

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
Deputy Cabinet Secretary

David R. Catanach, Division Director
Oil Conservation Division



Response Required – Deadline Enclosed
Underground Injection Control Program

April 20, 2017

Mr. Dalva L. Moellenberg, Attorney
Gallagher & Kennedy, P.A.
1239 Paseo de Peralta
Santa Fe, New Mexico 87501-2758

**RE: NOTICE TO OPERATOR: RESPONSE TO GALLAGHER & KENNEDY
CORRESPONDENCE DATED APRIL 11, 2017, ON BEHALF OF OWL SWD
OPERATING, LLC**

Maralo Sholes B Well No. 2 (API 30-025-09806)

660' FSL, 660' FEL; Unit P, Sec 25, T25S, R36E, NMPM, Lea County, New Mexico

Injection Authority: Administrative Order SWD-1127

Order Date: June 1, 2008

Permitted Interval: Yates and Seven Rivers formations; 2938 feet to 3055 feet

Mr. Moellenberg:

The Division is in receipt of your correspondence dated April 11, 2017, on behalf of OWL SWD Operating, LLC (the "Operator" or "OWL"). This correspondence was submitted in response to the Division correspondence dated March 23, 2017, concerning the further operation of the Maralo Sholes B Well No. 2 (the "Subject Well"). The Division correspondence stipulated that the following actions shall be required for future operation of the Subject Well:

1. The Division shall amend existing Administrative Order SWD-1127 to include a maximum rate not to exceed 6550 barrels of water per day (BWPD). This amended order shall have an effective date of April 22, 2017 (30 days from the date of this correspondence), at which time the operation of the Maralo Sholes B Well No. 2 will be limited to this maximum rate.

2. The Operator shall install a monitoring system at the wellhead to verify and document the disposal rate during inspection of the well site and that can be compiled for later review. This system shall be operational with the implementation of the amended order on April 22, 2017.
3. The Operator shall submit a remedial plan for the Maralo Sholes B Well No. 2 that shall seal the shoe and the length of the 8 $\frac{5}{8}$ -inch intermediate casing as to isolate the following lithologies in the annulus of the borehole: the salt section, the identified occurrence of groundwater in the Rustler formation and the exposed section of the Santa Rosa Formation. This remedial plan shall be submitted in a C-103 Sundry Notice of Intent to the District Supervisor for review and approval within 30 days of this correspondence date.
4. The Operator shall provide a list of produced water sources representative of current fluids being disposed in the Subject Well. This submittal shall also provide laboratory analyses representative of the major volumes or from the tank battery/pipeline for the Maralo Sholes B Well No. 2. This information is to be attached to a Division form C-103 and submitted to District I Supervisor no later than 60 days following the date of this correspondence.

The Operator has stated that the implementation of these conditions “would result in irreparable harm to OWL due to loss the loss of revenue and potential loss of customers.” In your April 11th correspondence, you also state “there is no evidence that allowing OWL to continue to inject under the conditions proposed under the conditions proposed in this letter would result in any harm to the public interest.”

The review of the Subject Well identified construction issues that resulted in the requirement for remedial action for the intermediate casing. Continued operation of the Subject Well as currently constructed does not satisfy the requirements of Division Rule 19.15.16.9 NMAC and the Division’s obligations under its primacy agreement for the New Mexico UIC Program.

The Operator has proposed to replace the Subject Well with a new well and has proposed the administrative approval of the new disposal well under the current authority of the Subject Well, Administrative Order SWD-1127. The authority to inject, when associated with a specific disposal well, is unique and discrete. The Division cannot administratively authorize a new, second well under the same order for an existing well that has been in operation. A new C-108 application that includes current notification must be submitted for the issuance of an injection order for any proposed replacement well. Since there are remaining actions that do not involve the well construction, the Division would require the application to be considered at hearing before an examiner.

As cited in your April 11th correspondence, the Division reviewed three prior applications for authority to inject: Administrative applications No. pMAM1530041540 [Abyss SWD No. 1]; No.

pMAM1530040908 [Mojo SWD No. 1]; and No. pMAM1530039137 [Nomad SWD No. 1]). OWL proposed these wells for additional commercial disposal volume of 60,000 BWPD in the same vicinity of the Subject Well with similar proposed disposal intervals. Based on historical rates of 25,000 BWPD for the Subject Well, approval of these wells would have the potential for a total disposal volume of 100,000 BWPD within one mile of the Subject Well. All three applications were determined to be not capable for approval through the administrative review process and were recommended for hearing based on the findings provided to the Operator in a Division e-mail dated November 25, 2015:

"All three SWD wells were proposed for commercial injection into the Yates-Seven Rivers interval in an area west of the town of Jal, NM. As stated, all three applications are being denied for approval through administrative review. The applicant may petition for approval through hearing before the examiner or Commission if the applicant wishes to further pursue the applications. To assist in this decision, the following issues identified in the administrative review should be considered.

