

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 ON ITS MOTION TO AMEND  
THE SPECIAL POOL RULES FOR THE  
WEST LINDRITH GALLUP-DAKOTA OIL  
POOL, RIO ARRIBA AND SANDOVAL  
COUNTIES, NEW MEXICO;

CASE NO. 9226  
CASE NO. 9227  
Order No. R-4314-A

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION ON ITS MOTION TO AMEND  
THE SPECIAL POOL RULES FOR THE  
GAVILAN-MANCOS OIL POOL, RIO  
ARRIBA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

These consolidated cases came on for hearing at 9:00 a.m. on November 19, 1987, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 7th day of January, 1988, 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 THAT:

(1) Due public notice having been given as required by law, the Commission has jurisdiction of these causes, the parties and the subject matter thereof.

(2) In Case 9226 the Oil Conservation Division on its own motion seeks to amend the Special Pool Rules for the West Lindrith Gallup-Dakota Oil Pool in Rio Arriba and Sandoval Counties, New Mexico, as promulgated by Division Order No. R-4314, to reconsider the well location requirements poolwide, to restate the allowable in the pool

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to reflect the daily oil allowable for a 160-acre unit in the depth range of this pool to 382 BOPD as promulgated by Division General Rule 505, and to create a buffer zone in those sections that adjoin the Gavilan-Mancos Oil Pool to the east (Sections 1, 12, 13, 24, 25 and 36, Township 25 North, Range 3 West, Rio Arriba County) with any additional provisions which may be necessary and/or advisable to protect correlative rights along the common boundary of the two pools.

(3) In Case 9227 the Oil Conservation Division seeks on its own motion to amend the Special Pool Rules for the Gavilan-Mancos Oil Pool in Rio Arriba County, New Mexico, as promulgated by Division Order No. R-7407, as amended, to create a buffer zone utilizing those existing proration units in Sections 5, 6, 7, 8, 17, 18, 19, 20, 29, 30, 31, and 32, Township 25 North, Range 2 West, that adjoin the West Lindrith Gallup-Dakota Oil Pool with any additional provisions which may be necessary and/or advisable to protect correlative rights along the common boundary of the two pools.

(4) On June 27, 1987, by Order R-8188-A, the Commission formed the Northeast Ojito Gallup-Dakota Oil Pool out of the Ojito Gallup-Dakota Oil Pool so that the southern boundary of the Northeast Ojito Gallup-Dakota Oil Pool was contiguous with part of the northern boundary of the Ojito Gallup-Dakota Oil Pool.

(5) By Order R-8544, entered on November 19, 1987, the Commission in Case 9228 abolished the Ojito Gallup-Dakota Oil Pool which had been spaced on 40-acre statewide spacing and proration units and extended the West Lindrith Gallup-Dakota Oil Pool which is spaced on 160-acre spacing and proration units and now adjoins the Northeast Ojito Gallup-Dakota Oil Pool.

(6) As a result of the entry of Order R-8544, the West Lindrith Gallup-Dakota Oil Pool was expanded so that its eastern boundary became contiguous with the western boundary of the Gavilan-Mancos Oil Pool which has special pool rules, including restricted allowables, 640-acre spacing and well locations no closer than 790 feet to the outer boundary of a spacing and proration unit.

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(7) Geologic testimony and evidence indicate that while the Mancos formation in the western portion of the Gavilan-Mancos Oil Pool is in fact the same common source of supply as the Gallup formation in the West Lindrith and Northeast Ojito Pools, the quality and intensity of the fracture system in the Gavilan-Mancos Oil Pool diminishes to the west indicating that production in West Lindrith Pool may be less enhanced by natural fracturing.

(8) The engineering evidence indicated producing characteristics between typical wells in each pool are such that differences in allowables for wells in the respective pools will not cause violation of correlative rights.

(9) Present data is insufficient to determine if future wells drilled in the West Lindrith boundary area will be capable of draining any portion of the Gavilan-Mancos Oil Pool.

