

SANTA FE

17

15

2

7/93
IPF
326BOPD
438MCFD
178BWPD
1344GOR

17

9/93
IPF
343BOPD
320MCFD
138BWPD
933GOR

12

6/93
IPF
301BOPD
65MCFD
170BWPD
216GOR

8

Pure Gold "C" Fed.

8/93
IPF
202BOPD
247MCFD
87BWPD
1233GOR

13

7/93
IPF
255BOPD
269MCFD
334BWPD
1055GOR

11

7

13

14

8

BHL

ENRON

11

12

KFOC

20

17

16

Pure Gold "B" Fed.
7/93
93/137
12/18

18 15

YATES PET.

12

16

10

11/90
43/30
35/12

Medano "VA" State

8

6/93
IPF
257BOPD
310MCFD
327BWPD
1206GOR

7/93
IPF
231BOPD
285MCFD
221BWPD
1233GOR

Pure Gold "A" Fed.

KFOC

21

12

5

9/93
IPF
106BOPD
56MCFD
441BWPD
533GOR

267MCFD
361BWPD
1275GOR

5/93
179/123
16/11

4/93
103/103
12/12

5/93
165/113
15/10

6/93
IPF
257BOPD
310MCFD
327BWPD
1206GOR

9

10

8

7

7/93
93/137
12/18

6/93
99/84

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED
BY THE OIL CONSERVATION DIVISION
FOR THE PURPOSE OF CONSIDERING:

CASE NO. 10999

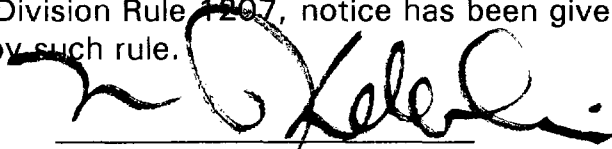
APPLICATION OF KAISER-FRANCIS OIL COMPANY
TO AMEND DIVISION ORDER NO. R-10048,
EDDY COUNTY, NEW MEXICO.

CERTIFICATE OF MAILING

AND

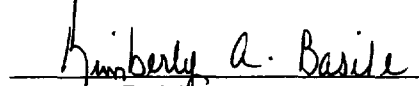
COMPLIANCE WITH ORDER R-8054

W. THOMAS KELLAHIN, attorney in fact and authorized representative of Kaider-Francis Oil Company, states that the notice provisions of Division Rule 1207 (Order R-8054) have been complied with, that Applicant has caused to be conducted a good faith diligent effort to find the correct addresses of all interested parties entitled to receive notice, that on the 17th day of May 1994, I caused to be mailed by certified mail return-receipt requested notice of this hearing and a copy of the application for the above referenced case along with the cover letter, at least twenty days prior to the hearing set for June 9, 1994, to the parties shown in the application as evidenced by the attached copies of return receipt cards, and that pursuant to Division Rule 1207, notice has been given at the correct addresses provided by such rule.



W. Thomas Kellahin

SUBSCRIBED AND SWORN to before me this 6th day of JUNE, 1994.



Notary Public

My Commission Expires:

February 12, 1999

P 206 002 242



**Receipt for
Certified Mail**

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

**POGO PRODUCING COMPANY
P.O. BOX 10340
MIDLAND, TEXAS
79702-7340**

KAISER-GOLD

Postage Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom (Date) and Addressee's Address	
Postage & Fees	

PS Form 3800, June 1991

**KAISER-GOLD
05/17/94**

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

**KAISER-GOLD
05/17/94**

so that we can

back if space

does not permit.

- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

3. Article Addressed to:

**POGO PRODUCING COMPANY
P.O. BOX 10340
MIDLAND, TEXAS
79702-7340**

5. Signature (Addressee)

6. Signature (Agent)

[Handwritten Signature]

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

4a. Article Number

206 002 242

4b. Service Type

- | | |
|---|--|
| <input type="checkbox"/> Registered | <input type="checkbox"/> Insured |
| <input checked="" type="checkbox"/> Certified | <input type="checkbox"/> COD |
| <input type="checkbox"/> Express Mail | <input checked="" type="checkbox"/> Return Receipt for Merchandise |

7. Date of Delivery

MAY 19 1994

8. Addressee's Address (Only if requested and fee is paid)

Thank you for using Return Receipt Service.

P 206 002 241



**Receipt for
Certified Mail**

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

**SANTA FE ENERGY
OPERATION PARTNERS, L.P.
500 W. ILLINOIS
MIDLAND, TEXAS 79701**

S Form 3800, June 1991

Postage	
Postage and Fees	
Restricted Delivery Fee	
Return Receipt (if any)	
Return Receipt (if any)	
Postage and Fees	\$
Postmark Date	05/17/94

top of envelope to the

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

KAISER GOLD
05/17/94

Write in items 1 and/or 2 for additional services.

so that we can

get back if space

does not permit.

- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

**SANTA FE ENERGY
OPERATION PARTNERS, L.P.
500 W. ILLINOIS 550 W. ILLINOIS
MIDLAND, TEXAS 79701 #1332**

4a. Article Number

206 002 240

4b. Service Type

- | | |
|---|--|
| <input type="checkbox"/> Registered | <input type="checkbox"/> Insured |
| <input checked="" type="checkbox"/> Certified | <input checked="" type="checkbox"/> COD |
| <input type="checkbox"/> Express Mail | <input checked="" type="checkbox"/> Return Receipt for Merchandise |

7. Date of Delivery

5/19

5. Signature (Addressee)

Mark Anderson

6. Signature (Agent)

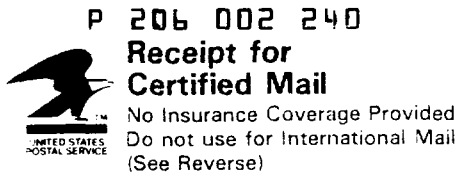
8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991

★U.S. GPO: 1993-352-714

DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.



**RANDY PATTERSON
YATES PETROLEUM CORP.
105 SOUTH FOURTH STREET
ARTESIA, NM 88210**

Certified Fee	
Additional Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom & Date Delivered	
TOTAL POSTAGE & FEES	\$

**KAISER-GOLD
05/17/94**

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.

