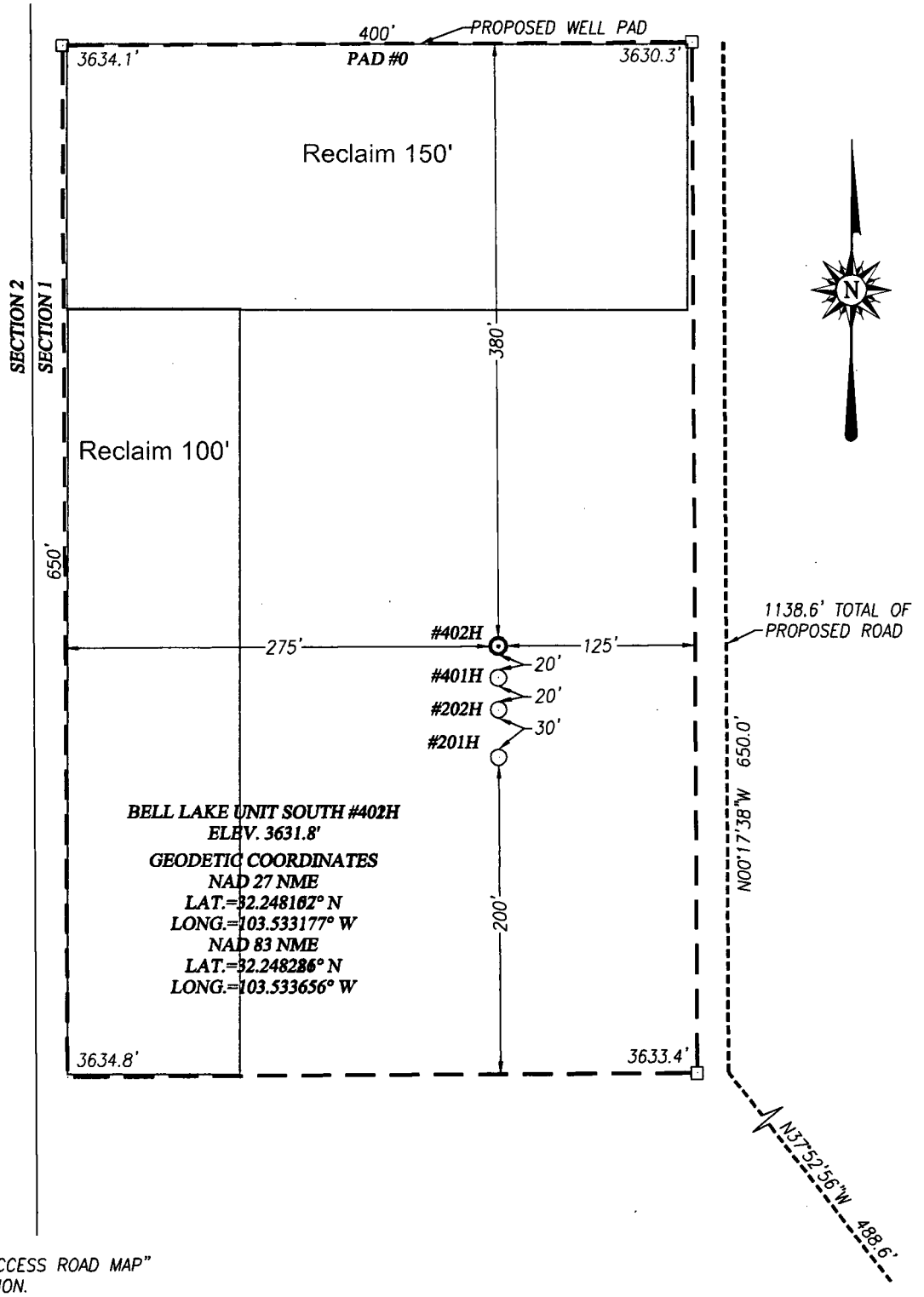


General Drill Site Layout

400' x 650'

Well: Bell Lake Unit South #402H

WELL SITE PLAN



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

100 0 100 200 Feet

Scale: 1"=100'

DIRECTIONS TO LOCATION:

FROM THE INTERSECTION OF ST. HWY. 128 AND CO. RD. E21 (DELAWARE BASIN RD.), GO NORTH ON CO. RD. E21 APPROX. 2.6 MILES. TURN LEFT AND GO WEST ON BELL LAKE ROAD APPROX. 1.3 MILES TO PROPOSED ACCESS ROAD. FOLLOW ACCESS ROAD NORTHWEST-NORTH 1138.6 FEET TO THE NORTHEAST CORNER OF THE PAD.

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TBPLS# 10021000

KAISER-FRANCIS OIL COMPANY

BELL LAKE UNIT SOUTH #402H WELL LOCATED 2030 FEET FROM THE NORTH LINE AND 295 FEET FROM THE WEST LINE OF SECTION 1, TOWNSHIP 24 SOUTH, RANGE 33 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Survey Date: 10/03/17	CAD Date: 10/17/17	Drawn By: ACK	
W.O. No.: 17110954	Rev: 11/14/17	Rel. W.O.:	Sheet 1 of 1

Surface Use & Operating Plan

Bell Lake Unit South #402H

- Surface Owner: State of New Mexico
- Grazing Tenant: Mark T. McCloy & Annette E McCloy
- New Road: 1138.6' of new road
- Facilities: Production facilities will be installed on well pad

- **Well Site Information**
  V Door: West
  Topsoil: East
  Interim Reclamation: Reclaim 150' on the north and 100' on the west sides of location.

Notes

Onsite: On-site was done by Fernando Banos (BLM); Matt Warner and Melanie Wilson (Kaiser-Francis), Jimmy Harrison (John West Surveying) and Jeff (APAC Archaeology) on July 20, 2017.

SURFACE USE AND OPERATING PLAN

1. Existing & Proposed Access Roads

A. The well site survey and elevation plat for the proposed well is attached with this application. It was staked by John West Surveying, Hobbs, NM.

B. All roads to the location are shown on the Road Map attachment. The existing lease roads are illustrated in red and are adequate for travel during drilling and disposal operations. Upgrading existing roads prior to drilling the well will be done where necessary. Proposed new access road is shown in red dashes on the Road Map attachment and is shown in detail on the Access Road Map attachment.

C. Directions to location: See Wellsite Layout attachment

D. Based on current road maintenance performed on other roads serving existing wells, we anticipate maintaining the lease roads leading to the proposed well pad at least once a year on dry conditions and twice a year in wetter conditions.

