Susana Martinez Governor

David Martin Cabinet Secretary

Brett F. Woods, Ph.D. Deputy Cabinet Secretary David R. Catanach, Division Director Oil Conservation Division



Administrative Order SWD-1548 May 5, 2015

ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Pursuant to the provisions of Division Rule 19.15.26.8B. NMAC, Lynx Petroleum Consultants Inc. (the "operator") seeks an administrative order for its proposed Moonshine State Unit Well No.1 with a proposed location 990 feet from the North line and 1650 feet from the West line, Unit letter C of Section 10, Township 19 South, Range 36 East, NMPM, Lea County, New Mexico, for commercial disposal of produced water.

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 has been met and the operator is in compliance with Rule 19.15.5.9 NMAC.

IT IS THEREFORE ORDERED THAT:

The applicant, Lynx Petroleum Consultants Inc. (OGRID 13645) is hereby authorized to utilize its proposed Moonshine State Unit Well No. 1 (API No. 30-025-31395) with a proposed location 990 feet from the North line and 1650 feet from the West line, Unit letter C of Section 10, Township 19 South, Range 36 East, NMPM, Lea County, New Mexico, for disposal of oil field produced water (UIC Class II only) through open-hole within the Devonian formation from 11850 feet to 12250 feet. Injection shall occur through internally-coated tubing and a packer set a maximum of 100 feet above the top of the open-hole interval. Injection will occur through internally-coated, 3 ¹/₂- inch or smaller tubing and a packer set within 100 feet of the open-hole 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.

The operator shall supply the Division with a copy of a mudlog over the permitted disposal interval and an estimated insitu water salinity based on open-hole logs. If significant hydrocarbon shows occur while drilling, the operator shall notify the Division's District I and

the operator shall be required to receive written permission prior to commencing disposal.

The operator shall run both a porosity log and a resistivety log that ties into the previous geophysical logs at the minimum depth between 10,800 feet to TD.

The operator shall run a CBL (or equivalent) across the entire 8-5/8-inch casing to ensure good cement across the 8-5/8-inch casing, and the contact between the 5-1/2-inch casing. The operator shall provide a copy of the log to Division's District I office prior to commencing injection.

The approved injection interval includes only the Devonian formation. Prior to commencing disposal, the operator shall provide, to the Division's District I office and Santa Fe Bureau Engineering office, a summary of depths (picks) for contacts of the formations (based on mudlog or geophysical logs) which the Division shall use to amend this order for a final description of the depth for the injection interval.

If the upper contact of the Ordovician Ellenburger formation is encountered prior to the lower limit of the approved injection interval at 12250 feet, then the total depth of the well (and injection interval) shall be reduced to the upper contact of Ellenburger formation.

Within two years after commencing disposal, the operator shall conduct an injection survey, consisting of a temperature log or equivalent, over the entire injection interval using representative disposal rates. Copies of the survey results shall be provided to the Division's District I office and Santa Fe Engineering Bureau office.

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 1500 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 formation. 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 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.

Without limitation on the duties of the operator as provided in Division Rules 19.15.29 and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the Division's District I 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 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.

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 grapted herein.

DAVID R. CATANACH Director

DRC/mam

cc: Oil Conservation Division – Artesia District Office New Mexico State Land Office - Oil, Gas, and Minerals Well File 30-025-31395