## FIRST JUDICIAL DISTRICT COURT COUNTY OF RIO ARRIBA STATE OF NEW MEXICO

BENSON-MONTIN-GREER DRILLING CORPORATION, JEROME P. McHUGH & ASSOCIATES, DUGAN PRODUCTION CORPORATION AND SUN EXPLORATION AND PRODUCTION COMPANY,

Petitioners,

NO. SF87-1537 (c)

OIL CONSERVATION DIVISION SANTA FE

VS.

OIL CONSERVATION COMMISSION OF NEW MEXICO.

Respondent.

SUMMONS

WILLIAM J. LeMAY, Director TO Oil Conservation Commission State Land Office Building Santa Fe, New Mexico 87501

Defendant(s), Greeting:

You are hereby directed to serve a pleading or motion in response to the Complaint within 30 days after service of the Summons, and file the same, all as provided by law.

You are notified that, unless you so serve and file a responsive pleading or motion, the Plaintiff(s) will apply to the Court for the relief demanded in the Complaint.

Attorney or Attorneys For Plaintiff Address:

Karen Aubrey, Esq. Kellahin, Kellahin & Aubrey

P. O. Box 2265

Santa Fe, New Mexico

WITNESS the Honorable

SALEPOLD ... , District Judges of Said Court of the State of New Mexico and Seal of the District Court of Said County, this 27 day

\_\_\_, 19\_87\_\_.

CLERK OF THE DISTRICT COURT

KOIE

(SEAL)

This summons does not require you to see, telephone or write to the District Judge of the Court at this time.

It does require you or your attorney to file your legal defense to this case in writing with the Clerk of the District Court within 30 days after the summons is legally served on you. If you do not do this, the party suing may get a Court Judgment by default against you.

Revised 1/1/83

CV 4,40

## FIRST JUDICIAL DISTRICT COURT COUNTY OF RIO ARRIBA STATE OF NEW MEXICO

BENSON-MONTIN-GREER DRILLING CORPORATION, JEROME P. McHUGH & ASSOCIATES, DUGAN PRODUCTION CORPORATION AND SUN EXPLORATION AND PRODUCTION COMPANY,

Petitioners,

VS.

OIL CONSERVATION COMMISSION OF NEW MEXICO,

Respondent.

SUMMONS

TO WILLIAM J. LeMAY, Director Oil Conservation Commission State Land Office Building Santa Fe, New Mexico 87501

Defendant(s), Greeting:

You are hereby directed to serve a pleading or motion in response to the Complaint within 30 days after service of the Summons, and file the same, all as provided by law.

You are notified that, unless you so serve and file a responsive pleading or motion, the Plaintiff(s) will apply to the Court for the relief demanded in the Complaint.

Attorney or Attorneys For Plaintiff:

Karen Aubrey, Esq.

Address:

Kellahin, Kellahin & Aubrey

NO. SFET-1537 (c)

•	P. O. Box 2265 Santa Fe, New Mexico 87504
WITNESS the Honorable the State of New Mexico and Se of, 19 57	, District Judges of Said Court of said of the District Court of Said County, this 27 day
(SEAL)	CLERK OF THE DISTRICT COURT  By:  Deputy

KOIE

This summons does not require you to see, telephone or write to the District Judge of the Court at this time.

It does require you or your attorney to file your legal defense to this case in writing with the Clerk of the District Court within 30 days after the summons is legally served on you. If you do not do this, the party suing may get a Court Judgment by default against you.

Revised 1/1/23

C V 4.46

FIRST JUDICIAL DISTRICT COURT STATE OF NEW MEXICO COUNTY OF RIO ARRIBA

Harry Commence

BENSON-MONTIN-GREER DRILLING CORPORATION, JEROME P. McHUGH & ASSOCIATES, DUGAN PRODUCTION CORPORATION AND SUN EXPLORATION AND PRODUCTION COMPANY,

Petitioners,

vs.

No. CIV 87 1537(C)

OIL CONSERVATION COMMISSION OF NEW MEXICO,

Respondent.

# COMPLAINT AND PETITION FOR REVIEW OF DECISION OF OIL CONSERVATION COMMISSION OF NEW MEXICO

COME NOW Benson-Montin-Greer Drilling Corporation,
Jerome P. McHugh & Associates, Dugan Production
Corporation and Sun Exploration and Production Company,
and pursuant to the provisions of Section 70-2-25
N.M.S.A. (1978), as amended, respectfully petition the
Court for review of the action of the Oil Conservation
Commission of New Mexico in consolidated case Nos. 7980,
8946, 8950, 9113 and 9114 which resulted in the entry of
Orders R-6469-D and R-7407-E to which Petitioners hereby
appeal and state:

#### PARTIES:

- l. Petitioners are operators and working interest owners in the Gavilan Mancos Oil Pool or the adjoining West Puerto Chiquito Mancos Oil Pool and are adversely affected by the Commission's decisions in Order R-6469-D and R-7407-E.
- 2. Respondent, Oil Conservation Commission of the State of New Mexico (hereinafter called the Commission) is a statutory body created and existing under the provisions of the Oil & Gas Act, Sections 70-2-1 through 70-2-36, N.M.S.A., (1978) laws of the State of New Mexico.

#### GENERAL STATEMENT OF FACTS:

- 1. On March 30 through April 3, 1987, at Santa Fe, New Mexico, the Commission held a hearing involving the Gavilan Mancos Oil Pool and the West Puerto Chiquito Mancos Oil Pool, Rio Arriba County, New Mexico to specifically consider the following cases:
  - (a) Case 7980 to consider whether the temporary special rules and regulations for the Gavilan-Mancos Oil Pool should be made permanent including a provision for 320-acre well spacing;
  - (b) Case 8946 to reopen an earlier Commission Decision (Order R-7407-D) to reconsider the

- producing rates and gas-oil ratio limitations for the Gavilan Mancos Oil Pool.
- (c) Case 9113 to consider Petitioner's application to abolish the Gavilan Mancos Oil Pool and to extend the West Puerto Chiquito Mancos Oil Pool and to amend the West Puerto Chiquito Mancos Oil Pool Rules.
- (d) Case 9114 to consider Mesa Grande Resources' application to change the existing boundary between the Gavilan Mancos Oil Pool and the West Puerto Chiquito Mancos Oil Pool; and
- (e) Case 8959 to reopen an earlier Commission decision (Order R-6469-D) to reconsider the producing rates and gas-oil ratio limitations for the West Puerto Chiquito Mancos Oil Pool.
- 2. On June 8, 1987, by Order R-6469-D the Commission decided Case 8950. (A copy of that order is appended to the Petitioner's Rehearing Application as Exhibit C).
- 3. On June 8, 1987 by Order R-7407-E the Commission decided Cases 7980, 8946, 9113 and 9114. (A copy of that order is appended to the Petitioner's Rehearing Application as Exhibit D).
- 4. On June 29, 1987, the Monday following the 28th of June and within the twenty day period provided by statute, Petitioners' timely filed with the Commission

their Application for Rehearing, a copy of which is attached to this petition as Exhibit 1 and incorporated herein.

- 5. By statute the Commission has ten days after the filing of an application for rehearing in which to grant that application.
- 6. The Commission failed to timely grant Petitioner's application for rehearing and therefore it was deemed denied on July 9, 1987.
- 7. The Petitioners, prior to July 29, 1987 and within the next twenty day period required by Section 7-2-25, N.M.S.A. (1978) have filed this Petition for Review.

#### JURISDICTION:

- 1. Petitioners have exhausted their administrative remedies before the Commission and now seek judicial review of the Commission's decisions within the time provided for by Section 70-2-25 NMSA (1978), as amended.
- 2. The First Judicial District, Ric Arriba County, New Mexico, has jurisdiction of this case pursuant to the provisions of Section 70-2-25 NMSA (1978), because the property affected by the Commission orders is located within Rio Arriba County, New Mexico.
- 3. Petitioners seek a District Court review of the record made before the New Mexico Oil Conservation

Commission in the referenced cases and the orders entered therein by the Commission.

#### RELIEF SOUGHT:

Petitioners complain of Commission Order R-6469-D and R-7407-E and as grounds for asserting the invalidity of the said Orders, Petitioners adopt and incorporate herein the grounds set forth in their Application for Rehearing (Exhibit 1) and further state:

#### Point I

Commission Orders R-7407-E and R-6469-D should be vacated because the Commission failed to make "basic conclusions of fact" as required by Continental Oil Co. v. Oil Conservation Commission, 70 N.M. 310, 373 P2d 809 (1962).

#### Point II

Commission Order R-7407-E and R-6469-D should be vacated because the orders fail to contain sufficient findings as required by <u>Fasken v. Oil Conservation</u> Commission, 87 N.M. 292, 532 P2d 588 (1975).

#### Point III

The Commission has exceeded its statutory authority and violated its own rules and regulations by arbitrarily treating a single reservoir as if it were two separate and distinct pools.

#### Point IV

Commission Order R-6469-D and Order R-7407-E contain certain findings that are not supported by substantial evidence, are arbitrary and capricious and contrary to law.

WHEREFORE, Petitioners pray that the Court review New Mexico Oil Conservation Commission Cases 8950, 7980, 8946, 9113, and 9114 and Commission Orders R-6469-D and R-7407-E and hold said orders unlawful, invalid and void, and for such other and further relief as may be proper in the premises.

Respectfully submitted:

Karen Aubrey, Esq.

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Attorneys for Benson-Montin-Greer Drilling Corporation

#### BEFORE THE

#### OIL CONSERVATION COMMISSION

#### NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

RECEIVED

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

JUN 29 1987

OIL CONSERVATION DIVISION

IN THE MATTER OF CASE 8950 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDERS R-6469-C AND R-3401-A, AS AMENDED, WHICH ORDER PROMULGATED A TEMPORARY ALLOWABLE AND LIMITING GAS-OIL RATIO FOR THE WEST PUERTO CHIQUITO MANCOS OIL POOL IN RIO ARRIBA COUNTY, NEW MEXICO.

CASE NO. 8950

ORDER R-6469-D

IN THE MATTER OF CASE 7980 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDER NO. R-7407, WHICH CASE NO. 7980 ORDER PROMULGATED TEMPORARY SPECIAL RULES AND REGULATIONS FOR THE GAVILAN- ORDER R-7047-E MANCOS OIL POOL IN RIO ARRIBA COUNTY, INCLUDING A PROVISION FOR 320-ACRE SPACING UNITS.

IN THE MATTER OF CASE 8946 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDER NO. R-7407-D, WHICH ORDER PROMULGATED TEMPORARY LIMITING OIL-GAS RATIO AND DEPTH BRACKET ALLOWABLE FOR THE GAVILAN-MANCOS OIL POOL IN RIO ARRIBA COUNTY.

CASE NO. 8946

7407 ORDER R-7047-E

APPLICATION OF BENSON-MONTIN-GREER DRILLING CORPORATION, JEROME P. McBUGH & ASSOCIATES, DUGAN PRODUCTION CORPORATION AND SUN EXPLORATION AND PRODUCTION COMPANY TO ABOLISH THE GAVILAR-MANCOS OIL OPOOL, TO EXTERD THE WEST PUELTO CHIQUITO-BARCOS OIL FOOL, AND TO AMEND THE SPECIAL RULES ORDER R-7047-E AND REGULATIONS FOR THE WEST PUERTO CHIQUITO-MANCOS OIL POOL, RIO ARRIBA COURTY, NEW MEXICO.

CASE NO. 9113 7401 APPLICATION OF MESA GRANDE
RESOURCES, INC. FOR THE
EXTENSION OF THE GAVILANMANCOS OIL POOL AND THE
CONTRACTION OF THE WEST PUERTO
CHIQUITO-MANCOS OIL POOL, RIO
ARRIBA COUNTY, NEW MEXICO

CASE NO. 9114

ORDER R-7047-E

APPLICATION OF BENSON-MONTIN-GREER DRILLING CORPORATION, JEROME P.
McHUGH & ASSOCIATES, DUGAN PRODUCTION CORPORATION AND SUN EXPLORATION AND PRODUCTION COMPANY FOR REHEARING

Comes now Benson-Montin-Greer Drilling Corporation, Jerome P. McHugh & Associates, Dugan Production Corporation and Sun Exploration and Production Company and pursuant to the provision of Section 70-2-25 NMSA-1978 apply to the Oil Conservation Division of New Mexico for Rehearing of the above-captioned cases and orders and in support thereof state:

#### PREMIMINARY STATEMENT

- (1) On December 20, 1983, the Commission entered Order R-7407 which granted Jerome P. McHugh's application to create a new Gavilan-Mancos Oil Pool and to establish special pool rules including provisions for 320-acre spacing for a temporary period of approximately three years. (Copy attached as Exhibit A).
- (2) On September 11, 1986, the Commission entered Order R-7407-D which granted the application of Jerome P. McHugh to reduce the allowables and gas-oil ratio limitations for the Gavilan-Mancos Pool and Oil set the allowable for 320-acres at 400 barrels of oil per day and a limiting gas-oil ratio of 600 cubic feet of gas to one barrel of oil. (Copy of Order R-7407-D attached as Exhibit B).
- (3) On June 8, 1987, the Commission entered Order R-6469-D which modified the temporary allowable and

limiting GOR for the West Puerto Chiquito-Mancos Oil Pool. (Copy of Order R-6469-D attached as Exhibit C).

(4) On June 8, 1987, the Commission also entered Order R-7407-E (attached as Exhibit D) which did the following:

(a) Modified the temporary allowable and GOR limitation for the Gavilan-Mancos Oil Pool;

(b) Partially granted Benson-Montin-Greer, et al., application in Case 9113 by creating 640-acre spacing for both the Gavilan-Mancos Oil Pool and the West Puerto Chiquito Mancos Oil Pool;

(c) Denied Benson-Montin-Greer, et al., application to abolish the Gavilan-Mancos Oil Pool and to extend accordingly the West Puerto Chiquito Mancos Pool to include the Gavilan Mancos Pool;

(d) Denied Mesa Grande Resources application to extend the Gavilan-Mancos Oil Pool two rows of sections to the east and deleting those sections from the current West Puerto Chiquito Mancos Oil Pool.

(e) Provided for a testing period beginning July 1, 1987 through January 1, 1988 to gather data to aid in determining whether or not the reservoir is rate sensitive.

Within the twenty days of the date of Order R-7407-E and R-6469-D, Benson-Montin-Greer, et al., have tiled this Application for Rehearing.

#### Background

I

At the August, 1986 Commission hearings on the application for Reduced Allowables and Limiting GOR (Case 8946) Jerome P. McBugh contended:

(a) That the Gavilan-Mancos Oil Pool is a highly fractured reservoir which produces

primarily by solution gas drive and has potential for significant additional oil recovery by gravity drainage and minimizing the unnecessary dissipation of natural reservoir energy which results with the production of wells with gas-oil ratios which results with gas-oil ratios higher than the pool average.

- (b) That based upon measurements of reservoir pressure, good communication exists well to well and throughout the reservoir.
- (c) Based upon bottom hole pressure measurements, the reservoir pressure is declining at rates that provide little time to prepare and develop an alternative plan for the future operation and development of the reservoir.
- (d) Based upon bottom hole pressure measurements, the daily producing oil rate should immediately be reduced to 200 barrels and the gas-oil ratio should be limited to 1,000 to allow time to evaluate the reservoir and to formulate a plan for future operations and development that will result in increased recoveries of oil and gas.

Benson-Montin-Greer Drilling Corp. and Dugan Production Corporation supported the application of McHugh and contended that gravity drainage will be a factor improving ultimte recovery in the Gavilan-Mancos Oil Pool as has been demonstrated in the Canada Ojitos Unit operated by Benson-Montin-Greer Drilling Corp. in the eastern portion of the same Mancos formation as is producing in the Gavilan-Mancos Oil Pool.

(e) That Mobil Producing Texas and New Mexico Inc. opposed McBugh's application and contended that the Gavilan-Mancos Pool is a typical solution gas drive reservoir with signficant potential for oil recovery from matrix porosity and because such a reservoir

is not rate senstive, the operators should be allowed to continue to produce the wells at the current allowable of 702 barrels per day and 2,000 GOR, which derives from the state's standard depth bracket schedule for fixing allowables.

(f) That Mallon Oil Company, Mesa Grande Resources Inc. and Koch Exploration contended that the Gavilan-Mancos Pool is an individual well gas cap drive reservoir and that the gas-oil ratio should be reduced to the solution gas oil ratio in order to most effectively produce this reservoir but contested the reduction in the daily oil rate because they discounted the potential for significant gravity drainage.

As a result of that Hearing the Commission found in Case 8946 that:

- (a) the Gavilan-Mancos Oil Pool primarily produces from a fractured shale with little or no matrix contribution;
- (b) the Gavilan-Mancos Pool is primarily a solution gas drive reservoir with potential for substantial additional ultimate oil recovery by gravity drainage;
- (c) significant pressure depletion is occurring in wells and areas of the reservoir that have produced very little oil or gas;
- (d) pressure interference tests have been conducted in representative areas of the pool, all of which demonstrate almost instantaneous interference over large distances;
- (e) the solution GOR is between 480 and 646 cubic feet of gas per barrel of oil and most likely approximates 600 cubic feet of gas per barrel;

- (f) wells in some areas of the Pool are producing at GOR rates in excess of the solution gas-oil ratio;
- (a) free gas is being liberated reservoirwide irrespective of structural position;
- (h) reduction of the limiting GOR in the Gavilan-Mancos Oil Pool to near the solution GOR will prevent the inefficient dissipation of reservoir energy and will permit the owners in the pool to utilize their share of reservoir energy;
- (i) the current 702 barrel per day oil maximum allowable is based upon an extension of Oil Conservation Division (Division) Rule 505 to wells in the Gavilan-Mancos Oil Pool depth range with 320-acre dedication;
- (j) such depth bracket allowable could be appropriate for a normal pool with substantial matrix contribution to production but bears no rational relationship to the most efficient rate at which to produce the subject pool;
- (k) the proposed 200 barrel per day maximum allowable, if imposed, would appear to result in production from the various tracts in the pool generally in closer proportion to the reserves thereunder than the current 702 barrel maximum allowable;
- (1) imposition of such a maximum allowable, at this time, would unfairly penalize the operators of newer generally higher capacity wells as opposed to those operators of older generally declining capacity wells which previously enjoyed high rates of reservoir drainage;
- (m) adoption of a temporary 400 barrel of pil per day maximum allowable rather than the 200 barrel limit proposed will, at this time, better permit the operators of the newer high

capacity wells to recover their share of the oil in the Gavilan-Mancos Oil Pool; and,

(n) a reduction in both the daily oil production rate and the limiting GOR will reduce the rate of reservoir voidage and pressure depletion and afford an improved opportunity for gravity drainage, thereby preventing waste, and permit operators additional time to determine the most effective and efficient method to further develop and produce the Pool.

#### The Commission further found that:

- (a) The adoption of a 600 cubic feet of gas per barrel of oil limiting GOR and reduction of the oil depth bracket allowable to 400 barrels per day in the Gavilan-Mancos Oil Pool on a temporary basis, at this time, is necessary to prevent waste.
- (b) The adoption of such limiting GOR and depth bracket allowable will, at this time, more nearly permit each operator to use his share of the reservoir energy and more nearly recover the oil underlying the individual tracts in the pool than the existing limiting GOR and depth bracket allowable and will, therefore, better protect correlative rights.
- (c) Such limiting GOR and depth bracket allowable should be adopted effective September 1, 1986, and should be continued until further order of the Commission.
- (d) The issues raised in this case should be reconsidered when temporary special pool rules for the Gavilan-Manocs Oil Pool established by Order No. R-7407 are brought up for reconsideration in March, 1987, or upon the recommendation of the pool study committee.

At the March-April 1987 Hearing Benson-Montin-Greer, et al., contended that:

- (a) the Gavilan-Mancos Oil Pool and the West Puerto Chiquito Mancos Oil Pool are producing from a single common source of supply, i.e., one pool.
- (b) The Pool is a highly fractured stratified reservoir which produces from a combination of solution gas drive and gravity drainage, supplemented by gas injection pressure maintenance. The majority of the oil is contained within natural fractures and the formation matrix will have little or no contribution to ultimate recoveries.
- (c) The Gavilan and West Puerto Chiquito-Mancos producing areas are in effective pressure communication with each other.
- (d) Based upon pressure maintenance and interference testing good communication exists well to well and throughout the reservoir and a minimum well spacing of 640 acres per Proration and Spacing Unit should be established.
- (e) Minimizing the unnecessary dissipation of natural reservoir energy by restricting the gas oil ratios to 600 cubic feet of gas per barrel of oil produced by restricting the producing rate to 800 barrels of oil per day based upon 640 acre spacing will result in more effective production of the pool and will increase ultimate recovery.
- (f) The current pool allowable of 702BOPD for a 320 acre spacing unit (1342BOPD0) for a 640 acre spacing unit the in the adjacent West Puerto Chiquito Mancos Pool) as derived from the statewide depth bracket schedule is too high and does not properly consider the

unique reservoir characteristics that exist in the Mancos formation.

- (g) The Pool reservoir pressures are continuing to decline and the GOR continuing to increase at excessive rates even with the adoption of the temporary provisions of Order R-7407-D so that the Commission must take further measures to restrict well density, allowables and gas-oil ratio limits in order to prevent waste.
- (h) That under current rules, waste is occurring and will continue to occur in the future, resulting in a large amount of the original oil being left unrecovered.
- (i) The current Gavilan-Mancos Oil Pool Rules promote the drilling of unnecessary wells, cause waste to occur, encourage competitive operations which create waste and should be abolished and replaced with the West Puerto Chiquito Mancos Oil Pool Rules as amended.

#### GROUNDS FOR REHEARING

Point I.

ORDER R-7407-E AND R-6469-D SHOULD BE REVERSED BECAUSE THE COMMISSION FAILED TO MAKE A "BASIC CONCLUSION OF FACT."

On September 11, 1986, the Commission entered very specific findings in Order R-7407-D concerning this reservoir including findings addressed to the potential for substantial additional ultimate recovery by gravity drainage.

Now the Commission has entered Order R-7407-E and R-6469-D with the findings inconsistent with and contradictory to the prior findings of the Commission and without adequate explanation why the earlier findings were erroneous.

Orders R-7407-E and R-6469-D fail to comply with the applicable statutory and judicial mandates as set forth in <u>Continental Oil Company v. Oil Conservation Commission</u>, 70 N.M. 310, 373 P.2d 809 (1962) by failing to articulate how the findings of the prior order R-7407-D did not protect correlative rights and prevent waste.

In <u>Contintental Oil</u>, <u>supra</u>, the New Mexico Supreme Court in a case dealing with the Commission's attempt to change the existing proration formula for the Jalmat Gas Pool held that a supposedly valid proration order in current use cannot be replaced in absence of findings that the present formula does not protect correlative rights.

The Commission in the Gavilan/West Puerto Chiquito cases has repeated its mistake in the Mancos Continental Oil case by failing to enter findings in either Order R-7407-E or R-6469-D which explain how it can return for 90-days to the statewide depth bracket allowable and increase the allowable gas and oil ratio to 1280 barrels a day and 2,000 to one for a 90-day period in view of the findings in Order R-7407-D (September 11, 1986) which hold that "(12)(h) reduction of the limiting GOR in the Gavilan-Mancos Oil Pool to near the solution GOR will prevent the inefficient dissipation of reservoir energy and will permit the owners in the pool to utilize their share of reservoir energy" and "(j) such a depth bracket allowable (referring to 702 BOPD in Finding 12(i)) could be appropriate for a normal pool with substantial matrix contribution to production but bears no rational relationship to the most efficient rate at which to produce the subject pool."

It is apparent that the current Commission has simply substituted its judgment for that of the prior Commission but has done so in an arbitrary way which violates the judicial standard established for the Commission in the Continental Oil Case, supra.

#### Point II

THE COMMISSION HAS FAILED TO MAKE ESSENTIAL JURISDICTIONAL FINDINGS CONCERNING THE PROTECTION OF CORRELATIVE RIGHTS AND PREVENTION OF WASTE.

Order R-7407-E and R-6469-D fail to set forth the fundamental factual findings raised at the hearing on how, if at all, the subject orders will protect correlative rights and prevent waste. The Commission has set forth no finding that correlative rights will be protected nor that waste will be prevented by the Order as issued. The failure to make such findings and to further articulate the fundamental reasons for that finding are totally absent from the Order. Without such findings the Order is void. See Sims v. Mechem, 72 N.M. 186 (1963) and Faskin v. Oil Conservation Commission, 87 N.M. 292, 532 P.2d 588 (1975).

#### Point III

THE COMMISSION HAS EXCEEDED ITS STATUTORY AUTHORITY AND VIOLATED ITS OWN RULES AND REGULATIONS (ULTRA-VIRES) BY ARBITRARIALLY TREATING A SINGLE COMMON SOURCE OF SUPPLY (POOL) AS IF IT WERE TWO SEPARATE AND DISTINCT POOLS.

The rules and regulations of the Commission and the statutory authority by which those rules and regulations are adopted are based upon the fundamental conservation concept that special rules shall be applied within a single common source of supply (a pool).

Even the casual observer of oil conservation statutes will quickly realize that as a fundamental conservation measure, rules and regulations of the Commission are based upon the administration of individual pools to protect correlative rights and prevent waste. In administering its own rules, the Commission has not always adhered to the concept that a single common source of supply (a reservoir or a pool)

should be governed by a single set of special pool rules and regulations. For the subject Mancos Pool Area, the Commission, by not consolidating the areas of the Gavilan Manco and West Puerto Chiquito Mancos Oil Pools, even though geological and engineering testimony documented that the two areas are, in fact, one common pool, has perpetuated a fiction that initially (and on a temporary basis) was speculation that the West Puerto Chiquito Mancos Oil Pool was a separate common source of supply from the Gavilan-Mancos Oil Pool. That fiction is no longer functional and is contrary to the undisputed technical geologic and engineering data.

With Order R-7407-E and R-6469-D, the Commission has exceeded its statutory authority and violated its own regulations by denying the Applicant's request in Case 9113.

#### Point IV

COMMISSION ORDER R-6469-D AND ORDER R-7407-E CONTAIN CERTAIN FINDINGS THAT ARE NOT SUPPORTED BY SUBSTANTIAL EVIDENCE, ARE ARBITRARY AND CAPRICIOUS AND CONTRARY TO LAW.

The following findings by the Commission in Order R-6469-D and R-7407-E are not supported by substantial evidence contained in the record as a whole:

1. Order R-6469-D Finding (5) and Order R-7407-E Finding (6) state

The evidence shows that there is limited pressure communication between the two designated pools, and that there are two weakly connected areas separated by some restriction at or near the common boundary of the two designated pools.

To reach this conclusion, the Commission failed to consider or explain that each and every interference test conducted between the two designated pools unequivocally demonstrated that the pools had a high

degree of lateral communication. The Commission has confused the limited vertical communication of the three zones of production with the tremendous lateral or horizontal communication within those zones across all areas of both pools. For example, the Commission compares C zone pressures in the east part of the units with combined A, B & C zone pressures in the Gavilan area (like mixing apples and oranges) and thereby concludes that the communication between the two areas is "weak." Since about six times as much oil had been taken out of the C zone in the unit as compared to the A and B zones when the first Gavilan well was drilled; it is only to be expected that the combined pressures of the three zones in Gavilan would be significantly different from that of the east portion of the reservoir's C zone pressure. It does not mean that there is weak communication laterally in any of the zones.

2. Order R-6469-D Finding (6) and Order R-7407-E Finding (7) each state:

The evidence shows there are three principal productive zones in the Mancos formation in both presently designated pools, designated A, B and C zones listed from top to bottom and that, while all three zones are productive in both designated pools, West Puerto Chiquito produces primarily from the C zone and Gavilan produces chiefly from the A and B zones.

This finding is factually incorrect. While the principal zone to be completed for production in the West Puerto Chiquito-Mancos Oil Pool for many years has been the C zone, the A and B zones are also productive in the unit and are currently being completed for production. While the dominant zones in Gavilan-Mancos Pool may be the A and B zones, nobody knows because the wells in the Gavilan for the most part have not tested the zones separately and it is common practice to complete all three zones simultaneously.

3. Order R-6469-D Finding (7) and Order R-7407-E Finding (8) each state:

It is clear from the evidence that there is material fracture communication between Zones A & B and that between Zones B & C.

This finding is misleading. It is true that testimony was presented regarding two wells on the South Western extremity of the developed area of Gavilan. This testimony simply stated that in the wellbores of these two wells, the operator had recorded an open hole log that "indicated" that the predominant intervals of fracturing in the wellbore was in the A & B Zones and that no fracturing was observed in the C Zone interval. This data is not to be argued. The fact that this data "clearly" indicates anything conclusive as to the entire reservoir area is highly debateable.

First, the depth of investigation of the logging tool is very shallow and thus the data recorded is representative of only a very small part of the reservoir, in fact, the data recorded is only representative of the wellbore area. Unless substantiated by selective testing, it is quite possible that an entirely different interpretation would exist at some small distance from the specific wellbore.

Second, the two wells from which data was presented are of much lower productivity than most of the wells in the Gavilan and West Puerto Chiquito Mancos Pools. Thus it is implied that the existence of natural fracturing in the vicinity of the subject wells is less than exists in the more productive areas.

4. Order R-6469-D Finding (9) and Order R-7407-E Finding (12) state:

There is conflicting testimony as to whether the reservoir is ratesensitive and the Commission should act to order the operators in West Puerto Chiquito and Gavilan-Mancos pools to collect additional data during 90-day periods of increased and decreased allowables and limiting gas-oil ratios.

While there was conflicting testimony as to whether the reservoir is rate sensitive, this issue was decided by the Commission in Order R-7407-D and there was no new and different substantial evidence to cause the current Commission to change that prior determination. In addition, the Commission has failed to make any findings to explain its reasoning on how the proposed test will provide definitive information in this respect. We contend that the test as proposed will not provide the Commission with answers as to the rate sensitivity nature of the reservoir.

The Commission has pulled a proposed test procedure out of the air without any opportunity for the parties to comment on the record as to whether this test or any other test will give the Commission the data they feel necessary to ultimately decide the producing rates for this pool. If for no other reason than to give the parties an opportunity to help the Commission correct a fatally flawed test procedure, this application for rehearing should be granted.

#### 5. Order R-6469-D Finding (ll) states:

An allowable of 1280 barrels per day is based upon an extension of the depth bracket allowable table and should be the allowable for a 640-acre proration unit for a period of 90 days with a limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil.

This finding is a statement of the statewide depth bracket allowable and is inappropriate for this order in view of the prior finding in Order R-7407-D which include specific and detailed statements that the statewide depth bracket allowable if applied to the Gavilan Pool will cause waste and the inefficient dispation of reservoir energy. There is no substantial evidence in the record to justify the Commission in making this finding. The proposed 90 day test period

is without justification and simply authorizes the continued waste of reservoir energy and frustrates the possibility of gravity drainage enhancing the ultimate recovery.

6. Order R-6469-D Finding (12) states:

The Oil Conservation Commission and their staff will evaluate the data collected, or contract to have the data evaluated, to ascertain whether the 1280 BOPD allowable and 2,000 to 1 limiting GOR will cause waste and/or provide a mechanism for confiscation of oil and gas through drainage via the highly transmissive fracture system.

While the Commission's objectives stated in this finding are commendable, there is nothing in the finding or in the record to support the Commission's assumption that a 90 day test will provide definitive data with regards to these issues. We contend that the test will not. It has already been established (through the pressure decline of shut-in wells) that high volume wells can drain the tracts of smaller (or shut-in wells) just as Finding No. 8 of Order R-6469-D and Finding No. 11 of Order R-7407-C states. In no way can the planned test provide more definitive data than that which already exists.

Further, there are practical matters which override any factual data the Commission is attempting to obtain and analyze with respect to the consequence of setting a high allowable:

- (a) High rates of production in Gavilan may cause channelling of the injected gas and compound the problem of keeping unitized products on the unit's side of the boundary.
- (b) The only clear-cut consequence of a test raising the allowable and GOR is that production will be transferred from more efficient wells (lower GOR) to less efficient

wells (higher GOR); and it is not necessary to run a test to try to determine how that applies in this particular reservoir —that's an accepted principle of conservation for any reservoir.

#### 7. Order R-6469-D Finding (16) states:

The existing West Puerto Chiquito Mancos Pool wells located in the westernmost tier of sections in Township 25 North, Range l West, and the proper development of the Mancos Pool along the common existing boundary of the two pools will protect operators with the West Puerto Chiquito Mancos Pool from drainage by wells within the Gavilan-Mancos Pool.

