## 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:

APPLICATION OF CIMAREX ENERGY CO. OF COLORADO TO REINSTATE INJECTION AUTHORITY, EDDY COUNTY, NEW MEXICO.

CASE NO. 14994 ORDER NO. R-13934

## **ORDER OF THE DIVISION**

### BY THE DIVISION:

This case came on for hearing on August 19, 2013, at 9:00 a.m. at Santa Fe, New Mexico, before Examiner Richard I. Ezeanyim.

NOW, on this 19<sup>th</sup> day of November, 2014, 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) Cimarex Energy Co. of Colorado ("Cimarex", "Applicant", or "Operator") seeks an order to reinstate the injection authority for the Amoco Fed. Well No. 1 (API No. 30-015-24466), located in the NE/4 SE/4 of Section 27, Township 26 South, Range 29 East, NMPM, Eddy County, New Mexico, with an effective date as of October 27, 1989.
- (3) Division Administrative Order No. SWD-380, dated October 27, 1989, approved the administrative application of Mallon Oil Company ("Mallon") to inject produced water into the Amoco Fed. Well No. 1 at depths of 4,022 to 4,208 feet subsurface. Cimarex is a successor operator of the Amoco Fed. Well No. 1.
- (4) In 1989, notice of Mallon's administrative injection application was not provided to the then surface land owner. In August 2012, Ross Ranch filed an application in Case No. 14888 to revoke Order No. SWD-380. By Order No. R-13699,

dated April 17, 2013, the Division rescinded Administrative Order No. SWD-380 as to Ross Ranch, without prejudice to the right of Cimarex to file an application to reinstate injection authority for the Amoco Fed. Well No. 1. Based on these facts, Cimarex, in May, 2013, filed an application to reinstate the injection authority granted to this well.

- (5) Cimarex provided notice of this application to all offset operators, working interest owners, the Bureau of Land Management (BLM), and the current surface land owner as required by Division rules and regulations. No offset operator or working interest owner appeared at the hearing to oppose the granting of this application.
- (6) George Ross Ranch, LLC ("Ross Ranch"), the current surface land owner on which the Amoco Fed. Well No. 1 is located, appeared at the hearing through counsel and opposed the granting of this application.
- (7) The BLM did not appear at the hearing, but in a letter to the Division dated May 21, 2013, the BLM objected to the granting of this application, because the wells in the area of review show calculated cement tops rather than cement tops determined by cement bond logs (CBL).

# Cimarex appeared at the hearing through counsel and presented the following testimony:

(8) In 1989, when Order No. SWD-380 was issued, Mallon owned 100% of the operating rights as to certain depths in Federal Oil and Gas Lease No. NM 38636 (herein referred to as "the Lease") which covered the following lands:

## Township 26 South, Range 29 East, NMPM

Section 27: N/2 NE/4, SE/4 NE/4, NW/4, and N/2 S/2 Section 28: N/2 NE/4, SE/4 NE/4, and SW/4 SE/4

- (9) The Amoco Fed. Well No. 1 is located on this Lease, and produced water has been injected into this well at depths from 4,022 to 4,208 feet into the Cherry Canyon formation since October, 1989.
- (10) By Assignment dated September 14, 2001, Mallon assigned its interests in this Lease to Magnum Hunter Production, Inc. ("Magnum Hunter"). Magnum Hunter operated the Amoco Fed. Well No. 1 for several years.
- (11) In 2005, Cimarex Energy Co. of Colorado acquired Magnum Hunter, and operates properties owned by Magnum Hunter including the Amoco Fed. Well No. 1.
- (12) Neither Magnum Hunter nor Cimarex were aware of the lack of notice to the surface owner when Mallon filed its administrative application in 1989.
- (13) Cimarex operates fourteen producing wells on this Lease which dispose produced water into the Amoco Fed. Well No. 1. No off-lease wells dispose into the

Amoco Fed. Well No. 1. Cimarex has no agreements with third parties to inject off-lease water into this well.

