

# ELK OIL COMPANY

BOX 310

ROSWELL, NEW MEXICO 88202

(505) 623-3190

JOSEPH J. KELLY  
PRESIDENT

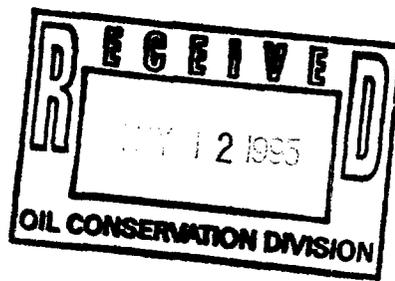
May 12, 1995

11301

New Mexico Oil Conservation Division  
Post Office Box 2088  
Santa Fe, New Mexico 87501

Attention: Michael Stogner

Re: Unorthodox Oil Well Location  
South Lone Wolf Unit #2  
600' FSL & 1200' FWL  
Section 29-T13S-R29E  
Chaves County, New Mexico



Gentlemen:

Elk Oil Company respectfully requests an administrative approval for a proposed unorthodox location as provided for under NMOCD Rule 104F.

Our preferred location for this oil well is 600' FSL and 1200' FWL. Our reason for requesting this unorthodox location is geological (please note attached Exhibit 1.)

Enclosed please find a copy of the lease map outlining the South Lone Wolf Federal Unit (Elk Oil Company, Operator). The Bureau of Land Management has given verbal approval of this location. Elk believes the well is unorthodox as to its own leases.

If you have any questions, please do not hesitate to call.

Very truly yours,

ELK OIL COMPANY

Joseph J. Kelly  
President

JJK/jgb  
Enc.

