

Railroad Commission of Texas

OIL AND GAS DIVISION

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AUSTIN, TEXAS

June 28, 1956

HARRY M. BATIS
Chief Supervisor
ARTHUR H. BARBECK
Chief Engineer
ROSS BELL
Auditor

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

ATTENTION: Mr. Daniel S. Nutter, Petroleum Engineer

Gentlemen:

This is in reply to your letter of June 25, 1956 requesting certain information relative to the Mason (Delaware) Field in Loving County, Texas.

We presume you refer to what the Commission identifies as the North Mason (Delaware) Field. This field produced under the Statewide producing pattern during each month of 1955 and the first six months of 1956. For your information we are enclosing a list of the number of producing days for each of the months prescribed on our Statewide pattern. The field is producing under a 93-barrel top per well MER, which is based on the 40-acre 1947 yardstick for depths ranging between 4000' and 5000'.

Enclosed, also, is a copy of the field rules for this field.

Yours very truly,

Arthur H. Barbeck
Chief Engineer

AHB:cbr

encl.

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
CASE 1177 EXHIBIT No. 2

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

OIL AND GAS DOCKET NO. 126

#8 - 25,663

IN RE: CONSERVATION AND PREVENTION
OF WASTE OF CRUDE PETROLEUM
AND NATURAL GAS IN THE
NORTH MASON (DELAWARE SAND)
FIELD, LOVING COUNTY, TEXAS.

Austin, Texas
March 3, 1953

SPECIAL ORDER
ADOPTING RULES AND REGULATIONS FOR THE
NORTH MASON (DELAWARE SAND) FIELD,
LOVING COUNTY, TEXAS

WHEREAS, After due notice, the Railroad Commission of Texas held a hearing on January 27, 1953, to consider the application of the Ohio Oil Company for the promulgation and adoption of special field rules for the North Mason (Delaware Sand) Field, Loving County, Texas; and

WHEREAS, From evidence adduced at said hearing the Commission finds that the North Mason (Delaware Sand) Field is presently developed by six oil wells; that the production is had from the Delaware Sand found at an average depth of 4,000'; that the sand is fine grained, clean and with some shale streaks, and dips 100' per mile to the east, and has an average permeability of 90 Millidarcys, and an average porosity range from 23-25%; and

WHEREAS, From evidence submitted at said hearing the Commission is of the opinion and finds that waste, as the term is defined in the applicable statutes, will take place in said field unless rules are adopted by the Commission for the prevention thereof, and that the following field rules are necessary to prevent such waste and to provide for a more orderly development and operation of said field.

Now, Therefore, IT IS ORDERED By the Railroad Commission of Texas that the following rules, in addition to such of the Commission's general rules and regulations as are not in conflict herewith, be and the same are hereby adopted to govern the drilling, completion and operation of wells in the North Mason (Delaware Sand) Field, Loving County, Texas:

RULE 1. No well for oil or gas shall hereafter be drilled or completed at any point nearer than one thousand three hundred twenty (1320) feet to any other well drilling to or completed in the same reservoir on the same tract or lease, or nearer than three hundred thirty (330) feet to any lease line, property line, subdivision line, or proration unit line, save and except that any well may hereafter be drilled or completed at any point not less than

one thousand forty (1040) feet from any well completed prior to November 15, 1952, in the same reservoir on the same tract or lease, provided that no such well shall be drilled or completed nearer than three hundred thirty (330) feet to any lease line, subdivision line, or proration unit line; provided further, however, that the Commission in order to prevent waste or to prevent the confiscation of property may grant exceptions to permit drilling within shorter distances than herein prescribed when the Commission shall determine that such exceptions are necessary either to prevent waste or to prevent the confiscation of property. When an exception to this rule is desired, application therefor shall be filed and will be acted upon in accordance with the applicable provisions of Commission State-wide Rules 37 and 38, which applicable provisions of said rules are incorporated herein by reference. In applying this rule the general order of the Commission relating to the subdivision of property shall be observed.

The aforementioned distances in this rule are minimum distances to allow an operator flexibility in locating a well, and this spacing rule and the other rules to follow are for the purpose of permitting one and only one well to be completed in the same reservoir on each proration unit.

RULE 2. The acreage assigned the individual oil well for the purpose of allocating allowable oil production thereto shall be known as a proration unit. A proration unit shall contain forty (40) acres except as herein-after provided, and the two points farthestmost removed one from the other and contained within any proration unit shall not be in excess of nineteen hundred (1900) feet apart; provided, however, that in the case of long and narrow leases or in the case where because of the shape of the lease such is necessary to permit the utilization of tolerance acreage the Commission may, after proper showing, grant exceptions to the limitations as to the shape of the proration units as herein contained. All proration units, however, shall consist of acreage which can reasonably be considered to be productive of oil.