This finding is supported by 10% geologic hypothesis and 90% wishful thinking. The Commission seems to assume that the problems of trying to keep two pools separate and manageable within one single common reservoir such as in the subject Mancos, can be resolved as if the Mancos were a simple conventionally waterflooded pool that can be segregated with offsetting producing wells. Such is not the case in the subject Mancos formation. Further development simply reduces the pool operations to the Rule of Capture and promotes the competitive and wasteful drilling of unnecessary wells.

The truth of the matter is that it is impossible to make a conclusive finding that categorically states — as this does — that "proper development" will protect the Canada Ojitos Unit from drainage. The high capacity fracture system does exist in the boundary area; however, the unit wells which are currently being drilled in the boundary area, may or may not, have adequate communication with the high capacity fracture system such that production from them will be sufficient to minimize the drainage.

In a reservoir of uniform properties, two rows of wells on the same spacing within a unit as opposed to

those offsetting wells outside the unit generally can be expected to significantly minimize drainage. This reservoir, however, is not an ordinary reservoir of uniform properties; and the general situation does not apply here.

In addition, the drilling of more than one well to a section will clearly cause waste in that the second well is unnecessary (as the Commission found) to recover the oil and gas. If the Canada Ojitos Unit boundary wells are located one well to a section (onehalf the density of the Gavilan wells), then, at a minimum, they must produce twice the reservoir voidage of the average Gavilan well just to match withdrawals and to stop drainage. Not only must these wells match withdrawls, they must produce their shares of the injected gas as well. With Gavilan's GOR about four times that of the unit's boundary wells (whose gravity drainage production keeps their GOR low) then each Canada Ojitos Unit boundary well must produce in additional to injected gas, eight times as much oil as each Gavilan well to equalize withdrawals. Some of the Canada Ojitos Unit boundary wells are capable of this -- but not all. In addition, at the anticipated rates of withdrawal in West Puerto Chiquito necessary to match production rates in Gavilan, the potential to realize any benefit from gravity drainage is lost.

Accordingly, we cannot blindly rely on the notion that the drilling of offset wells along the boundary will stop drainage from the unit.

8. Order R-7407-E, Finding (17) states:

No party requested making the temporary rules permanent, although certain royalty (not unleased minerals) owners requested a return to 40-acre spacing, without presenting supporting evidence.

This is ridiculous. The whole purpose of five days of hearings was to arrive at permanent special pool rules to replace the temporary pool rules stipulated in Order R-7407.

9. Order R-6469-D Finding (17) and Order R-7407-E Finding (19) state:

Recognizing that the two designated pools constitute two weakly connected areas with different geologic and operating conditions the administration of the two areas will be simplified by maintaining two separate pools.

We disagree with this entirely. The two parts of the reservoir are so well connected that all wells therein should be operated under the same rules and regulations. The two areas are not geologically different: they produce from the same common source of supply, and as reservoirs go, they have an astonishingly high degree of similarity and communication. True, the areas are operated differenty—but this is a man-made development and not a requirement of the physical properties of the reservoir.

#### CONCLUSION

By not consolidating the currently designated Gavilan Mancos Oil Pool area with the adjacent Wet Puerto Chiquito-Mancos Oil Pool area and establishing a common set of pool rules, the Commission has simply perpetuated a very serious problem in trying to manage a single pool with two different sets of rules and methods of operation. The practical impact of this will be to create a situation where the pressure can be reduced in the Gavilan area, thus increasing the risks that oil and gas will migrate downstream from the West Puerto Chiquito area into the Gavilan area.

As pressures in the boundary area between the pools and the Gavilan area drop, the pressure differential increases from the Canada Ojitos Unit Pressure Maintenance Project in the West Puerto Chiquito Pool area to the downdip recovery area (along the boundary and into the Gavilan area) and the potential for gas channeling and migration of unitized substances increases.

Also as the reservoir's gas saturation increases, the permeability to gas greatly increases and the migration potential will increase in a compounding fashion.

Once this cycle reaches a critical point, it will be impossible to stop and the only remaining solution will be to terminate the long-established Pressure Maintenance Project of the Canada Ojitos Unit in the West Puerto Chiquito-Mancos Oil Pool. This will cause a significant reduction in the ultimate recovery of oil from the reservoir and, considering the high degree of communication that exists across the reservoir in both areas, will create a gross violation of correlative rights.

Respectfully submitted,

Sun Exploration & Production Company Jerome P. McHugh & Associates Dugan Production Corporation

W. Thomas Kerlahin, Esq.

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Santa Fe, New Mexico 87504

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### CERTIFICATE OF SERVICE

The foregoing Application for Rehearing was mailed this 29th day of June, 1987 to all counsel of record in the foregoing cases.

V. Thomas Kellahin

#### STATE OF NEW MEXICO ENERGY AND MEMBERALS DEPARTMENT OIL CONSERVATION COMMISSION

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

CASE 110, 7980 Order No. R-7407

HOHENCLATURE

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

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 16, 1983, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 20th day of December, 1983, 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. McBugh, seeks an order creating a new oil pool, vertical limits to be the Nichrara member of the Mancos formation, with special pool rules including a provision for 320-acre spacing, Pio Arriba County, New Mexico.
- (3) That in companion Case 7979, Northwest Fipeline Company seeks an order deleting certain lands from the Pasin Dakota Pool, the creation of a new oil pool with vertical limits defined as being from the base of the Mesaverde formation to the base of the Dakota formation, (the Mancos and Dakota formations), and the promulgation of special pool rules including a provision for 160-acre spacing, Rio Arriba County, New Mexico.

FRHIBIT A

EFFEATING ATTEMPTOR

- (4) That Cases 7979 and 7980 were consolidated for the purpose of obtaining testimony.
- (5) That geological information and bottomhole pressure differentials indicate that the Mancos and Dakota Formations are separate and distinct common sources of supply.
- (6) That the testimony presented would not support a finding that one well would efficiently drain 320 acres in the Dakota formation.
- (7) That the Mancos formation in the area is a fractured reservoir with low porosity and with a matrix permeability characteristic of the Mancos being produced in the West Puerto Chiquito Mancos Pool immediately to the east of the area.
- (8) That said West Puerto Chiquito-Mancos Pool is a gravity drainage reservoir spaced at 640 acres to the well.
- (9) That the evidence presented in this case established that the gravity drainage in this area will not be as effective as that in said West Puerto Chiquito-Mancos Pool and that smaller proration units should be established therein.
- (10) That the currently available information indicates that one well in the Gavilan-Mancos Oil Pool should be capable of effectively and efficiently draining 320 acres.
- (11) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to prevent reduced recovery of hydrocarbons which might result from the drilling of too many wells, and to otherwise prevent waste and protect correlative rights, the Gavilan-Mancos Oil Pool should be created with temporary Special Rules providing for 320-acre spacing.
- (12) That the vertical limits of the Gavilan-Mancos Pool should be defined as: The Niobrara member of the Mancos formation between the depths of 6590 feet and 7574 feet as found in the Northwest Exploration Company, Gavilan Well No. 1, located in Unit A of Section 26, Township 25 North, Range 2 West, NMPM, Rio Arriba County, New Mexico.

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(13) That the horizontal limits of the Gavilan-Hancos Oil Pool should be as follows:

TOWNSHIP 24 NORTH, RANGE 2 WEST, DMPM Sections 1 through 3: All

(TOWNSHIP 25 NORTH, RANGE 2 WEST, NMFM) Sections 19 through 30: All Sections 33 through 36: All

- (14) That to protect the correlative rights of interested parties in the West Puerto-Chiquito Mancos Oil Pool, it is necessary to adopt a restriction requiring that no more than one well be completed in the Gavilan-Mancos Oil Pool in the E/2 of each section adjoining the western boundary of the West Puerto Chiquito-Mancos Oil Pool, and shall be no closer than 1650 feet to the common boundary line between the two pools.
- (15) That in order to gather information pertaining to reservoir characteristics in the Gavilan-Mancos Oil Pool and its potential impact upon the West Puerto Chiquito-Mancos Oil Pool, the Special Rules for the Gavilan-Mancos Oil Pool should provide for the annual testing of the Mancos in any well drilled in the E/2 of a section adjoining the West Fuerto Chiquito-Mancos Pool.
- (16) That the said Temporary Special Rules and Regulations should be established for a three-year period in order to allow the operators in the Gavilan-Mancos Gil Pool to gather reservoir information to establish whether the temporary rules should be made permanent.
- (17) That the effective date of the Special Rules and Regulations promulçated for the Gavilan-Mancos Oil Fool should be more than 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 Mancos production is hereby created and designated as the Gavilan-Mancos Oil Pool, with the vertical limits comprising the Niobrara member of the Mancos shale as described in Finding No. (12) of this Order and with horizontal limits as follows:

GAVILAN-MARCOS OIL POOL RIO APRIBA COUNTY, NEW MEXICO TOWNSHIP 24 NORTH, RANGE 2 WEST, NMPM Sections 1 through 3: All

TOWNSHIP 25 NORTH, RANGE 2 WEST, NMPM Sections 19 through 30: All Sections 33 through 36: All

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

#### SPECIAL RULES AND REGULATIONS FOR THE GAVILAN-MANCOS OIL POOL

- PULE 1. Each well completed or recompleted in the Gavilan-Mancos Oil Pool or in a correlative interval within one mile of its northern, western or southern boundary, shall be spaced, drilled, operated and produced in accordance with the Special Rules and Regulations hereinafter set forth.
- 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, S/2, E/2, or W/2 of a governmental section.
- RULE 3. Non-standard spacing or proration units shall be authorized only after proper notice and hearing.
- RULE 4. Each well shall be located no nearer than 790 feet to the outer boundary of the spacing or proration unit, nor nearer than 330 feet to a governmental quarter-quarter section line.
- RULE 5. That no more than one well in the Gavilan-Mancos Gil Pool shall be completed in the East one-half of any section that is contiguous with the western boundary of the West Fuerto Chiquito-Mancos Oil Pool, with said well being located no closer than 1650 feet to said boundary.
- RULE 6. That the operator of any Gavilan-Mancos Oil Pool well located in any of the governmental sections contiguous to the West Puerto Chiquito-Mancos Oil Pool the production from which is commingled with production from any other pool or formation and which is capable of producing more than 50 barrels of oil per day or which has a gas-oil ratio greater than 2,000 to 1, shall annually, during the month of April or May, conduct a production test of the Mancos formation production in each said well in accordance with testing procedures acceptable to the Aztec district office of the Oil Conservation Division.

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#### IT IS FURTHER ORDERED:

- (1) That the Special Rules and Regulations for the Gavilan-Mancos Oil Pool shall become effective March 1, 1984.
- (2) That any well presently producing from the Gavilan-Nancos 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 March 1, 1984, 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-Mancos Oil Pool should not be developed on 40-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

TO KELLEY, MEDEET

JOE D. RAMEY, CRAIPMAN AND

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## EDUCATION COMMISSION

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

CASE NO. 8946 Order No. R-7407-D

APPLICATION OF JEROME F. MCHUGH AND ASSOCIATES FOR AN AMENDMENT TO THE SPECIAL RULES AND REGULATIONS OF THE GAVILAN-MANCOS OIL FOOL.

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing on August 7, 8, 21, 22, and 27, 1986 at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this <a href="lith">11th</a> day of September, 1986, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearings and being fully advised in the premises,

#### FINDS THAT:

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- (1) The applicant has made a good-faith diligent effort to find and notify all operators of wells and each appropriate interested party as required by Division Order No. R-8054.
- (2) Due public notice has been given as required by law and the Commission has jurisdiction of this case, the parties, and the subject matter thereof.
- (3) The applicant, Jerome P. McHugh and Associates, seeks an order amending the temporary Special Rules and Regulations of the Gavilan-Mancos Oil Pool as promulgated by Division Order No. F-7407 to establish for a period of not less than ninety days a temporary special production allowable limitation of 200 barrels of oil per day for a standard 320-acre spacing and proration unit and a special temporary gas-cil ratio limitation factor of 1,000 cubic feet of gas per barrel of oil produced.
- (4) In Companion Case No. 8950, Benson-Montin-Greer Drilling Corporation seeks an order amending the Special Rules and Regulations of the West Puerto Chiquito-Mancos Oil Pool

FXHIRIT B

REMEARING ATTORCATION

promulgated by Division Order No. R-3401 to establish a temporary special production allowable limitation of 400 barriels of oil per day for a standard 640-acre spacing and proration unit and a special temporary gas-oil ratio limitation factor (GOR) of 1,000 cubic feet of gas per barrel of oil produced.

- (5) Case No. 8950 and Case No. 8946 have been consolidated for purposes of hearing.
- (6) Benson-Montin-Greer Drilling Corporation, Dugan Production Corporation and Meridian Oil Company appeared in support of McHugh's application.
- (7) The proponents in this case presented testimony and evidence to show that:
  - (a) The Gavilan Mancos Oil Pool is a highly fractured reservoir which produces primarily by solution is drive but has potential for significant additional oil recovery by gravity drainage and reducing the dissipation of natural reservoir energy by wells with relatively high gas-oil ratios;
  - (b) Based upon measurements of reservoir pressure and interference testing, excellent communication exists between wells and throughout the reservoir;
  - (c) Based upon bottom hole pressure measurements, the reservoir pressure is declining at rates that provide little time to prepare and develop a plan for improving the future operation and development of the reservoir;
  - (d) Based upon bottom hole pressure measurements, the daily producing oil rate should be reduced immediately to 200 barrels and the limiting gas-oil ratio should be reduced to 1,000 to slow reservoir depletion rates, allow time to evaluate the reservoir and formulate a plan for future operations and development that will result in increased recoveries of oil and gas; and
  - (e) Gravity drainage will be a factor in improving ultimate recovery in the Gavilan Mancos Oil Pool.

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- (8) Mobil Producing Texas and New Mexico Inc. appeared in opposition to McHugh's application and presented evidence to show that the Gavilan-Mancos Pool is a typical solution gas drive reservoir with significant potential for oil recovery from matrix porosity and that, because such a reservoir is not rate sensitive, to continue to produce the wells at the current allowable of 702 barrels per day and 2,000 GOR would not result in the reduction of the ultimate recovery of oil and gas therefrom.
- (9) Mallon Oil Company, Mesa Grande Resources Inc. and Koch Exploration appeared and presented evidence to show that the Gavilan-Mancos Oil Pool is an individual well gas cap drive reservoir and that the limiting GOR should be reduced to the solution gas cil ratio in order to most effectively produce the reservoir but opposed the reduction in the maximum daily oil allowable, discounting the potential for significant gravity drainage.
- (10) Prior to the application in this case, the operators in the Gavilan-Mancos Oil Pool formed a working interest owners committee, including geologic and engineering technical subcommittees, in order to discuss and address the issue of the most effective and efficient methods to develop and produce the pool.
- (11) The applicant presented testimony that despite numerous meetings, the working interest owners have not yet agreed to any method of operations within said pool other than that provided in its special rules and that an emergency exists requiring the Commission to act immediately to reduce the rate of reservoir voidage in the Gavilan-Mancos Oil Pool to prevent waste and preserve reservoir energy until the working interest owners can reach such an agreement or until the Commission finally determines how best the pool might be developed and produced.
- (12) The evidence presented at the hearing established that:
  - (a) the Gavilan Mancos Cil Fool primarily produces from a fractured shale with little or no motrix contribution;
  - (b) the Gavilan Mancos Pool is primarily a solution gas drive reservoir with potential for substantial additional ultimate oil recovery by gravity drainage;

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- (c) significant pressure depletion is occurring in wells and areas of the reservoir that have produced very little oil or gas;
- (d) pressure interference tests have been conducted in representative areas of the pool, all of which demonstrate almost instantaneous interference over large distances;
- (e) the solution GOR is between 480 and 646 cubic feet of gas per barrel of oil and most likely approximates 600 cubic feet of gas per barrel;
- (f) wells in some areas of the Pool are producing at GOR rates in excess of the solution gas-oil ratio;
- (q) free gas is being liberated reservoir-wide irrespective of structural position;
- (h) reduction of the limiting GOR in the Gavilan-Mancos Oil Pool to near the solution GOR will prevent the inefficient dissipation of reservoir energy and will permit the owners in the pool to utilize their share of reservoir energy;
- (i) the current 702 barrel per day oil maximum allowable is based upon an extension of Oil Conservation Division (Division) Rule 505 to wells in the Gavilan-Mancos Oil Pool depth range with 320-acre dedication;
- (j) such depth bracket allowable could be appropriate for a normal pool with substantial matrix contribution to production but bears no rational relationship to the most efficient rate at which to produce the subject pool;
- (k) the proposed 200 barrel per day maximum allowable, if imposed, would appear to result in production from the various tracts in the pool generally in closer proportion to the reserves thereunder than the current 701 barrel maximum allowable;
- (1) imposition of such a maximum allowable, at this time, would unfairly penalize the operators of newer generally higher capacity wells as opposed to those operators of older generally declining capacity wells which previously enjoyed high rates of reservoir drainage:

- (m) adoption of a temporary 400 barrel of oil per day maximum allowable rather than the 200 barrel limit proposed will, at this time, better permit the operators of the newer high capacity wells to recover their share of the oil in the Gavilan-Mancos Oil Pool; and
- (n) a reduction in both the daily oil production rate and the limiting GOR will reduce the rate of reservoir voidage and pressure depletion and afford an improved opportunity for gravity drainage, thereby preventing waste, and permit operators additional time to determine the most effective and efficient method to further develop and produce the Pool.
- (13) The adoption of a 600 cubic feet of gas per barrel of oil limiting GOR and reduction of the oil depth bracket allowable to 400 barrels per day in the Gavilan-Mancos Oil Pool on a temporary basis, at this time, is necessary to prevent waste.
- (14) The adoption of such limiting GOR and depth bracket allowable will, at this time, more nearly permit each operator to use his share of the reservoir energy and more nearly recover the oil underlying the individual tracts in the pool than the existing limiting GOR and depth bracket allowable and will, therefore, better protect correlative rights.
- (15) Such limiting GOR and depth bracket allowable should be adopted effective September 1, 1986, and should be continued until further order of the Commission.
- (16) The issues raised in this case should be reconsidered when temporary special pool rules for the Gavilan-Mancos Oil Pool established by Order No. R-7407 are brought up for reconsideration in March, 1987, or upon the recommendation of the pool study committee.

#### IT IS THEREFORE CRDERED THAT:

- (1) The terms and conditions of this order shall apply to all wells completed in the Gavilan-Mancos Gil Fool or wells completed in the Mancos formation within one mile thereof effective September 1, 1986 and shall remain in effect until further order of the Commission.
- (2) The limiting gas oil ratio in the Gavilan-Mancos Oil Pool, as heretofore defined and described. Rio Arriba County, New Mexico, shall be 600 cubic feet of gas for each barrel of liquid hydrocarbons produced and that the depth bracket allowable therefor shall be 400 barrels of oil per day.

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- (3) Both applicants and opponents shall be permitted representatives on the Gavilan Pool Technical Study Committee and this Study Committee shall submit a status report to the Commission on or before November 15, 1986.
- (4) Unless reopened by the Commission based upon the report of the Study Committee, this case shall be reopened at a Commission hearing in March, 1967, to be consolidated with the reconsideration of the Temporary Special Rules established by Order No. R-7407 for the Gavilan-Mancos Oil Pool.
- (5) Jurisdiction of this cause is retained for 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 RELLEY Member

R. L. STAMETS, Chairman and

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Secretary

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# ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

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

CASE 8950 Order No. R-646

IN THE MATTER OF CASE 8950 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDERS NOS. R-6469-C AND R-3401-A, AMENDED, WHICH ORDER PROMULGATED A TEMPORARY ALLOWABLE AND LIMITING GAS-OIL RATIO FOR THE WEST PUERTO CHIQUITO-MANCOS (POOL IN RIO ARRIBA COUNTY.

# ORDER OF THE COMMISSION

# BY THE COMMISSION:

This cause came on for hearing on March 30 and 31 and April 1, 2, and 3, 1987 at Santa Fe, New Mexico before the Conservation Commission of New Mexico, hereinafter referred as the "Commission."

NOW, on this 8th day of June, 1987 the Commission quorum being present, having considered the testimony present 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 law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) At the time of hearing, Cases 7980, 8946, 8950, 9 and 9114 were consolidated for purposes of testimony.
- (3) Case 8950 involves re-opening the matter of temporary reduction of allowable and gas/oil ratio limit un Order R-6469-C/R-3401-A pertaining to the West Puerto Chiqui Mancos Oil Pool.
- (4) Case 9113 involves a proposal to abolish the Gavilan-Mancos Oil Pool and consolidate that pool into the V Puerto Chiquito-Mancos Oil Pool and Case 9114 involves a proposal to shift the boundary between Gavilan-Mancos and V Puerto Chiquito-Mancos Oil Pool.

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-2-Case No. 8950 Order No. R-6469-D

- (5) The evidence shows that there is limited pressure communication between the two designated pools, and that there are two weakly connected areas separated by some restriction or near the common boundary of the two designated pools.
- (6) The evidence shows there are three principal productive zones in the Mancos formation in both presently designated pools, designated A, B, and C zones listed from to bottom and that, while all three zones are productive in both designated pools, West Puerto Chiquito produces primaril from the C zone and Gavilan produces chiefly from the A and zone.
- (7) It is clear from the evidence that there is natura fracture communication between zones A and B but that natura fracture communication is minor or non-existent between zones and C.
- (8) Interference tests indicate: 1) a high degree of communication between certain wells, 2) the ability of certain wells to economically and efficiently drain a large area of a least 640 acres; and 3) the probability exists that the bette wells recover oil from adjacent tracts and even more distant tracts if such tracts have wells which were less successful it connecting with the major fracture system.
- (9) There is conflicting testimony as to whether the reservoir is rate-sensitive and the Commission should act to order the operators in West Puerto Chiquito and Gavilan-Manco pools to collect additional data during 90-day periods of increased and decreased allowables and limiting gas-oil ratio
- (10) Estimates of the amount of time required to deplet the Gavilan Pool at current producing rates varied from 33 months to approximately five years from hearing date.
- (11) An allowable of 1280 barrels per day is based upo an extension of the depth bracket allowable table and should the allowable for a 640-acre proration unit for a period of 9 days with a limiting gas-oil ratio of 2,000 cubic feet of gaper barrel of oil.
- (12) The Oil Conservation Commission and their staff wi evaluate the data collected, or contract to have the data evaluated, to ascertain whether the 1280 DOPD allowable and 2,000 to 1 limiting GOR will cause waste and/or provide a mechanism for confiscation of oil and gas through drainage value highly transmissive fracture system.

Case No. 8950 Order No. R-6469-D

- (13) After the initial 90-day period ends, the allowa should be reduced to 800 BOPD per 640 acres with a limiting of 600 cubic feet of gas per barrel of oil.
- (14) The West Puerto Chiquito-Mancos Pool is dominated the Canada Ojitos Unit on which a pressure maintenance prog has been in progress since 1968 wherein all produced gas h been reinjected as well as outside purchased gas being injected.
- (15) From commencement of production in the West Puer Chiquito Mancos Pool in 1964 until approximately the end of 1986, a period of 22 years, the West Puerto Chiquito Pool enjoyed a favored pressure differential to the area now designated the Gavilan Mancos Pool but now the pressure differential favors the Gavilan Mancos Pool.
- (16) The existing West Puerto Chiquito Mancos Pool we located in the westernmost tier of sections in Township 28 North, Range 1 West, and the proper development of the Manco Pool along the common existing boundary of the two pools wi protect operators within the West Puerto Chiquito Mancos Pofrom drainage by wells within the Gavilan Mancos Pool.
- (17) Recognizing that the two designated pools constit two weakly connected areas with different geologic and operating conditions the administration of the two areas wi be simplified by maintaining two separate pools.

# IT IS THEREFORE ORDERED THAT:

- (1) The application of Benson-Montin-Greer in Case N 9113 to abolish the Gavilan-Mancos Pool and extend the Wes Puerto Chiquito-Mancos Pool to include the area occupied by Gavilan-Mancos pool is denied.
- (2) The application of Mesa Grande Resources, Inc. f the extension of the Gavilan-Mancos and the concomitant contraction of West Puerto Chiquito-Mancos pool is denied.
- (3) Beginning July 1, 1987, the allowable shall be 19 barrels of oil per day per 640 acres with a limiting gas-o ratio of 2,000 cubic fect of gas per barrel of oil. Operat are required to monitor reservoir performance, including be not limited to, production rates, gas-oil ratios, reservoir pressures, and shall report this information to the Commiss within 30 days from completion of the tests. Within the fixeek of July, 1987, bottom hole pressure tests shall be tal

on all wells. Wells shall be shut-in until pressure stabili or for a period not longer than 72 hours. Additional botto hole tests shall be taken within the first week of October 1987, with similar testing requirements. All produced gas including gas vented or flared, shall be metered. Operator are required to submit a testing schedule to the District Supervisor of the Aztec office of the Oil Conservation Divis prior to testing so that tests may be witnessed by OCD personnel.

- (4) Beginning October 1, 1987, the allowable shall be barrels of oil per day per 640 acres with a limiting gas-oi ratio of 600 cubic feet of gas per barrel of oil. Operator are required to monitor reservoir performance as in (3) about the bottom hole pressure tests to be taken within the first week of January, 1988. This allowable and GOR limitation shallowable in effect until further notice from the Commission.
- (5) This case shall be reopened at a hearing to be he in May, 1988 to review the pools in light of information to gained in the next year and to determine if further changes rules may be advisable.
- (5) Jurisdiction of this cause is retained for the ent 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

Olley a Frontis

ERLING A. ÆROSTUEN, Member

WILLIAM J. LEMAN, Chairman and

Secretary

SEAL

# ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

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

CASES NOS. 7980, 8946, 9113, AND 9114 ORDER NO. R-7407-E

CASE NO. 7980

IN THE MATTER OF CASE 7980 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDER NO. R-7407, WHICH ORDER PROMULGATED TEMPORARY SPECIAL RULES AND REGULATIONS FOR TH GAVILAN-MANCOS OIL POOL IN RIO ARRIBA COUNTY, INCLUDING A PROVISION FOR 320-ACRE SPACING UNITS.

CASE NO. 8946

IN THE MATTER OF CASE 8946 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDER NO. R-7407-D, WHICH ORDER PROMULGATED A TEMPORARY LIMITING GAS-OIL RATIO AND DEPTH BRACKET ALLOWABLE FOR THE GAVILAN-MANCOS OIL POOL IN RIO ARR COUNTY.

CASE NO. 9113

APPLICATION OF BENSON-MONTIN-GREER DRILLING CORPORATION, JER P. McHUGH & ASSOCIATES, AND SUN EXPLORATION AND PRODUCTION COMPANY TO ABOLISH THE GAVILAN-MANCOS OIL PCOL, TO EXTEND TO WEST PUERTO CHIQUITO-MANCOS OIL POOL, AND TO AMEND THE SPEC RULES AND REGULATIONS FOR THE WEST PUERTO CHIQUITO-MANCOS OF POOL, RIO ARRIBA COUNTY, NEW MEXICO.

CASE NO. 9114

APPLICATION OF MESA GRANDE RESOURCES, INC. FOR THE EXTENSION THE GAVILAN-MANCOS OIL POOL AND THE CONTRACTION OF THE WEST PUERTO CHIQUITO-MANCOS OIL POOL, RIO ARRIBA COUNTY, NEW MEXI

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

These causes came on for hearing on March 30 and 31 c. April 1, 2, and 3, 1987 at Santa Fe, New Mexico before the Conservation Commission of New Mexico hereinafter referred as the "Commission."

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NOW, on this <u>8th</u> day of June, 1987, the Commission quorum being present, having considered the testimony present and the exhibits received at said hearings and being fully advised in the premises,

# FINDS THAT:

- 5 -

- (1) Due public notice having been given as required law, the Commission has jurisdiction of these causes and the subject matter thereof.
- (2) At the time of hearing, Cases 7980, 8946, 8950, 93 and 9114 were consolidated for purposes of testimony.
- (3) Case 7980 involves review of temporary pool rule promulgated by Order R-7407 and Case 8946 involves reopening the matter of temporary reduction of allowable and gas/oil ratio limit, under Order R-7407-D, both orders pertaining the Gavilan-Mancos Oil Pool.
- (4) Case 8950 involves reopening the matter of temporareduction of allowable and gas/oil ratio limit under Order R-3401-A pertaining to the West Puerto-Chiquito-Mancos Oil Pool.
- (5) Case 9113 involves a proposal to abolish the Gavilan-Mancos Oil Pool and consolidate that pool into the W Puerto-Chiquito-Mancos Oil Pool and Case 9114 involves a proposal to shift the boundary between Gavilan-Mancos and We Puerto Chiquito-Mancos Oil Pools.
- (6) The evidence shows that there is limited pressur communication between the two designated pools, and that the are two weakly connected areas separated by some restriction or near the common boundary of the two designated pools.
- (7) The evidence shows there are three principal productive zones in the Mancos formation in both presently designated pools, designated A, B, and C zones listed from to bottom and that, while all three zones are productive i both designated pools, West Puerto Chiquito produces primar from the C zone and Gavilan produces chiefly from the A and zones.
- (8) It is clear from the evidence that there is natur fracture communication between zones A and B but that natur fracture communication is minor or non-existent between zone and C.

- (9) The reservoir consists of fractures ranging from major channels of high transmissibility to micro-fractures enegligible transmissibility, and possibly, some intergranulations that must feed into the fracture system in order for oil therein to be recovered.
- (10) The productive capacity of an individual well depends upon the degree of success in communicating the wellbore with the major fracture system.
- (11) Interference tests indicate: 1) a high degree of communication between certain wells, 2) the ability of certain wells to economically and efficiently drain a large area of least 640 acres; and 3) the probability exists that the bett wells recover oil from adjacent tracts and even more distant tracts if such tracts have wells which were less successful connecting with the major fracture system.
- (12) There is conflicting testimony as to whether the reservoir is rate-sensitive and the Commission should act to order the operators in West Puerto Chiquito and Gavilan-Manapools to collect additional data during 90-day periods of increased and decreased allowables and limiting gas-oil ratio
- (13) Two very sophisticated model studies conducted be highly skilled technicians with data input from competent reservoir engineers produced diametrically opposed results that estimates of original oil in place, recovery efficience and ultimate recoverable oil are very different and therefore are in a wide range of values.
- (14) There was agreement that pressure maintenance would enhance recovery from the reservoir and that a unit would be required to implement such a program in the Gavilan-Mancos Pool.
- (15) Estimates of the amount of time required to deple the Gavilan pool at current producing rates varied from 33 months to approximately five years from hearing date.
- (16) Many wells are shut in or are severely curtailed OCD limits on permissible gas venting because of lack of pipeline connections and have been so shut in or curtailed many months, during which time reservoir pressure has been shown by pressure surveys to be declining at 1 psi per day more, indicating severe drainage conditions.
- (17) No party requested making the temporary rules permanent, although certain royalty (not unleased mineral)

owners requested a return to 40-acre spacing, without presenting supporting evidence.

- (18) Proration units comprised of 640 acres with the option to drill a second well would permit wider spacing ar also provide flexibility.
- (19) Recognizing that the two designated pools constituted weakly connected areas with different geologic and operating conditions, the administration of the two areas with simplified by maintaining two separate pools.
- (20) A ninety day period commencing July 1, 1987, show be given for the connection for casinghead gas sale from now-unconnected wells in the Gavilan pool, after which allowables should be reduced in that pool until said wells a connected.
- (21) To provide continuity of operation and to preven waste by the drilling of unnecessary wells, the temporary spacing rules promulgated by Order R-7407 should remain in effect until superceded by this Order.
- (22) Rules for 640-acre spacing units with the option a second well on each unit should be adopted together with provision that units existing at the date of this order should be continued in effect.

# IT IS THEREFORE ORDERED THAT:

- (1) The application of Benson-Montin-Greer et al in Ca No. 9113 to abolish the Gavilan-Mancos pool and extend the W Puerto Chiquito-Mancos pool to include the area occupied by Gavilan-Mancos Pool is denied.
- (2) The application of Mesa Grande Resources, Inc. for the extension of the Gavilan-Mancos and the concomitant contraction of West Puerto Chiquito-Mancos Pool is denied.
- (3) Rule 2 of the temporary special rules and regulatifor the Gavilan-Mancos Oil Pool as promulgated by Order R-7-is hereby amended as follows:
  - Rule 2 (a). A standard proration unit shall consist of between 632 and 648 acres consisting of a governmenta section with at least one and not more than two wells drilled or recompleted thereon; provided that if the second well is drilled or recompleted on a standard unit shall not be located in the same quarter section, n

Cases Nos. 1800, 0840, 9115 and 9114 Order No. R-7407-E

> closer than 1650 feet to the first well drilled on th unit; and provided further that proration units forme prior to the date of this order are hereby granted exception to this rule.

