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Case 10241

Hearing: Judith "AIJ" Federal #1
Unorthodox Location

YATES PETROLEUM CORP.
BEFORE EXAMINER
N.M. O.C.D. CASE NO. 10241
DATE: 02/21/91
EXHIBIT NO. 7

Yates Petroleum seeks approval for an unorthodox well location to be drilled at a point 560 feet from the South and East lines of Section 9, Township 20 South, Range 24 East, Eddy County.

The primary objective of this well is the Canyon dolomite reservoir which produces oil, gas and brackish water; this production is assigned to the South Dagger Draw Upper Pennsylvanian Associated Pool. Yates originally asked for a permit for a well to be drilled at a location of 660 feet from the South and East of said section 9 which would have been a standard location for South Dagger Draw. The BLM denied this orthodox 660 location for topographic reasons and approved drilling at the location of 560 feet from the South and East which is unorthodox. Yates seeks approval of this non-standard location for the South Dagger Draw Upper Penn Associated Pool.

A secondary objective of this well is the Morrow Formation which, at the location chosen primarily for the Dagger Draw reservoir, is non-standard. It has been Yates' policy to drill certain wells in Dagger Draw an additional 1400 feet or so to check out Lower Penn objectives, principally the Morrow. Yates seeks approval for a non-standard gas well location and to be allowed to produce any and all formations developed on 320 acre spacing.

Exhibit No. 8 is a combined isopach and structure map of the Canyon dolomite reservoir of South Dagger Draw Pool. Solid contours show the net thickness of the dolomite

reservoir. Contour interval is 100 feet. Dotted contours show the structural configuration of the top of the Canyon dolomite and the contour interval is, again, 100 feet.

The Yates Algerita "AHR" State #1 in Unit H of Section 16 of 20 South-24 East has established good production from perfs within 80 net feet of dolomite. A well in Unit N of Section 16 only had 4 feet of dolomite was judged too tight to attempt production. Another well in Section 4 had 9 feet of dolomite which was perforated and stimulated but was considered too tight to be economic. Therefore, the thin feather edge of the dolomite appears to be tight whereas 80 feet of dolomite can make a good economic well.

Thus, as can be seen from the map, the best location for the dolomite reservoir in the E/2 proration unit is the Southeast of the Southeast location which should encounter about 55 feet of dolomite. Wells in any other direction to the North or West would encounter less dolomite and risk being uneconomically tight. Please note the trace of stratigraphic crossection A-A'.

Exhibit No. 9 is stratigraphic crossection A-A' showing the correlations of the Canyon Limestone and the Dagger Draw Dolomite reservoir near the West edge of Dagger Draw South Pool. About 55 feet of dolomite reservoir is expected to be drilled at the proposed Judith "AIJ" Federal #1 location.

Exhibit No. 10 is a combined isopach and structure map of the Morrow clastics interval. Solid contours with a 10 foot contour interval show the varying thickness of the Morrow Clastics interval in this area. The dotted contours show the structural configuration on the top of the Lower Morrow in 100 foot contours.

Experience in Northern Eddy County has shown that wells along or close to the axis of "thicks" in the Morrow clastics interval have a much better chance of encountering more and thicker Morrow sand bodies which, if not water-bearing, are capable of economic volumes of gas. The proposed location is close to a "thick" in the Morrow clastics interval and should encounter in excess of 180 feet of Morrow clastics. In addition the proposed location is on

the Southeast flank of a small anticline which should be of benefit in avoiding formation water.

Also, please note the trace of crossection B-B' on the map.

Exhibit No. 11 is stratigraphic crossection B-B' hung on the Morrow clastics and trending more or less across the axis of the Morrow clastics "thick" of the last exhibit. The crossection shows the pertinent correlations and the interval mapped on the previous exhibit.

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

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 10241
Order No. R-9481

APPLICATION OF YATES PETROLEUM
CORPORATION FOR AN UNORTHODOX
GAS WELL LOCATION, EDDY COUNTY,
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on February 21 and March 21, 1991, at Santa Fe, New Mexico, before Examiners David R. Catanach and Michael E. Stogner, respectively.

