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. 11505 ORDER NO. R-10598

APPLICATION OF PENWELL ENERGY, INC. FOR AN EXCEPTION TO THE SALT PROTECTION CASING STRING REQUIREMENTS OF DIVISION ORDER NO. R-111-P, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on April 4, 1996, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this <u>10th</u> day of May, 1996, the Division Director, having considered 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, Penwell Energy, Inc., seeks an exception to the salt protection casing string requirement contained within Division Order No. R-111-P in the "Potash Area" for its proposed J. D. Federal "33" Well No. 1 to be drilled 660 feet from the North line and 2080 feet from the East line (Unit B) of Section 33, Township 21 South, Range 33 East, NMPM, Lea County, New Mexico.

(3) Penwell Energy, Inc., has the right to develop the oil and gas minerals underlying the Federal Lease comprising all of said Section 33 and proposes to drill its J. D. Federal "33" Well No. 1 to a depth of approximately 15,200 feet in order to test for deep gas production within the Legg-Atoka Morrow Gas Pool.

(4) The N/2 of said Section 33 is currently included in the "Potash Area" as described within Division Order No. R-111-P, and is therefore subject to the casing and cementing requirements contained within Parts D(3)(a) through (i) which states in part:

" (3) Salt Protection String:

(a) A salt protection string of new or used oil field casing in good condition shall be set not less than 100 feet nor more than 600 feet below the base of the salt section; provided that such string shall not be set below the top of the highest known oil or gas zone."

"(b) The salt protection string shall be cemented as follows:

For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be re-cemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section D (5)(a)(i) below."

(5) The salt protection casing string is required within the "Potash Area" in order to protect commercial potash deposits from oil and gas activities where such activities would have the effect to reduce the total quantity of potash which may reasonably be recovered, and, in order to prevent the migration of methane gas from oil and gas bearing strata into potash mine workings.

(6) The N/2 N/2 of said Section 33 was initially included in the "Potash Area" by Division Order No. R-111-A, dated October 13, 1955.

(7) Said N/2 of said Section 33 is also within the Known Potash Leasing Area ("KPLA"), established by the U. S. Bureau of Land Management ("BLM"). The S/2 of said Section 33 is outside of the "Potash Area" and wells drilled within this half section would not be subject to R-111-P.

(8) Part C(4) of the decretory portion of said Order No. R-111-P, states:

"The Division's District Supervisor may waive the requirements of Section D and F (dealing with drilling, casing and plugging) which are more rigorous than the general rules upon satisfactory showing that a location is outside the Life of the Mine Reserves (LMR) and surrounding buffer zone as defined hereinbelow and that no commercial potash reserves will be unduly diminished."

(9) The N/2 of said Section 33 is not within a designated LMR or buffer zone.

(10) A well immediately to the north of the proposed J. D. Federal "33" Well No. 1, the Santa Fe Energy Resources, Inc. Abe Unit Well No. 1 (API No. 30-025-33061), located at a standard gas well location 760 feet from the South line and 1980 feet from the East line (Unit O) of Section 28, Township 21 South, Range 33 East, NMPM, Lea County, New Mexico, being on a State Lease, was drilled in August/September, 1995 to a total depth of 15,100 feet and was subsequently completed within the Legg-Atoka Morrow Gas Pool. The Division authorized Santa Fe Energy Resources, Inc. to omit the salt protection string in this well, but it was required to set the surface casing string to the top of the Anhydride. In this instance the 13-3/8 inch surface casing was set at 1650 feet.

(11) The applicant has provided the necessary notification requirements to drill a well in the "Potash Area" and has adequately satisfied the U. S. Bureau of Land Management's request by seeking this exception through the Division's hearing process.

(12) The subject application should be approved; provided however, adequate surface casing to the top of the anhydride is set.

(13) The operator should contact the supervisor of the Hobbs District Office of the Division to review the casing and cementing design for this well and make pursuant to his recommendations any necessary changes. Should these recommendations differ from any design authorized by the BLM, the operator should incorporate the more stringent specification of the two agencies.

(14) Except as modified by any order issued in this matter, all of the provisions of Order No. R-111-P applicable to the casing, actual drilling, cementing and plugging of a deep high pressure gas well within the "Potash Area" shall be strictly adhered to.

(15) Approval of this application with said condition is in the best interest of conservation, exhibits sound engineering practices, will serve to adequately prevent waste, and protect correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) The application of Penwell Energy, Inc. for an exception to the salt protection casing string requirement of Division Order No. R-111-P for wells drilled within the "Potash Area" is hereby granted for its proposed J. D. Federal "33" Well No. 1 to be drilled 660 feet from the North line and 2080 feet from the East line (Unit B) of Section 33, Township 21 South, Range 33 East, NMPM, Lea County, New Mexico.

PROVIDED HOWEVER:

(2) The operator shall contact the supervisor of the Hobbs District Office of the Division and review the casing and cementing design for the subject well and make pursuant to his recommendations any necessary changes.

(3) Should these recommendations differ from any design authorized by the U. S. Bureau of Land Management ("BLM"), the operator shall incorporate the more stringent specification of the two agencies.

(4) Except as modified by this order, all of the provisions of Order No. R-111-P applicable to the casing, actual drilling, cementing and plugging of a shallow well within the "Potash Area" shall be strictly adhered to.

(5) 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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