

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE NO. 338  
ORDER NO. R-132

THE APPLICATION OF THE OIL CON-  
SERVATION COMMISSION OF NEW MEXICO  
UPON ITS OWN MOTION FOR AN ORDER  
FOR THE EXTENSION OF EXISTING POOLS,  
CONSOLIDATION OF EXISTING POOLS, OR  
THE CREATION OF NEW POOLS IN LEA,  
EDDY AND RIO ARriba COUNTIES, N. M.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This matter came on for hearing at 10:00 a. m. on January 22, 1952,  
at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico,  
hereinafter referred to as the "Commission."

NOW, on this 26th day of March 1952, the Commission, a quorum being  
present, having considered the testimony adduced at the hearing and being fully advised  
in the premises,

FINDS:

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

(2) That a new oil pool for Drinkard production designated as the West  
Dollarhide-Drinkard pool, comprising all of sections 28, 29, 32 and 33, Township  
24 South, Range 38 East, NMPM, Lea County, New Mexico, should be created.

(3) That there is insufficient evidence before the "Commission" at this  
time to warrant the creation of the proposed Terry-Simpson pool to include all of  
sections 1, 2, 11 and 12, Township 21 South, Range 37 East, NMPM, Lea County, New  
Mexico.

(4) That a new oil pool for Pennsylvanian production designated as the  
Caudill-Pennsylvanian pool, comprising all of sections 4, 5, 8 and 9, Township 15  
South, Range 36 East, NMPM, Lea County, New Mexico, should be created.

(5) That a new pool for San Andres production designated the East Hobbs-San Andres pool, comprising all of that portion of sections 29 and 32, Township 18 South, Range 39 East, NMPM (within New Mexico), adjoining the Texas State Line, should be created.

(6) That a new pool for Wolfcamp production designated as the King-Wolfcamp pool, comprising all of sections 25, 26, 35 and 36, Township 13 South, Range 37 East, NMPM, Lea County, New Mexico, should be created.

(7) That a new pool for Yates-Seven Rivers production designated as the North Wilson-Yates Seven Rivers pool, comprising all of sections 29, 30, 31 and 32, Township 20 South, Range 36 East, NMPM, Lea County, New Mexico, should be created.

(8) That a new pool for Abo production designated as the Lovington-Abo pool and comprising all of section 36, Township 16 South, Range 36 East; section 31, Township 16 South, Range 37 East; section 1, Township 17 South, Range 36 East, and section 6, Township 17 South, Range 37 East, NMPM, in Lea County, New Mexico, should be created.

(9) That the boundary of the Warren-McKee (Simpson) pool in Lea County, New Mexico, be extended to include therein and made a part thereof all of the S/2 section 20, Township 20 South, Range 38 East, NMPM.

(10) That the boundary of the Skaggs-Grayburg pool in Lea County, New Mexico, should be extended to include the S/2 section 13, Township 20 South, Range 37 East; all section 18 and the S/2 section 7, Township 20 South, Range 38 East, NMPM.

(11) That the boundary of the Loco Hills-Queen pool in Eddy County, New Mexico should be extended to include the NW/4 section 32, Township 17 South, Range 30 East, NMPM.

(12) That a new pool for Tocito (Upper Cretaceous) production designated as Pettigrew-Tocito and comprising all of section 9, W/2 section 10, NW/4 section 15, and the N/2 section 16, Township 26 North, Range 6 West, NMPM, Rio Arriba County, New Mexico, be created.

IT IS THEREFORE ORDERED:

(1) That a new pool for Drinkard production, designated as the West Dollarhide-Drinkard pool, be, and it hereby is created, comprising all of sections 28, 29, 32 and 33, Township 24 South, Range 38 East, NMPM, Lea County, New Mexico.

(2) That the application to create the proposed Terry-Simpson pool to comprise all of sections 1, 2, 11 and 12, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, be, and the same hereby is denied.

(3) That a new pool for Pennsylvanian production, designated as the Caudill-Pennsylvanian oil pool, comprising all of sections 4, 5, 8 and 9, Township 15 South, Range 36 East, NMPM, Lea County, New Mexico, be, and the same hereby is created and designated as hereinabove.

(4) That a new pool for San Andres production, designated as the East Hobbs-San Andres oil pool, comprising all of that portion of sections 29 and 32, Township 18 South, Range 39 East, NMPM (within New Mexico), adjoining the Texas-New Mexico State Line, in Lea County, New Mexico, be, and the same hereby is created and designated as hereinabove.

(5) That a new pool for Wolfcamp production, designated as the King-Wolfcamp oil pool, comprising all of sections 25, 26, 35 and 36, Township 13 South, Range 37 East, NMPM, Lea County, New Mexico, be, and the same hereby is created and designated as hereinabove.

(6) That a new pool for Yates-Seven Rivers production, designated as the North Wilson-Yates Seven Rivers oil pool, comprising all of sections 29, 30, 31 and 32, Township 20 South, Range 36 East, NMPM, Lea County, New Mexico, be and it hereby is created and designated as hereinabove.

(7) That a new pool for Abo production, designated as the Lovington-Abo oil pool, comprising all of section 36, Township 16 South, Range 36 East; section 31, Township 16 South, Range 37 East; section 1, Township 17 South, Range 36 East; and section 6, Township 17 South, Range 37 East, NMPM, Lea County, New Mexico, be, and it hereby is created and designated as hereinabove.

(8) That the boundary of the existing Warren-McKee (Simpson) oil pool, be, and the same hereby is extended to include therein and make a part thereof the S/2 section 20, Township 20 South, Range 38 East, NMPM, Lea County, New Mexico.

