# 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. 10571 Order No. R-9751

APPLICATION OF CHEVRON U.S.A. INC. FOR A HIGH ANGLE/HORIZONTAL DIRECTIONAL DRILLING PILOT PROJECT, SPECIAL OPERATING RULES, UNORTHODOX OIL WELL LOCATION, NON-STANDARD OIL PRORATION UNIT, AND SIMULTANEOUS DEDICATION, LEA COUNTY, NEW MEXICO.

### **ORDER OF THE DIVISION**

#### **BY THE DIVISION:**

This cause came on for hearing at 8:15 a.m. on October 15, 1992, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 30th day of October, 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, Chevron U.S.A. Inc., seeks to initiate a high angle/horizontal directional drilling pilot project in the South Brunson Drinkard-Abo Pool underlying the W/2 SE/4 of Section 30, Township 22 South, Range 38 East, NMPM, Lea County, New Mexico, thereby creating a non-standard 80-acre oil spacing and proration unit for said pool.

(3) The applicant proposes to recomplete its existing Drinkard (NCT-B) Well No. 5, located at a standard surface location 880 feet from the South line and 1980 feet from the East line (Unit O) of Section 30, plug back from the Wantz-Granite Wash Pool, and drill in the following unconventional manner:

Kick off from the vertical at a depth of approximately 6,772 feet and drill in north-northeasterly direction until an angle of approximately 90 degrees is achieved. Continue drilling horizontally a distance of approximately 400 feet within the Abo formation.

- (4) The applicant further seeks:
  - a) the adoption of special operating provisions and rules within the pilot project area including the designation of a prescribed area whereby the horizontal displacement of the subject well's producing interval will be confined to a rectangular area 880 feet from the South line, 1780 feet from the East line, 1280 feet from the South line and 1980 feet from the East line of Section 30, portions of said area being unorthodox bottomhole locations;
  - b) approval of an 80-acre non-standard oil proration unit comprising the W/2 SE/4 of Section 30;
  - c) a special project allowable equal to two times the current oil and gas allowable for the South Brunson Drinkard-Abo Pool;
  - approval to simultaneously dedicate the W/2 SE/4 to the subject well and to the existing Drinkard (NCT-B) Well No. 3 located at a standard oil well location 660 feet from the South line and 1980 feet from the East line (Unit O), which currently has dedicated to it the SW/4 SE/4 of Section 30.

(5) With regards to the proration unit size and well location requirements, the South Brunson Drinkard-Abo Pool is currently governed by Rule No. 104(C) of the Division Rules and Regulations, which requires standard 40-acre oil spacing and proration units with wells to be located no closer than 330 feet from the outer boundary of the spacing unit.

(6) In addition, the oil and gas allowables for the South Brunson Drinkard-Abo Pool are, respectively, 142 barrels of oil per day and 852 MCF gas per day. The limiting GOR for the pool, as established by Division Order No. R-8593, is currently 6,000 cubic feet of gas per barrel of oil.

(7) The Abo formation within the South Brunson Drinkard-Abo Pool is the target zone within the proposed horizontal wellbore.

(8) Through its evidence and testimony, the applicant demonstrated that the proposed horizontal wellbore, which is experimental in nature, should encounter a substantially greater number of natural fractures within the Abo formation than would a conventional wellbore, which should substantially increase the productivity of the subject well and which should ultimately result in the recovery of a greater amount of oil and gas from the proposed project area, thereby preventing waste.

(9) The W/2 SE/4 of Section 30 is owned and controlled solely by Chevron U.S.A. Inc.

(10) No offset operator and/or interest owner appeared at the hearing in opposition to the application.

(11) In the interest of conservation and prevention of waste, the application of Chevron U.S.A. Inc. for a high angle/horizontal directional drilling pilot project should be approved.

(12) In support of its request for a special project allowable and simultaneous dedication, the applicant presented evidence which indicates that the Drinkard (NCT-B) Well No. 3 currently produces approximately 300 MCF gas per day from the Drinkard formation.

(13) Applicant testified that the remaining allowable attributable to the Drinkard (NCT-B) Well No. 5 may not be sufficient to fully evaluate the potential of the proposed pilot project.

(14) According to further testimony, some wells in the South Brunson Drinkard-Abo Pool may be capable of draining an area in excess of 40 acres.

(15) The requested simultaneous dedication and proposed oil and gas allowables are justified in this case and should therefore be approved.

(16) The applicant should be required to determine the actual location of the kick-off point prior to commencing directional drilling operations. Also, the applicant should be required to conduct a directional survey on the lateral portion of the wellbore during or after completion of drilling operations.

(17) The applicant should notify the supervisor of the Hobbs district office of the Division of the date and time of conductance of any directional surveys in order that the same may be witnessed.

(18) The applicant should be required to submit copies of all directional surveys conducted on the subject well to both the Santa Fe and Hobbs offices of the Division.

# **IT IS THEREFORE ORDERED THAT:**

(1) The applicant, Chevron U.S.A. Inc., is hereby authorized to initiate a high angle/horizontal directional drilling pilot project in the South Brunson Drinkard-Abo Pool underlying the W/2 SE/4 of Section 30, Township 22 South, Range 38 East, NMPM, Lea County, New Mexico, thereby forming a non-standard 80-acre oil spacing and proration unit for said pool.

(2) The applicant is further authorized to recomplete its existing Drinkard (NCT-B) Well No. 5, located at a standard surface location 880 feet from the South line and 1980 feet from the East line (Unit O) of Section 30, plug back from the Wantz-Granite Wash Pool, and drill in the following unconventional manner:

Kick off from the vertical at a depth of approximately 6,772 feet and drill in north-northeasterly direction until an angle of approximately 90 degrees is achieved. Continue drilling horizontally a distance of approximately 400 feet within the Abo formation.

**PROVIDED HOWEVER THAT**, the horizontal displacement of the subject well's producing interval shall be confined to a rectangular area 880 feet from the South line, 1780 feet from the East line, 1280 feet from the South line and 1980 feet from the East line of Section 30, portions of said area being unorthodox bottomhole locations.

(3) The W/2 SE/4 of Section 30 shall be simultaneously dedicated to the abovedescribed well and to the existing Drinkard (NCT-B) Well No. 3 located at a standard oil well location 660 feet from the South line and 1980 feet from the East line (Unit O), thereby forming a non-standard 80-acre oil spacing and proration unit, also hereby approved. (4) The subject well(s) and proration unit are hereby assigned an allowable of 284 barrels of oil and 1,704 MCF gas per day.

(5) The applicant shall determine the actual location of the kick-off point prior to commencing directional drilling operations. Also, the applicant shall conduct a directional survey on the lateral portion of the wellbore during or after completion of drilling operations.

(6) The applicant shall notify the supervisor of the Hobbs district office of the Division of the date and time of conductance of any directional surveys in order that the same may be witnessed.

(7) The applicant shall submit copies of all directional surveys conducted on the subject well to both the Santa Fe and Hobbs offices of the Division.

(8) 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 WILLIAM J. LEM Director

S E A L