

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK
 DRILL DEEPEN PLUG BACK

2. TYPE OF WELL
 OIL WELL GAS WELL OTHER
 SINGLE ZONE MULTIPLE ZONE

3. NAME OF OPERATOR
 McKay Oil Corporation

4. ADDRESS OF OPERATOR
 P.O. Box 2014, Roswell, New Mexico 88202

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
 At surface 1980' FSL & 1980' FWL, NE/4 SW/4, Unit letter K
 At proposed prod. zone Same

6. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE
 33 air miles north of Roswell, N.M.

7. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.
 (Also to nearest drlg. unit line, if any.) 1980'

8. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING COMPLETED OR APPLIED FOR, ON THIS LEASE, FT. 1/4 mile

9. ELEVATIONS (Show whether DF, RT, GR, etc.)
 4357' GR

5. LEASE DESIGNATION AND SERIAL NO.
 NM-32312

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. TRACT AGREEMENT NAME

8. FARM OR LEASE NAME
 West Fork Federal

9. WELL NO.
 10

10. FIELD AND POOL, OR WILDCAT
 W. Pecos Slope Abo

11. SEC., T., S., M., OR BLK. AND SURVEY OR AREA
 Sec. 6, T5S, R22E

12. COUNTY OR PARISH
 Chaves

13. STATE
 NM

16. NO. OF ACRES IN LEASE
 1920

18. PROPOSED DEPTH
 3,400'

20. ROTARY OR CABLE TOOL
 Rotary

17. NO. OF ACRES ASSIGNED TO THIS WELL
 160

19. APPROX. DATE WORK WILL START
 ASAP

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	24.0 J-55	900'	850 cf cement circulated.
7 7/8"	4 1/2"	10.5 J-55	TD	1300 cf cement including 480 cf to tie in 4 1/2" to 8 5/8" from 1500' to 900'.

We propose to drill and test the Abo formation. Approximately 900' of surface casing will be set and cemented to surface. If commercial, 4 1/2" production casing will be run and cemented with adequate cover, perforated and stimulated as needed for production.

MUD PROGRAM: See Supplemental Drilling Data which is Attached.

BOP PROGRAM: BOP will be installed on 8 5/8" casing and tested.

Gas is not dedicated.

BEFORE EXAMINER CATANACH
 OIL & GAS REGULATION DIVISION
 SUBMIT NO. 4
 CASE NO. 10190

14. ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on old productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

SIGNED: Terry W. Frankle TITLE: Landman DATE: 4/16/87

(This space for Federal or State office use)

PERMIT NO. APPROVAL DATE
 APPROVED BY: Phil Kirk TITLE: Asst. Mgr. DATE: 6/10/87

APPROVAL OF THIS APPLICATION 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.

