



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

September 13, 1997

Texaco Exploration & Production Inc.
P. O. Box 3109
Midland, Texas 79702
Attention: C. Wade Howard

*Administrative Order DD-198
&
Administrative Order NSL-3867(SD)*

Dear Mr. Howard:

Reference is made to your application dated June 19, 1997 for authorization to: (i) further develop the Vacuum-Abo Reef Pool underlying an existing standard 40-acre oil spacing and proration unit comprising the NW/4 NE/4 (Unit B) of Section 7, Township 18 South, Range 35 East, NMPM, Lea County, New Mexico with its proposed State "AN" Well No. 11 (API No. 30-025-34097) at an unorthodox oil well location 900 feet from the North line and 1440 feet from the East line of said Section 7; and, (ii) with the same wellbore directional drill to a standard subsurface oil well location within the NE/4 NE/4 (Unit A) of said Section 7, being a standard 40-acre oil spacing and proration unit, in order to test the Undesignated Vacuum-Atoka Pool.

The Division Director Finds That:

- (1) The application has been duly filed under the provisions of:
 - (a) **Rule 111.D** and **E** of the General Rules and Regulations of the New Mexico Oil Conservation Division ("Division"), revised by Division Order No. R-10388, issued by the Oil Conservation Commission in Case 11274 on June 13, 1995; and,
 - (b) **Rule 104.F** of said Division general rules;
- (2) The current pool boundaries in Lea County, New Mexico for the:
 - (a) Vacuum-Atoka Pool comprises the E/2 of Section 36, Township 17 South, Range 34 East, NMPM and the NE/4 of Section 1, Township 18 South, Range 34 East, NMPM; and,
 - (b) Vacuum-Abo Reef Pool includes the following described area:

TOWNSHIP 17 SOUTH, RANGE 35 EAST, NMPM

Section 24: SE/4
Sections 25 and 26: All
Section 27: S/2 SW/4 and SE/4
Section 33: S/2 NE/4, S/2 SW/4, and SE/4
Sections 34 and 35: All
Section 36: SW/4 NW/4 and SW/4

TOWNSHIP 17 SOUTH, RANGE 36 EAST, NMPM

Section 18: S/2
Section 19: N/2 NW/4, SW/4 NW/4, and W/2 SW/4

TOWNSHIP 18 SOUTH, RANGE 34 EAST, NMPM

Section 1: SE/4
Section 2: S/2 SW/4 and SE/4
Section 3: S/2 SE/4
Section 10: NE/4
Section 11: N/2 and SE/4
Section 12: All

TOWNSHIP 18 SOUTH, RANGE 35 EAST, NMPM

Section 2: NE/4
Section 3: W/2 NW/4
Section 4: N/2 and SW/4
Section 5: All
Section 6: SE/4 NE/4 and S/2
Sections 7 and 8: All
Section 9: SW/4
Section 17: NW/4;

- (3) Both the Vacuum-Abo Reef and Vacuum-Atoka Pools are subject to the statewide rules and regulations, as promulgated by **Rule 104.C(1)(a)**, which provides for 40-acre oil spacing and proration units, or drilling units, and requires that wells be located no closer than 330 feet to the outer boundary of a single 40-acre oil spacing and proration unit;
- (4) Division records and the application indicate that the State "AN" lease (New Mexico State Lease No. E-07653) comprises an area that includes the E/2 of said Section 7 and is operated by Texaco; therefore, there is no affected offsetting operator other than Texaco to the north of the proposed project area;
- (5) Within the NE/4 of said Section 7 Texaco is currently developing the Vacuum-Abo Reef Pool in the following manner:

- (a) the NE/4 NE/4 (Unit A) of said Section 7, being a standard 40-acre oil spacing and proration unit, is dedicated to Texaco's State "AN" Well No. 1 (API No. **30-025-03101**), located at a standard oil well location 330 feet from the North line and 990 feet from the East line of said Section 7;
 - (b) the NW/4 NE/4 (Unit B) of said Section 7, being a standard 40-acre oil spacing and proration unit, is dedicated to Texaco's State "AN" Well No. 2 (API No. **30-025-03102**), located at a standard oil well location 330 feet from the North line and 2100 feet from the East line of said Section 7;
 - (c) the SW/4 NE/4 (Unit G) of said Section 7, being a standard 40-acre oil spacing and proration unit, is dedicated to Texaco's State "AN" Well No. 3 (API No. **30-025-03103**), located at a standard oil well location 1650 feet from the North line and 2310 feet from the East line of said Section 7; and,
 - (d) the SE/4 NE/4 (Unit H) of said Section 7, being a standard 40-acre oil spacing and proration unit, is dedicated to Texaco's State "AN" Well No. 4 (API No. **30-025-03104**), located at a standard oil well location 1650 feet from the North line and 990 feet from the East line of said Section 7;
- (6) The proposed "infill well" location in Unit "B" of said Section 7 (to be approximately 900 feet from the North line and 1400 feet from the East line) within the Vacuum-Abo Reef Pool, being of equidistance to all four of the above-described producing oil wells, will enable Texaco to further develop and deplete the reserves within the NE/4 of said Section 7, while the directionally drilling of this well in a conventional manner into the Undesignated Vacuum-Atoka Pool to a proposed standard bottomhole location within the NE/4 NE/4 (Unit A) of said Section 7 should enable Texaco to utilize fully the same wellbore in order to test the Atoka interval for oil production;
- (7) It is Texaco's intent to directionally drill the State "AN" Well No. 11 to an unorthodox surface oil well location 900 feet from the North line and 1440 feet from the East line (Unit B) of said Section 7 by drilling vertically to an approximate depth of 8,000 feet (the top of the Abo Reef within said well is expected to be at approximately 8326 feet), kick-off in a east-northeasterly direction building angle at a rate of 2 degrees per 100 feet until an inclination of 20 degrees is obtained, and drill directionally at a 20-degree angle to a

targeted standard bottomhole oil well location within the Atoka formation that is approximately 400 feet from the North line and 500 feet from the East line (Unit A) of said Section 7;

