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

Administrative Order SWD-1657-A
February 3, 2017

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Pursuant to the provisions of Division Rule 19.15.26.8B. NMAC, Grama Ridge Disposal, LLC (the "operator") seeks an administrative order for its Ojo Chiso Well No. 1 with a location of 1980 feet from the North line and 660 feet from the West line, Unit E of Section 23, Township 22 South, Range 34 East, NMPM, Lea County, New Mexico, for the purpose of commercial disposal of produced water.

This Order supersedes and replaces Administrative Order SWD-1657, issued on November 10, 2016, which permitted injection in the Devonian formation from 14665 feet to 15000 feet. The amended Administrative Order changes the injection interval in the Devonian formation from 14665 feet to 16500 feet.

THE DIVISION DIRECTOR FINDS THAT:

The application has been duly filed under the provisions of Division Rule 19.15.26.8B. NMAC and satisfactory information has been provided that affected parties as defined in said rule have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in Rule 19.15.26.8 NMAC have been met and the operator is in compliance with Rule 19.15.5.9 NMAC.

IT IS THEREFORE ORDERED THAT:

The applicant, Grama Ridge Disposal, LLC (OGRID 370997), is hereby authorized to utilize its Ojo Chiso Well No. 1 (API 30-025-24459) with a location of 1980 feet from the North line and 660 feet from the West line, Unit E of Section 23, Township 22 South, Range 34 East, NMPM, Lea County, for disposal of oil field produced water (UIC Class II only) through an open hole interval consisting of the Devonian formation from 14665 feet to approximately 16500 feet. Injection will occur through internally-coated, 3-1/2-inch or smaller tubing and a packer set within 100 feet of the top of the open-hole interval.

This permit does not allow disposal into the Ellenburger formation (lower Ordovician) or lost circulation intervals directly on top and obviously connected to this formation. The operator shall provide logs and a mudlog over the proposed interval which verify that only the permitted

interval is completed for disposal.

Prior to commencing disposal, the operator shall submit mudlog and geophysical logs information, to the Division's District geologist and Santa Fe Bureau Engineering office, showing evidence agreeable that only the permitted formation is open for disposal including a summary of depths (picks) for contacts of the formations which the Division shall use to amend this order for a final description of the depth for the injection interval.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the disposed water enters only the approved disposal interval and is not permitted to escape to other formations or onto the surface. This includes the completion and construction of the well as proposed in the application and, if necessary, as modified by the District Supervisor.

The operator shall circulate the cement behind the 5-1/2-inch *casing from approximately 14665 feet to surface. Even if the cement circulates, the operator shall run a CBL (or equivalent) across the* 5-1/2-inch *casing from approximately 14665 feet to surface to demonstrate a good cement across the* 5-1/2-inch *casing. Further this will ensure that the Capitan Reef is properly protected.*

The operator shall supply the Division with a copy of a mudlog over the permitted disposal if the well is deepened from the present total depth of 14,739 feet. If significant hydrocarbon shows occur while drilling, the operator shall notify the Division's District II and the operator shall be required to receive written permission prior to commencing disposal.

Operator shall submit the results of the swab test if the well if the well is deepened which shall include formation water analysis and hydrocarbon potential of the injection interval to the Division's District geologist and Santa Fe Bureau Engineering office prior to commencing injection.

Further, the operator shall supply to the Division a porosity log from approximately 14300 feet to total depth, if the well is deepened.

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.

The well shall pass an initial mechanical integrity test ("MIT") prior to initially commencing disposal and 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. The Division Director retains the right to require at any time wireline verification of completion and packer setting depths in this well.

The wellhead injection pressure on the well shall be limited to **no more than 2933 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.

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 formations. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable Step-Rate Test.

The operator shall notify the supervisor of the Division's District I office of the date and time of the installation of disposal equipment and of any MIT 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 I office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Division Rules 19.15.26.13 and 19.15.7.24 NMAC.

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.

The Division may revoke this injection order after notice and hearing if the operator is in violation of Rule 19.15.5.9 NMAC.

The disposal authority granted herein shall terminate two (2) years after the effective date of this Order if the operator has not commenced injection operations into the subject well. One year after the last date of reported disposal into this well, the Division shall consider the well abandoned, and the authority to dispose will terminate *ipso facto*. The Division, upon written request mailed by the operator prior to the termination date, may grant an extension thereof for good cause.

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.

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, terminate the disposal authority granted herein.

DAVID R. CATANACH
Director

DRC/mam

cc: Oil Conservation Division – Hobbs District Office
New Mexico State Land Office – Oil, Gas, and Minerals
Well File – 30-025-24459