

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. 11326  
ORDER NO. R-10452

**APPLICATION OF TEXACO EXPLORATION AND PRODUCTION INC. FOR A HIGH  
ANGLE/HORIZONTAL DIRECTIONAL DRILLING PILOT PROJECT, SPECIAL  
OPERATING RULES THEREFOR, A NON-STANDARD OIL PRORATION UNIT,  
SIMULTANEOUS DEDICATION, AND A SPECIAL PROJECT ALLOWABLE, RIO  
ARRIBA COUNTY, NEW MEXICO**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on July 13, August 10, and August 24, 1995, at Santa Fe, New Mexico, before Examiners Michael E. Stogner and David R. Catanach.

NOW, on this 7th day of September, 1995 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) Texaco Exploration and Production, Inc. ("Texaco"), the applicant in this case, currently owns and operates the following two Gallup-Dakota formation oil producing wells on its Jicarilla "C" lease in Section 21, Township 25 North, Range 5 West, NMPM, West Lindrith Gallup-Dakota Oil Pool, Rio Arriba County, New Mexico:

- Well No. 35 (API No. 30-039-23433) is located at a standard oil well location 1850 feet from the South line and 1190 feet from the West line (Unit L) of said Section 21 and has dedicated to it the SW/4 of said Section 21 thereby forming a standard 160-acre oil spacing and proration unit for said pool; and,
- Well No. 26 (API No. 30-039-05918) is located at a standard oil well location 1850 feet from the South line and 790 feet from the East line (Unit I) of said Section 21 and has

dedicated to it the SE/4 of said Section 21 thereby forming a standard 160-acre oil spacing and proration unit for said pool.

(3) Within Township 25 North, Range 5 West, NMPM, the West Lindrith Gallup-Dakota Oil Pool comprises all of Sections 13, 14, 15, and 16, the NE/4 of Section 17, all of Sections 21 through 26, the NE/4 of Section 27, and all of Sections 35 and 36, said pool is currently governed by special rules and regulations as promulgated by Division Order No. R-4314-A, as amended, which require standard 160-acre oil spacing and proration units (**Rule 2**) with each unit assigned a depth bracket oil allowable of 382 barrels of oil per day, a limiting gas/oil ratio of 2,000 cubic feet of gas per barrel of oil, and the following well location requirements:

- each well is to be located no nearer than 330 feet to the outer boundary of the proration unit or to any governmental quarter-quarter section line nor nearer than 660 feet to the nearest well drilling to or capable of producing from the West Lindrith Gallup-Dakota Pool (**Rule 4**); or,
- within a "buffer" zone comprising a band one-half mile wide extending from the pool boundary inward (**Rule 4.a**), basically no well is to be closer than 790 feet to the pool boundary nor closer than 130 feet to the interior quarter-quarter section line (**Rule 4.b**).

(4) At this time the applicant seeks:

- (a) to initiate a high angle/horizontal directional drilling pilot project in the West Lindrith Gallup-Dakota Pool underlying the S/2 of said Section 21 to form a non-standard 320-acre oil spacing and proration unit for said pool;
- (b) the promulgation of special operating rules and procedures therefor including the designation of a "target window" or "producing area" such that the horizontal or producing portion of the wellbore shall be no closer than 790 feet to the outer boundary of the project area;
- (c) the assignment of a special project allowable for the proposed oversized oil spacing and proration unit; and,
- (d) to simultaneously dedicate said 320-acre unit to both the Jicarilla "C" Well Nos. 26 and 35.

(5) It is Texaco's intention to recomplete its Jicarilla "C" Well No. 35 by plugging the current wellbore back and mill out a 40-foot section of the existing production casing, kick-off

from the vertical in an easterly direction at an approximate depth of 5970 feet, drill a curved hole at a rate of 57 degrees per 100 feet (100-foot radius) building angle to approximately 90 degrees and continue drilling horizontally a lateral distance of approximately 2,500 feet within the Gallup interval of said pool, thereby traversing the quarter section line that separates the SW/4 and the SE/4 of said Section 21.

(6) According to the evidence and testimony presented by the applicant horizontal wells within the Gallup interval should serve to intersect and connect natural fractures resulting in increased productivity of wells and should ultimately lead to the recovery of additional reserves which would not otherwise be produced, thereby preventing waste, and prevent the economic loss caused by the drilling of unnecessary wells.

(7) Texaco's Jicarilla "C" lease comprises the S/2 of Section 21, S/2 of Section 22, all of Section 27 and 28, the S/2 of Section 33, and the S/2 of Section 34, all in said Township 25 North, Range 5 West, NMPM, Rio Arriba County, New Mexico, being a single lease issued by the Jicarilla Apache Tribe with common ownership throughout.

