

**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. 14609
ORDER NO. R-13426**

**APPLICATION OF DEVON ENERGY PRODUCTION COMPANY, L.P. FOR
POOL CREATION, A DISCOVERY ALLOWABLE AND SPECIAL POOL
RULES, EDDY COUNTY, NEW MEXICO**

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on March 17 and on March 31, 2011, at Santa Fe, New Mexico before Examiner William V. Jones.

NOW, on this 15th day of July, 2011, 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) Devon Energy Production Company, L.P. ("Devon") seeks to define a new pool for oil production from the Bone Spring formation, grant a discovery production allowable for the new pool, and create a retroactive Special Rule for the pool granting a limiting gas-oil ratio "GOR" of 5000 cubic feet of gas to 1 barrel of oil.

(3) At the March 17 hearing, Devon proposed the following described lands within Eddy County, New Mexico as horizontal limits for inclusion in this new Pool:

Township 26 South, Range 31 East, NMPM

Section 10: All
Section 11: All

(4) Devon submitted testimony and exhibits including form C-109, *Application for Discovery Allowable and Creation of a New Pool*, at the hearing on

March 17. Devon submitted correspondence from Yates Petroleum Corporation at the March 31 examiner hearing in which Yates stated it did not oppose this application.

(5) After enquiry from the Examiner, the Hobbs district geologist submitted an email supporting the creation of a new pool on July 6, 2011 and suggested the Pool be named the West Jennings-Bone Spring Pool (Pool Code 97860), with vertical limits to encompass the entire Bone Spring formation. Devon had suggested alternative Pool names on form C-109, but has not indicated any protest of the name suggested by the Division's geologist.

(6) No other party entered an appearance or otherwise signified opposition to the application.

(7) Division Rule 19.15.15.9 NMAC allows 40-acre spacing and proration units for oil production with wells to be located no closer than 330 feet to the outer boundary of the unit. At depths from 8000 to 8999 feet (which encompasses the vertical depth of the top completion in the first well drilled in this pool) Division Rule 19.15.20.12 NMAC provides for a top proration unit depth bracket allowable of 230 barrels of oil per day per 40-acre spacing and proration unit, while Division Rule 19.15.20.13 NMAC provides for a limiting gas-oil ratio of 2000 cubic feet of gas per barrel of oil unless set after hearing where the applicant justifies a differing GOR.

(8) Devon operates the Snapping 10 Federal Well No. 1H (API No. 30-015-37899) as a wildcat horizontal producer in the Lower Avalon Shale member of the Upper Bone Spring formation. The well was spud July 10, 2010 and completed November 16, 2010. It was drilled from a surface location (and Bone Spring formation penetration point) 330 feet from the North line and 1980 feet from the East line (Unit B) of Section 10, Township 26 South, Range 31 East, NMPM, Eddy County, New Mexico. The pilot hole was drilled to 9900 feet then logged and plugged back with cement. The well was then kicked off from 7900 feet and drilled in a southerly direction to a terminus 330 feet from the South line and 1980 feet from the East line (Unit O) of Section 10. The well is dedicated to a voluntary "project area" consisting of the W/2 E/2 of Section 10 comprising four, 40-acre oil spacing and proration units.

(9) Devon presented exhibits and testimony from a landman, geologist, and engineer at the March 17 hearing showing the following:

- A. The proposed discovery well is the Snapping 10 Federal Well No. 1H, which has been drilled, completed and is producing from the Bone Spring at measured depths from 8468 to 12858 feet or equivalent vertical depths of 8390 to 8590 feet.
- B. On October 14, 2010, Devon spud the second well in this proposed Bone Spring pool; the Snapping 11 Federal Well No. 1H (API No. 30-015-38193) was drilled first as a vertical pilot hole and has been drilled and

completed as a horizontal well with a project area consisting of the E/2 W/2 of Section 11.

- C. Devon is asking for all of Sections 10 and 11 to be included in this proposed Pool. Devon could locate no other Bone Spring oil pool within a 1 mile boundary around these two Sections. Devon is the only other operator of Bone Spring oil wells within Sections 10 and 11 or within 1 mile of those two sections. Yates Production Corporation has a proposed Bone Spring well over 1 mile away to the northeast. Yates was subsequently notified and has not objected to the Devon application.
- D. In support of the request for a Discovery Allowable, Devon submitted form C-109 with supporting exhibits.
- E. In support of the request for a 5,000:1 limiting Gas-Oil Ratio:
 - a. Devon submitted production plots of each of the two wells showing oil, gas and water production behavior. The gas production for those two wells has been relatively high with the well in Section 11 showing no decline in gas production to correspond with the oil production decline.
 - b. Geologically, Devon pointed out the higher gas production may be due to the Avalon formation having very tight permeability and small pore throats.
 - c. Devon stated this higher producing gas-oil ratio is not abnormal for Bone Spring formation pools and offered analogous examples of the East Pierce Crossing-Bone Spring Pool and the Southeast Willow Lake-Bone Spring Pool. Each of those pools was granted a limiting GOR of 5000:1 by the Division by Orders No. R-13248 and R-13247, respectively.