- (b). A buffer zone is hereby created consisting of the east half of sections bordering Township 1 West Only one well per section shall be drilled in said buff zone and if such well is located closer than 2310 fee from the western boundary of the West Puerto Chiquito-Mancos Oil Pool it shall not be allowed to produce mor than one-half the top allowable for a 640-acre prorationit.
- (4) Beginning July 1, 1987, the allowable shall be 128 barrels of oil per day per 640 acres with a limiting gas-oi ratio of 2,000 cubic feet of gas per barrel of oil. Operato are required to monitor reservoir performance, including but not limited to, production rates, gas-oil ratios, reservoir pressures, and shall report this information to the Commissi within 30 days after completion of the tests. Within the fin week of July, 1987, bottom hole pressure tests shall be take on all wells. Wells shall be shut-in until pressure stabilize or for a period not longer than 72 hours. Additional botto hole tests shall be taken within the first week of October. 1987, with similar testing requirements. All produced gas, including gas vented or flared, shall be metered. Operator are required to submit a testing schedule to the District Supervisor of the Aztec office of the Oil Conservation Divisi prior to testing so that tests may be witnessed by OCD personnel.
- (5) Beginning October 1, 1987, the allowable shall be 8 barrels of oil per day per 640 acres with a limiting gas-oi ratio of 600 cubic feet of gas per barrel of oil. Operator are required to monitor reservoir performance as in (4) above with bottom hole pressure tests to be taken within the first week of January, 1988. This allowable and GOR limitation sharemain in effect until further notice from the Commission.
- (6) In order to prevent further waste and impairment correlative rights each well in the Gavilan-Mancos Oil Pool shall be connected to a gas gathering system by October 1, 10 or within ninety days of completion. If Wells presently unconnected are not connected by October 1 the Director may reduce the Gavilan-Mancos allowable as may be appropriate to prevent waste and protect correlative rights. In instances where it can be shown that connection is absolutely uneconor the well involved may be granted authority to flow or vent to

Cases Nos. 7980, 8946, 9113 and 9114 Order No. R-7407-E

gas under such circumstances as to minimize waste as determ by the Director.

- (7) The temporary special pool rules promulgated by O R-7407 are hereby extended to the effective date of this of and said rules as amended herein are hereby made permanent.
- (8) This case shall be reopened at a hearing to be h in May, 1988 to review the pools in light of information to gained in the next year and to determine if further changes rules may be advisable.
- (9) Jurisdiction of this cause is retained for entry 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, Chairman and Secretary

SEAL

dr/

FIRST JUDICIAL DISTRICT COURT
STATE OF NEW MEXICO
COUNTY OF RIO ARRIBA

BENSON-MONTIN-GREER DRILLING CORP., JEROME P. McHUGH & ASSOCIATES, DUGAN PRODUCTION CORP. AND SUN EXPLORATION AND PRODUCTION COMPANY,

Petitioners,

v.

NO. SF-87-1537(C)

OIL CONSERVATION COMMISSION OF NEW MEXICO,

Respondent.

## ANSWER TO PETITION FOR REVIEW

The New Mexico Oil Conservation Commission, by and through its attorney, responds to the allegations contained in Petitioners' Complaint and Petition for Review as follows:

# PARTIES

- 1. Admit
- 2. Admit

# **FACTS**

- 1. Admit
- 2. Admit
- 3. Admit
- 4. Admit
- 5. Admit
- 6. Admit
- 7. Admit

# JURISDICTION

- 1. Admit
- 2. Admit
- 3. Admit

# RELIEF SOUGHT

Point I. Deny

Point II. Deny

Point III. Deny

Point IV. Deny

Wherefore the Commission requests that the Court deny Petitioners the relief they seek and enter an Order affirming Commission Orders R-6469 and R-7407-E.

Respect folly submitted,

JEFFERY ZAY

General Counse Oil Conservation Commission

P. O. Hox 2088

Santa Fe, New Mexico 87504-2088

Telephone: (505) 827-5805

I hereby certify that on the

27 day of August, 1987,

a copy of the foregoing pleading

was mailed to opposing counsel

of record.

# , FIRST JUDICIAL DISTRICT COURT COUNTY OF SANTA FE STATE OF NEW MEXICO

NO. RA 87-1572 (c)

MALLON OIL COMPANY AND MESA GRANDE RESOURCES, INC.,

Petitioners,

VS.

OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO,

Respondent.

#### SUMMONS

TO Attorney General Hal Stratton State of New Mexico Bataan Memorial Building Santa Fe, New Mexico 87501

Defendant(s), Greeting:

You are hereby directed to serve a pleading or motion in response to the Petition for Review of Commission You are nereby directed to serve a pleading or motion in response to the Fettle Action within 30 days after service of the Summons, and file the same, all as provided by law.

> You are notified that, unless you so serve and file a responsive pleading or motion the Plaintiff(s) will apply to the Court for the relief demanded in the Complaint

W. Perry Pearce Attorney or Attorneys For Plaintiff: MONTGOMERY & ANDREWS, P.A.

Address: Post Office Box 2307

Santa Fe, New Mexico 87504-2307

WITNESS the Honoral	Je AHT ENCINIAS	_, District Judges of Said Court of
the State of New Mexico an	d Seal of the District Court	of Said County, this day
of	1.	
	MA	ARTHA A. FRANK
	&cti	na District Court Clerk
		OF THE DISTRICT COURT
(SEAL)	Jer	esent Roybel
·	De De	puty

NOTE.

This summons does not require you to see, telephone or write to the District Judge of the Court at this time.

It does require you or your attorney to file your legal defense to this case in writing with the Clerk of the District Court within 30 days after the summons is legally served on you. If you do not do this, the party suing may get a Court Judgment by default against you.

**Revised 1/1/83** 

CV 4.40

FIRST JUDICIAL DISTRICT COURT
COUNTY OF SANTA FE
STATE OF NEW MEXICO

ENDORSED

JUL 27 1987

FIRST JUDICIAL DISTRICT COURT SANTA FE, RIO ARRIBA & LOS ALAMOS COUNTIES P.O. Box 2268 Santa Fe, NM 87504-2268

MALLON OIL COMPANY AND MESA GRANDE RESOURCES, INC.,

Petitioners.

vs.

No. RA87-1572(C)

OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO,

Respondent.

#### PETITION FOR REVIEW OF COMMISSION ACTION

COMES NOW Mallon Oil Company and Mesa Grande Resources, Inc. ("Petitioners") and file this their petition for review of action by the Oil Conservation Commission in Case Nos. 7980, 8946, 9113, and 9114 (Order No. R-7407-E) and Case No. 8590 (Order No. R-6469-D) and would show the court as follows:

I.

#### Statement of Facts

On March 30, 1987, the Oil Conservation Commission ("Commission") convened a hearing to consider the appropriate pool rules, allowables, and boundaries for two adjacent oil pools: the Gavilan-Mancos Oil Pool ("Gavilan") and the West Puerto Chiquito Oil Pool ("West Puerto"), Rio Arriba County, New Mexico. On June 8, 1987, the Commission entered Orders No. R-6469-D and R-7407-E ordering, among other things, as follows:

The two pools are separate pools;

2. All wells in both pools should have bottomhole pressure tests run at three different times to determine rate sensitivity to production levels;

3. The allowables for the Gavilan (which had previously been arbitrarily reduced by 83%) should be partially restored to 1280 BOPD with a 2000:1 GOR for 640-acre proration units (640 BOPD for a 320-acre proration unit) for a three-month period, beginning July 1, 1987, in order to determine rate sensitivity;

4. The allowables for Gavilan should be restricted again in october 1987 for a period of ninety (90) days as part of the rate sensitivity testing;

5. Testing will end in January 1988 and the information obtained is to be analyzed by the Commission prior to reopening the hearing in May 1988 for such further orders as may be appropriate in light of the test data;

6. The Gavilan allowables are to remain restricted at 17% (an 83% cut) of the statewide depth bracket top allowable until the May 1988 reopened hearing and so long thereafter until the results of said hearing are put into effect.

Petitioners filed their Application for Rehearing with the Commission, objecting to the imposition of the additional five months of restricted allowables to run from January to May 1988; requesting that the reopened hearing be moved to February 1988 to alleviate this arbitrary continuation of the allowable

restriction; requesting that isolated bottomhole tests be conducted on certain key wells which would more accurately establish the boundary between the Gavilan and West Puerto as well be determinative of the rate sensitivity question; and specifically raising objections to various findings of fact and ordering paragraphs contained in both orders. A copy of the Application for Rehearing is attached hereto as Exhibit A and incorporated herein for all purposes. The Application was denied as a matter of law on July 9, 1987.

On July 22, 1987, Petitioners filed an Application for Review by the Secretary of the Energy, Minerals & Natural Resources Department pursuant to § 70-2-26 NMSA 1978 (a copy of which is attached hereto as Exhibit B and incorporated herein by reference [attach Application and brief]. This application was denied by the Secretary on July 28, 1987. Accordingly, Plaintiffs have exhausted all administrative remedies prior to filing this petition for judicial review.

Plaintiffs are parties of record adversely affected by the issuance of orders Nos. R-7407-E and R-6469-D and file this their petition for review of the Commission's orders, raising the following points of error, all of which were set out in Plaintiffs' application for rehearing to the Commission.

II.

## Point of Error

The Commission's orders are arbitrary and capricious, not based upon substantial evidence, ignore and do not recognize the

PETITION FOR REVIEW - Page 3

correlative rights of the Plaintiffs, and are contrary to law, as set out below. (See attached Exhibits C and D, Orders R-7407-E and R-6469-D, respectively, for reference).

1. Benson-Montin-Greer Drilling Corporation,

Jerome P. McHugh & Associates and Sun Exploration & Production

Company ("BMG, et al.") proposed changes to the special pool

rules and statewide rules governing the Gavilan pool. Therefore,
they had the burden of proving by a preponderance of evidence
that such rule changes were justified. International Minerals &

Chemicals Corp. v. New Mexico Public Service Comm'n, 81 NM 280,

466, P.2d 557 (1970). This burden was improperly shifted to

Plaintiffs herein when the Commission failed to hold BMG, et al.

to their burden.

2. Many finding and ordering paragraphs in the subject orders are not supported by substantial evidence. In particular and without limitation, the following paragraphs are legally insufficient:

## As to Order R-7407-E:

a. <u>Finding (9)</u>: Petitioners proved that most of the recoverable oil in Gavilan is stored in the microfractures and in intergranular porosity. The BMG, <u>et al</u>. group presented no facts to refute this proof.

b. <u>Findings (12) and (13)</u>: While testimony regarding rate sensitivity was conflicting, the only reservoir model matching actual Gavilan performance was presented by Petitioners. The model presented by BMG, <u>et al</u>. was not based

upon realistic parameters or actual field conditions as to the Gavilan. As a result, the only legally sufficient evidence establishes the Gavilan is not rate sensitive.

c. <u>Finding (14)</u>: There is no evidence in the record to support agreement that any type of pressure maintenance project is proper at this time. Petitioners' evidence clearly showed that a high pressure-pressure maintenance project would adversely affect the Gavilan pool performance and cause waste. In addition, the issue of pool unitization is beyond the scope of this hearing and no party presented any evidence regarding unitization.

estimated by Petitioners is nine years. There is no evidence to support the five-year estimate used by the Commission in its order.

e. <u>Findings (16) and (20)</u>: The issue of pipeline connections is beyond the scope of the hearing. It is beyond the authority of the Commission to reduce production from nonwasteful (connected) wells to protect the correlative rights of the owners of a wasteful (unconnected) well that flares and wastes its casinghead gas. Further, there is no evidence in the record to support this action.

f. Ordering (2): The application of Mesa Grande Resources, Inc. to extend the boundaries of the Gavilan field is supported by the preponderance of evidence in the record. Even BMG, et al. admit that their westernmost West Puerto wells are in

good communication in the "A and B" zones with the Gavilan wells. There is no substantial evidence to support maintaining the current pool boundaries.

g. Ordering (5): The Gavilan allowable for a 640-acre proration unit should be returned to the normal statewide depth bracket allowable upon completion of the 180-day test period set out by the Commission. There is no substantial evidence in the record and no finding of fact in the Commission's order which would justify continuation of a restricted allowable for the Gavilan field after completion of the test period and pending a review hearing. Any such regulation is arbitrary, capricious and in contravention of the Commission's statutory authority.

h. Ordering (6): As mentioned above, the unconnected well matter is not an issue at this hearing and the Commission has no authority to reduce the allowable of a nonwasteful (connected) wells to protect the correlative rights of a wasteful (unconnected) well.

i. The reopened hearing should be advanced to February 19, 1988, in order to prevent the arbitrary restriction of allowables in the Gavilan field after the test period ordered by the Commission has been completed.

As to Order R-6469-D (and only as to its effect on Gavilan):

j. <u>Finding (11)</u>: There is no similar finding in R-7407-E. As noted above, the top allowable in Gavilan for a 640-acre proration unit should be 1404 BOPD (twice the current 702 BOPD for a 320-acre proration unit) with a 2000:1 GOR. There is no basis in law or in fact, no substantial evidence in the record and no finding to support the arbitrary restriction of Gavilan allowables beyond the 180-day test period set out in the Commission's order. The Commission's order in this regard is arbitrary, capricious and in violation of its statutory authority.

Findings (12) and (13): There are no findings with these provisions in the findings of Order R-7407-E. There is no sufficient evidence in the record to support restriction of the Gavilan top allowable to prevent waste. order to determine whether waste will occur at normal allowable rates, the testing procedures ordered by the Commission should be amended to specifically require "C" zone pressure testing in the oil column of the West Puerto from the Canada-Ojitos Unit (COU) Well E-10 (Section 10, Township 25N, Range 1W). Furthermore, isolation tests should be required on key BMG Wells F-30, B-29, and B-32 and BMG-COU Well No. L-27. The Commission's orders (both R-7407-E and R-6469-D) specifically require testing on all wells in the field. However, the Commission staff has informally amended such orders, without proper procedure, to require testing on only some wells in the field and to not require any isolation zone testing from the West Puerto. Without this testing, the

Commission's actions in ordering any test period and in restricting Gavilan allowables during test periods are arbitrary and capricious as the tests required will not provide the information the Commission has deemed necessary to determining whether the Gavilan is rate sensitive and what the appropriate boundary between the Gavilan and West Puerto fields should be.

- 1. <u>Finding (15)</u>: This finding of fact does not appear in R-7407-E. There is no substantial evidence in the record to support a finding that "the pressure differential favors Gavilan."
- m. Finding (16) and Ordering (2): This finding does not appear in R-7407-E. If this finding is correct, then it is arbitrary and capricious to fail to extend the Gavilan eastern boundary to include the westernmost edge of the West Puerto.
- n. Ordering (3): This paragraph should be amended to include appropriate test requirements noted above. Failure to require fair and adequate testing is arbitrary and capricious.
- o. Ordering (4): There is no finding to support the necessity of maintaining a restricted allowable after the test period has ended.
- p. Ordering (5): The reopened hearing should be advanced to February 1988, or the allowables reinstated in the

Gavilan pending the reopened hearing. There is no evidence to support postponing the reopened hearing or restricting allowables pending that hearing.

III.

# Additional Ground for Appeal

(D) 3. Rules issued by the Commission should be fair and equal in effect. The subject orders are discriminatory as described below.

a. The orders allow production in the Gavilan at 1280 BOPD with a GOR of 2000:1 for a three (3) month period but require production at 800 BOPD with a GOR of 600:1 for eight (8) months (and thereafter until action is taken on a hearing to be held in May 1988), and is therefore inherently unfair and biased as to the period of production (three months versus at least eight months), in favor of BMG, et al. and harming Plaintiffs.

b. The Commission's production limitations have resulted in certain wells operated by Mallon Oil Company being shut in for over 25 days per month. This discriminates against Mallon Oil Company and causes economic waste and violates its correlative rights due to production from offsetting wells (operated by BMG, et al.).

c. Substantial investments were made by
Petitioners herein and others in Gavilan based upon then-existing
pool rules. A change of the rules in midstream has and will work
a financial hardship on those interest owners by restricting
production. This has resulted in limiting return on investment

PETITION FOR REVIEW - Page 9

to an amount insufficient to recover the millions of dollars invested, resulting in severe economic hardship. In addition, this has had a chilling effect on further oil and gas investment in this state.

4. The Commission's production limitations constitute a taking of property without just compensation in violation of the federal and state constitutions.

Statutery and judicial mandates. In Continental Oil Co. v. Oil Conservation Comm'n, 70 NM 310, 373 P.2d 809 (1962) the New Mexico Supreme Court in a case dealing with a natural gas pool, discussed the basic conclusions of fact that the Commission is required to find prior to changing a proration formula. The Commission failed to make any of these required findings and did not discuss any of these necessary elements. The record in this matter is clear that the changes adopted by the Commission constitute a change in the proration formula since these changes alter the relative proportion of production between operators in Gavilan and deviate from statewide rules. Order R-7407-E is therefore contrary to law and arbitrary and capricious.

This petition is based upon the record in the Commission below and the pleadings of Petitioners including their Application for Rehearing to the Commission (Exhibit A) and Application for Review to the Secretary of Energy (Exhibit B).

Any grounds set out in these prior Applications which are not specifically mentioned in this petition are adopted herein by reference.

IV.

WHEREFORE, PREMISES CONSIDERED, Petitioners request that the court set a hearing to consider this petition for review and upon hearing reverse the Commission's Orders R-7407-E and R-6469-D, and remand this proceeding to the Commission for rehearing. In the alternative, Petitioners request that the court amend Commission's orders as follows:

- To order the testing requested by Petitioners and required by the Commission's order as necessary to obtain relevant data;
- 2. To advance the reopened hearing date from May 1988 to February 1988; or
- 3. In the alternative to enjoin, effective January 1, 1988, the Commission from interfering with production of Plaintiffs' wells at 702 BOPD and a 2000:1 GOR for a 320-acre proration unit (twice this amount for 640-acre proration unit) pending the reopened hearing.
- 4. To clarify that the reopened hearing will consider the appropriate boundary between the Gavilan and West Puerto based upon the new testing and production data.

Respectfully submitted,

SCOTT, DOUGLASS & LUTON Twelfth Floor First City Bank Building Austin, Texas 78701 (512) 476-6337

MONTGOMERY & ANDREWS, P.A.

BY JU JULY

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HENSLEY

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Santa Fe, New Mexico

87504-2068

(505) 982-4554

Attorneys for Mesa Grande Resources, Inc.

[WPP:73]

#### STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION COMMISSION

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

CASES NOS. 7980, 8946, 9113, AND 9114 ORDER NO. R-7407-E

CASE NO. 8950 ORDER NO. R-6469-D

CASE NO. 7980

IN THE MATTER OF CASE 7980 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDER NO. R-7407, WHICH ORDER PROMULGATED TEMPORARY SPECIAL RULES AND REGULATIONS FOR THE GAVILAN-MANCOS OIL POOL IN RIO ARRIBA COUNTY, INCLUDING A PROVISION FOR 320-ACRE SPACING UNITS.

CASE NO. 8946

IN THE MATTER OF CASE 8946 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDER NO. R-7407-D, WHICH ORDER PROMULGATED A TEMPORARY LIMITING GAS-OIL RATIO AND DEPTH BRACKET ALLOWABLE FOR THE GAVILAN-MANCOS OIL POOL IN RIO ARRIBA COUNTY.

**CASE NO. 9113** 

APPLICATION OF BENSON-MONTIN-GREER DRILLING CORPORATION, JEROME P. McHUGH & ASSOCIATES, AND SUN EXPLORATION AND PRODUCTION COMPANY TO ABOLISH THE GAVILAN-MANCOS OIL POOL, TO EXTEND THE WEST PUERTO CHIQUITO-MANCOS OIL POOL, AND TO AMEND THE SPECIAL RULES AND REGULATIONS FOR THE WEST PUERTO CHIQUITO-MANCOS OIL POOL, RIO ARRIBA COUNTY, NEW MEXICO.

CASE NO. 9114

APPLICATION OF MESA GRANDE RESOURCES, INC. FOR THE EXTENSION OF THE GAVILAN-MANCOS OIL POOL AND THE CONTRACTION OF THE WEST PUERTO CHIQUITO-MANCOS OIL POOL, RIO ARRIBA COUNTY, NEW MEXICO.

CASE NO. 8950

IN THE MATTER OF CASE 8950 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDERS NOS. R-6469-C AND R-3401-A, AS AMENDED, WHICH ORDER PROMULGATED A TEMPORARY ALLOWABLE AND

LIMITING GAS-OIL RATIO FOR THE WEST PUERTO CHIQUITO-MANCOS OIL POOL IN RIO ARRIBA COUNTY.

# APLICATION FOR REHEARING

Mesa Grande Resources, Inc. and Mallon Oil Company,

(Applicants) file this Application for Rehearing, and state:

1. Applicants are pleased the Commission has confirmed that the Gavilan-Mancos Oil Pool ("Gavilan") is a separate pool from the West Puerto Chiquito-Mancos Pool ("West Puerto"), and as such should continue to be operated under separate rules.

Because the two pools do have "different geologic and operating conditions," the Commission should direct its attention to protecting each pools' separate conservation aspects and the separate correlative rights of the owners in each pool.

The only remaining issues for the Commission to decide should be:

- a. The appropriate boundary between the Gavilan and West Puerto;
- b. Whether the Gavilan owners' correlative rights should be further impinged upon by the unnecessary restriction of the Gavilan allowable production from 702 bopd with a 2000/1 GOR to the temporary 400 bopd with a 600/1 GOR rule for a 320-acre proration unit. For example, a top allowable well on a 320-acre proration unit with a 2000/1 GOR in the Gavilan suffers an 833 allowable cut from 702 bopd to only 120 bopd. This cut in allowable is not necessary to prevent waste or to protect

correlative rights. In fact, the <u>only</u> result of this arbitrary allowable cut is to redistribute reserves away from the top allowable wells, in violation of the owners' correlative rights.

The effect of this cut will continue to be devastating on Gavilan development by the Applicants and others similarly situated. The Commission should note that 15 wells have been drilled in the Gavilan and West Puerto Pools since the Commission's original imposition of drastic and unwarranted allowable cuts in September 1, 1986. Of these 15 wells, 12 have been drilled by the proponents of allowable reduction, who also sought increased spacing allegedly to prevent the drilling of unnecessary wells.

The Commission needs to be aware that drilling \$800,000 wells in this area can become uneconomic in today's oil depression when the additional risk imposed by this Commission of drastically limiting production is added to the already high risks of obtaining a good producing well.

2. Although not accepting the allowable constraints of the above orders, the Applicants do recognize the Commission's intent to obtain additional engineering data to confirm applicant's and the Commission's positions that Gavilan and West Puerto should remain separate. Applicants also recognize this Commission's concern of future waste in the Gavilan. Applicants share the same concern. That is why Applicants commissioned an independent engineering study to review in depth the possibility of waste. This complete study, based on actual Gavilan data, has been

presented to the Commission and Applicants submit such study clearly shows that statewide producing practices will not injure this pool, just as such practices have not injured hundreds of other New Mexico pools with similar solution gas drive characteristics. However, Applicants request that if the Commission and its staff truly seek meaningful engineering data during the next six months that the following be ordered or required:

a. "C" zone pressure testing in the oil column of the
West Puerto should be required to comply with the spirit of the
Commissions June 8th orders.

meeting held at the Division's request on June 23, 1987, for the purpose of attempting to satisfy the requirement of ordering paragraphs (3) in order no. r-6469-d and (4) in order no. R-7407-E, Benson-Montin-Greer Drilling Corporation (BMG), through Mr. Al Greer, refused to permit "C" zone pressure tests in the oil column of the West Puerto<sup>1</sup> -- specifically the Canada Ojitos Unit (COU) Well E-10 (Section 10, Township 25 North, Range 1 West). The Applicants believe the Commission is extremely interested in whether the "C" zone is affected by "A & B" zone

The Commission staff has professed they did not want this testing to cause any expense to the operators. However, none of the pressure tests sought by the commission can be accomplished without the operators incurring additional expenses and this should be executed by all operators.

production rates from the Gavilan-Mancos Pool wells. No recent "C" zone pressure in the oil column has been provided to the Applicants or the Commission. It is urged the Commission order "C" zone pressure tests in the E-10 well. A copy of Mallon Oil Company's letter of June 24, 1987, setting forth this problem is attached. Only with meaningful pressure data of this type can Mr. Greer's factually unsupported allegations of harm to his "C" zone project be refuted or proved.

# b. <u>Isolation tests should be required on key BMG</u> wells F-30, B-29 and B-32.

The key wells in the BMG case were F-30, B-29 and B-32. These wells are completed in the "A & B" and "C" zones. BMG presented so-called interference tests on these three wells. these wells are presently completed, however, there is no way to determine the individual productivity or the pressure contribution of the "A & B" zones and "C" zone in these three wells. The Commission should order isolation tests for these key wells of the same type run by Mallon on its Fisher Federal 2-1 and by Mobil on its B-73. The Commission ordered bottomhole pressure surveys. These should be run separately on the "A & B" zone and on the "C" zone in the F-30 and B-29 wells in conjunction with the isolation tests. The B-32 is already on the bottomhole pressure survey schedule and its bottomhole pressure should be measured separately on the "A & B" zones and the "C" zone at the same time as the isolation tests. Again, this type of meaningful pressure and production data will be significant to determine:

- (1) if the "A & B" zones are cross-flowing and charging the "C" zone in the West Puerto, especially at the curtailed "A & B" zones rate, and
- (2) the extent of the production between the "A & B" zones in the Gavilan versus the West Puerto.
- c. <u>Isolation and pressure tests should be required</u> for the BMG-COU Well No. L-27.

Mr. Greer testified that the L-27 had produced approximately 1.5 million barrels from the "A & B" zones. No separate tests have been run on the "A & B" zones and the "C" zone in the L-27 well. Isolation tests and bottomhole pressure measurements on the L-27 will verify whether the "A & B" zones are the producing zones and the relationship of the "A & B" zone production, if any, in this area of the West Puerto to the separate "A & B" zones production from Gavilan.

d. This case should be reopened in February 1988 rather than May 1988.

Gavilan has already suffered reduced allowables from September 1, 1986 to July 1, 1987 and will suffer another 83% allowable cut from October 1, 1987 until the Commission restores the allowable after the hearing now scheduled for May 1988. Applicants respectfully request that the May 1988 hearing be

For example, the Applicants' monthly production rate will have been drastically reduced for all but three months in a two-year period if the Commission's current hearing schedule is followed. Applicants are losing approximately 49,000 barrels per month due to the Commission's allowable limit orders. To date, more than 440,000 barrels of production has been lost with the working and royalty interest owners and the State of New Mexico suffering severe financial losses.

advanced to February 1988 so that the Commission may review the latest data in a timely manner. The pressure and production data at normal statewide rates will be available in the first week of October 1987 and there will be four (4) months to analyze this data before a February 1988 hearing. The additional reduced production data and January 1988 pressure data will be available in January 1988, or at least 30 days before a February 1988 hearing date. The issues before the Commission need to be determined as soon as possible in order to protect the correlative rights of owners in Gavilan. Gavilan will be suffering severe allowable cuts from October 1987 to the subsequent hearing decision date. Moving the hearing date to February 1988 will provide all parties adequate time to prepare and will reduce the time for imposing unnecessary allowable restraints on Gavilan.

- 3. Applicants would further state they are parties of record adversely affected by the issuance of Orders Nos. R-7407-E and R-6469-D.
- 4. The Commission should reconsider its decision in this matter and should grant a rehearing because:
- a. The decisions of the Commission to reduce allowable production and its failure to extend the Gavilan boundaries ("Decisions") are arbitrary and capricious;
- b. The Decisions of the Commission are not based upon substantial evidence;

- c. The Decisions of the Commission ignore and do not recognize the correlative rights of the applicants; and
- d. The Decisions of the Commission are contrary to law;
- all as more specifically described below.
- 5. Benson-Montin-Greer Drilling Corporation, Jerome P. McHugh & Associates, and Sun Exploration and Production Comapny proposed changes to the special pool rules and statewide rules governing the Gavilan Pool. Therefore, they have the burden of proving by a preponderance of evidence that such rule changes were justified. International Minerals & Chemicals Corp. v. New Mexico Public Service Com'n, 81 N.M. 280, 466 P.2d 557 (1970). Such parties failed in their burden and the Commission did not address this failure.
- 6. Applicants submit that certain findings and orderings are not supported by the evidence presented at the hearing. In particular, and without limitation, the following findings are incorrect for the reasons stated below:

#### As to Order R-7407-E:

a. <u>Finding (9)</u>: Applicants proved that most of the recoverable oil in Gavilan is stored in the micro fractures and intergranular porosity. The BMG group presented no facts which refuted this proof. Finding (9) is incorrect and fails to recognize this proof.

- b. <u>Findings (12) and (13)</u>: While testimony regarding rate-sensitivity was conflicting, the only model which matched Gavilan field performance was the model presented by Applicants. The model presented by Sun Exploration and Production Company was not based upon realistic parameters or actual field conditions as to Gavilan. As a result, the only reliable evidence establishes that Gavilan is not rate sensitive.
- c. <u>Finding (14)</u>: The parties are not in agreement that any type of pressure maintenance project is proper at this time. Applicants believe that a high pressure-pressure maintenance project which is suggested by BMG would adversely affect Gavilan pool performance at this time and cause waste. In addition, the formation of a unit is beyond the scope of the hearing and no evidence regarding unitization was presented at the hearing.
- d. <u>Finding (15)</u>: The pool depletion period estimated by Applicants is nine years. There is no evidence to support the five-year estimate.
- e. <u>Finding (16)</u>: The issue of pipeline connections is beyond the scope of the hearing. In addition, a pool cannot be produced without drainage, and the conservation system is designed to give each owner the opportunity to produce his fair share. As set forth below it is an illegal act to reduce production from non-wasteful (connected) well to protect the correlative rights of the owners of a wasteful (unconnected) well.

- Finding (20): This finding proposes to further f. reduce allowables for some wells connected to pipelines beyond the 83% reduction to protect the correlative rights of wells that do not have a casinghead gas connection. New Mexico law does not permit this Commission to reduce the allowable on a connected well in order to protect a non-connected well that flares and wastes its casinghead gas. It is believed that approximately 55 wells in the Gavilan have casinghead gas connections while approximately 15 wells have no connection. Under the Commission's order, these 50 connected wells have their top allowable potential reduced by 83%. The Commission's order permits the Director to further reduce production from Applicants' wells, below 17% of top allowable, without any legal justification. This part of the Commission's order should be stricken. If any action is needed in this area, the Commission or affected operators should institute separate hearings.
- g. Ordering (2): This extension application of Mesa Grande Resources, Inc., should be granted. BMG admits its extension area wells are in good communication in the "A & B" zones with the Gavilan wells.
- h. Ordering (4): The Gavilan allowable for a 640 acre proration unit should be 1404 bopd and 2000/1 GOR. Testing requirements should be modified as set forth in paragraphs 2(a)(b) and (c) above.
- i. Ordering (5): There is no basis in law or fact to arbitrarily reduce the Gavilan allowable for an indefinite period of time.

- j. Ordering (6): As previously outlined, the unconnected well matter was not an issue at this hearing, and the Commission has no authority to reduce the allowable of a non-wasteful (connected) well to protect the correlative rights of a wasteful (unconnected) well.
- k. Ordering (8): As already requested, the reopened hearing should be advanced to February 1988.

As to Order R-6469-D (and only as to their effect on Gavilan):

- 1. Finding (11): There is no similar finding in R-7407-E. The top allowable in Gavilan for a 640-acre proration unit should be 1404 bopd (twice the current 702 bopd for a 320-acre proration unit). The top allowable for Gavilan should be 1404 bopd with a 2000/1 GOR. This will cause no penalty to wells already drilled on 320-acre proration units which originally had the Gavilan top allowable of 702 bopd with a 2000/1 GOR. Applicants have no objection to the West Puerto having the same top allowable treatment.
- with these provisions in the findings of Order R-7407-E. The Gavilan top allowable producing rate of 702 bopd and 2000/1 for a 320-acre spacing unit are no wasteful. If the Commission and Mr. Greer are interested in determining whether waste will occur at normal allowable rates or drainage occur "via the highly transmissive fracture system," then the testing requests in paragraphs 2(a), (b) and (c) above should be granted. There is no factual or legal basis to apply these two findings to Gavilan.

