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. 11894
Order No. R-10937

APPLICATION OF CHESAPEAKE OPERATING INC. FOR AN UNORTHODOX OIL WELL LOCATION, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on December 4, 1997, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 7th day of January, 1998, 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, Chesapeake Operating, Inc., seeks authority to drill its Salbar "16" Well No. 1 at an unorthodox oil well location 2456 feet from the North line and 1028 feet from the West line (Unit E) of Section 16, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico, to test the Strawn formation. The SW/4 NW/4 of Section 16 is to be dedicated to the subject well forming a standard 40-acre oil spacing and proration unit.

(3) At the time of the hearing, the applicant testified that the actual proposed location of the Salbar "16" Well No. 1 is 2456 feet from the North line and 1023 feet from the West line (Unit E) of Section 16. In addition, subsequent to filing the application for this case, it was determined that the proposed well is located within one mile of the Northeast Shoe Bar-Strawn Pool which is currently governed by Temporary Special Rules and Regulations as promulgated by Division Order No. R-10848 which require standard 80-acre spacing and proration units with wells to be located no closer than 330 feet from the outer boundary of the spacing unit. As a result, applicant now seeks to dedicate the S/2 NW/4 of Section 16 to the subject well thereby forming a standard 80-acre oil spacing and proration unit for said pool.

(4) At the time of the hearing, the Division determined that re-advertisement of this case to correct the proposed well location and dedicated acreage is unnecessary inasmuch as the only affected offset operator, Yates Petroleum Corporation, was present at the hearing.

(5) Yates Petroleum Corporation, the affected offset operator to the south of the proposed unorthodox location, appeared at the hearing in opposition to the application.

(6) The Salbar "16" Well No. 1 is proposed to be located 184 feet from the southern boundary of its spacing unit which would encroach towards acreage owned by Yates.

(7) In support of its application, Chesapeake presented the following 3-D seismic data:

a) a Strawn amplitude map which was generated to show the farthest reasonable limits of productive reservoir within the Strawn formation;

b) an east-west vertical seismic profile line 96 showing the profile of the Strawn formation parallel to the southern boundary of the spacing unit along a line 110 feet within the Yates tract;

c) a north-south vertical seismic profile trace 129 showing the profile of the Strawn formation through the proposed location and into the Yates tract;

d) a net pay isopach map showing the relative location and thickness of the Strawn reservoir within the Strawn formation; and,

e) an interpretation of the stratigraphic nature of the Strawn reservoir.

(8) The applicant's geologic and geophysical evidence and testimony indicates that:

a) there is a small Strawn structure contained mostly within the S/2 NW/4 of Section 16 which is generally oriented in an east-west direction;

b) the Strawn structure is very limited in extent and the majority of this structure is contained within the SW/4 NW/4 of Section 16;

c) a very small portion of the Strawn structure is located on acreage owned by Yates within the N/2 SW/4 of Section 16;

d) the proposed unorthodox location is necessary in order to penetrate the Strawn formation in the area of maximum porosity development and thickness within the reservoir;

e) any attempt to locate the proposed Salbar "16" Well No. 1 at a standard oil well location will substantially increase the risk of drilling a dry hole.

(9) Yates, which is in possession of its own 3-D seismic data, presented a top of Strawn time structure map which it utilized to demonstrate that a standard oil well location within the SW/4 NW/4 of Section 16 is located structurally higher within the Strawn reservoir than the unorthodox location proposed to be drilled by Chesapeake. Yates concluded from its evidence that the proposed unorthodox location is unnecessary and requested that Chesapeake's application be denied.

(10) In the event Chesapeake's application is approved, and in order to assure that its correlative rights are protected, Yates requested that the Salbar "16" Well No. 1 be assessed a production penalty of either:

a) 60% (40% allowable), being the percentage of the acreage in this Strawn reservoir underlying the SW/4 of Section 16 as indicated by Yates' geologic evidence, which is operated by Yates; or,

b) 44% (56 % allowable) being the footage encroachment from a standard location towards the offsetting Yates operated tract.

(11) Yates recommended utilizing a 60% production penalty (40% allowable) based upon its interpretation of the Strawn reservoir configuration. Yates also requested that the proposed production penalty be applied to the number of days in each production month (i.e. allow the well to produce 0.40 x the number of days in each month).

