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October 23, 1984

RECEIVED

OCT 23 1984

OIL CONSERVATION DIVISION

HAND-DELIVERED

Mr. Richard Stamets
Acting Director
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

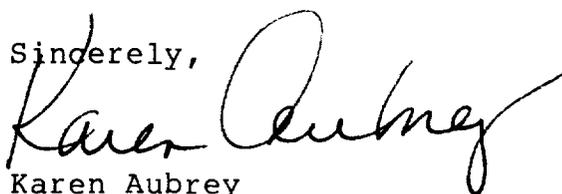
Re: Case No. 8350

Dear Mr. Stamets:

On October 19, 1984, our office transmitted a proposed Order to you on behalf of Jerome P. McHugh, in the above entitled matter. Since that time we have noticed some typographical errors in the Order, and are including for you a revised proposed Order correcting those errors.

If you have any questions about this matter, please don't hesitate to call me.

Sincerely,



Karen Aubrey

KA:mh

Enclosure

cc: Tommy Roberts, Esq.
Post Office Box 208
Farmington, New Mexico 87499

Jason Kellahin
W. Thomas Kellahin
Karen Aubrey

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OIL CONSERVATION DIVISION

Mr. Richard L. Stamets
Acting Director
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

"Hand Delivered"

Re: Application of Jerome P. McHugh
for Creation of a new oil pool
in the Gavilan-Dakota on 320-
acre spacing.

Case 8350

Mesa Grande Resources
application for creation of a
new oil pool in the Gavilan-
Dakota on 160 acre spacing.

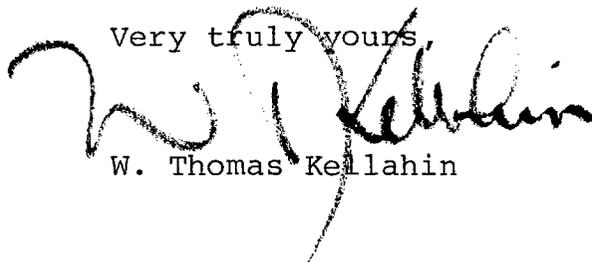
Case 8286

Dear Mr. Stamets:

On behalf of Jerome P. McHugh, please find
enclosed:

- (1) Memorandum of Jerome P. McHugh in support of
temporary 320-acre spacing in the Gavilan
Dakota Pool.
- (2) Proposed Order granting the Jerome P. McHugh
application in case 8350.
- (3) Proposed Order denying Mesa Grande Resources
application in Case 8286.

Very truly yours,



W. Thomas Kellahin

WTK:ca
Enc.

KELLAHIN and KELLAHIN

Mr. Richard L. Stamets
October 19, 1984
Page 2

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Aztec, New Mexico 87410

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Campbell & Black
P. O. Box 2208
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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION COMMISSION

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OCT 19 1984

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

OIL CONSERVATION DIVISION

APPLICATION OF JEROME P. MCHUGH
FOR THE CREATION OF A NEW OIL POOL
AND SPECIAL POOL RULES INCLUDING
320-ACRE SPACING, RIO ARRIBA
COUNTY, NEW MEXICO.

CASE: 8350

APPLICATION OF MESA GRANDE RESOURCE,
INC. FOR THE CREATION OF A NEW OIL
POOL AND SPECIAL POOL RULES INCLUDING
160-ACRE SPACING, RIO ARRIBA COUNTY,
NEW MEXICO.

CASE: 8286

MEMORANDUM OF JEROME P. MCHUGH

On September 20, 1984, the New Mexico Oil Conservation Commission heard the application of Jerome P. McHugh in Case 8350 for 320-acre Dakota-Greenhorn-Graneros Oil Pool Spacing, and also heard the application of Mesa Grande Resources in Case 8286 to space the same zones in a similar area on 160-acre spacing.

For purposes of this Memorandum, the Gavilan-Mancos Oil Pool will be referred to as the Mancos Pool and the proposed Gavilan-Dakota-Greenhorn-Graneros Oil Pool will be referred to as the Dakota Pool.

During the course of the hearing and at its conclusion it became apparent that there were three fundamental issues involved in these cases that required additional comment and consideration:

(1) Can the Commission establish temporary spacing for a pool based upon economic justification without having substantial evidence as to what is the proper drainage area per well?

(2) Can the Commission enter an order for the Gavilan-Dakota-Greenhorn-Graneros Pool (deep pool) that includes provisions to protect the correlative rights of owners in the Gavilan-Mancos Pool (the shallow pool)?

(3) Will the entry of an order establishing temporary 320-acre spacing and proration units that also includes a provision for "infill drilling" adversely affect correlative rights?

FACTUAL BACKGROUND:

The uncontested facts presented at the hearing of September 20, 1984, established:

(1) That the Mancos Pool is the primary oil producing pool in the area and that wells completed in that pool are now spaced for a temporary period on 320 acre spacing and proration units.

(2) That the Dakota Pool is below the Mancos Pool and is of such generally poorer quality it can not economically be developed by a well completed only in the Dakota.

(3) That the shallower Mancos Pool is fractured to the extent that ultimate recoveries could be influenced by each well that penetrates the Mancos Pool in order to develop the deeper Dakota Pool.

The contested evidence was:

(1) Jerome P. McHugh presented evidence:

(a) That there had been some 12 wells completed in the Dakota formation and that the majority of data from these completions indicate that it is uneconomic to drill those wells unless they are produced simultaneously with the Mancos Pool.

(b) That the Dakota wells had to be drilled on 320-acre units common with the Mancos Spacing Unit so that the additional cost from the base of the Mancos Pool to the Dakota could be considered as incremental costs by the working interest owners;

(c) That the Dakota wells would not be economic, even considering only incrementally costs, unless they were produced as downhole commingled wells with the Mancos Pool production.

2. Mesa Grande presented evidence:

(a) That based upon a very short flow test on its one well and a very short-term test (ignoring later, longer term and substantially lower-rate tests) in one well operated by Northwest Exploration, both in the Dakota, they believed that they could produce the Dakota when dually completed with the Mancos;

(b) That it is economic to develop the Dakota with the use of an "infill-well provision" when the first well is dualled with the Mancos and the second well is a single Dakota completion.

ISSUE: (1) THE COMMISSION CAN ESTABLISH TEMPORARY SPACING BASED UPON ECONOMIC JUSTIFICATION.

The New Mexico Oil Conservation Commission, and the Division have two fundamental powers and duties: the prevention of waste and the protection of correlative rights. Of these the paramount duty is the prevention of waste, but in doing so the Commission must protect correlative rights. Continental Oil Company v. Oil Conservation Commission, 70 N.M. 310, 373 P.2D 809 (1962); El Paso Natural Gas Company v. Oil Conservation Commission, 76 N.M. 268, 414 P.2d 496 (1966); Sec. 70-2-11, NMSA.

The Commission has broad authority to establish spacing and proration units, and if supported by substantial evidence orders establishing such units will

not be disturbed. Rutter & Wilbanks v. Oil Conservation Commission, 87 N.M. 286, 532 P.2d 582 (1975). Sec. 70-2-12 (10), NMSA (1978) gives the Commission power to fix the spacing of wells and the establishment of proration units is authorized in Sec. 70-2-17 NMSA (1978). This latter section authorized the Commission to "establish a proration unit for each pool, such being the area that can be efficiently and economically drained and developed by one well." (Emphasis supplied).

Williams and Meyers, Oil and Gas Terms, 265, defines "underground waste" as including the "locating, spacing, drilling, equipping or producing of any well or wells in a manner to reduce or tend to reduce the total quantity of oil or casinghead gas ultimately recoverable from any pool." (Emphasis supplied).

In discussing the problems of close vs. wide spacing, the Research and Coordinating Committee, Interstate Oil Compact Commission, in its No. X. Interstate Compact Quarterly Bulletin (Sept. 1951) pointed out that wide spacing is justified in numerous instances. Two of these instances were listed as:

(3) When thin pays indicate low ultimate reservoir recoveries, and close drilling is not economically justifiable.

(4) When deep pays result in high drilling and high operating costs per well, requiring a greater return per well to insure reasonable returns on investments.