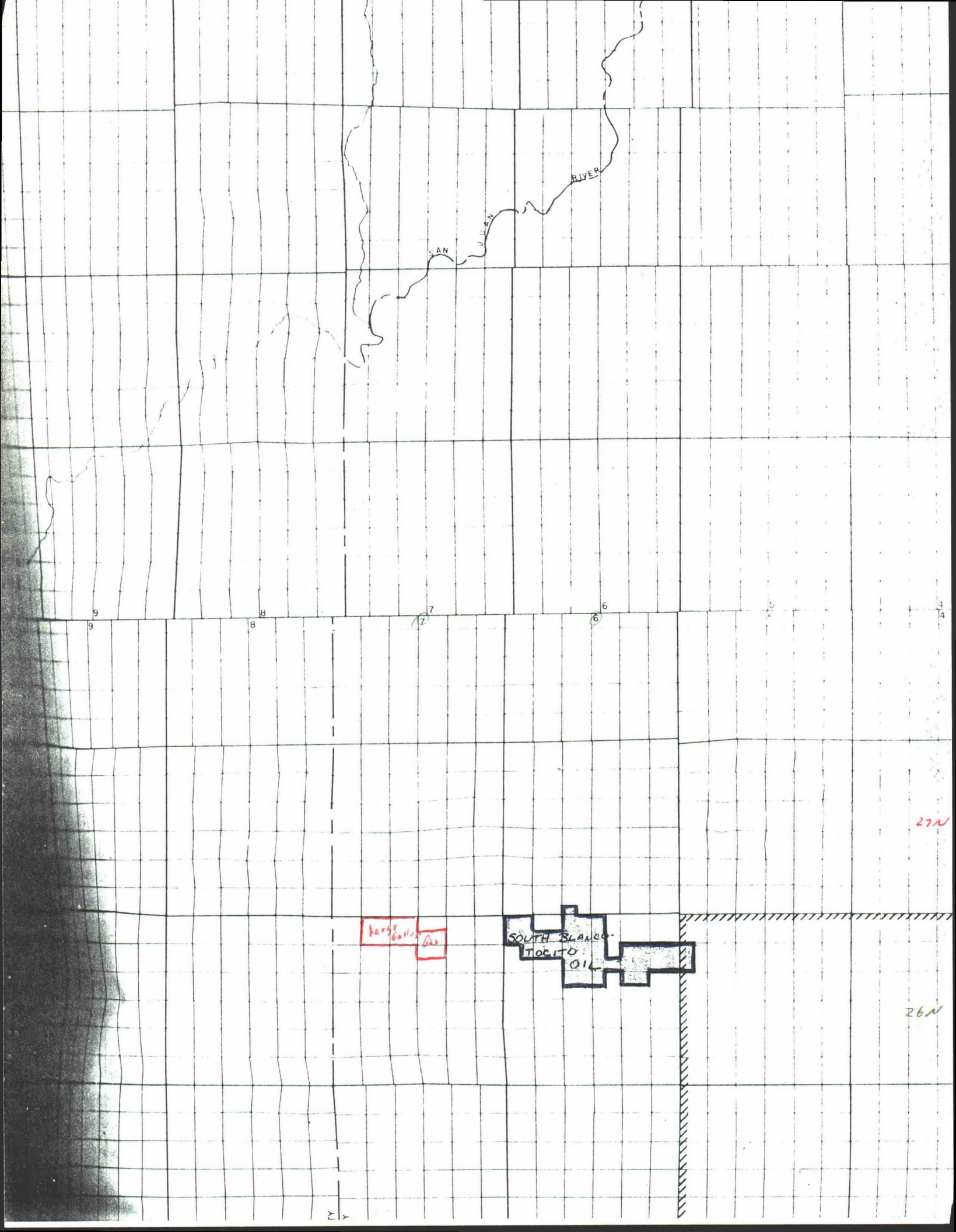
(9) That the boundary of the existing Skaggs-Grayburg oil pool, be, and the same hereby is extended to include therein and make a part thereof the S/2 section 13, Township 20 South, Range 37 East; S/2 section 7, and all of section 18, Township 20 South, Range 38 East, NMPM, Lea County, New Mexico.

(10) That the boundary of the existing Loco Hills-Queen pool, be, and the same hereby is extended to include therein and make a part thereof the NW/4 section 32, Township 17 South, Range 30 East, NMPM, Eddy County, New Mexico.

(11) That a new pool for Tocito (Upper Cretaceous) production, designated as the Pettigrew-Tocito oil pool, comprising all of section 9, W/2 section 10, NW/4 section 15, and the N/2 section 16, Township 26 North, Range 6 West, NMPM, Rio Arriba County, New Mexico, be and the same hereby is created and designated as hereinabove.

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

OIL CONSERVATION COMMISSION - Signed by: Edwin L. Mechem, Chairman;  
Guy Shepard, Member; R. R. Spurrier, Secretary.