(10) Division records show there has been at least one production test of the Bone Spring formation in this area. The Opera AQG Federal Well No. 1 (API No. 30-015-29435) was drilled vertically in 1996 within Unit G of offsetting Section 15. That well was perforated and tested in the Bone Spring from vertical depths of 9136 to 10048 feet. The well was then completed in the Delaware formation and was plugged November 7, 2008.

(11) Devon's request for creation of a new oil pool to encompass vertically the entire Bone Spring formation and horizontally consisting initially of all of Sections 10 and 11 should be granted. The new pool should be named the West Jennings-Bone Spring Pool (Pool Code 97860) as suggested by the Division's Hobbs district geologist.

(12) Devon did not show a comparison of allowable oil and gas production versus actual production for its two wells or otherwise demonstrate why a discovery allowable for the first well is needed to keep production within limits. Division records indicate that oil production from these two horizontal well project areas is below the statewide depth bracket allowable but gas production is above that allowed by applying a limiting gas-oil ratio of 2000:1 to the oil depth bracket allowable. A limiting GOR of higher than 2000:1 is clearly needed to keep these wells' gas production within the rules.

(13) Devon did not submit an adequate summary of reservoir data to justify the discovery allowable or to justify a permanent limiting GOR of 5000:1. Before the Division can grant a discovery allowable, Division Rule 19.15.20.16C.(5) requires the applicant to submit all available reservoir data and any other pertinent data.

(14) Devon did indicate at the hearing that the oil gravity may be near 47 API, but did not provide an initial reservoir pressure, any initial PVT data for this newly discovered oil reservoir, or even an estimate of the bubble point pressure from correlations.

(15) Devon did make clear at the hearing that it would submit additional data if asked to do so and would request a "temporary" Special Rule allowing the limiting GOR to be set at 5000:1.

(16) This application for discovery allowable should be denied without prejudice to Devon making another case with additional data.

(17) The application for a retroactive limiting GOR of 5000:1 should be allowed for 2 years from the date of first production from this pool (reported by Devon as November 16, 2010) at which time it should revert to the statewide allowed limit of 2000:1 unless Devon appears, and presents additional reservoir fluids, pressure, and production data showing this Special Rule should continue in effect for this pool.

(18) If after retroactively applying a 5000:1 limiting GOR, Devon has still over produced oil or gas, it should present a 1 year plan to the Artesia district office showing how it intends to make up the overproduction.

IT IS THEREFORE ORDERED THAT:

(1) The application of Devon Energy Production Company, L.P. ("Devon") to create a new oil pool to encompass vertically the entire Bone Spring formation and horizontally consist initially of all of Sections 10 and 11, Township 26 South, 31 East, NMPM, Eddy County, New Mexico is hereby granted. The new oil pool shall be named the West Jennings-Bone Spring Pool (Pool Code 97860).

(2) The discovery well for this pool is the Devon operated Snapping 10 Federal Well No. 1H (API No. 30-015-37899) completed November 16, 2010 as a horizontal producer in the Lower Avalon Shale member of the Upper Bone Spring

formation at measured depths from 8468 to 12858 feet or equivalent vertical depths of 8390 to 8590 feet.

(3) The portion of this application asking for approval of a discovery allowable is denied without prejudice.

(4) The following **“Temporary Special Rules for the West Jennings-Bone Spring Pool”** are hereby adopted:

Rule 1: Each well completed or recompleted in the West Jennings-Bone Spring Pool (97860) or within 1 mile thereof and not nearer to or within the limits of another Bone Spring oil pool, shall be produced in accordance with the Special Rules hereinafter set forth.

Rule 2: The limiting gas-oil ratio within this pool shall be 5000 cubic feet of gas per barrel of oil retroactive to date of first production from this pool, November 16, 2010.

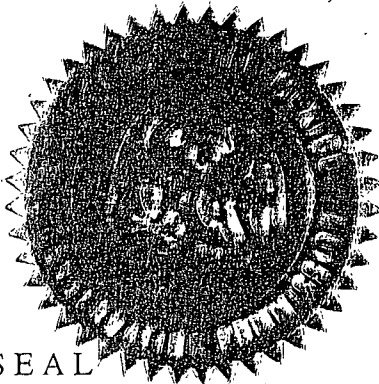
Rule 3: All other rules shall conform to the Division’s statewide rules.

(5) These Temporary Special Rules shall expire on November 16, 2012 unless an operator from this pool has entered a case before the Division to make these rules permanent. Any application to make these rules permanent shall also include sufficient justification including reservoir fluids, pressure, and production data showing that the product classification of this pool is correct and waste will not occur by permanent adoption of these rules.

(6) If after adoption of this rule, Devon has over produced oil or gas in any proration unit within this pool, it shall present a 1 year plan to the Artesia district office showing how it intends to make up that overproduction.

(7) 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.



SEAL

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

A handwritten signature in black ink, appearing to read "Jami Bailey".

JAMI BAILEY
Director