- (14) Production from Cimarex's wells on the Lease is from the Cherry Canyon formation, which is the same formation into which produced water is injected.
- (15) Geological evidence shows that there is no faulting in the area or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- (16) The Amoco Fed. Well No. 1 is mechanically sound. Produced water was injected into this well for 24 years, and there is no evidence that injected water has escaped to another zone or contaminated any fresh water zones.
- (17) No new wells have been drilled within the one-half mile area of review (AOR) for the Amoco Fed. Well No. 1 since order No. SWD-380 was issued in 1989.
- (18) The top of cement (TOC) on the injection well was determined by cement bond log (CBL) which is at 2,720 feet. The two plugged and abandoned wells in the AOR were properly plugged and abandoned to prevent the movement of the injected water from the injection zone to fresh water sources.
- (19) There are fresh water wells within two miles of the Amoco Fed. Well No. 1 owned by Ross Ranch. However, Ross Ranch refused to allow Cimarex to obtain samples from those wells.
- (20) The water well nearest to the Amoco Fed. Well No. 1 is a well on federal surface in the NW/4 SW/4 of adjoining Section 26. That well was sampled for the original Mallon application in 1989, and again in April 2013 by Cimarex. The 2013 sample proves that fresh water quality is better in 2013 than in 1989. Therefore, fresh water sources within the area of review are unaffected by 24 years of injection into the Amoco Fed. Well No. 1.
- (21) When the injection authority was rescinded in 2013, injection ceased into the Amoco Fed. Well No. 1. As a result, Cimarex has had to truck water from its producing wells on the Lease to a commercial salt water disposal facility, which is substantially more expensive than injecting the produced water into the Amoco Fed. Well No. 1. If this continues, the producing wells on the lease will be prematurely abandoned, thereby causing waste and impairing the correlative rights of royalty, overriding royalty, and working interest owners.
- (22) The BLM approved injection into the Amoco Fed. Well No. 1 in October 1989. That approval has never been rescinded. The Oil Conservation Division (OCD) and the BLM have never issued any notice of violation regarding the operation of the Amoco Fed. Well No. 1.

Ross Ranch named and swore in one witness, David Meyer. However, counsel for Ross Ranch decided not to call David Myer to the stand, but presented the following arguments in his written closing statements.

- (23) The Division Administrative Order No. SWD-380 has been ruled void. The application must be treated as though no application had been filed in the past. As a matter of law, an application 24 years later cannot operate to validate illegal injection into the well for all those years. Cimarex's application to inject, even if granted, must be treated prospectively and not retroactively. There is no provision for injection authority to be reinstated retroactive to the date of issuance of Order No. SWD-380. The order only allows Cimarex the benefit of filing a new application to be allowed to use the well.
- (24) The application for an injection well should not be granted based upon 24 year-old-data. Cimarex submitted no current data, but instead relied on the old data. Cimarex must present current, complete, and accurate data regarding the proposed injection well.
- (25) Cimarex made no attempt to comply with New Mexico's Surface Owner's Protection Act in relation to its use of the well for injection of produced water. As a matter of law, Cimarex must comply with the Surface Owner's Protection Act before it can proceed with this application.
- (26) Cimarex has provided no data that its proposed injection satisfies the Safe Drinking Water Act of 1974. Because the produced water will be coming from leasehold operations on BLM land, and because formations in question in the injection well enter into BLM land, Cimarex must comply with BLM requirements such as the Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development The Gold Book, Fourth Edition Revised 2007.
- (27) As a matter of law, Cimarex has accepted the benefits awarded by Order No. R-13699, and it cannot proceed with an appeal of this order. The benefits of Order No. R-13699 are *res judicata* and binding upon Cimarex.
- (28) The granting of Cimarex's application would be the equivalency of Order No. SWD-380 continuing to be in effect since October 1989. The granting of this application would be absurd since it would totally ignore the legal effect and consequences of OCD's ruling that Order No. SWD-380 is void.
- (29) A void court order is a complete nullity and of no force and effect, and an order which is a nullity and void, confers no rights to Cimarex; therefore, the application of Cimarex to reinstate the injection authority into this well should be denied.

### The Division concludes as follows

- (30) The surface of the land where the Amoco Fed. Well No. 1 is located was originally acquired by Mr. J.G. Ross in 1961. When Mr. Ross died, the land has gone through a series of heirs, and is now known as George Ross Ranch, LLC.
- (31) In 1989, when Mallon applied for a salt water disposal into the Amoco Fed. Well No. 1, it failed to provide notice to Mr. J.G. Ross. The Division was not aware of the failure to notice and issued Order No. SWD-380 to Mallon on October 27, 1989. Since 1989, the ownership of Amoco Fed. Well No. 1 has transferred from Mallon to Magnum Hunter then to Cimarex, which is the current operator of the well.
- (32) In 2012, George Ross Ranch applied to the Division to rescind Order No. SWD-380, on the basis that the original surface land owner did not receive notice for the initial application. By Order No. R-13699, the Division rescinded Order No. SWD-380 without prejudice to allow Cimarex to file an application to reinstate injection authority in Amoco Federal Well No.1 as a new application with a new Form C-108, and new notice to all the required parties. In May 2013, Cimarex applied to the Division to reinstate Order No. SWD-380 retroactive to October 27, 1989.
- (33) The well has been injecting into the Cherry Canyon for 24 years. The Applicant has not received any notice of violation from the Division or BLM regarding the operation of this well.
- (34) The injection well is adequately constructed to prevent the migration of the injected water to fresh water sources. The depth of fresh water sources in this area is approximately 150 to 200 feet. The surface casing on the injection well is set at 450 feet with cement circulated to the surface. The production casing is set at 5,820 feet with the top of cement determined by the cement bond log (CBL) at 2,720 feet.
- (35) The well was plugged back to total depth of 4,283 feet, and all perforations below this depth have been squeezed and isolated with cast iron bridge plugs (CIBP).
- (36) There were thirteen (13) wells in the AOR of the injection well. Since 1989, there have been no wells drilled in the AOR of this injection well. The two plugged and abandoned wells within the AOR of the injection well were adequately plugged and abandoned. The remaining eleven (11) wells are producing wells from the Lease.
- (37) George Ross Ranch refused to allow Cimarex to obtain water samples from the Ranch. However, Cimarex obtained water samples from Williamson fresh water well located near the injection well on BLM land. In 1989, the chlorides content from this well was 4,000 milligrams per liter (mg/l), but in 2013, the chlorides content from the same well was 1,780 mg/l, which indicates that shallow fresh water sources in the area do not appear to be affected by salt water disposal into this well.