**KAISER-GOLD
05/17/94**

- Write "Return Receipt requested"
- The Return Receipt will show to whom the article was delivered and the date delivered.

that we can

check if space

article number.

and the date

I also wish to receive the following services (for an extra fee):

- ☐ Addressee's Address
- ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

**RANDY PATTERSON
YATES PETROLEUM CORP.
105 SOUTH FOURTH STREET
ARTESIA, NM 88210**

4a. Article Number

206 002 240

4b. Service Type

- | | |
|---|--|
| <input type="checkbox"/> Registered | <input type="checkbox"/> Insured |
| <input checked="" type="checkbox"/> Certified | <input type="checkbox"/> CDD |
| <input type="checkbox"/> Express Mail | <input checked="" type="checkbox"/> Return Receipt for Merchandise |

7. Date of Delivery

MAY 19 1994

5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

Thank you for using Return Receipt Service.

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

IN THE MATTER OF THE HEARING CALLED
BY THE OIL CONSERVATION DIVISION
FOR THE PURPOSE OF CONSIDERING:

Encl

CASE NO. 10999

APPLICATION OF KAISER-FRANCIS OIL COMPANY
TO AMEND DIVISION ORDER NO. R-10048,
EDDY COUNTY, NEW MEXICO.

AFFIDAVIT OF JAMES T. WAKEFIELD

STATE OF OKLAHOMA)
) ss.
COUNTY OF _____)

Before me, the undersigned authority, personally appeared
James T. Wakefield, who being duly sworn, stated:

A. My name is James T. Wakefield. I am over the age of majority
and am competent to make this Affidavit.

B. My qualifications as an expert petroleum engineer are as follows:

(1) Education: B. S. in petroleum engineering from the
University of Tulsa in 1972.

(2) Experience:

As a petroleum engineer employed by Kaiser-Francis Oil Company, I have been responsible for and involved in the various requests before the Bureau of Land Management and the Oil Conservation Division for approval to drill Delaware Oil Wells in the Los Medanos-Delaware and/or West Sand Dunes-Delaware Pools in Sections 20 and 21, T23S, R31E, NMPM, Eddy County, New Mexico. I testified as an expert witness before the New Mexico Oil Conservation Division in Case 10887 which resulted in Division Order R-10048 approving the directional drilling of ten such wells including the Pure Gold "B" Well No 10 which is the subject of NMOCD Case 10999. I am personally knowledgeable and familiar with the facts and circumstances of these cases and the following factual chronology.

C. My expert opinions are based on the following facts and events:

CHRONOLOGICAL SUMMARY OF SIGNIFICANT EVENTS

(1) Kaiser-Francis Oil Company ("Kaiser") is the proposed operator for and a working interest owner in the Pure Gold B-10 Well which was one of ten proposed wells to be directionally drilled commencing at unorthodox surface locations in Sections 16, 17, 20, and 21 and drilled to standard bottom hole locations in Sections 20 and 21, all in T23S, R31E, NMPM, Eddy County, New Mexico.

(2) Sections 16, 17, 20 and 21 of T23S, R31E, are located within the current boundaries of the Oil-Potash Area as defined by Division Order R-111-P.

(3) Sections 17, 20, and 21 are federal tracts administered by the Bureau of Land Management. Section 16 is a State of New Mexico tract administered by the Commissioner of Public Lands for the State of New Mexico.

(4) At the request of Kaiser-Francis Oil Company, the BLM delineated areas barren of commercial potash in the SE/4 of Section 20 and the SW/4 of Section 21 and along the southern edge of Section 17.

(5) Based upon the foregoing, Kaiser applied to the Division for exceptions to Division Statewide Rule 111 concerning intention deviation and the size of the radius for the bottom hole target and hereby request a 50 foot radius for the bottom hole target. In addition, Kaiser requested exceptions to Division Statewide Rule 104(F) concerning these wells for unorthodox surface locations.

(6) The necessity of directional drilling from the proposed surface location was based upon the assumed presence of measurable potash reserves and the restrictions imposed by the U. S. Bureau of Land Management, which is the surface/mineral agency for Sections 20 and 21.

(7) On January 12, 1994, the Division issued Order R-10048 which approved Kaiser's application for approval to directionally drill these ten wells as identified in Exhibit "A" of that order and which describes:

Well: Pure Gold B-10
Surface: 10' FSL x 145' FWL (Unit M) Sec 16
BHL: 480' FNL x 480' FEL (Unit A) Sec 20.

(8) Prior to filing its application before the Division, Kaiser had originally sought to have the Bureau of Land Management ("BLM") approve a surface location for the Pure Gold B-10 Well in the S/2SE/4 of Section 17, T23S, R31E but was rejected by the BLM.

(9) Therefore, Kaiser proposed to relocate the Pure Gold B-10 Well at an unorthodox surface location in the adjoining Section 16 and sought and obtained the approval of the NMOCD for that location.

(10) Subsequent to the Division hearing and after issuance of its order, the BLM advised Kaiser that it had reconsidered the surface location for the Pure Gold B-10 Well and would now allow its surface location to be placed in the S/2SE/4 of Section 17 as shown on Exhibit "A" attached.

(11) Therefore, on March 15, 1994, Kaiser-Francis Oil Company's requested BLM approval to amend the surface location. On May 2, 1994, the BLM approved the revised APD which now authorizes the use of a surface location for the Pure Gold B-10 Well 10 feet FSL and 480 feet FEL of said Section 17. See BLM approval attached as Exhibit "B"

(12) The proposed amended surface location in Section 17 means that the Pure Gold B-10 Well will be approximately 400 feet shorter in length than if the well had been located in Section 16 resulting in substantial savings to the Applicant.


(13) This amended unorthodox surface location for the Pure Gold B-10 Well is located more than one-half mile from any verified potash Life of Mine Reserves ("LMR") and therefore is not within any "buffer" area its LMR.

D. I have formed the following opinions based upon my expertise and upon the foregoing chronology of events:

(1) That approval of Kaiser-Francis Oil Company's application in Division Case 10999 will reduce drilling costs, resulting in economic savings to the interest owners in this well, will not violate correlative rights and will help prevent waste and promote the conservation of natural resources.

(2) That the request to amend the surface location should be approved by the Division.

FURTHER AFFIANT SAYETH NOT:


James T. Wakefield

State of Oklahoma)
) SS
County of _____)

SUBSCRIBED AND SWORN TO before me this ____ day of June,
1994 by James T. Wakefield.