- n. <u>Finding (15)</u>: This finding does not appear in R-7407-E. There is no evidence to support a finding that "the pressure differential favors" Gavilan." In fact, the limited data showed the exact opposite: if there is a "weak" connection between Gavilan and West Puerto the pressure differential still favors West Puerto. In addition, the testing requested in pargraphs 2(a), (b) and (c) above will relate directly to these erroneous findings.
- o. <u>Finding (16)</u>: This finding does not appear in R-7407-E. If this finding is correct then the westernmost tier of sections referred to therein should be deleted from the West Puerto and included in the extension of Gavilan in accordance with the application of Mesa Grande Resources, Inc., in Case No. 9114.
- p. Ordering (2): As discussed above, this application should be granted.
- q. Ordering (3): This paragraph should be amended to include the tests requested in paragraphs 2(a),(b) and (c) above.
- r. Ordering (4): This ordering paragraph should be stricken as to the allowable limitation of 800 bopd and 600/1 GOR.
- s. Ordering (5): The reopened hearing should be advanced to February 1988.
- 7. Rules issued by the Commission should be fair and equal in effect. The subject order is discriminatory as described below:

- a. The order allows production at 1280 barrels of oil per day and a GOR of 2000:1 for a three (3) month period, but requires production at 800 barrels of oil per day and a GOR of 600:1 for eight (8) months and is therefore inherently unfair and biased as to the periods of production (3 months v. 8 months) toward the interests of Jerome P. McHugh & Associates and Sun Exploration and Production Company.
- b. The Commission's production limitations have resulted in certain wells operated by Mallon Oil Company being shut-in for over 25 days per month. This discriminates against Mallon Oil Company and causes economic waste and violates correlative rights due to production from offsetting wells.
- c. Substantial investments were made by Applicants herein and others in Gavilan based upon then-existing pool rules. A change of the rules in mid-stream has and will work a financial hardship on those interest owners by restricting production. This has resulted in limiting return on investment to an amount insufficient to recover the millions of dollars invested, resulting in severe economic hardship. In addition, this has a chilling effect on further oil and gas investment in this state.
- 8. The Commission's production limitations constitute a taking of property without just compensation in violation of the federal and state constitutions.
- 9. Order R-7407-E fails to comply with applicable statutory and judicial mandates. In Continental Oil Co. v. Oil Conservation Commission, 70 N.M. 310, 373 P.2d 809 (1962), the

New Mexico Supreme Court, in a case dealing with a natural gas pool, discussed the basic conclusions of fact that the Commission is required to find prior to changing a proration formula. The requirements are that the Commission find, as far as it is practical to do so:

- the amount of recoverable reserves under each producer's tract;
- 2. the total amount of recoverable reserves in the pool;
- 3. the proportionate relationship of (1) and (2); and
- what portion of the reserves can be recovered without waste.

A review of Order R-7407-E shows that the Commission failed to make any of these required findings and did not discuss any of these necessary elements. The record in this matter is clear that the changes adopted by the Commission constitute a change in the proration formula since these changes alter the relative proportion of production between operators in Gavilan and deviate from statewide rules. Order R-7407-E is therefore contrary to law and arbitrary and capricious.

WHEREFORE, applicants request the Commission to set these matters for rehearing.

Respectfully submitted,
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#### CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Application for Rehearing were mailed to the following persons this \_\_\_\_ day of June, 1987.

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#### STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

CASES NOS. 7980, 8946, 9113, AND 9114 ORDER NO. R-7407-E

CASE NO. 8950 ORDER NO. R-6469-D

# APPLICATION FOR REVIEW

COME NOW Mallon Oil Company and Mesa Grande Resources, Inc. ("Applicants") and file this, their Application for Review of Commission orders in the above-described matters, and state as follows:

I.

# BACKGROUND

A controversy has developed between two sets of owners and operators on how to produce the Gavilan Mancos Oil Pool ("Gavilan"). Applicants and certain other allied owners believe the Gavilan and the West Puerto Chiquito-Mancos Pool

Mallon Oil Company
Mesa Grande Resources, Inc.
Mesa Grande, Ltd.
Mobil Oil Corporation
American Penn Energy, Inc.
Kodiak Petroleum
Hooper, Kimball & Williams
Reading & Bates Petroleum Co.
Koch Exploration
Amoco Production Company
Arriba Company, Ltd.
Smackco, Ltd.
Phelps Dodge Corp.
Floyd & Emma Edwards
Don Howard

("West Puerto"), although physically adjacent to each other, are separate and distinct pools with no effective communication and that the currently designated boundary between the pools is inaccurate and should be moved roughly one or two section lines to the east. Gavilan contains wells capable of very high rates of production and pool recovery is not rate sensitive. Therefore, the standard statewide depth-bracket allowable is appropriate.

Opposition owners<sup>3</sup> in the pools, however, have argued that the Gavilan and West Puerto are in direct effective communication, that pool recovery from the Gavilan is rate sensitive and that production from the Gavilan Pool should be drastically reduced.

The Oil Conservation Commission of this Department ("Commission") conducted a five-day hearing held in March and April 1987, after which the the Commission agreed with

<sup>&</sup>quot;Rate sensitive" is a shorthand expression used by technical people to indicate that the amount of ultimate primary recovery is affected by the rate or level of production. There are a number of natural producing mechanisms which are not rate sensitive such as a "solution gas drive" mechanism. The Applicants have submitted convincing evidence that the primary drive mechanism for the Gavilan is a solution gas drive which demonstrates that ultimate recovery of Gavilan oil reserves is not affected by the rate or level of production.

Benson-Montin-Greer Drilling Corporation Jerome P. McHugh & Associates Dugan Production Corporation Sun Exploration and Production Company Meridian Oil Company

Applicants that the Gavilan is a separate pool from the West Puerto. See R-6469-D Finding of Fact, Paragraphs (5)(6)(7) & (17), Ordering Paragraph (1) and R-7407E, Finding of Fact (6)(7)(8), Ordering Paragraph (1). A dispute, however, continues between the parties concerning the proper boundary line between the Gavilan and West Puerto and whether production from the Gavilan is rate sensitive. Accordingly, the Commission orders required bottomhole pressure tests on all wells in both pools within the first week of July 1987. (R-6469-D Ordering Paragraph (3) & R-7407-E Ordering Paragraph (4)). The orders have now been effectively amended by the staff, not the Commission, to require less than all wells to be tested. Applicants object to that informal amendment.

The Commission also established a testing period for rate sensitivity purposes, allowing all wells to produce at near top allowables for 90 days and then drastically reducing production for another 90 days. At the end of the test period, wells are to remain drastically reduced for at least an additional five months pending a reopened hearing, in May 1988, to consider the test data. Applicants object to this unnecessarily extended period of restricted allowables below the standard statewide depth brackets.

II.

THE OIL CONSERVATION COMMISSION HAS ENTERED ORDERS WHICH CONTRAVENE THE DEPARTMENT'S STATEWIDE PLAN AND THE PUBLIC INTEREST

The Applicants request a review by the Secretary of the Energy, Minerals and Natural Resources Department ("Secretary")

APPLICATION FOR REVIEW - Page 3

of Commission Orders R-6469-D and R-7407-E pertaining to rules governing production from the Gavilan and the West Puerto because such orders contravene this Department's Statewide Plan and the public interest of New Mexico. Applicants have prepared a brief memorandum on the authority of the Secretary to grant this Application, which brief is attached hereto as Exhibit A and incorporated herein by reference.

Applicants request the Secretary to amend the Commission orders as follows:

- 1. The testing requirements for five wells should be reinstated and modified to obtain necessary data.
- 2. The reopened hearing should be scheduled in February 1988 instead of May 1988 in light of the 83% cut in statewide depth bracket allowable imposed by the Commission at the request of the Sun Oil Co.-BMG Group.

Applicants believe the real intent of the Sun-BMG group is to confiscate the Applicants' property. Without a reservoir study of the Gavilan the BMG group decided the Gavilan needed to be unitized. Applicants, frustrated by BMG groups' refusal to collect and discuss technical data finally commissioned an outside study to determine feasibility of secondary recovery and thus unitization. That study concluded no secondary recovery or unit was needed. After the Commission cut the Gavilan top allowable by 83% in September 1986, at the request of the BMG group, Sun, BMG's partner, began buying properties in the Gavilan. Sun tried to buy Applicants' Gavilan oil properties at distress prices. In short, it is the intention of the Sun-BMG group to drive these Applicants out of the oil business in the Gavilan and take over operation of their properties. With this background, the Secretary can realize why the matters requested herein are of extreme urgency to the continued health of the oil industry in New Mexico.

- 3. If the Secretary does not advance the hearing from May 1988 to February 1988, then the Secretary should order effective January 1, 1988, the reinstatement of statewide depth bracket allowable which previously existed in the Gavilan of 702 bopd with a 2000/1 GOR for a 320-acre proration unit, (twice this amount for a 640-acre proration unit). Such reinstated statewide allowables should remain in effect until the Commission acts on the May 1988 reopened hearing.
- 4. The Secretary should make clear that the proper boundary between the Gavilan and West Puerto will be considered at the reopened hearing based on the test and production data ordered by the Secretary and the Commission.
- 5. Applicants also urge that the additional points set out in Applicants' prior Application for Rehearing be considered by the Secretary. A copy of the Applicants' Application for Rehearing before the Commission is attached as Exhibit B and incorporated herein by reference.

III.

# TESTING REQUIREMENTS

These Applicants have specifically requested that bottom hole pressure data be obtained from the following BMG wells in West Puerto:

Canada Ojitos Unit (COU)

E-10

F-30

B-29

B-32

L-27

The details of this bottom hole pressure testing and the need therefore is set forth on Pages 4-6, Paragraphs 2a., 2b. and 2c. of Exhibit B.

The Commission is refusing to follow its own orders of June 8, 1987, (attached as Exhibit C and incorporated herein) to require bottom hole pressures on all wells and BMG has refused to pressure test key wells covered by the orders. This bottom hole pressure information will provide meaningful data on the proper location of the boundary line between Gavilan and West Puerto. In addition, this pressure data will enhance the information available to confirm that the Gavilan wells are not rate sensitive. The Secretary should modify the above order to require well testing as requested by Applicants on the COU wells E-10, F-30, B-29, B-32 and L-27.

IV.

# REOPENED HEARING DATE SHOULD BE SCHEDULED IN FEBRUARY 1988

If the reopened hearing ordered by the Commission remains scheduled for May 1988, the estimated loss in production during this five-month period alone to all interested parties due to the

BMG has filed an application with the Commission to increase its allowables along the current boundary line of the Gavilan and West Puerto. This Application, scheduled for hearing on September 24, 1987, would permit the BMG wells producing from the A & B zones to obtain gas injection credit to remove allowable penalties for gas injected in the C zone. The effect would be to restore 70% of the allowable cut to the BMG wells while continuing the 83% allowable cut against the wells operated by Applicants and other parties in Gavilan.

allowable limitation imposed by these Commission orders will exceed 400,000 barrels of oil and 750,000 MCF of gas, worth \$9,000,000.00. State tax revenue loss alone would exceed \$800,000.00. It is estimated that the monthly tax loss in revenue to the State will be \$170,000.00 per month not counting its one-half share of federal lease royalty. In other words, advancing the hearing from May 1988 to February 1988 could restore \$170,000 per month in badly needed State revenues plus the State's one half of increased federal royalties.

In addition, the continuation of these unwarranted allowable restrictions below the standard statewide depth bracket allowables will shift reserves from these Applicants to the Sun-BMG group and result in a clear violation of the correlative rights of these Applicants and their royalty owners, including the BLM. The BLM royalty on Applicants' tracts because of newer leases are higher than the BMG operated BLM tracts in West Puerto. The effect of these orders is to drain reserves from tracts in which the State of New Mexico would be entitled to higher royalty rates.

The Applicants are not contesting another four month 83% reduction in statewide allowables (October 1987 through January 1988) to obtain the data the Commission has indicated it needs to finally settle the rate sensitivity issue in the Gavilan and to settle the proper location of the Gavilan-West Puerto boundary. It is unreasonable, however, to require these Applicants and others to continue on 83% statewide allowable cut

until May 1988 and so long thereafter until an order issues, while the Commission reviews new data, some of which will have been gathered as early as July 1987. The Commission should advance the reopened hearing to February 1988, in order to stop the arbitrary and unnecessary restriction in allowables for the Gavilan.

ν.

IN THE ALTERNATIVE, STATEWIDE DEPTH BRACKET ALLOWABLES SHOULD BE RESTORED PENDING THE REOPENED HEARING.

If the Secretary elects not to require an advancement of the May 1988 hearing to February 1988, then in all fairness and in order to comply with the statewide plan and in the public interest the allowables for the Gavilan should be restored to 702 bond with a 2000/1 GOR effective January 1, 1988, for a 320-acre proration unit and twice such amount for a 640-acre proration unit. A similar restoration of allowables should be implemented in the West Puerto.

The Commission's orders contemplate a partial restoration of the Gavilan allowable effective July 1, 1987, to 640 bopd and a 2000/1 GOR for a 320-acre proration unit. (Gavilan is essentially drilled on a 320-acre pattern.) Bottomhole pressure tests were to be run on all wells in the first week of July 1987. After three months of this partially restored production rate, the allowable is then reduced on October 1, 1987, to 400 bopd with a 600/1 GOR with new bottomhole pressure tests to be conducted in the first week for October 1987. After three months

of reduced production (October, November and December), additional bottomhole pressures will be conducted in the first week of January 1988. Under the existing orders, this severely restricted rate will continue, after the testing period ends, until the Commission acts on the May 1988 reopened hearing. means a minimum of an additional five months of restricted allowables without any justification. In other words, the Gavilan receives partial restoration of its production rate for only three months and then the Gavilan rate is again restricted below the statewide depth brackets allowables for a minimum of at least eight months. The Gavilan has already suffered a ten-month 83% restriction of statewide depth bracket allowables at the 400 bopd and 600/1 GOR from September 1986 through June 1987. The net effect of the Commission orders are to require Gavilan to produce at a statewide depth bracket allowable restriction of 83% for at least 18 months out of a 21-month period.

The inequity to Applicants is clear. Therefore, the allowable for the Gavilan should be restored January 1, 1988 to the statewide depth bracket of 702 bopd with a 2000/1 GOR, for a 320-acre proration unit and twice this amount for a 640-acre proration unit continuing until the Commission acts on the May 1988 hearing.

VI.

#### BOUNDARY QUESTION

Because of the additional test data required by the Commission and requested by the Applicants, the Secretary should make clear that the proper boundary between Gavilan and West

APPLICATION FOR REVIEW - Page 9

Puerto should be considered at the reopened hearing based upon all data then available.

#### VII.

# ADDITIONAL REVIEW

The other matters for which Applicants request review by the Secretary are set forth in Exhibit B. At this time, however, Applicants are willing to abide by the subject orders if the above tests, hearing advancement, allowable restoration and boundary consideration are ordered by the Secretary. Applicants will not pursue its appeal if the requests outlined above are granted by the Secretary since all parties will have sufficient data and equal footing to proceed with what Applicants hope will be a February 1988 reopened hearing.

#### CONCLUSION

For the foregoing reasons, Applicants request that the Commission's orders be amended to require 1) proper testing,

2) advancing the reopened hearing to February 1988, (or, in the alternative, to reinstate allowables effective January 1, 1988, pending the results of the reopened hearing,) and 3) the reopened hearing will consider the proper boundary of the Gavilan and West Puerto.

In order to grant this request, the Secretary <u>does not</u> need to rehear the evidence presented at the original hearing or rule on the merits of the arguments presented at the original hearing. The Secretary can grant this request based upon the previous hearing record, the Commission orders and the arguments of

counsel. The requested amendments will not change the substance or direction of the Commission orders but rather will clarify those orders, provide proper test data for review, and will give all parties a fair and equal standing at the reopened hearing.

Accordingly, Applicants' request the Secretary open this hearing on or before July 29, 1987, which date is within twenty days of the denial of Applicants' Application for Rehearing. However, in light of the short time period for the hearing to be convened the Secretary could use this initial hearing to set the ground rules for a hearing to be resumed shortly after July 29, 1987.

Respectfully submitted,
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# CERTIFICATE OF SERVICE

I hereby certify that I caused a true and correct copy of the foregoing Application for Review to be mailed to the following persons this 22nd day of July, 1987.

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#### STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

CASES NOS. 7980, 8946, 9113, AND 9114
ORDER NO. R-7407-E

CASE NO. 8950 ORDER NO. R-6469-D

# MEMORANDUM OF LAW AND AUTHORITY IN SUPPORT OF APPLICATION FOR REVIEW

I.

#### BACKGROUND

On March 30, 1987, a five day hearing commenced before the Commission to consider appropriate pool rules, allowables and boundaries for two adjacent pools: the Gavilan and the West Puerto. On June 8, 1987, the Commission entered Orders R-6469-D and R-7407-E ordering, among other things, as follows:

- 1. The two pools are separate, with weak communication;
- 2. All wells in both pools should have bottomhole pressure tests run at three different times to determine rate sensitivity to production levels;
- 3. The allowables for the Gavilan Pool (which had previously been arbitrarily reduced by 83%) should be restored to 1280 bopd and a 2000:1 GOR for 640-acre proration units (640 bopd for a 320 acre proration unit) for a three-month period, beginning July 1, 1987, in order to determine rate sensitivity;
- 4. The allowables for Gavilan should be restricted again in October 1987 for a period of ninety (90) days as part of the rate sensitivity testing;

- 5. In January 1988 testing should cease and the information obtained is to be analyzed by the Commission prior to reopening the hearing in May 1988 for such further orders as may be appropriate in light of the test data;
- 6. The Gavilan allowables are to remain restricted at 17% (an 83% cut) of the statewide depth bracket top allowable until the May 1988 reopened hearing and so long thereafter until the results of said hearing are put into effect.

Both sides filed Applications for Rehearing with the Commission. Applicants herein objected to the imposition of the additional five months of restricted allowables to run from January to May 1988; requested that the reopened hearing date be moved to February 1988 to alleviate this arbitrary continuation of the allowable restriction; and requested that isolation bottomhole tests be conducted on certain key wells which would more accurately establish the boundary between the Gavilan and West Puerto as well as be determinative of the rate sensitivity question. These requests were denied as a matter of law on July 9, 1987 when the Commission took no action on the Applicants' Application for Rehearing.

The opposing parties, BMG, et al., also filed an Application for Rehearing, objecting to the Commission's determination that the Gavilan and West Puerto Fields were separate; objecting to the reinstatement of statewide depth bracket allowables to the Gavilan and objecting to the rate sensitivity testing ordered by the Commission, which Application for Rehearing was also denied as a matter of law on July 9, 1987.

# APPEAL TO THE SECRETARY

Applicants have filed their Application for Review by the Secretary, not to overturn the Commission's substantive orders, but to clarify and amend them in four vital ways:

- 1. To order the testing requested by Applicant and required by the Commission's order as necessary to obtain relevant data.
- 2. To advance the reopened hearing date from May 1988 to February 1988; or
- 3. In the alternative, to reinstate previous statewide depth bracket allowables to the Gavilan, effective January 1, 1988, of 702 bopd and a 2000/1 GOR for a 320 acre proration unit (and twice this amount for a 640 acre production unit) pending the reopened hearing.
- 4. To clarify that the reopened hearing will consider the appropriate boundary between the Gavilan and West Puerto based on the new testing and production data.

The parties to a Commission proceeding have two statutory avenues of appeal: appeal directly to the district court (\$ 70-2-25 NMSA 1978) or appeal for review by the Secretary of the Energy, Minerals and Natural Resources Department.

(\$ 70-2-26 NMSA 1978, see copies of these stautory provisions attached to this memorandum) Applicants have chosen to pursue their rights by appeal to the Secretary for they believe that with the proposed amendments to the Commission's orders, all

parties can proceed to the reopened hearing on a relatively equal basis, with sufficient data to once and for all resolve the controversy surrounding the Gavilan and West Puerto. On the other hand, if Applicants appeal to the district court the entire validity of the Commission orders would be at issue. Although Applicants have objected and preserved their objections to several errors in the Commission orders, they believe those objections do not need to be raised if the orders are amended as requested.

III.

## STATUTORY AUTHORITY

Statutory authority for appeal to the Secretary states that the Secretary may hold a public hearing to determine whether the orders appealed "contravene the statewide plan or the public interest." (§ 70-2-26 NMSA 1978) Applicants have specifically reviewed the "Policy-Level Plan for the Development and Management of New Mexico's Energy and Mineral Resources" ("Plan") to understand the statewide plan and how it may affect this Application. The Plan sets out four goals, two of which are directly applicable to this controversy:

- To optimize state revenues from the production of mineral resources;
- 2. To stimulate economic development in New Mexico by optimizing the supply of mineral resources. (P. 6 of the Plan)

The Plan further states that developers are entitled to expect a reasonable degree of regulatory stability at the state and local levels and to be assisted by the State in the drilling, production and transportation of natural resources. (P. 7 of the Plan)

Applicants believe that the subject orders of the Commission are in contravention of the stated goals of the Plan. Specifically, the orders require Applicants to restrict their production by 83% of the previous statewide depth bracket allowables from January 1988 to May 1988, after the Commission ordered testing period is over. There is no justification in the orders for continuing this arbitrary restriction. This restriction will result in a tremendous loss of revenue to the State of New Mexico as affected wells have the ability to produce an additional 400,000 barrels of oil and 750,000 mcf of gas under normal allowables, providing at least \$800,000 in additional tax revenues to the State over this five-month period. The State also loses one-half of the royalty production attributable to federal leases which is not produced due to these severe allowable restrictions. This arbitrary restriction clearly contravenes the stated goals of the Plan. This error can be easily corrected by amending the Commission's orders to provide for a February 1988 hearing date, or, in the alternative, to reinstate the previous statewide allowables in January 1988, pending the reopened hearing.

MEMORANDUM OF LAW AND AUTHORITY - Page 5

Further, Applicants believe the Commission orders, as written, are contrary to the public interest. It is in the public's interest to have orders which encourage the legitimate development and production of resources and which fairly require the compilation of data to resolve disputes. The orders, as written, do not encourage the development and production of resources because they arbitrarily and unnecessarily continue restriction (by 83%) of the statewide allowables. Applicants have diligently developed the minerals on their property, and spent millions of dollars in doing so, with the understanding that statewide rules would apply to them just as they apply to other operators in the State. Changing these rules, in midstream, without any finding that these changes are necessary to prevent waste or protect correlative rights, unquestionably has a chilling effect on development of reserves in New Mexico and therefore clearly affects the public interest.

The orders also fail to require the fair compilation of data on an equal and reasonable basis so that the issues before the Commission can be resolved at the reopened hearing. In order to determine the questions of rate sensitivity and the appropriate boundary location, it is necessary to obtain isolated bottomhole pressure tests on the wells requested in Applicants' Application for Rehearing and this Application for Review. Without this data, the issues the Commission has reserved for the reopened

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hearing cannot be intelligently and completely resolved. The public interest will be thwarted if ultimate resolution of those issues is made without consideration of the relevant data.

IV.

#### CONCLUSION

Applicants, therefore, request the Secretary grant their Application for Review, hold a hearing to consider oral arguments of the parties and enter an order amending or modifying the Commission's Order as requested by Applicants.

> Respectfully submitted, SCOTT, DOUGLASS & LUTON

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#### 70-2-25. Rehearings; appeals.

- A. Within twenty days after entry of any order or decision of the commission, any party of record adversely affected thereby may file with the commission an application for rehearing in respect of any matter determined by such order or decision, setting forth the respect in which such order or decision is believed to be erroneous. The commission shall grant or refuse any such application in whole or in part within ten days after the same is filed, and failure to act thereon within such period shall be deemed a refusal thereof and a final disposition of such application. In the event the rehearing is granted, the commission may enter such new order or decision after rehearing as may be required under the circumstances.
- B. Any party of record to such rehearing proceeding dissatisfied with the disposition of the application for rehearing may appeal therefrom to the district court of the county wherein is located any property of such party affected by the decision by filing a petition for the review of the action of the commission within twenty days after the entry of the order following rehearing or after the refusal or [of] rehearing as the case may be. Such petition shall state briefly the nature of the proceedings before the commission and shall set forth the order or decision of the commission complained of and the grounds of invalidity thereof upon which the applicant will rely; provided, however, that the questions reviewed on appeal shall be only questions presented to the commission by the application for rehearing. Notice of such appeal shall be served upon the adverse party or parties and the commission in the manner provided for the service of summons in civil proceedings. The trial upon appeal shall be without a jury, and the transcript of proceedings before the commission, including the evidence taken in hearings by the commission, shall be received in evidence by the court in whole or in part upon offer by either party, subject to legal objections to evidence. The commission action complained of shall be prima facie valid and the burden shall be upon the party or parties seeking review to establish the invalidity of such action of the commission. The court shall determine the issues of fact and of law and shall enter its order either affirming or vacating the order of the commission. Appeals may be taken from the judgment or decision of the district court to the supreme court in the same manner as provided for appeals from any other final judgment entered by a district court in this state. The trial of such application for relief from action of the commission and the hearing of any appeal to the supreme court from the action of the district court shall be expedited to the fullest possible extent.
- C. The pendency of proceedings to review shall not of itself stay or suspend operation of the order or decision being reviewed, but during the pendency of such proceedings, the district court in its discretion may, upon its own motion or upon proper application of any party thereto, stay or suspend, in whole or in part, operation of the order or decision pending review thereof, on such terms as the court deems just and proper and in accordance with the practice of courts exercising equity jurisdiction; provided, that the court, as a condition to any such staying or suspension of operation of an order or decision may require that one or more parties secure, in such form and amount as the court may deem just and proper, one or more other parties against loss or damage due to the staying or suspension of the commission's order or decision, in the event that the action of the commission shall be affirmed.
- D. The applicable rules of practice and procedure in civil cases for the courts of this state shall govern the proceedings for review and any appeal therefrom to the supreme court of the state to the extent such rules are consistent with provisions of the Oil and Gas Act [70-2-1 to 70-2-36 NMSA 1978].

#### 70-2-26. Review of oil conservation commission decision; appeals.

The secretary of [the] energy and minerals department may hold a public hearing to determine whether an order or decision issued by the oil conservation commission contravenes the department's statewide plan or the public interest. The hearing shall be held within twenty days after the entry of the commission-order or decision following a scheduling or after the order refusing a rehearing as the case may be. The hearing shall be a de novo proceeding and the secretary shall enter such order or decision as may be required under the circumstances, having due regard for the conservation of the state's oil, gas and mineral resources, and the commission shall modify its own order or decision to comply therewith. If a rehearing before the commission was granted, the record of the rehearing shall be made part of the record of the hearing before the secretary. If the application for rehearing was denied, the record of the hearing before the commission or the division shall be made part of the record of the hearing before the secretary. Such orders and decisions of the secretary may be appealed by any party to the original hearing or the rehearing before the commission, or by any party to the hearing before the secretary held pursuant to this section, in accordance with the procedure of Subsections B, C and D of Section 70-2-25 NMSA 1978 except that the appeal shall not be a de novo proceeding and shall be limited to a review of the record of the hearing held pursuant to the provisions of this section.

# STATE OF NEW MEX ) ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

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

CASES NOS. 7980, 8946, 9113, AND 9114 ORDER NO. R-7407-E

**CASE NO. 7980** 

IN THE MATTER OF CASE 7980 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDER NO. R-7407, WHICH ORDER PROMULGATED TEMPORARY SPECIAL RULES AND REGULATIONS FOR THE GAVILAN-MANCOS OIL POOL IN RIO ARRIBA COUNTY, INCLUDING A PROVISION FOR 320-ACRE SPACING UNITS.

# CASE NO. 8946

IN THE MATTER OF CASE 8946 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDER NO. R-7407-D, WHICH ORDER PROMULGATED A TEMPORARY LIMITING GAS-OIL RATIO AND DEPTH BRACKET ALLOWABLE FOR THE GAVILAN-MANCOS OIL POOL IN RIO APRIBA COUNTY.

CASE NO. 9113

APPLICATION OF BENSON-MONTIN-GREER DRILLING CORPORATION, JEROME P. McHUGH & ASSOCIATES, AND SUN EXPLORATION AND PRODUCTION COMPANY TO ABOLISH THE GAVILAN-MANCOS OIL PCOL, TO EXTEND THE WEST PUERTO CHIQUITO-MANCOS OIL POOL, AND TO AMEND THE SPECIAL RULES AND REGULATIONS FOR THE WEST PUERTO CHIQUITO-MANCOS OIL POOL, RIO ARRIBA COUNTY, NEW MEXICO.

**CASE NO. 9114** 

APPLICATION OF MESA GRANDE RESOURCES, INC. FOR THE EXTENSION OF THE GAVILAN-MANCOS OIL POOL AND THE CONTRACTION OF THE WEST PUERTO CHIQUITO-MANCOS OIL POOL, RIO ARRIBA COUNTY, NEW MEXICO.

# ORDER OF THE COMMISSION

# BY THE COMMISSION:

These causes came on for hearing on March 30 and 31 and April 1, 2, and 3, 1987 at Santa Fe, New Mexico before the Oil Conservation Commission of New Mexico hereinafter referred to as the "Commission."

-2-Cases Mos. 7980, 8946, 9113 and 9114 Order No. R-7407-E

NOW, on this <u>8th</u> day of June, 1987, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearings 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 and the subject matter thereof.
- (2) At the time of hearing, Cases 7980, 8946, 8950, 9113 and 9114 were consolidated for purposes of testimony.
- (3) Case 7980 involves review of temporary pool rules promulgated by Order R-7407 and Case 8946 involves reopening the matter of temporary reduction of allowable and gas/oil ratio limit, under Order R-7407-D, both orders pertaining to the Gavilan-Mancos Oil Pool.
- (4) Case 8950 involves reopening the matter of temporary reduction of allowable and gas/oil ratio limit under Order R-3401-A pertaining to the West Puerto-Chiquito-Mancos Oil Pool.
- (5) Case 9113 involves a proposal to abolish the Gavilan-Mancos Oil Pool and consolidate that pool into the West Puerto-Chiquito-Mancos Oil Pool and Case 9114 involves a proposal to shift the boundary between Gavilan-Mancos and West Puerto Chiquito-Mancos Oil Pools.
- (6) The evidence shows that there is limited pressure communication between the two designated pools, and that there are two weakly connected areas separated by some restriction at or near the common boundary of the two designated pools.
- (7) The evidence shows there are three principal productive zones in the Mancos formation in both presently designated pools, designated A, B, and C zones listed from top to bottom and that, while all three zones are productive in both designated pools. West Puerto Chiquito produces primarily from the C zone and Gavilan produces chiefly from the A and B zones.
- (8) It is clear from the evidence that there is natural fracture communication between zones A and B but that natural fracture communication is minor or non-existent between zones B and C.

- (9) The reservoir consists of fractures ranging from major channels of high transmissibility to micro-fractures of negligible transmissibility, and possibly, some intergranular porosity that must feed into the fracture system in order for oil therein to be recovered.
- (10) The productive capacity of an individual well depends upon the degree of success in communicating the wellbore with the major fracture system.
- (11) Interference tests indicate: 1) a high degree of communication between certain wells, 2) the ability of certain wells to economically and efficiently drain a large area of at least 640 acres; and 3) the probability exists that the better wells recover oil from adjacent tracts and even more distant tracts if such tracts have wells which were less successful in connecting with the major fracture system.
- (12) There is conflicting testimony as to whether the reservoir is rate-sensitive and the Commission should act to order the operators in West Puerto Chiquito and Gavilan-Mancos pools to collect additional data during 90-day periods of increased and decreased allowables and limiting gas-oil ratios.
- (13) Two very sophisticated model studies conducted by highly skilled technicians with data input from competent reservoir engineers produced diametrically opposed results so that estimates of original oil in place, recovery efficiency and ultimate recoverable oil are very different and therefore are in a wide range of values.
- (14) There was agreement that pressure maintenance would enhance recovery from the reservoir and that a unit would be required to implement such a program in the Gavilan-Mancos Pool.
- (15) Estimates of the amount of time required to deplete the Gavilan pool at current producing rates varied from 33 months to approximately five years from hearing date.
- (16) Many wells are shut in or are severely curtailed by OCD limits on permissible gas venting because of lack of pipeline connections and have been so shut in or curtailed for many months, during which time reservoir pressure has been shown by pressure surveys to be declining at 1 psi per day or more, indicating severe drainage conditions.
- (17) No party requested making the temporary rules permanent, although certain royalty (not unleased minerals)

owners requested a return to 40-acre spacing, without presenting supporting evidence.

- (18) Proration units comprised of 640 acres with the option to drill a second well would permit wider spacing and also provide flexibility.
- (19) Recognizing that the two designated pools constitute two weakly connected areas with different geologic and operating conditions, the administration of the two areas will be simplified by maintaining two separate pools.
- (20) A ninety day period commencing July 1, 1987, should be given for the connection for casinghead gas sale from now-unconnected wells in the Gavilan pool, after which allowables should be reduced in that pool until said wells are connected.
- (21) To provide continuity of operation and to prevent waste by the drilling of unnecessary wells, the temporary spacing rules promulgated by Order R-7407 should remain in effect until superceded by this Order.
- (22) Rules for 640-acre spacing units with the option for a second well on each unit should be adopted together with a provision that units existing at the date of this order should be continued in effect.