2. Proposed Access Road:

The Access Road Map shows that 1138.6' of new access road will be required for this location. The access road will be constructed as follows:

The maximum width of the running surface will be 15'. The road will be crowned, ditched and constructed of 6" rolled and compacted caliche. Ditches will be at 3:1 slope and 3' feet wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns.

A. The average grade will be less than 2%.

B. No turnouts are planned.

C. No cattleguard, culvert, gates, low water crossings or fence cuts are necessary.

D. Surfacing material will consist of native caliche. Caliche will be obtained from the actual well site if available. If not available onsite, caliche will be hauled from BLM caliche pit in SWSW Section 22-T24S-R34E or caliche pit in NENE Section 20-T23S-R33E.

3. Location of Existing Well:

The 1-Mile Radius attachment shows existing wells within a one-mile radius of the proposed wellbore.

4. Location of Existing and/or Proposed Facilities:

A. There are currently no production facilities at this well site.

B. Upon successfully completion of this well, we plan to install a production facility initially consisting of [redacted]

C. Any additional caliche will be obtained from the actual well site. If caliche does not exist or is not plentiful from the well site, the caliche will be hauled from the nearest BLM approved caliche pit in SWSW Section 22-T24S-R34E. Alternate source will be the BLM caliche pit in NENE Section 20-T23S-R33E. Any additional construction materials will be purchased from contractors.

[redacted]

E. If completion of the well is successful, rehabilitation plans will include the following:

- The original topsoil from the well site will be returned to the location, and the site will be re-contoured as close as possible to the original site.

5. Location and Type of Water Supply:

The well will be drilled with combination brine and fresh water mud system as outlined in the drilling program. The water will be obtained from a private source. Fresh water will come from Mesquite SWD, Inc.'s 128 Fresh water well in Section 31-T22S-R30E and the alternate source is Mesquite SWD, Inc.'s Pulley Fresh water well in Section 26-T24S-R28E. Brine water will come from Mesquite SWD, Inc.'s Malaga I Brine Station in Section 12-T23S-R28E and the alternate source is Mesquite SWD, Inc.'s Malaga II Brine Station in Section 20-T24S-R29E. No water well will be drilled on the location.

6. Source of Construction Materials and Location "Turn-Over" Procedure:

Obtaining caliche: One primary way of obtaining caliche to build locations and roads will be by "turning over" the location. This means, caliche will be obtained from the actual well site. Amount will vary for each pad. The procedure below has been approved by BLM personnel:

A. Equipment that is needed to construct the proposed location will be as follows: Two dozers to flip the site for caliche and to move topsoil, one blade to level the surface, one morograder to roll and compact this site, one backhoe to dig the cellar, one water truck to water location and dust abatement and two dump trucks to haul surface material. If

caliche is not available onsite and have to haul caliche from a private pit, in addition to equipment mentioned above we will have 10 belly dumps and one front end loader.

B. The time line to complete construction will be approximately 10 days.

C. The top 6 inches of topsoil is pushed off and stockpiled along the south side of the location. Maximum height of the topsoil stock pile will be 3'.

D. An approximate 160' X 160' area is used within the proposed well site to remove caliche.

E. Subsoil is removed and stockpiled within the surveyed well pad.

F. When caliche is found, material will be stock piled within the pad site to build the location and road.

G. Then subsoil is pushed back in the hole and caliche is spread accordingly across entire location and road.

H. There will be no interim reclamation. Once well is drilled, the stock piled top soil will be seeded in place.

I. Neither caliche, nor subsoil will be stock piled outside of the well pad. Topsoil will be stockpiled along the edge of the pad as depicted in the Well Site Layout or survey plat.

In the event that no caliche is found onsite, caliche will be hauled in from the BLM caliche pit in Section 22-T24S-R34E or the BLM caliche pit in Section 20-T23S-R33E.

7. Methods of Handling Water Disposal:

A. The well will be drilled utilizing a closed loop mud system. Drill cuttings will be held in roll-off style mud boxes and taken to R360's disposal site located at 4507 West Carlsbad Highway, Hobbs, NM 88240.

B. Drilling fluids will be contained in steel mud pits and taken to R360's disposal site located at 4507 West Carlsbad Highway, Hobbs, NM 88240.

C. Water produced from the well during completion will be held temporarily in steel tanks and then taken to an NMOCD approved commercial disposal facility. R360's disposal site located at 4507 West Carlsbad Highway, Hobbs, NM 88240.

[redacted]

E. Garbage and trash produced during drilling or completion operations will be collected in a trash bin and hauled to an approved landfill-Lea Landfill LLC. Located at Mile Marker

64, Highway 62-180 East, P O Box 3247, Carlsbad, NM 88221. No toxic waste or hazardous chemicals will be produced by this operation.

F. Human waste and grey water will need to be properly contained and disposed of. Proper disposal and elimination of waste and grey water may include but are not limited to portable septic systems and/or portable waste gathering systems (i.e. portable toilets).

G. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned up within 30 days. In the event of a dry hole only a dry hole marker will remain.

8. Ancillary Facilities:

No airstrip, campsite or other facilities will be built as a result of the operation on this well.

9. Well Site Layout:

A. The drill pad layout, with elevations staked by John West Surveying, is shown in the Wellsite Layout attachment. Dimensions of the pad and pits are shown on the Drilling Site Layout. V door direction is west. Topsoil, if available, will be stockpiled on the east side of location, per BLM specifications. No major cuts will be required. A berm will be constructed on the east side of the pad.

B. The Drilling Site Layout exhibit shows the proposed orientation of closed loop system and access road. No permanent living facilities are planned, but a temporary foreman/toolpusher's trailer will be on location during the drilling operations.

10. Plans for Restoration of the Surface:

A. Interim Reclamation will take place within six months after the well has been completed. The pad will be downsized by reclaiming the areas not needed for disposal operations. The portions of the pad that are not needed for disposal operations will be re-contoured to its original state as much as possible. The caliche that is removed will be reused to either build another pad site or for road repairs within the lease. The stockpiled topsoil will then be spread out reclaimed area and reseeded with a BLM approved seed mixture. In the event that the well must be worked over or maintained, it may be necessary to drive, park, and/or operate machinery on reclaimed land. This area will be repaired or reclaimed after work is complete.

B. Final Reclamation: Upon plugging and abandoning the well all caliche for well pad and lease road will be removed and surface will be recountoured to reflect its surroundings as much as possible within six months. Caliche will be recycled for road repair or reused for another well pad within the lease. If any topsoil remains, it will be spread out and the area

will be re-seeded with a BLM approved mixture and re-vegetated as per BLM orders. When required by BLM, the well pad site will be restored to match pre-construction grades.

