

**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. 12021  
ORDER NO. R-11055**

**APPLICATION OF SOUTHWEST ROYALTIES,  
INC. FOR A WATERFLOOD PROJECT, LEA  
COUNTY, NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This case came on for hearing at 8:15 a.m. on August 20 and September 3, 1998, at Santa Fe, New Mexico, before Examiners David R. Catanach and Michael E. Stogner, respectively.

NOW, on this 10<sup>th</sup> day of September, 1998, 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 applicant, Southwest Royalties, Inc., seeks authority to institute a waterflood project on its Gonzales "31" Federal Lease, which comprises the E/2 of Section 31, Township 9 South, Range 33 East, NMPM, Lea County, New Mexico, by the injection of water into the San Andres formation, Flying M-San Andres Pool, through the perforated interval from approximately 4,239 feet to 4,282 feet in its Gonzales "31" Federal Well No. 6Y located 1980 feet from the South line and 860 feet from the East line (Unit I) of Section 31.

(3) Applicant's evidence and testimony indicates that it will initially utilize the Gonzales "31" Federal Well No. 6Y as the only injection well within the project area.

(4) Applicant's evidence further indicates that it will utilize the Gonzales "31" Federal Well Nos. 1, 2, 3, 5, 7 and 9, located respectively in Units J, H, P, P, G and O of Section 31, as producing wells within the project area.

(5) The producing wells within the proposed project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

(6) The proposed project area is directly offset to the northeast by Southwest Royalties, Inc's. Flying M San Andres Unit, a large waterflood project in the Flying M-San Andres Pool.

(7) The applicant's testimony indicates that the interest ownership is common within the proposed project area.

(8) The implementation of waterflood operations within the proposed project area should result in the recovery of oil which may otherwise not be recovered, thereby preventing waste, and will not violate correlative rights.

(9) The injection of water into the Gonzales "31" Federal Well No. 6Y should be accomplished through 2 3/8-inch internally plastic-lined tubing installed in a packer set within 100 feet of the uppermost injection perforations; the casing-tubing annulus should be filled with an inert fluid and a gauge or approved leak-detection device should be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(10) The evidence presented by the applicant indicates that all of the wells within the "area of review" of the Gonzales "31" Federal Well No. 6Y are cased and cemented or plugged and abandoned in a manner to confine the injection fluid to the proposed injection interval.

(11) Prior to commencing injection operations into the Gonzales "31" Federal Well No. 6Y, the casing should be pressure tested throughout the interval from the surface down to the proposed packer setting depth to assure the integrity of such casing.

(12) The Gonzales "31" Federal Well No. 6Y should be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 848 psi.

(13) The Division Director should have the authority to administratively authorize a pressure limitation in excess of the pressure limitation described above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

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

(15) The proposed waterflood project should be approved and the project should be governed by the provisions of Division Rule Nos. 701 through 708.

(16) The injection authority granted herein for the Gonzales "31" Federal Well No. 6Y should terminate one year after the effective date of this order if the operator has not commenced injection operations into this well, 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, Southwest Royalties, Inc., is hereby authorized to institute a waterflood project on its Gonzales "31" Federal Lease, which comprises the E/2 of Section 31, Township 9 South, Range 33 East, NMPM, Lea County, New Mexico, by the injection of water into the San Andres formation, Flying M-San Andres Pool, through the perforated interval from approximately 4,239 feet to 4,282 feet in its Gonzales "31" Federal Well No. 6Y located 1980 feet from the South line and 860 feet from the East line (Unit D) of Section 31.

(2) 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 to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(3) The injection of water into the Gonzales "31" Federal Well No. 6Y shall be accomplished through 2 3/8-inch internally plastic-lined tubing installed in a packer set within 100 feet of the uppermost injection perforations; the casing-tubing annulus shall be filled with an inert fluid and a gauge or approved leak-detection device shall be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(4) Prior to commencing injection operations into the Gonzales "31" Federal Well No. 6Y, the casing shall be pressure tested throughout the interval from the surface down to the proposed packer setting depth to assure the integrity of such casing.

(5) The Gonzales "31" Federal Well No. 6Y shall be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 848 psi.

(6) The Division Director shall have the authority to administratively authorize a pressure limitation in excess of the pressure limitation described above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

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

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

(9) The project is hereby designated the Gonzales Federal Waterflood Project.

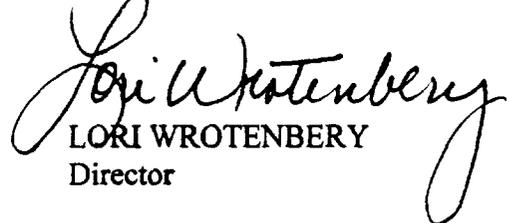
(10) The operator shall conduct injection operations in accordance with Division Rule Nos. 701 through 708 and shall submit monthly progress reports in accordance with Division Rule Nos. 706 and 1115.

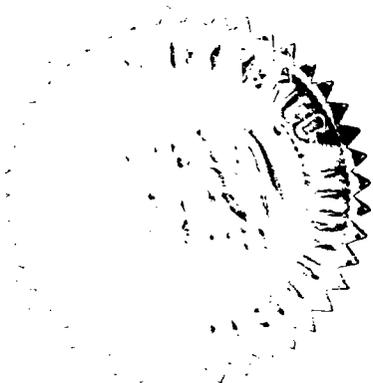
(11) The injection authority granted herein for the Gonzales "31" Federal Well No. 6Y shall terminate one year after the effective date of this order if the operator has not commenced injection operations into this well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

(12) Jurisdiction of this case 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

  
LORI WROTENBERY  
Director



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