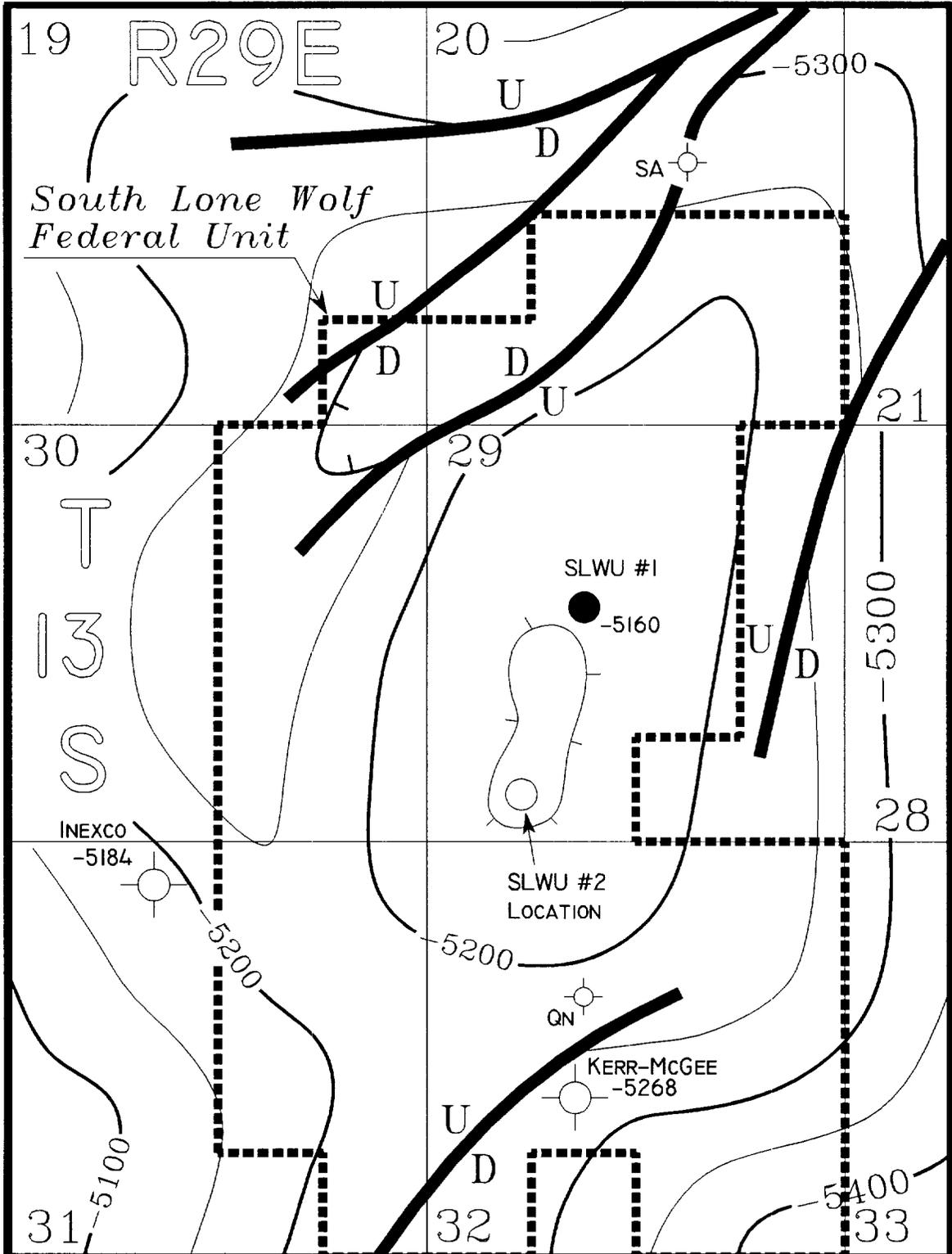
Case 11381

**Elk Oil Company**  
**South Lone Wolf Unit #2 Proposed Unorthodox Location**  
**SWSW (600' FSL & 1200' FWL), Sec. 29, T13S-R29E, Chaves Co., NM**

Elk Oil Company operates the South Lone Wolf Federal Unit, covering 1,960 acres m/l in sections 19, 20, 29, 30, 31, and 32 of T13S-R29E, Chaves County, NM (Fig. 1). Currently, one well, the South Lone Wolf Unit #1, is producing from the unit out of the Devonian reservoir. Elk Oil Company is proposing to drill another Devonian test within the unit in the SWSW of section 29 at an unorthodox (to 40 acre spacing rules) location located 600' FSL & 1200' FWL.

The proposed unorthodox location is necessitated in order to optimize critical geological parameters necessary for economic oil production from the Devonian reservoir. Based on subsurface geological interpretation, in conjunction with a 3-D seismic interpretation over the unit, it has been determined that the proposed location is the optimum spot to maximize structural relief on top of the broad Mississippian, and hence also Devonian, anticlinal closure found within the unit (Fig. 1). The South Lone Wolf Unit #1 well penetrated the Devonian reservoir on the flank of the structure at a subsurface depth of -5862' and has produced in excess of 40,000 barrels of oil. Current production varies from 50-70 BOPD and over 400 BWPD, indicating close wellbore proximity to the oil/water contact. An orthodox location in the SW/4 of section 29 would not penetrate the structure high to the SLWU #1 well, therefore an unorthodox location is necessary in order to penetrate the anticline on its crest so as to optimize efficient oil production, maximize recovery, and prevent unnecessary waste of recoverable reserves.

As shown in Figure 2, the proposed unorthodox location lies well within South Lone Wolf Federal Unit and is staked on Federal Lease NM-68651, which comprises the entire SW/4 of section 29, T13S-R29E. Based on state mandated rules regarding standard 40 acre oil proration units, the proposed location is well over the 330' minimum distance from any adjacent state or federal lease. The unorthodox nature of the location, being 1200' from the west line, encroaches only towards the centerline of the lease being tested, all of which is controlled by Elk Oil Company. Therefore, no adjacent leases, most all of which are also controlled by Elk Oil Company, will be affected by the drilling of the South Lone Wolf Unit #2 well at the proposed unorthodox location.