RIVER

SAN

JUAN

9

8

7

6

5

4

Large Gully

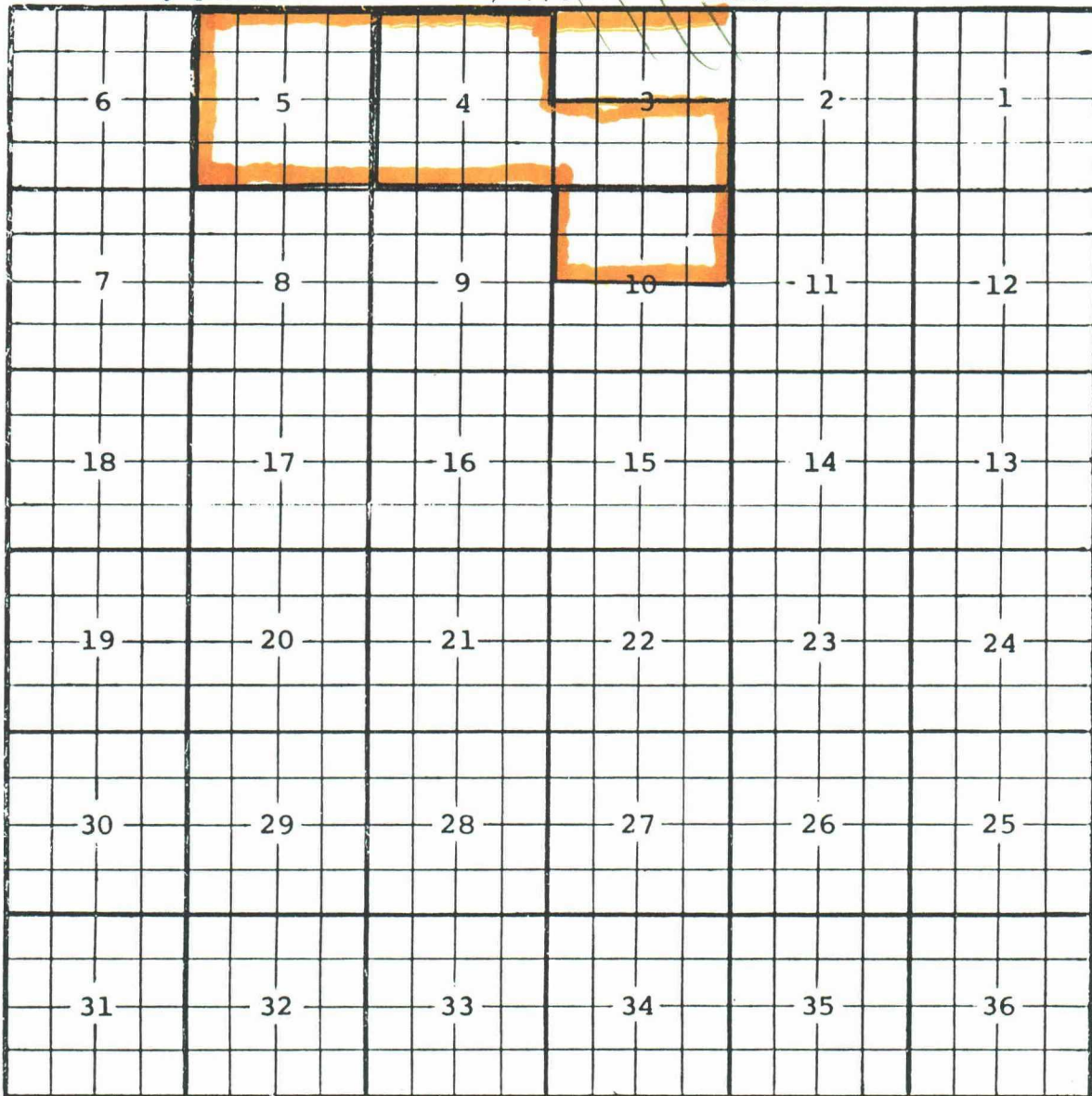
SOUTH BLAKE  
TOBITO  
OIL

27N

26N

COUNTY *Rio Arriba* POOL *Largo - Gallup Gas*

TOWNSHIP *26 North* RANGE *7 West* NMFM



*Description : 1/2 Sec. 3; All Sec. 4 (R-2462, 4-5-63)*  
*Ext: All Sec. 5 (R-2896, 5-1-65) EXT: 1/2 Sec. 10 (R-7420, 1-9-84)*



BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE No. 2761  
Order No. R-2462  
NOMENCLATURE

APPLICATION OF COMPASS EXPLORATION, INC.,  
FOR THE CREATION OF A GALLUP GAS POOL,  
RIO ARriba COUNTY, NEW MEXICO.

*Also  
see  
R-2462-A*

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on March 20, 1963, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 5th day of April, 1963, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, 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, Compass Exploration, Inc., seeks an order deleting Sections 1, 2, and 3, Township 26 North, Range 7 West, NMPM, from the South Blanco-Tocito Pool and redesignating portions of said acreage to comprise a new Gallup gas pool in Sections 3 and 4, Township 26 North, Range 7 West, NMPM, Rio Arriba County, New Mexico.

(3) That by Order No. R-2265, entered by the Commission on June 15, 1962, the South Blanco-Tocito Oil Pool was extended to include the following-described acreage:

TOWNSHIP 26 NORTH, RANGE 7 WEST, NMPM  
Section 1: S/2  
Section 2: S/2  
Section 3: S/2

and that by Order No. R-2428 entered by the Commission on February 21, 1963 the South Blanco-Tocito Pool was further extended by the addition of all of Section 4, Township 26 North, Range 7 West, NMPM, Rio Arriba County, New Mexico.

(4) That all wells completed in the Gallup formation in Sections 3 and 4, Township 26 North, Range 7 West, NMPM, Rio Arriba County, New Mexico, are completed in and producing from a common source of supply that is not a part of the South Blanco-Tocito Oil Pool.

(5) That Sections 1, 2, 3, and 4 Township 26 North, Range 7 West, NMPM, Rio Arriba County, New Mexico, should not be included within the horizontal limits of the South Blanco-Tocito Oil Pool and that Order No. R-2428 should be amended by deleting Paragraph (d) therefrom and Order No. R-2428 should be amended by deleting Paragraph (i) therefrom.

(6) That a new Gallup Gas Pool shall be created comprising the following-described area:

TOWNSHIP 26 NORTH, RANGE 7 WEST, NMPM  
Section 1: S/2  
Section 4: All

(7) That in view of the history of the Gallup formation there is a reasonable probability that production from the Gallup formation in Sections 3 and 4, Township 26 North, Range 7 West, NMPM, Rio Arriba County, New Mexico, is originating from a gas cap overlying an undesignated Gallup oil pool; that withdrawals from the gas pool created by this order should therefore be restricted in order to prevent undue dissipation of gas which may be the drive mechanism for an oil pool and in order to assure the protection of correlative rights.

(8) That this case should be reopened upon further development of the Gallup formation in this area in order to determine whether the pool should remain classified as a gas pool or be reclassified as an oil pool.

IT IS THEREFORE ORDERED:

(1) That Order No. R-2428 is hereby amended by deleting Paragraph (d) therefrom and Order No. R-2428 is hereby amended by deleting Paragraph (i) therefrom.

(2) That a new pool in Rio Arriba County, New Mexico, classified as a gas pool for Gallup production is hereby created and designated the Largo-Gallup Gas Pool consisting of the following-described area:

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CASE No. 2761  
Order No. R-2462

TOWNSHIP 26 NORTH, RANGE 7 WEST, NMPM  
Section 3: S/2  
Section 4: All

(3) That the daily gas production from a 160-acre spacing unit in the Largo-Gallup Gas Pool shall not exceed 500 MCF of gas per day.

(4) That this case shall be reopened upon further development of the Gallup formation in this area in order to determine whether the pool should remain classified as a gas pool or be reclassified as an oil pool.