We are not confronted in this case with the classic spacing case, where the determination is what area the well will drain and develop. Rather we are confronted with the situation contemplated by the statute under which the Division operates which requires it to determine the area that can be "efficiently and economically drained and developed by one well. (Emphasis supplied).

As stated in No. X Interstate Oil Compact Quarterly Bulletin (Sept. 1951), supra,:

" . . .dictates of economics, influenced at times by those of expediency are, and properly should be, the most important influences in fixing spacing or density in any field...."

The Oklahoma Supreme Court recognized the importance of economics in Kuykendall et al., v. Corporation Commission, et al., 634 P.2d 711, 71 O.&G.Rptr. 364 (1981), upholding an Oklahoma Corporation Commission spacing order based solely on a change in economic conditions, without regard to any change of knowledge as to reservoir conditions.

Thus, the New Mexico Oil Conservation Commission not only can, but must, base pool spacing upon economic justification.

While there is a conflict in the evidence between Jerome P. McHugh and Mesa Grande concerning the number of wells that can be economically drilled within a section,

the substantial evidence was in support of Jerome P. McHugh and showed that no adverse impact would occur to Mesa Grande if, for a temporary period, the well spacing was 320-acres as requested by Jerome P. McHugh.

ISSUE: (2) WHEN CREATING POOL RULES FOR TWO SEPARATE POOLS WITHIN A COMMON WELLBORE, THE COMMISSION, IN ORDER TO PREVENT WASTE, MUST CREATE RULES THAT PROTECT THE PRIMARY PRODUCING POOL DURING THE DEVELOPMENT AND OPERATION OF THE POOL OF SECONDARY INTEREST.

It is uncontested that the Mancos Oil Pool is the primary producing pool in the area. It is uncontested that below the Mancos is the Dakota, Greenhorn, Carlisle, and Graneros pool, which generally is a poor quality and low productivity pool in the area of interest.

By Order R-7407, the Commission established for a temporary period, well spacing of 320-acres per well in the Mancos Pool.

The Dakota Pool cannot be developed with single Dakota wells, no matter what the spacing is, but must be developed in conjunction with the development of the Mancos in order to be economic.

The spacing in the Dakota Pool must be on a well spacing pattern consistent with the Mancos Pool to avoid a subversion of the Mancos Pool Rules.

The subversion can best be explained with the following example:

The ownership of the N/2 of a Section is divided so that the NE/4 is owned by Sammy Smith and the NW/4 is owned by Johnny Jones. All acreage surrounding the N/2 of this section is owned by I. Ben Had who has drilled all his acreage with Mancos wells spaced on 320 acres. Mancos is spaced on 320. Dakota is spaced on 160.

Smith and Jones put the N/2 together and drill a Mancos and Dakota well in the NW/4 and dedicate the 320-acres to that well in the Mancos and 160 in NW/4 to Dakota. Later, Smith decides to drill a Dakota well in the NW/4. The well is uneconomic in the Dakota but is excellent in the Mancos. Smith appeals the NMOCD for a non-standard proration unit of 160 acres in the Mancos to avert his economic disaster in the Dakota. Jones and Ben object. The Division permits the requested recompletion in the Mancos and simultaneously dedicates the N/2 to both wells with production limited only by the depth bracket allowed for a 320-acres unit which would be 747 barrels oil per day, a rate that will likely exceed the sustained productivity of any one well but would permit the production of two wells. Smith and Jones get to produce the same reserves in the Mancos at a greater rate than Ben and likely

will violate Ben's correlative rights and ultimately force the drilling of offset productive wells on Ben's leases..

Had the Dakota been spaced on 320-acres then the adverse affect on Ben would not have occurred.

The foregoing demonstrates the soundness of the Commissions' well established practice of preferring to initially space pools on wider well spacing rather than smaller well spacing. The reasonableness of this practice can be seen in the method the Commission has administered the deep gas formations in Southeastern New Mexico. That practice has been to space the deep gas formations on 320-acres and not to create differing spacing patterns for the Pennsylvanian pool formations.

However, we occasionally see this type of problem occur when a Devonian oil well is drilled on 40 acres location and is dry and the operator applies to recomplete in the Morrow at an unorthodox location. It is difficult to deny that type of case after the well has been drilled. It is just that type of problem Jerome P. McHugh seeks to avoid in this case.

Where the Commission can, it ought to avoid placing itself in the difficult position that Mesa Grande desires the Commission to be placed.

In order to preserve the integrity of the shallower, more productive Mancos Pool, pool rules must be

incorporated into the pool of secondary interest (Dakota). Because of the fractured nature of the Mancos Pool, extensive damage to the Mancos Pool is likely to occur upon drilling through the Mancos unless precautions are taken to protect the Mancos.

Should development of the Dakota be attempted with wellbores not common with Mancos development, then the risk of damage to the Mancos is increased because of the difficulty of properly cementing the Dakota development well in the Mancos Pool. This damage, in the form of mud and cement invasion of the natural Mancos fractures, will likely result in reduced oil recoveries from the Mancos. The risk can possibly result in the total loss of existing Mancos production should communication be established between the drilling well and the existing Mancos producing wells. With continued production, this problem becomes more serious as reservoir pressure declines in the Mancos. There is nothing in the record of these cases that justifies the Commission to expose the Mancos operators to this unusual risk.

Thus the Commission must enter an order for the Dakota Pool that includes provisions to protect the correlative rights of the owners in the Mancos Pool which could be violated upon penetration of the Mancos Pool.

ISSUE: (3) THE ENTRY OF AN ORDER FOR 320-ACRE SPACING THAT INCLUDES AN "INFILL DRILLING PROVISION" WILL ADVERSELY AFFECT CORRELATIVE RIGHTS.

Mesa Grande urges the Commission to allow infill drilling upon the establishment of the Dakota Pool on 320-acre spacing. Such a provision will violate the correlative rights of Jerome P. McHugh.

If there is substantial evidence, as Jerome P. McHugh contends, to support temporary spacing units common with the Mancos, (currently 320-acre) then the inclusion of an infill drilling provision at this time will simply result in defacto 160-acre spacing as requested by Mesa Grande. Until additional reservoir data is developed it is premature to consider an infill provision. The use of "infill provision" in this case as a possible resolution to the dispute between Jerome P. McHugh and Mesa Grande, is no just solution at all.

The area to be included within this pool is substantially federal minerals. It is undisputed that the Bureau of Land Management has in the past and will in the future demand that operators of acreage offsetting "infill wells" drill offsetting "infill wells." This is a graphic example of how the spacing will be reduced to 160 acre spacing by the use of an infill provision and in total disregard of what may be in the best interests of all operators and of the use of sound conservation practices.

Historically, the Commission has resorted to an "infill provision" only after a considerable number of years of production history from the affected pools. Well spacing in the Basin Dakota Pool was established on 320-acre spacing by Order R-1670-C in October, 1960. Some 19 years later, in May, 1979, after public hearing, the Division entered an Infill Order R-1670-V for this pool allowing a second well on the 320-acres spacing and proration unit. In the Blanco Mesa Verde Pool, well spacing was set at 320-acres in May, 1960. Some 14 years later, in Order R-1670-T entered November, 1974, the Commission allowed infill drilling.

The use of an infill provision is an excellent method of changing the effective spacing in a pool and at the same time protecting correlative rights. See, Catclaw Draw Morrow Order R-4157-D, effective September 1, 1981. However, it should be used only after the operators of the wells in the pool have had a reasonable opportunity to develop additional reservoir and economic data. Jerome P. McHugh contends that an acceptable minimum time may occur only after three years of production on 320 acre spacing.

CONCLUSION

Jerome P. McHugh urges the Oil Conservation Commission to adopt temporary spacing and proration units

for the Gavilan-Dakota Pool on 320-acre units consistent with the spacing in the Gavilan-Mancos Pool.

The dictates of conservation and economics will be fully served if this pool is originally developed on wide spacing patterns to determine the pool limits and the reservoir and fluid characteristics. If the wide pattern development proves to be inadequate at a later time, then additional infills wells can be drilled where necessary to adequately drain the reservoir in an economic manner.

The reasonableness of the Commission's reliance on wide spacing versus closer spacing when initially establishing pool rules has withstood the test of time.