11. Surface Ownership:

A. The surface is owned by the State of New Mexico, Commissioner of Public Lands. Grazing tenant is Mark T. McCloy and Annette E. McCloy, PO Box 795, Tatum, NM 88267. The surface is multiple uses with the primary uses of the region for grazing of livestock and the production of oil and gas.

B. The proposed road routes and surface location will be restored as directed by the BLM.

12. Other Information:

A. The area around the well site is grassland and the topsoil is sandy. The vegetation is moderately sparse with native prairie grasses, some mesquite. No wildlife was observed but it is likely that mule deer, rabbits, coyotes and rodents traverse the area.

B. There is no permanent or live water in the immediate area.

C. There are no dwellings within 2 miles of this location.

D. A Cultural Resources Examination is being prepared by [redacted] of, Carlsbad, New Mexico, phone # [redacted] and the results will be forwarded to your office in the near future.

13. Bond Coverage:

Bond Coverage is Statewide Bonds # WY000055.

15. Operator's Representative:

The Kaiser-Francis Oil Company representative responsible for assuring compliance with the surface use plan is as follows:

[redacted]

SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

Kaiser-Francis Oil Company
P.O. Box 21468
Tulsa, Oklahoma 74121-1468

South Bell Lake Pad 0 Production Facility

May 18, 2017

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*Only relevant rule provisions are indicated. For a complete list of SPCC requirements, refer to the full text of 40 CFR part 112.

Introduction

The purpose of this Spill Prevention Control and Countermeasure (SPCC) Plan is to describe measures implemented by Kaiser-Francis Oil Company "KFOC" to prevent oil discharges from occurring, and to prepare KFOC to respond in a safe, effective, and timely manner to mitigate the impacts of a discharge from the South Bell Lake Pad 0 production facility. This SPCC Plan has been prepared and implemented in accordance with the SPCC requirements contained in 40 CFR part 112.

In addition to fulfilling requirements of 40 CFR 112, this SPCC Plan is used as a reference for oil storage information and testing records, as a tool to communicate practices on preventing and responding to discharges with KFOC employees and contractors, as a guide on facility inspections, and as a resource during emergency response.

Management Approval

40 CFR 112.7

Kaiser-Francis Oil Company ("KFOC") is committed to maintaining the highest standards for preventing discharges of oil to navigable waters and the environment through the implementation of this SPCC Plan. This SPCC Plan has the full approval of KFOC management. KFOC's management has committed the necessary resources to implement the measures described in this Plan.

The Production Superintendent is the Designated Person Accountable for Oil Spill Prevention at this KFOC facility and has the authority to commit the necessary resources to implement the Plan as described.

Authorized Facility Representative: David Zerger

Signature: _____
Title: Operations Engineer

Date: _____

Professional Engineer Certification

40 CFR 112.3(d)

The undersigned Registered Professional Engineer is familiar with the requirements of Part 112 of Title 40 of the *Code of Federal Regulations* (40 CFR part 112) and has visited and examined the facility, or has supervised examination of the facility by appropriately qualified personnel. The undersigned Registered Professional Engineer attests that this Spill Prevention, Control and Countermeasure Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards and the requirements of 40 CFR part 112; that procedures for required inspections have been established; and that this Plan is adequate for the facility. [112.3(d)]

This certification in no way relieves the owner or operator of the facility of his/her duty to prepare and fully implement this SPCC Plan in accordance with the requirements of 40 CFR part 112.

_____
Signature

_____
Date

Charles W. Lock
Name of Professional Engineer

16241 - OK
Registration Number/Issuing State

Plan Review
40 CFR 112.5

In accordance with 40 CFR 112.5, Kaiser-Francis Oil Company periodically reviews and evaluates this SPCC Plan for any change in the facility design, construction, operation, or maintenance that materially affects the facility's potential for an oil discharge. KFOC reviews this SPCC Plan at least once every five years. Revisions to the Plan, if any are needed, are made within six months of this five-year review. KFOC will implement any amendment as soon as possible, but not later than six months following preparation of any amendment. A registered PE certifies any technical amendment to the Plan, as described above, in accordance with 40 CFR (112.3(3).

Table 0-1: Record of Plan Review and Changes

MANAGEMENT REVIEW

- Management will review this SPCC Plan at least each five (5) years and document the review on the form below.

Review/ Amend Date	Signature	Amend Plan (will/will not)	Description of Review Amendment	Affected Page(s)	P.E. Certification (Y/N)

Location of SPCC Plan
40 CFR 112.3(e)

In accordance with 40 CFR 112.3(e), and because the facility is normally unmanned, a complete copy of this SPCC Plan is maintained at the Corporate Office, which is located at 6733 S. Yale Avenue, Tulsa, OK.

Certification of Substantial Harm Determination

40 CFR 112.20(e), 40 CFR 112.20(f)(1)

Facility Name: **Kaiser-Francis Oil Company, South Bell Lake Pad 0**

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?
Yes ☐ No ■

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil tank plus sufficient freeboard to allow for precipitation within any aboveground storage tank area?
Yes ☐ No ■

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?
Yes ☐ No ■

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula) such that a discharge from the facility would shut down a public drinking water intake?
Yes ☐ No ■

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?
Yes ☐ No ■

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

_____	Safety and Environmental Coordinator
Signature	Title
Charles W. Lock	_____
Name (type or print)	Date

PART I – GENERAL FACILITY INFORMATION

40 CFR 112.7(a)(3)

1.1 Company Information

Name of Facility:	Kaiser-Francis Oil Company South Bell Lake Pad 0
Type	Onshore oil production facility
Location	1-24S-33E Lea County, NM
Name and Address of Owner	Kaiser-Francis Oil Company *Ardmore District Office* Box 197 (Dillard Route) Wilson, OK 73643 *Corporate Office* 6733 S. Yale Avenue Tulsa, OK 74133

1.2 Contact Information

The designated person accountable for overall oil spill prevention and response at the facility, also referred to as the "Response Coordinator" (RC), is the Production Superintendent, Bill Wilkinson. 24 hour contact information is provided in Table 1-1.

The pumper/gauger provides operation support activities for KFOC, including performing informal daily examinations of the facility equipment, as described in Section 3.4 of this SPCC Plan. The pumper regularly visits the facility to record production levels and perform other maintenance/inspection activities as requested by the Kaiser-Francis Operations Engineer. Pumper phone numbers are included in Table 1-1.