(5) 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.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

JACK M. CAMPBELL, Chairman

E. S. WALKER, Member

A. L. PORTER, Jr., Member & Secretary

S E A L

esr/



BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE No. 2842  
Order No. R-2462-A

APPLICATION OF COMPASS EXPLORATION, INC.,  
FOR AN AMENDMENT OF COMMISSION ORDER  
NO. R-2462, RIO ARriba COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on June 26, 1963, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 21st day of August, 1963, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, 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 by Order No. R-2462 entered by the Commission on April 5, 1963, in Case No. 2761, the Commission created and designated the Largo-Gallup Gas Pool comprising the following-described area:

TOWNSHIP 26 NORTH, RANGE 7 WEST, NMPM  
Section 3: S/2  
Section 4: All

(3) That in said Order No. R-2462, the Commission found, "That in view of the history of the Gallup formation there is a reasonable probability that gas production from the Gallup formation in Sections 3 and 4, Township 26 North, Range 7 West, NMPM, Rio Arriba County, New Mexico, is originating from a gas cap overlying an undesignated Gallup oil pool; that withdrawals from the gas pool created by this order should therefore be restricted in order to prevent undue dissipation of gas which may be the

drive mechanism for an oil pool and in order to assure the protection of correlative rights."

(4) That by Order No. R-2462, the Commission established 160-acre units for gas wells in said Largo-Gallup Gas Pool and established 500 MCF of gas per day as the maximum amount of gas which could be produced from any gas well in said pool.

(5) That the applicant in this case, Continental Exploration, Inc., seeks an amendment to said Order No. R-2462 to provide 320-acre gas well spacing in said pool and an increase in the maximum daily rate of gas production from 500 MCF per acre to 1000 MCF per acre per 320-acre unit.

(6) That effective September 1, 1963, special rules and regulations establishing 320-acre gas spacing units should be promulgated for the subject pool in order to prevent the possibility of economic loss resulting from the drilling of unnecessary wells.

(7) That withdrawals from the subject pool should continue to be restricted in order to prevent waste resulting from the undue dissipation of gas which may be the drive mechanism for an oil pool, and in order to assure the protection of correlative rights, daily withdrawals from any well to which 320 acres is allocated should not exceed 1000 MCF of gas per day.

(8) That this case should be reopened upon further development of the Gallup formation in this area in order to determine whether the pool should remain classified as a gas pool or be reclassified as an oil pool.

IT IS THEREFORE ORDERED:

(1) That effective September 1, 1963, Paragraph (3) of Order No. R-2462 is hereby amended to read in its entirety as follows:

- (3) (a) That a standard gas unit in the Largo-Gallup Gas Pool shall comprise 320 acres, being the N/2, S/2, E/2, or W/2 of a single governmental section.
- (b) That the maximum daily gas production from a standard 320-acre spacing unit in the Largo-Gallup Gas Pool shall not exceed 1000 MCF of gas per day.
- (c) That any unit comprising other than 320 acres shall be permitted a maximum daily gas production obtained by multiplying

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CASE No. 2842

Order No. R-2462-A

1000 MCF by a fraction, the numerator of which shall be the acreage assigned to the well and the denominator of which shall be 320.

(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 Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

JACK M. CAMPBELL, Chairman

E. S. WALKER, Member

A. L. PORTER, JR., Member & Secretary

S E A L

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BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE NO. 1420  
Order No. R-1191

APPLICATION OF CAULKINS OIL COMPANY  
TO AMEND THE SPECIAL POOL RULES FOR  
THE SOUTH BLANCO-TOCITO OIL POOL,  
RIO ARriba COUNTY, NEW MEXICO.

*C. A. ...*  
*R-1191-17*  
*1191-13*  
*1191-C*

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on April 16, 1958, at Roswell, New Mexico, before the Oil Conservation Commission of New Mexico, herein-after referred to as the "Commission."

NOW, on this 10th day of June, 1958, the Commission, a quorum being present, having considered the application and the evidence adduced, 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, Caulkins Oil Company, is the operator of a water injection project in the South Blanco-Tocito Oil Pool in Rio Arriba County, New Mexico.
- (3) That the applicant proposes that the Special Rules and Regulations for the South Blanco-Tocito Oil Pool as promulgated by Order No. R-326, dated May 26, 1953, and by Commission Order No. R-1144, dated March 25, 1958, be amended to provide for a system of transferring allowables within said water injection project and to provide credit against gas-oil ratio limitations for net water injected into the reservoir.
- (4) That amendment of the Special Rules and Regulations for the South Blanco-Tocito Oil Pool to provide that allowables may be transferred from injection wells to other producing wells within the water injection project will not impair correlative rights.
- (5) That production from any one well within the water injection project should be limited to twice the top unit allowable or three hundred (300) barrels a day,

whichever is greater.

(6) That in order to prevent the waste of casinghead gas, a no-flare order should be entered for the South Blanco-Tocito Oil Pool, effective October 1, 1958.

(7) That the Rules and Regulations for the South Blanco-Tocito Oil Pool, as set forth in Commission Order No. R-326, dated May 26, 1953, and Commission Order No. R-1144, dated March 25, 1958, should be superseded by this order so as to consolidate all Special Rules and Regulations for the South Blanco-Tocito Oil Pool and for the South Blanco-Tocito Water Injection Project in one order.

(8) That the findings of the Commission, as recited in Commission Order R-326 and Commission Order R-1144, should be incorporated by reference in this order.

IT IS THEREFORE ORDERED:

(1) That the findings of the Commission, as recited in Commission Order R-326 and Commission Order R-1144, be and the same are hereby incorporated by reference in this order.

(2) That the Rules and Regulations for the South Blanco-Tocito Oil Pool as set forth in Commission Order R-326, dated May 26, 1953, and Commission Order R-1144, dated March 25, 1958, be and the same are hereby superseded.

(3) That Special Pool Rules for the South Blanco-Tocito Pool, Rio Arriba County, New Mexico, be and the same are hereby promulgated as follows, effective July 1, 1958:

SPECIAL RULES AND REGULATIONS  
FOR THE SOUTH BLANCO-TOCITO OIL POOL

RULE 1. Any well drilled to or completed in the Tocito formation within one mile of the boundaries of the South Blanco-Tocito Oil Pool shall be spaced, drilled, operated, and prorated in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. All wells projected to or completed in the South Blanco-Tocito Oil Pool shall be located on a tract containing 80 acres, more or less, comprising the East half, West half, North half, or South half of the governmental quarter section in which the well is located. Allowables for wells located on such 80-acre tracts shall be assigned in accordance with the 80-acre proportional factor for pools in the 6,000-to 7,000-foot depth range. Wells located on tracts comprising less than 80 acres shall be assigned an allowable which shall bear the same proportion to the standard 80-acre allowable that the acreage assigned to such well bears to 80 acres.