Mesa Grande erroneously argues that the Commission should allow the smallest spacing pattern, i.e., 160-acres, that an operator is willing to venture and spend his money to drill. Such an argument ignores some forty years of conservation practice in New Mexico and would unreasonably impose a "Rule of Capture" upon the other operators in this pool and will likely result in a reduction of the recoveries in the shallower and more significant Mancos Pool.

Jerome P. McHugh respectfully requests that the Commission establish 320 acre spacing units with no option

to infill for a temporary period corresponding to Mancos Pool in order to avoid the drilling of unnecessary and uneconomic wells.

Kellahin & Kellahin

A handwritten signature in black ink, appearing to read 'W. Thomas Kellahin', written over a horizontal line.

By

W. Thomas Kellahin
P. O. Box 2265
Santa Fe, NM 87501

Attorneys for Applicant

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION COMMISSION

RECEIVED
OCT 19 1984
OIL CONSERVATION DIVISION

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

CASE NO. 8350
ORDER R-
NOMENCLATURE

APPLICATION OF JEROME P. MCHUGH
FOR THE CREATION OF A NEW OIL POOL
AND SPECIAL POOL RULES, RIO ARRIBA
COUNTY, NEW MEXICO.

JEROME P. MCHUGH PROPOSED
ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 20, 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 October, 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, Jerome P. McHugh, seeks an order creating a new oil pool, with vertical limits to be from the base of the Gavilan-Mancos Oil Pool to the base of the Dakota formation, with special pool rules including a provision for temporary 320-acre spacing and proration units, Rio Arriba County, New Mexico.

Case No. 8350
Order No. R-

(3) That in a companion Case 8286, Mesa Grande Resources, Inc., seeks an order creating a new oil pool for a similar area with similar vertical limits and the promulgation of special pool rules, including a provision for 160-acres spacing, Rio Arriba County, New Mexico.

(4) That Cases 8286 and 8350 were consolidated for the purposes of obtaining testimony.

(5) That Jerome P. McHugh either individually or jointly with Dugan Production Corporation has leasehold interest in 4397.89 acres representing approximately 37% of the acreage within the proposed pool boundaries.

(6) That Jerome P. McHugh is the operator of 6 of the 12 completion attempts in the proposed pool and either individually or jointly with Dugan Production Corporation has a working interest in all 12 completion attempts in the proposed pool.

(7) That Jerome P. McHugh is the operator of 100% of the existing production from the proposed pool.

(8) That, to date, 12 completion attempts have been made within the Gavilan Area (11 within the proposed pool boundary), all located within the boundaries of the Basin Dakota Gas Pool. Based upon completion testing and early production performance it is indicated that the Dakota formation within the pool boundary is productive primarily of oil, thereby necessitating deletion from the Basin Dakota Gas Pool and the creation of special pool rules.

(9) That available geological data indicates that the proposed Dakota pool has similar structural features as does the Gavilan Mancos Pool.

(10) That the relative permeability is nearly non-existent because the matrix permeability of the Dakota is very low and the primary reservoir fluid is oil. Productivity of the Dakota formation is enhanced by natural fracturing.

(11) That Carlisle, Greenhorn, Graneros and Dakota formations of the proposed pool are correlative well to well within the pool boundary.

Case No. 8350

Order No. R-

(12) That average development well cost in the Gavilan area for 19 wells is \$607,984.00.

(13) That Dugan Production Corporation, and Southland Royalty Company, as operators and joint interest owners in existing wells within the pool boundary, support the position of Jerome P. McHugh.

(14) That Amoco Production Company, Merrion Oil and Gas Corporation and Benson Montin-Greer Drilling Corporation, as holders of leases within the area immediately adjacent to the proposed pool, support the position of Jerome P. McHugh.

(15) That the Gavilan Mancos oil pool is adjacent to and above the proposed pool and is the pool of primary interest with respect to ultimate recoveries of oil and gas. The fractured nature of the Mancos makes it susceptible to damage during the drilling and cementing of Dakota pool development wells. The damage to the Gavilan Mancos pool may result in a substantial reduction of the ultimate recovery of hydrocarbons from the Mancos.

(16) That geological information and production data including bottom hole pressure tests indicated that a well in the Gavilan Greenhorn-Graneros-Dakota Oil Pool should be capable of producing only marginal quantities of oil and gas from the Dakota formation of said pool.

(17) That geological information and production data from the Greenhorn-Graneros and Dakota formations indicate that these zones are marginal in nature and will not support the drilling of a well to produce these zones only.

(18) Mesa Grande Resources, Inc., presented computer reservoir model results which incorporated data from the West Lindrith Dakota Pool and was used to predict performance of a Dakota completion in the Gavilan area utilizing short term tests taken during the completion on 2 wells, disregarding additional test data on one of the wells as well as data available from 10 other wells in the Gavilan area.

(19) That the Mesa Grande Resources, Inc's., evidence is not representative of a typical Dakota, Greenhorn, Graneros completion based upon the available data and is inconclusive in determining if one well can economically and efficiently drain 160 acres or 320 acres.

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(20) That Jerome P. McHugh presented evidence that the only economic, effective and efficient method of producing the subject pool was downhole commingled with production from the Gavilan Mancos Oil Pool.

(21) That the Gavilan Mancos Oil Pool is currently spaced on 320-acre spacing and proration units for a temporary period expiring March 1, 1987, pursuant to Commission Order R-7407.

(22) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to prevent reduced recovery of hydrocarbons from the Mancos which is likely to result from drilling Dakota-Greenhorn-Graneros development wells separate from Mancos development wells, and to otherwise prevent waste and protect correlative rights, the Gavilan Greenhorn-Graneros-Dakota Oil Pool should be created with temporary Special Rules providing for 320-acre spacing and proration units consistent with the provisions of Commission Order R-7407.

(23) That the vertical limits of the Gavilan-Greenhorn-Graneros-Dakota Oil Pool should be defined as the Carlisle Greenhorn, Graneros and Dakota formations between the depths of 7574 feet and 8222 feet (400 feet below the base of the Greenhorn) as found in the NWX Gavilan #1 well, located in Unit A of Section 26, Township 25 North, Range 2 West, NMPM, Rio Arriba County, New Mexico.

(24) That the horizontal limits of the Gavilan Greenhorn-Graneros-Dakota Oil Pool should be as follows:

Township 24 North, Range 2 West

Sections 1 through 3: All

Township 25 North, Range 2 West

Sections 17 through 33: All

Sections 33 through 36: All

(25) That to protect the correlative rights of the interested parties in the Gavilan Mancos Oil Pool, it is necessary to adopt a restriction requiring that no more than one well be completed in the Gavilan Greenhorn-Graneros-Dakota Oil Pool in any 320 acres proration and spacing unit and that said proration and spacing unit be identical with the acreage dedicated to a well drilled to the Gavilan Mancos Oil Pool.

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(26) That the said Temporary Special Rules and Regulations should be established for a temporary period ending 3-1-84 in order to allow the operators in the subject pool to gather information to establish whether the temporary rules should be made permanent.

(27) That the effective date of the Special Rules and Regulations promulgated for the subject pool should be sixty days from the date of this order in order to allow the operators time to amend their existing proration and spacing units to conform to the new spacing and proration rules.

IT IS THEREFORE ORDERED:

(1) That a new pool in Rio Arriba County, New Mexico, classified as an oil pool for Carlisle, Greenhorn, Graneros, Dakota production is hereby created and designated as the Gavilan Greenhorn-Graneros-Dakota Oil Pool, with the vertical limits comprising the formations as described in Finding No. (12) of this order and with horizontal limits as follows:

GAVILAN GREENHORN-GRANEROS-DAKOTA OIL POOL
Rio Arriba County, New Mexico

Township 24 North, Range 2 West, NMPM

Sections 1 through 3: All

Township 25 North, Range 2 West, NMPM

Sections 17 through 33: All

Sections 33 through 36: All

(2) That temporary Special Rules and Regulations for the Gavilan Greenhorn-Graneros-Dakota Oil Pool are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
GAVILAN GREENHORN-GRANEROS-DAKOTA OIL POOL

RULE 1. Each well completed or recompleted in the Gavilan Greenhorn-Graneros-Dakota Oil Pool or in a correlative interval within one mile of its boundary to the North,

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Order No. R-

South and West, shall be spaced, drilled, operated and produced in accordance with the Special Rules and Regulations hereinafter set forth. The 1 mile automatic extension does not apply to the Eastern boundary of the proposed pool.

