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. 11615 ORDER NO. R-9514-B

APPLICATION OF THORNTON OPERATING CORPORATION FOR POOL CONTRACTION, POOL CREATION, THE PROMULGATION OF SPECIAL POOL RULES THEREFOR, A NON-STANDARD OIL PRORATION UNIT, DIRECTIONAL DRILLING, AND AN UNORTHODOX BOTTOM HOLE OIL WELL LOCATION, CHAVES COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on October 3, 1996, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this <u>10th</u> day of March, 1997 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) By Division Order No. R-9514, issued in Case No. 10308 and dated May 24, 1991, the South Lone Wolf-Devonian Pool was created and designated as an oil pool for the Production of oil from the Devonian formation in Chaves County, New Mexico. Said order also promulgated temporary special rules and regulations for said pool including provisions for standard 160-acre oil spacing and proration units subject to a depth bracket oil allowable of 515 barrels of oil per day and designated well location requirements such that wells can be no closer than 660 feet to the outer boundary of a standard proration unit nor closer than 330 feet to any governmental quarter-quarter section line or subdivision inner boundary.
- (3) On May 14, 1992 this matter was reopened pursuant to the provisions of said Order No. R-9514 to allow the operators in the subject pool to appear and show cause why

said temporary special pool rules should not be rescinded [see Decretory Paragraph No. (6)]. When no operator appeared the rules governing the South Lone Wolf-Devonian Pool reverted back to statewide 40-acre spacing with 330 feet offset well requirements and was reassigned a standard depth bracket oil allowable of 275 barrels of oil per day.

(4) The South Lone Wolf-Devonian Pool currently comprises the following described acreage in Chaves County, New Mexico:

TOWNSHIP 13 SOUTH, RANGE 29 EAST, NMPM

Section 26: NW/4
Section 27: N/2
Section 28: E/2
Section 33: N/2.

- (5) The applicant in this matter, Thornton Operating Corporation, now seeks:
 - (a) the contraction of the South Lone Wolf-Devonian Pool, as described above, by deleting therefrom the following described area in Chaves County, New Mexico:

TOWNSHIP 13 SOUTH, RANGE 29 EAST, NMPM

Section 26: NW/4 Section 27: NE/4;

(b) the creation of a new pool for the production of oil from the Devonian formation to comprise the following described acreage in Chaves County, New Mexico:

TOWNSHIP 13 SOUTH, RANGE 29 EAST, NMPM

Section 23: SW/4 SW/4 Section 26: NW/4 NW/4;

(c) the promulgation of special rules for this newly created Devonian oil pool including provisions for 80-acre oil spacing and proration units to comprise the E/2, W/2, S/2, or N/2 of a governmental quarter section, each unit to be subject to a depth bracket oil allowable of 355 barrels of oil per day and designated well location requirements such that wells are to be located within 150 feet of the center of a governmental quarter-quarter section or lot;

- (d) the formation of a non-standard 80-acre oil spacing and proration unit within this new Devonian oil pool to comprise the SW/4 SW/4 of Section 23 and the NW/4 NW/4 of Section 26, Township 13 South, Range 29 East, NMPM, Chaves County, New Mexico; and,
- to dedicate the acreage comprising the proposed 80-acre non-standard oil spacing and proration unit to its West King Camp Unit Well No. 1, formerly the McClellan Federal Well No. 1, (API No. 30-005-63076), which is to be directionally drilled from a previously approved unorthodox (surface) oil well location (see Division Order No. R-10265, dated January 9, 1995) 182 feet from the North line and 507 feet from the West line (Unit D) of said Section 26 to an unorthodox subsurface oil well location in the Devonian formation within 100 feet of a point 148 feet from the South line and 177 feet from the West line (Unit M) of offsetting Section 23.
- (6) The subject well was originally drilled in September, 1995 to a total depth of 9,862 feet and completed within the South Lone Wolf-Devonian Pool through the open hole interval from 9,847 feet to 9,862 feet.
- (7) Although the well initially appeared to be commercially productive, during completion attempts poor flow rates were obtained and in May, 1996 the well was shut-in as uneconomical.
- (8) At the time of the hearing the applicant relied solely on this well's flow characteristics and production history to base its argument that 80-acre spacing would provide for optimum development of Devonian reserves within the immediate area.
- Devonian oil pool and the promulgation of spacing rules and operating procedures allowing 80-acre development therein. Therefore the applicant's request to contract the South Lone Wolf-Devonian Pool by deleting therefrom the NW/4 of Section 26 and the NE/4 of Section 27, Township 13 South, Range 29 East, NMPM, Chaves County, New Mexico and the creation of a new pool for the production of oil from the Devonian formation to comprise aid acreage, and the formation of a non-standard 80-acre oil spacing and proration unit within the Devonian oil pool to comprise the SW/4 SW/4 of said Section 23 and the NW/4 NW/4 of said Section 26 should be denied at this time.
 - (10) However, the geological evidence presented at the hearing, including 3-D

seismic survey, indicates the bottom hole location as proposed would enable the applicant to test the Devonian formation for potential oil production at a more favorable location away from the existing vertical hole but within a small localized structure that covers the immediate area. This may therefore allow the operator the opportunity to recover hydrocarbons in this immediate area which might otherwise not be produced.