Table 1-1: Facility contact information

Name	Title	Telephone
Larry Moates	Pumper	432-238-6996
Jeff Pevehouse	secondary pumper	575-361-2965
Bill Wilkinson	Production Superintendent Kaiser-Francis Oil Company Ardmore District	580/668-2335 (office) 580/221-4637 (cell)
David Zerger	Operations Engineer Kaiser-Francis Oil Company Tulsa, OK	918/491-4350 (office)
Charles Lock	Safety & Environmental Kaiser-Francis Oil Company Tulsa, OK	918/491-4337 (office) 918/671-6510 (cell)

1.3 Facility Layout Diagram

Appendix A, at the end of this Plan, shows a general site plan for the facility. The site plan shows the site topography and the location of the facility relative to waterways, roads, and inhabited areas. Appendix A will also include a detailed facility diagram that shows the wells, tank battery, and transfer areas for the facility. The diagram will show the location, capacity, and contents of all oil storage containers greater than 55 gallons in capacity.

1.4 Facility Location and Operations

KFOC operates the South Bell Lake Pad 0 production facility; directions to the lease are as follows:

From the intersection of E21 (Delaware Basin) and ST highway 128 go North approx. 2.6 miles on Co Road E21 (Delaware Basin Road) Turn left onto Bell Lake Road and follow road West approx. 1.42 miles. At lease road turn to North and proceed 650 feet to Pad 0 location.

The production facility is generally unmanned. Field operations personnel from KFOC, or pumpers acting as contractors to KFOC visit the facility daily to record production rates and ensure the proper functioning of wellhead equipment and pumpjacks, storage tanks, flowlines, and separation vessels. This includes performing equipment inspection and maintenance as needed.

The produced water tank may contain an oil/produced water mixture making it subject to 40 CFR part 112 and is covered by this SPCC Plan.

1.5 Oil Storage and Handling

1.5.1 Production Equipment

All oil storage tanks are shop-built and meet the American Petroleum Institute (API) tank construction standard. Their design and construction are compatible with the oil they contain and the temperature and pressure conditions of storage.

Lubricating oil and other substances, such as solvents and chemicals for downhole treatment, are also sometimes stored at the facility, but in quantities below the 55-gallon threshold for SPCC applicability. Table 1-2 lists all oil containers present at the facility with capacity of 55 gallons or more.

Table 1-2: Characteristics of oil containers

ID	Construction	Primary Content	Capacity (barrels)	Capacity (gallons)
		TOTAL		

1.5.2 Transfer Activities

Wells produce crude oil, produced water (saltwater), and natural gas. Well liquids are then routed via steel flowlines to a separation vessel. Produced saltwater is routed from the separator to the saltwater storage tank. The crude oil is sent to the oil storage tanks.

Crude oil from the lease is purchased by a crude oil purchaser and transported from the facility by the purchaser's tanker truck. Tanker trucks come to the facility to transfer crude oil and produced water, but do not remain at the facility. Sorbent materials in conjunction with drip pans are used to contain spills. All transfer operations are attended by the trucker and meet the minimum requirements of the US Department of Transportation Hazardous Materials Regulations.

1.6 Conformance w/Applicable State and Local Requirements [112.7(j)]

The SPCC regulation of 40 CFR part 112 is more stringent than requirements from the state for this type of facility. This SPCC Plan was written to conform to 40 CFR part 112 requirements. The facility thereby conforms to general requirements for oil pollution facilities in the state. All discharge notifications are made in compliance with local, state, and federal requirements.

PART II. SPILL RESPONSE AND REPORTING
40 CFR 112.7

2.1 Discharge Discovery and Reporting [112.7(a)(3)]

Several individuals and organizations must be contacted in the event of an oil discharge. The Production Superintendent is responsible for ensuring that all required discharge notifications have been made. All discharges should be reported to the Production Superintendent. The summary table included in Appendix D to this SPCC Plan provides a list of agencies to be contacted under different circumstances. Discharges would typically be discovered during the inspections conducted at the facility in accordance with procedures set forth in Section 3.4.1 of this SPCC Plan, and on the checklist of Appendix B. The Form included in Appendix D of this Plan summarizes the information that must be provided when reporting a discharge, including contact lists and phone numbers.

2.1.1 Verbal Notification Requirements (Local, State, and Federal (40 CFR part 110))

For any discharge that reaches navigable waters, or threatens to reach navigable waters, *immediate* notification must be made to the National Response Center Hotline (800-424-8802) and to the Environmental Protection Agency.

In the event of a discharge that threatens to result in an emergency condition, facility field personnel must verbally notify the appropriate state agency immediately, and in no case later than *within one (1) hour* of the discovery of the discharge. An emergency condition is any condition that could reasonably be expected to endanger the health and safety of the public; cause significant adverse impact to the land, water, or air environment; or cause severe damage to property. This notification must be made regardless of the amount of the discharge.

In the event of a discharge that does not present an emergency situation, verbal notification must be made to the appropriate state agency *within twenty-four hours* of the discharge.

2.1.2 Written Notification Requirements (State and Federal (40 CFR part 112))

A written notification will be made to EPA for any single discharge of oil to a navigable water or adjoining shoreline waterway of more than 1,000 gallons, or for two discharges of 1 bbl (42 gallons) of oil to a waterway in any 12-month period. This written notification must be made within 60 days of the qualifying discharge, and a copy will be sent to the appropriate state agency in charge of oil production control activities. This reporting requirement is separate and in addition to reporting under 40 CFR part 110 discussed above.

2.1.3 Submission of SPCC Information

Whenever the facility experiences a discharge into navigable waters of more than 1,000 gallons, or two discharges of 42 gallons or more within a 12-month period, KFOC will provide information in writing to the EPA Region office within 60 days of a qualifying discharge as described above. The required information is described in Appendix D of this SPCC Plan.

2.2 Spill Mitigation Procedures [112.7(a)(5)]

The following is a summary of actions that must be taken in the event of a discharge. It summarizes the distribution of responsibilities among individuals and describes procedures to follow in the event of a discharge.

In the event of a discharge, KFOC or contract field personnel and the Production Superintendent shall be responsible for the following:

2.2.1 Shut off Ignition Sources

Field personnel must shut off all ignition sources, including motors, electrical circuits, and open flames. See Appendix E for more information about shut-off procedures.

2.2.2 Stop Oil Flow

Field personnel should determine the source of the discharge, and if safe to do so, immediately shut off the source of the discharge. Shut in the well(s) if necessary.

2.2.3 Stop Spread of Oil and Call the Production Superintendent

If safe to do so, field personnel must use resources available at the facility to stop the spilled material from spreading. Measures that may be implemented, depending on the location and size of the discharge, include placing sorbent material or other barriers in the path of the discharge (e.g., sand bags), or constructing earthen berms or trenches.