*Lone Wolf  
Devonian  
Southwest*

MISSISSIPPIAN STRUCTURE

SUBSEA  
CONTOUR INTERVAL: 50 FT

1"=2000 FT

FIGURE I

R29E

T  
13  
S

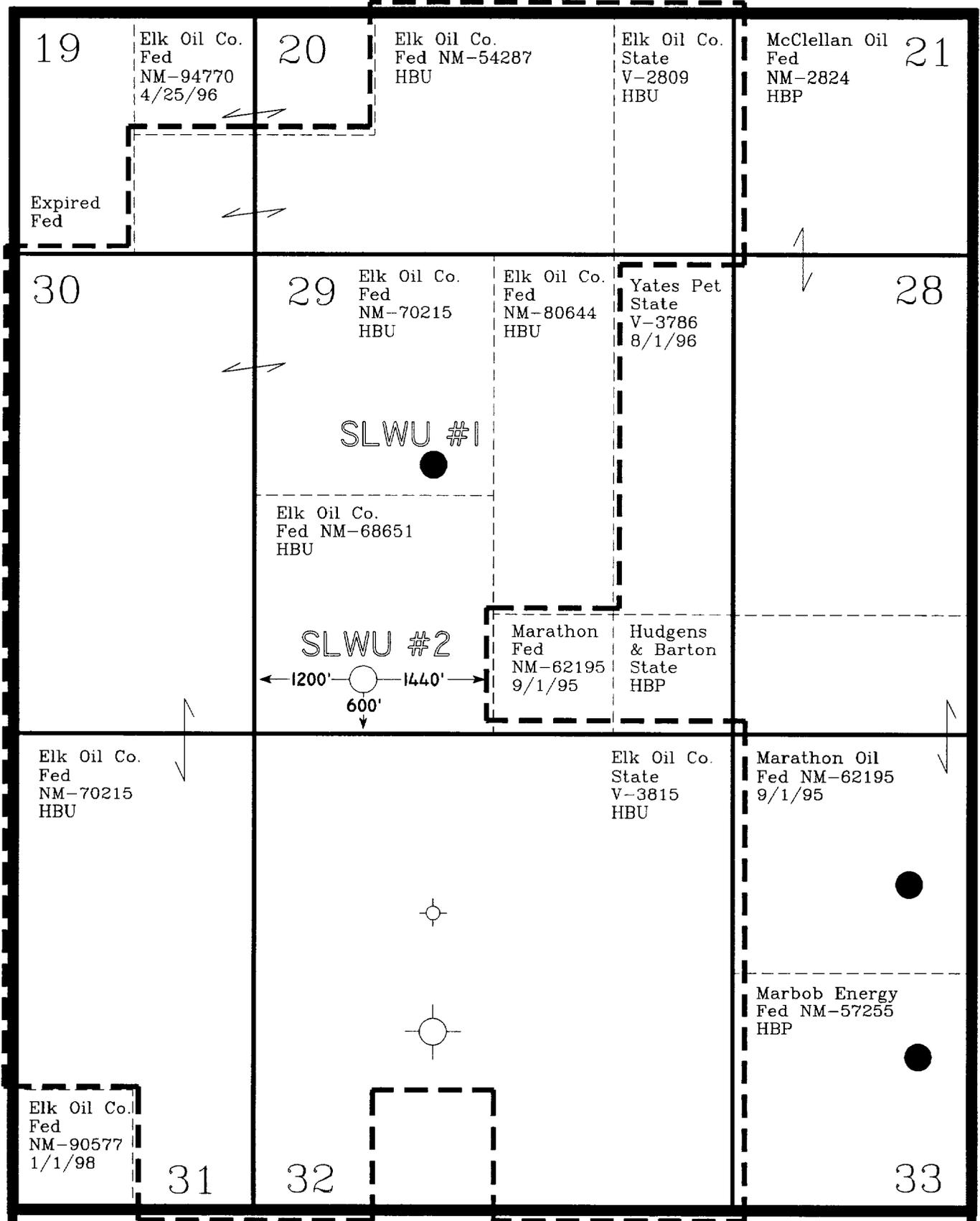


FIGURE 2

South Lone Wolf Unit #2  
Land Status

[---] SOUTH LONE  
WOLF UNIT

**SOUTH LONE WOLF UNIT  
Chaves County, New Mexico**

Order No. R-9683, Approving the South Lone Wolf Unit Agreement,  
Chaves County, New Mexico, June 17, 1992.