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

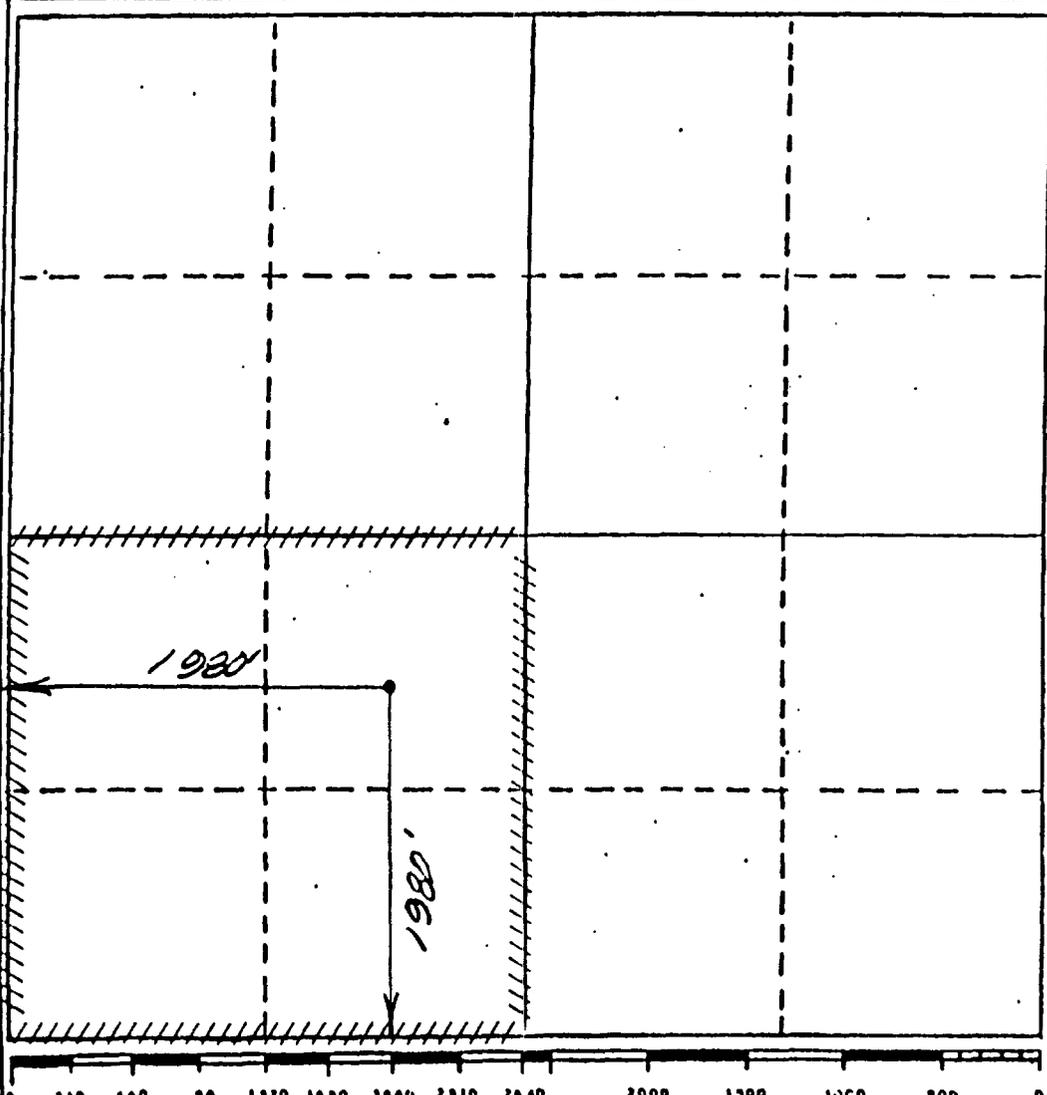
Operator McKay Oil Corp.		Lease West Fork Federal		Well No. #10
Unit Letter K	Section 6	Township 5 South	Range 22 East	County Chaves
Actual Footage Location of Well: 1980 feet from the South line and 1980 feet from the West line				
Ground Level Elev. 4357	Producing Formation Abo	Pool W. Pecos Slope-Abo	Dedicated Acreage 160 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

Yes No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use 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 interests, has been approved by the Division.



CERTIFICATION

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

Terry W. Franklin
Name

Terry W. Franklin
Position

Agent

Company

McKay Oil Corporation

Date

4/16/87

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.

JOHN D. JAQUES
NEW MEXICO
March 21, 1987
Registered Professional Engineer
No. 5208
John D. Jaques P.E. L.S.
Certificate No. 6290

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. 10190
Order No. R-9452

APPLICATION OF MCKAY OIL CORPORATION
FOR A HORIZONTAL DIRECTIONAL DRILLING
PROJECT AND SPECIAL OPERATING RULES
THEREFOR, CHAVES COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on January 10 and February 7, 1991, at Santa Fe, New Mexico, before Examiners David R. Catanach and Michael E. Stogner, respectively.

NOW, on this 7th day of March, 1991, 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) Division Case Nos. 10190, 10205, 10206, 10207 and 10208 were consolidated at the time of the January 10th hearing for the purpose of testimony.

(3) The applicant, McKay Oil Corporation, seeks authority to initiate a horizontal directional drilling project in the SW/4 of Section 6, Township 5 South, Range 22 East, NMPM, Chaves County, New Mexico, being a standard 160-acre gas spacing and proration unit in the Wildcat Abo Gas Pool. The applicant proposes to drill its West Fork Federal Unit Well No. 10 at a standard surface location 1980 feet from the South and West lines (Unit K) of said Section 6 in the following manner:

Drill vertically to a depth of approximately 3400 feet through the Abo formation, log well, plug back and set production casing, kick off from vertical at a depth of approximately 2807 feet and commence a short radius curve in an undetermined direction building angle to approximately 90 degrees, commence drilling horizontally at a depth of approximately 2867 feet a distance of approximately 500 feet.

