

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. 11078  
ORDER NO. R-10215*

**APPLICATION OF BASS ENTERPRISES PRODUCTION COMPANY FOR A PRESSURE  
MAINTENANCE PROJECT, EDDY COUNTY, NEW MEXICO**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on September 1, 1994 at Santa Fe, New Mexico, before Examiner Jim Morrow.

NOW, on this 12<sup>th</sup> day of October, 1994, 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, Bass Enterprises Company (Bass), seeks authority to institute a pressure maintenance project on its Golden "8" Federal Lease in Section 8, Township 21 South, Range 29 East, NMPM, Eddy County, New Mexico, by the injection of water into the South Golden Lane-Delaware Pool through the perforated interval from approximately 4248 feet to 4310 feet in its Golden "8" Federal Well No. 3, located 1980 feet from the South line and 990 feet from the West line (Unit L) of said Section 8.
- (3) Bass operates eight producing wells in the pool, the Golden "8" Federal Well Nos. 1, 2, 3 and 4; the Golden "B" Federal Well No. 1; and the Golden "D" Federal Well Nos. 1, 2 and 3. The wells are located on federal leases in the NW/4, SW/4, and SE/4 of Section 8 and the NW/4 of Section 17. Both sections are in Township 21 South, Range 29 East, NMPM, Eddy County, New Mexico. At Bass' request, the Bureau of Land Management approved this area as a Pressure Maintenance Project Area.

(4) The pool was discovered in March 1992 and has produced approximately 140,000 barrels of oil and 104 MCF gas. Current daily production (As of July 1, 1994) is approximately 400 barrels of oil, 290 MCF gas and 340 barrels of water. The area has not reached the advanced or "stripper" state of depletion.

(5) Bass proposes to convert the Golden "8" Federal Well No. 3 to injection. It has almost watered out and is currently producing about three barrels of oil per day with a 96% water cut. Injection would be into the Cherry Canyon interval of the Delaware formation.

(6) Produced water from the South Golden Lane-Delaware Pool would be injected into the proposed injection well. The average injection rate would be 500 BWPD at an average injection pressure of 800 psi. Maximum injection rate and pressure would be 1000 BWPD and 850 psi. The maximum injection pressure requested is 0.2 psi per foot. Injection would be through 2 3/8-inch plastic-coated tubing set in a packer at 4175 feet. Diagrams of the proposed injection well and other data presented by Bass indicates that all fresh water and hydrocarbon producing intervals would be protected and that injection would be confined to the Cherry Canyon formation.

(7) The Bass witness presented the results of reservoir computer simulation studies which show that the project is expected to recover an additional 76,000 barrels of oil.

(8) Bass requested a project oil allowable of 640 barrels per day. This is equal to the top pool allowable of 80 barrels of oil per day times the number of wells in the pool. There are eight wells in the pool including the well proposed for conversion to injection. Bass also requested approval to produce the project allowable from any combination of producing wells within the project area. All the wells in the project are operated by Bass and all are on federal leases. Bass did not present data at the hearing to show that ownership is identical in all the wells. Bass should be required to submit information showing identical well ownership before obtaining authorization to produce the wells on a project basis.

(9) Data was submitted for each well within 1/2-mile of the proposed injection well. There are eight wells within the area of review. Production casing in each of the wells is cemented across the Cherry Canyon injection interval to prevent the migration of injection fluids out of the interval.

(10) The project should be approved and should be designated the South Golden Lane Pressure Maintenance Project.

IT IS THEREFORE ORDERED THAT:

- (1) The applicant, Bass Enterprises Production Company, is hereby authorized to institute a pressure maintenance project on its Golden "8" Federal lease in Section 8, Township 21 South, Range 29 East, NMPM, Eddy County, New Mexico by the injection of water into the South Golden Lane-Delaware Pool through the perforated interval from approximately 4248 feet to 4310 feet in its Golden "8" Federal Well No. 3, located 1980 feet from the South line and 990 feet from the West line (Unit L) of said Section 8.
- (2) The project area shall consist of three federal leases which include the following acreage; NW/4, SW/4, and SE/4 of Section 8 and NW/4 of Section 17, Township 21 South, Range 29 East, NMPM, Eddy County, New Mexico.
- (3) The project shall be designated the South Golden Lane Pressure Maintenance Project.
- (4) The applicant is authorized to submit data to the Santa Fe office of the Division which shows that ownership in all project wells is identical. Upon receipt of such information, the Division Director shall have the authority to administratively assign a project allowable of 640 barrels of oil per day and authorize the production of the project allowable from any well or combination of wells within the project area.
- (5) The operator shall take all steps necessary 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.
- (6) Injection into the proposed injection well shall be accomplished through 2 3/8-inch plastic-lined tubing installed in a packer set approximately within 100 feet of the uppermost injection perforation; the casing-tubing annulus shall be filled with an inert fluid; and a pressure gauge or approved leak-detection device shall be attached to the annulus in order to determine leaks in the casing, tubing or packer.
- (7) The injection well or pressurization system shall be equipped to limit the surface injection pressure to no more than 850 psi.

(8) The Director of the Division shall be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such high pressure will not result in migration of the injected waters from the South Golden Lane-Delaware Pool.

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

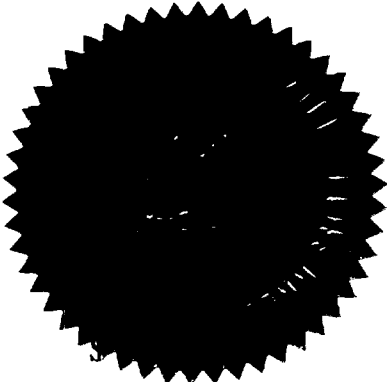
(10) The applicant shall give advance notification to the supervisor of the Division's Artesia District Office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure-test in order that the same may be witnessed.

(11) The operator shall immediately notify the supervisor of the Artesia District Office of any failure of the tubing, casing or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

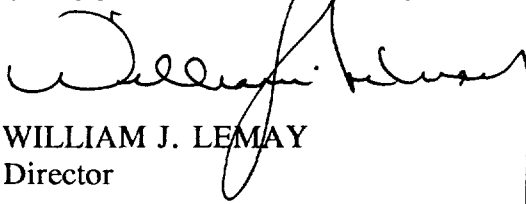
(12) The applicant shall conduct injection operations in accordance with Division Rule Nos. 701 and 708 and shall submit monthly progress reports in accordance with Division Rule Nos. 706 and 1115.

(13) 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