- 1. Historically, approvals of SWD wells for disposal in this Yates in the immediate area have been through hearing (Commission). Based on the provided information and numerous issues, this would be the appropriate procedure for any proposed application in this area. Only one SWD well in this area has received approval for disposal administratively.*
- 2. AOR wells that are older P&A wells with plugging issues in the proposed disposal interval. There are several AOR P&A wells in each application that present integrity issues. These issues include no information on the P&A procedure for wells (unknown integrity), plugging programs on wells where casing was cut at the base of the salt interval, but no plug was installed (possible migration behind casing to the salt interval), and P&A wells with open-hole intervals that have no plugging to isolate the interval (possible migration out of the approved interval). The wells would require re-entry and new plugging programs completed for any consideration of a disposal authority.*
- 3. AOR wells that are producing wells in the same interval. OCD will not approve injection into a producing interval with active wells. Applicant should include a discussion of the depleted nature of the Yates reservoir (including an assessment for EOR potential for the Yates) since the OCD cannot approve injection that may impact hydrocarbon resources or correlative rights. Additionally, these wells may be required to be plugged by the applicant if there is sufficient information to support the depleted status of the reservoir*
- 4. The proximity of the most northern proposed well, the Nomad SWD No. 1, to the Jalmat Yates Waterflood. Initial review of this application shows a series of boundary injection wells for the waterflood adjacent to the AOR limit. There is no geological or engineering discussion regarding potential impacts or lack of potential impacts to this*

waterflood operation especially in light of the fact that the proposed average disposal rates for each well is to be 20,000 barrels of water per day (BWPD).

Though the applications identified the shallow protectable water sources, the applications provide no discussion of lower confining zone (or aquitard) that would maintain fluids in the proposed injection interval and would avoid possible downward movement of fluid into the Capitan Reef aquifer, a protectable source. The contact of the lower Artesian Group and the Reef aquifer is irregular in this area due to variations in lithology (including interpretation) and in permeability/porosity barriers through the backreef facies. One example may be found in the C-115 data for the Maralo Sholes B No. 2 (the well approved administratively in Item 1) which recently increase the daily disposal rate from an average of approximately 3,300 BWPD to over 19,000 BWPD with no reported change in pressure (all reported at 0 psi)."

The Division cannot administratively approve a replacement well nor allow the continued use of the Subject Well as currently constructed. The requested alternative recommendation by the Operator was to grant a stay of the actions required in the Division correspondence dated March 23, 2017, and provide an opportunity for a hearing regarding the required actions for the Subject Well and any application for a replacement well.

In your April 11th correspondence, the Operator requested 180 days from March 23, 2017, to address Conditions 1 and 3 listed in the Division correspondence dated March 23, 2017. The Division agrees to allow an additional 90 days from the date of this correspondence (July 19, 2017) to address Conditions 1 (injection rate modification), 2 (monitoring of injection rate), and 4 (sampling of disposal fluids).

With regards to Condition 3, the Division does not agree to said request and intends to bring a compliance action against OWL for violation of Division Rule 19.15.16.9 NMAC and for any other applicable violations. As discussed, the cementing of the subject well remains an outstanding issue that requires resolution with the continued operation of the well. This action shall be filed as a case to be heard before a Division hearing examiner.

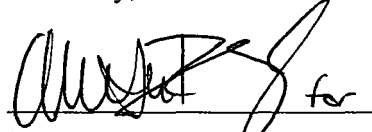
If the Operator elects to replace the Subject Well, then the Operator shall file the form C-108 as a case to be heard before a Division hearing examiner since Conditions 1 (injection rate modification), 2 (monitoring of injection rate), and 4 (sampling of disposal fluids) are still applicable to any replacement well.

The Operator may conduct additional testing on the Subject Well prior to the hearing with all results to be submitted to the Division upon completion of the testing. Following approval of any Sundry for testing, the Operator shall be required to provide sufficient notice for the opportunity of District personnel to witness the testing.

All testing activities are to be coordinated with the District I Supervisor, Mr. Maxey Brown (575.393.6161, extension 102). Ms. Florene Davidson, Division Commission Clerk, Santa Fe (505.476.3458), is available to assist in the process of the hearing applications and cases. All other

compliance matters concerning the Subject Well should be directed to Mr. Daniel Sanchez, UIC Program Manager, Santa Fe (505.476.3493).

Sincerely,

A handwritten signature in black ink, appearing to read "David R. Catanach", is written over a horizontal line. The signature is stylized and includes a small "for" written to the right of the main signature.

DAVID R. CATANACH
Director

DRC/prg

cc: Oil Conservation Division – Hobbs District Office
Well File API 30-025-09806
SWD-1127