(10) The 160-acre gas limit for West Lindrith covers both Gallup (Mancos) and Dakota production and is 764 MCF (4.775 MCF/per acre) per day while the 640-acre gas limit for Gavilan, which covers Mancos only, is 480 MCF (0.75 MCF per acre) per day creating a difference in gas limits between the two pools of 2576 MCF (4.025 MCF per acre) per day per 640-acre tract.

(11) The testimony indicated there are no wells currently producing in the West Lindrith Pool boundary area that are capable of producing a 160-acre gas limit, however the area is sparsely developed at this time.

(12) Among the issues to be considered by the Commission was the creation of a buffer zone between the two pools and the adoption of a buffer gas allowable for those spacing units in each pool within approximately one-half mile of the common boundary.

(13) Average production per well in both West Lindrith and Gavilan Pools are well below the top allowable rate but individual well production varies greatly and the area of the common boundary is still under development.

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(14) At least one well in the proposed Gavilan Mancos Buffer Zone area is capable of producing in excess of the current top allowable and an increased allowable in the Gavilan boundary area may result in a violation of correlative rights within the Gavilan-Mancos Oil Pool.

(15) Although the Dakota formation is produced in conjunction with the Gallup formation throughout the West Lindrith Pool and contributes significant production in part of the West Lindrith Pool, testing to date of the Dakota formation in the boundary area of both pools indicates that the Dakota formation in the boundary area is of marginal productivity and therefore the Gallup section provides the majority of oil and gas production.

(16) The difference in gas limits between West Lindrith Pool and Gavilan-Mancos Pool currently has no adverse effect on correlative rights across the common pool boundary because there are no wells in the West Lindrith boundary area that are capable of producing the gas limit rate; however, the potential for disparate withdrawals exists for future wells.

(17) The evidence shows that no adjustment to allowables is necessary at this time but provisions should be made for timely adjustments in allowables should future development so warrant.

(18) Because of the fact that the source of supply in the Gallup (Mancos) formation is common between West Lindrith, Northeast Ojito and Gavilan and there is a large disparity in per-acre allowables between Gavilan on the one hand and West Lindrith and Northeast Ojito on the other hand, and further because the location requirements for wells in West Lindrith differs from that in both Gavilan and Northeast Ojito, and in fact all other 160-acre spaced pools in this area, it is necessary, in order to prevent waste and protect correlative rights, to formulate special rules for any West Lindrith well to be drilled within a one-half mile pool boundary area which rules should include the following:

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(a) That no well completed or recompleted in the West Lindrith Pool shall be drilled closer than 790 feet to the pool boundary unless there is a direct producing offset well located closer than 790 feet.

(b) Should any West Lindrith well in the one-half mile buffer area adjacent to Gavilan be capable of producing at per-acre rates comparable to Gavilan Mancos top allowable wells, the production from said well shall be presumed to be from the Gallup interval unless the operator of said well performs testing to establish the relative contributions of the Gallup and Dakota intervals. Should the district supervisor find that producing rates from the Gallup interval in said well will adversely affect correlative rights across the common pool boundary, or cause waste, the Division may establish a reduced allowable in said well to protect correlative rights or prevent waste until the Division, after notice and hearing on the earliest docket date, acts to establish an appropriate allowable for the well or for all wells in the one-half mile buffer area. Such reduced allowable shall be no less than the average per acre gas limit for the two pools, currently  $\frac{1}{2} (4.775 + 0.75) = 2.7625$  MCFPD per acre.

(19) Rule 6 of the special pool rules for the West Lindrith Gallup-Dakota Oil Pool should be restated to assign the depth bracket allowable at 382 barrels of oil to a standard 160-acre proration unit in accordance with current General Rule 505.

(20) The application in Case 9227 should be dismissed without prejudice.

IT IS THEREFORE ORDERED THAT:

(1) The application in Case 9227 is dismissed without prejudice.