(12) Upon consideration of the evidence and testimony presented by both parties in this case, the Division finds that:

a) Chesapeake presented extensive and sufficient geophysical and geologic evidence and testimony to justify drilling its Salbar "16" Well No. 1 at the proposed unorthodox location;

b) Chesapeake's methods of interpreting its 3-D seismic data appear to be highly reliable as evidenced from the fact that it has drilled ten successful Strawn wells in succession in this area;

c) Chesapeake's geophysical and geologic evidence and testimony demonstrates that the vast majority of this Strawn reservoir is located on its acreage within the S/2 NW/4 of Section 16, and that only a very small portion of the reservoir is located on Yates' acreage in the N/2 SW/4;

d) the geologic evidence and testimony presented by Yates is insufficient to demonstrate that:

i) 60% of this Strawn reservoir is located on its acreage within the SW/4 of Section 16 and 40% of this Strawn reservoir is located on Chesapeake's acreage within the S/2 NW/4 of Section 16;

ii) a standard oil well location within the SW/4 NW/4 of Section 16 is geologically preferable to the location proposed by the applicant;

iii) the Strawn structure proposed to be drilled by the applicant is in communication with a Strawn structure which is located within the SW/4 of Section 16, which structure will likely be drilled by Yates; and,

iv) its correlative rights will be violated unless the proposed unorthodox location is denied or the Salbar '16" Well No. 1, if approved, is assessed a production penalty of 60% or 44%.

(13) The application of Chesapeake should be approved.

(14) Given that a small portion of this Strawn reservoir is located within Yates' acreage in the N/2 SW/4 of Section 16, and that the proposed location encroaches towards Yates' acreage, a production penalty should be assessed against the Salbar "16" Well No. 1 in order to protect the correlative rights of Yates.

(15) The production penalty imposed on the Salbar "16" Well No. 1 should be based upon the location and general configuration of the Strawn structure as determined from applicant's geophysical and geologic data.

(16) Based upon the Division's interpretation, it appears that at least 9/10 of the Strawn reservoir is contained within the applicant's proposed proration unit. The Salbar "16" Well No. 1 should therefore be assessed a production penalty of 10% (90% allowable).

(17) The production penalty should be assessed against the depth bracket allowable for the Northeast Shoe Bar-Strawn Pool, which is currently set at 365 barrels of oil per day.

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

(19) Approval of the proposed unorthodox location, subject to the above-described production penalty, will afford the applicant the opportunity to produce its just and equitable share of the oil in the affected pool, 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.

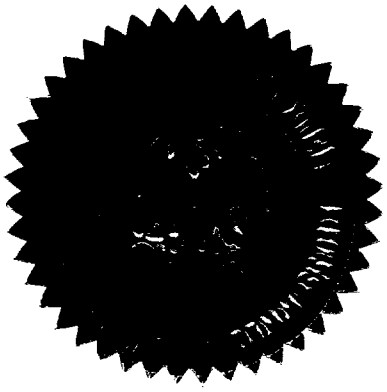
IT IS THEREFORE ORDERED THAT:

(1) The applicant, Chesapeake Operating, Inc., is hereby authorized to drill its Salbar "16" Well No. 1 at an unorthodox oil well location 2456 feet from the North line and 1023 feet from the West line (Unit E) of Section 16, Township 16 South, Range 36 East, NMPM, Northeast Shoe Bar-Strawn Pool, Lea County, New Mexico. The S/2 NW/4 of Section 16 shall be dedicated to the subject well forming a standard 80-acre oil spacing and proration unit for said pool.

(2) The Salbar"16" Well No. 1 is hereby assessed a production penalty of 10% (90% allowable). The production penalty shall be applied to the depth bracket allowable for the Northeast Shoe Bar-Strawn Pool.

(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.



STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

KATHLEEN A. GARLAND
Acting Director

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
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(505) 827-7131

January 8, 1998

Kellahin and Kellahin
117 N. Guadalupe
P. O. Box 2265
Santa Fe, New Mexico 87504

RE: CASE NO. 11894
ORDER NO. R-10937

Dear Sir:

Enclosed are two copies of the above-referenced Division order recently entered in the subject case.

Sincerely,

Sally E. Martinez
Administrative Secretary

cc: BLM - Carlsbad
J. Bruce
B. Carr