RULE 2. No more than one well shall be completed or recompleted on a standard unit containing 320 acres, more or less, consisting of the N/2, E/2, S/2 or W/2 of a governmental section.

RULE 3. Wells in the Gavilan Greenhorn-Graneros-Dakota Oil Pool shall have the same proration and spacing units as any well completed or recompleted in the Gavilan-Mancos Oil Pool.

RULE 4. Non-standard spacing or proration units shall be authorized only after proper notice and hearing.

RULE 5. Each well shall be located no nearer than 790 feet to the outer boundary of the spacing and proration unit, nor nearer than 330 feet to a governmental quarter-quarter section line and shall be located within the same quarter-quarter section as a well completed or recompleted in the Gavilan-Mancos Oil Pool.

RULE 6. That no more than one well in the Gavilan Greenhorn-Graneros-Dakota Oil Pool shall be completed in the East one-half of any section that is continuous with the western boundary of the West Puerto Chiquito-Mancos Oil Pool, with said well being located no closer than 1650 feet to said boundary.

RULE 7. That the limiting gas-oil ratio for the Gavilan Greenhorn-Graneros-Dakota Oil Pool shall be 2000 cubic feet of gas per barrel of oil produced.

RULE 8: Any well drilled with its objective being a formation below the Gavilan Mancos pool shall be required to take special precautions during the drilling and cementing through the Gavilan Mancos Pool interval as follows:

- a) Drilling must be done with a mud system designated to control lost circulation within the fractured Mancos interval.

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Order No. R-

b) Cementing of the casing shall be done in a manner and with a slurry designed to minimize losses to natural fractures that may exist within the Mancos interval.

IT IS FURTHER ORDERED:

(1) That the Special Rules and Regulations for the Gavilan-Greenhorn-Graneros-Dakota Oil Pool shall become effective January 1, 1985.

(2) That any well presently producing from the Gavilan-Greenhorn-Graneros-Dakota Oil Pool which does not have a standard 320-acre proration unit, an approved non-standard proration unit, or which does not have a pending application for a hearing for a standard or non-standard proration unit by the effective date shall be shut-in until a standard or non-standard unit is assigned the well.

(3) That this case shall be reopened at an examiner hearing in March, 1987, at which time the operators in the subject pool should be prepared to appear and show cause why the Gavilan-Greenhorn-Graneros-Dakota Oil Pool should continue to be developed on 320-acre spacing units.

(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

JIM BACA, MEMBER

ED KELLEY, MEMBER

RICHARD L. STAMETS, ACTING
CHAIRMAN AND SECRETARY

S E A L

October 18, 1984

Mr. Richard L. Stamets
State of New Mexico
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

RECEIVED
OCT 19 1984
OIL CONSERVATION DIVISION

RE: Proposed Gavilan, Greenhorn,
Graneros, Dakota Pool
Township 24 and 25 North,
Range 2 West
Rio Arriba County, New Mexico

Dear Mr. Stamets:

Pursuant to your oral request at our hearing on September 20, 1984,
enclosed is a new plat wherein I have designated acreage owned partially
or 100% by Dugan and McHugh.

Please advise if you need further information.

Very Truly Yours,


Kent C. Craig

KCC:rvw

Enc.

cc: See Mailing List Attached

cc: Owen Lopez, Esq.
Hinkle Law Firm
218 Montezuma Avenue
Santa Fe, New Mexico 87501

Tommy Roberts, Esq.
Dugan Production Company
709 Bloomfield Road
Farmington, New Mexico 87401

Mr. John Roe
Dugan Production Company
709 Bloomfield Road
Farmington, New Mexico 87401

Mr. Kent Craig
Jerome P. McHugh & Associates
650 South Cherry Street
Suite 1225
Denver, Colorado 80222

Mr. Frank Chavez
Oil Conservation Division
Aztec District Office
1000 Rio Brazos Road
Aztec, New Mexico 87410

William F. Carr, Esq.
Campbell & Black
P. O. Box 2208
Santa Fe, New Mexico 87501

PROPOSED POOL

1) Gross Acres in Proposed Pool	12,000.00
Gross Acres Leased to McHugh-Dugan	7,100.51
Net Acres Leased to McHugh-Dugan	4,397.89

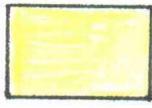
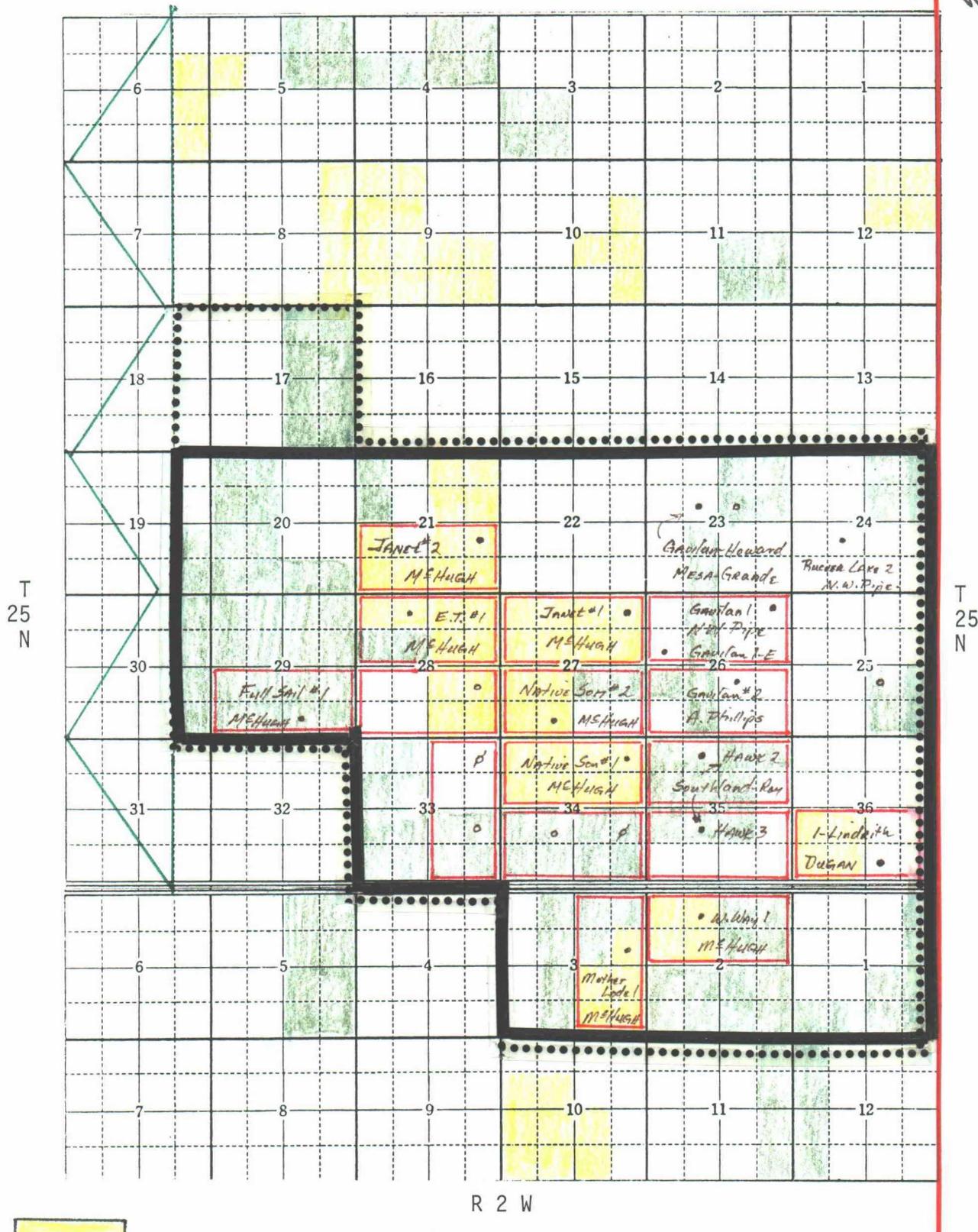
On a gross acreage basis, McHugh-Dugan control leases covering approximately 59.17% of the proposed pool while on a net, leased acreage basis, McHugh-Dugan have approximately 36.65% of the proposed pool.

