

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. 11779  
ORDER NO. R-10861

**APPLICATION OF CONOCO INC. FOR A PRESSURE MAINTENANCE  
PROJECT AND QUALIFICATION FOR THE RECOVERED OIL TAX CREDIT  
PURSUANT TO THE "NEW MEXICO ENHANCED OIL RECOVERY ACT", LEA  
COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on May 29, 1997 at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 28th day of August, 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) The applicant, Conoco Inc., seeks authority to institute a pressure maintenance project on a portion of its Hardy "36" State Lease (State lease No. B-02656) underlying the NE/4 NE/4, S/2 NE/4, NE/4 SW/4, and N/2 SE/4 of Section 36, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico, by the reinjection of produced water into the Tubb formation of the North Hardy-Tubb Drinkard Pool, through the perforated interval from approximately 6,423 feet to 6,593 feet in its existing Hardy "36" State Well No. 3 (API No. 30-025-32479), located 2080 feet from the North line and 1730 feet from the East line (Unit G) of said Section 36.

(3) There are currently four producing oil wells that will be initially affected by the proposed injection well, all of which are located in said Section 36:

Well Name and Number	Footage Location	Unit Letter Designation	API Number
Hardy "36" State Well No. 2	1876' FSL & 2230' FWL	K	30-025-32473
Hardy "36" State Well No. 4	1880' FSL & 1680' FEL	J	30-025-32513
Hardy "36" State Well No. 18	330' FN & EL	A	30-025-33027
Hardy "36" State Well No. 19	1950' FNL & 330' FEL	H	30-025-33202

(4) The project area is currently producing at an approximate rate of 83 barrels of oil per day and 28 barrels of water per day from the five above-described (this includes the Hardy "36" State Well No. 3 which is to be converted from a producing well) producing wells which averages out to be approximately 16.5 barrels of oil per day per well; therefore, pursuant to Division General Rule 701.F, the proposed project should properly be classified as a pressure maintenance project and governed accordingly.

(5) The applicant presented testimony which indicates:

(a) the total primary recovery under the current mode of operations is estimated at 120,000 barrels of oil;

(b) the estimated total capital cost to implement this project is \$40,000.00; and,

(c) the estimated incremental production from this pressure maintenance project is expected to yield an additional 135,000 barrels of oil.

(6) The proposed pressure maintenance project, as proposed by the applicant, is in the best interest of conservation, exhibits sound engineering practices, serves to prevent waste, and will not impair correlative rights; therefore, the subject application should be approved and the project should be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

(7) Produced water from the North Hardy Tubb-Drinkard Pool within said Section 36 is to be the initial source of injection water into the proposed project.

(8) The area for said project should incorporate that portion of the applicant's Hardy "36" State Lease as described in Finding Paragraph No. (2), above and should be designated the *"Hardy "36" State Pressure Maintenance Project"*.

(9) The project allowable should be equal to the top unit allowable for the North Hardy Tubb-Drinkard Pool, which is 142 barrels of oil per day, times the number of developed (production or injection) proration units within the project area.

(10) The transfer of allowable between wells within the project area should be permitted.

(11) The operator should take all steps to ensure that the injected water enters only the proposed injection interval and is not permitted to escape into other formations or onto the surface from injection, production or plugged and abandoned wells.

(12) The applicant submitted data on the proposed injection well, water wells in the area, and all other wells which penetrate the zone of interest within the 1/2-mile "area-of-review" ("AOR") of the proposed injection well.

(13) The reinjection of produced Tubb-Drinkard formation water into the Hardy "36" State Well No. 3 should be accomplished through 2 7/8-inch internally lined or coated tubing installed in a packer set no higher than 100 feet above the top of the upper most perforation; the casing-tubing annulus should be filled with an inert fluid; and a pressure gauge or approved leak-detection device should be attached to the annulus in order to determine leaks in the casing, tubing or packer.

(14) The injection well or its pressurization system should be so equipped as to limit injection pressure at the wellhead to no more than 1300 psi. The Division Director however should have the authority to increase said pressure limitation, should circumstances warrant.

(15) Prior to commencing injection operations, the casing in the subject well should be pressure tested throughout the interval, from the surface down to the proposed packer-setting depth, to assure integrity of such casing.

(16) The operator should give advance notice to the supervisor of the Hobbs District Office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure-test in order that the same may be witnessed.

(17) The applicant further requests that the subject pressure maintenance project be approved by the Division as a qualified "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(18) No off-set operator or mineral interest or other interested party appeared at the hearing in opposition to the subject request.

(19) The evidence presented indicates that the subject pressure maintenance project meets all the criteria for approval.

(20) The approved "project area" is to be limited to that area described in Finding Paragraph No. (2) above.