Notary Public

(SEAL)

My Commission Expires:

TOPOGRAPHIC LAND SURVEYORS

Surveying & Mapping for the Oil & Gas Industry

1307 N. HOBART
PAMPA, TX. 79065
(800) 858-6382

8709 N. CLASSEN BLVD.
OKLAHOMA CITY, OK. 73116
(800) 654-3219

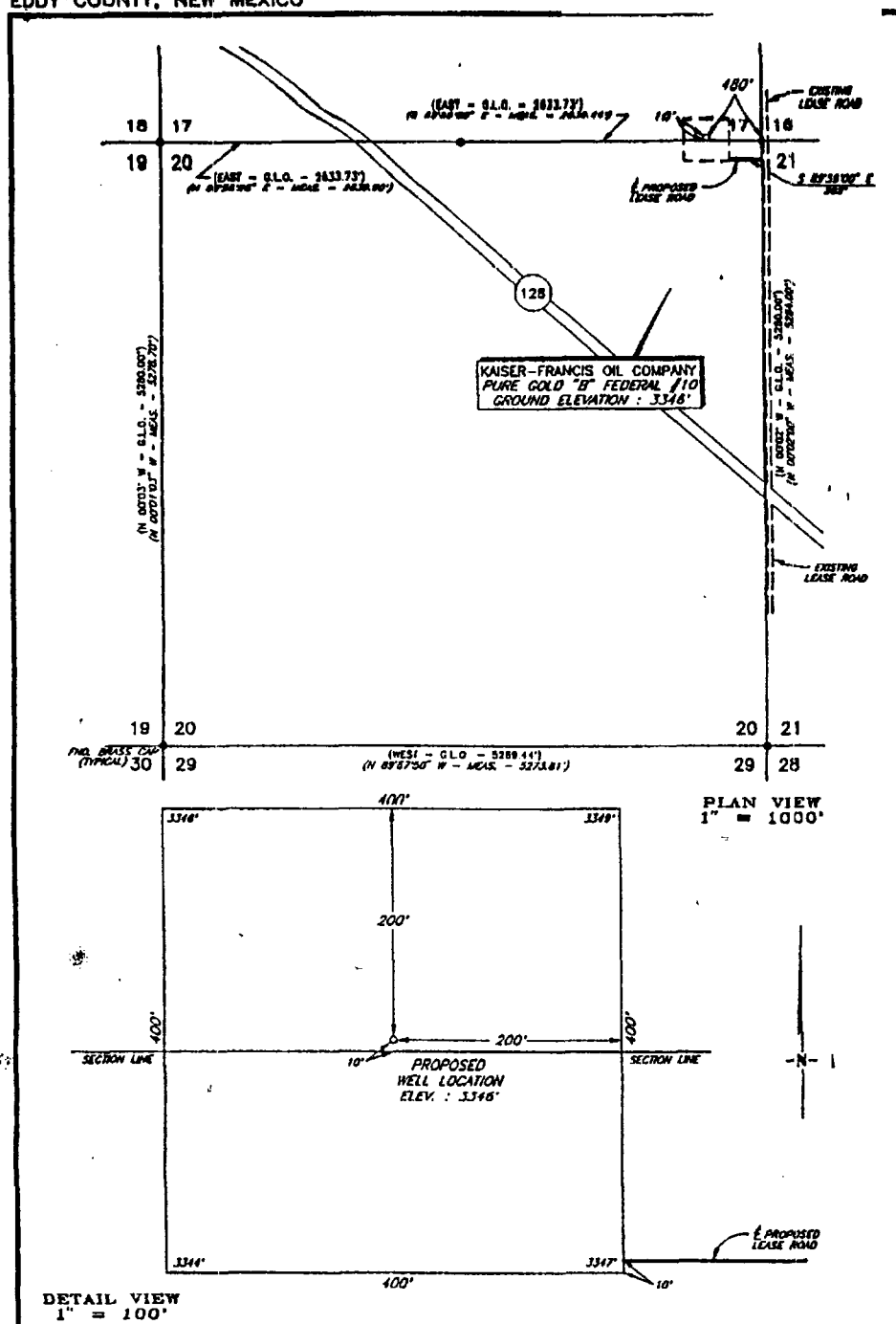
2903 N. BIC SPRING
MIDLAND, TX. 79705
(800) 767-1853

MAY 13 '94 14:59 KFOC EXEC.

P.21

PLAT SHOWING PROPOSED
WELL LOCATION AND LEASE ROAD IN
SECTION 17 & 20, T-23-S, R-31-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

Exhibit E
Kaiser-Francis Oil Co.
Pure Gold "B" Fed. #19
Eddy County, NM



EXHIBIT

A

KAISER - FRANCIS OIL COMPANY				SCALE: AS SHOWN	
ODESSA, TEXAS				DATE: JANUARY 11, 1994	
SURVEYING AND MAPPING BY				JOB NO.: 31149	
TOPOGRAPHIC LAND SURVEYORS				48 SE	
MIDLAND, TEXAS				SHEET: 1 OF 1	
NO.	REVISION	DATE	BY		
SURVEYED BY:	S.M.				
DRAWN BY:	V.H.B.				
APPROVED BY:	V.L.B.				

MAY 13 '94 15:00 KFOC EXEC.

P.22

Exhibit F
Kaiser-Francis Oil Co.

OPERATOR'S COPY

RECEIVED

Form 3160-5
(June 1990)

MAR 17 10 43 AM 1994
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Kaiser-Francis Oil Company

3. Address and Telephone No.

P. O. Box 21468, Tulsa, OK 74121-1468

918-491-4314

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Surface: 10' FSL & 480' FEL of Sec. 17-23S-31E

Bottomhole: 480' FNL & 480' FEL of Sec. 20-23S-31E

FORM APPROVED

Budget Bureau No. 1004-0135

Expires: March 31, 1993

5. Lease Designation and Serial No.

NM - 38463

6. If Indian, Alliance or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Pure Gold B Federal #10

9. API Well No.

n/a

10. Field and Pool, or Exploratory Area

W. Sand Dunes (Delaware)

11. County or Parish, State

Eddy, NM

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☐ Recumplection
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other Move surface location of well

- ☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recumplection Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

It is proposed to drill vertical holes to 4070' and to set and cement intermediate casing and to drill a directional hole under the potash deposits and onto a standard location for the Delaware formation in Sec. 20-23S-31E.