- (38) The evidence presented by the Applicant indicates that there is no compatibility problem between the injected water and the formation water.
- (39) The counsel for George Ross Ranch, LLC invoked the doctrine of *res judicata* in this case. However, this doctrine does not apply in this case. The Division is not relying solely on the information found in Order No. SWD-380. Testimony was given that the current ability of Amoco Fed. Well No. 1 to inject in a safe manner has not changed in 24 years of injection. The Division can extrapolate technical information from Order No. SWD-380 along with new testimony showing 24 years of safe injection will not change the ability for the Amoco Fed. Well No. 1 to inject safely in the future.
- (40) Granting a new order allowing the authority to inject will prevent waste, protect correlative rights, and protect human health and the environment. The Order No. SWD-380 should not be reinstated; however, a new order should be issued.
- (41) The Division does not enforce the provisions of the New Mexico's Surface Owner Protection Act, the Safe Drinking Water Act of 1974, the Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development The Gold Book, Fourth Edition Revised 2007, or any other BLM rules and regulations. These rules and regulations are not relevant in this case.
- (42) The Applicant ceased to inject into this well in May 2013, after Order No R-13699 rescinded the injection authority on April 17, 2013. Since May 2013 to date, the Applicant is trucking produced water to commercial disposal sites. When the cost of producing the wells in the lease exceeds the revenues generated, the Applicant may prematurely plug and abandon the wells with the resultant loss of reserves.
- (43) Despite 24 years of injection into the Amoco Fed. Well No. 1, Ross Ranch presented no evidence that its interests will be harmed by reinstating injection authority for the Amoco Fed. Well No. 1.
- (44) The original application for injection filed by Mallon in 1989 was technically adequate, and nothing has changed since 1989 according to the testimony.
- (45) Division records indicate that Cimarex Energy Co of Colorado (OGRID 162683) is in compliance with Division Rule 19.15.5.9 NMAC as of the date of this order.
- (46) The Applicant's request to reinstate Division Order No. SWD-380 retroactive to October 27, 1989, should be denied, because the Division Order No. R-13699 which temporarily rescinded Order No.SWD-380 has set a different time frame in this case. A new Order should be issued in this case allowing injection.

#### IT IS THEREFORE ORDERED THAT:

- (1) Cimarex's application to reinstate the injection authority for the Amoco Fed. Well No. 1 (API No. 30-015-24666), located in the NE/4 SE/4 of Section 27, Township 26 South, Range 29 East, NMPM, Eddy County, New Mexico, is hereby denied. A new order is hereby issued allowing injection.
- (2) The injection authority granted to this well shall be prospective and effective from the date of issuance of this order. The Applicant's request to make the injection authority retroactive to October 27, 1989, is hereby **denied**.
- (3) The Division Order No. SWD-380, and the Division Order No. R-13699, are hereby replaced.
- (4) Disposal shall be through perforations from approximately 4,022 feet to 4,208 feet into the Cherry Canyon formation of the Delaware Mountain group. Injection is to be through lined tubing and a packer set within 100 feet above the top perforation in the permitted interval.
- (5) The operator shall take all steps necessary to ensure that the disposed water enters only the permitted disposal interval and is not permitted to escape to other formations or onto the surface.
- (6) After installation of 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.
- (7) The well shall pass a MIT prior to resuming disposal each time the disposal packer is unseated. All MIT procedures and schedules shall follow the requirements in Division Rule 19.15.26.11A. NMAC.
- (8) The wellhead injection pressure on the well shall be limited to no more than 804 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.
- (9) 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 approved formation. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable Step-Rate Test.
- (10) The operator shall notify the supervisor of the Division's Artesia District Office of the date and time of the installation of disposal equipment and of any MIT 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 Artesia 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.

- (11) Without limitation on the duties of the operator as provided in Division Rule 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.
- (12) 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.
- (13) The Division may revoke this injection authority after notice and hearing if the operator is in violation of Rule 19.15.5.9 NMAC.
- (14) 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.
- (15) One year after disposal into the well has ceased, the well will be considered abandoned and the authority to dispose will terminate ipso facto.
- (16) 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..
- (17) This order is subject to approval by the Bureau of Land Management (BLM) before commencing the injection operations.
- (18) 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.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

JAMI BAILEY
Director

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