(2) Effective January 1, 1988, the Special Rules for the West Lindrith Gallup-Dakota Oil Pool, Rio Arriba County, New Mexico, are hereby amended to read as follows:

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SPECIAL RULES FOR THE  
WEST LINDRITH GALLUP-DAKOTA OIL POOL

RULE 1. Each well completed or recompleted in the West Lindrith Gallup-Dakota Oil Pool or within one mile thereof and not closer to another Gallup-Dakota pool shall be spaced, drilled, operated, and produced in accordance with the Special Rules hereinafter set forth.

RULE 2. Each well shall be located on a standard unit containing 160 acres, more or less, substantially in the form of a square, which is a quarter-section being a legal subdivision of the United States Public Land Surveys.

RULE 3. The Director of the Division 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 consisting of less than 160 acres or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. 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 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 30 days after the Director has received the application.

RULE 4. Each well shall be located no nearer than 330 feet to the outer boundary of the proration unit or to any governmental quarter-quarter section line nor nearer than 660 feet to the nearest well drilling to or capable of producing from the same pool; provided however,

a. A boundary area is hereby created consisting of a band one-half mile wide extending from the pool boundary to a line one-half mile inside said boundary.

b. No well completed or recompleted in said boundary area shall be drilled closer than 790 feet to the pool boundary nor closer than 130 feet to the interior quarter-quarter section line unless a direct

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offset producing well is located closer than 790 feet to the pool boundary in which case the West Lindrith Well could be drilled as close to the boundary as the offset well.

c. No well completed or recompleted in the Gallup-Dakota interval outside but within one mile of the West Lindrith pool boundary and not within a mile of another pool containing the same, or part of the same, vertical interval shall be drilled closer than 790 feet to the quarter-section line nor closer than 130 feet to the interior quarter-quarter section line.

d. Any well which on the effective date of this order is completed in or drilling to the West Lindrith Gallup-Dakota Oil Pool at an unorthodox location under these rules is hereby granted an exception thereto.

RULE 5. The Director 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 or the recompletion of a well previously drilled to another horizon. 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 Director may approve the application upon receipt of written waivers or if no objection to the unorthodox location has been entered within 20 days after the Director has received the application.

RULE 6. A standard proration unit (158 through 162 acres) shall be assigned a depth bracket allowable of 382 barrels of oil per day and in the event there is more than one well on a 160-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 160 acres.

RULE 7. The limiting gas-oil ratio for the West Lindrith Gallup-Dakota Oil Pool shall be 2000 cubic feet of gas per barrel of oil produced.

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RULE 8. a. In the event any West Lindrith well located in the boundary area described in rule 4(a) above offsets the Gavilan-Mancos Pool, the production from said well shall be presumed to be entirely from the Gallup (Mancos) interval unless the operator of said well demonstrates through testing to the satisfaction of the Division's district supervisor the proportional contributions of the Gallup and Dakota intervals.

b. In the event a well drilled in the boundary area offsetting the Gavilan-Mancos Pool indicates the capacity to produce at rates greater on a per-acre basis than the top allowable rates of a Gavilan-Mancos well the Division is hereby authorized to reduce the gas limit of said well to a rate which will protect correlative rights or prevent waste which limit shall continue in effect until the Division, after notice and hearing at the earliest hearing docket thereafter, enters an order establishing an appropriate allowable for said well or for all wells in said portion of the boundary area. Said interim gas limit shall not be less than the average of the per-acre gas limits of the Gavilan Mancos and West Lindrith Pools which currently is  $\frac{1}{2} (4.775 + 0.75) = 2.7625$  MCFPD per acre.

IT IS FURTHER ORDERED THAT:

(3) The locations of all wells presently drilling to or completed in the West Lindrith Gallup-Dakota Oil Pool are hereby approved; the operator of any well having an unorthodox location shall notify the Aztec District Office of the Division in writing of the name and location of the well on or before February 1, 1988.

(4) Pursuant to Section 70-2-18 contained in Chapter 271, Laws of 1969, existing wells in the West Lindrith Gallup-Dakota Oil Pool shall have dedicated thereto 160 acres in accordance with the foregoing pool 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.