TOTAL ACREAGE ON PLAT

2) Gross Acres on Plat	27,960.00
Gross Acres Leased to McHugh-Dugan	9,907.96
Net Acres Leased to McHugh-Dugan	6,316.02

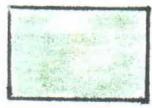
On a total gross acreage basis, McHugh-Dugan control leases covering approximately 35.44% of the total acreage on the plat, while approximately 22.59% of the total acreage on the plat is net acreage held by McHugh-Dugan.

R 2 W



McHugh-Dugan Acreage
100% Interest

12,000 Gross Acres in
Proposed Pool



McHugh-Dugan Acreage
Partial Interest



Proration Unit/Well



Gavilan-Mancos Pool



Gavilan, Greenhorn, Graneros,
Dakota Proposed Pool

APPLICATION OF JEROME P. McHUGH
NEW POOL CREATION
Gavilan, Greenhorn, Graneros,
Dakota Oil Pool
Rio Arriba County, New Mexico
Case #8350 - Exhibit /

LEWIS C. COX
PAUL W. EATON
CONRAD E. COFFIELD
HAROLD L. HENSLEY JR.
STUART D. SHANOR
C. D. MARTIN
PAUL J. KELLY JR.
OWEN M. LOPEZ
DOUGLAS L. LUNSFORD
PAUL M. BOHANNON
T. CALDER EZZELL, JR.
WILLIAM B. BURFORD*
JOHN S. NELSON
RICHARD E. OLSON
RICHARD A. SIMMS
DEBORAH NORWOOD*
JAMES H. ISBELL*
ANDERSON CARTER, II
STEVEN D. ARNOLD

JEFFREY L. BOWMAN
JOHN C. HARRISON
JAMES J. WECHSLER
NANCY S. CUSACK
DAVID L. SPOEDE
JEFFREY D. HEWETT*
JAMES BRUCE
MICHELE A. DREXLER
DAVID G. REYNOLDS
T. MARK TISDALE*
THOMAS D. HAINES, JR.
THOMAS M. HNASKO
MICHAEL F. MILLERICK
STEVEN S. MICHEL
GREGORY J. NIBERT
JUDY K. MOORE*
KELLY S. THOMAS*
DAVID T. MARKETTE*
RALPH O. DUNN

HINKLE, COX, EATON, COFFIELD & HENSLEY

ATTORNEYS AT LAW

218 MONTEZUMA

POST OFFICE BOX 2068

SANTA FE, NEW MEXICO 87504-2068

(505) 982-4554

November 6, 1984

HAND DELIVERED

200 BLANKS BUILDING
POST OFFICE BOX 3580
MIDLAND, TEXAS 79702
(915) 683-4691

1700 TEXAS AMERICAN BANK BUILDING
POST OFFICE BOX 12118
AMARILLO, TEXAS 79101
(806) 372-5669

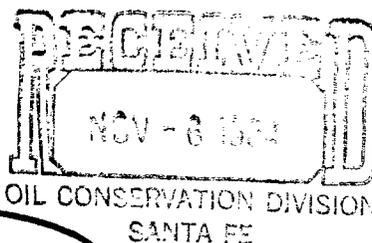
700 UNITED BANK PLAZA
POST OFFICE BOX 10
ROSWELL, NEW MEXICO 88201
(505) 622-6510

OF COUNSEL
CLARENCE E. HINKLE
ROY C. SNODGRASS, JR.
O. M. CALHOUN

W. E. BONDURANT, JR. (1913-1973)
ROBERT A. STONE (1905-1981)

*NOT LICENSED IN NEW MEXICO

Mr. Richard L. Stamets
Chairman
Oil Conservation Commission
Land Office Building
Santa Fe, New Mexico 87503



Re: Case Nos. 8286 and 8350

Dear Dick:

Enclosed are our three proposed orders, the first denying McHugh's application, the second approving Mesa Grande's application for 160 acre spacing and the third, an alternative proposal for 320 acre spacing with the right to infill drill. I am also enclosing a copy of the Memorandum that you requested. Thank you for your cooperation.

Sincerely,

Owen M. Lopez

OML/mg
Enclosures



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
 OIL CONSERVATION DIVISION

TONEY ANAYA
 GOVERNOR

December 12, 1984

POST OFFICE BOX 2088
 STATE LAND OFFICE BUILDING
 SANTA FE, NEW MEXICO 87501
 (505) 827-5800

Mr. Thomas Kellahin
 Kellahin & Kellahin
 Attorneys at Law
 Post Office Box 2265
 Santa Fe, New Mexico

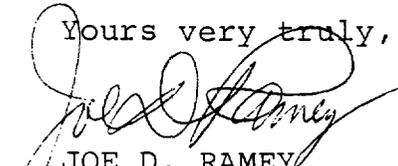
Re: CASE NO. 8350
 ORDER NO. R-7745

Applicant:
Jerome P. McHugh

Dear Sir:

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

Yours very truly,


 JOE D. RAMEY
 Director

JDR/fd

Copy of order also sent to:

Hobbs OCD x
 Artesia OCD x
 Aztec OCD x

Other Owen Lopez, Tommy Roberts, Ernest L. Padilla

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION



GARREY CARRUTHERS
GOVERNOR

March 4, 1987

POST OFFICE BOX 2085
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

Reading & Bates Petroleum Co.
3200 Mid-Continent Tower
Tulsa, Oklahoma 74103

Gentlemen:

In accordance with the provisions of Commission Order No. R-7745 entered on November 30, 1984, the Oil Conservation Commission is reopening Case No. 8350 in order to give all operators in the Gavilan Greenhorn-Graneros-Dakota Oil Pool in Rio Arriba County, New Mexico, the opportunity to appear and show cause why said pool should not be developed on 40-acre spacing units.

This case will be heard before the Commission on March 30, 1987, in Morgan Hall, State Land Office Building, Santa Fe, New Mexico, at 9 o'clock a.m. A copy of the advertisement for this hearing is enclosed.

Sincerely,

Florene Davidson
OC Staff Specialist

enc.

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION



GARREY CARRUTHERS
GOVERNOR

March 4, 1987

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

Mesa Grande Resources, Inc.
1200 Philtower Building
Tulsa, Oklahoma 74103

Gentlemen:

In accordance with the provisions of Commission Order No. R-7745 entered on November 30, 1984, the Oil Conservation Commission is reopening Case No. 8350 in order to give all operators in the Gavilan Greenhorn-Graneros-Dakota Oil Pool in Rio Arriba County, New Mexico, the opportunity to appear and show cause why said pool should not be developed on 40-acre spacing units.

This case will be heard before the Commission on March 30, 1987, in Morgan Hall, State Land Office Building, Santa Fe, New Mexico, at 9 o'clock a.m. A copy of the advertisement for this hearing is enclosed.

Sincerely,

Florene Davidson
OC Staff Specialist

enc.

1057
✓
Jeff

KELLAHIN and KELLAHIN

Attorneys at Law

El Patio - 117 North Guadalupe

Post Office Box 2265

Santa Fe, New Mexico 87504-2265

Telephone 982-4285

Area Code 505

W. Thomas Kellahin
Karen Aubrey

Jason Kellahin
Of Counsel

March 16, 1987

Mr. William J. LeMay
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504

Re: Gavilan Greenhorn-Graneros-Dakota Oil Pool
Order R-7745, Case 8350

Dear Mr. LeMay:

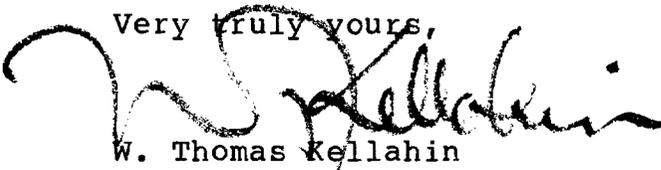
The Commission docket for the March 30, 1987 Mancos hearings includes Case 8350 which is the reopening of the special rules for the Gavilan Greenhorn-Graneros-Dakota Oil Pool.

