

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. 10887  
ORDER NO. R-10048

**APPLICATION OF KAISER-FRANCIS OIL COMPANY FOR DIRECTIONAL  
DRILLING, EDDY COUNTY, NEW MEXICO**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This cause came on for hearing at 8:15 a.m. on December 16, 1993 at Santa Fe, New Mexico, before Examiner Jim Morrow.

NOW, on this 12<sup>th</sup> day of January, 1994, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

**FINDS THAT:**

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Kaiser-Francis Oil Company (Kaiser-Francis), seeks authority to test and develop the undesignated Los Medanos-Delaware and/or undesignated West Sand Dunes-Delaware Pools underlying the NE/4 of Section 20 and the W/2 NE/4 and NW/4 of Section 21, Township 23 South, Range 31 East, NMPM, Eddy County New Mexico.

(3) The applicant is requesting approval for ten directional wells to be drilled from ten unorthodox surface locations to ten 40-acre standard oil well spacing and proration units within said area. The surface and bottomhole locations for the ten wells are shown in Exhibit "A".

(4) The proposed bottomhole locations are all in a one-half mile by 1 1/4 mile undeveloped area between the Los Medanos-Delaware and the West Sand Dunes-Delaware Pool. Top oil allowable in both pools is 187 barrels per day. Based on offset completions, the proposed locations should result in good wells and could possibly be completed as top allowable producers.

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(5) Both Delaware pools fall under General Spacing Rule 104.C.(1)(a) which requires 40-acre spacing and proration units with wells no closer than 330 feet to any boundary. Each of the proposed bottomhole locations is an orthodox location on a standard 40-acre spacing and proration unit.

(6) The bottomhole locations are on federal acreage and are overlain by potash reserves. Applicant's witness testified that the U. S. Bureau of Land Management ("BLM") would not approve vertical locations but has demanded that the area be developed with producing wells to prevent offset drainage.

(7) Surface locations for seven of the wells are on state land and three are on potash barren federal land. Kaiser-Francis has obtained a "Special Use Agreement" from the State Land Office for the seven surface locations on state land.

(8) A net sand isopach map was submitted by applicant's witness which shows that each proposed location should encounter from 40 to 80 feet of porosity in the lower Brushy Canyon section of the Delaware.

(9) Payout calculations were submitted by the applicant which show average well costs of \$699,700, payout in 1.06 years and gross oil recovery of 150,928 bbls.

(10) Kaiser-Francis presented letters to show that IMC Fertilizer has approved nine of the ten proposed locations because "they are outside the 1/4 mile of IMCF's LMR." Approval of the remaining location was recently requested and is expected based on its similarity to the other nine.

(11) Applicant's witness presented drilling plans and testimony to show that the drilling, casing, and cementing plans comply with Division Order No. R-111-P. Each well would be drilled vertically to approximately 4,200 feet. Surface casing would be set to 700 feet and intermediate to 4,070 feet. Each casing string would be cemented from setting depth to surface. Each well would be directionally drilled from 4,200 feet to a standard bottomhole location.

(12) Pogo Producing Company, Yates Petroleum Corporation, and Santa Fe Energy Operating Partners, L.P. appeared at the hearing and stated that they are neither opposed nor in support of the proposed application. Yates stated that such directional drilling is uneconomical. Although indicating they are not opposed to the application, Pogo, supported by Santa Fe, argued against approval saying they believe BLM will always oppose vertical drilling through potash reserves and that Kaiser-Francis' agreement to directionally drill these ten wells will be precedent setting. Pogo recommended that the BLM decision be appealed and cited an example of a BLM reversal which allowed vertical drilling in the area.

(13) Pogo's and Santa Fe's reasons for opposing this project are based on business judgements and positions concerning BLM lease requirements and policies, rather than on OCD regulatory procedures. They did not present arguments that the Kaiser-Francis request should be denied for OCD regulatory reasons.

(14) Approval of the project will afford the applicant the opportunity to recover its just and equitable share of hydrocarbons in the affected pools and will otherwise prevent waste and protect correlative rights.

(15) The applicant should be required to determine the subsurface location of the kick-off point in each wellbore prior to directional drilling and should subsequently be required to conduct accurate wellbore surveys during or upon completion of drilling operations from the kick-off point in each well to total depth to determine each well's true depth and course.

