

**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. 13580
ORDER NO. R-12513**

**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 October 20, 2005, at Santa Fe, New Mexico, before Examiner William V. Jones.

NOW, on this 1st day of March, 2006, 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. 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 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)."*
3. Division Order No. R-111-P established rules for all wells drilled in the "Potash Area". Section D of said rule established Drilling and Casing Program specifications, which specified coverage of cement during casing operations for all casing strings, but with differing requirements if the well is to be drilled below 5,000 feet - called the "deep zone". As detailed below, deep zone wells must be designed in order to have two strings of fully cemented casing completely covering the salt interval.

(a) Section D (3) of this order **requires** the installation in deep zone wells of a fully cemented "salt protection string".

(b) Section D (4) of this order gives the operator **the option** of also installing for deep zone wells a fully cemented "intermediate string".

(c) If the operator chose to install a fully cemented intermediate string then Section D (5) of this order only requires the operator to cement the production casing such that the casing is protected and the producing interval is covered.

(d) However; if the operator chose NOT to install a fully cemented intermediate string, then Section D (5) of this order requires cement to be circulated on any production casing string.

4. The applicant, Devon Energy Production Company, L.P. ("Devon" or "applicant"), is the operator of United States Oil and Gas Lease NM 041822-A, which covers the N/2 NW/4 of Section 26 and all of Section 27, Township 23 South, Range 31 East, NMPM, Eddy County, New Mexico.

5. Sections 26 and 27 are within the boundaries of lands included in the Potash Area and as such are subject to Division Order R-111-P Section (D).

6. Devon seeks approval for future "deep zone" wells drilled within this lease targeting the Delaware or Bone Spring to drill those wells without an intermediate casing and without cementing the production casing of those wells to the surface.

7. No other party entered an appearance in this case or opposed this application.

8. Devon presented land and engineering testimony at the hearing as follows;

(a) there are many Delaware oil wells in this immediate area and most are not in compliance with the cementing requirements of R-111-P. The BLM did not require cement to be circulated to the surface and the Division also has not enforced the cementing rule;

(b) based on a 1993 map, the closest mine workings are approximately 6 miles to the northeast;

(c) the southern half of Section 27 is outside the Potash Enclave. The remainder of lands in this lease is inside the Potash Enclave;

(d) this lease is approximately 4 miles south of the Waste Isolation Pilot Project ("WIPP");

(e) the nearest federal potash lease is over a mile to the west;

(f) Devon notified only the BLM with this application and not any potash leaseholder;

(g) Devon intends to drill the salt protection hole with salt-based mud, cease drilling after the last salt and above the Delaware and cement the salt protection pipe with 100 percent excess cement to ensure circulation to the surface;

(h) Devon does not intend to install intermediate casing; and

(i) Devon intends to drill the production hole with fresh water based mud and watch for lost circulation zones. If significant mud is lost while drilling, Devon would add a diverter/stage tool into the production casing. If the hole seems stable while drilling, Devon would cement in one stage with enough cement to enter the salt protection casing by approximately 500 feet.

9. Devon did not testify to which formations below the salt have H₂S concentrations in the hydrocarbons. However, Devon testified that no casing problems have been found in other wells in this area cemented in the fashion requested.

10. Devon presented adequate justification to allow an exception to the casing requirements of Division Order No. R-111-P for wells drilled within this federal lease covering all of Section 27 and the N/2 NW/4 of Section 26.

11. Approval of Devon's application for an exception to the casing cementing requirements of Order R-111-P will prevent waste and protect correlative rights.

12. This application should be approved.

IT IS THEREFORE ORDERED THAT:

1. Devon Energy Production Company, L.P. ("Devon") is hereby granted an exception to the casing and cementing requirements of Division Order No. R-111-P for oil wells drilled to the Delaware and Bone Spring formations within the N/2 NW/4 of Section 26 and within all of Section 27, Township 23 South, Range 31 East, NMPM, Eddy County, New Mexico.

2. Such wells shall be constructed by circulating cement on the salt protection casing string extending from the surface and through the salt interval. The production casing shall be cemented such that cement extends 500 feet up into the lower portion of the salt protection casing.

3. Devon shall have all cement used in construction of these wells sampled and analyzed as to type and quality including C3A percentages and this information shall be supplied to the Division.

4. If either the salt protection casing or the production casing is not cemented as directed above, remedial squeeze cementing operations shall be attempted until Division inspectors are satisfied that the salt or potash interval is adequately isolated and protected.

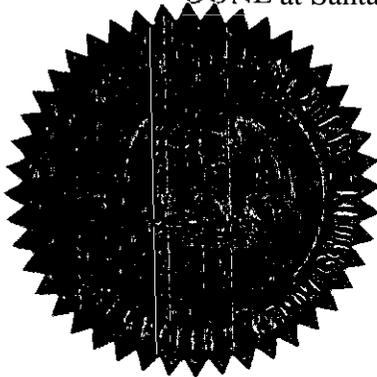
5. A cement bond log shall be run on any salt protection or production casing strings that are not circulated with cement and those cement bond logs shall be supplied to the Division,

6. Prior to September 1, 2006, Devon shall supply the Division with a water component analysis and a gas component analysis obtained from each producing pool in this area. Such analysis shall have estimates of corrosion and scaling tendencies and H₂S content.

7. This casing exception does not apply to any wells drilled within this area to a deeper formation than the Bone Spring.

8. 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

MARK E. FESMIRE, P.E.
Director