This pool was created and the subject rules were adopted at the request of my client, Jerome P. McHugh, at a Commission hearing held on September 20, 1984.

We consider this case to be one of the secondary cases involving the Gavilan area. We estimate that it will take one-half day to address the issues involved in Case 8350. We are concerned that the inclusion of this case with the principal Mancos cases will unnecessarily add to the issues to be discussed and prevent us from completion of the Mancos cases within the five days now scheduled for conducting the hearings.

Accordingly, we request that the Dakota Case (8350) be called for hearing at the March 30, 1987 hearing, but at that time, after appearance by parties the case be continued and consolidated with the other cases that are to be heard after resolution of the principal Mancos cases.

Very truly yours,



W. Thomas Kellahin

WTK:ca

Mr. William J. LeMay
March 16, 1987
Page 2

cc: Mr. Dick Ellis
Jerome P. McHugh & Associates
650 South Cherry, Suite 1225
Denver, Colorado 80222

Mr. Alan Tubb
Sun Exploration & Production Company
Four North Park East
Dallas, Texas 75221

John Roe
Dugan Production Corporation
709 Bloomfield Road
Farmington, New Mexico 87401

W. Perry Pearce, Esq.
Montgomery & Andrews
P. O. Box 2307
Santa Fe, New Mexico 87501

Earnest L. Padilla, Esq.
Attorney at Law
P. O. Box 2523
Santa Fe, New Mexico 87501

Owen M. Lopez, Esq.
Hinkle Law Firm
P. O. Box 2068
Santa Fe, New Mexico 87501

Kent Lund, Esq.
Amodo Production Company
P. O. Box 800
Denver, Colorado 80201

William F. Carr, Esq.
Campbell & Black, P.A.
P. O. Box 2208
Santa Fe, New Mexico 87501

Robert G. Stovall, Esq.
Attorney at Law
Dugan Production Company
P. O. Box 208
Farmington, New Mexico 87499

Mr. William J. LeMay
March 16, 1987
Page 3

Robert D. Buettner, Esq.
Koch Exploration Company
P. O. Box 2256
Wichita, Kansas 67201

Paul Cooter, Esq.
Rodey Law Firm
P. O. Box 1357
Santa Fe, New Mexico 87504

HINKLE, COX, EATON, COFFIELD & HENSLEY

ATTORNEYS AT LAW

218 MONTEZUMA

POST OFFICE BOX 2068

SANTA FE, NEW MEXICO 87504-2068

(505) 982-4554

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JAMES M. HUDSON
MACDONNELL GORDON
REBECCA J. NICHOLS
PAUL R. NEWTON
WILLIAM R. JOHNSON
KAREN M. RICHARDSON*
TIANE L. SOMMER
JOSEPH J. MASTROGIOVANNI, JR.*
ELLEN S. CASEY
JAMES C. BROCKMANN
SUSAN L. NIESER*

OF COUNSEL
ROY C. SNODGRASS, JR.
O. M. CALHOUN
MACK EASLEY
JOE W. WOOD
STEPHEN L. ELLIOTT

CLARENCE E. HINKLE (1904-1985)
W. E. BONDURANT, JR. (1913-1973)
ROBERT A. STONE (1905-1981)

*NOT LICENSED IN NEW MEXICO

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MIDLAND, TEXAS 79702
(915) 683-4691

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POST OFFICE BOX 9238
AMARILLO, TEXAS 79105
(806) 372-5589

700 UNITED BANK PLAZA
POST OFFICE BOX 10
ROSWELL, NEW MEXICO 88201
(505) 622-6510

March 23, 1987

RECEIVED

MAR 23 1987

OIL CONSERVATION DIVISION

Mr. William J. LeMay, Director
Oil Conservation Division
State Land Office Building
Santa Fe, New Mexico 87503

Re: Gavilan Greenhorn-Graneros-Dakota Oil Pool,
Order No. R-7745 (Case 8350)

Dear Mr. LeMay:

We have received Mr. Kellahin's letter of March 16, 1987 regarding the above matter. Mesa Grande Resources, Inc. and Mesa Grande, Ltd. agree that the matter should be continued. In fact, our clients respectfully request that this case not be re-opened until 30 days after the consolidated Mancos cases are decided by the Commission.

Very truly yours,

Owen M. Lopez by Mr. Jonny Gordon
Owen M. Lopez

OML:jr

cc: Mr. Dick Ellis
Mr. Alan Tubb
Mr. John Roe
W. Perry Pearce, Esq.
Earnest L. Padilla, Esq.
W. Thomas Kellahin, Esq.
Kent Lund, Esq.
William F. Carr, Esq.
Robert G. Stovall, Esq.
Robert D. Buettner, Esq.
Paul Cooter, Esq.
Larry Sweet



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

April 5, 1989

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

CERTIFIED - RETURN
RECEIPT REQUESTED

Mr. Thomas Kellahin
Kellahin, Kellahin & Aubrey
Attorneys at Law
Post Office Box 2265
Santa Fe, New Mexico 87504-2265

Dear Mr. Kellahin:

In reviewing our records we find that you are the attorney of record in various cases which have been continued indefinitely and have not had any action taken on them for several years. Said cases are listed on the attached sheet.

If we do not receive word from you instructing us otherwise within 15 days from the date of this letter, we will set the cases for the next scheduled hearing at which time they will be dismissed.

Sincerely,

Florene Davidson

Florene Davidson
OC Staff Specialist

enc/

Case 7656 - Commission Hearing - October 26, 1982

Application of Cities Service Company for
Determination of Reasonable Well Costs,
Lea County, New Mexico

Continued Indefinitely

Case 8287 - Commission Hearing - September 6, 1984

Application of Bass Enterprises Production Company
for Amendment of Division Order No. R-111-A, Eddy
and Lea Counties, New Mexico

Continued Indefinitely

Case 8288 - Commission Hearing - August 23, 1984

Application of Bass Enterprises Production Company
for Approval of Drilling Islands and Special Rules
for the Potash/Oil Area, Eddy County, New Mexico

Continued Indefinitely

✓ Case 8350 - Commission Hearing - March 30, 1987

Application of Jerome P. McHugh for New Pool
Creation and Special Pool Rules, Rio Arriba
County, New Mexico

Continued to Examiner Hearing After Order
Issued in Gavilan Cases

Case 9123 - Examiner Hearing - March 2, 1988

Application of Curtis J. Little for a Non-Standard
Gas Proration Unit and an Exception to Rule 5(a)2(2)
of Division Order No. R-8170, San Juan County, New
Mexico

Continued Indefinitely

Case 9124 - Examiner Hearing - March 2, 1988

Application of Rocanville Corporation for a Non-
Standard Gas Proration Unit and an Exception to
Rule 5(a)2(2) of Division Order No. R-8170, San
Juan County, New Mexico

Continued Indefinitely



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

July 25, 1990

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

RB Operating Company
2412 N. Grandview
Suite 201
Odessa, Texas 79761

Gentlemen:

In accordance with the provisions of Division Order No. R-7745 entered on November 30, 1984, the Oil Conservation Division is reopening Case No. 8350 in order to give all operators in the Gavilan Greenhorn-Graneros-Dakota Oil Pool in Rio Arriba County, New Mexico, the opportunity to appear and show cause why said pool should not be developed on 40-acre spacing units.

This case will be heard before an examiner on August 8, 1990, in the Oil Conservation Division Conference Room, State Land Office Building, Santa Fe, New Mexico, at 8:15 a.m. A copy of the advertisement for this hearing is enclosed.

Sincerely,

Florene Davidson

Florene Davidson
OC Staff Specialist

enc.



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

July 25, 1990

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

Oryx Energy Company
P. O. Box 1861
Midland, Texas 79702

Gentlemen:

In accordance with the provisions of Division Order No. R-7745 entered on November 30, 1984, the Oil Conservation Division is reopening Case No. 8350 in order to give all operators in the Gavilan Greenhorn-Graneros-Dakota Oil Pool in Rio Arriba County, New Mexico, the opportunity to appear and show cause why said pool should not be developed on 40-acre spacing units.