In the event of a significant discharge, field personnel must immediately contact the Production Superintendent, who may obtain assistance from authorized company contractors and direct the response and cleanup activities. Should a discharge reach navigable waters, only physical response and countermeasures should be employed, such as the construction of underflow dams, installation of hard boom and sorbent boom, use of sorbent pads, and use of vacuum trucks to recover oil and oily water from the water. If water flow is low, construction of any underflow dam downstream and ahead of the spill flow may be advantageous. Sorbent material and/or boom should be placed immediately downstream of the dam to recover any sheen from the water. If water flow is normal, floating booms and sorbent boom will be deployed. Vacuum trucks will then be utilized to remove oil and oily water at dams and other access points. At no time shall any surfactants, dispersants, or other chemicals be used to remove oil when the spill is in water.

2.2.4 Gather Spill Information

The Production Superintendent will ensure that the *Discharge Notification Form* is filled out and that notifications have been made to the appropriate authorities. The Production Superintendent may ask for assistance in gathering the spill information on the *Spill Report Form* (Appendix D) of this Plan.

2.2.5 Notify Agencies Verbally

Some notifications must be completed *immediately* upon discovering the discharge. It is important to immediately contact the Production Superintendent so that timely notifications can be made. If the Production Superintendent is not available, or the Production Superintendent requests it, field personnel must designate one person to begin notification. Section 2.1 of this Plan describes the required notifications to government agencies. The Notification List is included in Appendix D of this SPCC Plan. The Production Superintendent must also ensure that written notifications, if needed, are submitted to the appropriate agencies.

2.3 Disposal Plan

The cleanup contractor will handle the disposal of any recovered product, contaminated soil, contaminated materials and equipment, decontamination solutions, sorbents, and spent chemicals collected during a response to a discharge incident.

PART III. SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PROVISIONS

40 CFR 112.7 and 112.9

3.1 Potential Discharge Volume and Direction of Flow [112.7(b)] and Containment [112.7(a)(3)(iii)]

- The potential spills sources at the Facility are summarized in the following table:

Container ID	Substance Stored *(Oil)*	Shell Capacity *(Bbls)*	Potential Failure	Rate of Flow *(Bbls/hr)*	Direction of Flow	Containment System(s)
Bulk Storage Containers						
Operational Equipment						
Truck or Rail Loading/Unloading Rack						
Other Potential Spill Sources						

- The material and construction of bulk storage containers are compatible with the material stored and conditions of storage such as pressure and temperature.
- All bulk storage container installations, if required, are constructed so that a means of secondary containment is provided for the entire capacity of the largest single container plus sufficient freeboard to contain precipitation.
- Diked areas are sufficiently impervious to contain discharged oil.

3.2 Containment and Diversionary Structures [112.7(c)]

The facility is configured to minimize the likelihood of a discharge reaching navigable waters. The following measures are provided:

- Secondary containment for the oil storage tanks, saltwater tank (which may have small amounts of oil), is provided by an earthen berm or metal containment ring, as described in Section 3.2.2 below. The earthen berm is constructed of native soils and then covered with gravel.

3.2.1 Oil Production Facility Drainage [112.9(b)]

Facility drainage areas in the production/separation area, but outside containment berms, are visually examined by facility personnel on a daily basis during routine facility rounds to detect any discoloration or staining that would indicate the presence of oil from small leaks within the facility. Any accumulation of oil is promptly removed and disposed off site.

3.2.2 Secondary Containment for Bulk Storage Containers [112.9(c)(2)]

In order to further minimize the potential for a discharge to navigable waters, bulk storage containers such as all tank battery, separation, and treating equipment are placed inside a berm (fire wall). It provides secondary containment sufficient for the size of the largest tank, plus enough freeboard to contain precipitation. Per example below: This secondary containment capacity is equivalent to approximately 905 percent of the capacity of the largest tank within the containment area and exceeds the 10 percent freeboard recommended by API for firewalls around production tanks (API-12R1). An example of the berm capacity calculations is provided in Table 3-2.

EXAMPLE Table 3-2: BERM CAPACITY CALCULATIONS

BERM CAPACITY	
Berm height	3 ft
Berm dimensions	186 ft x 39 ft = 7,254 ft^2
Tank footprint	4 tanks @ 12 ft dia. each & 1 tank @ 6 ft dia = 4 x (π $12^2/4$) + (π $6^2/4$) = 480.66 ft^2
Net volume	3 ft x (7254-480.66) = 20,320.02 ft^3
Ratio to largest tank	20,320.02 /2245.84= 904.78 %
CORRESPONDING AMOUNT OF FREEBOARD	
100% volume of largest tank	16,800 gal = 2,245.84 ft^3
Net area	7,254 – 480.66= 6,773.34 ft^2
Minimum berm height for 100% of tank volume	2,245.84 / 6,773.34 ft = .33 ft
Freeboard	3 - .33 = 2.67 ft

Facility personnel inspect the berm daily for the presence of oil. The sides of the earthen berms are capped with gravel to minimize erosion.

3.2.3 Practicability of Secondary Containment [112.7(d)]

Flowlines adjacent to the production equipment and storage tanks are located within the berm, and therefore have secondary containment. Flowlines that go from the wells to the production equipment as well as the tank truck loading area are inspected daily by the pumper, as described in section 3.4 of this Plan. The installation of double-wall piping, berms, or other permanent structures (e.g., remote impoundment) around flowlines and tank truck loading area are impracticable at this facility due to the long distances involved and physical and road/fenceline right-of-way constraints. Sorbent materials in conjunction with drip pans provide adequate secondary containment for equipment and piping outside of the berm. Therefore, sorbent materials will be used when necessary.

3.3 Other Spill Prevention Measures

3.3.1 Bulk Storage Containers Overflow Prevention [112.9(c)(4)]

The tank battery is designed with a fail-safety system to prevent discharge, as follows:

- The capacity of the oil storage tanks is sufficient to ensure that oil storage is adequate in the event where facility personnel are unable to perform the daily visit to unload the tanks or the pumper is delayed in stopping production. The oil tanks are sized to provide sufficient storage for at least two days.
- Where applicable when multiple oil tanks are present the tanks are connected with overflow equalizing lines to ensure the full tank can overflow to an adjacent tank.

3.3.2 Transfer Operations and Saltwater Disposal System [112.9(d)]

All aboveground valves and piping associated with transfer operations are inspected daily by the pumper and/or truck driver, as described in Section 3.4 of this Plan. The inspection procedure includes observing flange joints, valve glands and bodies, drip pans, and pipe supports.