Application of Terra Energy, Ltd. for a Unit Agree-  
ment, Chaves County, New Mexico

CASE No. 10475  
Order No. R-9683

**ORDER OF THE DIVISION**

**BY THE DIVISION:** This cause came on for hearing at 8:15 a.m. on  
June 11, 1992, at Santa Fe, New Mexico, before Examiner Michael E.  
Stogner.

NOW, on this 17th day of June, 1992, 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, Terra Energy Ltd., seeks approval of the South Lone  
Wolf Unit Agreement and Area for all oil and gas in any and all formations  
underlying 1960.00 acres, more or less, of State and Federal lands as  
further described in Exhibit "A" attached hereto and made a part hereof.

(3) No interested party appeared and objected to the proposed unit area.

(4) All plans of development and operation, and creations, expansions  
or contractions of participating areas, or expansions or contractions of the  
unit area should be submitted to the Director of the Division for approval.

(5) Approval of the proposed unit agreement should promote the  
prevention of waste and protection of correlative rights within the unit  
area.

**IT IS THEREFORE ORDERED THAT:**

(1) The South Lone Wolf Unit Agreement, executed by Terra Energy,  
Ltd., is hereby approved for all oil and gas in any all formations underlying  
1960.00 acres, more or less of State and Federal lands in Chaves County,  
New Mexico, as further described in Exhibit "A" attached hereto and made  
a part hereof.

(2) The plan contained in said unit agreement for the development and  
operation of the unit area is hereby approved in principle as a proper  
conservation measure; provided however, notwithstanding any of the  
provisions contained in said unit agreement, this approval shall not be  
considered as waiving or relinquishing, in any manner, any right, duty or  
obligation which is now, or may hereafter be, vested in the Division to  
supervise and control operations for the unit and production of oil and gas  
therefrom.

(3) The unit operator shall file with the Division an executed original or  
executed counterpart of the unit agreement within 30 days after the  
effective date thereof; in the event of subsequent joinder by any other party  
or expansion or contraction of the unit area, the unit operator shall file with  
the Division, within 30 days thereafter, counterparts of the unit agreement  
reflecting the subscription of those interests having joined or ratified.

(4) All plans of development and operation, all unit participating areas  
and expansions or contractions of the unit area, shall be submitted to the  
Director of the Oil Conservation Division for approval.

(5) This order shall become effective upon the approval of said unit  
agreement by the appropriate agency of the United States Department of  
Interior and the Commissioner of Public Lands for the State of New  
Mexico; this order shall terminate ipso facto upon the termination of said  
unit agreement; and the last unit operator shall notify the Division  
immediately in writing of such termination.

(6) Jurisdiction of this cause is 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.

EXHIBIT "A"  
CASE NO. 10475  
ORDER NO. R-9683  
SOUTH LONE WOLF UNIT AREA  
CHAVES COUNTY, NEW MEXICO

**TOWNSHIP 13 SOUTH, RANGE 29 EAST, NMPM**

- Section 19: SE/4 SE/4
- Section 20: NE/4 SW/4, S/2 SW/4, and SE/4
- Section 29: W/2 NE/4, W/2, and NW/4 SE/4
- Section 30: E/2
- Section 31: NE/4, N/2 SE/4, and SE/4 SE/4
- Section 32: N/2, N/2 SW/4, SW/4 SW/4 and SE/4

