

Shell Western E&P Inc.

A Subsidiary of Shell Oil Company



November 26, 1984

P.O. Box 991
Houston, TX 77001

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87501

Gentlemen:

SUBJECT: EXPANSION OF PRESSURE MAINTENANCE PROJECT
SHELL - NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
HOBBS (GRAYBURG/SAN ANDRES) POOL
UNIT LETTER F, 2310' FNL & 1320' FWL
WELL NO. 221
SEC. 33, T-18-S, R-38-E, NMPM
LEA COUNTY, NEW MEXICO

Shell Western E&P Inc. respectfully requests administrative approval of expansion of the subject pressure maintenance project. Administrative Order No. R-6199 granted November 30, 1979, authorized Shell to conduct the North Hobbs (Grayburg/San Andres) Unit pressure maintenance project within the subject pool.

The subject well, formerly the Amoco-State G #2, was drilled and completed open hole in the San Andres zone in 1930. Additional perforations were made in the San Andres when the well was deepened 60' (and 5" casing was set) in 1954. It produced only from these perforations until November 1982 when a series of perforations were made in the San Andres. One of these perforation intervals was squeezed off in April 1983. After a decline in production, we now propose to convert the subject well to injection service.

The following information is submitted in support of this request:

1. Plat of Unit with proposed injector and its project area.
2. A diagrammatic sketch of the proposed well, injection tubing, packer, pressure control elements, and identifying the proposed San Andres injection interval.
3. The source of water will be re-injected produced water.
4. The well is cased through the completion interval and will be selectively perforated over a 131' interval in the San Andres zone and acidized with approximately 3000 gals of 15% HCl-NEA. Previous perforated intervals 4203' - 4214' and 4226' - 4230' will be sealed off with a CIBP at 4195'.

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5. Injection will be into the San Andres formation at an interval of 4047' to 4178'. Surface injection pressure will be limited to .2 psi per foot gradient to the top perforation, with an anticipated initial daily volume of 2000 barrels of water per day, increasing to a maximum of 3500 barrels of water per day. Average and maximum injection pressures will be in accordance with Rule 11 of Order No. R-6199 (expected maximum injection pressure is 809 psi).
6. An Affidavit of Publication certifying the newspaper legal notice.
7. List of offset operator and surface owner.
8. All entities in Item Seven have been notified by certified mail.

If additional information is required, please advise.

Yours very truly,



A. J. Fore
Supervisor Regulatory and Permitting
Production Administration
Mid-Continent Division

JMW

Attachments

cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 1980
Hobbs, NM 88240

State of New Mexico
Office of Land Commissioner
P. O. Box 1148
Santa Fe, NM 87501

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