(21) To be eligible for the Enhance Oil Recovery ("EOR") tax credit, prior to commencing injection operations, the operator must request from the Division a Certificate of Qualification, which certificate will specify the proposed project area as described above.

(22) At such time as a positive production response occurs and within five years from the date of the Certificate of Qualification, the applicant must apply to the Division for certification of positive production response, which application shall identify the area actually benefitting from enhanced recovery operations, and identifying the specific wells which the operator believes are eligible for the credit. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to the Department of Taxation and Revenue those lands and wells which are eligible for the credit.

(23) The injection authority granted herein for the proposed injection wells should terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject wells, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

**IT IS THEREFORE ORDERED THAT:**

(1) The applicant, Conoco, Inc., is hereby authorized to institute a pressure maintenance project on a portion of its Hardy "36" State Lease by the reinjection of produced water into the North Hardy Tubb-Drinkard Pool in its existing Hardy "36" State Well No. 3 (API No. 30-025-32479), located 2080 feet from the North line and 1730 feet from the East line (Unit G) of Section 36, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico.

(2) The pressure maintenance project, hereby designated the "*Hardy "36" State*

*Pressure Maintenance Project*", shall be comprised of the following described area in Lea County, New Mexico:

TOWNSHIP 20 SOUTH, RANGE 37 EAST, NMPM

Section 36: NE/4 NE/4, S/2 NE/4, NE/4 SW/4, and N/2 SE/4.

(3) The allowable for the project area shall be any amount up to and including a volume equal to the top unit allowable for the North Hardy Tubb-Drinkard Pool (142 barrels of oil per day) times the number of developed (production or injection) proration units within the project area.

FURTHER: The allowable assigned to the project area may be produced from any well or wells within the project area in any proportion.

(4) Injection into the Hardy "36" State Well No. 3 shall be through 2 7/8-inch internally lined or coated tubing with injection into the perforated interval from approximately 6,423 feet to 6,593 feet.

(5) The tubing string in said well shall be installed in a packer set no higher than 100 feet above the upper most perforation; the casing-tubing annulus shall be filled with an inert fluid; and a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak-detection device in order to determine leakage in the casing, tubing or packer.

(6) Said injection well or its pressurization system shall be equipped with a pressure-limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 1300 psi.

(7) The Division Director shall have the authority to administratively authorize an increase in the injection pressure limitation placed upon any well upon a proper showing by the operator that such higher pressure will not result in the migration of the injected waters from the Tubb formation of the North Hardy Tubb-Drinkard Pool.

(8) Prior to commencing injection operations, the casing in the subject well shall be pressure tested to assure the integrity of such casing in a manner that is satisfactory to the supervisor of the Division's Hobbs District Office.

(9) The operator shall notify the supervisor of the Hobbs District Office of the Division in advance of the date and time of the installation of injection equipment and of the mechanical integrity pressure-test in order that the same may be witnessed.

(10) The operator shall immediately notify the supervisor of the Division's Hobbs District Office of the failure of the tubing, casing, or packer in said injection well or the leakage of water or oil from any plugged and abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(11) Should it become necessary, the supervisor of the Hobbs District Office of the Division or the Director may at any time order a decrease of the injection pressure on any injection well within said project.

(12) The operator of the Lea Pressure Maintenance Project shall conduct injection operations in accordance with all applicable Division rules, regulations, and policies, including Division General Rules 701 through 708 and shall submit monthly progress reports in accordance with Division General Rules 706 and 1115.

**IT IS FURTHER ORDERED THAT:**

(13) The subject pressure maintenance project is hereby approved as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(14) The approved "project area" shall be limited to that area described in Decretory Paragraph No. (2) above.

(15) To be eligible for the Enhanced Oil Recovery "EOR" tax credit, prior to commencing injection operations, the operator must request from the Division a Certificate of Qualification, which certificate will specify the proposed project area as described above.

(16) At such time as a positive production response occurs and within five years from the date of the Certificate of Qualification, the applicant must apply to the Division for certification of positive production response, which application shall identify the area actually benefitting from enhanced recovery operations, and identifying the specific wells which the operator believes are eligible for the credit. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to The Department of Taxation and Revenue those lands and wells which are eligible for the credit.

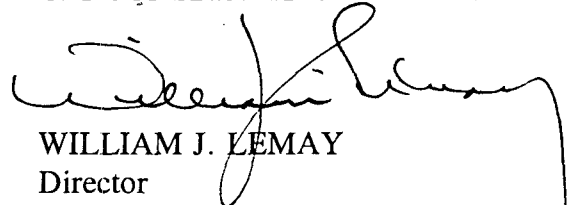
(17) The injection authority granted herein for the proposed injection wells shall

terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject wells, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

(18) 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

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