

(SOUTH BLANCO-TOCITO POOL - Cont'd.)

Pool, except that credit for daily average net water injected into the Tociito 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:

$$E-g = (V-w \text{ inj} - V-w \text{ prod}) X$$

$$\frac{5.61 \text{ ft}^3 \times P-a \times 520 \text{ degrees}}{\text{bbl } 15.025 \times 625 \text{ degrees}} \times \frac{1}{Z}$$

where:

- E-g equals Average daily gas equivalent of net water injected
- V-w inj equals Average daily volume of water injected, barrels
- V-w prod equals Average daily volume of water produced, barrels
- P-a equals Average reservoir pressure at datum of -100 feet, psig / 11.5, as determined from most recent semi-annual survey.
- 15.025 equals Pressure base, psi
- 520 degrees equals Temperature base of 60 degrees F expressed as absolute temperature
- 625 degrees equals Reservoir temperature of 175 degrees F expressed as absolute temperature
- Z equals 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:

Well's  
 Adjusted equals (Top unit allowable X 2000) / gas  
 Allowable equivalent volume assigned to well  
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.

BISTI-LOWER GALLUP POOL  
 San Juan County, New Mexico

Order No. R-1069-B, Adopting Temporary Operating Rules for the Bisti-Lower Gallup Pool, San Juan County, New Mexico, January 17, 1958, as Amended by Order No. R-1069-F, June 1, 1973, and Order No. R-1069-G, March 23, 1976.

Order No. R-1069-D, February 2, 1959, makes permanent the rules adopted in Order No. R-1069-B.

Application of Sunray Mid-Continent Oil Company for an order extending the horizontal limits of the Bisti-Lower Gallup Oil Pool, in San Juan County, New Mexico, and temporarily establishing uniform 80-acre well spacing and promulgating special rules and regulations for said pool.

CASE NO. 1308  
 Order No. R-1069-B

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 o'clock a.m., on September 18, 1957, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," and that this cause came on for rehearing before the Commission, upon the petition of Sunray Mid-Continent Oil Company et al, at 9 o'clock a.m. on December 18, 1957 at Santa Fe, New Mexico.

NOW, on this 17th day of January, 1958, the Commission, a quorum being present, having considered the application, the petitions for rehearing, and the evidence adduced at both the original hearing and the rehearing 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 Order No. R-1069 should be superseded by this order.

(3) That the Commission found in Order No. R-1069 that "... the Commission should continue to follow its established policy of extending the horizontal limits of oil and gas pools in the State of New Mexico to include only such acreage as has been proven productive by actual drilling operations."

(4) That the petitioners on rehearing failed to show cause why the Commission should deviate from the aforementioned policy in the Bisti-Lower Gallup Oil Pool.

(5) That sufficient evidence was adduced by the petitioners on rehearing, in addition to the evidence adduced at the original hearing, to justify the establishment of 80-acre proration units in the Bisti-Lower Gallup Oil Pool on a temporary basis.

## (BISTI-LOWER GALLUP OIL POOL - Cont'd.)

(6) That 80-acre proration units should be temporarily established in the Bisti-Lower Gallup Oil Pool and that all wells drilled to or completed in said pool should be located on a unit containing 80 acres, more or less, which consists of either the North half or the South half on a single governmental quarter section; and further that all wells drilled in the Bisti-Lower Gallup Oil Pool should be located within 100 feet of the center of either quarter-quarter section; provided however, that the rules should not prohibit the drilling of a well on each of the quarter-quarter sections in an 80-acre proration unit.

(7) That the Secretary-Director of the Commission should have authority to grant exceptions to the foregoing spacing and well location requirements without the necessity of a formal hearing.

(8) That an 80-acre proration unit in the Bisti-Lower Gallup Oil Pool should be assigned an 80-acre proportional factor of two (2) for allowable purposes, and that in the event there is more than one well on an 80-acre proration unit, the operator should be permitted to produce the unit's allowable from said wells in any proportion.

(9) That any well which was projected to or completed in the Bisti-Lower Gallup Oil Pool prior to the effective date of this order should be granted an exception to the 80-acre spacing and well location requirements set forth above, and that any such excepted well should be assigned an allowable which is in the proportion to the standard 80-acre allowable that the well's dedicated acreage bears to 80-acres; provided, however, that the allowable for any such excepted well should be increased to that of a standard unit upon receipt by the Commission of proper notice that such well has 80 acres dedicated thereto.

IT IS THEREFORE ORDERED: (Temporary Order No. R-1069-B made permanent by Order No. 1069-E, February 2, 1959.)