RULE 3. All wells hereafter projected to or completed in the South Blanco-Tocito Oil Pool shall be located in the center of the Northwest quarter or the Southeast

quarter of a governmental quarter section, with a tolerance of 100 feet in any direction to avoid surface obstructions.

RULE 4. That all wells hereafter projected to or completed in the South Blanco-Tocito Oil Pool shall be cased in accordance with the following casing rules:

(a) The surface casing shall consist of new or reconditioned pipe with an original mill test of not less than 1000 pounds per square inch, and at least one string of surface casing shall be set at a depth sufficient to protect all potable water-bearing strata encountered, and not less than 450 feet below the surface of the ground. Sufficient cement shall be used to fill the annular space back of the pipe to the bottom of the cellar. Cement shall be allowed to stand a minimum of 24 hours before initiating tests. Before drilling the plug a pump pressure of at least 600 pounds per square inch shall be applied. If at the end of 30 minutes the pressure shows a drop of 100 pounds per square inch, or more, the casing shall be condemned, subject to corrective operations and further testing.

(b) The producing oil string shall consist of new or reconditioned pipe with an original mill test of not less than 2100 pounds per square inch. The producing string shall be set and cemented with sufficient cement to fill the calculated annular space behind the pipe to a minimum of 1000 feet above the guide shoe. Cement shall be allowed to stand a minimum of 72 hours before initiating tests. Before drilling the plug a pump pressure of at least 600 pounds per square inch shall be applied. If at the end of 30 minutes the pressure shows a drop of 100 pounds per square inch, or more, the casing shall be condemned, subject to corrective operations and further testing.

RULE 5. Upon completion of any well in the South Blanco-Tocito Oil Pool and semi-annually, during the months of April and October, a bottom-hole pressure test shall be made and a report thereof filed with the Commission on Commission Form C-124. Bottom hole pressures shall be taken in accordance with the provisions of Rule 302 of the Commission Rules and Regulations except that wells shall remain shut-in for a minimum of 72 hours prior to testing. Tests shall be corrected to a reservoir datum plane of minus 100 (-100) feet.

RULE 6. Upon completion of any well in the South Blanco-Tocito Oil Pool and semi-annually during the months of April and October, a gas-oil ratio test shall be made and a report thereof filed with the Commission on Commission Form C-116.

RULE 7. Prior to making tests required in Rules 5 and 6 above, each operator in the South Blanco-Tocito Oil Pool shall notify all other operators in the pool, as well as the Commission, of the time such tests are to be conducted. Tests may be witnessed by representatives of the other operators and the Commission, if they so desire.

RULE 8. The limiting gas oil ratio for the South Blanco-Tocito Oil Pool shall be two thousand (2,000) cubic feet of gas for each barrel of oil produced.

RULE 9. No casinghead gas produced from any well completed in the South



Blanco-Tocito Oil Pool shall be flared or vented after October 1, 1958.

RULE 10. All wells drilled to and completed in the South Blanco-Tocito Oil Pool prior to May 26, 1953, whose locations do not conform to the well spacing requirements of Rule 3 above are excepted from the requirements of said Rule and their locations are hereby approved as unorthodox well locations. This approval shall apply to the following wells:

	<u>Well No.</u>	<u>Unit</u>	<u>Sec.</u>	<u>Twp.</u>	<u>Rge.</u>
Caulkins Oil Company	T-132	A	9	26N	6 W
" " "	T-134	C	10	26N	6W
" " "	T-157	E	10	26N	6W
" " "	T-182	K	10	26N	6W
" " "	T-207	O	10	26N	6W

RULE 11. In addition to the above Rules for the South Blanco-Tocito Oil Pool, the following Rules shall apply to the operation of all wells completed in the Tocito formation and located within the South Blanco Water Injection Project Area, hereinafter referred to as the "Project."

(a) The project Area shall comprise that area described as follows:

TOWNSHIP 26 NORTH, RANGE 6 WEST, NMPM

Section 3: S/2 SW/4  
Section 4: S/2  
Section 8: N/2 NE/4  
Section 9: N/2 and N/2 S/2  
Section 10: NW/4, N/2 SW/4, and SE/4  
Section 11: W/2 SW/4

(b) The allowable for the Project shall be the sum of the allowables of the several wells within the project area, including those wells which are shut-in or are used as water injection wells. Allowables for all wells shall be determined in a manner hereinafter prescribed.

(c) Allowables for water injection wells may be transferred to producing wells within the project area, as may be the allowables for producing wells which, in the interest of more efficient operation of the Project, are shut-in or are curtailed in their rate of production.

(d) The project allowable may be produced from any well or wells in the project area in any proportion, provided said rate of production is consistent with

efficient operation of the Project and provided further, that no well shall produce in excess of two times the top unit allowable for the South Blanco-Tocito Oil Pool, or 300 barrels per day, whichever is greater.

(e) The allowable assigned to any water injection well, which is to be transferred to any other well or wells in the Project area for production, shall in no event exceed the producing capacity of the well prior to conversion to water injection, as determined by the average daily rate of production during the last three months the well was produced prior to such conversion.

Conversion of producing wells to water injection, as abandonment of said producing wells is necessitated by water encroachment, shall be made only after approval of such conversion by the Secretary-Director of the Commission. To obtain such approval, the Project operator shall file proper application for conversion with the Commission, providing copies of said application to all interested parties. The Secretary Director may approve the conversion to water injection if, within 20 days after receiving the application, no objection to said conversion is received. The Secretary-Director may grant immediate approval provided waivers of objection are received from all interested parties.

(f) The allowable assigned to any well which is to be shut-in or curtailed and which is to be transferred from said well to any other well or wells in the project area shall in no event exceed the ability of the well to produce oil as determined by a 24-hour test at a stabilized rate of production, which shall be the final 24-hour period of a 72-hour test throughout which the well under test shall be produced in the same manner and at a constant rate. The project operator shall notify all other operators in the South Blanco-Tocito Oil Pool, as well as the Commission, of the time such tests are to be conducted. Tests may be witnessed by representatives of the other operators and the Commission, if they so desire.

