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. 12099
Order No. R-11131

APPLICATION OF CROSS TIMBERS OIL COMPANY FOR AN UNORTHODOX GAS WELL LOCATION AND SIMULTANEOUS DEDICATION, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on December 17, 1998, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 5th day of February, 1999, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised,

FINDS THAT:

(1) Due public notice has been given and the Division has jurisdiction of this case and its subject matter.

(2) Cases No. 12098, 12099 and 12100 were consolidated at the time of the hearing for the purpose of testimony.

(3) The applicant, Cross Timbers Oil Company (Cross Timbers), seeks authorization to drill its Ute Indians "A" Well No. 27 to test both the Dakota and Morrison formations, Ute Dome-Dakota and Wildcat-Morrison Pools, at an unorthodox gas well location for both intervals 2600 feet from the South line and 1000 feet from the East line (Unit I) of Section 2, Township 31 North, Range 14 West, as projected into the unsurveyed Ute Mountain Indian Reservation. The SE/4 of Section 2 is to be dedicated to the well forming a standard 160-acre gas spacing and proration unit for both intervals.

(4) The applicant further seeks an exception to Division Rule 104.D.(3) to continuously and concurrently produce from the Ute Dome-Dakota Gas Pool through the proposed Ute Indians "A" Well No. 27 and through: (i) its existing Ute Indians "A" Well No. 20 (API No. 30-045-24605) located at a standard gas well location 1580 feet from the South line and 1520 feet from the East line (Unit J) of Section 2; and (ii) the proposed Ute Indians "A" Well No. 26, which is to be directionally drilled from a surface location 570 feet from the South line and 1045 feet from the East line (Unit P) of Section 2 to a standard bottomhole

gas well location within a drilling window bounded by lines 790 and 1190 feet from the South line and 1450 and 1850 feet from the East line (Unit O) of Section 2 (being the subject of Case No. 12100). The applicant further seeks to dedicate all three wells to the existing 160-acre gas spacing and proration unit comprising the SE/4 of Section 2.

(5) Representatives of the Ute Mountain Ute Indian Tribe, the surface and royalty interest owner within the SE/4 of Section 2, appeared at the hearing and cross examined Cross Timber's witnesses primarily regarding the necessity of drilling additional wells on this gas proration unit.

(6) The proposed wells and spacing unit are located within the Ute Dome-Dakota Gas Pool, which is currently governed by Division Rule 104.C.(3), which requires standard 160-acre gas spacing and proration units with wells to be located no closer than 790 feet from the outer boundary of the spacing unit nor closer than 130 feet from any quarter-quarter section line or subdivision inner boundary.

(7) The proposed wells and spacing unit are not located within the boundaries of an existing Morrison pool. Pursuant to Rule 104.B.(2), the spacing and well location requirements for a wildcat gas well are identical to those described in Finding No. (6) above.

(8) Rule No. 104.D.(3) currently states that "Unless otherwise permitted by special pool rules or authorized after notice and hearing, only one well per spacing unit is permitted in non-prorated pools."

(9) According to applicant's evidence and testimony, the primary target within the Ute Indians "A" Well No. 26 is the Paradox formation, Ute Dome-Paradox Pool. It intends to complete this well in the Dakota and/or Morrison formations only if the Paradox formation is non-productive or at a later time when the Paradox formation is depleted within the well.

(10) The applicant presented geologic evidence and testimony indicating that:

a) the Ute Dome field is located on a broad semi-circular structure on the edge of the Four Corners Platform. On the southeast side of the structure, the stratigraphic section dips steeply to the southeast into the San Juan Basin;

b) the southern portion of the structure is bisected in the Dakota formation by several west/northwest to east/southeast trending faults. Vertical displacement along the faults can reach 250 feet, and the faults act as permeability barriers. The faults often form four-way structural closures, which trap hydrocarbons migrating upward from mature source rocks;

c) similar fault blocks in the area have proven productive from lower Dakota and Morrison sandstones, but they are typically wet when encountered off of localized structures;