## IT IS THEREFORE ORDERED THAT:

- (1) The application of Benson-Montin-Greer et al in Case No. 9113 to abolish the Gavilan-Mancos pool and extend the West Puerto Chiquito-Mancos pool to include the area occupied by the Gavilan-Mancos Pool is denied.
- (2) The application of Mesa Grande Resources, Inc. for the extension of the Gavilan-Mancos and the concomitant contraction of West Puerto Chiquito-Mancos Pool is denied.
- (3) Rule 2 of the temporary special rules and regulations for the Gavilan-Mancos Oil Pool as promulgated by Order R-7407 is hereby amended as follows:
  - Rule 2 (a). A standard proration unit shall consist of between 632 and 648 acres consisting of a governmental section with at least one and not more than two wells drilled or recompleted thereon; provided that if the second well is drilled or recompleted on a standard unit it shall not be located in the same quarter section, nor

closer than 1650 feet to the first well drilled on the unit; and provided further that proration units formed prior to the date of this order are hereby granted exception to this rule.

- (b). A buffer zone is hereby created consisting of the east half of sections bordering Township 1 West. Only one well per section shall be drilled in said buffer zone and if such well is located closer than 2310 feet from the western boundary of the West Puerto Chiquito-Mancos Oil Pool it shall not be allowed to produce more than one-half the top allowable for a 640-acre proration unit.
- barrels of oil per day per 640 acres with a limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil. Operators are required to monitor reservoir performance, including but not limited to, production rates, gas-oil ratios, reservoir pressures, and shall report this information to the Commission within 30 days after completion of the tests. Within the first week of July, 1987, bottom hole pressure tests shall be taken on all wells. Wells shall be shut-in until pressure stabilizes or for a period not longer than 72 hours. Additional bottom hole tests shall be taken within the first week of October, 1987, with similar testing requirements. All produced gas, including gas vented or flared, shall be metered. Operators are required to submit a testing schedule to the District Supervisor of the Aztec office of the Oil Conservation Division prior to testing so that tests may be witnessed by OCD personnel.
- (5) Beginning October 1, 1987, the allowable shall be 800 barrels of oil per day per 640 acres with a limiting gas-oil ratio of 600 cubic feet of gas per barrel of oil. Operators are required to monitor reservoir performance as in (4) above with bottom hole pressure tests to be taken within the first week of January, 1988. This allowable and GOR limitation shall remain in effect until further notice from the Commission.
- (6) In order to prevent further waste and impairment of correlative rights each well in the Gavilan-Mancos Oil Pool shall be connected to a gas gathering system by October 1, 1987 or within ninety days of completion. If Wells presently unconnected are not connected by October 1 the Director may reduce the Gavilan-Mancos allowable as may be appropriate to prevent waste and protect correlative rights. In instances where it can be shown that connection is absolutely uneconomic the well involved may be granted authority to flow or vent the

-6-Cases Nos. 1980, 8946, 9113 and 9114 Order No. R-7407-E

gas under such circumstances as to minimize waste as determined by the Director.

- (7) The temporary special pool rules promulgated by Order R-7407 are hereby extended to the effective date of this order and said rules as amended herein are hereby made permanent.
- (8) This case shall be reopened at a hearing to be held in May, 1988 to review the pools in light of information to be gained in the next year and to determine if further changes in rules may be advisable.
- (9) Jurisdiction of this cause is retained for 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, Chairman and Secretary

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# STATE OF NEW MEXICO ENERGY AND MINERALS DEF INTENT OIL CONSERVATION DIVISION

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

> CASE 8950 Order No. R-6469-D

IN THE MATTER OF CASE 8950 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDERS NOS. R-6469-C AND R-3401-A, AS AMENDED. WHICH ORDER PROMULGATED A TEMPORARY ALLOWABLE AND LIMITING GAS-OIL RATIO FOR THE WEST PUERTO CHIQUITO-MANCOS OIL POOL IN RIO ARRIBA COUNTY.

#### ORDER OF THE COMMISSION

## BY THE COMMISSION:

This cause came on for hearing on March 30 and 31 and April 1, 2, and 3, 1987 at Santa Fe, New Mexico before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 8th day of June, 1987 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 this cause and the subject matter thereof.
- (2) At the time of hearing, Cases 7980, 8946, 8950, 9113 and 9114 were consolidated for purposes of testimony.
- (3) Case 8950 involves re-opening the matter of temporary reduction of allowable and gas/oil ratio limit under Order R-6469-C/R-3401-A pertaining to the West Puerto Chiquito-Mancos Oil Pool.
- (4) Case 9113 involves a proposal to abolish the Gavilan-Mancos Oil Pool and consolidate that pool into the West Puerto Chiquito-Mancos Oil Pool and Case 9114 involves a proposal to shift the boundary between Gavilan-Mancos and West Puerto Chiquito-Mancos Oil Pool.

- (5) The evidence shows that there is limited pressure communication between the two designated pools, and that there are two weakly connected areas separated by some restriction at or near the common boundary of the two designated pools.
- (6) The evidence shows there are three principal productive zones in the Mancos formation in both presently designated pools, designated A, B, and C zones listed from top to bottom and that, while all three zones are productive in both designated pools. West Puerto Chiquito produces primarily from the C zone and Gavilan produces chiefly from the A and B zone.
- (7) It is clear from the evidence that there is natural fracture communication between zones A and B but that natural fracture communication is minor or non-existent between zones B and C.
- (8) Interference tests indicate: 1) a high degree of communication between certain wells, 2) the ability of certain wells to economically and efficiently drain a large area of at least 640 acres; and 3) the probability exists that the better wells recover oil from adjacent tracts and even more distant tracts if such tracts have wells which were less successful in connecting with the major fracture system.
- (9) There is conflicting testimony as to whether the reservoir is rate-sensitive and the Commission should act to order the operators in West Puerto Chiquito and Gavilan-Mancos pools to collect additional data during 90-day periods of increased and decreased allowables and limiting gas-oil ratios.
- (10) Estimates of the amount of time required to deplete the Gavilan Pool at current producing rates varied from 33 months to approximately five years from hearing date.
- (11) An allowable of 1280 barrels per day is based upon an extension of the depth bracket allowable table and should be the allowable for a 640-acre proration unit for a period of 90 days with a limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil.
- (12) The Oil Conservation Commission and their staff will evaluate the data collected, or contract to have the data evaluated, to ascertain whether the 1280 BOPD allowable and 2,000 to 1 limiting GOR will cause waste and/or provide a mechanism for confiscation of oil and gas through drainage via the highly transmissive fracture system.

- (13) After the initial 90-day period ends, the allowable should be reduced to 800 BOPD per 640 acres with a limiting GOR of 600 cubic feet of gas per barrel of oil.
- (14) The West Puerto Chiquito-Mancos Pool is dominated by the Canada Ojitos Unit on which a pressure maintenance program has been in progress since 1968 wherein all produced gas has been reinjected as well as outside purchased gas being injected.
- (15) From commencement of production in the West Puerto Chiquito Mancos Pool in 1964 until approximately the end of 1986, a period of 22 years, the West Puerto Chiquito Pool enjoyed a favored pressure differential to the area now designated the Gavilan Mancos Pool but now the pressure differential favors the Gavilan Mancos Pool.
- (16) The existing West Puerto Chiquito Mancos Pool wells located in the westernmost tier of sections in Township 25 North, Range 1 West, and the proper development of the Mancos Pool along the common existing boundary of the two pools will protect operators within the West Puerto Chiquito Mancos Pool from drainage by wells within the Gavilan Mancos Pool.
- (17) Recognizing that the two designated pools constitute two weakly connected areas with different geologic and operating conditions the administration of the two areas will be simplified by maintaining two separate pools.

#### IT IS THEREFORE ORDERED THAT:

- (1) The application of Benson-Montin-Greer in Case No. 9113 to abolish the Gavilan-Mancos Pool and extend the West Puerto Chiquito-Mancos Pool to include the area occupied by the Gavilan-Mancos pool is denied.
- (2) The application of Mesa Grande Resources, Inc. for the extension of the Gavilan-Mancos and the concomitant contraction of West Puerto Chiquito-Mancos pool is denied.
- (3) Beginning July 1, 1987, the allowable shall be 1280 barrels of oil per day per 640 acres with a limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil. Operators are required to monitor reservoir performance, including but not limited to, production rates, gas-oil ratios, reservoir pressures, and shall report this information to the Commission within 30 days from completion of the tests. Within the first week of July, 1987, bottom hole pressure tests shall be taken



AUG 27 1987

FIRST JUDICIAL DISTRICT CONSUMERS ANTA FE, RIO ARRIBA 8
LOS ALAMOS COUNTIES
P.O. Box 2268
Santa Fe, NM 87504-2268

FIRST JUDICIAL DISTRICT COURT
STATE OF NEW MEXICO
COUNTY OF RIO ARRIBA

BENSON-MONTIN-GREER DRILLING CORP., JEROME P. McHUGH & ASSOCIATES, DUGAN PRODUCTION CORP. AND SUN EXPLORATION AND PRODUCTION COMPANY,

Petitioners,

v.

NO. SF-87-1537(C)

OIL CONSERVATION COMMISSION OF NEW MEXICO,

Respondent.

#### ANSWER TO PETITION FOR REVIEW

The New Mexico Oil Conservation Commission, by and through its attorney, responds to the allegations contained in Petitioners' Complaint and Petition for Review as follows:

# PARTIES

- 1. Admit
- 2. Admit

# **FACTS**

- 1. Admit
- 2. Admit
- 3. Admit
- 4. Admit
- 5. Admit
- 6. Admit
- 7. Admit

# JURISDICTION

- 1. Admit
- 2. Admit
- 3. Admit

# RELIEF SOUGHT

- Point I. Deny
- Point II. Deny
- Point III. Deny
- Point IV. Deny

Wherefore the Commission requests that the Court deny Petitioners the relief they seek and enter an Order affirming Commission Orders R-6469 and R-7407-E.

Respectfully submitted,

JEFFERY TAYLOR

General Counsel

Oil Commission

P. O Box 2088

Santa Fe, New Mexico 87504-2088

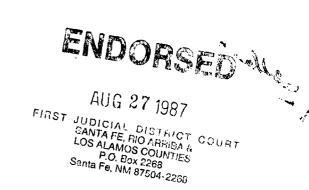
Telephone: (505) 827-5805

I hereby certify that on the

day of August, 1987,

a copy of the foregoing pleading was mailed to opposing counsel

of record.



FIRST JUDICIAL DISTRICT COURT
STATE OF NEW MEXICO
COUNTY OF RIO ARRIBA

BENSON-MONTIN-GREER DRILLING CORP., JEROME P. McHUGH & ASSOCIATES, DUGAN PRODUCTION CORP. AND SUN EXPLORATION AND PRODUCTION COMPANY,

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## FACTS

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- 5. Admit
- 6. Admit
- 7. Admit

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- 1. Admit
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- Point I. Deny
- Point II. Deny
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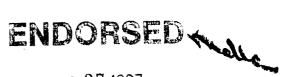
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AUG 27 1987

FIRST JUDICIAL DISTRICT COURT SANTA FE, RIO ARRIBA & LOS ALAMOS COUNTIES P.O. Box 2268 Santa Fe, NM 87504-2268

FIRST JUDICIAL DISTRICT COURT
STATE OF NEW MEXICO
COUNTY OF RIO ARRIBA

BENSON-MONTIN-GREER DRILLING CORP., JEROME P. McHUGH & ASSOCIATES, DUGAN PRODUCTION CORP. AND SUN EXPLORATION AND PRODUCTION COMPANY,

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- 2. Admit
- 3. Admit
- 4. Admit
- 5. Admit
- 6. Admit
- 7. Admit

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- 2. Admit
- 3. Admit

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Respect fully submitted,

General Counsel
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Santa Re, New Mexico 87504-2088

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ENDORSED

FIRST JUDICIAL DISTRICT COURT COUNTY OF SANTA FE STATE OF NEW MEXICO

AUG 28 1987

FIRST JUDICIAL DISTRICT COURT SANTA FE, RIO ARRIBA & LOS ALAMOS COUNTIES P.O. Box 2268 Santa Fe, NM 87504-2268

MALLON OIL COMPANY AND MESA GRANDE RESOURCES, INC.,

Petitioners.

v.

No. CIV RA 87-1572(e)

OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO.

Respondent.

## ANSWER TO PETITION FOR REVIEW

The New Mexico Oil Conservation Commission, by and through its attorney, responds to the allegations contained in Petitioners' Petition for Review as follows:

## Statement of Facts.

The allegations contained in Paragraphs One through Six relate to the contents of Commission Orders R-6469-D and R-7407-E, which are attached to the Petition for Review and which orders speak for themselves.

## Points of Error.

- 1. The allegations contained in Paragraph One are denied.
- 2. The allegations contained in Paragraph Two and its subparts are denied.

- The allegations contained in Paragraph Three and its 3. subparts are denied.
- 4. The allegations contained in Paragraph Four are denied.
- 5. The allegations contained in Paragraph Five are denied.

WHEREFORE, the Oil Conservation Commission requests that the Court deny Petitioners' claims for relief and enter an Order affirming the decision of the Commission in Orders R-6469-D and R-7407-E.

spectfully submitted,

General Counsel

Oil Conservation Commission P. O. Box 2088

Santa Fe. New Mexico 87504-2088

Telephone: (505) 827-5805

I hereby certify that ion the

day of

1987, a copy of the foregoing pleading

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JEFFERY

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FIRST JUDICIAL DISTRICT COURT COUNTY OF SANTA FE STATE OF NEW MEXICO

AUG 28 1987

MALLON OIL COMPANY AND MESA GRANDE RESOURCES, INC.,

FIRST JUDICIAL DISTRICT COURT SANTA FE, RIO ARRIBA & LOS ALAMOS COUNTIES P.O. Box 2268 Santa Fe, NM 87504-2268

Petitioners.

v.

No. CIV RA 87-1572(e)

OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO.

Respondent.

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- 3. The allegations contained in Paragraph Three and its subparts are denied.
- 4. The allegations contained in Paragraph Four are denied.
- 5. The allegations contained in Paragraph Five are denied.

WHEREFORE, the Oil Conservation Commission requests that the Court deny Petitioners' claims for relief and enter an Order affirming the decision of the Commission in Orders R-6469-D and R-7407-E.

Respectfully submitted,

JEFFERY TAYLOR General Counse

Oil Conservation Commission

P. O. Box 2088

Santa Fe, New Mexico 87504-2088

Telephone: (505) 827-5805

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recdrd.

JEFFERY TAYLOR

FIRST JUDICIAL DISTRICT COURT COUNTY OF SANTA FE STATE OF NEW MEXICO

MALLON OIL COMPANY AND

MESA GRANDE RESOURCES, INC.,

Petitioners,

No. CIV RA 87-1572(c)

v.

OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO,

Respondent.

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- 3. The allegations contained in Paragraph Three and its subparts are denied.
- 4. The allegations contained in Paragraph Four are denied.
- 5. The allegations contained in Paragraph Five are denied.

WHEREFORE, the Oil Conservation Commission's requests that the Court deny Petitioners' claims for relief and enter an Order affirming the decision of the Commission in Orders R-6469-D and R-7407-E.

Respectfully submitted,

JEFFERY TAYLOR, General Counsel Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87504-2088 Telephone: (505) 827-5805

I hereby certify that on the
, day of,
1987, a copy of the foregoing pleading
was mailed to opposing counsel of
record.
JEFFERY TAYLOR

FIRST JUDICIAL DISTRI

OIL CONSERVATION DIVISION SANTA FE

COUNTY OF SANTA FE

STATE OF NEW MEXICO

FIRST

MALLON OIL COMPANY and MESA GRANDE RESOURCES, INC.,

Petitioners,

vs.

No. RA 87-1572 (C)

OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO,

Respondent,

BENSON-MONTIN-GREER DRILLLING CORPORATION, DUGAN PRODUCTION CORPORATION, and SUN EXPLORATION AND PRODUCTION COMPANY,

Applicants for Intervention.

#### MOTION FOR LEAVE TO INTERVENE

COME NOW, Applicants Dugan Production Corporation and Sun Exploration and Production Company, by and through their attorneys of record, Kellahin, Kellahin & Aubrey, and Benson-Montin-Greer Drilling Corp., by and through its attorneys of record, Campbell & Black, and move this Court for an Order allowing them to intervene in pursuant to this case Rule 1-024(A)(2), N.M.R.Civ.P., 1986 Recomp.

For cause, Applicants would show:

- (1) Each of them possesses an interest relating to the property or transaction which is the subject of the action presently pending before this Court and the disposition of this action may as a practical matter impair or impede their ability to protect that interest.
- (2) Applicants' interests are not adequately represented by existing parties.

Concurrence of opposing counsel in this Motion has been sought. Counsel for Petitioners Mallon Oil Company and Mesa Grande Resources, Inc. and counsel for Respondent, Oil Conservation Commission of the State of New Mexico all concur in this Motion.

THEREFORE, for the reasons stated herein, and as more fully set forth in the accompanying memorandum, this Motion for Leave to Intervene should be granted.

Respectfully submitted,

KELLAHIN, KELLAHIN & AUBREY

Ву

W. Thomas Kellahin Post Office Box 2265 Santa Fe, New Mexico 87504 (505) 982-4285

Attorneys for Dugan Production Company and Sun Exploration & Production Company - and -

CAMPBELL & BLACK, P.A.

3y W

William F. Carr John H. Bemis Post Office Box 2208

Santa Fe, New Mexico 87504

(505) 988-4421

Attorneys for Benson-Montin-Greer Drilling Corp.

#### CERTIFICATE OF SERVICE

I hereby certify that I caused a true and correct copy of the foregoing Motion for Leave to Intervene and the accompanying Memorandum in Support Thereof to be mailed to opposing counsel this 13 day of August, 1987.

FIRST JUDICIAL DISTRICT COURT COUNTY OF SANTA FE STATE OF NEW MEXICO

ENDORSED JUL 27 1987

FIRST JUDICIAL DISTRICT COURT SANTA FE, RIO ARRIBA & LOS ALAMOS COUNTIES P.O. Box 2268 Santa Fe, NM 87504-2258

MALLON OIL COMPANY AND MESA GRANDE RESOURCES, INC.,

Petitioners.

vs.

No. RAST-1572(4)

OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO.

Respondent.

## PETITION FOR REVIEW OF COMMISSION ACTION

COMES NOW Mallon Oil Company and Mesa Grande Resources, Inc. ("Petitioners") and file this their petition for review of action by the Oil Conservation Commission in Case Nos. 7980, 8946, 9113, and 9114 (Order No. R-7407-E) and Case No. 8590 (Order No. R-6469-D) and would show the court as follows:

I.

#### Statement of Facts

On March 30, 1987, the Oil Conservation Commission ("Commission") convened a hearing to consider the appropriate pool rules, allowables, and boundaries for two adjacent oil pools: the Gavilan-Mancos Oil Pool ("Gavilan") and the West Puerto Chiquito Oil Pool ("West Puerto"), Rio Arriba County, New Mexico. On June 8, 1987, the Commission entered Orders No. R-6469-D and R-7407-E ordering, among other things, as follows:

- 1. The two pools are separate pools;
- All wells in both pools should have bottomhole pressure tests run at three different times to determine rate sensitivity to production levels;
- 3. The allowables for the Gavilan (which had previously been arbitrarily reduced by 83%) should be partially restored to 1280 BOPD with a 2000:1 GOR for 640-acre proration units (640 BOPD for a 320-acre proration unit) for a three-month period, beginning July 1, 1987, in order to determine rate sensitivity;
- A 4. The allowables for Gavilan should be restricted again in October 1987 for a period of ninety (90) days as part of the rate sensitivity testing;
- 6. The Gavilan allowables are to remain restricted at 17% (an 83% cut) of the statewide depth bracket top allowable until the May 1988 reopened hearing and so long thereafter until the results of said hearing are put into effect.

Petitioners filed their Application for Rehearing with the Commission, objecting to the imposition of the additional five months of restricted allowables to run from January to May 1988; requesting that the reopened hearing be moved to February 1988 to alleviate this arbitrary continuation of the allowable

restriction; requesting that isolated bottomhole tests be conducted on certain key wells which would more accurately establish the boundary between the Gavilan and West Puerto as well be determinative of the rate sensitivity question; and specifically raising objections to various findings of fact and ordering paragraphs contained in both orders. A copy of the Application for Rehearing is attached hereto as Exhibit A and incorporated herein for all purposes. The Application was denied as a matter of law on July 9, 1987.

On July 22, 1987, Petitioners filed an Application for Review by the Secretary of the Energy, Minerals & Natural Resources Department pursuant to § 70-2-26 NMSA 1978 (a copy of which is attached hereto as Exhibit B and incorporated herein by reference [attach Application and brief]. This application was denied by the Secretary on July 28, 1987. Accordingly, Plaintiffs have exhausted all administrative remedies prior to filing this petition for judicial review.

Plaintiffs are parties of record adversely affected by the issuance of orders Nos. R-7407-E and R-6469-D and file this their petition for review of the Commission's orders, raising the following points of error, all of which were set out in Plaintiffs' application for rehearing to the Commission.

II.

## Point of Error

The Commission's orders are arbitrary and capricious, not based upon substantial evidence, ignore and do not recognize the PETITION FOR REVIEW - Page 3

correlative rights of the Plaintiffs, and are contrary to law, as set out below. (See attached Exhibits C and D, Orders R-7407-E and R-6469-D, respectively, for reference).

- Jerome P. McHugh & Associates and Sun Exploration & Production Company ("BMG, et al.") proposed changes to the special pool rules and statewide rules governing the Gavilan pool. Therefore, they had the burden of proving by a preponderance of evidence that such rule changes were justified. International Minerals & Chemicals Corp. v. New Mexico Public Service Comm'n, 81 NM 280, 466, P.2d 557 (1970). This burden was improperly shifted to Plaintiffs herein when the Commission failed to hold BMG, et al. to their burden.
- 2. Many finding and ordering paragraphs in the subject orders are not supported by substantial evidence. In particular and without limitation, the following paragraphs are legally insufficient:

## As to Order R-7407-E:

- a. <u>Finding (9)</u>: Petitioners proved that most of the recoverable oil in Gavilan is stored in the microfractures and in intergranular porosity. The BMG, <u>et al</u>. group presented no facts to refute this proof.
- b. Findings (12) and (13): While testimony regarding rate sensitivity was conflicting, the only reservoir model matching actual Gavilan performance was presented by Petitioners. The model presented by BMG,  $\underline{\text{et al}}$  was not based

PETITION FOR REVIEW - Page 4

upon realistic parameters or actual field conditions as to the Gavilan. As a result, the only legally sufficient evidence establishes the Gavilan is not rate sensitive.

- c. <u>Finding (14)</u>: There is no evidence in the record to support agreement that any type of pressure maintenance project is proper at this time. Petitioners' evidence clearly showed that a high pressure-pressure maintenance project would adversely affect the Gavilan pool performance and cause waste. In addition, the issue of pool unitization is beyond the scope of this hearing and no party presented any evidence regarding unitization.
- d. <u>Finding (15)</u>: The pool depletion period estimated by Petitioners is nine years. There is no evidence to support the five-year estimate used by the Commission in its order.
- e. <u>Findings (16) and (20)</u>: The issue of pipeline connections is beyond the scope of the hearing. It is beyond the authority of the Commission to reduce production from nonwasteful (connected) wells to protect the correlative rights of the owners of a wasteful (unconnected) well that flares and wastes its casinghead gas. Further, there is no evidence in the record to support this action.
- f. Ordering (2): The application of Mesa Grande

  Resources, Inc. to extend the boundaries of the Gavilan field is supported by the preponderance of evidence in the record. Even BMG, et al. admit that their westernmost West Puerto wells are in PETITION FOR REVIEW Page 5

good communication in the "A and B" zones with the Gavilan wells. There is no substantial evidence to support maintaining the current pool boundaries.

Ordering (5): The Gavilan allowable for a 640-acre proration unit should be returned to the normal statewide depth bracket allowable upon completion of the 180-day test period set out by the Commission. There is no substantial evidence in the record and no finding of fact in the Commission's order which would justify continuation of a restricted allowable for the Gavilan field after completion of the test period and pending a review hearing. Any such regulation is arbitrary, capricious and in contravention of the Commission's statutory authority.

Ordering (6): As mentioned above, the unconnected well matter is not an issue at this hearing and the Commission has no authority to reduce the allowable of a nonwasteful (connected) wells to protect the correlative rights of a wasteful (unconnected) well.

The reopened hearing should be advanced to February 19, 1988, in order to prevent the arbitrary restriction of allowables in the Gavilan field after the test period ordered by the Commission has been completed.

As to Order R-6469-D (and only as to its effect on Gavilan):

PETITION FOR REVIEW - Page 6

j. <u>Finding (11)</u>: There is no similar finding in R-7407-E. As noted above, the top allowable in Gavilan for a 640-acre proration unit should be 1404 BOPD (twice the current 702 BOPD for a 320-acre proration unit) with a 2000:1 GOR. There is no basis in law or in fact, no substantial evidence in the record and no finding to support the arbitrary restriction of Gavilan allowables beyond the 180-day test period set out in the Commission's order. The Commission's order in this regard is arbitrary, capricious and in violation of its statutory authority.

Findings (12) and (13): There are no K. findings with these provisions in the findings of Order R-7407-E. There is no sufficient evidence in the record to support restriction of the Gavilan top allowable to prevent waste. order to determine whether waste will occur at normal allowable rates, the testing procedures ordered by the Commission should be amended to specifically require "C" zone pressure testing in the oil column of the West Puerto from the Canada-Ojitos Unit (COU) Well E-10 (Section 10, Township 25N, Range 1W). Furthermore, isolation tests should be required on key BMG Wells F-30, B-29, and B-32 and BMG-COU Well No. L-27. The Commission's orders (both R-7407-E and R-6469-D) specifically require testing on all wells in the field. However, the Commission staff has informally amended such orders, without proper procedure, to require testing on only some wells in the field and to not require any isolation zone testing from the West Puerto. Without this testing, the

Commission's actions in ordering any test period and in restricting Gavilan allowables during test periods are arbitrary and capricious as the tests required will not provide the information the Commission has deemed necessary to determining whether the Gavilan is rate sensitive and what the appropriate boundary between the Gavilan and West Puerto fields should be.

- appear in R-7407-E. There is no substantial evidence in the record to support a finding that "the pressure differential favors Gavilan."
- m. Finding (16) and Ordering (2): This

  finding does not appear in R-7407-E. If this finding is correct,
  then it is arbitrary and capricious to fail to extend the Gavilan
  eastern boundary to include the westernmost edge of the West
  Puerto.
- n. Ordering (3): This paragraph should be amended to include appropriate test requirements noted above. Failure to require fair and adequate testing is arbitrary and capricious.
- o. Ordering (4): There is no finding to support the necessity of maintaining a restricted allowable after the test period has ended.
- p. Ordering (5): The reopened hearing should be advanced to February 1988, or the allowables reinstated in the

Gavilan pending the reopened hearing. There is no evidence to support postponing the reopened hearing or restricting allowables pending that hearing.

III.

## Additional Ground for Appeal

- 3. Rules issued by the Commission should be fair and equal in effect. The subject orders are discriminatory as described below.
- a. The orders allow production in the Gavilan at 1280 BOPD with a GOR of 2000:1 for a three (3) month period but require production at 800 BOPD with a GOR of 600:1 for eight (8) months (and thereafter until action is taken on a hearing to be held in May 1988), and is therefore inherently unfair and biased as to the period of production (three months versus at least eight months), in favor of BMG, et al. and harming Plaintiffs.

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- b. The Commission's production limitations have resulted in certain wells operated by Mallon Oil Company being shut in for over 25 days per month. This discriminates against Mallon Oil Company and causes economic waste and violates its correlative rights due to production from offsetting wells (operated by BMG, et al.).
- c. Substantial investments were made by

  Petitioners herein and others in Gavilan based upon then-existing

  pool rules. A change of the rules in midstream has and will work

  a financial hardship on those interest owners by restricting

  production. This has resulted in limiting return on investment

PETITION FOR REVIEW - Page 9

to an amount insufficient to recover the millions of dollars invested, resulting in severe economic hardship. In addition, this has had a chilling effect on further oil and gas investment in this state.

- 4. The Commission's production limitations constitute a taking of property without just compensation in violation of the federal and state constitutions.
- 5. Order R-7407-E fails to comply with applicable statutory and judicial mandates. In Continental Oil Co. v. Oil Conservation Comm'n, 70 NM 310, 373 P.2d 809 (1962) the New Mexico Supreme Court in a case dealing with a natural gas pool, discussed the basic conclusions of fact that the Commission is required to find prior to changing a proration formula. The Commission failed to make any of these required findings and did not discuss any of these necessary elements. The record in this matter is clear that the changes adopted by the Commission constitute a change in the proration formula since these changes alter the relative proportion of production between operators in Gavilan and deviate from statewide rules. Order R-7407-E is therefore contrary to law and arbitrary and capricious.

This petition is based upon the record in the Commission below and the pleadings of Petitioners including their Application for Rehearing to the Commission (Exhibit A) and Application for Review to the Secretary of Energy (Exhibit B).

Any grounds set out in these prior Applications which are not specifically mentioned in this petition are adopted herein by reference.

IV.

WHEREFORE, PREMISES CONSIDERED, Petitioners request that the court set a hearing to consider this petition for review and upon hearing reverse the Commission's Orders R-7407-E and R-6469-D, and remand this proceeding to the Commission for rehearing. In the alternative, Petitioners request that the court amend Commission's orders as follows:

- 1. To order the testing requested by Petitioners and required by the Commission's order as necessary to obtain relevant data;
- 2. To advance the reopened hearing date from May 1988 to February 1988; or
- 3. In the alternative to enjoin, effective January 1, 1988, the Commission from interfering with production of Plaintiffs' wells at 702 BOPD and a 2000:1 GOR for a 320-acre proration unit (twice this amount for 640-acre proration unit) pending the reopened hearing.
  - 4. To clarify that the reopened hearing will consider the appropriate boundary between the Gavilan and West Puerto based upon the new testing and production data.

Respectfully submitted,

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#### STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION COMMISSION

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

CASES NOS. 7980, 8946, 9113, AND 9114 ORDER NO. R-7407-E

CASE NO. 8950 ORDER NO. R-6469-D

CASE NO. 7980

IN THE MATTER OF CASE 7980 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDER NO. R-7407, WHICH ORDER PROMULGATED TEMPORARY SPECIAL RULES AND REGULATIONS FOR THE GAVILAN-MANCOS OIL POOL IN RIO ARRIBA COUNTY, INCLUDING A PROVISION FOR 320-ACRE SPACING UNITS.

CASE NO. 8946

IN THE MATTER OF CASE 8946 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDER NO. R-7407-D, WHICH ORDER PROMULGATED A TEMPORARY LIMITING GAS-OIL RATIO AND DEPTH BRACKET ALLOWABLE FOR THE GAVILAN-MANCOS OIL POOL IN RIO ARRIBA COUNTY.

CASE NO. 9113

APPLICATION OF BENSON-MONTIN-GREER DRILLING CORPORATION, JEROME P. McHUGH & ASSOCIATES, AND SUN EXPLORATION AND PRODUCTION COMPANY TO ABOLISH THE GAVILAN-MANCOS OIL POOL, TO EXTEND THE WEST PUERTO CHIQUITO-MANCOS OIL POOL, AND TO AMEND THE SPECIAL RULES AND REGULATIONS FOR THE WEST PUERTO CHIQUITO-MANCOS OIL POOL, RIO ARRIBA COUNTY, NEW MEXICO.

CASE NO. 9114

APPLICATION OF MESA GRANDE RESOURCES, INC. FOR THE EXTENSION OF THE GAVILAN-MANCOS OIL POOL AND THE CONTRACTION OF THE WEST PUERTO CHIQUITO-MANCOS OIL POOL, RIO ARRIBA COUNTY, NEW MEXICO.

CASE NO. 8950

IN THE MATTER OF CASE 8950 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDERS NOS. R-6469-C AND R-3401-A, AS AMENDED, WHICH ORDER PROMULGATED A TEMPORARY ALLOWABLE AND

LIMITING GAS-OIL RATIO FOR THE WEST PUERTO CHIQUITO-MANCOS OIL POOL IN RIO ARRIBA COUNTY.

