

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

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

Case No. 8190
Order No. R-

APPLICATION OF AMOCO PRODUCTION
COMPANY FOR TEMPORARY SPECIAL
SPACING RULES, UNION, HARDING
AND QUAY COUNTIES, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 a.m. on May 15, 1984, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

Now, on this _____ day of June, 1984, the Commission, a quorum being present, having considered the testimony presented 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 the applicant, Amoco Production Company, hereinafter referred to as "Amoco," as Unit Operator of the

Bravo Dome Carbon Dioxide Gas Unit Area in Union, Harding, and Quay Counties, New Mexico, seeks the promulgation of temporary special spacing rules for said unit area, including a provision for 640-acre spacing and proration units and specified well locations.

(3) That in Case No. 6823, heard by this Commission on March 11, 1980, Amoco sought 640-acre carbon dioxide gas well spacing for the Tubb and older formations in Harding, Quay, and Union Counties, New Mexico.

(4) That by Order No. R-6325, entered April 30, 1980, the Commission denied Amoco's application for 640-acre spacing, finding among other things, "That the applicant presented no substantial evidence establishing that carbon dioxide gas wells in the Tubb or older formations in Harding, Quay, Union Counties, New Mexico are capable of efficiently and economically draining 640-acre spacing, and proration units."

(5) That in Case No. 7198, heard by this Commission on March 18, 1981, Amoco sought the establishment of the Bravo Dome Carbon Dioxide Gas Area in Union, Harding, and Quay Counties, New Mexico, and the promulgation of temporary rules therefor including provisions for 640-acre gas proration units and specified well locations.

(6) That by Order No. R-6645, entered June 4, 1981, the Commission denied Amoco's application for temporary 640-acre spacing rules finding, among other things, ". . . the evidence presented by the applicant does not support -- even

on a temporary basis -- an economic, engineering, geological, or other valid and compelling justification, within the jurisdiction of the Commission, for special rules."

(7) That the records in said Cases 6823 and 7198 were incorporated into the record of the instant case at the hearing May 15, 1984.

(8) That subsequent to the aforesaid hearing of Case No. 7198 in March, 1981, applicant has drilled some 193 additional wells and gained additional information concerning the carbon dioxide gas reservoir(s) in the Bravo Dome Area, and has also conducted several long term flow tests.

(9) That most of said additional drilling, and all of the flow tests, have been conducted in a limited portion of the Bravo Dome Area, considered to be the "fairway" of the carbon dioxide deposits, and do not materially reflect on the drainage capability of wells drilled in the vast majority of the lands for which 640-acre spacing is requested.

(10) That the evidence indicates that there is a substantial decrease in quality of the payzone, as reflected by a decrease in thickness of pay and reduced permeability on the north end, west side, and south end of the Bravo Dome Carbon Dioxide Gas Unit Area, away from the aforesaid "fairway."

(11) That the evidence presented in the instant case is not substantially different from the evidence presented in the previous hearings insofar as 640-acre spacing throughout the Unit area is concerned.

(12) That there are numerous tracts of land within the boundaries of the Bravo Dome Carbon Dioxide Gas Unit Area which are not committed to said unit, and that these tracts range in size from less than 40 acres to more than 10,200 acres.

(13) That the owners of many of these uncommitted tracts appeared at the hearing and objected to the establishment of 640-acre spacing in the area on the grounds that said spacing would impair their correlative rights and cause waste, inasmuch as it would interfere with the current and future development, production, and processing of their carbon dioxide reserves.

(14) That the Commission finds that as in 1981, the evidence presented by the applicant does not support -- even on a temporary basis -- an economic, engineering, geological or other valid and compelling justification, within its jurisdiction, for 640-acre spacing rules throughout the Bravo Dome Carbon Dioxide Gas Unit Area.

(15) That denial of the application for such spacing rules and for specified well locations will not cause waste nor impair correlative rights, but will infact prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the application of Amoco Production Company for temporary special spacing rules and specified well locations in the Bravo Dome Carbon Dioxide Gas Unit Area, Union, Harding and Quay Counties, New Mexico, is hereby denied.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

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OIL CONSERVATION DIVISION

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

CASE 8190
ORDER R- _____

APPLICATION OF AMOCO PRODUCTION
COMPANY FOR TEMPORARY SPECIAL
SPACING RULES, UNION, HARDING
AND QUAY COUNTIES, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 a.m. on May 16, 1984, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this ____ day of May, 1984, the Commission, having considered the testimony, exhibits, and the record, 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 the applicant, Amoco Production Company, is the operator of the Bravo Dome Carbon Dioxide Gas Unit, which is located in Harding, Quay and Union Counties, New Mexico, and encompasses those lands set out on Exhibit A attached to this Order and incorporated herein by reference.