NOW, on this 1st day of April, 1991, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

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

(2) The applicant, Yates Petroleum Corporation, seeks approval of an unorthodox gas well location for its Judith "AIJ" Federal Well No. 1 located 560 feet from the South and East lines (Unit P) of Section 9, Township 20 South, Range 24 East, NMPM, Eddy County, New Mexico, to test both the Undesignated West Dagger Draw-Morrow Gas Pool and the Undesignated South Dagger Draw-Upper Pennsylvanian Associated Pool.

(3) The E/2 of said Section 9 is to be dedicated to the subject well forming a standard 320-acre gas spacing and proration unit for said pool(s).

(4) The subject well is located within one mile of the outer boundary of the South Dagger Draw-Upper Pennsylvanian Associated Pool and is therefore subject to the special rules and regulations for said pool as promulgated by Division Order No. R-5353, as amended, which require 320-acre oil and gas spacing and proration units with wells to be located no closer than 660 feet from the end or side boundary of the proration unit nor closer than 330 feet from any quarter-quarter section or subdivision inner boundary.

(5) According to evidence presented, the subject well was initially proposed as a South Dagger Draw-Upper Pennsylvanian Associated Pool well and was staked at a standard location for said pool 660 feet from the South and East lines (Unit P) of said Section 9, but was subsequently moved to the proposed location at the request of the Bureau of Land Management due to topographic considerations.

(6) Due to an expiring lease, the applicant spudded the subject well on January 30, 1991.

(7) On January 30, 1991, the applicant filed a sundry notice with the Bureau of Land Management requesting authorization to drill the subject well to a depth sufficient to test the Morrow formation.

(8) The subject well is located within one mile of the outer boundary of the West Dagger Draw-Morrow Gas Pool which is currently governed by Division General Rule No. 104 (C)(II), which requires that wells be located no closer than 660 feet from the side boundary nor closer than 1980 feet from the end boundary of the proration unit, nor closer than 330 feet from any quarter-quarter section line or subdivision inner boundary.

(9) The primary objective in the subject well is the Upper Pennsylvanian formation and the secondary objective is the Morrow formation.

(10) According to applicant's geologic evidence and testimony, a well at the proposed location should encounter greater dolomite thickness in the Upper Pennsylvanian formation than would a well drilled at a standard location for both pools (1980 feet from the South line and 660 feet from the East line), thereby increasing the likelihood of obtaining commercial production.

(11) The applicant is the operator of the affected offset acreage to the south and southeast of the proposed location.

(12) No other offset operator and/or interest owner appeared at the hearing in opposition to the application.

(13) Approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the oil and gas in the affected pool(s), will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells and will otherwise prevent waste and protect correlative rights.

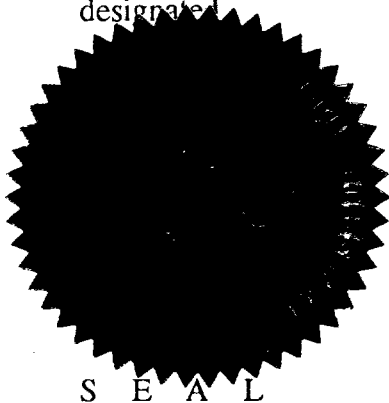
IT IS THEREFORE ORDERED THAT:

(1) The applicant, Yates Petroleum Corporation, is hereby authorized to drill its Judith "AIJ" Federal Well No. 1 at an unorthodox gas well location 560 feet from the South and East lines (Unit P) of Section 9, Township 20 South, Range 24 East, NMPM, Eddy County, New Mexico, to test both the Undesignated West Dagger Draw-Morrow Gas Pool and the Undesignated South Dagger Draw-Upper Pennsylvanian Associated Pool.

(2) The E/2 of said Section 9 shall be dedicated to the subject well forming a standard 320-acre gas spacing and proration unit for said pool(s).

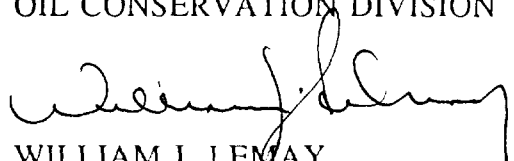
(3) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove
designated.



S E A L

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LEMAY
Director