This case will be heard before an examiner on August 8, 1990, in the Oil Conservation Division Conference Room, State Land Office Building, Santa Fe, New Mexico, at 8:15 a.m. A copy of the advertisement for this hearing is enclosed.

Sincerely,

Florene Davidson

Florene Davidson
OC Staff Specialist

enc.

OIL CONSERVATION DIVISION
RECEIVED



Oryx Energy Company
24 Smith Road
PO Box 1861
Midland TX 79702-1861
915 688 0300

'90 AUG 8 AM 8 55 **ORYX**

August 2, 1990

**Southwestern
Production Region**

Mr. William J. LeMay, Director
Oil Conservation Division
P. O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87501

Re: Gavilan Greenhorn-Graneros-Dakota Oil Pool
Order R-7745, Case 8350

Dear Mr. LeMay:

The OCD Examiner hearing docket for August 8, 1990 includes Case 8350 which is the reopening of the special rules for the Gavilan Greenhorn-Graneros-Dakota Oil Pool. These rules were the result of a Commission hearing held September 20, 1984.

In anticipation of the upcoming hearing, proposed permanent rules for the pool were discussed and agreed to by all of the area operators present at meetings held in Farmington by the OCD District staff. The provisions called for spacing units to be consistent with the Gavilan Mancos Pool. Oryx Energy Company supports these proposals and wishes to see them made permanent.

However, in response to the current reopening, Oryx requests a continuance of the case for an indefinite length of time. The marginal nature of the reservoir and the lack of adequate data to fully address all of the technical issues involved prevents a proper presentation before an Examiner at this time. Thank you for your consideration in this matter.

Very truly yours,

Richard G. Dillon

cc: Michael E. Stogner
Frank T. Chavez
Larry Sweet
John Roe



dugan production corp.

NEW MEXICO OIL CONSERVATION DIVISION
RECEIVED

'90 AUG 8 AM 8 40

August 2, 1990

Mr. William LeMay
New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87504

**Re: NMOCD Case #8350 (Reopened)
Examiner Hearing Docket #22-90 - August 8, 1990
Gavilan Greenhorn Graneros Dakota Oil Pool
Rio Arriba County, New Mexico**

Dear Mr. LeMay:

I am writing to encourage the Oil Conservation Commission to consider incorporating the rules attached to a memorandum from Mr. Frank Chavez dated March 31, 1989 (copy of which is presented in Attachment No. 1) into the permanent pool rules in the captioned case.

Dugan Production was actively involved in Case #7745 during which the special pool rules for the Gavilan Greenhorn Graneros Dakota Oil Pool was established. At that time, Dugan Production had a substantial leasehold interest within the area of the subject pool, plus was actively involved on a consulting basis for Jerome P. McHugh & Associates. Currently, Dugan Production has a relatively minor leasehold position within the Gavilan Greenhorn Graneros Dakota Pool area and, as such, will not be attending the hearing for the adoption of permanent pool rules. Dugan Production did participate in meetings held October 13, 1988 and March 9, 1989 called by Frank Chavez during which the various operators within the Gavilan Greenhorn Graneros Dakota Pool met and collectively developed the general rules presented in Mr. Chavez's memorandum of March 31, 1989 (Attachment No. 1).

To date, there has been a substantial amount of engineering and geologic input into this matter and it was my understanding that following the meetings in October 1988 and March 1989, that the Oil Conservation Division would move to basically deal with the pool rules in an administrative manner. As you can probably imagine, production from the subject pool today is no more economically viable for development than it was in 1984 at which time the temporary pool rules were established. The arguments that were presented at the initial hearing are still valid and we ask that you seriously consider the testimony and exhibits presented in the

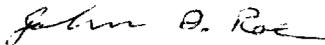
Letter To William LeMay, NMOCD
August 2, 1990
Page 2

1984 hearing in your consideration for adopting permanent pool rules.

The Dakota formation is not economically viable to develop on its own, however, there are many Mancos wells that were drilled to the Dakota with the anticipation of adding the Dakota at some future date. As you are probably aware, production from the Mancos pool has approached the latter stages of decline in most wells and more and more operators will be considering a completion in the Dakota in order to take the wellbore to final abandonment. Should the Commission seriously consider reducing the spacing from its current 320 acre spacing units, it is my belief that many wells will be abandoned prematurely and/or the Dakota will not be completed because of the administrative burden of dealing with dissimilar spacing units in the Mancos and Dakota formations, given the marginal nature of the Dakota.

I wish you the best of luck in the adoption of permanent pool rules for the Dakota formation. If I can be of assistance or can answer any questions, please feel free to contact me.

Sincerely,



John D. Roe
Engineering Manager

JDR/cg

cc: Frank Chavez
Michael Stogner
Larry Sweet
Richard Dillon
Tom Kellahin
Al Greer



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
 OIL CONSERVATION DIVISION
 AZTEC DISTRICT OFFICE

*Attachment
 No. 1*

Garrey Carruthers

1000 RIO BRAZOS ROAD
 AZTEC, NEW MEXICO 87410
 (505) 334-6178

M-E-M-O-R-A-N-D-U-M 3-89-8

TO: GAVILAN GREENHORN-GRANEROS-DAKOTA POOL OPERATORS

FROM: FRANK T. CHAVEZ, DISTRICT SUPERVISOR

SUBJECT: PROPOSED RULE CHANGES

DATE: MARCH 31, 1989

I have enclosed the proposed rules we discussed at our last meeting. Please review these to see if they agree with your notes and send your comments to me within two weeks. The grandfathering of existing P. U.'s and locations can be done as part of an order and don't necessarily have to be part of the rules. It would be helpful to include a draft order that had some of the grandfathering language in it.

*important to include in
 the order since most
 wells w/ 320 # units
 in the Dakota also have
 320 A. non standard units
 in the Mancos.*

SPECIAL RULES AND REGULATIONS FOR THE
TAPACITO DAKOTA OIL POOL

SECTION

RULE 1. Each well permitted, completed, or recompleted in the Tapacito Dakota Oil Pool or in a correlative interval within one mile of its boundary shall be spaced, drilled, operated, and produced in accordance with the rules hereinafter set forth.

RULE 2. The standard Proration Unit for a well shall be 632 through 648 acres comprising a single governmental section more or less except that a well shall have the same Proration Unit as a shallower Mancos well completed in the same wellbore or half section.

RULE 3. Non-standard Proration Units will be approved only after notice and hearing.

RULE 4. Each well shall be located under the same footage requirements as a shallower Mancos well in the same section.

RULE 5. The operator is required to take the following special precautions:

(a) Drilling must be done with a mud system designed to control lost circulation within the fractured Mancos interval.

(b) Cementing of the casing must be done in a manner and with a slurry designed to minimize losses within the fractured Mancos interval.

RULE 6. A standard Proration Unit shall be subject to a depth bracket allowable of 640 barrels and a GOR of 2000:1 subject to the market demand factor.

RULE 7. The horizontal limits of the Tapacito Dakota Pool shall be concurrent with the horizontal limits of the Gavilan Mancos Oil Pool and the West Puerto Chiquito Mancos Oil Pool plus any extensions. The vertical limits of this pool shall be from the top of the Greenhorn formation to 400 feet below the base of the Greenhorn formation.

RULE 8. A well completed in the Tapacito Dakota Oil Pool may be downhole commingled with a shallower Mancos completion under the provisions of the General Rules and Regulations except that the Mancos completion cannot be capable of producing more than 50 barrels of oil per day and the commingled gas stream volume cannot exceed the top gas allowable for the Mancos completion.



