

**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. 13272
ORDER NO. R-12158**

**APPLICATION OF DEVON ENERGY PRODUCTION COMPANY, L. P. FOR AN
EXCEPTION TO DIVISION ORDER NO. R-111-P, EDDY COUNTY, NEW
MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on May 27, 2004, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 13th day of July, 2004, 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 New Mexico Oil and Gas Act, Section 70-2-12 (B) (17) NMSA 1978, empowers the Division *"to regulate and, where necessary, prohibit drilling or producing operations for oil or gas within any area containing commercial deposits of potash where the operations would have the effect unduly to reduce the total quantity of the commercial deposits of potash which may reasonably be recovered in commercial quantities or where the operations would interfere unduly with the orderly commercial development of the potash deposits."*

(3) In order to facilitate the safe and orderly development of both oil and gas and potash reserves within New Mexico, Division Order No. R-111, dated November 9, 1951, as amended by Order Nos. R-111-A through R-111-O, established the "Potash Area," which *"represents the area in various parts of which potash mining operations are now in progress, or in which core tests indicate commercial potash reserves."* Furthermore, Division Order No. R-111-P, issued in Case No. 9316 on April 21, 1988, established *"The Rules and*

Regulations Governing the Exploration and Development of Oil and Gas in Certain Areas Herein Defined, Which Are Known To Contain Potash Reserves (Potash Area)."

(4) Included in the special rules governing oil and gas development in the Potash Area are the following-described standards for the casing and cementing of oil and gas wells:

Deep Wells—*Are defined as those wells drilled to a formation below the base of the Delaware Mountain Group, or below a depth of 5,000 feet, whichever is lesser.*

Surface Casing—*Shall be set in the "Red Bed" section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section. Cement on this casing string shall be circulated to the surface.*

Salt Protection Casing—*Shall be set not less than 100 feet nor more than 600 feet below the base of the salt section. Cement on this casing string shall be circulated to the surface.*

Intermediate Casing—*The operator shall have the option of running an intermediate string of casing in the well. If this string of casing is run, cement on this casing string shall be circulated to the surface.*

Production Casing—*Shall be set on top or through the oil and gas pay-zone. The production casing string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided that if no intermediate string of casing is run in the well and cemented to surface, the production string shall be cemented to the surface.*

(5) The applicant, Devon Energy Production Company, L.P. ("Devon"), seeks an exception to these casing cementing requirements of Order No. R-11-P for deep wells drilled on its Blackjack "1" Federal lease (U. S. **Government lease No. NM-97133**) comprising all of Section 1, Township 24 South, Range 30 East, NMPM, Eddy County, New Mexico, such that circulating cement to the surface on the production string will not be required.

(6) Devon's proposed exception area is located on the extreme southern edge of the Potash Area.

(7) The evidence presented demonstrates that the 120 acres comprising the NE/4 SE/4 (Unit I) and the S/2 SE/4 (Units O and P) of Section 1 are not located within the Potash Area as defined by Division Order No. R-1 11-P and are therefore not **subject** to these special oil/potash rules.

(8) The portion of Devon's application seeking an exception from Division Order No. R-1 11-P for the NE/4 SE/4 and the S/2 SE/4 of Section 1 should therefore be dismissed, and the proposed exception area should only comprise the remaining 519.80 acres of Section 1 (Lots 1 through 4, the S/2 N/2, SW/4, and NW/4 SE/4).

(9) With regards to potash leasing and potash development in this reduced exception area, Devon presented evidence that demonstrates that:

- (a) there is no current potash lease within Section 1;
- (b) the nearest area that has been mined for potash is located approximately 3.5 miles to the north in Section 14, Township 23 South, Range 30 East, NMPM, Eddy County, New Mexico; and
- (c) the reduced exception area is also within the Known Potash Leasing Area ("KPLA"), established by the U. S. Bureau of Land Management ("BLM"); however, it is within the area designated as "barren."

(10) Devon presented geological evidence that demonstrates that:

- (a) the potash-bearing intervals are located within the Salado formation which is present in a nearby area from approximately 1,000 feet to 3,000 feet; and
- (b) the development of oil and associated gas in this area is occurring in the Delaware formation from depths in excess of 8,250 feet.