An APD was previously filed and was approved for drilling on 12/17/93 at a surface location of 10' FSL & 135' FWL of Sec. 16-23S-31E. On 12/16/93 Craig Cranston with the BLM called to advise that a surface location 625' west of the approved location at 10' FSL & 480' FEL of Sec. 17-23S-31E would also be approved for drilling. There would be no change in the bottomhole location. Therefore, since this surface location will reduce the direction displacement of the wellbore and result in a significant savings in drilling costs, it is our proposal to move the surface location of the well.

Please see attachments with previously filed amended APD dated 3/1/94.

EXHIBIT

B

14. I hereby certify that the foregoing is true and correct

Signed

Charlotte Van Valkenburg

Technical Coordinator

Date 3/15/94

(This space for Federal or State office use)

Approved by
Conditions of approval, if any:

Title

Acting Area Manager

Date

5/2/94

Submit to the Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals, and Natural Resources Department

Form G-102
Revised 1-1-89

DISTRICT I
P. O. Box 1980
Hobbs, NM 88240

DISTRICT II
P. O. Drawer DD
Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd
Aztec, NM 87410

OIL CONSERVATION DIVISION

P. O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the section.

Operator KAISER - FRANCIS OIL COMPANY			Lease PURE GOLD 'B' FEDERAL		Well No. 10
Unit Letter P	Section 17	Township 23 SOUTH	Range 31 EAST, N.M.P.M.	County EDDY	
Actual Footage Location of Well					
10 feet from the		SOUTH	line and	480	feet from the EAST line
Ground Level Elev. 3346'	Producing Formation Delaware		Pool W. Sand Dunes		40 Acres

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
 - If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
 - If more than one lease of different ownership is dedicated to the well, have the interest of all the owners been consolidated by communitization, unitization, forced-pooling, etc.?
 - ☐ Yes ☐ No If answer is "yes", type of consolidation _____
 - If the answer is "no", list the owners and tract descriptions which have actually been consolidated. (Use the reverse side of this form if necessary.) _____
- No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the division.

Bottomhole Location: 480' FNL & 480' FEL,
Sec 20

The acreage dedicated to this well is the
NE/4 NE/4 Sec 20, T23S, R31E

OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief.

Signature
Milton Griffin
Printed Name
Milton Griffin
Position
Operations Engineer
Company
Kaiser-Francis Oil Co.
Date
March 1, 1994

SURVEYOR CERTIFICATION

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

Date Surveyed
JANUARY 11, 1994
Signature and Seal
BEZNER
Professional Surveyor
NO. 7920
Certificate No. _____

10' 480'

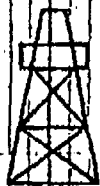
EXHIBIT A
KAISER-FRANCIS OIL COMPANY
Pure Gold "B" Federal #10
Eddy County, New Mexico

SUMMARY

Drilling, Casing and Cementing Program

1. Drill 17-1/2" hole to 700' and run 13-3/8", 48#, H40 casing. Use guide shoe on bottom joint with a float insert 1 joint above the guide shoe. Run 1 centralizer per joint on bottom 3 joints. Cement with 500 sx Class "C" + 2% CaCl + 1/4 pps Celio Flake lead cement followed by 200 sx Class "C" + 2% CaCl. Drop top plug and displace cement with mud.
2. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 600 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 600 psi for 30 minutes.
3. Drill 11" hole to 4070' and run a 8-5/8", 32#, J55 casing. Use guide shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and 5 other centralizers. Cement with 800 sx Class C Lite (35:65:6) + 9.5 pps salt + 1/4 pps Celloflake lead cement followed by 200 sx Class C + 1% KCl + 5 pps salt. A Fluid Caliper will be run to determine the exact volume of cement required to circulate cement to the surface.
4. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 1000 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 1000 psi for 30 minutes.
5. Go in hole with 7-7/8" bit + 6-1/4" x 30' non-magnetic drill collar + (18) 6-1/4" steel drill collar. Drill 7-7/8" hole to KOP of 4200' and survey with non-magnetic instrument at 4200'. POOH for angle building assembly.
6. Go in hole with 7-7/8" bit + 6-1/2" slow-speed motor + 1-1/2" bent sub + 6-1/4" x 30' non-magnetic drill collar + 20 steel drill collars. Orient tool face properly, deflect well bore toward proper direction. Start angle building run. Drill with this assembly building approximately 2 degrees per 100 feet of hole in the proper direction until a maximum angle of 18 degrees is obtained plus or minus to 5627' M.D. POOH for angle dropping assembly.
7. Go in hole with 7-7/8" bit + 6-1/4" non-magnetic drill collar + 3 point roller reamer + 6-1/4" steel drill collar + 3 point roller reamer + (20) 6-1/4" drill collars. Drill hole dropping at 1.5 degrees for 100' to TVD depth of 6766.79' at this point you will be vertical and will continue to drill to a TVD depth of 8100'.

8. Run 5-1/2", 17#, K55 casing with a stage tool at approximately 6200'. Use a float shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 3 joints and as required across potential productive intervals. Cement the first stage with 580 sx Class II + additives, and cement the second stage with 690 sx Class C Lite (35:65:6) lead cement followed with 100 sx Class C neat. The exact volume to bring the cement top to 4000' will be determined after logging the well.
9. Perforations and stimulation treatments will be determined after running electric logs and setting the 5-1/2" casing. It is anticipated that the Delaware at this location will be partially depleted. The estimated BHP is 2500 psi.