3.4 Inspections, Tests, and Records [112.7(e)]

This Plan outlines procedures for inspecting the facility equipment in accordance with SPCC requirements. Records of inspections performed as described in this Plan and signed by the appropriate supervisor are maintained at the Tulsa Corporate Office for a minimum of three years. The reports include a description of the inspection procedure, date of inspection and the inspector's signature.

Each container is inspected monthly by field operation personnel as described in this Plan section and following the checklist provided in Appendix B of this SPCC Plan. The inspection is aimed at identifying signs of deterioration and maintenance needs.

The inspection program is comprised of informal daily examinations, monthly scheduled inspections, and periodic condition inspections. Additional inspections and/or examinations are performed whenever an operation alert, malfunction, shell or deck leak, or potential bottom leak is reported following a scheduled examination. Written examination/inspection procedures and monthly examination/inspection reports are signed by the field inspector and are maintained at the corporate office for a period of at least three years.

3.4.1 Daily Examinations

The facility is visited daily by field operations personnel. The daily visual examination consists of a walk through of the tank battery and around the well. Field operations personnel check the wells and production equipment for leaks and proper operation. They examine all aboveground valves, polished rod stuffing boxes, wellheads, fittings, gauges, and flowline piping at the wellhead. Personnel inspect pumps to verify proper function and check for damage and leakage. They look for accumulation of water within the tank battery berms. The storage tanks are gauged every day. A daily production report is maintained. All malfunctions, improper operation of equipment, evidence of leakage, stained or discolored soil, etc. are logged and communicated to the KFOC Production Superintendent.

3.4.2 Monthly Reports

Leases and equipment are inspected daily. Any problems with the lease or equipment are recorded on the Monthly Inspection Report (Appendix B) and submitted with the gauge report for each month.

3.4.3 Brittle Fracture Evaluation [112.7(i)]

At the present time, none of the bulk storage containers at this site are field-erected, and therefore no brittle fracture evaluation is required.

3.4.4 Flowline Maintenance Program [112.9(d)(3)]

The facility is relying on sorbent materials to address discharges from flowlines. The flowline maintenance program is specifically implemented to maintain the integrity of the primary container (in this case piping) to minimize releases of oil from this part of the production facility. The facility's gathering lines and flowlines are inspected for leaks at connections and on each joint, corrosion (pitting, flaking), and maintained to minimize the potential for a discharge.

3.5 Personnel Training, and Discharge Prevention Procedures [112.7(f)]

The Production Superintendent has been designated as the point of contact for all oil discharge prevention and response at this facility.

All KFOC field personnel receive training on proper handling of oil products and procedures to respond to an oil discharge. The training ensures that all facility personnel understand the procedures described in the SPCC Plan and are informed of the requirements under applicable pollution control laws, rules and regulations. The training also covers risks associated with potential exposure to hydrogen sulfide (H2S) gas.

KFOC ensures that all contractor personnel are familiar with the facility operations, and spill prevention and control procedures described in this Plan.

KFOC management holds briefings with company field operations personnel at least once a year, as described below.

