# 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. 13544 ORDER NO. R-12444

APPLICATION OF XTO ENERGY, INC. TO AMEND THE SPECIAL RULES AND REGULATIONS FOR THE UTE DOME-PARADOX GAS POOL, AND TO EXPAND THE HORIZONTAL LIMITS OF THE POOL, SAN JUAN COUNTY, NEW MEXICO.

#### ORDER OF THE DIVISION

### BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on August 25, 2005, at Santa Fe, New Mexico, before Examiner Richard I. Ezeanyim.

**NOW**, on this 17<sup>th</sup> day of October 2005 the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

## FINDS THAT:

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

(2) The Commission Order No. R-13, issued in Case No. 213 on March 15, 1950, initially created and defined the Ute Dome-Paradox Gas Pool. Division Order No.R-4292, issued on May 1, 1972, Order No. R-4690, issued on December 1, 1973, Order No. R-5772, issued on July 1, 1978, Order No. R-7046, issued on August 1, 1982, and order No.R-7420, issued on January 1, 1984, subsequently expanded the horizontal limits of this pool. The horizontal limits of this pool currently include the following described lands in San Juan County, New Mexico:

TOWNSHIP 31 NORTH, RANGE 14 WEST, NMPM		
Sections 1-3:	All	· · · · ·
Sections 8-11:	All.	

### TOWNSHIP 32 NORTH, RANGE 13 WEST, NMPM

A11

Section 19

## **TOWNSHIP 32 NORTH, RANGE 13 WEST, NMPM**

Sections 24-26 All Sections 33-36 All

(3) By Order No. R-46 issued in Case No. 237 on December 29, 1950, the Commission promulgated Special Rules and regulations for the Ute Dome-Paradox Gas Pool, including one well per 640-acre gas spacing with the well to be located no closer than 1650 feet from the outer boundary of the spacing unit nor closer than 330 feet from the center of the spacing unit.

(4) XTO Energy, Inc. ("Applicant") now seeks to amend the above Rules and Regulations currently governing the Ute Dome-Paradox Gas Pool to provide:

- (a) the option to drill one well per quarter section within a standard 640-acre gas spacing unit; and
- (b) the relaxation of the setback requirements for wells, such that wells can be located no closer than (i) 660 feet to the outer boundary of a section line, (ii) 330 feet to an interior quarter section line, and (iii) 10 feet to any quarter-quarter section line or subdivision inner boundary.

(5) The Applicant also seeks to expand the horizontal limits of the Ute Dome-Paradox Gas Pool to include all of Sections 4 and 12 of Township 31 North, Range 14 West, NMPM, San Juan County, New Mexico.

(6) Jerry Simon, a Petroleum Engineer representing Ute Mountain Ute Tribe, appeared at the hearing in support of this application.

(7) The Applicant presented geological evidence that demonstrates that:

(a) the Ute Dome-Paradox Gas Pool is approximately 1000 feet thick and consists of a sequence of carbonate rocks interspersed with shales;

(b) the type log ran in the pool indicated a very complex stratigraphic reservoir in the sense that porosity is highly variable and not uniformly distributed such that zones of porosity can show up in one well but absent in the adjacent well; and

(c) gas is being produced from spots throughout the 1000 feet thick reservoir, therefore additional wells are needed to develop this heterogeneous reservoir.

- (8) The Applicant's engineering evidence demonstrates that:
  - (a) the Ute Dome-Paradox Gas Pool is a volumetric gas reservoir with negligible water production;
  - (b) the calculated recovery factor (RF) with one well per 640-acre spacing is forty-two (42%) percent;
  - (c) the recovery factor increases to sixty (60%) percent when two wells are allowed per 640-acre spacing unit;
  - (d) the anticipated recovery factor if four wells are allowed per 640-acre spacing unit is expected to be approximately ninety (90%) percent; and
  - (e) typical recovery factors for volumetric gas reservoirs range from 85 to 90 percent.

(9) The Applicant presented evidence that XTO Energy, Inc. owns leasehold interests in Sections 4 and 12 of Township 31 North, Range 14 West. The Applicant has drilled a well in Section 4 that is currently productive in the Ute Dome-Paradox Gas Pool, and is planning to drill another well in Section 12.

(10) The Applicant testified that its request to relax the setback requirements is largely due to cultural issues, topography, and convenience.

### THE DIVISION FINDS THAT:

(11) The Applicant's geological and engineering evidence demonstrate that: (i) one well per 640 acres is insufficient to adequately deplete the remaining gas reserves underlying the Ute Dome-Paradox Gas Pool; and (ii) infill drilling with one well per quarter section within this pool should provide the operators the opportunity to recover additional gas reserves, which may otherwise not be recovered by the existing wells, thereby preventing waste.

(12) The proposed well setback requirements should allow for greater flexibility in locating infill gas wells

(13) Pursuant to the applicable Division rules, the applicant notified all operators and interest owners within the area affected-by-this-application. However, no operator or interest owner appeared at the hearing in opposition to the application.

(14) Approval of the application is in the best interest of conservation, prevention of waste, and protection of correlative rights.

### IT IS THEREFORE ORDERED THAT:

(1) The application of XTO Energy, Inc. to amend the "Special Rules and Regulations for the Ute Dome-Paradox Gas Pool," currently comprising Sections 1, 2, 3, 8 through 11, of Township 31 North, Range 14 West, Section 19 of Township 32 North, Range 13 West, and Sections 24, 25, 26, 33 through 36 of Township 32 North, Range 14 West, NMPM, Ute Dome-Paradox Gas Pool, San Juan County, New Mexico, is hereby approved to provide:

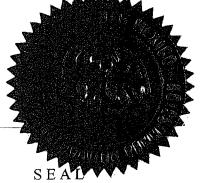
- (a) the option to drill one well per quarter section within a standard 640-acre gas spacing unit; and
- (b) the relaxation of the setback requirements for wells, such that wells shall be located no closer than (i) 660 feet to the outer boundary of a section line, (ii) 330 feet to an interior quarter section line, and (iii) 10 feet to any quarter-quarter section line or subdivision inner boundary.

(2) The horizontal limits of the Ute Dome-Paradox Gas Pool is hereby expanded to include all of Sections 4 and 12 of Township 31 North, Range 14 West, NMPM, San Juan County, New Mexico.

(3) With the exception of Ordering Paragraph No. 1, all other provisions of Commission Order No. R-46 shall remain in full force and effect.

(4) Jurisdiction is hereby 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

MARK E. FESMIRE, P. E. Director