If after the drilling of the last well on any lease and the assignment of acreage to each well thereon, in accordance with the regulations of the Commission, there remains an additional unassigned lease acreage of less than forty (40) acres, then and in such event the remaining unassigned lease acreage up to and including a total of twenty (20) acres may be assigned to the last well drilled on such lease or may be distributed among any group of wells located thereon as long as the proration unit or units resulting from the inclusion of such additional acreage meets the limitations prescribed by the Commission.

Operators shall file certified plats of their properties in the field, which plats shall show all those things pertinent to the determination of the acreage claimed for each well hereunder.

RULE 3. The daily total oil allowable for the field as fixed by the Commission, after deductions have been made for marginal wells, high gas-oil ratio wells and wells which are incapable of producing their allowables as determined hereby, shall be distributed among the remaining producing wells in the field on the following basis:

(a) The daily acreage allowable for each remaining well shall be that proportion of seventy-five (75) per cent of such remaining daily field allowable that the acreage assigned to the well bears to the remaining acreage assigned to all the remaining wells in the field.

(b) The daily per well allowable for each remaining well shall be determined by dividing twenty-five (25) per cent of such remaining daily field allowable by the remaining number of producing wells.

(c) The total daily oil allowable of such remaining wells shall be the sum of its acreage and its per well allowables.

RULE 4. The permitted gas-oil ratio for the field shall be two thousand (2,000) cubic feet of gas per barrel of oil produced. Any oil well producing with a gas-oil ratio in excess of two thousand (2,000) cubic feet of gas per barrel of oil shall be allowed to produce daily only that volume of gas obtained by multiplying its daily oil allowable as determined by the applicable rules of the Commission by two thousand (2,000) cubic feet. The gas volume thus obtained shall be known as the daily gas limit of such well, and the daily oil allowable therefor shall be determined and assigned by dividing its daily gas limit by its producing gas-oil ratio.

RULE 5. The casing program of all wells hereafter drilled in said field shall consist of at least two (2) strings of pipe set in accordance with the following program:

(a) The surface casing shall be new or reconditioned pipe with a mill test of not less than seven hundred (700) pounds per square inch, and shall be set at a point as is necessary in each individual case to adequately protect all fresh water strata but in no case at a depth of less than three hundred and fifty (350) feet from surface. Cementing shall be by the pump and plug method and sufficient cement shall be used to fill the calculated annular space behind the pipe to the surface of the ground, or to the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. Casing shall be tested by pump pressure of at least five hundred (500) pounds per square inch. If at the end of thirty (30) minutes the pressure shows a drop of fifty (50) pounds per square inch, or more, the casing shall be condemned. Corrective operations on condemned casing shall be made before drilling ahead, and this string shall stand the requirements of this test before compliance with provisions of this rule have been made.

(b) The producing or oil string shall be new or reconditioned pipe that is capable of withstanding a test pressure of not less than two thousand (2,000) pounds per square inch, and shall be set at least as near as practicable to the top of the producing sand. Cementing shall be by the pump and plug method. Sufficient cement or cement and additives shall be used to fill the calculated annular space behind the casing to a point at least five hundred (500) feet above the shoe. Casing shall be allowed to stand a minimum of twelve (12) hours under pressure, and a total of twenty-four (24) hours before drilling the plug or initiating tests. After cementing, casing shall be tested by a pump pressure of at least twelve hundred (1200) pounds per square inch. If at the end of thirty (30) minutes the pressure shows a drop of one hundred (100) pounds per square inch, or more, the casing shall be condemned. Corrective operations on condemned casing shall be made before drilling ahead, and this string shall stand the requirements of this test before compliance with the provisions of this rule shall be made.

(c) For the purpose of these rules "under pressure" is considered to be complied with if one, or more, float valves are found to be holding.

RULE 6. The datum reservoir pressure of all wells in the field except marginal wells as defined by statute shall be determined within sixty (60) days after the completion of the well and in the three months' period prior to July 1st. of each year thereafter, and reported to the Commission not later than July 15th. of each year. The datum shall be at nine hundred (900) feet subsea and the minimum shut-in period shall be forty-eight (48) hours. The pressure observation shall be made at or corrected to this datum.

In any well where it is impossible or impracticable to use a sub-surface pressure gage, excluding paraffin obstructions which may be cleaned by scraping, the bottom hole pressure determination may be made by using the float or sound wave method to determine the fluid level after the well has been shut-in for the same number of hours. The pressure at this datum depth shall be calculated by adding the pressure exerted by the weight of the oil and gas column above the level in pounds per square inch to the gauge pressure at the tubing pressure when the float method is used, or to the gauge pressure at the casing head when the sound wave method is used.

It is FURTHER ORDERED that this cause be held open on the docket

for such other and further orders as may be necessary.

RAILROAD COMMISSION OF TEXAS

Ernest O. Thompson, Chairman

W. J. Murray, Jr., Commissioner

Olth Culberson, Commissioner

(S E A L)

ATTEST

O. D. Hyndman, Secretary