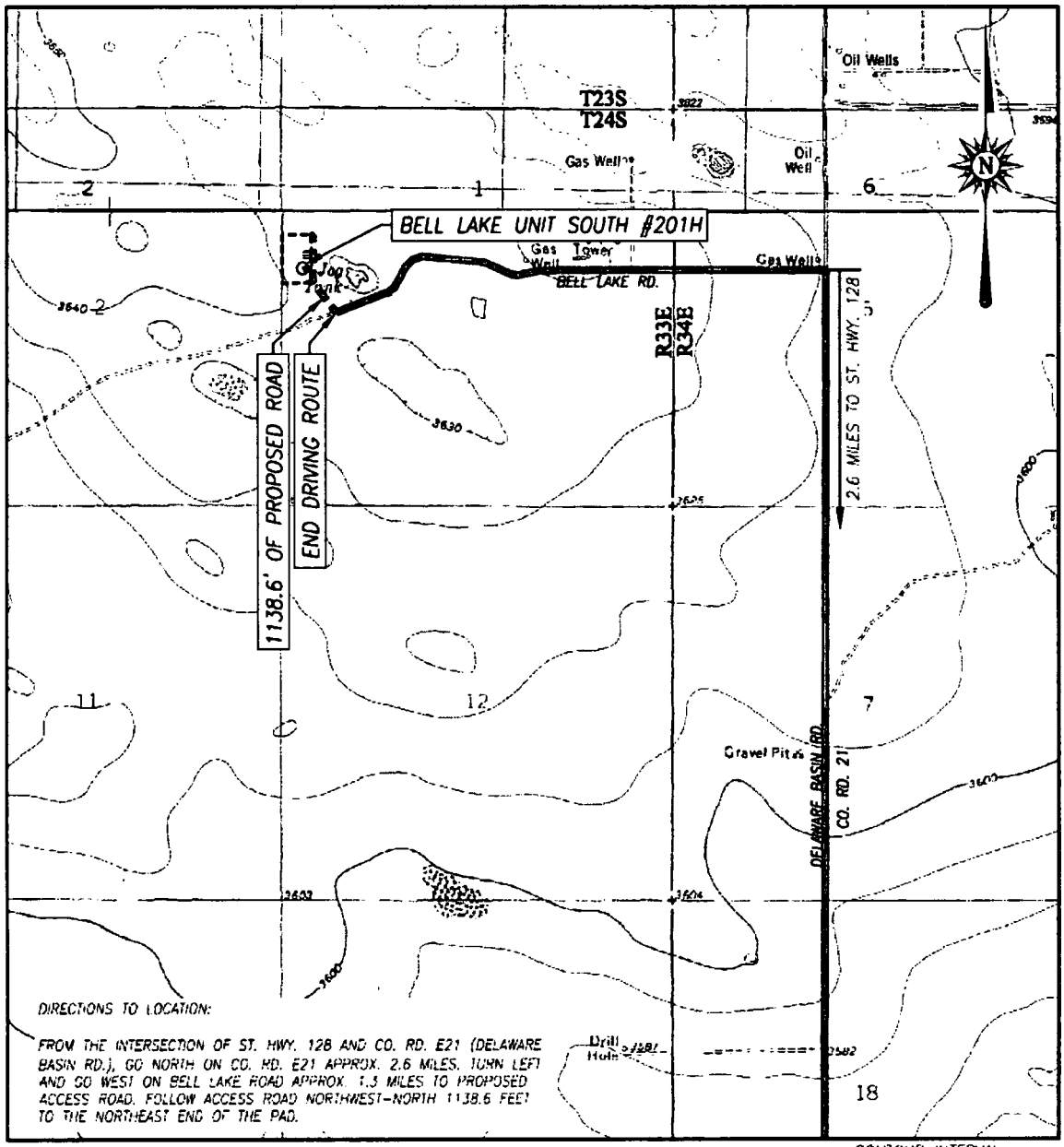
3.5.1 Spill Prevention Briefing

The Safety & Environmental Coordinator conducts Spill Prevention Briefings annually to ensure adequate understanding and effective implementation of this SPCC Plan. These briefings highlight and describe known events or failures, malfunctioning components, and recently developed precautionary measures. The briefings are conducted in conjunction with the company safety meetings. Sign-in sheets, which include the topics of discussion at each meeting, are maintained in the Safety Department at KFOC's Corporate Office. The scheduled annual briefing includes a review of KFOC policies and procedures for SPCC inspections and spill prevention procedures; spill reporting procedures; spill response; and recovery, disposal, and treatment of spilled material.

Personnel are instructed in applicable federal, state, and local pollution laws, rules, and regulations. Facility operators and other personnel have an opportunity during the briefings to share recommendations concerning health, safety, and environmental issues encountered during facility operations.

APPENDIX A: Facility Diagrams/ Vicinity / Road

TOPOGRAPHIC AND ACCESS ROAD MAP



SCALE: 1" = 2000'
SEC. 1 TWP. 24-S RGE. 33-E
SURVEY N.M.P.M.

CONTOUR INTERVAL:
BELL LAKE, N.M. - 10'
WOODLEY FLAT, N.M. - 10'

SITE DIAGRAM FOR COMPLETED TANK BATTERY

APPENDIX B: Monthly Inspection Report

A record of the completed checklists, with signatures, is maintained at the Tulsa KFOC office. Inspections are conducted using the following checklist in accordance with section 3.4 of this SPCC plan.

SPCC Inspection Checklist			
Pumper:	**District:**		
Facility ID:			
Storage Areas and Separation Equipment	**Y**	**N**	**Description & Comments (Note tank/equipment ID)**
Tank surfaces showing signs of leakage			
Tanks showing signs of damage, rust or deterioration			
Damaged bolts, rivets or seams			
Deteriorated or buckled aboveground tank supports			
Eroded or settled Aboveground tank foundations			
Leaking gaskets			
Level gauges or alarms that are inoperative			
Obstructed vents			
Thief hatch and vent valve does not seal air tight			
Damaged or missing nets on open top vessels			
Containment berm showing discoloration or stains			
Berm that is breached or eroded or has vegetation			
Trash or vegetation inside of berm area			
Missing equipment guards, labels or signs			
Piping/Flowlines and Related Equipment			
Leaking valve seals or gaskets			
Damaged or deteriorated Pipelines or supports			
Buried pipelines that are exposed			
Visible line leaks			
Transfer Equipment			
Damaged or deteriorated loading/unloading lines			
Connections are not capped or blank-flanged			
Secondary Containment is damaged or stained			
Field drainage systems			
Accumulation of oil in drainage ditches or road ditches			
Accumulation of oil in oil traps, sumps, or skimmers			
If yes, you must promptly remove any accumulations of oil			
Response Kit Inventory:			
Discharge response material is missing or damaged or needs replaced			
Signature:	**Date:**		

Monthly Inspection Report

A detailed description of what to inspect is provided on page one of the Checklist

District: _____ Pumper: _____

Facility ID	Problems with Storage tanks & Separation Equipment		Problems with Piping/Flowlines & Related Equipment		Problems with Transfer Equipment		Description & Comments (Note tank/equipment ID)
	Y	N	Y	N	Y	N	

Pleas make sure all open top vessels are properly netted and the net is not damaged or deteriorated.

Further descriptions and comments, if needed, should be provided on the empty space at the bottom of this page or on a separate sheet of paper and attached to this page. Any item answered "Yes" needs to be promptly reported, repaired, or replaced as it may result in noncompliance with regulatory requirements.

Note: Leases and equipment should be inspected daily. Record any problems on this form and submit it monthly with your gauge report.

Date:_____ Signature:_____

APPENDIX C: Record of Dike Drainage

This record must be completed when rainwater from diked areas is drained into a storm drain or into an open watercourse, lake, or pond, and bypasses the water treatment system. The facility is not equipped with a manual valve of open-and–closed design. All water accumulated within the berm is closely inspected by field operations personnel (who are the persons providing "responsible supervision") to ensure that no free oil is present (i.e. there is no sheen or discoloration upon the surface, or a sludge or emulsion deposit beneath the surface of the water). Free oil is promptly removed and disposed of in accordance with waste regulations.

Date	Area	Presence of oil (y/n)	Time started	Time Finished	Signature

APPENDIX D: Discharge Notification Procedures

- **WHEN REPORTING A DISCHARGE PROVIDE THE FOLLOWING INFORMATION:**
  Exact location;
  Material involved;
  Quantity involved;
  Topographical and environmental conditions;
  Circumstances that may hinder response; and
  Injuries, if any.

- **WARN PERSONNEL.** All personnel on facility will be verbally warned of the oil spill. If an explosion or fire occurs, evacuate personnel from the area until the danger is over.

- **REQUEST ADDITIONAL RESOURCES.** If oil has reached water or could reach water, facility personnel will decide whether the available onsite containment materials are sufficient to contain the spill. If it is estimated that additional materials will be necessary, an Oil Spill Removal Organization will be contacted at this time. An estimate of the amount of oil released shall be relayed to the Oil Spill Removal Organization.

- **CONTAIN THE SPILLED OIL.** Facility personnel will attempt to prevent the spilled oil from spreading. Available containment material will be deployed.

- **GATHER INFORMATION.** Information on the spill will be collected and the "Spill Notification Form" will be completed.

- **MAKE NOTIFICATIONS.** Facility personnel will contact Company Management. Information on the spill along with actions taken will be relayed to Company Management and Company Management will make all necessary notifications. If Company Management is not available facility personnel will make the notifications.

- **CLEAN UP THE SPILLED OIL.** Once the spill is contained to the maximum extent possible, available supplies will be used to proceed with cleanup of the spill. An Oil Spill Removal Organization will be mobilized as required.

- **SPILL RESPONSE.** If immediate cleanup is not considered to be an appropriate remedial measure, the operator will notify the proper agency and give an alternative remedial plan and will promptly implement said plan upon approval.