d) the SE/4 of Section 2 is traversed by two west/northwest to east/southeast trending faults. The faults are generally located within the northern and mid section of the SE/4. The faults effectively segregate the SE/4 into three separate fault blocks within the Dakota formation;

e) the existing Ute Indians "A" Well No. 20 is located within the mid-section fault block, while the proposed Ute Indians "A" Wells No. 27 and 26 are proposed to be located within the northern and southern fault blocks, respectively;

f) the proposed unorthodox location is necessary in order to locate the Ute Indians "A" Well No. 27 at a high structural position within the Dakota northern fault block; and

g) there is currently no Morrison production within the SE/4 of Section 2; therefore, the Ute Indians "A" Well No. 27 will effectively test for Morrison production within this proration unit.

(11) The applicant presented engineering evidence and testimony indicating that:

a) the Ute Indians "A" Well No. 20 has produced only 133 MMCF of gas since 1981 and is currently producing at a rate of approximately 8 MCFG per day. Decline curve analysis shows that the well will ultimately recover only 141 MMCF of gas;

b) volumetric gas reserve calculations for the primary producing sands in the Dakota formation within the SE/4 of Section 2 are as follows:

Dakota Sand	OGIP (MMCF)	Recoverable Gas (85 % Recovery Factor)
First	405	345
Second	355	302
Third	189	161

c) there are remaining gas reserves within the Dakota northern and southern fault blocks that are not likely to be recovered by the existing Ute Indians "A" Well No. 20.

(12) The geologic and engineering evidence presented in this case demonstrates that the drilling of the Ute Indians "A" Well No. 27 and the ultimate completion or recompletion of the Ute Indians "A" Well No. 26 to the Dakota formation is necessary in order to effectively and efficiently recover the remaining gas reserves within the SE/4 of Section 2, which will not otherwise be recovered by the existing Ute Indians "A" Well No. 20.

(13) The proposed unorthodox gas well location is necessary in order to penetrate the Dakota formation at a structurally advantageous position within the northern fault block.

(14) The applicant currently operates all the affected offset acreage.

(15) Approval of the proposed unorthodox gas well location and simultaneous dedication will afford the applicant the opportunity to produce the remaining gas reserves underlying the SE/4 of Section 2, which may otherwise not be recovered, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED THAT:

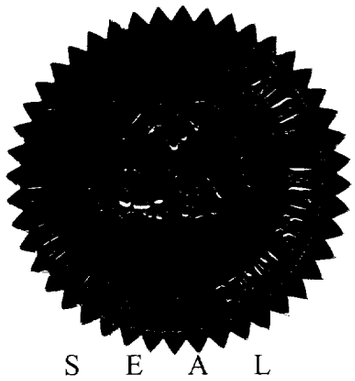
(1) The applicant, Cross Timbers Oil Company, is hereby authorized to drill its Ute Indians "A" Well No. 27 to test both the Dakota and Morrison formations, Ute Dome-Dakota and Wildcat-Morrison Pools, at an unorthodox gas well location for both intervals 2600 feet from the South line and 1000 feet from the East line (Unit I) of Section 2, Township 31 North, Range 14 West, as projected into the unsurveyed Ute Mountain Indian Reservation.

(2) The applicant is further authorized to simultaneously dedicate the SE/4 of Section 2 in the Ute Dome-Dakota Gas Pool to the Ute Indians "A" Well No. 27 and to: (i) its existing Ute Indians "A" Well No. 20 (API No. 30-045-24605) located at a standard gas well location 1580 feet from the South line and 1520 feet from the East line (Unit J) of Section 2; and (ii) the proposed Ute Indians "A" Well No. 26, which is to be directionally

drilled from a surface location 570 feet from the South line and 1045 feet from the East line (Unit P) of Section 2 to a standard bottomhole gas well location within a drilling window bounded by lines 790 and 1190 feet from the South line and 1450 and 1850 feet from the East line (Unit O) of Section 2. The applicant is further authorized to continuously and concurrently produce the Ute Indians "A" Wells No. 27, 20 and 26 in the Ute Dome-Dakota Gas Pool.

(3) Jurisdiction of this case 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.



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STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Lori Wrotenbery

LORI WROTENBERY
Director