3. That the Bravo Dome Carbon Dioxide Gas Unit was approved by the Commission by Order R-6446, as amended, and became effective on November 1, 1980.

4. That the applicant seeks promulgation of temporary special spacing rules for the Bravo Dome Carbon Dioxide Gas Unit area to provide for 640-acre spacing and proration units and special well location requirements which provide that each well shall be located no closer than 1,650 feet to the outer boundary of any governmental section, and no closer than 330 feet to any governmental quarter quarter section line.

5. That applicant sought promulgation of special rules from the Commission providing for 640-acre spacing for certain of the lands included within this application on March 11, 1980 (Case 6823) and again on March 18, 1981 (Case 7198), said applications having been denied for failure to present sufficient evidence to establish that one well will efficiently and economically drain 640 acres.

6. That subsequent to the 1980 and 1981 hearings, substantial additional reservoir data has become available: 193 additional wells have been drilled in the unit which have made available additional pressure data, electric log data and core analysis, and four long term production flow tests have been conducted.

7. That the reservoir characteristics of the Tubb and older formations in the Bravo Dome Carbon Dioxide Gas Unit area indicate that they can be efficiently and economically drained and developed on 640-acre spacing.

8. That temporary special rules and regulations providing for 640-acre spacing should be promulgated for the Tubb and older formations in the Bravo Dome Carbon Dioxide Gas Unit area in order to 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 otherwise prevent waste and protect correlative rights.

9. That the temporary special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.

10. That production from the unit commenced on April 2, 1984.

11. That as production data becomes available, it will be possible to conclusively demonstrate whether or not the Bravo Dome Carbon Dioxide Gas Unit area can be efficiently and economically drained on 640-acre spacing.

12. That temporary special rules and regulations should be established for a three-year period in order to allow the operator of the unit to gather reservoir and production information to establish that the area can be efficiently and economically drained and developed on 640-acre spacing.

13. That this case should be reopened at a Commission hearing in May 1987, at which time the operator of the unit should be prepared to appear and show cause why the Bravo Dome Carbon Dioxide Gas Unit area should not be developed on 640-acre spacing units.

IT IS THEREFORE ORDERED:

1. That effective June 1, 1984, special rules and regulations for the Tubb and older formations in the Bravo Dome Carbon Dioxide Gas Unit area located in Harding, Quay and Union Counties, New Mexico, as more fully described on Exhibit A attached to this Order and incorporated herein by reference, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS FOR THE BRAVO DOME
CARBON DIOXIDE GAS UNIT AREA

Rule 1: Each well completed or recompleted in the Tubb or older formations in the Bravo Dome Carbon Dioxide Gas Unit area or in the Tubb or older formations within one mile thereof, shall be spaced, drilled, operated and produced in accordance with the special rules and regulations hereinafter set forth.

Rule 2: Each well shall be located on a standard unit containing 640 acres, more or less, consisting of a governmental section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter sections in the unit.

Rule 3: The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a governmental section with an unorthodox size or shape due to a variation in the legal subdivision of the United States Public Lands Survey.* All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within thirty days after the Secretary-Director has received the application.

* or the following facts exist:

(a) the non-standard unit consists of quarter-quarter sections or lots that are contiguous by a common bordering side, and

(b) the non-standard unit lies wholly within a single governmental section.

Rule 4: Each well shall be located no closer than 1,650 feet to the outer boundary of any governmental section, and no

closer than 330 feet to any governmental quarter quarter section inner boundary.

Rule 5: The Secretary-Director of the Commission may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions. All operators offsetting the proposed location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location or if no objection to the unorthodox location has been entered within thirty days after the Secretary-Director has received the application.