KAISER-FRANCIS OIL COMPANY
PURE GOLD "B" FIELD WELL NO. B-10
SECTION 20, T 23 S-R 31 E,
EDDY COUNTY, NEW MEXICO
PURE GOLD "B" FIELD

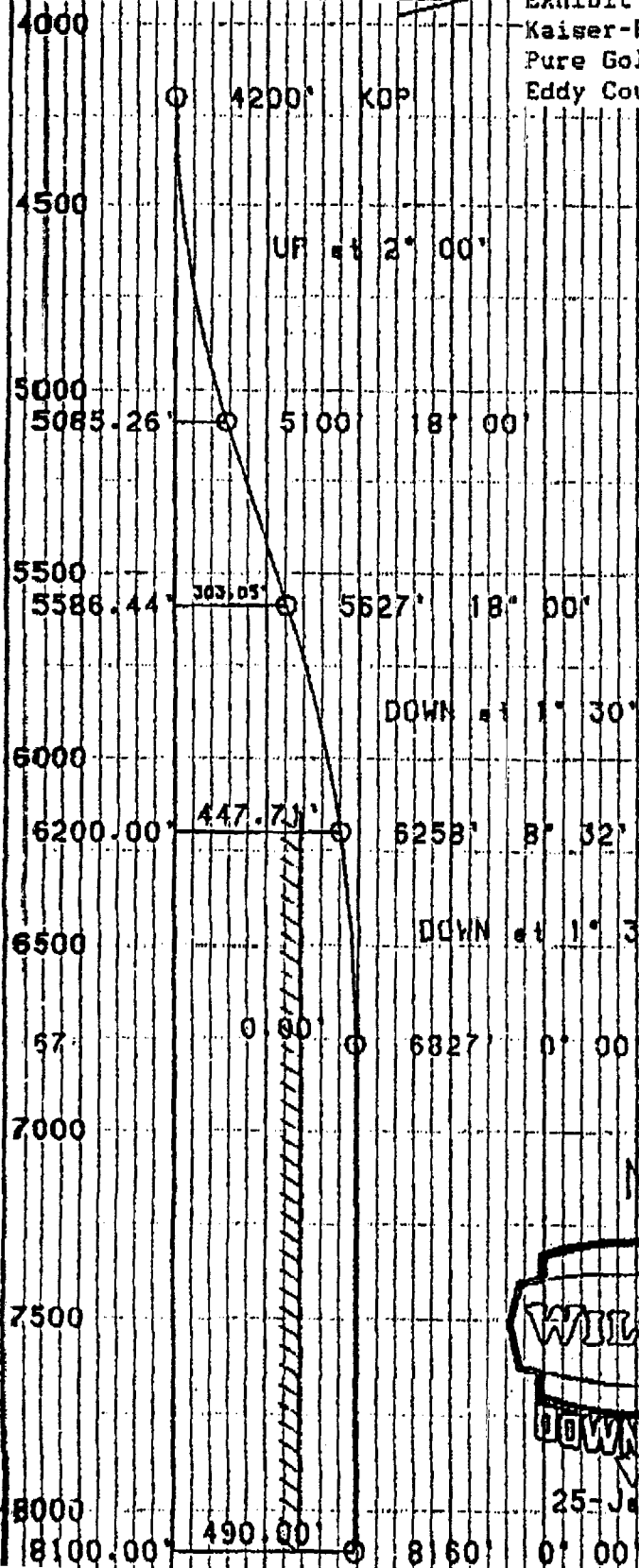
Exhibit A1

Kaiser-Francis Oil Co.
 Pure Gold "B" Fed. #10
 Eddy County, NM

VERTICAL PROJECTION

SCALE 1" = 500'

DUE SOUTH



HORIZONTAL PROJECTION

SCALE 1" = 200'

-200 0 200 400 600

SUR. LOC.

17	16
20	21

5085.26'

5586.44'

5586.44'

6200.00'

6766.49'

8100.00'

-200 0 200 400 600

NOTE:

HARD LINES ARE 150' NORTH
 AND 150' EAST OF B.H.L.

SURFACE LOCATION CALLS:

10.00' FSL - 480.00' FEL (SEC. 17)

ZONE F 6200' TVD

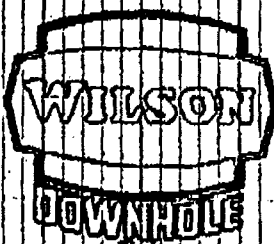
437.71' FNL - 480.00' FEL (SEC. 20)

447.71' DUE SOUTH OF SURFACE LOCATIO

PROPOSED B.H.L. - 8100' TVD

480.00' FNL - 480.00' FEL (SEC. 20)

490.00' DUE SOUTH OF SURFACE LOCATIO



25-Jan-94

2

CASE NO. 10999

AFFIDAVIT OF JAMES T. WAKEFIELD

(1) Education: B. S. in petroleum engineering from the University of Tulsa in 1972.

(2) Experience:

As a petroleum engineer employed by Kaiser-Francis Oil Company, I have been responsible for and involved in the various requests before the Bureau of Land Management and the Oil Conservation Division for approval to drill Delaware Oil Wells in the Los Medanos-Delaware and/or West Sand Dunes-Delaware Pools in Sections 20 and 21, T23S, R31E, NMPM, Eddy County, New Mexico. I testified as an expert witness before the New Mexico Oil Conservation Division in Case 10887 which resulted in Division Order R-10048 approving the directional drilling of ten such wells including the Pure Gold "B" Well No 10 which is the subject of NMOCD Case 10999. I am personally knowledgeable and familiar with the facts and circumstances of these cases and the following factual chronology.

C. My expert opinions are based on the following facts and events:

CHRONOLOGICAL SUMMARY OF SIGNIFICANT EVENTS

(1) Kaiser-Francis Oil Company ("Kaiser") is the proposed operator for and a working interest owner in the Pure Gold B-10 Well which was one of ten proposed wells to be directionally drilled commencing at unorthodox surface locations in Sections 16, 17, 20, and 21 and drilled to standard bottom hole locations in Sections 20 and 21, all in T23S, R31E, NMPM, Eddy County, New Mexico.

(2) Sections, 16, 17, 20 and 21 of T23S, R31E, are located within the current boundaries of the Oil-Potash Area as defined by Division Order R-111-P.

(3) Sections 17, 20, and 21 are federal tracts administrated by the Bureau of Land Management. Section 16 is a State of New Mexico tract administered by the Commissioner of Public Lands for the State of New Mexico.

(4) At the request of Kaiser-Francis Oil Company, the BLM delineated areas barren of commercial potash in the SE/4 of Section 20 and the SW/4 of Section 21 and along the southern edge of Section 17.

(5) Based upon the foregoing, Kaiser applied to the Division for exceptions to Division Statewide Rule 111 concerning intention deviation and the size of the radius for the bottom hole target and hereby request a 50 foot radius for the bottom hole target. In addition, Kaiser requested exceptions to Division Statewide Rule 104(F) concerning these wells for unorthodox surface locations.

(6) The necessity of directional drilling from the proposed surface location was based upon the assumed presence of measurable potash reserves and the restrictions imposed by the U. S. Bureau of Land Management, which is the surface/mineral agency for Sections 20 and 21.