(g) The allowable assigned to any well in the Project shall be based upon the ability of the well to produce oil and shall be subject to the limiting gas-oil ratio (2000 to 1) for the South Blanco-Tocito Oil Pool, except that credit for daily average net water injected into the Tocito formation through any injection well or wells located within the project area may be applied to any well or wells producing with a gas-oil ratio in excess of two thousand cubic feet of gas per barrel of oil. Total credit for net water injected in the project area shall be the gas equivalent volume of the daily average net water injected during a one-month period. The daily average gas equivalent of net water injected shall be computed in accordance with the following formula:

$$E_g = (V_{w \text{ inj}} - V_{w \text{ prod}}) \times 5.61 \frac{\text{ft}^3}{\text{bbl}} \times \frac{P_a}{15.025} \times \frac{520^\circ}{635^\circ} \times \frac{1}{Z}$$

where:

$$E_g = \text{Average daily gas equivalent of net water injected}$$

CASE NO. 1420  
Order No. R-1191

$V_{w \text{ inj}}$  = Average daily volume of water injected, barrels

$V_{w \text{ prod}}$  = Average daily volume of water produced, barrels

$P_a$  = Average reservoir pressure at datum of -100 feet, psig  $\pm$  11.5, as determined from most recent semi-annual survey.

15.025 = Pressure base, psi

520° = Temperature base of 60°F expressed as absolute temperature

635° = Reservoir temperature of 175°F expressed as absolute temperature

Z = Supercompressibility factor for 0.7 gravity gas at average reservoir pressure,  $P_a$ , interpolated from supercompressibility tabulation below:

Pressure	Z	Pressure	Z
2000	0.845	1200	0.889
1900	0.849	1100	0.897
1800	0.853	1000	0.905
1700	0.857	900	0.914
1600	0.861	800	0.923
1500	0.865	700	0.932
1400	0.873	600	0.941
1300	0.881	500	0.950

Distribution of the total calculated average daily gas equivalent volume may be made to any well or wells with gas-oil ratios in excess of two thousand to one. The daily adjusted oil allowable for any such well receiving water injection credit shall be determined as follows:

$$\text{Well's Adjusted Allowable} = \frac{(\text{Top unit allowable} \times 2000) \pm \text{gas equivalent volume assigned to well}}{\text{Well's gas-oil ratio}}$$

provided however, that in no event shall the gas equivalent volume assigned to a well be such as to cause the well's adjusted allowable to exceed the top unit allowable for the pool.

(h) Each month the project operator shall, within three days after the normal unit allowable for Northwest New Mexico has been established, submit to the Commission a South Blanco-Tocito Water Injection Project Operator's Report, on a form prescribed by the Commission, outlining thereon the data required, and requesting allowables for each of the several wells in the Project.

(i) The Commission shall, upon review of the report and after any adjustments deemed necessary, assign allowables to each well in the Project for the next succeeding month in accordance with these rules.

(j) The Special Rules and Regulations for the operation of wells in the project area shall prevail as against the Special Rules and Regulations for the South Blanco-Tocito Oil Pool, if in conflict therewith.

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

MURRAY E. MORGAN, Member

A. L. PORTER, Jr., Member and Secretary

S E A L

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE NO. 1420  
Order No. R-1191-A

APPLICATION OF CAULKINS OIL  
COMPANY AND EL PASO NATURAL GAS  
PRODUCTS COMPANY FOR AN ORDER  
AMENDING IN CERTAIN PARTICULARS  
THE SPECIAL RULES GOVERNING THE  
SOUTH BLANCO-TOCITO WATER  
INJECTION PROJECT IN RIO ARRIBA  
COUNTY, NEW MEXICO, AS SET FORTH  
IN ORDER R-1191; FOR PERMISSION TO  
CONVERT TWO WELLS IN SAID PROJECT  
TO WATER INJECTION; FOR PERMISSION  
TO DUALY COMPLETE A WELL IN SAID  
PROJECT AS A PRODUCING-INJECTION  
WELL AND FOR APPROVAL OF AN  
UNORTHODOX LOCATION FOR SAID WELL

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on April 8, 1959, at Santa Fe, New Mexico, before E. J. Fischer, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 21st day of May, 1959, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, E. J. Fischer, 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 Rule 11 of Order No. R-1191 established Special Rules and Regulations governing the operation of the South Blanco-Tocito Water Injection Project in the South Blanco-Tocito Oil Pool in Rio Arriba County, New Mexico, and described the acreage encompassed in said South Blanco-Tocito Water Injection Project, hereinafter referred to as the "Project."

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Case No. 1420  
Order No. R-1191-A

(3) That the applicants, operators in said Project, seek an amendment of Order No. R-1191 to provide for the inclusion of the following-described acreage in the Project:

TOWNSHIP 26 NORTH, RANGE 6 WEST, NMPM  
Section 6: All  
Section 7: NE/4  
Section 8: S/2 NE/4; NW/4

Rio Arriba County, New Mexico.

(4) That the applicants propose that Order No. R-1191 be amended to establish an administrative procedure whereby the Project area may be extended and new wells included in the Project without notice and hearing.

(5) That the applicants also seek authorization to convert the following-described wells to water injection:

El Paso Rincon Unit Well No. 11, located in the  
SE/4 SW/4 of Section 6,

Caulkins Well No. T-123, located in the NW/4  
NE/4 of Section 7,

both in Township 26 North, Range 6 West, NMPM, Rio Arriba County, New Mexico.

(6) That applicants further seek permission to deepen the said Caulkins Well No. T-123, and to dually complete it in such a manner as to permit water injection into the Tocito formation through the casing-tubing annulus and gas production from the Dakota formation through tubing.

(7) That the location of the said Caulkins Well No. T-123 at a point 700 feet from the North line and 1800 feet from the East line of said Section 7 is unorthodox for a gas well in the Dakota Producing Interval and applicants seek approval for said unorthodox location.

(8) That permission should be granted for the conversion of the aforesaid El Paso Rincon Unit Well No. 11 to water injection.

(9) That in order to ensure the Dakota reservoir is not damaged, permission to dually complete the aforesaid Caulkins Well No. T-123 in such a manner as to permit the injection of water into the Tocito formation through the casing-tubing annulus and the production of gas from the Dakota formation through the tubing should be denied.