(11) Devon testified that if its application were approved, all Delaware wells within the reduced exception area would be cased and cemented as follows:

- (a) 13-3/8 inch surface casing will be set in the Rustler formation at a depth of approximately 700 feet, and cement will be circulated to the surface;

- (b) an 8-5/8 inch salt protection casing string will be set at the top of the Delaware formation at an approximate depth of 4,000 feet, and will be cemented to the surface; and
 - (c) the 5-1/2 inch production casing string will be set within the Bone Spring formation at an approximate depth of 8,300 feet, and will be cemented to an approximate depth of 3,700 feet, or 300 to 500 feet above the salt protection-casing shoe.
- (12) Devon presented engineering evidence that demonstrates that:
- (a) the extensive development of the oil and gas reserves within the Delaware formation has already occurred to the east in Section 32, Township 23 South, Range 31 East, NMPM, West Sand Dunes-Delaware Pool (53815) and Section 6, Township 24 South, Range 31 East, NMPM, South Sand Dunes-Delaware Pool (**53818**) both in Eddy County, New Mexico;
 - (b) within the reduced exception area, it is likely Devon will drill up to thirteen (13) wells in order to develop the Delaware formation on one well per 40-acre spacing and proration unit;
 - (c) the requirement to circulate cement on the production casing string would add approximately \$30,000 to \$40,000 to the drilling cost on each Delaware well;
 - (d) the ultimate oil recovery from these Delaware wells is such that the economics of drilling these wells **may be** affected by the requirement to circulate cement on the production casing string; and
 - (e) if it is determined at some future date that potash mining will be conducted within or nearby the reduced exception **area**, it will be possible for Devon to perform remedial cementing operations on these wells in order to circulate cement on the production casing back to the surface.
- (13) No interested party appeared at the hearing in opposition to this application.

(14) The evidence presented demonstrates that potash mining is located a considerable distance away from the proposed reduced exception area, and that it is unlikely that mining operations will progress towards or converge upon this area within the foreseeable future.

(15) The evidence presented further demonstrates that the method by which Devon proposes to drill, case, and cement its Delaware wells, even to the exclusion of cementing the production casing string to the surface, provides adequate protection to the potash reserves.

(16) Approval of Devon's application is in the best interest of conservation, will prevent waste, and protect correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Devon Energy Production Company, L.P. ("Devon"), is hereby granted an exception to the casing cementing requirements of Division Order No. R-1 11-P, issued in Case No. 9316 on April 21, 1988, for its deep Delaware test wells to be drilled on that portion of its Blackjack "1" Federal lease (*U. S. Government lease No. NM-97133*) underlying the 519.80 acres comprising Lots 1 through 4, the S/2 N/2, SW/4, and NW/4 SE/4 of Section 1, Township 24 South, Range 30 East, NMPM, Eddy County, New Mexico, such that Devon will not be required to circulate cement to the surface on the production casing string.

(2) The portion of Devon's application for an exception to the casing cementing requirements of Division Order No. R-1 11-P for its deep Delaware test wells within the 120 acres comprising the NE/4 SE/4 (Unit I) and S/2 SE/4 (Units O and P) of Section 1, is hereby dismissed.

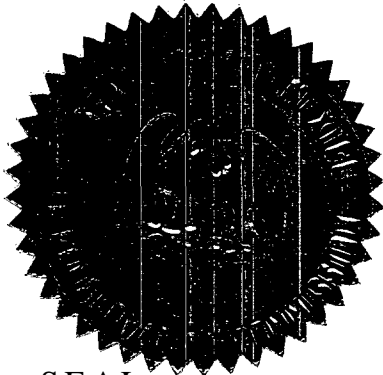
(3) Within the 519.80-acre area described above in Ordering Paragraph No. (1), Devon shall case and cement its Delaware wells in accordance with the procedure set forth in Finding Paragraph No. (11) of this order.

(4) All other provisions of Division Order No. R-111-P, especially regarding the casing and cementing requirements for the surface and salt protection casing strings, shall remain in full force and effect within the reduced exception area.

(5) In the event that potash mining operations converge upon this 519.80-acre reduced exception area, the Division may, if it deems necessary to protect potash reserves and mining operations, require Devon, or any other successor operator to conduct remedial cementing operations on the wells within the reduced exception area.

(6) Jurisdiction is hereby 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.



SEAL

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

A handwritten signature in black ink, appearing to read "Mark E. Fesmire".

MARK E. FESMIRE, P.E.
Director