#### APLICATION FOR REHEARING

Mesa Grande Resources, Inc. and Mallon Oil Company,

(Applicants) file this Application for Rehearing, and state:

1. Applicants are pleased the Commission has confirmed that the Gavilan-Mancos Oil Pool ("Gavilan") is a separate pool from the West Puerto Chiquito-Mancos Pool ("West Puerto"), and as such should continue to be operated under separate rules. Because the two pools do have "different geologic and operating conditions," the Commission should direct its attention to protecting each pools' separate conservation aspects and the separate correlative rights of the owners in each pool.

The only remaining issues for the Commission to decide should be:

- a. The appropriate boundary between the Gavilan and West Puerto:
- b. Whether the Gavilan owners' correlative rights should be further impinged upon by the unnecessary restriction of the Gavilan allowable production from 702 bopd with a 2000/1 GOR to the temporary 400 bopd with a 600/1 GOR rule for a 320-acre proration unit. For example, a top allowable well on a 320-acre proration unit with a 2000/1 GOR in the Gavilan suffers an 839 allowable cut from 702 bopd to only 120 bopd. This cut in allowable is not necessary to prevent waste or to protect

correlative rights. In fact, the <u>only</u> result of this arbitrary allowable cut is to redistribute reserves away from the top allowable wells, in violation of the owners' correlative rights.

The effect of this cut will continue to be devastating on Gavilan development by the Applicants and others similarly situated. The Commission should note that 15 wells have been drilled in the Gavilan and West Puerto Pools since the Commission's original imposition of drastic and unwarranted allowable cuts in September 1, 1986. Of these 15 wells, 12 have been drilled by the proponents of allowable reduction, who also sought increased spacing allegedly to prevent the drilling of unnecessary wells.

The Commission needs to be aware that drilling \$800,000 wells in this area can become uneconomic in today's oil depression when the additional risk imposed by this Commission of drastically limiting production is added to the already high risks of obtaining a good producing well.

2. Although not accepting the allowable constraints of the above orders, the Applicants do recognize the Commission's intent to obtain additional engineering data to confirm applicant's and the Commission's positions that Gavilan and West Puerto should remain separate. Applicants also recognize this Commission's concern of future waste in the Gavilan. Applicants share the same concern. That is why Applicants commissioned an independent engineering study to review in depth the possibility of waste. This complete study, based on actual Gavilan data, has been

presented to the Commission and Applicants submit such study clearly shows that statewide producing practices will not injure this pool, just as such practices have not injured hundreds of other New Mexico pools with similar solution gas drive characteristics. However, Applicants request that if the Commission and its staff truly seek meaningful engineering data during the next six months that the following be ordered or required:

a. "C" zone pressure testing in the oil column of the West Puerto should be required to comply with the spirit of the Commissions June 8th orders.

The Commission should note that at an operators' meeting held at the Division's request on June 23, 1987, for the purpose of attempting to satisfy the requirement of ordering paragraphs (3) in order no. r-6469-d and (4) in order no. R-7407-E, Benson-Montin-Greer Drilling Corporation (BMG), through Mr. Al Greer, refused to permit "C" zone pressure tests in the oil column of the West Puerto<sup>1</sup> -- specifically the Canada Ojitos Unit (COU) Well E-10 (Section 10, Township 25 North, Range 1 West). The Applicants believe the Commission is extremely interested in whether the "C" zone is affected by "A & B" zone

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The Commission staff has professed they did not want this testing to cause any expense to the operators. However, none of the pressure tests sought by the commission can be accomplished without the operators incurring additional expenses and this should be executed by all operators.

production rates from the Gavilan-Mancos Pool wells. No recent "C" zone pressure in the oil column has been provided to the Applicants or the Commission. It is urged the Commission order "C" zone pressure tests in the E-10 well. A copy of Mallon Oil Company's letter of June 24, 1987, setting forth this problem is attached. Only with meaningful pressure data of this type can Mr. Greer's factually unsupported allegations of harm to his "C" zone project be refuted or proved.

# b. Isolation tests should be required on key BMG wells F-30, B-29 and B-32.

The key wells in the BMG case were F-30, B-29 and B-32. These wells are completed in the "A & B" and "C" zones. BMG presented so-called interference tests on these three wells. these wells are presently completed, however, there is no way to determine the individual productivity or the pressure contribution of the "A & B" zones and "C" zone in these three wells. The Commission should order isolation tests for these key wells of the same type run by Mallon on its Fisher Federal 2-1 and by Mobil on its B-73. The Commission ordered bottomhole pressure surveys. These should be run separately on the "A & B" zone and on the "C" zone in the F-30 and B-29 wells in conjunction with the isolation tests. The B-32 is already on the bottomhole pressure survey schedule and its bottomhole pressure should be measured separately on the "A & B" zones and the "C" zone at the same time as the isolation tests. Again, this type of meaningful pressure and production data will be significant to determine:

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- (1) if the "A & B" zones are cross-flowing and charging the "C" zone in the West Puerto, especially at the curtailed "A & B" zones rate, and
- (2) the extent of the production between the "A  $\epsilon$ " zones in the Gavilan versus the West Puerto.
- c. <u>Isolation and pressure tests should be required</u>
  for the BMG-COU Well No. L-27.

Mr. Greer testified that the L-27 had produced approximately 1.5 million barrels from the "A & B" zones. No separate tests have been run on the "A & B" zones and the "C" zone in the L-27 well. Isolation tests and bottomhole pressure measurements on the L-27 will verify whether the "A & B" zones are the producing zones and the relationship of the "A & B" zone production, if any, in this area of the West Puerto to the separate "A & B" zones production from Gavilan.

d. This case should be reopened in February 1988 rather than May 1988.

Gavilan has already suffered reduced allowables from September 1, 1986 to July 1, 1987 and will suffer another 83% allowable cut from October 1, 1987 until the Commission restores the allowable after the hearing now scheduled for May 1988. Applicants respectfully request that the May 1988 hearing be

For example, the Applicants' monthly production rate will have been drastically reduced for all but three months in a two-year period if the Commission's current hearing schedule is followed. Applicants are losing approximately 49,000 barrels per month due to the Commission's allowable limit orders. To date, more than 440,000 barrels of production has been lost with the working and royalty interest owners and the State of New Mexico suffering severe financial losses.

advanced to February 1988 so that the Commission may review the latest data in a timely manner. The pressure and production data at normal statewide rates will be available in the first week of October 1987 and there will be four (4) months to analyze this data before a February 1988 hearing. The additional reduced production data and January 1988 pressure data will be available in January 1988, or at least 30 days before a February 1988 hearing date. The issues before the Commission need to be determined as soon as possible in order to protect the correlative rights of owners in Gavilan. Gavilan will be suffering severe allowable cuts from October 1987 to the subsequent hearing decision date. Moving the hearing date to February 1988 will provide all parties adequate time to prepare and will reduce the time for imposing unnecessary allowable restraints on Gavilan.

- 3. Applicants would further state they are parties of record adversely affected by the issuance of Orders Nos. R-7407-E and R-6469-D.
- 4. The Commission should reconsider its decision in this matter and should grant a rehearing because:
- a. The decisions of the Commission to reduce allowable production and its failure to extend the Gavilan boundaries ("Decisions") are arbitrary and capricious;
- b. The Decisions of the Commission are not based upon substantial evidence;

- c. The Decisions of the Commission ignore and do not recognize the correlative rights of the applicants; and
- d. The Decisions of the Commission are contrary to law;
- all as more specifically described below.
- 5. Benson-Montin-Greer Drilling Corporation, Jerome P. McHugh & Associates, and Sun Exploration and Production Comapny proposed changes to the special pool rules and statewide rules governing the Gavilan Pool. Therefore, they have the burden of proving by a preponderance of evidence that such rule changes were justified. International Minerals & Chemicals Corp. v. New Mexico Public Service Com'n, 81 N.M. 280, 466 P.2d 557 (1970). Such parties failed in their burden and the Commission did not address this failure.
- 6. Applicants submit that certain findings and orderings are not supported by the evidence presented at the hearing. In particular, and without limitation, the following findings are incorrect for the reasons stated below:

#### As to Order R-7407-E:

a. <u>Finding (9)</u>: Applicants proved that most of the recoverable oil in Gavilan is stored in the micro fractures and intergranular porosity. The BMG group presented no facts which refuted this proof. Finding (9) is incorrect and fails to recognize this proof.

- b. <u>Findings (12) and (13)</u>: While testimony regarding rate-sensitivity was conflicting, the only model which matched Gavilan field performance was the model presented by Applicants. The model presented by Sun Exploration and Production Company was not based upon realistic parameters or actual field conditions as to Gavilan. As a result, the only reliable evidence establishes that Gavilan is not rate sensitive.
- c. <u>Finding (14)</u>: The parties are not in agreement that any type of pressure maintenance project is proper at this time. Applicants believe that a high pressure-pressure maintenance project which is suggested by BMG would adversely affect Gavilan pool performance at this time and cause waste. In addition, the formation of a unit is beyond the scope of the hearing and no evidence regarding unitization was presented at the hearing.
- d. <u>Finding (15)</u>: The pool depletion period estimated by Applicants is nine years. There is no evidence to support the five-year estimate.
- e. <u>Finding (16)</u>: The issue of pipeline connections is beyond the scope of the hearing. In addition, a pool cannot be produced without drainage, and the conservation system is designed to give each owner the opportunity to produce his fair share. As set forth below it is an illegal act to reduce production from non-wasteful (connected) well to protect the correlative rights of the owners of a wasteful (unconnected) well.

f. Finding (20): This finding proposes to further reduce allowables for some wells connected to pipelines beyond the 83% reduction to protect the correlative rights of wells that do not have a casinghead gas connection. New Mexico law does not permit this Commission to reduce the allowable on a connected well in order to protect a non-connected well that flares and wastes its casinghead gas. It is believed that approximately 55 wells in the Gavilan have casinghead gas connections while approximately 15 wells have no connection. Under the Commission's order, these 50 connected wells have their top allowable potential reduced by 83%. The Commission's order permits the Director to further reduce production from Applicants' wells, below 17% of top allowable, without any legal justification. This part of the Commission's order should be stricken. If any action is needed in this area, the Commission or affected operators should institute separate hearings.

- g. Ordering (2): This extension application of Mesa Grande Resources, Inc., should be granted. BMG admits its extension area wells are in good communication in the "A & B" zones with the Gavilan wells.
- h. Ordering (4): The Gavilan allowable for a 640 acre proration unit should be 1404 bopd and 2000/1 GOR. Testing requirements should be modified as set forth in paragraphs 2(a)(b) and (c) above.
- i. Ordering (5): There is no basis in law or fact to arbitrarily reduce the Gavilan allowable for an indefinite period of time.

- j. Ordering (6): As previously outlined, the unconnected well matter was not an issue at this hearing, and the Commission has no authority to reduce the allowable of a non-wasteful (connected) well to protect the correlative rights of a wasteful (unconnected) well.
- k. Ordering (8): As already requested, the reopened hearing should be advanced to February 1988.

As to Order R-6469-D (and only as to their effect on Gavilan):

- 1. Finding (11): There is no similar finding in R-7407-E. The top allowable in Gavilan for a 640-acre proration unit should be 1404 bopd (twice the current 702 bopd for a 320-acre proration unit). The top allowable for Gavilan should be 1404 bopd with a 2000/1 GOR. This will cause no penalty to wells already drilled on 320-acre proration units which originally had the Gavilan top allowable of 702 bopd with a 2000/1 GOR. Applicants have no objection to the West Puerto having the same top allowable treatment.
- m. Findings (12) & (13): There are no findings with these provisions in the findings of Order R-7407-E. The Gavilan top allowable producing rate of 702 bopd and 2000/1 for a 320-acre spacing unit are no wasteful. If the Commission and Mr. Greer are interested in determining whether waste will occur at normal allowable rates or drainage occur "via the highly transmissive fracture system," then the testing requests in paragraphs 2(a), (b) and (c) above should be granted. There is no factual or legal basis to apply these two findings to Gavilan.

- n. <u>Finding (15)</u>: This finding does not appear in R-7407-E. There is no evidence to support a finding that "the pressure differential favors" Gavilan." In fact, the limited data showed the exact opposite: if there is a "weak" connection between Gavilan and West Puerto the pressure differential still favors West Puerto. In addition, the testing requested in pargraphs 2(a), (b) and (c) above will relate directly to these erroneous findings.
- o. <u>Finding (16)</u>: This finding does not appear in R-7407-E. If this finding is correct then the westernmost tier of sections referred to therein should be deleted from the West Puerto and included in the extension of Gavilan in accordance with the application of Mesa Grande Resources, Inc., in Case No. 9114.
- p. <u>Ordering (2)</u>: As discussed above, this application should be granted.
- q. Ordering (3): This paragraph should be amended to include the tests requested in paragraphs 2(a),(b) and (c) above.
- r. Ordering (4): This ordering paragraph should be stricken as to the allowable limitation of 800 bopd and 600/1 GOR.
- s. Ordering (5): The reopened hearing should be advanced to February 1988.
- 7. Rules issued by the Commission should be fair and equal in effect. The subject order is discriminatory as described below:

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- a. The order allows production at 1280 barrels of oil per day and a GOR of 2000:1 for a three (3) month period, but requires production at 800 barrels of oil per day and a GOR of 600:1 for eight (8) months and is therefore inherently unfair and biased as to the periods of production (3 months v. 8 months) toward the interests of Jerome P. McHugh & Associates and Sun Exploration and Production Company.
- b. The Commission's production limitations have resulted in certain wells operated by Mallon Oil Company being shut-in for over 25 days per month. This discriminates against Mallon Oil Company and causes economic waste and violates correlative rights due to production from offsetting wells.
- c. Substantial investments were made by Applicants herein and others in Gavilan based upon then-existing pool rules. A change of the rules in mid-stream has and will work a financial hardship on those interest owners by restricting production. This has resulted in limiting return on investment to an amount insufficient to recover the millions of dollars invested, resulting in severe economic hardship. In addition, this has a chilling effect on further oil and gas investment in this state.
- 8. The Commission's production limitations constitute a taking of property without just compensation in violation of the federal and state constitutions.
- 9. Order R-7407-E fails to comply with applicable statutory and judicial mandates. In Continental Oil Co. v. Oil Conservation Commission, 70 N.M. 310, 373 P.2d 809 (1962), the

New Mexico Supreme Court, in a case dealing with a natural gas pool, discussed the basic conclusions of fact that the Commission is required to find prior to changing a proration formula. The requirements are that the Commission find, as far as it is practical to do so:

- the amount of recoverable reserves under each producer's tract;
- 2. the total amount of recoverable reserves in the pool;
- 3. the proportionate relationship of (1) and (2); and
- what portion of the reserves can be recovered without waste.

A review of Order R-7407-E shows that the Commission failed to make any of these required findings and did not discuss any of these necessary elements. The record in this matter is clear that the changes adopted by the Commission constitute a change in the proration formula since these changes alter the relative proportion of production between operators in Gavilan and deviate from statewide rules. Order R-7407-E is therefore contrary to law and arbitrary and capricious.

WHEREFORE, applicants request the Commission to set these matters for rehearing.

Respectfully submitted,
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### CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Application for Rehearing were mailed to the following persons this \_\_\_\_\_ day of June, 1987.

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[WPP:106]

# STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

CASES NOS. 7980, 8946, 9113, AND 9114 ORDER NO. R-7407-E

CASE NO. 8950 ORDER NO. R-6469-D

## APPLICATION FOR REVIEW

COME NOW Mallon Oil Company and Mesa Grande Resources, Inc. ("Applicants") and file this, their Application for Review of Commission orders in the above-described matters, and state as follows:

I.

#### BACKGROUND

A controversy has developed between two sets of owners and operators on how to produce the Gavilan Mancos Oil Pool ("Gavilan"). Applicants and certain other allied owners believe the Gavilan and the West Puerto Chiquito-Mancos Pool

<sup>1</sup> Mallon Oil Company Mesa Grande Resources, Inc. Mesa Grande, Ltd. Mobil Oil Corporation American Penn Energy, Inc. Kodiak Petroleum Hooper, Kimball & Williams Reading & Bates Petroleum Co. Koch Exploration Amoco Production Company Arriba Company, Ltd. Smackco, Ltd. Phelps Dodge Corp. Floyd & Emma Edwards Don Howard

("West Puerto"), although physically adjacent to each other, are separate and distinct pools with no effective communication and that the currently designated boundary between the pools is inaccurate and should be moved roughly one or two section lines to the east. Gavilan contains wells capable of very high rates of production and pool recovery is not rate sensitive. Therefore, the standard statewide depth-bracket allowable is appropriate.

Opposition owners<sup>3</sup> in the pools, however, have argued that the Gavilan and West Puerto are in direct effective communication, that pool recovery from the Gavilan is rate sensitive and that production from the Gavilan Pool should be drastically reduced.

The Oil Conservation Commission of this Department ("Commission") conducted a five-day hearing held in March and April 1987, after which the the Commission agreed with

<sup>&</sup>quot;Rate sensitive" is a shorthand expression used by technical people to indicate that the amount of ultimate primary recovery is affected by the rate or level of production. There are a number of natural producing mechanisms which are not rate sensitive such as a "solution gas drive" mechanism. The Applicants have submitted convincing evidence that the primary drive mechanism for the Gavilan is a solution gas drive which demonstrates that ultimate recovery of Gavilan oil reserves is not affected by the rate or level of production.

Benson-Montin-Greer Drilling Corporation Jerome P. McHugh & Associates Dugan Production Corporation Sun Exploration and Production Company Meridian Oil Company

Applicants that the Gavilan is a separate pool from the West Puerto. See R-6469-D Finding of Fact, Paragraphs (5)(6)(7) & (17), Ordering Paragraph (1) and R-7407E, Finding of Fact (6)(7)(8), Ordering Paragraph (1). A dispute, however, continues between the parties concerning the proper boundary line between the Gavilan and West Puerto and whether production from the Gavilan is rate sensitive. Accordingly, the Commission orders required bottomhole pressure tests on all wells in both pools within the first week of July 1987. (R-6469-D Ordering Paragraph (3) & R-7407-E Ordering Paragraph (4)). The orders have now been effectively amended by the staff, not the Commission, to require less than all wells to be tested. Applicants object to that informal amendment.

The Commission also established a testing period for rate sensitivity purposes, allowing all wells to produce at near top allowables for 90 days and then drastically reducing production for another 90 days. At the end of the test period, wells are to remain drastically reduced for at least an additional five months pending a reopened hearing, in May 1988, to consider the test data. Applicants object to this unnecessarily extended period of restricted allowables below the standard statewide depth brackets.

II.

THE OIL CONSERVATION COMMISSION HAS ENTERED ORDERS WHICH CONTRAVENE THE DEPARTMENT'S STATEWIDE PLAN AND THE PUBLIC INTEREST

The Applicants request a review by the Secretary of the Energy, Minerals and Natural Resources Department ("Secretary")

APPLICATION FOR REVIEW - Page 3

of Commission Orders R-6469-D and R-7407-E pertaining to rules governing production from the Gavilan and the West Puerto because such orders contravene this Department's Statewide Plan and the public interest of New Mexico. Applicants have prepared a brief memorandum on the authority of the Secretary to grant this Application, which brief is attached hereto as Exhibit A and incorporated herein by reference.

Applicants request the Secretary to amend the Commission orders as follows:

- 1. The testing requirements for five wells should be reinstated and modified to obtain necessary data.
- 2. The reopened hearing should be scheduled in February 1988 instead of May 1988 in light of the 83% cut in statewide depth bracket allowable imposed by the Commission at the request of the Sun Oil Co.-BMG Group.

Applicants believe the real intent of the Sun-BMG group is to confiscate the Applicants' property. Without a reservoir study of the Gavilan the BMG group decided the Gavilan needed to be unitized. Applicants, frustrated by BMG groups' refusal to collect and discuss technical data finally commissioned an outside study to determine feasibility of secondary recovery and thus unitization. That study concluded no secondary recovery or unit was needed. After the Commission cut the Gavilan top allowable by 83% in September 1986, at the request of the BMG group, Sun, BMG's partner, began buying properties in the Gavilan. Sun tried to buy Applicants' Gavilan oil properties at distress prices. In short, it is the intention of the Sun-BMG group to drive these Applicants out of the oil business in the Gavilan and take over operation of their properties. With this background, the Secretary can realize why the matters requested herein are of extreme urgency to the continued health of the oil industry in New Mexico.

- 3. If the Secretary does not advance the hearing from May 1988 to February 1988, then the Secretary should order effective January 1, 1988, the reinstatement of statewide depth bracket allowable which previously existed in the Gavilan of 702 bopd with a 2000/1 GOR for a 320-acre proration unit, (twice this amount for a 640-acre proration unit). Such reinstated statewide allowables should remain in effect until the Commission acts on the May 1988 reopened hearing.
- 4. The Secretary should make clear that the proper boundary between the Gavilan and West Puerto will be considered at the reopened hearing based on the test and production data ordered by the Secretary and the Commission.
- 5. Applicants also urge that the additional points set out in Applicants' prior Application for Rehearing be considered by the Secretary. A copy of the Applicants' Application for Rehearing before the Commission is attached as Exhibit B and incorporated herein by reference.

III.

#### TESTING REQUIREMENTS

These Applicants have specifically requested that bottom hole pressure data be obtained from the following BMG wells in West Puerto:

Canada Ojitos Unit (COU)

E-10

F - 30

B-29

B-32

L-27

The details of this bottom hole pressure testing and the need therefore is set forth on Pages 4-6, Paragraphs 2a., 2b. and 2c. of Exhibit B.

The Commission is refusing to follow its own orders of June 8, 1987, (attached as Exhibit C and incorporated herein) to require bottom hole pressures on all wells and BMG has refused to pressure test key wells covered by the orders. This bottom hole pressure information will provide meaningful data on the proper location of the boundary line between Gavilan and West Puerto. In addition, this pressure data will enhance the information available to confirm that the Gavilan wells are not rate sensitive. The Secretary should modify the above order to require well testing as requested by Applicants on the COU wells E-10, F-30, B-29, B-32 and L-27.

IV.

# REOPENED HEARING DATE SHOULD BE SCHEDULED IN FEBRUARY 1988

If the reopened hearing ordered by the Commission remains scheduled for May 1988, the estimated loss in production during this five-month period alone to all interested parties due to the

BMG has filed an application with the Commission to increase its allowables along the current boundary line of the Gavilan and West Puerto. This Application, scheduled for hearing on September 24, 1987, would permit the BMG wells producing from the A & B zones to obtain gas injection credit to remove allowable penalties for gas injected in the C zone. The effect would be to restore 70% of the allowable cut to the BMG wells while continuing the 83% allowable cut against the wells operated by Applicants and other parties in Gavilan.

allowable limitation imposed by these Commission orders will exceed 400,000 barrels of oil and 750,000 MCF of gas, worth \$9,000,000.00. State tax revenue loss alone would exceed \$800,000.00. It is estimated that the monthly tax loss in revenue to the State will be \$170,000.00 per month not counting its one-half share of federal lease royalty. In other words, advancing the hearing from May 1988 to February 1988 could restore \$170,000 per month in badly needed State revenues plus the State's one half of increased federal royalties.

In addition, the continuation of these unwarranted allowable restrictions below the standard statewide depth bracket allowables will shift reserves from these Applicants to the Sun-BMG group and result in a clear violation of the correlative rights of these Applicants and their royalty owners, including the BLM. The BLM royalty on Applicants' tracts because of newer leases are higher than the BMG operated BLM tracts in West Puerto. The effect of these orders is to drain reserves from tracts in which the State of New Mexico would be entitled to higher royalty rates.

The Applicants are not contesting another four month 83% reduction in statewide allowables (October 1987 through January 1988) to obtain the data the Commission has indicated it needs to finally settle the rate sensitivity issue in the Gavilan and to settle the proper location of the Gavilan-West Puerto boundary. It is unreasonable, however, to require these Applicants and others to continue on 83% statewide allowable cut

until May 1988 and so long thereafter until an order issues, while the Commission reviews new data, some of which will have been gathered as early as July 1987. The Commission should advance the reopened hearing to February 1988, in order to stop the arbitrary and unnecessary restriction in allowables for the Gavilan.

v.

IN THE ALTERNATIVE, STATEWIDE DEPTH BRACKET ALLOWABLES SHOULD BE RESTORED PENDING THE REOPENED HEARING.

If the Secretary elects not to require an advancement of the May 1988 hearing to February 1988, then in all fairness and in order to comply with the statewide plan and in the public interest the allowables for the Gavilan should be restored to 702 bopd with a 2000/1 GOR effective January 1, 1988, for a 320-acre proration unit and twice such amount for a 640-acre proration unit. A similar restoration of allowables should be implemented in the West Puerto.

The Commission's orders contemplate a partial restoration of the Gavilan allowable effective July 1, 1987, to 640 bopd and a 2000/1 GOR for a 320-acre proration unit. (Gavilan is essentially drilled on a 320-acre pattern.) Bottomhole pressure tests were to be run on all wells in the first week of July 1987. After three months of this partially restored production rate, the allowable is then reduced on October 1, 1987, to 400 bopd with a 600/1 GOR with new bottomhole pressure tests to be conducted in the first week for October 1987. After three months

of reduced production (October, November and December), additional bottomhole pressures will be conducted in the first week of January 1988. Under the existing orders, this severely restricted rate will continue, after the testing period ends. until the Commission acts on the May 1988 reopened hearing. means a minimum of an additional five months of restricted allowables without any justification. In other words, the Gavilan receives partial restoration of its production rate for only three months and then the Gavilan rate is again restricted below the statewide depth brackets allowables for a minimum of at least eight months. The Gavilan has already suffered a ten-month 83% restriction of statewide depth bracket allowables at the 400 bopd and 600/1 GOR from September 1986 through June 1987. The net effect of the Commission orders are to require Gavilan to produce at a statewide depth bracket allowable restriction of 83% for at least 18 months out of a 21-month period.

The inequity to Applicants is clear. Therefore, the allowable for the Gavilan should be restored January 1, 1988 to the statewide depth bracket of 702 bopd with a 2000/1 GOR, for a 320-acre proration unit and twice this amount for a 640-acre proration unit continuing until the Commission acts on the May 1988 hearing.

VI.

# BOUNDARY QUESTION

Because of the additional test data required by the Commission and requested by the Applicants, the Secretary should make clear that the proper boundary between Gavilan and West

APPLICATION FOR REVIEW - Page 9

Puerto should be considered at the reopened hearing based upon all data then available.

VII.

#### ADDITIONAL REVIEW

The other matters for which Applicants request review by the Secretary are set forth in Exhibit B. At this time, however, Applicants are willing to abide by the subject orders if the above tests, hearing advancement, allowable restoration and boundary consideration are ordered by the Secretary. Applicants will not pursue its appeal if the requests outlined above are granted by the Secretary since all parties will have sufficient data and equal footing to proceed with what Applicants hope will be a February 1988 reopened hearing.

#### CONCLUSION

For the foregoing reasons, Applicants request that the Commission's orders be amended to require 1) proper testing,

2) advancing the reopened hearing to February 1988, (or, in the alternative, to reinstate allowables effective January 1, 1988, pending the results of the reopened hearing,) and 3) the reopened hearing will consider the proper boundary of the Gavilan and West Puerto.

In order to grant this request, the Secretary <u>does not</u> need to rehear the evidence presented at the original hearing or rule on the merits of the arguments presented at the original hearing. The Secretary can grant this request based upon the previous hearing record, the Commission orders and the arguments of

counsel. The requested amendments will not change the substance or direction of the Commission orders but rather will clarify those orders, provide proper test data for review, and will give all parties a fair and equal standing at the reopened hearing.

Accordingly, Applicants' request the Secretary open this hearing on or before July 29, 1987, which date is within twenty days of the denial of Applicants' Application for Rehearing. However, in light of the short time period for the hearing to be convened the Secretary could use this initial hearing to set the ground rules for a hearing to be resumed shortly after July 29, 1987.

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#### CERTIFICATE OF SERVICE

I hereby certify that I caused a true and correct copy of the foregoing Application for Review to be mailed to the following persons this 22nd day of July, 1987.

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**WPP/69** 

#### STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

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CASES NOS. 7980, 8946, 9113, AND 9114
ORDER NO. R-7407-E

CASE NO. 8950 ORDER NO. R-6469-D

# MEMORANDUM OF LAW AND AUTHORITY IN SUPPORT OF APPLICATION FOR REVIEW

I.

#### **BACKGROUND**

On March 30, 1987, a five day hearing commenced before the Commission to consider appropriate pool rules, allowables and boundaries for two adjacent pools: the Gavilan and the West Puerto. On June 8, 1987, the Commission entered Orders R-6469-D and R-7407-E ordering, among other things, as follows:

- The two pools are separate, with weak communication;
- All wells in both pools should have bottomhole pressure tests run at three different times to determine rate sensitivity to production levels;
- 3. The allowables for the Gavilan Pool (which had previously been arbitrarily reduced by 83%) should be restored to 1280 bopd and a 2000:1 GOR for 640-acre proration units (640 bopd for a 320 acre proration unit) for a three-month period, beginning July 1, 1987, in order to determine rate sensitivity;
- 4. The allowables for Gavilan should be restricted again in October 1987 for a period of ninety (90) days as part of the rate sensitivity testing;

- 5. In January 1988 testing should cease and the information obtained is to be analyzed by the Commission prior to reopening the hearing in May 1988 for such further orders as may be appropriate in light of the test data;
- 6. The Gavilan allowables are to remain restricted at 17% (an 83% cut) of the statewide depth bracket top allowable until the May 1988 reopened hearing and so long thereafter until the results of said hearing are put into effect.

Both sides filed Applications for Rehearing with the Commission. Applicants herein objected to the imposition of the additional five months of restricted allowables to run from January to May 1988; requested that the reopened hearing date be moved to February 1988 to alleviate this arbitrary continuation of the allowable restriction; and requested that isolation bottomhole tests be conducted on certain key wells which would more accurately establish the boundary between the Gavilan and West Puerto as well as be determinative of the rate sensitivity question. These requests were denied as a matter of law on July 9, 1987 when the Commission took no action on the Applicants' Application for Rehearing.

The opposing parties, BMG, et al., also filed an Application for Rehearing, objecting to the Commission's determination that the Gavilan and West Puerto Fields were separate; objecting to the reinstatement of statewide depth bracket allowables to the Gavilan and objecting to the rate sensitivity testing ordered by the Commission, which Application for Rehearing was also denied as a matter of law on July 9, 1987.

1.

### APPEAL TO THE SECRETARY

Applicants have filed their Application for Review by the Secretary, not to overturn the Commission's substantive orders, but to clarify and amend them in four vital ways:

- 1. To order the testing requested by Applicant and required by the Commission's order as necessary to obtain relevant data.
- 2. To advance the reopened hearing date from May 1988 to February 1988; or
- 3. In the alternative, to reinstate previous statewide depth bracket allowables to the Gavilan, effective January 1, 1988, of 702 bond and a 2000/1 GOR for a 320 acre proration unit (and twice this amount for a 640 acre production unit) pending the reopened hearing.
- 4. To clarify that the reopened hearing will consider the appropriate boundary between the Gavilan and West Puerto based on the new testing and production data.

The parties to a Commission proceeding have two statutory avenues of appeal: appeal directly to the district court (\$ 70-2-25 NMSA 1978) or appeal for review by the Secretary of the Energy, Minerals and Natural Resources Department.

(\$ 70-2-26 NMSA 1978, see copies of these stautory provisions attached to this memorandum) Applicants have chosen to pursue their rights by appeal to the Secretary for they believe that with the proposed amendments to the Commission's orders, all

parties can proceed to the reopened hearing on a relatively equal basis, with sufficient data to once and for all resolve the controversy surrounding the Gavilan and West Puerto. On the other hand, if Applicants appeal to the district court the entire validity of the Commission orders would be at issue. Although Applicants have objected and preserved their objections to several errors in the Commission orders, they believe those objections do not need to be raised if the orders are amended as requested.

III.