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

Garrey Carruthers
Governor

FEB 20 1989

M-E-M-O-R-A-N-D-U-M (3-89-4)

TO: OPERATORS IN THE GAVILAN AND WEST PUERTO CHIQUITO
MANCOS POOLS

FROM: Frank T. Chavez, District Supervisor *F.T.C.*

SUBJECT: Results of Capacity Production Period
Dakota Production, Mesaverde Production

DATE: February 16, 1989

We will meet at 9:30 AM March 9, 1989, in the San Juan College Sun's Dining Room. The agenda will include the following:

- 1) Results of Capacity Production Period
 - A. Summary of Data
 - B. Calculations of Over-Production
 - C. Make-up Procedures and Volumes
- 2) Gavilan-Greenhorn-Graneros Dakota Pool
 - A. Spacing
 - B. Areal Extent
 - C. Allowables
 - D. Commingling Procedures
- 3) Mesaverde Production

All issues

At this meeting, we will not discuss whether the results of the capacity production period supports any particular theory or principles of the mechanics of the reservoir.

dj

Memo

From

ROBERT G. STOVALL
General Counsel

To Bill Le May

After discussion with John Roe of Dugan, Charlie Gray of Oryx, Bill Law and Mike S., and after reading these letters, I have suggested that an attorney for the parties and appear and recommend that the temporary rules be continued in effect because there is insufficient data to recommend a change and because most wells are also completed in the Mancos - a change to 40 acres would cause significant hardship.

Oil Conservation Division Santa Fe, New Mexico 87503
(505) 827-5805

I will discuss this with you

Memo

From

ROBERT G. STOVALL
General Counsel

To

*but it appears that
by continuing the
temporary rules for 2
years, the problem
may go away. Owen
Joyce also concurs.*

Oil Conservation Division Santa Fe, New Mexico 87503
(505) 827-5805

Memo

From
ROBERT G. STOVALL
General Counsel

Date
11/15/50
8:35 P

Memo

From
ROBERT G. STOVALL
General Counsel

To: Ed & Mary

11/15/50

After discussion with John Doe of Dinger, Charles Gray of Oryx, Bill Low and Mike S, and after reading these letters, I have suggested that an attorney for the Parties and appear and recommend that the temporary rules be continued in effect because there is insufficient data to recommend a change and because most wells are also completed in the Mexico - a change to 40 acres would cause significant hardship.

Oil Conservation Division Santa Fe, New Mexico 87503
(505) 827-5805

at well discuss this with you

but it appears that by continuing the temporary rules for 2 years, the problem may be away. Even if they also remain.

D. C. Stovall

11/15/50

Oil Conservation Division Santa Fe, New Mexico 87503
(505) 827-5805

OIL CONSERVATION DIVISION
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'90 AUG 6 AM 9 14

GIANT

GIANT EXPLORATION AND
PRODUCTION COMPANY

P.O. Box 2810
Farmington, New Mexico
87499

505
326-3325

August 3, 1990

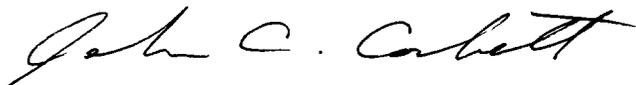
Mr. Bill LeMay
NM Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504

Subject: NMOCD Case No. 8350
Gavillan Greenhorn-Graneros-Dakota Spacing

Dear Mr. LeMay:

Giant Exploration & Production Company is an operator in the Gavillan Greenhorn-Graneros-Dakota pool. As such, we have noted the pending increased density hearing concerning that pool. While we do not intend to appear at the August 8th hearing, we are concerned that additional drilling in the pool is not warranted. Until it is demonstrated that the pool has greater reserves than the present production indicates Giant recommends that no action be taken by the NMOCD on this matter.

Very truly yours,



John C. Corbett
Vice President - Exploration

xc: Mr. Richard Dillon
Oryx Energy Company
P.O. Box 1861
Midland, TX 79702-1861

HINKLE, COX, EATON, COFFIELD & HENSLEY

ATTORNEYS AT LAW

218 MONTEZUMA

POST OFFICE BOX 2068

SANTA FE, NEW MEXICO 87504-2068

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OF COUNSEL
O. M. CALHOUN
MACK EASLEY
JOE W. WOOD

CLARENCE E. HINKLE (1901-1985)
W. E. BONDURANT, JR. (1913-1973)
ROY C. SNOODGRASS, JR. (1914-1987)

August 7, 1990

LEWIS C. COX
PAUL W. EATON
CONRAD E. COFFIELD
HAROLD L. HENSLEY, JR.
STUART D. SHANOR
ERIC D. LANPHERE
C. D. MARTIN
PAUL J. KELLY, JR.
MARSHALL G. MARTIN
OWEN M. LOPEZ
DOUGLAS L. LANSFORD
JOHN J. KELLY
T. CALDER EZZELL, JR.
WILLIAM B. BURFORD*
RICHARD E. OLSON
RICHARD R. WILFONG*
THOMAS J. MCBRIDE
STEVEN D. ARNOLD
JAMES J. WECHSLER
NANCY S. CUSACK
JEFFREY L. FORNACIARI
JEFFREY D. HEWETT
JAMES BRUCE
JERRY F. SHACKELFORD*
JEFFREY W. HELLBERG*
ALBERT L. PITTS
THOMAS H. HYNASKO
JOHN C. CHAMBERS*
MICHAEL A. GROSS
THOMAS D. HAINES, JR.
FRANKLIN H. MCCALLUM*
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REBECCA NICHOLS JOHNSON
PAUL R. NEWTON
WILLIAM R. JOHNSON
ELLEN S. CASEY
S. BARRY PAISNER
MARGARET CARTER LUDEWIG
MARTIN MEYERS
GREGORY S. WHEELER
ANDREW J. CLOUTIER
JAMES A. GILLESPIE
GARY W. LARSON
STEPHANIE LANDRY
JERRY D. WORSHAM II
JOHN R. KULSETH, JR.
TONY CONNERS*

*NOT LICENSED IN NEW MEXICO

VIA HAND DELIVERY

Michael E. Stogner
New Mexico Oil Conservation
Division
State Land Office
Santa Fe, New Mexico 87503

Re: Gavilan Greenhorn-Graneros-Dakota Oil Pool
Order R-7745, Case No. 8350

Dear Michael:

Confirming our telephone conversation yesterday, I have reviewed John Roe's letter to Bill LeMay dated August 2, 1990 and also Richard Dillon's letter dated the same date again addressed to Bill. On behalf of N M & O Operating Company, I would like to echo the sentiments reflected in both those letters. However, since Bill will be out of the office until August 13, I hereby respectfully request that you continue the above-referenced case to the next Examiner Hearing on August 22 so that the affected parties can reach sensible and amicable resolution of the matter. Your suggestion that a solution might be to extend the vertical limits of the Gavilan Mancos Pool to include the Dakota seems, in my opinion, to have much merit and perhaps if others agree, we would be well advised to follow that course. At any rate, I appreciate

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AUG 08 1990

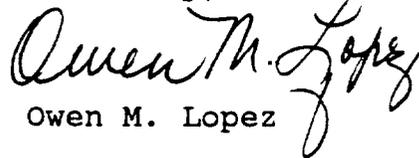
OIL CONSERVATION DIV.
SANTA FE

Michael E. Stogner
August 7, 1990
Page Two

your cooperation in this matter and look forward to working with you in implementing a satisfactory solution.

Best regards.

Sincerely,


Owen M. Lopez

OML:frs

c: William LeMay ✓
Frank T. Chavez
Larry Sweet
John Roe
Richard Dillon
Kevin Fitzgerald



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

September 25, 1990

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

Thomas Kellahin
Kellahin, Kellahin & Aubrey
Attorneys at Law
Post Office Box 2265
Santa Fe, New Mexico 87504-2265

Re: CASE NO. 8350 (Reopened)
ORDER NO. R-7745-A

Applicant:

OCD (Jerome P. McHugh)

Dear Sir:

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

Sincerely,

Florene Davidson

FLORENE DAVIDSON
OC Staff Specialist

Copy of order also sent to:

Hobbs OCD x
Artesia OCD x
Aztec OCD x

Other _____



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION



BRUCE KING
GOVERNOR
ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
1505) 827-5800

November 4, 1992

KELLAHIN, KELLAHIN & AUBREY
Attorneys at Law
P. O. Drawer 2265
Santa Fe, New Mexico 87504

RE: CASE NO. 8350
ORDER NO. R-7745-B

Dear Sir:

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

Sincerely,

A handwritten signature in cursive script that reads "Florene Davidson".

Florene Davidson
OC Staff Specialist

FD/sl

cc: BLM - Farmington
Aztec Office