(10) That permission should be granted, at the operator's option, to either dually complete the said Caulkins Well No. T-123 in such a manner as to permit the production of oil from the Tocito formation and the production of gas from the Dakota formation through parallel strings of tubing, or to utilize said well as a water injection well in the Tocito formation without deepening it to produce from the Dakota formation.

(11) That the unorthodox gas well location of the said Caulkins Well No. T-123 should be approved inasmuch as the operator may choose to dually complete said well in such a manner as to permit the production of oil from the Tocito formation and the production of gas from the Dakota formation.

(12) That the inclusion of the additional acreage in the water injection project, as described in Finding No. 3, and the establishment of an administrative system for future expansion, as described in Finding No. 4, should be provided by an amendment to Rule 11(a) of the South Blanco-Tocito Water Injection Project Area Rules, as set forth in Order No. R-1191.

IT IS THEREFORE ORDERED:

(1) That the applicants be and the same are hereby authorized to convert the El Paso Rincon Unit Well No. 11, located in the SE/4 SW/4 of Section 6, Township 26 North, Range 6 West, NMPM, Rio Arriba County, New Mexico, to water injection.

(2) That permission to deepen the Caulkins Well No. T-123, located 700 feet from the North line and 1800 feet from the East line of Section 7, Township 26 North, Range 6 West, NMPM, Rio Arriba County, New Mexico, in such a manner as to permit the injection of water into the Tocito formation through the casing-tubing annulus and the production of gas from the Dakota formation through tubing be and the same is hereby denied.

(3) That the operator be and the same is hereby authorized to either utilize said Caulkins Well No. T-123 as a water injection well in the Tocito formation without deepening it so as to produce from the Dakota formation or to dually complete said well in such a manner as to permit the production of oil from the Tocito formation and the production of gas from the Dakota formation through parallel strings of tubing.

(4) That an unorthodox gas well location for said Caulkins Well No. T-123 in the Dakota formation be and the same is hereby approved.

IT IS FURTHER ORDERED:

That Rule 11(a) of the South Blanco-Tocito Water Injection Project Rules as set forth in Order No. R-1191, be and the same is hereby amended to read in its entirety as follows:

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Case No. 1420

Order No. R-1191-A

(a)-1. The project Area shall comprise that area described as follows:

TOWNSHIP 26 NORTH, RANGE 6 WEST, NMPPM

Section 3:	S/2 SW/4
Section 4:	S/2
Section 6:	All
Section 7:	NE/4
Section 8:	N/2
Section 9:	N/2 and N/2 S/2
Section 10:	NW/4, N/2 SW/4, and SE/4
Section 11:	W/2 SW/4

(a)-2. Expansion of the project area to include additional acreage may be approved administratively by the Secretary-Director of the Commission for good cause shown. To obtain such approval, the project operator shall file proper application with the Commission, furnishing copies of said application to all interested parties. "Interested parties" are defined as being working interest owners and royalty owners within the project area and immediately offsetting it. The Secretary-Director may approve the expansion of the project area if, within 20 days after receiving the application, no objection is received from any interested party. The Secretary-Director may grant immediate approval provided waivers of objection are received from all interested parties.

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

JOHN BURROUGHS, Chairman

MURRAY E. MORGAN, Member

A. L. PORTER, Jr., Member & Secretary

S E A L

vem/

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE No. 1420  
Order No. R-1191-B

APPLICATION OF CAULKINS OIL  
COMPANY AND EL PASO NATURAL GAS  
PRODUCTS COMPANY FOR AN ORDER  
AMENDING IN CERTAIN PARTICULARS  
THE SPECIAL RULES GOVERNING THE  
SOUTH BLANCO-TOCITO WATER  
INJECTION PROJECT IN RIO ARriba  
COUNTY, NEW MEXICO, AS SET FORTH  
IN ORDER R-1191, FOR PERMISSION  
TO CONVERT TWO WELLS IN SAID  
PROJECT TO WATER INJECTION, FOR  
PERMISSION TO DUALY COMPLETE A  
WELL IN SAID PROJECT AS A  
PRODUCING-INJECTION WELL AND  
FOR APPROVAL OF AN UNORTHODOX LOCA-  
TION FOR SAID WELL

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on April 8, 1959, at Santa Fe, New Mexico, before E. J. Fischer, Examiner duly appointed by the New Mexico Oil Conservation Commission in accordance with Rule 1214 of the Commission Rules and Regulations, and Order No. R-1191-A was entered denying the application in one respect, whereupon this case came on for hearing de novo at 9 o'clock a.m. on July 15, 1959.

NOW, on this 3rd day of August, 1959, the Commission, a quorum being present, having considered the application and the evidence adduced, 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 in the subject hearing de novo, Caulkins Oil Company, is the operator of Well No. T-123 located in the NW/4 NE/4 of Section 7, Township 26 North, Range 6 West, NMPM, Rio Arriba County, New Mexico.

(3) That the applicant in the subject hearing de novo, Caulkins Oil Company, has requested that only that portion of Order No. R-1191-A dealing with the proposed dual completion of its said Caulkins Well No. T-123 be considered at this hearing.

(4) That the applicant seeks permission to deepen the said Caulkins Well No. T-123 and to dually complete it in such a manner as to permit water injection into the Tocito formation and the production of gas from the Dakota Producing Interval through parallel strings of 2-3/8 inch EUE tubing.

(5) That the maximum expected surface pressure which will be required for water injection into the Tocito formation, plus the hydrostatic head of the water column, is such as to constitute a hazard to the known gas reserves in the Dakota Producing Interval.

(6) That in order to ensure that the Dakota Producing Interval is not damaged, permission to dually complete the aforesaid Caulkins Well No. T-123 in such a manner as to permit the injection of water into the Tocito formation and the production of gas from the Dakota Producing Interval should, under the Commission's obligation to prevent the waste of oil or gas, be denied.

(7) That permission should be granted, at the operator's option, to dually complete the said Caulkins Well No. T-123 in such a manner as to permit the production of oil from the Tocito formation and the production of gas from the Dakota Producing Interval through parallel strings of tubing, or to utilize said well as a water injection well in the Tocito formation without deepening it to produce from the Dakota Producing Interval, or to singly complete the well to produce gas from the Dakota Producing Interval and neither produce from nor inject into the Tocito formation.

(8) That the unorthodox gas well location of the said Caulkins Well No. T-123 should be approved inasmuch as the operator may choose one of the above options to produce the well from the Dakota Producing Interval.