#### STATUTORY AUTHORITY

Statutory authority for appeal to the Secretary states that the Secretary may hold a public hearing to determine whether the orders appealed "contravene the statewide plan or the public interest." (§ 70-2-26 NMSA 1978) Applicants have specifically reviewed the "Policy-Level Plan for the Development and Management of New Mexico's Energy and Mineral Resources" ("Plan") to understand the statewide plan and how it may affect this Application. The Plan sets out four goals, two of which are directly applicable to this controversy:

- To optimize state revenues from the production of mineral resources;
- 2. To stimulate economic development in New Mexico by optimizing the supply of mineral resources. (P. 6 of the Plan)

MEMORANDUM OF LAW AND AUTHORITY - Page 4

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The Plan further states that developers are entitled to expect a reasonable degree of regulatory stability at the state and local levels and to be assisted by the State in the drilling, production and transportation of natural resources. (P. 7 of the Plan)

Applicants believe that the subject orders of the Commission are in contravention of the stated goals of the Plan. Specifically, the orders require Applicants to restrict their production by 83% of the previous statewide depth bracket allowables from January 1988 to May 1988, after the Commission ordered testing period is over. There is no justification in the orders for continuing this arbitrary restriction. This restriction will result in a tremendous loss of revenue to the State of New Mexico as affected wells have the ability to produce an additional 400,000 barrels of oil and 750,000 mcf of gas under normal allowables, providing at least \$800,000 in additional tax revenues to the State over this five-month period. The State also loses one-half of the royalty production attributable to federal leases which is not produced due to these severe allowable restrictions. This arbitrary restriction clearly contravenes the stated goals of the Plan. This error can be easily corrected by amending the Commission's orders to provide for a February 1988 hearing date, or, in the alternative, to reinstate the previous statewide allowables in January 1988, pending the reopened hearing.

MEMORANDUM OF LAW AND AUTHORITY - Page 5

Further, Applicants believe the Commission orders, as written, are contrary to the public interest. It is in the public's interest to have orders which encourage the legitimate development and production of resources and which fairly require the compilation of data to resolve disputes. The orders, as written, do not encourage the development and production of resources because they arbitrarily and unnecessarily continue restriction (by 83%) of the statewide allowables. Applicants have diligently developed the minerals on their property, and spent millions of dollars in doing so, with the understanding that statewide rules would apply to them just as they apply to other operators in the State. Changing these rules, in midstream, without any finding that these changes are necessary to prevent waste or protect correlative rights, unquestionably has a chilling effect on development of reserves in New Mexico and therefore clearly affects the public interest.

The orders also fail to require the fair compilation of data on an equal and reasonable basis so that the issues before the Commission can be resolved at the reopened hearing. In order to determine the questions of rate sensitivity and the appropriate boundary location, it is necessary to obtain isolated bottomhole pressure tests on the wells requested in Applicants' Application for Rehearing and this Application for Review. Without this data, the issues the Commission has reserved for the reopened

hearing cannot be intelligently and completely resolved. The public interest will be thwarted if ultimate resolution of those issues is made without consideration of the relevant data.

IV.

#### CONCLUSION

Applicants, therefore, request the Secretary grant their Application for Review, hold a hearing to consider oral arguments of the parties and enter an order amending or modifying the Commission's Order as requested by Applicants.

Respectfully submitted,
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## CERTIFICATE OF SERVICE

I hereby certify that I caused a true and correct copy of the foregoing Memorandum of Law and Authority in Support of Application for Review to be mailed to the following persons this 22nd day of July, 1987.

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[WPP:70]

#### 70-2-25. Rehearings; appeals.

- A. Within twenty days after entry of any order or decision of the commission, any party of record adversely affected thereby may file with the commission an application for rehearing in respect of any matter determined by such order or decision, setting forth the respect in which such order or decision is believed to be erroneous. The commission shall grant or refuse any such application in whole or in part within ten days after the same is filed, and failure to act thereon within such period shall be deemed a refusal thereof and a final disposition of such application. In the event the rehearing is granted, the commission may enter such new order or decision after rehearing as may be required under the circumstances.
- B. Any party of record to such rehearing proceeding dissatisfied with the disposition of the application for rehearing may appeal therefrom to the district court of the county wherein is located any property of such party affected by the decision by filing a petition for the review of the action of the commission within twenty days after the entry of the order following rehearing or after the refusal or [of] rehearing as the case may be. Such petition shall state briefly the nature of the proceedings before the commission and shall set forth the order or decision of the commission complained of and the grounds of invalidity thereof upon which the applicant will rely; provided, however, that the questions reviewed on appeal shall be only questions presented to the commission by the application for reheating. Notice of such appeal shall be served upon the adverse party or parties and the commission in the manner provided for the service of summons in . civil proceedings. The trial upon appeal shall be without a jury, and the transcript of proceedings before the commission, including the evidence taken in hearings by the commission, shall be received in evidence by the court in whole or in part upon offer by either party, subject to legal objections to evidence. The commission action complained of shall be prima facie valid and the burden shall be upon the party or parties seeking review to establish the invalidity of such action of the commission. The court shall determine the issues of fact and of law and shall enter its order either affirming or wacating the order of the commission. Appeals may be taken from the judgment or decision of the district court to the supreme court in the same manner as provided for appeals from any other final judgment entered by a district court in this state. The trial of such application for telief from action of the commission and the hearing of any appeal to the supreme court from the action of the district court shall be expedited to the fullest possible extent.
  - C. The pendency of proceedings to review shall not of itself stay or suspend operation of the order or decision being reviewed, but during the pendency of such proceedings, the district court in its discretion may, upon its own motion or upon proper application of any party thereto, stay or suspend, in whole or in part, operation of the order or decision pending review thereof, on such terms as the court deems just and proper and in accordance with the practice of courts exercising equity jurisdiction; provided, that the court, as a condition to any such staying or suspension of operation of an order or decision may require that one or more parties secure, in such form and amount as the court may deem just and proper, one or more other parties against loss or damage due to the staying or suspension of the commission's order or decision, in the event that the action of the commission shall be affirmed.
  - D. The applicable rules of practice and procedure in civil cases for the courts of this state shall govern the proceedings for review and any appeal therefrom to the supreme court of the state to the extent such rules are consistent with provisions of the Oil and Gas Act [70-2-1 to 70-2-36 NMSA 1978].

#### 70-2-26. Review of oil conservation commission decision; appeals.

The secretary of [the] energy and minerals department may hold a public hearing to determine whether an order or decision issued by the oil conservation commission contravenes the department's statewide plan or the public interest. The hearing shall be held within twenty days after the entry of the commission order or decision following a colouring or after the order refusing a rehearing as the case may be. The hearing shall be a de novo proceeding and the secretary shall enter such order or decision as may be required under the circumstances, having due regard for the conservation of the state's oil, gas and mineral resources, and the commission shall modify its own order or decision to comply therewith. If a rehearing before the commission was granted, the record of the rehearing shall be made part of the record of the hearing before the secretary. If the application for rehearing was denied, the record of the hearing before the commission or the division shall be made part of the record of the hearing before the secretary. Such orders and decisions of the secretary may be appealed by any party to the original hearing or the rehearing before the commission, or by any party to the hearing before the secretary held pursuant to this section, in accordance with the procedure of Subsections B, C and D of Section 70-2-25 NMSA 1978 except that the appeal shall not be a de novo proceeding and shall be limited to a review of the record of the hearing held pursuant to the provisions of this section.

# STATE OF NEW MEX: ) ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

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

CASES NOS. 7980, 8946, 9113, AND 9114 ORDER NO. R-7407-E

**CASE NO. 7980** 

IN THE MATTER OF CASE 7980 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDER NO. R-7407, WHICH ORDER PROMULGATED TEMPORARY SPECIAL RULES AND REGULATIONS FOR THE GAVILAN-MANCOS OIL POOL IN RIO ARRIBA COUNTY, INCLUDING A PROVISION FOR 320-ACRE SPACING UNITS.

### CASE NO. 8946

IN THE MATTER OF CASE 8946 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDER NO. R-7407-D, WHICH OFDER PROMULGATED A TEMPORARY LIMITING GAS-OIL RATIO AND DEPTH BRACKET ALLOWABLE FOR THE GAVILAN-MANCOS OIL POOL IN RIO APRIBA COUNTY.

**CASE NO. 9113** 

APPLICATION OF BENSON-MONTIN-GREER DRILLING CORPORATION, JEROME P. McHUGH & ASSOCIATES, AND SUN EXPLORATION AND PRODUCTION COMPANY TO ABOLISH THE GAVILAN-MANCOS OIL PCOL, TO EXTEND THE WEST PUERTO CHIQUITO-MANCOS OIL POOL, AND TO AMEND THE SPECIAL RULES AND REGULATIONS FOR THE WEST PUERTO CHIQUITO-MANCOS OIL POOL, RIO ARRIBA COUNTY, NEW MEXICO.

CASE NO. 9114

APPLICATION OF MESA GRANDE RESOURCES, INC. FOR THE EXTENSION OF THE GAVILAN-MANCOS OIL POOL AND THE CONTRACTION OF THE WEST PUERTO CHIQUITO-MANCOS OIL POOL, RIO ARRIBA COUNTY, NEW MEXICO.

#### ORDER OF THE COMMISSION

### BY THE COMMISSION:

These causes came on for hearing on March 30 and 31 and April 1, 2, and 3, 1987 at Santa Fe. New Mexico before the Oil Conservation Commission of New Mexico hereinafter referred to as the "Commission."

-2-Cases Nos. 7980, 8946, 9113 and 9114 Order No. R-7407-E

NOW, on this 8th day of June, 1987, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearings 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 and the subject matter thereof.
- (2) At the time of hearing, Cases 7980, 8946, 8950, 9113 and 9114 were consolidated for purposes of testimony.
- (3) Case 7980 involves review of temporary pool rules promulgated by Order R-7407 and Case 8946 involves reopening the matter of temporary reduction of allowable and gas/oil ratio limit, under Order R-7407-D, both orders pertaining to the Gavilan-Mancos Oil Pool.
- (4) Case 8950 involves reopening the matter of temporary reduction of allowable and gas/oil ratio limit under Order R-3401-A pertaining to the West Puerto-Chiquito-Mancos Oil Pool.
- (5) Case 9113 involves a proposal to abolish the Gavilan-Mancos Oil Pool and consolidate that pool into the West Puerto-Chiquito-Mancos Oil Pool and Case 9114 involves a proposal to shift the boundary between Gavilan-Mancos and West Puerto Chiquito-Mancos Oil Pools.
- (6) The evidence shows that there is limited pressure communication between the two designated pools, and that there are two weakly connected areas separated by some restriction at or near the common boundary of the two designated pools.
- (7) The evidence shows there are three principal productive zones in the Mancos formation in both presently designated pools, designated A, B, and C zones listed from top to bottom and that, while all three zones are productive in both designated pools, West Puerto Chiquito produces primarily from the C zone and Gavilan produces chiefly from the A and B zones.
- (8) It is clear from the evidence that there is natural fracture communication between zones A and B but that natural fracture communication is minor or non-existent between zones B and C.

- (9) The reservoir consists of fractures ranging from major channels of high transmissibility to micro-fractures of negligible transmissibility, and possibly, some intergranular porosity that must feed into the fracture system in order for oil therein to be recovered.
- (10) The productive capacity of an individual well depends upon the degree of success in communicating the wellbore with the major fracture system.
- (11) Interference tests indicate: 1) a high degree of communication between certain wells, 2) the ability of certain wells to economically and efficiently drain a large area of at least 640 acres; and 3) the probability exists that the better wells recover oil from adjacent tracts and even more distant tracts if such tracts have wells which were less successful in connecting with the major fracture system.
- (12) There is conflicting testimony as to whether the reservoir is rate-sensitive and the Commission should act to order the operators in West Puerto Chiquito and Gavilan-Mancos pools to collect additional data during 90-day periods of increased and decreased allowables and limiting gas-oil ratios.
- (13) Two very sophisticated model studies conducted by highly skilled technicians with data input from competent reservoir engineers produced diametrically opposed results so that estimates of original oil in place, recovery efficiency and ultimate recoverable oil are very different and therefore are in a wide range of values.
- (14) There was agreement that pressure maintenance would enhance recovery from the reservoir and that a unit would be required to implement such a program in the Gavilan-Mancos Pool.
  - (15) Estimates of the amount of time required to deplete the Gavilan pool at current producing rates varied from 33 months to approximately five years from hearing date.
  - (16) Many wells are shut in or are severely curtailed by OCD limits on permissible gas venting because of lack of pipeline connections and have been so shut in or curtailed for many months, during which time reservoir pressure has been shown by pressure surveys to be declining at 1 psi per day or more, indicating severe drainage conditions.
  - (17) No party requested making the temporary rules permanent, although certain royalty (not unleased minerals)

owners requested a return to 40-acre spacing, without presenting supporting evidence.

- (18) Proration units comprised of 640 acres with the option to drill a second well would permit wider spacing and also provide flexibility.
- (19) Recognizing that the two designated pools constitute two weakly connected areas with different geologic and operating conditions, the administration of the two areas will be simplified by maintaining two separate pools.
- (20) A ninety day period commencing July 1, 1987, should be given for the connection for casinghead gas sale from now-unconnected wells in the Gavilan pool, after which allowables should be reduced in that pool until said wells are connected.
- (21) To provide continuity of operation and to prevent waste by the drilling of unnecessary wells, the temporary spacing rules promulgated by Order R-7407 should remain in effect until superceded by this Order.
- (22) Rules for 640-acre spacing units with the option for a second well on each unit should be adopted together with a provision that units existing at the date of this order should be continued in effect.

# IT IS THEREFORE ORDERED THAT:

- (1) The application of Benson-Montin-Greer et al in Case No. 9113 to abolish the Gavilan-Mancos pool and extend the West Puerto Chiquito-Mancos pool to include the area occupied by the Gavilan-Mancos Pool is denied.
- (2) The application of Mesa Grande Resources, Inc. for the extension of the Gavilan-Mancos and the concomitant contraction of West Puerto Chiquito-Mancos Pool is denied.
- (3) Rule 2 of the temporary special rules and regulations for the Gavilan-Mancos Oil Pool as promulgated by Order R-7407 is hereby amended as follows:
  - Rule 2 (a). A standard proration unit shall consist of between 632 and 648 acres consisting of a governmental section with at least one and not more than two wells drilled or recompleted thereon; provided that if the second well is drilled or recompleted on a standard unit it shall not be located in the same quarter section, nor

Cases Nos. 1880, 8946, 9113 and 9114 Order No. R-7407-E

closer than 1650 feet to the first well drilled on the unit; and provided further that proration units formed prior to the date of this order are hereby granted exception to this rule.

- (b). A buffer zone is hereby created consisting of the east half of sections bordering Township 1 West. Only one well per section shall be drilled in said buffer zone and if such well is located closer than 2310 feet from the western boundary of the West Puerto Chiquito-Mancos Oil Pool it shall not be allowed to produce more than one-half the top allowable for a 640-acre proration unit.
- barrels of oil per day per 640 acres with a limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil. Operators are required to monitor reservoir performance, including but not limited to, production rates, gas-oil ratios, reservoir pressures, and shall report this information to the Commission within 30 days after completion of the tests. Within the first week of July, 1987, bottom hole pressure tests shall be taken on all wells. Wells shall be shut-in until pressure stabilizes or for a period not longer than 72 hours. Additional bottom hole tests shall be taken within the first week of October, 1987, with similar testing requirements. All produced gas, including gas vented or flared, shall be metered. Operators are required to submit a testing schedule to the District Supervisor of the Aztec office of the Oil Conservation Division prior to testing so that tests may be witnessed by OCD personnel.
- (5) Beginning October 1, 1987, the allowable shall be 800 barrels of oil per day per 640 acres with a limiting gas-oil ratio of 600 cubic feet of gas per barrel of oil. Operators are required to monitor reservoir performance as in (4) above with bottom hole pressure tests to be taken within the first week of January, 1988. This allowable and GOR limitation shall remain in effect until further notice from the Commission.
- (6) In order to prevent further waste and impairment of correlative rights each well in the Gavilan-Mancos Oil Pool shall be connected to a gas gathering system by October 1, 1987 or within ninety days of completion. If Wells presently unconnected are not connected by October 1 the Director may reduce the Gavilan-Mancos allowable as may be appropriate to prevent waste and protect correlative rights. In instances where it can be shown that connection is absolutely uneconomic the well involved may be granted authority to flow or vent the

-6-Cases Nos. 1980, 8946, 9113 and 9114 Order No. R-7407-E

gas under such circumstances as to minimize waste as determined by the Director.

- (7) The temporary special pool rules promulgated by Order R-7407 are hereby extended to the effective date of this order and said rules as amended herein are hereby made permanent.
- (8) This case shall be reopened at a hearing to be held in May, 1988 to review the pools in light of information to be gained in the next year and to determine if further changes in rules may be advisable.
- (9) Jurisdiction of this cause is retained for 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, Chairman and

Secretary

SEAL

dr/

# STATE OF NEW MEXICO ENERGY AND MINERALS DEF TMENT OIL CONSERVATION DIVISION

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

CASE 8950 Order No. R-6469-D

IN THE MATTER OF CASE 8950 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDERS NOS. R-6469-C AND R-3401-A, AS AMENDED, WHICH ORDER PROMULGATED A TEMPORARY ALLOWABLE AND LIMITING GAS-OIL RATIO FOR THE WEST PUERTO CHIQUITO-MANCOS OIL POOL IN RIO ARRIBA COUNTY.

## ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing on March 30 and 31 and April 1, 2, and 3, 1987 at Santa Fe, New Mexico before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 8th day of June, 1987 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 this cause and the subject matter thereof.
- (2) At the time of hearing, Cases 7980, 8946, 8950, 9113 and 9114 were consolidated for purposes of testimony.
- (3) Case 8950 involves re-opening the matter of temporary reduction of allowable and gas/oil ratio limit under Order R-6469-C/R-3401-A pertaining to the West Puerto Chiquito-Mancos Oil Pool.
- (4) Case 9113 involves a proposal to abolish the Gavilan-Mancos Oil Pool and consolidate that pool into the West Puerto Chiquito-Mancos Oil Pool and Case 9114 involves a proposal to shift the boundary between Gavilan-Mancos and West Puerto Chiquito-Mancos Oil Pool.

- (5) The evidence shows that there is limited pressure communication between the two designated pools, and that there are two weakly connected areas separated by some restriction at or near the common boundary of the two designated pools.
- (6) The evidence shows there are three principal productive zones in the Mancos formation in both presently designated pools, designated A, B, and C zones listed from top to bottom and that, while all three zones are productive in both designated pools, West Puerto Chiquito produces primarily from the C zone and Gavilan produces chiefly from the A and B zone.
- (7) It is clear from the evidence that there is natural fracture communication between zones A and B but that natural fracture communication is minor or non-existent between zones B and C.
- (8) Interference tests indicate: 1) a high degree of communication between certain wells, 2) the ability of certain wells to economically and efficiently drain a large area of at least 640 acres; and 3) the probability exists that the better wells recover oil from adjacent tracts and even more distant tracts if such tracts have wells which were less successful in connecting with the major fracture system.
- (9) There is conflicting testimony as to whether the reservoir is rate-sensitive and the Commission should act to order the operators in West Puerto Chiquito and Gavilan-Mancos pools to collect additional data during 90-day periods of increased and decreased allowables and limiting gas-oil ratios.
- (10) Estimates of the amount of time required to deplete the Gavilan Pool at current producing rates varied from 33 months to approximately five years from hearing date.
- (11) An allowable of 1280 barrels per day is based upon an extension of the depth bracket allowable table and should be the allowable for a 640-acre proration unit for a period of 90 days with a limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil.
- (12) The Oil Conservation Commission and their staff will evaluate the data collected, or contract to have the data evaluated, to ascertain whether the 1280 BOPD allowable and 2,000 to 1 limiting GOR will cause waste and/or provide a mechanism for confiscation of oil and gas through drainage via the highly transmissive fracture system.

- (13) After the initial 90-day period ends, the allowable should be reduced to 800 BOPD per 640 acres with a limiting GOR of 600 cubic feet of gas per barrel of oil.
- (14) The West Puerto Chiquito-Mancos Pool is dominated by the Canada Ojitos Unit on which a pressure maintenance program has been in progress since 1968 wherein all produced gas has been reinjected as well as outside purchased gas being injected.
- (15) From commencement of production in the West Puerto Chiquito Mancos Pool in 1964 until approximately the end of 1986, a period of 22 years, the West Puerto Chiquito Pool enjoyed a favored pressure differential to the area now designated the Gavilan Mancos Pool but now the pressure differential favors the Gavilan Mancos Pool.
- (16) The existing West Puerto Chiquito Mancos Pool wells located in the westernmost tier of sections in Township 25 North, Range 1 West, and the proper development of the Mancos Pool along the common existing boundary of the two pools will protect operators within the West Puerto Chiquito Mancos Pool from drainage by wells within the Gavilan Mancos Pool.
- (17) Recognizing that the two designated pools constitute two weakly connected areas with different geologic and operating conditions the administration of the two areas will be simplified by maintaining two separate pools.

# IT IS THEREFORE ORDERED THAT:

- (1) The application of Benson-Montin-Greer in Case No. 9113 to abolish the Gavilan-Mancos Pool and extend the West Puerto Chiquito-Mancos Pool to include the area occupied by the Gavilan-Mancos pool is denied.
- (2) The application of Mesa Grande Resources, Inc. for the extension of the Gavilan-Mancos and the concomitant contraction of West Puerto Chiquito-Mancos pool is denied.
- (3) Beginning July 1, 1987, the allowable shall be 1280 barrels of oil per day per 640 acres with a limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil. Operators are required to monitor reservoir performance, including but not limited to, production rates, gas-oil ratios, reservoir pressures, and shall report this information to the Commission within 30 days from completion of the tests. Within the first week of July, 1987, bottom hole pressure tests shall be taken

on all wells. Wells shall be shut-in until pressure stabilizes or for a period not longer than 72 hours. Additional bottom hole tests shall be taken within the first week of October, 1987, with similar testing requirements. All produced gas. including gas vented or flared, shall be metered. Operators are required to submit a testing schedule to the District Supervisor of the Aztec office of the Oil Conservation Division prior to testing so that tests may be witnessed by OCD personnel.

- (4) Beginning October 1, 1987, the allowable shall be 800 barrels of oil per day per 640 acres with a limiting gas-oil ratio of 600 cubic feet of gas per barrel of oil. Operators are required to monitor reservoir performance as in (3) above with bottom hole pressure tests to be taken within the first week of January, 1988. This allowable and GOR limitation shall remain in effect until further notice from the Commission.
- (5) This case shall be reopened at a hearing to be held in May, 1988 to review the pools in light of information to be gained in the next year and to determine if further changes in rules may be advisable.
- (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. LEMA Chairman and

Secretary

SEAL

## FIRST JUDICIAL DISTRICT COURT COUNTY OF SANTA FE STATE OF NEW MEXICO

MALLON OIL COMPANY AND MESA GRANDE RESOURCES, INC.,

NO. RA 87-1572 (c)

Petitioners.

OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO.

Respondent.

SUMMONS

TO William J. LeMay, Director OIL CONSERVATION COMPAISSION State Land Office Building Santa Fe, New Mexico 87501

Defendant(s), Greeting:

Review of Commission You are hereby directed to serve a pleading or motion in response to the Petition for Action within 30 days after service of the Summons, and file the same, all as provided by law.

You are notified that, unless you so serve and file a responsive pleading or motion, the Plaintiff(s) will apply to the Court for the relief demanded in the Complaint W. Perry-Pearce-

Attorney or Attorneys For Plaintiff: MONTGOMERY & ANDREWS, P.A.

Address: Post Office Box 2307

Santa Fe, New Mexico 87504-2307

Deputy

WITNESS the Honorable	ART ENCINIAS	, District Judges of Said Court of
the State of New Mexico and	Seal of the District Co	ourt of Said County, this day
of <u>Luly</u> , 19_6	<u></u> .	MARTHA A. FRANK Acting District Coun Clerk
(SEAL)		LERK OF THE DISTRICT COURT  Roybel

NOTE

This summons does not require you to see, telephone or write to the District Judge of the Court at this time.

It does require you or your attorney to file your legal defense to this case in writing with the Clerk of the District Court within 30 days after the summons is legally served on you. If you do not do this, the party suing may get a Court Judgment by default against you.

Revised 1/1/83

CV 4.40

FIRST JUDICIAL DISTRICT COURT
COUNTY OF SANTA FE
STATE OF NEW MEXICO

ENDORSED

JUL 27 1987

FIRST JUDICIAL DISTRICT COURT SANTA FE, RIO ARRIBA & LOS ALAMOS COUNTIES P.O. Box 2268 Sante Fe, NM 87504-2268

MALLON OIL COMPANY AND MESA GRANDE RESOURCES, INC.,

Petitioners.

vs.

No. RA87-1572(C)

OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO,

Respondent.

# PETITION FOR REVIEW OF COMMISSION ACTION

COMES NOW Mallon Oil Company and Mesa Grande Resources, Inc. ("Petitioners") and file this their petition for review of action by the Oil Conservation Commission in Case Nos. 7980, 8946, 9113, and 9114 (Order No. R-7407-E) and Case No. 8590 (Order No. R-6469-D) and would show the court as follows:

I.

#### Statement of Facts

On March 30, 1987, the Oil Conservation Commission ("Commission") convened a hearing to consider the appropriate pool rules, allowables, and boundaries for two adjacent oil pools: the Gavilan-Mancos Oil Pool ("Gavilan") and the West Puerto Chiquito Oil Pool ("West Puerto"), Rio Arriba County, New Mexico. On June 8, 1987, the Commission entered Orders No. R-6469-D and R-7407-E ordering, among other things, as follows:

- 1. The two pools are separate pools;
- 2. All wells in both pools should have bottomhole pressure tests run at three different times to determine rate sensitivity to production levels;
- 3. The allowables for the Gavilan (which had previously been arbitrarily reduced by 83%) should be partially restored to 1280 BOPD with a 2000:1 GOR for 640-acre proration units (640 BOPD for a 320-acre proration unit) for a three-month period, beginning July 1, 1987, in order to determine rate sensitivity;
- 4. The allowables for Gavilan should be restricted again in October 1987 for a period of ninety (90) days as part of the rate sensitivity testing;
- 5. Testing will end in January 1988 and the information obtained is to be analyzed by the Commission prior to reopening the hearing in May 1988 for such further orders as may be appropriate in light of the test data;
- 6. The Gavilan allowables are to remain restricted at 17% (an 83% cut) of the statewide depth bracket top allowable until the May 1988 reopened hearing and so long thereafter until the results of said hearing are put into effect.

Petitioners filed their Application for Rehearing with the Commission, objecting to the imposition of the additional five months of restricted allowables to run from January to May 1988; requesting that the reopened hearing be moved to February 1988 to alleviate this arbitrary continuation of the allowable

restriction; requesting that isolated bottomhole tests be conducted on certain key wells which would more accurately establish the boundary between the Gavilan and West Puerto as well be determinative of the rate sensitivity question; and specifically raising objections to various findings of fact and ordering paragraphs contained in both orders. A copy of the Application for Rehearing is attached hereto as Exhibit A and incorporated herein for all purposes. The Application was denied as a matter of law on July 9, 1987.

On July 22, 1987, Petitioners filed an Application for Review by the Secretary of the Energy, Minerals & Natural Resources Department pursuant to \$ 70-2-26 NMSA 1978 (a copy of which is attached hereto as Exhibit B and incorporated herein by reference (attach Application and brief). This application was denied by the Secretary on July 28, 1987. Accordingly, Plaintiffs have exhausted all administrative remedies prior to filing this petition for judicial review.

Plaintiffs are parties of record adversely affected by the issuance of orders Nos. R-7407-E and R-6469-D and file this their petition for review of the Commission's orders, raising the following points of error, all of which were set out in Plaintiffs' application for rehearing to the Commission.

II.

### Point of Error

The Commission's orders are arbitrary and capricious, not based upon substantial evidence, ignore and do not recognize the

correlative rights of the Plaintiffs, and are contrary to law, as set out below. (See attached Exhibits C and D, Orders R-7407-E and R-6469-D, respectively, for reference).

- 1. Benson-Montin-Greer Drilling Corporation,

  Jerome P. McHugh & Associates and Sun Exploration & Production

  Company ("BMG, et al.") proposed changes to the special pool

  rules and statewide rules governing the Gavilan pool. Therefore,

  they had the burden of proving by a preponderance of evidence

  that such rule changes were justified. International Minerals &

  Chemicals Corp. v. New Mexico Public Service Comm'n, 81 NM 280,

  466, P.2d 557 (1970). This burden was improperly shifted to

  Plaintiffs herein when the Commission failed to hold BMG, et al.

  to their burden.
- 2. Many finding and ordering paragraphs in the subject orders are not supported by substantial evidence. In particular and without limitation, the following paragraphs are legally insufficient:

### As to Order R-7407-E:

- a. <u>Finding (9)</u>: Petitioners proved that most of the recoverable oil in Gavilan is stored in the microfractures and in intergranular porosity. The BMG, <u>et al</u>. group presented no facts to refute this proof.
- b. Findings (12) and (13): While testimony regarding rate sensitivity was conflicting, the only reservoir model matching actual Gavilan performance was presented by Petitioners. The model presented by BMG,  $\underline{\text{et al}}$  was not based

upon realistic parameters or actual field conditions as to the Gavilan. As a result, the only legally sufficient evidence establishes the Gavilan is not rate sensitive.

- c. <u>Finding (14)</u>: There is no evidence in the record to support agreement that any type of pressure maintenance project is proper at this time. Petitioners' evidence clearly showed that a high pressure-pressure maintenance project would adversely affect the Gavilan pool performance and cause waste. In addition, the issue of pool unitization is beyond the scope of this hearing and no party presented any evidence regarding unitization.
- d. <u>Finding (15)</u>: The pool depletion period estimated by Petitioners is nine years. There is no evidence to support the five-year estimate used by the Commission in its order.
- e. <u>Findings (16) and (20)</u>: The issue of pipeline connections is beyond the scope of the hearing. It is beyond the authority of the Commission to reduce production from nonwasteful (connected) wells to protect the correlative rights of the owners of a wasteful (unconnected) well that flares and wastes its casinghead gas. Further, there is no evidence in the record to support this action.
- f. Ordering (2): The application of Mesa Grande Resources, Inc. to extend the boundaries of the Gavilan field is supported by the preponderance of evidence in the record. Even BMG, et al. admit that their westernmost West Puerto wells are in

good communication in the "A and B" zones with the Gavilan wells. There is no substantial evidence to support maintaining the current pool boundaries.

- g. Ordering (5): The Gavilan allowable for a 640-acre proration unit should be returned to the normal statewide depth bracket allowable upon completion of the 180-day test period set out by the Commission. There is no substantial evidence in the record and no finding of fact in the Commission's order which would justify continuation of a restricted allowable for the Gavilan field after completion of the test period and pending a review hearing. Any such regulation is arbitrary, capricious and in contravention of the Commission's statutory authority.
- h. Ordering (6): As mentioned above, the unconnected well matter is not an issue at this hearing and the Commission has no authority to reduce the allowable of a nonwasteful (connected) wells to protect the correlative rights of a wasteful (unconnected) well.
- i. The reopened hearing should be advanced to February 19, 1988, in order to prevent the arbitrary restriction of allowables in the Gavilan field after the test period ordered by the Commission has been completed.

As to Order R-6469-D (and only as to its effect on Gavilan):

- p. Finding (11): There is no similar finding in R-7407-E. As noted above, the top allowable in Gavilan for a 640-acre proration unit should be 1404 BOPD (twice the current 702 BOPD for a 320-acre proration unit) with a 2000:1 GOR. There is no basis in law or in fact, no substantial evidence in the record and no finding to support the arbitrary restriction of Gavilan allowables beyond the 180-day test period set out in the Commission's order. The Commission's order in this regard is arbitrary, capricious and in violation of its statutory authority.
- Findings (12) and (13): There are no K. findings with these provisions in the findings of Order R-7407-E. There is no sufficient evidence in the record to support restriction of the Gavilan top allowable to prevent waste. In order to determine whether waste will occur at normal allowable rates, the testing procedures ordered by the Commission should be amended to specifically require "C" zone pressure testing in the oil column of the West Puerto from the Canada-Ojitos Unit (COU) Well E-10 (Section 10, Township 25N, Range 1W). Furthermore, isolation tests should be required on key BMG Wells F-30, B-29, and B-32 and BMG-COU Well No. L-27. The Commission's orders (both R-7407-E and R-6469-D) specifically require testing on all wells in the field. However, the Commission staff has informally amended such orders, without proper procedure, to require testing on only some wells in the field and to not require any isolation zone testing from the West Puerto. Without this testing, the

Commission's actions in ordering any test period and in restricting Gavilan allowables during test periods are arbitrary and capricious as the tests required will not provide the information the Commission has deemed necessary to determining whether the Gavilan is rate sensitive and what the appropriate boundary between the Gavilan and West Puerto fields should be.