(1) That Order No. R-1069 dated October 9, 1957, be and the same is hereby superseded by this order.

(2) That the application of Sunray Mid-Continent Oil Company to extend the horizontal limits of the Bisti-Lower Gallup Oil Pool to include acreage which has not been proven productive by actual drilling operations be and the same is hereby denied.

(3) That any well which was drilling to or completed in the Bisti-Lower Gallup Oil Pool prior to January 25, 1958, be and the same is hereby granted an exception to the well location requirements of Rule 3 of the Special Rules and Regulations for the Bisti-Lower Gallup Oil Pool hereinafter set forth, and that any such well which is located on a tract comprising either the North half or the South half of a governmental quarter section on which 80-acre unit there is located more than one well, be and the same is hereby granted an exception to the requirements of Rule 2 of the Special Rules and Regulations hereinafter set forth; further, that all such excepted wells shall be assigned an allowable effective at 7 o'clock a.m. Mountain Standard Time, March 1, 1958, which allowable shall bear the same proportion to the standard 80-acre allowable for the Bisti-Lower Gallup Oil Pool that the acreage dedicated to such well bears to 80 acres; provided however, that the allowable for any such excepted well may be increased to that of a standard 80-acre unit by the dedication to the well of additional acreage sufficient to constitute a standard 80-acre proration unit, said allowable to become effective on the date of receipt by the Commission of an amended Form C-128, Well Location and Acreage Dedication Plat, showing the increased acreage dedication. Provided however, that no well shall be assigned an 80-acre allowable in the Bisti-Lower Gallup Oil Pool prior to March 1, 1958.

(4) That the effective date of this order shall be March 1, 1958.

(5) (Rescinded by Order No. 1069-E, February 2, 1959) That this order shall be of no further force nor effect after February 28, 1959.

(6) That a case be called for the regular Commission hearing in January, 1959, to permit all interested parties to appear and show cause why the Special Rules and Regulations hereinafter set forth should be continued beyond February 28, 1959.

(7) That special pool rules for the Bisti-Lower Gallup Oil Pool be and the same are hereby promulgated as follows:

**SPECIAL RULES AND REGULATIONS  
FOR THE BISTI-LOWER GALLUP OIL POOL**

**RULE 1.** Any well projected to or completed in the Lower Gallup formation within one mile of the boundaries of the Bisti-Lower Gallup 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 Bisti-Lower Gallup Oil Pool shall be located on a unit containing 80 acres, more or less, which consists of either the North half or the South half of a single governmental quarter section.

**RULE 3.** (As Amended by Order No. R-1069-G, March 23, 1976.) All wells projected to or completed in the Bisti-Lower Gallup Oil Pool shall be located no closer than 330 feet to any quarter-quarter section boundary of the proration unit; provided however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each quarter-quarter section of the unit.

**RULE 4.** The Secretary-Director of the Commission may grant exceptions to the requirements of Rule 2 and, for topographical reasons only, to the requirements of Rule 3 above without notice and hearing where the application is filed in due form, provided the applicants furnish all operators within a 2640-foot radius of the subject well a copy of the application to the Commission, and provided further that the Secretary-Director of the Commission shall wait at least twenty days before approving any such application and that no such application shall be approved over the objection of an offset operator. In the event an offset operator objects to the application, the Commission shall consider the matter only after proper notice and hearing. The applicant shall include with his application a list of names and addresses of all the operators within the radius set forth above together with a stipulation that proper notice of the application has been given said operators.

**RULE 5.** An 80-acre proration unit in the Bisti-Lower Gallup Oil Pool shall be assigned an 80-acre proportional factor of two (2) for allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from said wells in any proportion.

**RULE 6.** (As Added by Order No. R-1069-F, June 1, 1973.) Any well in the Bisti-Lower Gallup Oil Pool with a gas-oil ratio of 50,000 cubic feet or more of gas per barrel of oil may have dedicated to it up to 320 acres.

**RULE 7.** (As Added by Order No. R-1069-F, June 1, 1973.) That the acreage dedicated under Rule 6 above shall be all or part of a single governmental half section.

**RULE 8.** (As Added by Order No. R-1069-F, June 1, 1973.) That acceptance of Commission Form C-102 by the Supervisor of the Aztec District office of the Commission shall constitute approval of the proration unit.

**RULE 9.** (As Added by Order No. R-1069-F, June 1, 1973.) That wells in the Bisti-Lower Gallup Oil Pool shall be permitted to produce a casinghead gas allowable obtained by multiplying the top unit oil allowable for the pool by 2000 and by a fraction, the numerator of which is the number of acres dedicated to the particular well and the denominator of which is 80.

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