(7) On January 12, 1994, the Division issued Order R-10048 which approved Kaiser's application for approval to directionally drill these ten wells as identified in Exhibit "A" of that order and which describes:

Well: Pure Gold B-10
Surface: 10' FSL x 145' FWL (Unit M) Sec 16
BHL: 480' FNL x 480' FEL (Unit A) Sec 20.

(8) Prior to filing its application before the Division, Kaiser had originally sought to have the Bureau of Land Management ("BLM") approve a surface location for the Pure Gold B-10 Well in the S/2SE/4 of Section 17, T23S, R31E but was rejected by the BLM.

(9) Therefore, Kaiser proposed to relocate the Pure Gold B-10 Well at an unorthodox surface location in the adjoining Section 16 and sought and obtained the approval of the NMOCD for that location.

(10) Subsequent to the Division hearing and after issuance of its order, the BLM advised Kaiser that it had reconsidered the surface location for the Pure Gold B-10 Well and would now allow its surface location to be placed in the S/2SE/4 of Section 17 as shown on Exhibit "A" attached.

(11) Therefore, on March 15, 1994, Kaiser-Francis Oil Company's requested BLM approval to amend the surface location. On May 2, 1994, the BLM approved the revised APD which now authorizes the use of a surface location for the Pure Gold B-10 Well 10 feet FSL and 480 feet FEL of said Section 17. See BLM approval attached as Exhibit "B"

(12) The proposed amended surface location in Section 17 means that the Pure Gold B-10 Well will be approximately 400 feet shorter in length than if the well had been located in Section 16 resulting in substantial savings to the Applicant.


(13) This amended unorthodox surface location for the Pure Gold B-10 Well is located more than one-half mile from any verified potash Life of Mine Reserves ("LMR") and therefore is not within any "buffer" area its LMR.

D. I have formed the following opinions based upon my expertise and upon the foregoing chronology of events:

(1) That approval of Kaiser-Francis Oil Company's application in Division Case 10999 will reduce drilling costs, resulting in economic savings to the interest owners in this well, will not violate correlative rights and will help prevent waste and promote the conservation of natural resources.

(2) That the request to amend the surface location should be approved by the Division.

FURTHER AFFIANT SAYETH NOT:


James T. Wakefield

State of Oklahoma)
) SS
County of _____)

SUBSCRIBED AND SWORN TO before me this ____ day of June,
1994 by James T. Wakefield.

Notary Public

(SEAL)

My Commission Expires:

TOPOGRAPHIC LAND SURVEYORS

Surveying & Mapping for the Oil & Gas Industry

1307 N. HOBAIT
PAMPA, TX. 79065
(800) 658-6312

6708 N. CLASSEN BLVD.
OKLAHOMA CITY, OK. 73116
(800) 654-3219

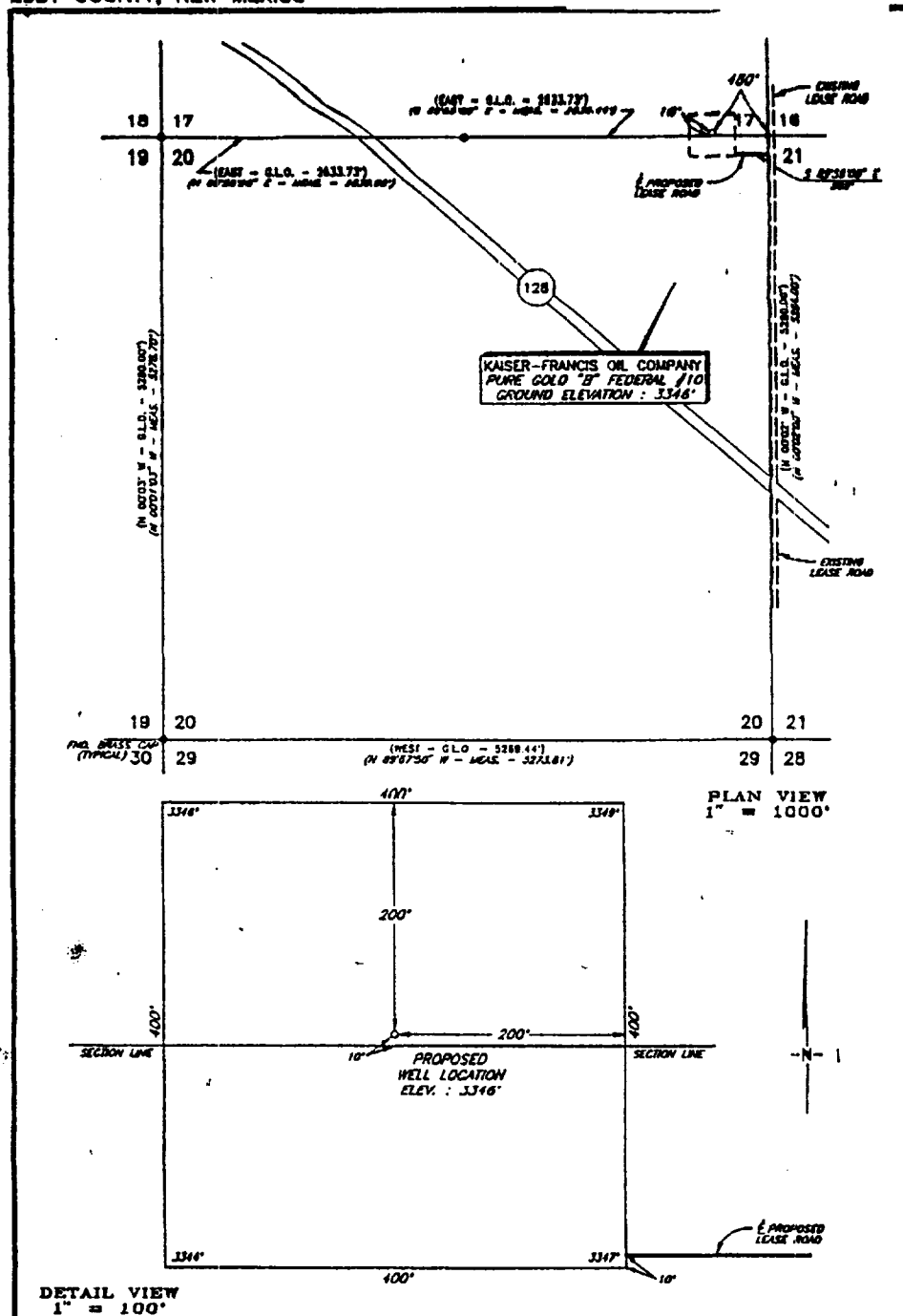
2003 N. BIG SPRING
MIDLAND, TX. 79705
(800) 767-1853

MAY 13 '94 14:59 KFOC EXEC.