(16) The applicant should be required to notify the supervisor of the Artesia district office of the Division of the date and time said directional surveys are to be conducted so that they may be witnessed. The applicant should further be required to provide copies of said directional surveys to the Santa Fe and Artesia offices of the Division upon completion.

**IT IS THEREFORE ORDERED THAT:**

(1) The applicant, Kaiser-Francis Oil Company, is hereby authorized to drill ten directional wells from unorthodox surface locations to orthodox bottomhole locations on ten 40-acre standard spacing and proration units to develop the undesignated Los Medanos-Delaware and/or undesignated West Sand Dunes-Delaware Pools. Surface and bottomhole locations are shown in Exhibit "A" which is attached to this order. The bottomhole location for each of the wells will be considered in compliance if the actual bottomhole location is no more than 50 feet from the approved bottomhole location as shown in Exhibit "A" attached hereto and made a part hereof.

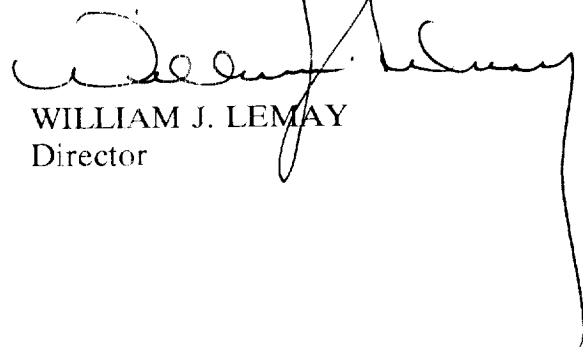
(2) The applicant shall determine the subsurface location of the kick-off point in each well bore prior to directional drilling and shall conduct accurate wellbore surveys during or upon completion of drilling operations from the kick-off point in each well to total depth to determine each well's true depth and course.

(3) The applicant shall notify the supervisor of the Artesia district office of the Division of the date and time said directional surveys are to be conducted so that they may be witnessed. The applicant shall provide copies of said directional surveys to the Santa Fe and Artesia offices of the Division upon completion.

(4) Jurisdiction of this cause is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY  
Director

S E A L

EXHIBIT A  
CASE NO. 10887  
ORDER NO. R-10048  
PROPOSED WELL LOCATIONS  
KAISER-FRANCIS OIL COMPANY PURE GOLD LEASES  
SECTIONS 20 AND 21, TOWNSHIP 23 SOUTH, RANGE 31 EAST  
NMPM, EDDY COUNTY, NEW MEXICO

PURE GOLD WELL LOCATIONS

Well: Pure Gold A-7  
Surface: 1950' FSL x 200' FEL (Unit I) Sec 20  
BHL: 2043' FNL x 456' FWL (Unit E) Sec 21

Well: Pure Gold A-8  
Surface: 10' FSL x 1935' FWL (Unit N) Sec 16  
BHL: 1947' FNL x 1789' FWL (Unit F) Sec 21

Well: Pure Gold A-9  
Surface: 10' FSL x 280' FWL (Unit M) Sec 16  
BHL: 480' FNL x 480' FWL (Unit K) Sec 21

Well: Pure Gold A-10  
Surface: 10' FSL x 1800' FWL (Unit N) Sec 16  
BHL: 480' FNL x 1800' FWL (Unit C) Sec 21

Well: Pure Gold A-13  
Surface: 10' FSL x 2025' FEL (Unit O) Sec 16  
BHL: 2012' FNL x 2176' FEL (Unit G) Sec 21

Well: Pure Gold A-14  
Surface: 10' FSL x 2160' FEL (Unit O) Sec 16  
BHL: 480' FNL x 2160' FEL (Unit B) Sec 21

Well: Pure Gold B-7  
Surface: 2100' FSL x 1600' FEL (Unit J) Sec 20  
BHL: 1988' FNL x 1834' FEL (Unit G) Sec 20

Well: Pure Gold B-8  
Surface: 1950' FSL x 335' FEL (Unit I) Sec 20  
BHL: 1957' FNL x 505' FEL (Unit H) Sec 20

Well: Pure Gold B-9  
Surface: 10' FSL x 1960' FEL (Unit O) Sec 17  
BHL: 480' FNL x 1800' FEL (Unit B) Sec 20

Exhibit A  
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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