

**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. 14600
ORDER NO. R-13410**

**APPLICATION OF DEVON ENERGY PRODUCTION COMPANY, L.P. FOR
APPROVAL OF A SALT WATER DISPOSAL WELL, LEA COUNTY, NEW
MEXICO**

ORDER OF THE DIVISION

BY THE DIVISION:

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

NOW, on this 13th day of June, 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) The applicant, Devon Energy Production Company, L.P. ("Devon" or "applicant"), seeks authority to utilize its Rio Blanco 4 Federal Well No. 3 (**API No. 30-025-36425**, the "subject well"), located 1650 feet from the South line and 1650 feet from the East line, Unit J of Section 4, Township 23 South, Range 34 East, NMPM, Lea County, New Mexico, for oil field water disposal into the Devonian formation from 14,500 feet to 14,653 feet.

(3) This application was set to hearing by the applicant due to the presence of two Devonian gas wells within the ½ mile Area of Review:

- a. The Rio Blanco 4 Federal Well No. 1 (API No. 30-025-34515) operated by Devon is a vertical well producing from the Northeast Bell Lake-Devonian Gas Pool (Pool Code 97328) at approximately 200 Mcf gas per

day and 700 barrels of water per day. The estimated ultimate gas recovery from this well is 7.6 Bcf gas (Exhibit No. 3).

- b. The Rio Blanco 9 State Well No. 1 (API No. 30-025-36302) also operated by Devon is a vertical well producing from the Northeast Bell Lake-Devonian Gas Pool (Pool Code 97328) at approximately 100 Mcf gas per day and 30 barrels of water per day. The estimated ultimate gas recovery from this well is 1.1 Bcf gas (Exhibit No. 3).

(4) Devon presented exhibits and testimony at the hearing from a geologist and an engineer. An affidavit from a landman was subsequently presented for the record. The testimony and exhibits indicate the following:

- a. The subject well was completed in May of 2004 in the Northeast Bell Lake-Devonian Gas Pool (Pool Code 97328). The Devonian formation gas production from this well has totaled approximately 3.4 Bcf gas. The production has declined and the last reported production – approximately one year ago - showed the well produced at a rate of 592 Mcf gas per day and 2464 barrels of water per day.
- b. The subject well has produced approximately 2.8 million barrels of water, or more than both of the two offsetting wells combined. The water seems to have come from below rather than laterally.
- c. Devon does not intend to attempt any further production from the Devonian formation within this wellbore and intends to convert this temporarily abandoned well to injection into the existing open hole interval.
- d. Devon expects disposal waters to preferentially enter the fractures in the Devonian formation and travel down instead of horizontally.
- e. The source waters going into this well would originate primarily from Devon's local Devonian wells.
- f. There is no effect predicted on the two offsetting gas wells and if such production were in fact harmed by this disposal, then Devon could immediately cease injection into this well.
- g. Devon does not expect any waste of oil or gas to occur as a result of disposal into the Devonian formation.
- h. Devon expects to extend the producing life of the existing producing wells by using this well for disposal of waste water.

- i. The U.S. Bureau of Land Management is the surface and mineral owner. The BLM was notified and examined the application and submitted a letter in support.
- j. The well is adequately equipped and cemented to isolate any fresh water intervals.

(5) The half mile Area of Review around this well contains no plugged wells and two wells that are active or have not yet been plugged, that penetrate the disposal interval. All Area of Review wells are adequately cased and cemented in order to isolate the disposal interval.

(6) The application has been duly filed under the provisions of 19.15.26.8 NMAC. Affected parties have been notified and no objections have been received. There were no other appearances at the hearing or objections to this application.

(7) The applicant has presented satisfactory evidence that all requirements prescribed in 19.15.26.8 NMAC have been met and the operator is in compliance with 19.15.5.9 NMAC.

(8) This application as presented by Devon should be approved.

IT IS THEREFORE ORDERED THAT:

(1) Devon Energy Production Company, L.P. ("Devon" or "operator"), is hereby authorized to utilize its Rio Blanco 4 Federal Well No. 3 (API No. 30-025-36425) located 1650 feet from the South line and 1650 feet from the East line, Unit J of Section 4, Township 23 South, Range 34 East, NMPM, Lea County, New Mexico, for oil field water disposal (limited only to UIC Class II fluids) into the Devonian formation open hole interval from 14,500 feet to 14,653 feet through lined tubing and a packer set within 100 feet above the permitted disposal interval.

(2) The operator shall take all steps necessary to ensure that the disposed water enters only the permitted disposal interval depths and is not permitted to escape to other formations or onto the surface.

(3) After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

(4) The wellhead injection pressure on the well shall be limited to **no more than 2900 psi**. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well.

(5) The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formation. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable Step-Rate-Test.

(6) The operator shall notify the supervisor of the Division's district office of the date and time of the installation of disposal equipment and of any mechanical integrity test so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's district office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with rules 19.15.26.13 NMAC and 19.15.7.24 NMAC.

(7) Without limitation on the duties of the operator as provided in 19.15.29 NMAC and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the Division's district office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from or around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

(8) The injection authority granted under this order is not transferable except upon Division approval. The Division may require the operator to demonstrate mechanical integrity of any injection well that will be transferred prior to approving transfer of authority to inject.

(9) The Division may revoke this injection permit after notice and hearing if the operator is in violation of 19.15.5.9 NMAC.

(10) The Division Director shall be authorized to amend this permit administratively after proper notice and opportunity for hearing.

(11) The disposal authority granted herein shall terminate two years after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request, mailed by the operator prior to the termination date, may grant an extension thereof for good cause.

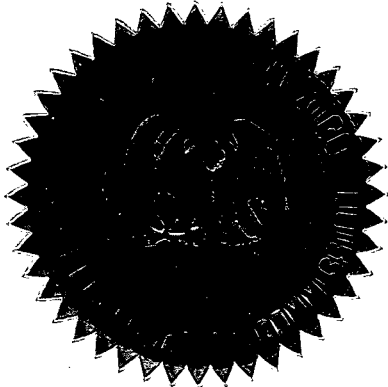
(12) One year after disposal into the well has ceased, the authority to dispose will terminate *ipso facto*.

(13) Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

(14) Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or

upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing or prior to notice and hearing in event of an emergency, terminate the disposal authority granted herein.

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 cursive script, appearing to read "Jami Bailey".

JAMI BAILEY
Director