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Failure to file new Forms C-102 with the Division dedicating 160 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this order shall subject the well to cancellation of allowable. Until said Form C-102 has been filed or until a non-standard unit has been approved, and subject to said 60-day limitation, each well presently drilling to or completed in the West Lindrith Gallup-Dakota Oil Pool shall receive no more than one-fourth of a standard allowable for the pool.

(5) 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.

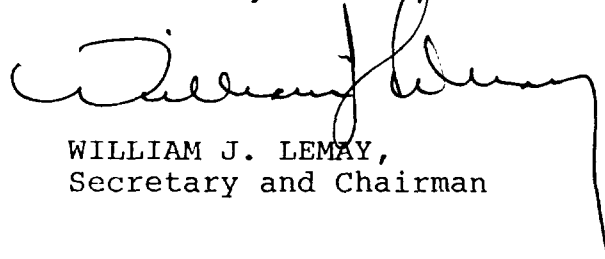
STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION



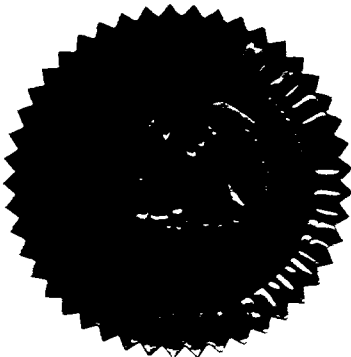
WILLIAM R. HUMPHRIES, Member



ERLING A. BROSTUEN, Member



WILLIAM J. LEMAY,  
Secretary and Chairman



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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 ON  
ITS OWN MOTION TO AMEND THE SPECIAL POOL  
RULES FOR THE WEST LINDRITH GALLUP-  
DAKOTA OIL POOL, RIO ARRIBA AND  
SANDOVAL COUNTIES, NEW MEXICO;

CASE NO. 9226  
CASE NO. 9227  
ORDER NO. R-4314-A-1

IN THE MATTER OF THE HEARING CALLED  
BY THE OIL CONSERVATION DIVISION ON  
ITS OWN MOTION TO AMEND THE SPECIAL POOL  
RULES FOR THE GAVILAN-MANCOS OIL POOL,  
RIO ARRIBA COUNTY, NEW MEXICO.

NUNC PRO TUNC ORDER

BY THE COMMISSION:

It appearing to the Commission that due to clerical error and inadvertence, Order No. R-4314-A, dated January 7, 1988, does not correctly state the intended order of the Commission:

IT IS THEREFORE ORDERED THAT:

(1) The title portion of the order is corrected to read "ORDER OF THE COMMISSION" and "BY THE COMMISSION."

(2) All references to "Order No. R-4214-A" made in the heading on pages 2 through 9 of said Order No. R-4314-A, are hereby corrected to read "Order No. R-4314-A."

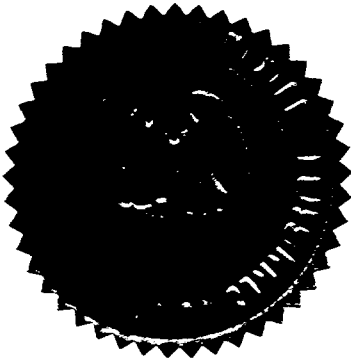
(3) The introductory portion of decretory paragraph No. (2) of said Order No. R-4314-A be and the same is hereby amended to read in its entirety as follows:

"(2) Effective January 1, 1988, Order No. R-4314, dated May 31, 1972 is hereby rescinded and the Special Rules and Regulations for the West Lindrith Gallup-Dakota Oil Pool, Rio Arriba County, New Mexico, are hereby promulgated, to read in their entirety, as follows:"

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(4) The corrections set forth in this order be entered nunc pro tunc as of January 7, 1988.

DONE at Santa Fe, New Mexico, on this 26th day of January, 1988.



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STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

A handwritten signature in dark ink, appearing to read "W.R. Humphries".

WILLIAM R. HUMPHRIES, Member

A handwritten signature in dark ink, appearing to read "Erling A. Brostuen".

ERLING A. BROSTUEN, Member

A handwritten signature in dark ink, appearing to read "William J. Lemay".

WILLIAM J. LEMAY, Chairman and  
Secretary