P.21

PLAT SHOWING PROPOSED
WELL LOCATION AND LEASE ROAD IN
SECTION 17 & 20, T-23-S, R-31-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

Exhibit E
Kaiser-Francis Oil Co.
Pure Gold "B" Fed. #10
Eddy County, NM



EXHIBIT

A

KAISER - FRANCIS OIL COMPANY				SCALE: AS SHOWN	
ODESSA, TEXAS				DATE: JANUARY 11, 1994	
SURVEYING AND MAPPING BY				JOB NO.: 31149	
TOPOGRAPHIC LAND SURVEYORS				48 SE	
MIDLAND, TEXAS				SHEET: 1 OF 1	
NO.	REVISION	DATE	BY		
SURVEYED BY: S.M.					
DRAWN BY: V.H.B.					
APPROVED BY: V.L.B.					

MAY 13 '94 15:00 KFOC EXEC.

P.22

Exhibit F
Kaiser-Francis Oil Co.

OPERATOR'S COPY

RECEIVED

Form 3160-5
June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Kaiser-Francis Oil Company

3. Address and Telephone No.

P. O. Box 21468, Tulsa, OK 74121-1468

918-491-4314

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Surface: 10' FSL & 480' FEL of Sec. 17-23S-31E

Bottomhole: 480' FNL & 480' FEL of Sec. 20-23S-31E

FORM APPROVED

Budget Bureau No. 1004-0135

Expires: March 31, 1993

5. Lease Designation and Serial No.

NM - 38463

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Pure Gold B Federal #10

9. API Well No.

n/a

10. Field and Pool, or Exploratory Area

W. Sand Dunes (Delaware)

11. County or Parish, State

Eddy, NM

12. CHECK APPROPRIATE BOX(es) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☐ Recumpletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other Move surface location of well

- ☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion as Well Completion or Recumpletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

It is proposed to drill vertical holes to 4070' and to set and cement intermediate casing and to drill a directional hole under the potash deposits and onto a standard location for the Delaware formation in Sec. 20-23S-31E.

An APD was previously filed and was approved for drilling on 12/17/93 at a surface location of 10' FSL & 135' FWL of Sec. 16-23S-31E. On 12/16/93 Craig Cranston with the BLM called to advise that a surface location 625' west of the approved location at 10' FSL & 480' FEL of Sec. 17-23S-31E would also be approved for drilling. There would be no change in the bottomhole location. Therefore, since this surface location will reduce the direction displacement of the wellbore and result in a significant savings in drilling costs, it is our proposal to move the surface location of the well.

Please see attachments with previously filed amended APD dated 3/1/94.

EXHIBIT

B

14. I hereby certify that the foregoing is true and correct

Signed

(This space for Federal or State Office use)

Approved by
Conditions of approval, if any:

Charlotte Van Valkenburg
Technical Coordinator

Date 3/15/94

Title

Acting Area Manager

Date

5/2/94

Submit to the Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals, and Natural Resources Department

Form G-102
Revised 1-1-89

DISTRICT I
P. O. Box 1980
Hobbs, NM 88240

OIL CONSERVATION DIVISION

P. O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT II
P. O. Drawer DD
Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd
Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the section.

Operator KAISER - FRANCIS OIL COMPANY			Lease PURE GOLD 'B' FEDERAL		Well No. 10
Well Letter P	Section 17	Township 23 SOUTH	Range 31 EAST. N.M.P.M.	County EDDY	
Actual Footage Location of Well					
10		feet from the SOUTH	Line and 480	feet from the EAST	Line
Ground Level Elev. 3346'	Producing Formation Delaware		Pool W. Sand Dunes	40 Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plot below.
 - If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
 - If more than one lease of different ownership is dedicated to the well, have the interest of all the owners been consolidated by communitization, unitization, forced-pooling, etc.?
 - ☐ Yes ☐ No. If answer is "yes", type of consolidation _____
 - If the answer is "no", list the owners and tract descriptions which have actually been consolidated. (Use the reverse side of this form if necessary.) _____
- No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the division.

Bottomhole Location: 480' FNL & 480' FEL,
Sec 20

The acreage dedicated to this well is the
NE/4 NE/4 Sec 20, T23S, R31E

OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief.

Signature
Milton Griffin
Printed Name
Milton Griffin
Position
Operations Engineer
Company
Kaiser-Francis Oil Co.
Date
March 1, 1994

SURVEYOR CERTIFICATION

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

Date Surveyed
JANUARY 11, 1994
Signature
Andy Bell
Professional Surveyor
BEZNER
NO. 7620
Surveyor

10' 480'

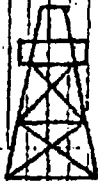
EXHIBIT A
KAISER-FRANCIS OIL COMPANY
Pure Gold "B" Federal #10
Eddy County, New Mexico