Spill Report Form

Description of Discharge		
Date/time	Release date: Release time: Duration:	Discovery date: Discovery time:
Reporting Individual	Name:	Tel. #:
Location of discharge (Quarter, Block, Section, Survey, etc.)	County: State:	Description:
Surface Owner	Description of area: ❑ Farming ❑ Grazing ❑ Urban	
Equipment Sources Product	❑ Piping ❑ Flowline ❑ Well ❑ Stock, flare ❑ Unknown ❑ Crude oil ❑ Saltwater ❑ Other*	Description: Equipment ID: *Description other:
Appearance and description of area	❑ Sandy ❑ Sandy Loam ❑ Clay ❑ Rocky ❑ Wet ❑ Dry ❑ Snow	
Environmental conditions	Wind Direction: Wind Speed:	Rainfall: Current:
Site Drainage direction Distance to nearest navigable water		

Impacts		
Quantity	Released:	Recovered:
Receiving Medium	❑ Water** ❑ Land ❑ Other (describe):	❑ Release confined to company property. ❑ Release outside company property ** if water, indicate extent and body of water:
Describe Circumstances of the Release		
Assessment of impacts and remedial actions		
Disposal method for recovered material		
Action taken to prevent incident from reoccurring		
Safety Issues	❑ Fire ❑ Explosion ❑ Injuries ❑ Fatalities ❑ Evacuation ❑ *Other	*Description of other:

Notifications		
Agency	Name	Date/time reported & Comments
Company Spill Response Coordinator	Charles W. Lock (918)491-4337	
National Response Center 1-800-424-8802		
OSRO/cleanup contractor		

Contact List and Phone Numbers

Contact information for reporting a discharge to the National Response Center and other federal, state, and local agencies, and to other affected parties, is provided below. Note that any discharge to water must be reported immediately to the National Response Center.

The following is a contact list and phone number reference for the Facility:

Contacts	Primary	Alternate
Designated Person Accountable For Oil Spill Prevention and/or Facility Response Coordinator		
Name/Title: Larry Moates/Pumper	432/238-6996	
Name/Title: Jeff Pevehouse/Pumper	575-361-2965	
Name/Title: Jeremy Parent/Prod. Foreman	580/504-2593	
Name/Title: Bill Wilkinson/Prod. Superintendent	580/221-4637	580/668-2334
Name/Title: David Zerger/Operations Engineer	918/491-4350	
Name/Title: Charles Lock/Safety & Envir.	918/491-4337	918/671-6510

Contact List and Phone Numbers

The following is a contact list and phone number reference for the Facility:

Contacts	Primary	Alternate (Cell)
Cleanup Contractors (as necessary):		
Dozers – B&R	575/236-6012	
Vacuum & Tank Trucks – Parker Energy	575-394-0444	
Misc. Trucks & Labor – Forklift- J&A	575-208-9653	
Pump Trucks – Parker Energy	575-394-0444	
Frac Tanks – EOS	575/397-0100	
Welder – Custom Welding	575/393-5904	
Federal, State and local agencies (as necessary)		
National Response Center	(800) 424-8802	(202) 267-2675
NMOCC – Hobbs	575/393-6161	
EPA Region 6	866/372-7745	
OSHA – Lubbock	806/472-7681	800/321-OSHA
Other contact references:		
Fire Fighting – Hobbs	575/397-9308	
Police – Hobbs	575/397-9265	
Ambulance – Hobbs	575/397-9308	
Sheriff – Hobbs	575/393-2515	
Highway Patrol – Hobbs	575/392-5588	

APPENDIX E: Equipment Shut-off Procedures

Source	Action
Manifold, transfer pumps or hose failure	Shut in the well supplying oil to the tank battery if appropriate. Immediately close the header/manifold or appropriate valve(s). Shut off transfer pumps.
Tank overflow	Shut in the well supplying oil to the tank battery. Close header/manifold or appropriate valve(s).
Tank failure	Shut in the well supplying oil to the tank battery. Close inlet valve to the storage tanks.
Flowline rupture	Shut in the well supplying oil to the flowline. Immediately close the nearest valve to stop the flow of oil to the leaking section.
Flowline leak	Shut in the well supplying oil to the flowline. Immediately close the nearest valve to stop the flow of oil to the leaking section.
Explosion or fire	Immediately evacuate personnel from the area until the danger is over. Immediately shut in both wells if safe to do so. If possible, close all manifold valves. If the fire is small enough such that it is safe to do so, attempt to extinguish if extinguisher is available.
Equipment failure	Immediately close the nearest valve to stop the flow of oil into the leaking area.

APPENDIX F: Written Commitment of Manpower, Equipment, and Materials

In addition to implementing the preventive measures described in this Plan, Kaiser-Francis Oil Company will also:

In the event of a discharge:

- Make available trained field personnel to perform response actions
- Obtain assistance from additional employees from its main operations contractor.
- Collaborate with local, state, and federal authorities on response and cleanup operations.

Maintain all on-site oil spill control equipment described in this Plan and in the attached Oil Spill Contingency Plan.

Maintain all communications equipment in operating condition at all times.

Ensure that staging areas are accessible by field vehicles.

Review the adequacy of on-site and third party response capacity with pre-established response/cleanup contractors.

Maintain formal agreements/contracts with response and cleanup contractors who will provide assistance in responding to an oil discharge and/or completing cleanup.

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

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

Bond Info Data Report

09/19/2018

Bond Information

Federal/Indian APD: FED

BLM Bond number: WYB000055

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

For your security, we recommend you close your browser when you complete your payment.

Payment Confirmation - Bureau of Land Management (BLM) Application for Permit to Drill (APD) Fee

Before You Begin 1 Complete Agency Form 2 Enter Payment Info 3 Review & Submit 4 Confirmation

Payment Confirmation

Your payment is complete

Pay.gov Tracking ID: 2673A2TR

Agency Tracking ID: 75400365167

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

Application Name: BLM Oil and Gas Online Payment

Payment Information

Payment Type: Debit or credit card

Payment Amount: $9,790.00

Transaction Date: 01/11/2018 03:25:02 PM EST

Payment Date: 01/11/2018

Company: KAISER-FRANCIS OIL COMPANY

APD IDs: 10400025660

Lease Numbers: NMLC063993

Well Numbers: 402H

Note: You will need your Pay.gov Tracking ID to complete your APD transaction in AFMSS II. Please ensure you write this number down upon completion of payment.

Account Information

Cardholder Name: GEORGE B KAISER

Need Help?

Contact: BLM OC CBS Customer Service

Email: Click to email

Phone: (303) 236-6795