IT IS THEREFORE ORDERED:

(1) That the application of Caulkins Oil Company for permission to deepen its Well No. T-123, located in the NW/4 NE/4 of Section 7, Township 26 North, Range 6 West, NMPM, Rio Arriba County, New Mexico, and to complete said well in such a manner as to permit the injection of water into the Tocito formation and the production of gas from the Dakota Producing Interval through parallel strings of tubing be and the same is hereby denied.

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Case No. 1420

Order No. R-1191-B

(2) That the applicant be and the same is hereby authorized to complete the said Caulkins Well No. T-123 in accordance with any one of the following procedures:

(a) Complete the well as a single completion in the Tocito formation, utilizing it as a water injection well in said Tocito formation or as a producing well in said formation.

(b) Complete the well as a single completion in the Dakota Producing Interval, utilizing said well for the production of gas from the Dakota Producing Interval.

(c) Complete the well as a dual completion, utilizing said well to produce oil from the Tocito formation and to produce gas from the Dakota Producing Interval.

(3) That an unorthodox gas well location for said Caulkins Well No. T-123 in the Dakota Producing Interval be and the same is hereby approved.

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

**STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION**

**JOHN BURROUGHS, Chairman**

**MURRAY E. MORGAN, Member**

**S E A L**

**A. L. PORTER, Jr., Member & Secretary**

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BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE No. 2971  
Order No. R-1191-C

APPLICATION OF CAULKINS OIL COMPANY  
FOR UNORTHODOX LOCATIONS, DUAL COM-  
PLETIONS, AND EXPANSION OF A WATER-  
FLOOD PROJECT, RIO ARRIBA COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on  
January 22, 1964, at Santa Fe, New Mexico, before Examiner  
Elvis A. Utz.

NOW, on this 5th day of February, 1964, the Commission,  
a quorum being present, having considered the testimony, the  
record, and the recommendations of the Examiner, 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, Caulkins Oil Company, seeks expansion  
of the South Blanco Water Injection Project Area established  
by Rule 11(a)-1 of the Special Rules and Regulations for the  
South Blanco-Tocito Oil Pool promulgated by Order No. R-1191, as  
amended by Order No. R-1191-A, to include the NE/4 of Section 10,  
the N/2, E/2 SW/4 and SE/4 of Section 11, all of Section 12, the  
N/2 of Section 13, and the N/2 of Section 14, Township 26 North,  
Range 6 West, NMPM, Rio Arriba County, New Mexico.

(3) That since the issuance of Order No. R-1191-A, the  
Secretary-Director of the Commission has granted administrative  
approval of expansion of the project area to include the S/2 S/2  
of Section 5, Township 26 North, Range 6 West, NMPM, Rio Arriba  
County, New Mexico.

(4) That the applicant also seeks an exception to the  
Special Rules and Regulations for the South Blanco-Tocito Oil  
Pool to drill its Breech C Well No. D-189 at an unorthodox



location 1850 feet from the South line and 790 feet from the West line of said Section 12, and to drill its Breech C Well No. D-248 at an unorthodox location 1140 feet from the North line and 900 feet from the East line of said Section 13.

(5) That the applicant also seeks authority to complete its Breech C Well No. D-189 as a dual completion (conventional) to produce oil from the Tocito formation through 2 3/8-inch tubing and gas from the Dakota formation through 1 1/4-inch tubing, with separation of zones by a packer at approximately 7250 feet.

(6) That the applicant also seeks authority to complete its Breech C Well No. D-248 as a dual completion (conventional) to produce oil from the Tocito formation through 2 7/8-inch tubing and gas from the Dakota formation through the casing-tubing annulus by a crossover assembly with separation of zones by a packer at approximately 7200 feet.

(7) That the proposed expansion of the South Blanco Water Injection Project Area should result in increased ultimate recovery of oil, thereby preventing waste.

(8) That approval of the proposed unorthodox locations will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

(9) That the mechanics of the proposed dual completions are feasible and in accord with good conservation practices; that approval of the proposed dual completions will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That Rule 11(a)-1 of the Special Rules and Regulations for the South Blanco-Tocito Oil Pool promulgated by Order No. R-1191, as amended by Order No. R-1191-A, is hereby amended to read in its entirety as follows:

(a)-1. The project area shall comprise that area described as follows:

TOWNSHIP 26 NORTH, RANGE 6 WEST, NMPM

Section 3: S/2 SW/4  
Section 4: S/2  
Section 5: S/2 S/2  
Section 6: All  
Section 7: NE/4  
Section 8: N/2  
Section 9: N/2 and N/2 S/2  
Section 10: N/2, N/2 SW/4, and SE/4

CASE No. 2971  
Order No. R-1191-C

Section 11: All  
Section 12: All  
Section 13: N/2  
Section 14: N/2

(2) That the applicant is hereby granted an exception to the Special Rules and Regulations for the South Blanco-Tocito Oil Pool to drill its Breech C Well No. D-189 at an unorthodox location 1850 feet from the South line and 790 feet from the West line of Section 12, and to drill its Breech C Well No. D-248 at an unorthodox location 1140 feet from the North line and 900 feet from the East line of Section 13, Township 26 North, Range 6 West, NMPM, South Blanco-Tocito Oil Pool, Rio Arriba County, New Mexico.

(3) That the applicant is hereby authorized to complete its Breech C Well No. D-189 as a dual completion (conventional) to produce oil from the Tocito formation through 2 3/8-inch tubing and gas from the Dakota formation through 1 1/4-inch tubing, with separation of zones by a packer at approximately 7250 feet; that the applicant is hereby authorized to complete its Breech C Well No. D-248 as a dual completion (conventional) to produce oil from the Tocito formation through 2 7/8-inch tubing and gas from the Dakota formation through the casing-tubing annulus by a crossover assembly with separation of zones by a packer at approximately 7200 feet.

PROVIDED HOWEVER, That the applicant shall complete, operate, and produce said wells in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order.

PROVIDED FURTHER, That the applicant shall take packer-leakage tests upon completion and annually thereafter during the Deliverability Test Period for the Basin-Dakota Gas Pool.

(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.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

JACK M. CAMPBELL, Chairman

S E A L

E. S. WALKER, Member

esr/

A. L. PORTER, Jr., Member & Secretary

