

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**APPLICATION OF FOUNDATION
ENERGY MANAGEMENT, LLC FOR
APPROVAL OF A SALT WATER DISPOSAL
WELL, LEA COUNTY, NEW MEXICO**

CASE NO. 21145

**OIL CONSERVATION DIVISION'S
PRE-HEARING STATEMENT**

The New Mexico Oil Conservation Division ("OCD") submits this Pre-Hearing Statement pursuant to 19.15.4.13(B) NMAC and the Prehearing Order filed on or about December 9, 2021.

I. IDENTIFICATION OF PARTY AND COUNSEL

OCD has intervened in this matter and is represented by undersigned counsel.

II. OCD'S WITNESS

OCD intends to call Phillip Goetze, the OCD's UIC Program Coordinator, as an expert in petroleum geology and underground injection. Mr. Goetze manages the review of Class II UIC applications for compliance with OCD's rules and to prevent waste and protect correlative rights, public health, and the environment. He has more than forty (40) years of experience in the fields of geology, hydrology, and environmental protection. His testimony is expected to be twenty (20) minutes.

III. DIRECT TESTIMONY OF PHILLIP GOETZE

Foundation Energy Management, LLC ("Applicant") filed an application for authorization to inject produced water into the proposed Blue Quail Federal Well No. 1 (API No. 30-025-33222) ("Well"). The Well, which will inject produced water only from Applicant's oil and gas production wells, has a surface location of 660 feet from the South line and 1980 feet

from the East line of Section 7, Township 23 South, Range 32 East, NMPM, Lea County, New Mexico. Applicant seeks approval to inject a maximum volume of 1,500 barrels per day (“BWD”) at a proposed maximum surface injection pressure of 928 pounds per square inch (“psi”) through perforations into an interval approximately 4,640 feet to 4,850 feet below the surface comprising the Bell Canyon formation of the Delaware Mountain Group (“DMG”).

The proposed injection interval historically has demonstrated low formation fracture pressures and geologic variation that allowed the horizontal and vertical migration of disposed UIC Class II fluids beyond the U.S. EPA’s approved ½-mile area of review (“AOR”). This migration has adversely affected correlative rights for production from active horizontal wells completed in the Brushy Canyon formation of the DMG and the Avalon Shale of the Bone Spring formation.

OCD’s assessment of the AOR identified one active injection well, the Bitsy Federal SWD Well No. 1 (API 30-025-33398), which also is operated by Applicant. The Bitsy well, which is located approximately 0.56 mile northeast of the Well, injects produced water into an interval from 4660 feet to 6270 feet in the DMG at an injection rate less than 800 BWD. While the Bitsy well has approached the maximum surface injection pressure limit of 930 psi, OCD has not identified any water flows or significant reservoir pressure increases in the DMG within the AOR.

Injection of produced water into the DMG increases the probability that hydrocarbon resources may be flooded or that operators may incur additional costs to drill or forego drilling through the proposed injection interval to complete production wells in the stratigraphically deeper hydrocarbon targets in the Permian Bone Spring and Wolfcamp formations.

OCD identified five (5) production wells within the AOR that penetrate the proposed injection interval: four (4) active wells completed in the upper Avalon sand of the Bone Spring formation, and one (1) plugged well completed in the Brushy Canyon formation of the DMG.

OCD believes that the Well, if approved, should be subject to the following conditions to reduce potential impacts to hydrocarbon production in the Brushy Canyon and Bone Spring formations:

(1) Applicant shall dispose UIC Class II fluids only from production wells operated by Applicant.

(2) Applicant shall conduct a step-rate test (“SRT”) on the Well and obtain OCD’s written approval of the test results prior to commencing injection into the Well.

(3) The Well’s maximum daily injection rate shall not exceed 1,000 BWD per day or 31,000 BWD in any 30 day period unless OCD requires a lower rate of injection based on the SRT.

(4) The Well shall be equipped with a pressure limiting device in workable condition which shall limit the surface tubing pressure at all times to the maximum surface injection pressure of 928 psi.

(5) Foundation shall not transfer the injection authority granted by the permit without OCD’s written approval, which may be conditioned on a demonstration of the Well’s mechanical integrity.

(6) Prior to commencing injection, Applicant shall conduct a production test on new perforations in the Bell Canyon formation and provide the results to OCD’s District Geologist and Santa Fe Engineering Bureau, and to the Carlsbad Field Office of the Bureau of Land Management.

If the production test indicates a significant hydrocarbon show, Applicant shall notify OCD's District Geologist, and shall not commence injection without OCD's written approval.

(7) Prior to commencing injection, Applicant shall obtain and submit to OCD a Form C-103 identifying the static bottom-hole pressure of the perforated completion.

(8) If an operator who proposes to drill or who already operates a production well that penetrates the injection interval within the AOR believes that injection would impair its correlative rights, it may file an application for hearing, and if such application is filed, Applicant shall, if requested by OCD, reduce or suspend injection into the Well until OCD issues the final decision.

IV. OCD'S EXHIBITS

Mr. Goetze intends to present the following exhibits in support of his testimony:

Exhibit 1 Curriculum Vitae of Phillip Goetze

Exhibit 2 Map of DMG UIC Class II Disposal Wells and Associated Issues

Exhibit 3 Bell Canyon Formation Structure

V. PROCEDURAL MATTERS

The OCD has not identified any procedural matters to be resolved prior to the hearing.

Respectfully submitted,



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CERTIFICATE OF SERVICE

I certify that on February 11, 2021, I served this pleading by electronic mail on:

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