IT IS FURTHER ORDERED:

1. That the locations of all wells presently drilling to or completed in the Bravo Dome Carbon Dioxide Gas Unit area or within one mile thereof in the Tubb or older formations are hereby approved; that the operator of any well having an unorthodox location shall notify the Santa Fe office of the Oil Conservation Division in writing of the name and location of the well on or before July 1, 1984.

2. That pursuant to paragraph A of Section 70-2-18, N.M.S.A., 1978, contained in Chapter 271, Laws of 1969, existing wells in the Bravo Dome Carbon Dioxide Gas Unit area and any wells within one mile thereof completed in the Tubb or older formations shall have dedicated thereto 640 acres in accordance with the foregoing rules, or, pursuant to paragraph C of said Section 70-2-18, existing wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

3. Failure to file new Forms C-102 with the Division dedicating 640 acres to a well or to obtain a non-standard unit approved by the Division within sixty days from the date of this Order shall subject the well to being shut-in until a standard or non-standard unit is assigned to the well.

4. That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

S E A L

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

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

CASE NO. 8190
Order No. R-7556-A

IN THE MATTER OF CASE 8190 BEING
REOPENED PURSUANT TO THE PROVISIONS
OF ORDER NO. R-7556, WHICH ORDER
ESTABLISHED SPECIAL RULES AND
REGULATIONS FOR THE BRAVO DOME
640-ACRE AREA, UNION, HARDING, AND
QUAY COUNTIES, NEW MEXICO, INCLUDING
A PROVISION FOR 640-ACRE PRORATION UNITS.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on June 3, 1987, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 10th day of June, 1987, 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) By Order No. R-7556, dated June 19, 1984, temporary special rules and regulations were promulgated by the Division for the Bravo Dome 640-Acre Area, as described on Exhibit "A" of said order, Union, Harding, and Quay Counties, New Mexico, including a provision for 640-acre spacing and proration units.

(3) Pursuant to the provisions of Order No. R-7556, this case was reopened to allow the operators in the subject area to appear and show cause why the Bravo Dome 640-Acre Area should not be developed on less than 640-acre spacing and proration units.

(4) Amoco Production Company (Amoco), the unit operator of the Bravo Dome Carbon Dioxide Gas Unit, also known as the Bravo Dome 640-Acre Area, as well as several other operators in the area entered appearances at the hearing.

(5) Amoco presented as evidence the results of long term flow tests conducted on three wells located within the Bravo Dome 640-Acre Area.

(6) Amoco also presented as evidence predicted well performance data obtained from two models which were designed using known reservoir parameters and assuming drainage areas of 160 acres and 640 acres.

(7) The results of the flow tests indicate that the actual production data obtained from these tests closely resembles the predicted model performance of a well draining 640 acres.

(8) Amoco further presented bottomhole pressure data obtained from pressure monitor wells located within the Bravo Dome 640-Acre Area which indicates that drainage from offset producing wells is occurring and that these offset wells are draining an area of at least 640 acres.

(9) The evidence presented in this case establishes that one well in the Bravo Dome 640-Acre Area can efficiently and economically drain and develop 640 acres.

(10) The Special Rules and Regulations promulgated by Order No. R-7556 have afforded and will afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the gas in the pool.

(11) In order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, and to otherwise prevent waste and protect correlative rights, the Special Rules and Regulations promulgated by Order No. R-7556 should be continued in full force and effect until further order of the Division.

IT IS THEREFORE ORDERED THAT:

(1) The Special Rules and Regulations governing the Bravo Dome 640-Acre Area, Union, Harding, and Quay Counties, New Mexico, promulgated by Order No. R-7556, are hereby continued in full force and effect until further order of the Division.

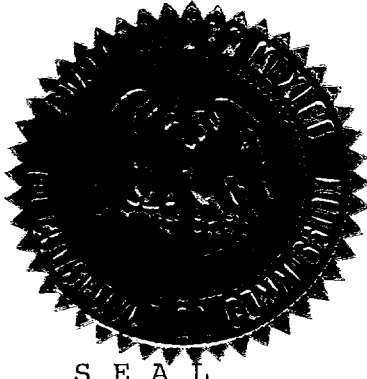
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Case No. 8190

Order No. R-7556-A

(2) Jurisdiction of this cause is 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

A handwritten signature in cursive script, appearing to read "William J. Lemay".

WILLIAM J. LEMAY
Director

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