

BEFORE THE INDUSTRIAL COMMISSION  
OF THE STATE OF NORTH DAKOTA

CASE NO. 1681  
ORDER NO. 1851

IN THE MATTER OF A HEARING CALLED ON A  
MOTION OF THE COMMISSION TO CONSIDER THE  
TEMPORARY SPACING FOR THE DEVELOPMENT  
OF THE WRITING ROCK-RED RIVER POOL, DIVIDE  
COUNTY, NORTH DAKOTA, TO REDEFINE THE  
LIMITS OF THE FIELD, AND ENACT SUCH SPECIAL  
FIELD RULES AS MAY BE NECESSARY.

TEMPORARY ORDER OF THE COMMISSION

BY THE COMMISSION:

Pursuant to legal notice this cause came on for hearing at 9:00 a.m. on the 22nd day of May, 1979, in Bismarck, North Dakota, before the Industrial Commission of North Dakota, hereinafter referred to as the "Commission."

NOW, on this 28th day of June, 1979, the Commission, a quorum being present, having considered the testimony adduced and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That geological and engineering evidence, presented to the Commission bearing on the matter of well spacing indicates that the Writing Rock-Red River Pool, as classified and defined by this temporary order should, for a period not to exceed eighteen (18) months from date of this order, be developed on a pattern of one well to 320 acres in order to drain efficiently the recoverable oil from said pool, assure orderly and uniform development, avoid the drilling of unnecessary wells, and prevent waste in a manner to protect correlative rights.

(3) That a temporary 320-acre spacing in the Red River Pool in this field will result in the efficient and economical development of the field as a whole and will operate so as to prevent waste and provide maximum ultimate recovery, will avoid the drilling of unnecessary wells and will protect correlative rights.

(4) That the flaring of gas produced with crude oil in this field would constitute waste.

(5) That certain special field rules are necessary to prevent waste and protect against the pollution of surface waters.

IT IS THEREFORE ORDERED:

(1) That the Writing Rock-Red River Pool is hereby classified and defined as that common source of supply of crude oil and natural gas found in the Red River Formation, in and under the following described tracts of land in Divide County, North Dakota, to wit:

TOWNSHIP 161 NORTH, RANGE 101 WEST, 5TH PM  
ALL OF SECTIONS 3, 4, AND 9.

TOWNSHIP 162 NORTH, RANGE 101 WEST, 5TH PM  
ALL OF SECTIONS 33 AND 34.

together with those additional quarter sections, or governmental lots corresponding thereto, as may be proven productive by wells drilled as direct offsets to wells included in the limits as set forth above, provided further that such extensions of the pool boundaries shall include only sufficient acreage to form a spacing unit for such wells.

(2) That effective this date 320 acres per well is established as the temporary spacing for the development of the Writing Rock-Red River Pool.

(3) That all wells drilled in the Writing Rock-Red River Pool shall be located not less than 660 feet from the spacing unit boundary, nor closer than 1980 feet to a well permitted to or producing from the pool.

(4) That spacing units in the pool shall consist of any two adjacent quarter sections of governmental lots corresponding thereto, within the same section; however, the Commission reserves the right to designate specific spacing units upon application of any interested party, after notice and hearing.

(5) That the N/2 of Section 3, Township 161 North, Range 101 West, Divide County, North Dakota, is hereby designated a spacing unit for the Writing Rock-Red River Pool, and the well located thereon shall be the well for such spacing unit.

(6) That no well shall hereafter be drilled in said pool except in conformity with the spacing pattern set forth above without special order of the Commission after due notice and hearing.

(7) That the following rules concerning the casing, tubing and equipping of wells shall apply to the subsequent drilling and operation of wells in the Writing Rock Field:

(a) The surface casing shall consist of new or reconditioned pipe that has been previously tested to 1000 pounds per square inch. The casing shall be set and cemented at a point not higher than 600 feet below the surface of the ground unless another casing program is approved by the State Geologist. Cementing shall be by the pump and plug method and sufficient cement shall be used to fill the annular space outside of the pipe to the surface of the ground or the bottom of the cellar. Cement shall be allowed to stand a minimum of 12 hours before drilling the plug or initiating tests.

(b) The producing or oil string shall consist of new or reconditioned pipe that has been previously tested to 3000 pounds per square inch. Casing shall be set and cemented at a point not higher than the top of the producing zone or the gas-oil contact, whichever is lower. Cementing shall be accomplished in one or more stages and sufficient cement shall be used to protect the producing formation and to adequately cover all salt sections encountered, and isolate the Dakota-Lakota Series. The cement shall be allowed to stand a minimum of 24 hours before drilling the plug or initiating tests. After cementing, the casing shall be tested by application of pump pressure of at least 2000 pounds per square inch. If, at the end of 30 minutes this pressure shall have dropped 150 pounds per square inch or more, the casing shall be repaired. Thereafter, the casing shall again be tested in the same manner. Further work shall not proceed until a satisfactory test has been obtained.

(c) All well-head fittings and connections shall have a working pressure in excess of that to which it is anticipated they will be subjected.

(d) All wells shall be tubed with tubing to be set not higher than the top of the producing formation or the gas-oil contact, whichever is lower.

(e) The gas-oil ratio of each well and the reservoir pressure of flowing wells shall be measured during the months of May and November and in pumping wells when the rods pulled, but at least once annually, and reported to the State Geologist within 15 days following the end of the month in which they are determined. Pressure measurements shall be made at or adjusted to a subsea datum of 9,000 feet after the well has been shut in for 48 hours. All gas-oil ratio and reservoir pressure determinations shall be made under the supervision of and by methods approved by the State Geologist.

(8) That all wells producing in the Writing Rock Field shall be allowed to produce at an unrestricted rate for a period of 60 days commencing on the first day oil is produced through well-head equipment from the ultimate producing interval after casing has been run; after that, oil production from such wells shall not exceed an average of 200 barrels of oil per day for a period of 60 days; after that, oil production from such wells shall not exceed 150 barrels of oil per day for a period of 60 days; hereafter, oil production from such wells shall not exceed an average of 100 barrels of oil per day; if and when such wells are connected to a gas gathering and processing facility, the foregoing restrictions shall be removed and the wells shall be allowed to produce at a maximum efficient rate.

(9) That no salt water shall be stored in unlined pits in this field. Material used to line pits must be approved by the State Geologist.

(10) That the Dakota Formation in and under the Writing Rock Field, as herein defined, be and the same is hereby designated a salt water disposal reservoir.

(11) That the State Geologist is hereby authorized to approve requests to utilize wells in the Writing Rock Field for salt water disposal purposes.

(12) That for the purposes of division of production to owners of interests in spacing units established by this order, and proven productive prior to the date hereof, this order shall be retroactive to the date of first production.

(13) That this order shall cover all of the Writing Rock-Red River Pool, common source of supply of crude oil and natural gas as herein defined, and shall continue in full force and effect until the 1st day of December, 1980.

Done, in Bismarck, North Dakota, this 28th day of June, 1979.

THE NORTH DAKOTA  
INDUSTRIAL COMMISSION

/s/ Arthur A. Link  
Arthur A. Link, Governor

/s/ Allen I. Olson  
Allen I. Olson, Attorney General

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Myron Just, Commissioner of Agriculture