(8) The S/2 of said Section 21 is situated within the one-half mile "buffer" zone that surrounds the West Lindrith Gallup-Dakota Oil Pool and is therefore subject to the more strict well location requirement of said special pool rules. By honoring the 790-foot setback requirement to the outer boundary of a proration unit, as proposed by the applicant, correlative rights of those off-setting tracts operated by others should be adequately protected from drainage.

(9) Since the project area is to consist of two standard 160-acre oil spacing and proration units for the West Lindrith Gallup-Dakota Oil Pool, the two existing 160-acre units should be combined and assigned an acreage factor of 2.0 with both wells sharing the allowable assigned to the "project area", which is 764 barrels of oil per day being equal to twice the normal allowable assigned a single 160-acre unit for said pool.

(10) The subject 320-acre non-standard oil spacing and proration unit should not become effective until such time as the horizontal wellbore is complete and adequately surveyed to show that the lateral portion does in fact traverse both quarter sections, and that said well is placed on production and will cease at such time as the horizontal wellbore is properly plugged and abandoned.

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

(12) Approval of this application is in the best interest of conservation, exhibits sound engineering practices, and should further serve to protect correlative rights.

(13) The applicant should further be required to submit to the Aztec district office a Form C-102 showing the appropriate acreage for both wells that are sharing in the non-standard 320-acre unit.

(14) The applicant should be required to determine the actual location of the kick-off point within the Jicarilla "C" Well No. 35 prior to commencing directional drilling operations. Also, the applicant should be required to conduct a directional survey on the lateral portion of said wellbore during or after completion of drilling operations.

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

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

**IT IS THEREFORE ORDERED THAT:**

(1) The application of Texaco Exploration and Production, Inc. ("Texaco"), to institute a high angle/horizontal directional drilling project in the West Lindrith Gallup-Dakota Oil Pool on its Jicarilla "C" lease within an area comprising a 320-acre non-standard oil spacing and proration unit being the S/2 of Section 21, Township 25 North, Range 5 West, NMPM, Rio Arriba County, New Mexico, hereinafter referred to as the "project area", is hereby approved.

(2) The applicant is further authorized to utilize its Jicarilla "C" Well No. 35 (**API No. 30-039-23433**), located at a standard oil well location 1850 feet from the South line and 1190 feet from the West line (Unit L) of said Section 21, by recompleting said well in such a manner as to plug-back, mill out a 40-foot section of the existing production casing, kick-off from the vertical in an easterly direction at an approximate depth of 5970 feet, drill a curved hole at a rate of 57 degrees per 100 feet (100-foot radius) building angle to approximately 90 degrees and continue drilling horizontally a lateral distance of approximately 2,500 feet within the Gallup interval of said pool, thereby traversing the quarter section line that separates the SW/4 and the SE/4 of said Section 21.

**PROVIDED HOWEVER THAT:**

(3) No portion of the producing interval of the well shall be closer than 790 feet to the outer boundary of the "project area".

(4) The aforementioned 320-acre non-standard oil spacing and proration unit shall be assigned an acreage dedication factor of 2.0 to be assessed toward the standard depth bracket oil allowable for said pool, which is two times 382 barrels of oil per day or 764 barrels of oil per day.

(5) This 320-acre non-standard oil spacing and proration unit shall not become effective until such time as the horizontal wellbore is completed and placed on production, and shall cease at such time as the horizontal wellbore is properly plugged and abandoned. West Lindrith Gallup-Dakota Pool production from said 320-acre unit shall be simultaneously dedicated

to both the Jicarilla "C" Well No. 35 and to the Jicarilla "C" Well No. 26 (API No. 30-039-05918), located at a standard oil well location 1850 feet from the South line and 790 feet from the East line (Unit I) of said Section 21.

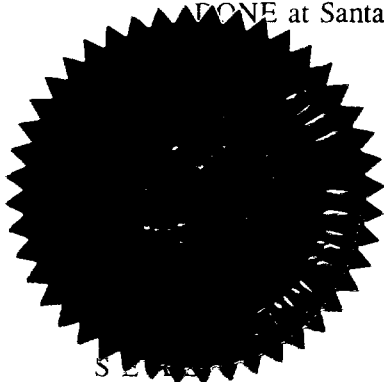
(6) The geographic location of the kick-off point for the proposed horizontal shall be determined prior to commencing directional drilling operations. Also, the operator shall conduct a directional survey on the lateral portion of any horizontal wellbore during or after completion of directional drilling operations.

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

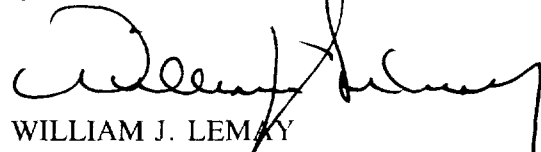
(8) The applicant shall submit copies of all directional surveys conducted on the subject well to both the Santa Fe and Aztec offices of the Division

(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