(4) The applicant further seeks special rules and provisions within the project area including the designation of a prescribed area limiting the horizontal displacement of the wellbore such that the well can be no closer than 330 feet to the outer boundary of its assigned spacing and proration unit.

(5) The evidence and testimony presented indicates that the proposed horizontal wellbore, which is experimental in nature, should encounter a greater amount of natural fractures within the Abo formation than would a conventional wellbore, which should ultimately result in the recovery of a greater amount of gas from the proposed proration unit, thereby preventing waste.

(6) The normal setback requirement for a Wildcat Abo Gas Pool well, pursuant to Rule 104 (C)(II) of the Division Rules and Regulations, is 660 feet from the outer boundary of the proration unit.

(7) The 330 foot setback proposed by the applicant should not violate correlative rights inasmuch as the subject well is located within the applicant's West Fork Unit Area which contains therein all affected offset acreage surrounding the SW/4 of said Section 6.

(8) No other offset operator and/or interest owner appeared at the hearing in opposition to the application.

(9) According to further evidence the proposed surface location is such that there is a possibility, depending on the kick off direction, that the horizontal portion of the wellbore may encroach upon the 330 foot setback as proposed by the applicant.

(10) Should the horizontal portion of the wellbore encroach upon the 330 foot setback requirement and commercial gas production is established within the well, the applicant should be required to reopen this case and appear and present evidence and testimony in order to demonstrate that correlative rights will still be protected.

(11) Approval of the proposed horizontal directional drilling project should result in the recovery of an additional amount of gas from the proposed proration unit which may not otherwise be recovered, thereby preventing waste, and will not violate correlative rights provided that the proposed horizontal drainhole is in compliance with the setback requirements described in Finding No. (4) above.

(12) The applicant should be required to conduct a directional survey on the vertical portion of the wellbore prior to commencing directional drilling operations, and on the horizontal portion of the wellbore during or subsequent to completion of directional drilling operations in order that the direction, extent and terminus of said horizontal drainhole may be determined to be in compliance with the terms of this order.

(13) The applicant should further be required to submit copies of said directional surveys to the Santa Fe and Artesia offices of the Division.

(14) The applicant should notify the supervisor of the Artesia district office of the Division of the date and time of commencement of directional drilling operations and of the conductance of any directional surveys on the proposed well in order that these operations may be witnessed.

IT IS THEREFORE ORDERED THAT:

(1) The application of McKay Oil Corporation for a horizontal directional drilling project in the SW/4 of Section 6, Township 5 South, Range 22 East, NMPM, Wildcat Abo Gas Pool, Chaves County, New Mexico, is hereby approved.

(2) The applicant is further authorized to drill its West Fork Federal Unit Well No. 10 located at a standard surface location 1980 feet from the South and West lines (Unit K) of said Section 6 in the following manner:

Drill vertically to a depth of approximately 3400 feet through the Abo formation, log well, plug back and set production casing, kick off from vertical at a depth of approximately 2807 feet and commence a short radius curve in an undetermined direction building angle to approximately 90 degrees, commence drilling horizontally at a depth of approximately 2867 feet a distance of approximately 500 feet.

(3) The SW/4 of said Section 6 shall be dedicated to the above-described well forming a standard 160-acre gas spacing and proration unit for the Wildcat Abo Gas Pool.

(4) No part of the horizontal wellbore shall be located closer than 330 feet from the outer boundary of the proration unit.

(5) Should the horizontal portion of the wellbore encroach upon the 330 foot setback requirement and commercial gas production is established within the well, the applicant shall be required to reopen this case and appear and present evidence and testimony in order to demonstrate that correlative rights will still be protected.

(6) The applicant shall be required to conduct a directional survey on the vertical portion of the wellbore prior to commencing directional drilling operations, and on the horizontal portion of the wellbore during or subsequent to completion of directional drilling operations in order that the direction, extent and terminus of said horizontal drainhole may be determined to be in compliance with the terms of this order.

(7) The applicant shall further be required to submit copies of said directional surveys to the Santa Fe and Artesia offices of the Division.

(8) The applicant shall notify the supervisor of the Artesia district office of the Division of the date and time of commencement of directional drilling operations and of the conductance of any directional surveys on the proposed well in order that these operations may be witnessed.

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

CASE NO. 10190
Order No. R-9452
Page -5-

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



STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

A handwritten signature in black ink, appearing to read "William J. Lemay".

WILLIAM J. LEMAY
Director