SUMMARY

Drilling, Casing and Cementing Program

1. Drill 17-1/2" hole to 700' and run 13-3/8", 48#, H40 casing. Use guide shoe on bottom joint with a float insert 1 joint above the guide shoe. Run 1 centralizer per joint on bottom 3 joints. Cement with 500 sx Class "C" + 2% CaCl + 1/4 pps Cello Flake lead cement followed by 200 sx Class "C" + 2% CaCl. Drop top plug and displace cement with mud.
2. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 600 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 600 psi for 30 minutes.
3. Drill 11" hole to 4070' and run a 8-5/8", 32#, J55 casing. Use guide shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 5 joints and 5 other centralizers. Cement with 800 sx Class C Lite (35:65:6) + 9.5 pps salt + 1/4 pps Celloflake lead cement followed by 200 sx Class C + 1% KCl + 5 pps salt. A Fluid Caliper will be run to determine the exact volume of cement required to circulate cement to the surface.
4. Nipple up and install BOP's. Cement shall be allowed to stand 12 hours under pressure. After 24 hours test casing to 1000 psi for 30 minutes and drill out cement. After drilling the plug and below the casing seat, test again to 1000 psi for 30 minutes.
5. Go in hole with 7-7/8" bit + 6-1/4" x 30' non-magnetic drill collar + (18) 6-1/4" steel drill collar. Drill 7-7/8" hole to KOP of 4200' and survey with non-magnetic instrument at 4200'. POOH for angle building assembly.
6. Go in hole with 7-7/8" bit + 6-1/2" slow-speed motor + 1-1/2" bent sub + 6-1/4" x 30' non-magnetic drill collar + 20 steel drill collars. Orient tool face properly, deflect well bore toward proper direction. Start angle building run. Drill with this assembly building approximately 2 degrees per 100 feet of hole in the proper direction until a maximum angle of 18 degrees is obtained plus or minus to 5627' M.D. POOH for angle dropping assembly.
7. Go in hole with 7-7/8" bit + 6-1/4" non-magnetic drill collar + 3 point roller reamer + 6-1/4" steel drill collar + 3 point roller reamer + (20) 6-1/4" drill collars. Drill hole dropping at 1.5 degrees for 100' to TVD depth of 6766.79' at this point you will be vertical and will continue to drill to a TVD depth of 8100'.

8. Run 5-1/2", 17#, K55 casing with a stage tool at approximately 6200'. Use a float shoe on bottom and a float collar 1 joint above the shoe. Use 1 centralizer per joint on bottom 3 joints and as required across potential productive intervals. Cement the first stage with 580 sx Class II + additives, and cement the second stage with 690 sx Class C Lite (35:65:6) lead cement followed with 100 sx Class C neat. The exact volume to bring the cement top to 4000' will be determined after logging the well.
9. Perforations and stimulation treatments will be determined after running electric logs and setting the 5-1/2" casing. It is anticipated that the Delaware at this location will be partially depleted. The estimated BHP is 2500 psi.



KAISER-FRANCIS OIL COMPANY
 PURE GOLD "B" FIELD WELL NO. B-10
 SECTION 20, T 23 S-R 31 E,
 EDDY COUNTY, NEW MEXICO
 PURE GOLD "B" FIELD

VERTICAL PROJECTION

SCALE 1" = 500'

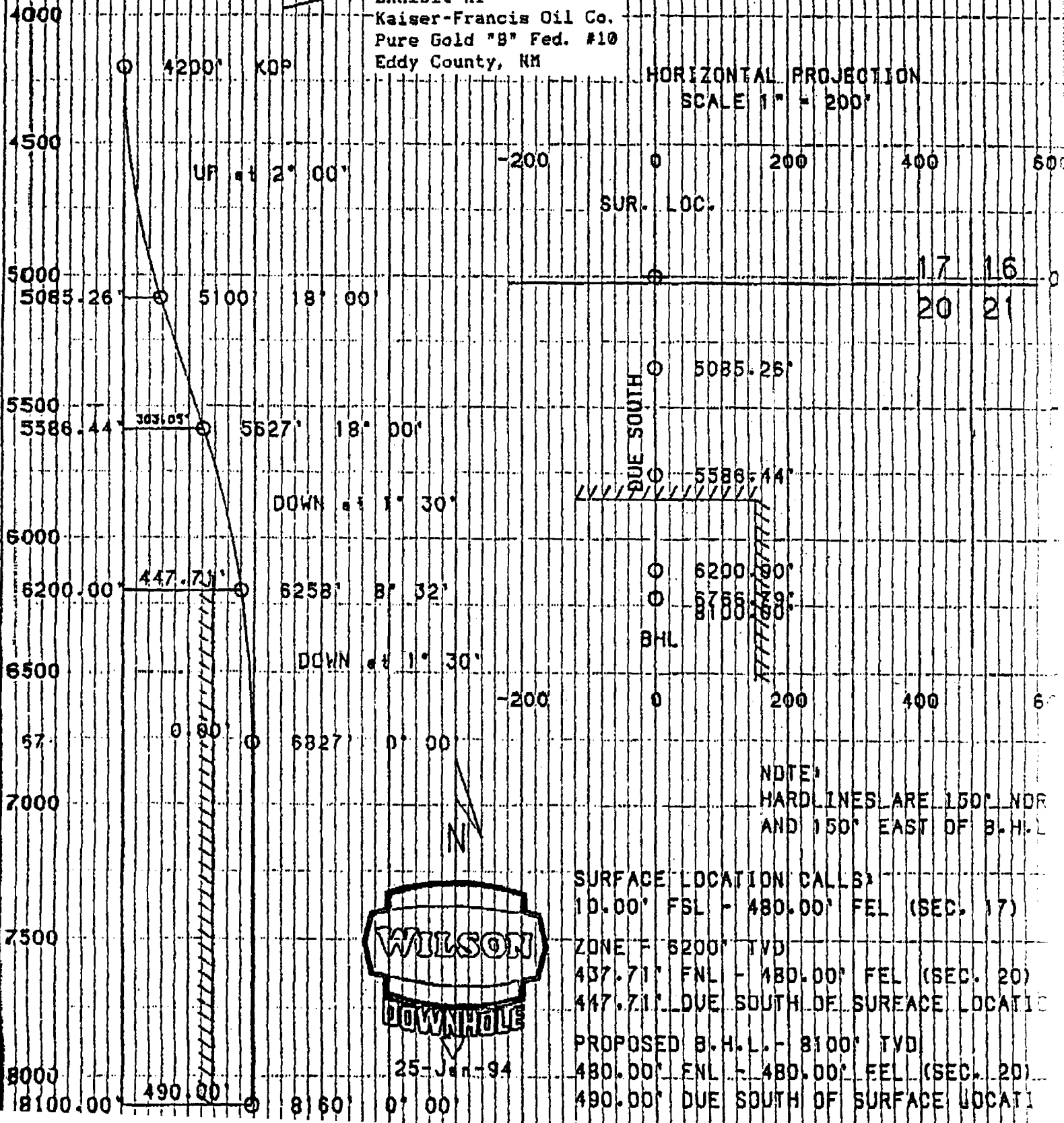
DUE SOUTH

Exhibit A1

Kaiser-Francis Oil Co.
 Pure Gold "B" Fed. #10
 Eddy County, NM

HORIZONTAL PROJECTION

SCALE 1" = 200'



NOTE:
 HARD LINES ARE 150' NDR
 AND 150' EAST OF B.H.L.