- (8) The "project area" within the Undesignated Vacuum-Atoka Pool proposed by Texaco would consist of a single standard 40-acre oil spacing and proration unit comprising the NW/4 NE/4 of said Section 7 and the applicable drilling window or "producing area" for said wellbore should include that area within the NW/4 NE/4 (Unit A) of said Section 7 that is no closer than 330 feet to the outer boundary of said dedicated 40-acre tract; and,
- (9) It appearing the applicant has satisfied all of the appropriate requirements prescribed in said **Rule 111.D and E and 104.F(2)**, the subject application should be approved and the well should be governed by the provisions contained within this order and all other applicable provisions of **Division General Rule 111**.

IT IS THEREFORE ORDERED THAT:

(1) Texaco Exploration and Production, Inc. ("Texaco") is hereby authorized to drill its proposed State "AN" Well No. 11 (API No. 30-025-34097) at an unorthodox surface oil well location 900 feet from the North line and 1440 feet from the East line (Unit B) of Section 7, Township 18 South, Range 35 East, NMPM, Lea County, New Mexico, drill vertically to an approximate depth of 8,000 feet, kick-off in a east-northeasterly direction building angle at a rate of 2 degrees per 100 feet until an inclination of 20 degrees is obtained, penetrating the Abo Reef interval at an approximate 8326 feet, and continue to drill directionally to a targeted standard bottomhole oil well location within the Atoka formation that is approximately 400 feet from the North line and 500 feet from the East line (Unit A) of said Section 7.

PROVIDED HOWEVER THAT prior to commencing directional drilling operations in said wellbore, the applicant shall establish the location of the kick-off point by means of a directional survey acceptable to the Division.

PROVIDED FURTHER THAT during or upon completion of said directional drilling operations, the applicant shall conduct an accurate wellbore survey from the kick-off point to total depth in order that the subsurface bottomhole location, as well as the wellbore's true depth and course, may be determined.

(2) The applicant shall notify the supervisor of the Hobbs District office of the Division of the date and time said wellbore surveys are to be conducted so that they may be witnessed. The applicant shall further provide a copy of said wellbore surveys to the Santa Fe and Hobbs offices of the Division upon completion.

(3) For the Vacuum-Abo Reef Pool the existing standard 40-acre oil spacing and proration unit comprising the NW/4 NE/4 (Unit B) of said Section 7, which is presently dedicated to Texaco's State "AN" Well No. 2 (API No. 30-025-03102), located at a standard oil well location 330 feet from the North line and 2100 feet from the East line of said Section 7, and said State "AN" Well No. 11 are both to be

dedicated to said well.

(4) Further, Texaco is hereby: (i) authorized to simultaneously dedicate Vacuum-Abo Reef oil production from the existing State "AN" Well No. 2 with the proposed State "AN" Well No. 11; and, (ii) permitted to produce the allowable assigned the subject standard 40-acre oil spacing and proration unit from both wells in any proportion.

(5) For the deeper Undesignated Vacuum-Atoka Pool the "project area" for the directionally drilled portion of the State "AN" Well No. 11 is to be a standard 40-acre oil spacing and proration unit comprising the NE/4 NE/4 (Unit A) of said Section 7.

(6) The applicable drilling window or "producing area" in the Undesignated Vacuum-Atoka Pool for said State "AN" Well No. 11 shall consist of that area within the NE/4 NE/4 (Unit A) of said Section 7 that is no closer than 330 feet to the outer boundary of said dedicated 40-acre tract.

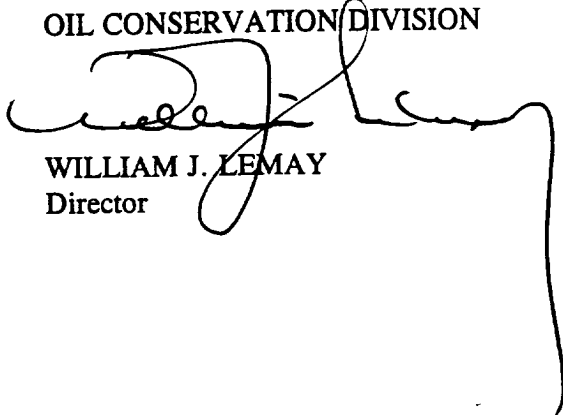
(7) The operator shall comply with all requirements and conditions set forth in **Division General Rule 111.E(2)** and any applicable requirements in **111.D** and **F**.

(8) Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth (TVD) in addition to measured vertical depth (MVD).

(9) 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.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LEMAY
Director

S E A L

cc: Oil Conservation Division - Hobbs
New Mexico State Land Office - Santa Fe