- (11) A penetration of the Devonian formation within the SW/4 SW/4 (Unit M) of said Section 23 at the proposed unorthodox subsurface location should increase the likelihood of encountering hydrocarbon production in commercial quantity than a well drilled at the closest standard location in Unit "M".
- (12) No interested party or off-setting mineral interest owner appeared at the hearing or filed an objection to the subject application.
- (13) Approval of the directional drilling portion of the subject application will afford the applicant the opportunity to produce his just and equitable share of hydrocarbons underlying the 40 acres comprising the SW/4 SW/4 of said Section 23, thereby forming a standard 40-acre oil spacing and proration unit in the South Lone Wolf-Devonian Pool; will serve to prevent the economic loss caused by the drilling of unnecessary wells; exhibits sound engineering practices by utilizing an existing wellbore; is in the best interest of conservation; and will otherwise prevent waste and protect correlative rights.
- (14) The applicant should be required to determine the subsurface location of the kick-off point of the West King Camp Unit Well No. 1, formerly the McClellan Federal Well No. 1, prior to directional drilling and should subsequently be required to conduct an accurate wellbore survey during or upon completion of drilling operations from the kick-off point to total depth to determine its true depth and course.
- (15) 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 a copy of said directional surveys to the Santa Fe and Artesia District Offices of the Division upon completion.

IT IS THEREFORE ORDERED THAT:

- (1) The portions of the application by Thornton Operating Corporation that seek:
 - (a) the contraction of the South Lone Wolf-Devonian Pool, as described above, by deleting therefrom the following described area in Chaves County, New Mexico:

TOWNSHIP 13 SOUTH, RANGE 29 EAST, NMPM

Section 26: NW/4 Section 27: NE/4;

(b) the creation of a new pool for the production of oil from the Devonian formation to comprise the following described acreage in Chaves County, New Mexico:

TOWNSHIP 13 SOUTH, RANGE 29 EAST, NMPM

Section 23: SW/4 SW/4 Section 26: NW/4 NW/4;

- (c) the promulgation of special rules therefor including provisions for 80-acre oil spacing and proration units to comprise the E/2, W/2, S/2, or N/2 of a governmental quarter section, each unit to be subject to a depth bracket oil allowable of 355 barrels of oil per day and designated well location requirements such that wells are to be located within 150 feet of the center of a governmental quarter-quarter section or lot; and,
- (d) the formation of a non-standard 80-acre oil spacing and proration unit within this new Devonian oil pool to comprise the SW/4 SW/4 of Section 23 and the NW/4 NW/4 of Section 26, Township 13 South, Range 29 East, NMPM, Chaves County, New Mexico;

are hereby denied.

IT IS ORDERED HOWEVER THAT:

Thornton Operating Corporation is hereby authorized to re-complete its West King Camp Unit Well No. 1, formerly the McClellan Federal Well No. 1, (API No. 30-005-63076), located at a previously approved unorthodox (surface) oil well location (see Division Order No. R-10265, dated January 9, 1995) 182 feet from the North line and 507 feet from the West line (Unit D) of Section 26, Township 13 South, Range 29 East, NMPM, Chaves County, New Mexico, kick-off from the existing vertical wellbore and directionally drill to an unorthodox subsurface oil well location in the Devonian formation within 100 feet of a point 148 feet from the South line and 177 feet from the West line (Unit M) of offsetting Section 23.

- (3) Said well is to be dedicated to a standard 40-acre oil spacing and proration unit within the South Lone Wolf-Devonian Pool comprising the SW/4 SW/4 of said Section 23.
- (4) Prior to commencing directional drilling operations however, the operator shall establish the location of the kick-off point by means of a directional survey acceptable to the Division.

<u>PROVIDED HOWEVER THAT</u> 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 bottom hole location, as well as the wellbore's true depth and course, may be determined.

- (5) The applicant shall notify the supervisor of the Artesia 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 Artesia offices of the Division upon completion.
- (6) Form C-105 shall be filed in accordance with Division Rule No. 1105 and the operator shall indicate thereon true vertical depth in addition to measured depths for the new sidetracked hole within the West King Camp Unit Well No. 1, formerly the McClellan Federal Well No. 1.
- (7) 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.

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO

WILLIAM J. LEMAY

Director

SEAL