- 1. Finding (15): This finding of fact does not appear in R-7407-E. There is no substantial evidence in the record to support a finding that "the pressure differential favors Gavilan."
- m. Finding (16) and Ordering (2): This finding does not appear in R-7407-E. If this finding is correct, then it is arbitrary and capricious to fail to extend the Gavilan eastern boundary to include the westernmost edge of the West Puerto.
- n. Ordering (3): This paragraph should be amended to include appropriate test requirements noted above. Failure to require fair and adequate testing is arbitrary and capricious.
- o. Ordering (4): There is no finding to support the necessity of maintaining a restricted allowable after the test period has ended.
- p. Ordering (5): The reopened hearing should be advanced to February 1988, or the allowables reinstated in the

Gavilan pending the reopened hearing. There is no evidence to support postponing the reopened hearing or restricting allowables pending that hearing.

III.

# Additional Ground for Appeal

- 3. Rules issued by the Commission should be fair and equal in effect. The subject orders are discriminatory as described below.
- a. The orders allow production in the Gavilan at 1280 BOPD with a GOR of 2000:1 for a three (3) month period but require production at 800 BOPD with a GOR of 600:1 for eight (8) months (and thereafter until action is taken on a hearing to be held in May 1988), and is therefore inherently unfair and biased as to the period of production (three months versus at least eight months), in favor of BMG, et al. and harming Plaintiffs.
- b. The Commission's production limitations have resulted in certain wells operated by Mallon Oil Company being shut in for over 25 days per month. This discriminates against Mallon Oil Company and causes economic waste and violates its correlative rights due to production from offsetting wells (operated by BMG, et al.).
- c. Substantial investments were made by
  Petitioners herein and others in Gavilan based upon then-existing
  pool rules. A change of the rules in midstream has and will work
  a financial hardship on those interest owners by restricting
  production. This has resulted in limiting return on investment

to an amount insufficient to recover the millions of dollars invested, resulting in severe economic hardship. In addition, this has had a chilling effect on further oil and gas investment in this state.

- 4. The Commission's production limitations constitute a taking of property without just compensation in violation of the federal and state constitutions.
- 5. Order R-7407-E fails to comply with applicable statutory and judicial mandates. In Continental Oil Co. v. Oil Conservation Comm'n, 70 NM 310, 373 P.2d 809 (1962) the New Mexico Supreme Court in a case dealing with a natural gas pool, discussed the basic conclusions of fact that the Commission is required to find prior to changing a proration formula. The Commission failed to make any of these required findings and did not discuss any of these necessary elements. The record in this matter is clear that the changes adopted by the Commission constitute a change in the proration formula since these changes alter the relative proportion of production between operators in Gavilan and deviate from statewide rules. Order R-7407-E is therefore contrary to law and arbitrary and capricious.

This petition is based upon the record in the Commission below and the pleadings of Petitioners including their Application for Rehearing to the Commission (Exhibit A) and Application for Review to the Secretary of Energy (Exhibit B).

Any grounds set out in these prior Applications which are not specifically mentioned in this petition are adopted herein by reference.

IV.

WHEREFORE, PREMISES CONSIDERED, Petitioners request that the court set a hearing to consider this petition for review and upon hearing reverse the Commission's Orders R-7407-E and R-6469-D, and remand this proceeding to the Commission for rehearing. In the alternative, Petitioners request that the court amend Commission's orders as follows:

- 1. To order the testing requested by Petitioners and required by the Commission's order as necessary to obtain relevant data;
- 2. To advance the reopened hearing date from May 1988 to February 1988; or
- 3. In the alternative to enjoin, effective January 1, 1988, the Commission from interfering with production of Plaintiffs' wells at 702 BOPD and a 2000:1 GOR for a 320-acre proration unit (twice this amount for 640-acre proration unit) pending the reopened hearing.
- 4. To clarify that the reopened hearing will consider the appropriate boundary between the Gavilan and West Puerto based upon the new testing and production data.

Respectfully submitted,

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[WPP:73]

#### STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION COMMISSION

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

CASES NOS. 7980, 8946, 9113, AND 9114 ORDER NO. R-7407-E

CASE NO. 8950 ORDER NO. R-6469-D

CASE NO. 7980

IN THE MATTER OF CASE 7980 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDER NO. R-7407, WHICH ORDER PROMULGATED TEMPORARY SPECIAL RULES AND REGULATIONS FOR THE GAVILAN-MANCOS OIL POOL IN RIO ARRIBA COUNTY, INCLUDING A PROVISION FOR 320-ACRE SPACING UNITS.

CASE NO. 8946

IN THE MATTER OF CASE 8946 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDER NO. R-7407-D, WHICH ORDER PROMULGATED A TEMPORARY LIMITING GAS-OIL RATIO AND DEPTH BRACKET ALLOWABLE FOR THE GAVILAN-MANCOS OIL POOL IN RIO ARRIBA COUNTY.

**CASE NO. 9113** 

APPLICATION OF BENSON-MONTIN-GREER DRILLING CORPORATION, JEROME P. McHUGH & ASSOCIATES, AND SUN EXPLORATION AND PRODUCTION COMPANY TO ABOLISH THE GAVILAN-MANCOS OIL POOL, TO EXTEND THE WEST PUERTO CHIQUITO-MANCOS OIL POOL, AND TO AMEND THE SPECIAL RULES AND REGULATIONS FOR THE WEST PUERTO CHIQUITO-MANCOS OIL POOL, RIO ARRIBA COUNTY, NEW MEXICO.

CASE NO. 9114

APPLICATION OF MESA GRANDE RESOURCES, INC. FOR THE EXTENSION OF THE GAVILAN-MANCOS OIL POOL AND THE CONTRACTION OF THE WEST PUERTO CHIQUITO-MANCOS OIL POOL, RIO ARRIBA COUNTY, NEW MEXICO.

CASE NO. 8950

IN THE MATTER OF CASE 8950 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDERS NOS. R-6469-C AND R-3401-A, AS AMENDED, WHICH ORDER PROMULGATED A TEMPORARY ALLOWABLE AND

LIMITING GAS-OIL RATIO FOR THE WEST PUERTO CHIQUITO-MANCOS OIL POOL IN RIO ARRIBA COUNTY.

### APLICATION FOR REHEARING

Mesa Grande Resources, Inc. and Mallon Oil Company,
(Applicants) file this Application for Rehearing, and state:

1. Applicants are pleased the Commission has confirmed that the Gavilan-Mancos Oil Pool ("Gavilan") is a separate pool from the West Puerto Chiquito-Mancos Pool ("West Puerto"), and as such should continue to be operated under separate rules. Because the two pools do have "different geologic and operating conditions," the Commission should direct its attention to protecting each pools' separate conservation aspects and the separate correlative rights of the owners in each pool.

The only remaining issues for the Commission to decide should be:

- a. The appropriate boundary between the Gavilan and West Puerto;
- b. Whether the Gavilan owners' correlative rights should be further impinged upon by the unnecessary restriction of the Gavilan allowable production from 702 bopd with a 2000/1 GOR to the temporary 400 bopd with a 600/1 GOR rule for a 320-acre proration unit. For example, a top allowable well on a 320-acre proration unit with a 2000/1 GOR in the Gavilan suffers an 833 allowable cut from 702 bopd to only 120 bopd. This cut in allowable is not necessary to prevent waste or to protect

correlative rights. In fact, the <u>only</u> result of this arbitrary allowable cut is to redistribute reserves away from the top allowable wells, in violation of the owners' correlative rights.

The effect of this cut will continue to be devastating on Gavilan development by the Applicants and others similarly situated. The Commission should note that 15 wells have been drilled in the Gavilan and West Puerto Pools since the Commission's original imposition of drastic and unwarranted allowable cuts in September 1, 1986. Of these 15 wells, 12 have been drilled by the proponents of allowable reduction, who also sought increased spacing allegedly to prevent the drilling of unnecessary wells.

The Commission needs to be aware that drilling \$800,000 wells in this area can become uneconomic in today's oil depression when the additional risk imposed by this Commission of drastically limiting production is added to the already high risks of obtaining a good producing well.

2. Although not accepting the allowable constraints of the above orders, the Applicants do recognize the Commission's intent to obtain additional engineering data to confirm applicant's and the Commission's positions that Gavilan and West Puerto should remain separate. Applicants also recognize this Commission's concern of future waste in the Gavilan. Applicants share the same concern. That is why Applicants commissioned an independent engineering study to review in depth the possibility of waste. This complete study, based on actual Gavilan data, has been

presented to the Commission and Applicants submit such study clearly shows that statewide producing practices will not injure this pool, just as such practices have not injured hundreds of other New Mexico pools with similar solution gas drive characteristics. However, Applicants request that if the Commission and its staff truly seek meaningful engineering data during the next six months that the following be ordered or required:

a. "C" zone pressure testing in the oil column of the
West Puerto should be required to comply with the spirit of the
Commissions June 8th orders.

The Commission should note that at an operators' meeting held at the Division's request on June 23, 1987, for the purpose of attempting to satisfy the requirement of ordering paragraphs (3) in order no. r-6469-d and (4) in order no. R-7407-E, Benson-Montin-Greer Drilling Corporation (BMG), through Mr. Al Greer, refused to permit "C" zone pressure tests in the oil column of the West Puerto -- specifically the Canada Ojitos Unit (COU) Well E-10 (Section 10, Township 25 North, Range 1 West). The Applicants believe the Commission is extremely interested in whether the "C" zone is affected by "A & B" zone

The Commission staff has professed they did not want this testing to cause any expense to the operators. However, none of the pressure tests sought by the commission can be accomplished without the operators incurring additional expenses and this should be executed by all operators.

production rates from the Gavilan-Mancos Pool wells. No recent "C" zone pressure in the oil column has been provided to the Applicants or the Commission. It is urged the Commission order "C" zone pressure tests in the E-10 well. A copy of Mallon Oil Company's letter of June 24, 1987, setting forth this problem is attached. Only with meaningful pressure data of this type can Mr. Greer's factually unsupported allegations of harm to his "C" zone project be refuted or proved.

# b. <u>Isolation tests should be required on key BMG</u> wells F-30, B-29 and B-32.

The key wells in the BMG case were F-30, B-29 and B-32. These wells are completed in the "A & B" and "C" zones. BMG presented so-called interference tests on these three wells. these wells are presently completed, however, there is no way to determine the individual productivity or the pressure contribution of the "A & B" zones and "C" zone in these three wells. The Commission should order isolation tests for these key wells of the same type run by Mallon on its Fisher Federal 2-1 and by Mobil on its B-73. The Commission ordered bottomhole pressure surveys. These should be run separately on the "A & B" zone and on the "C" zone in the F-30 and B-29 wells in conjunction with the isolation tests. The B-32 is already on the bottomhole pressure survey schedule and its bottomhole pressure should be measured separately on the "A & B" zones and the "C" zone at the same time as the isolation tests. Again, this type of meaningful pressure and production data will be significant to determine:

- (1) if the "A & B" zones are cross-flowing and charging the "C" zone in the West Puerto, especially at the curtailed "A & B" zones rate, and
- (2) the extent of the production between the "A  $\epsilon$ " B" zones in the Gavilan versus the West Puerto.
- c. <u>Isolation and pressure tests should be required</u> for the BMG-COU Well No. L-27.

Mr. Greer testified that the L-27 had produced approximately 1.5 million barrels from the "A & B" zones. No separate tests have been run on the "A & B" zones and the "C" zone in the L-27 well. Isolation tests and bottomhole pressure measurements on the L-27 will verify whether the "A & B" zones are the producing zones and the relationship of the "A & B" zone production, if any, in this area of the West Puerto to the separate "A & B" zones production from Gavilan.

d. This case should be reopened in February 1988 rather than May 1988.

Gavilan has already suffered reduced allowables from September 1, 1986 to July 1, 1987 and will suffer another 83% allowable cut from October 1, 1987 until the Commission restores the allowable after the hearing now scheduled for May 1988. Applicants respectfully request that the May 1988 hearing be

For example, the Applicants' monthly production rate will have been drastically reduced for all but three months in a two-year period if the Commission's current hearing schedule is followed. Applicants are losing approximately 49,000 barrels per month due to the Commission's allowable limit orders. To date, more than 440,000 barrels of production has been lost with the working and royalty interest owners and the State of New Mexico suffering severe financial losses.

advanced to February 1988 so that the Commission may review the latest data in a timely manner. The pressure and production data at normal statewide rates will be available in the first week of October 1987 and there will be four (4) months to analyze this data before a February 1988 hearing. The additional reduced production data and January 1988 pressure data will be available in January 1988, or at least 30 days before a February 1988 hearing date. The issues before the Commission need to be determined as soon as possible in order to protect the correlative rights of owners in Gavilan. Gavilan will be suffering severe allowable cuts from October 1987 to the subsequent hearing decision date. Moving the hearing date to February 1988 will provide all parties adequate time to prepare and will reduce the time for imposing unnecessary allowable restraints on Gavilan.

- 3. Applicants would further state they are parties of record adversely affected by the issuance of Orders Nos. R-7407-E and R-6469-D.
- 4. The Commission should reconsider its decision in this matter and should grant a rehearing because:
- a. The decisions of the Commission to reduce allowable production and its failure to extend the Gavilan boundaries ("Decisions") are arbitrary and capricious;
- b. The Decisions of the Commission are not based upon substantial evidence;

- c. The Decisions of the Commission ignore and do not recognize the correlative rights of the applicants; and
- d. The Decisions of the Commission are contrary to law;
- all as more specifically described below.
- 5. Benson-Montin-Greer Drilling Corporation, Jerome P. McHugh & Associates, and Sun Exploration and Production Comapny proposed changes to the special pool rules and statewide rules governing the Gavilan Pool. Therefore, they have the burden of proving by a preponderance of evidence that such rule changes were justified. International Minerals & Chemicals Corp. v. New Mexico Public Service Com'n, 81 N.M. 280, 466 P.2d 557 (1970). Such parties failed in their burden and the Commission did not address this failure.
- 6. Applicants submit that certain findings and orderings are not supported by the evidence presented at the hearing. In particular, and without limitation, the following findings are incorrect for the reasons stated below:

#### As to Order R-7407-E:

a. <u>Finding (9)</u>: Applicants proved that most of the recoverable oil in Gavilan is stored in the micro fractures and intergranular porosity. The BMG group presented no facts which refuted this proof. Finding (9) is incorrect and fails to recognize this proof.

- b. <u>Findings (12) and (13)</u>: While testimony regarding rate-sensitivity was conflicting, the only model which matched Gavilan field performance was the model presented by Applicants. The model presented by Sun Exploration and Production Company was not based upon realistic parameters or actual field conditions as to Gavilan. As a result, the only reliable evidence establishes that Gavilan is not rate sensitive.
- that any type of pressure maintenance project is proper at this time. Applicants believe that a high pressure-pressure maintenance project which is suggested by BMG would adversely affect Gavilan pool performance at this time and cause waste. In addition, the formation of a unit is beyond the scope of the hearing and no evidence regarding unitization was presented at the hearing.
- d. <u>Finding (15)</u>: The pool depletion period estimated by Applicants is nine years. There is no evidence to support the five-year estimate.
- e. <u>Finding (16)</u>: The issue of pipeline connections is beyond the scope of the hearing. In addition, a pool cannot be produced without drainage, and the conservation system is designed to give each owner the opportunity to produce his fair share. As set forth below it is an illegal act to reduce production from non-wasteful (connected) well to protect the correlative rights of the owners of a wasteful (unconnected) well.

- f. Finding (20): This finding proposes to further reduce allowables for some wells connected to pipelines beyond the 83% reduction to protect the correlative rights of wells that do not have a casinghead gas connection. New Mexico law does not permit this Commission to reduce the allowable on a connected well in order to protect a non-connected well that flares and wastes its casinghead gas. It is believed that approximately 55 wells in the Gavilan have casinghead gas connections while approximately 15 wells have no connection. Under the Commission's order, these 50 connected wells have their top allowable potential reduced by 83%. The Commission's order permits the Director to further reduce production from Applicants' wells, below 17% of top allowable, without any legal justification. This part of the Commission's order should be stricken. If any action is needed in this area, the Commission or affected operators should institute separate hearings.
- g. Ordering (2): This extension application of Mesa Grande Resources, Inc., should be granted. BMG admits its extension area wells are in good communication in the "A & B" zones with the Gavilan wells.
- h. Ordering (4): The Gavilan allowable for a 640 acre proration unit should be 1404 bopd and 2000/1 GOR. Testing requirements should be modified as set forth in paragraphs 2(a)(b) and (c) above.
- i. Ordering (5): There is no basis in law or fact to arbitrarily reduce the Gavilan allowable for an indefinite period of time.

- j. Ordering (6): As previously outlined, the unconnected well matter was not an issue at this hearing, and the Commission has no authority to reduce the allowable of a non-wasteful (connected) well to protect the correlative rights of a wasteful (unconnected) well.
- k. Ordering (8): As already requested, the reopened hearing should be advanced to February 1988.

As to Order R-6469-D (and only as to their effect on Gavilan):

- 1. Finding (11): There is no similar finding in R-7407-E. The top allowable in Gavilan for a 640-acre proration unit should be 1404 bopd (twice the current 702 bopd for a 320-acre proration unit). The top allowable for Gavilan should be 1404 bopd with a 2000/1 GOR. This will cause no penalty to wells already drilled on 320-acre proration units which originally had the Gavilan top allowable of 702 bopd with a 2000/1 GOR. Applicants have no objection to the West Puerto having the same top allowable treatment.
- m. Findings (12) & (13): There are no findings with these provisions in the findings of Order R-7407-E. The Gavilan top allowable producing rate of 702 bopd and 2000/1 for a 320-acre spacing unit are no wasteful. If the Commission and Mr. Greer are interested in determining whether waste will occur at normal allowable rates or drainage occur "via the highly transmissive fracture system," then the testing requests in paragraphs 2(a), (b) and (c) above should be granted. There is no factual or legal basis to apply these two findings to Gavilan.

- n. <u>Finding (15)</u>: This finding does not appear in R-7407-E. There is no evidence to support a finding that "the pressure differential favors" Gavilan." In fact, the limited data showed the exact opposite: if there is a "weak" connection between Gavilan and West Puerto the pressure differential still favors West Puerto. In addition, the testing requested in pargraphs 2(a), (b) and (c) above will relate directly to these erroneous findings.
- o. <u>Finding (16)</u>: This finding does not appear in R-7407-E. If this finding is correct then the westernmost tier of sections referred to therein should be deleted from the West Puerto and included in the extension of Gavilan in accordance with the application of Mesa Grande Resources, Inc., in Case No. 9114.
- p. Ordering (2): As discussed above, this application should be granted.
- q. Ordering (3): This paragraph should be amended to include the tests requested in paragraphs 2(a),(b) and (c) above.
- r. Ordering (4): This ordering paragraph should be stricken as to the allowable limitation of 800 bopd and 600/1 GOR.
- s. Ordering (5): The reopened hearing should be advanced to February 1988.
- 7. Rules issued by the Commission should be fair and equal in effect. The subject order is discriminatory as described below:

- a. The order allows production at 1280 barrels of oil per day and a GOR of 2000:1 for a three (3) month period, but requires production at 800 barrels of oil per day and a GOR of 600:1 for eight (8) months and is therefore inherently unfair and biased as to the periods of production (3 months v. 8 months) toward the interests of Jerome P. McHugh & Associates and Sun Exploration and Production Company.
- b. The Commission's production limitations have resulted in certain wells operated by Mallon Oil Company being shut-in for over 25 days per month. This discriminates against Mallon Oil Company and causes economic waste and violates correlative rights due to production from offsetting wells.
- c. Substantial investments were made by Applicants herein and others in Gavilan based upon then-existing pool rules. A change of the rules in mid-stream has and will work a financial hardship on those interest owners by restricting production. This has resulted in limiting return on investment to an amount insufficient to recover the millions of dollars invested, resulting in severe economic hardship. In addition, this has a chilling effect on further oil and gas investment in this state.
- 8. The Commission's production limitations constitute a taking of property without just compensation in violation of the federal and state constitutions.
- 9. Order R-7407-E fails to comply with applicable statutory and judicial mandates. In <u>Continental Oil Co. v. Oil</u> Conservation Commission, 70 N.M. 310, 373 P.2d 809 (1962), the

New Mexico Supreme Court, in a case dealing with a natural gas pool, discussed the basic conclusions of fact that the Commission is required to find prior to changing a proration formula. The requirements are that the Commission find, as far as it is practical to do so:

- the amount of recoverable reserves under each producer's tract;
- 2. the total amount of recoverable reserves in the pool;
- 3. the proportionate relationship of (1) and (2); and
- what portion of the reserves can be recovered without waste.

A review of Order R-7407-E shows that the Commission failed to make any of these required findings and did not discuss any of these necessary elements. The record in this matter is clear that the changes adopted by the Commission constitute a change in the proration formula since these changes alter the relative proportion of production between operators in Gavilan and deviate from statewide rules. Order R-7407-E is therefore contrary to law and arbitrary and capricious.

WHEREFORE, applicants request the Commission to set these matters for rehearing.

Respectfully submitted,
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## CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Application for Rehearing were mailed to the following persons this \_\_\_\_\_ day of June, 1987.

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#### STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

CASES NOS. 7980, 8946, 9113, AND 9114 ORDER NO. R-7407-E

CASE NO. 8950 ORDER NO. R-6469-D

## APPLICATION FOR REVIEW

COME NOW Mallon Oil Company and Mesa Grande Resources, Inc. ("Applicants") and file this, their Application for Review of Commission orders in the above-described matters, and state as follows:

I.

#### BACKGROUND

A controversy has developed between two sets of owners and operators on how to produce the Gavilan Mancos Oil Pool ("Gavilan"). Applicants and certain other allied owners believe the Gavilan and the West Puerto Chiquito-Mancos Pool

<sup>1</sup> Mallon Oil Company Mesa Grande Resources, Inc. Mesa Grande, Ltd. Mobil Oil Corporation American Penn Energy, Inc. Kodiak Petroleum Hooper, Kimball & Williams Reading & Bates Petroleum Co. Koch Exploration Amoco Production Company Arriba Company, Ltd. Smackco, Ltd. Phelps Dodge Corp. Floyd & Emma Edwards Don Howard

("West Puerto"), although physically adjacent to each other, are separate and distinct pools with no effective communication and that the currently designated boundary between the pools is inaccurate and should be moved roughly one or two section lines to the east. Gavilan contains wells capable of very high rates of production and pool recovery is not rate sensitive. Therefore, the standard statewide depth-bracket allowable is appropriate.

Opposition owners<sup>3</sup> in the pools, however, have argued that the Gavilan and West Puerto are in direct effective communication, that pool recovery from the Gavilan is rate sensitive and that production from the Gavilan Pool should be drastically reduced.

The Oil Conservation Commission of this Department ("Commission") conducted a five-day hearing held in March and April 1987, after which the the Commission agreed with

<sup>&</sup>quot;Rate sensitive" is a shorthand expression used by technical people to indicate that the amount of ultimate primary recovery is affected by the rate or level of production. There are a number of natural producing mechanisms which are not rate sensitive such as a "solution gas drive" mechanism. The Applicants have submitted convincing evidence that the primary drive mechanism for the Gavilan is a solution gas drive which demonstrates that ultimate recovery of Gavilan oil reserves is not affected by the rate or level of production.

Benson-Montin-Greer Drilling Corporation Jerome P. McHugh & Associates Dugan Production Corporation Sun Exploration and Production Company Meridian Oil Company

Applicants that the Gavilan is a separate pool from the West Puerto. See R-6469-D Finding of Fact, Paragraphs (5)(6)(7) & (17), Ordering Paragraph (1) and R-7407E, Finding of Fact (6)(7)(8), Ordering Paragraph (1). A dispute, however, continues between the parties concerning the proper boundary line between the Gavilan and West Puerto and whether production from the Gavilan is rate sensitive. Accordingly, the Commission orders required bottomhole pressure tests on all wells in both pools within the first week of July 1987. (R-6469-D Ordering Paragraph (3) & R-7407-E Ordering Paragraph (4)). The orders have now been effectively amended by the staff, not the Commission, to require less than all wells to be tested. Applicants object to that informal amendment.

The Commission also established a testing period for rate sensitivity purposes, allowing all wells to produce at near top allowables for 90 days and then drastically reducing production for another 90 days. At the end of the test period, wells are to remain drastically reduced for at least an additional five months pending a reopened hearing, in May 1988, to consider the test data. Applicants object to this unnecessarily extended period of restricted allowables below the standard statewide depth brackets.

II.

THE OIL CONSERVATION COMMISSION HAS ENTERED ORDERS WHICH CONTRAVENE THE DEPARTMENT'S STATEWIDE PLAN AND THE PUBLIC INTEREST

The Applicants request a review by the Secretary of the Energy, Minerals and Natural Resources Department ("Secretary")

APPLICATION FOR REVIEW - Page 3

of Commission Orders R-6469-D and R-7407-E pertaining to rules governing production from the Gavilan and the West Puerto because such orders contravene this Department's Statewide Plan and the public interest of New Mexico. Applicants have prepared a brief memorandum on the authority of the Secretary to grant this Application, which brief is attached hereto as Exhibit A and incorporated herein by reference.

Applicants request the Secretary to amend the Commission orders as follows:

- 1. The testing requirements for five wells should be reinstated and modified to obtain necessary data.
- 2. The reopened hearing should be scheduled in February 1988 instead of May 1988 in light of the 83% cut in statewide depth bracket allowable imposed by the Commission at the request of the Sun Oil Co.-BMG Group.

Applicants believe the real intent of the Sun-BMG group is to confiscate the Applicants' property. Without a reservoir study of the Gavilan the BMG group decided the Gavilan needed to be unitized. Applicants, frustrated by BMG groups' refusal to collect and discuss technical data finally commissioned an outside study to determine feasibility of secondary recovery and thus unitization. That study concluded no secondary recovery or unit was needed. After the Commission cut the Gavilan top allowable by 83% in September 1986, at the request of the BMG group, Sun, BMG's partner, began buying properties in the Gavilan. Sun tried to buy Applicants' Gavilan oil properties at distress prices. In short, it is the intention of the Sun-BMG group to drive these Applicants out of the oil business in the Gavilan and take over operation of their properties. With this background, the Secretary can realize why the matters requested herein are of extreme urgency to the continued health of the oil industry in New Mexico.

- 3. If the Secretary does not advance the hearing from May 1988 to February 1988, then the Secretary should order effective January 1, 1988, the reinstatement of statewide depth bracket allowable which previously existed in the Gavilan of 702 bopd with a 2000/1 GOR for a 320-acre proration unit, (twice this amount for a 640-acre proration unit). Such reinstated statewide allowables should remain in effect until the Commission acts on the May 1988 reopened hearing.
- 4. The Secretary should make clear that the proper boundary between the Gavilan and West Puerto will be considered at the reopened hearing based on the test and production data ordered by the Secretary and the Commission.
- 5. Applicants also urge that the additional points set out in Applicants' prior Application for Rehearing be considered by the Secretary. A copy of the Applicants' Application for Rehearing before the Commission is attached as Exhibit B and incorporated herein by reference.

III.

#### TESTING REQUIREMENTS

These Applicants have specifically requested that bottom hole pressure data be obtained from the following BMG wells in West Puerto:

Canada Ojitos Unit (COU)

E-10

F - 30

B-29

B-32

L-27

The details of this bottom hole pressure testing and the need therefore is set forth on Pages 4-6, Paragraphs 2a., 2b. and 2c. of Exhibit B.

The Commission is refusing to follow its own orders of June 8, 1987, (attached as Exhibit C and incorporated herein) to require bottom hole pressures on all wells and BMG has refused to pressure test key wells covered by the orders. This bottom hole pressure information will provide meaningful data on the proper location of the boundary line between Gavilan and West Puerto. 5 In addition, this pressure data will enhance the information available to confirm that the Gavilan wells are not rate sensitive. The Secretary should modify the above order to require well testing as requested by Applicants on the COU wells E-10, F-30, B-29, B-32 and L-27.

IV.

# REOPENED HEARING DATE SHOULD BE SCHEDULED IN FEBRUARY 1988

If the reopened hearing ordered by the Commission remains scheduled for May 1988, the estimated loss in production during this five-month period alone to all interested parties due to the

BMG has filed an application with the Commission to increase its allowables along the current boundary line of the Gavilan and West Puerto. This Application, scheduled for hearing on September 24, 1987, would permit the BMG wells producing from the A & B zones to obtain gas injection credit to remove allowable penalties for gas injected in the C zone. The effect would be to restore 70% of the allowable cut to the BMG wells while continuing the 83% allowable cut against the wells operated by Applicants and other parties in Gavilan.

allowable limitation imposed by these Commission orders will exceed 400,000 barrels of oil and 750,000 MCF of gas, worth \$9,000,000.00. State tax revenue loss alone would exceed \$800,000.00. It is estimated that the monthly tax loss in revenue to the State will be \$170,000.00 per month not counting its one-half share of federal lease royalty. In other words, advancing the hearing from May 1988 to February 1988 could restore \$170,000 per month in badly needed State revenues plus the State's one half of increased federal royalties.

In addition, the continuation of these unwarranted allowable restrictions below the standard statewide depth bracket allowables will shift reserves from these Applicants to the Sun-BMG group and result in a clear violation of the correlative rights of these Applicants and their royalty owners, including the BLM. The BLM royalty on Applicants' tracts because of newer leases are higher than the BMG operated BLM tracts in West Puerto. The effect of these orders is to drain reserves from tracts in which the State of New Mexico would be entitled to higher royalty rates.

The Applicants are not contesting another four month 83% reduction in statewide allowables (October 1987 through January 1988) to obtain the data the Commission has indicated it needs to finally settle the rate sensitivity issue in the Gavilan and to settle the proper location of the Gavilan-West Puerto boundary. It is unreasonable, however, to require these Applicants and others to continue on 83% statewide allowable cut

until May 1988 and so long thereafter until an order issues, while the Commission reviews new data, some of which will have been gathered as early as July 1987. The Commission should advance the reopened hearing to February 1988, in order to stop the arbitrary and unnecessary restriction in allowables for the Gavilan.

ν.

IN THE ALTERNATIVE, STATEWIDE DEPTH BRACKET ALLOWABLES SHOULD BE RESTORED PENDING THE REOPENED HEARING.

If the Secretary elects not to require an advancement of the May 1988 hearing to February 1988, then in all fairness and in order to comply with the statewide plan and in the public interest the allowables for the Gavilan should be restored to 702 bopd with a 2000/1 GOR effective January 1, 1988, for a 320-acre proration unit and twice such amount for a 640-acre proration unit. A similar restoration of allowables should be implemented in the West Puerto.

The Commission's orders contemplate a partial restoration of the Gavilan allowable effective July 1, 1987, to 640 bopd and a 2000/1 GOR for a 320-acre proration unit. (Gavilan is essentially drilled on a 320-acre pattern.) Bottomhole pressure tests were to be run on all wells in the first week of July 1987. After three months of this partially restored production rate, the allowable is then reduced on October 1, 1987, to 400 bopd with a 600/1 GOR with new bottomhole pressure tests to be conducted in the first week for October 1987. After three months

of reduced production (October, November and December), additional bottomhole pressures will be conducted in the first week of January 1988. Under the existing orders, this severely restricted rate will continue, after the testing period ends, until the Commission acts on the May 1988 reopened hearing. means a minimum of an additional five months of restricted allowables without any justification. In other words, the Gavilan receives partial restoration of its production rate for only three months and then the Gavilan rate is again restricted below the statewide depth brackets allowables for a minimum of at least eight months. The Gavilan has already suffered a ten-month 83% restriction of statewide depth bracket allowables at the 400 bopd and 600/1 GOR from September 1986 through June 1987. net effect of the Commission orders are to require Gavilan to produce at a statewide depth bracket allowable restriction of 83% for at least 18 months out of a 21-month period.

The inequity to Applicants is clear. Therefore, the allowable for the Gavilan should be restored January 1, 1988 to the statewide depth bracket of 702 bopd with a 2000/1 GOR, for a 320-acre proration unit and twice this amount for a 640-acre proration unit continuing until the Commission acts on the May 1988 hearing.

VI.

# **BOUNDARY QUESTION**

Because of the additional test data required by the Commission and requested by the Applicants, the Secretary should make clear that the proper boundary between Gavilan and West

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Puerto should be considered at the reopened hearing based upon all data then available.

VII.

#### ADDITIONAL REVIEW

The other matters for which Applicants request review by the Secretary are set forth in Exhibit B. At this time, however, Applicants are willing to abide by the subject orders if the above tests, hearing advancement, allowable restoration and boundary consideration are ordered by the Secretary. Applicants will not pursue its appeal if the requests outlined above are granted by the Secretary since all parties will have sufficient data and equal footing to proceed with what Applicants hope will be a February 1988 reopened hearing.

#### CONCLUSION

For the foregoing reasons, Applicants request that the Commission's orders be amended to require 1) proper testing,

2) advancing the reopened hearing to February 1988, (or, in the alternative, to reinstate allowables effective January 1, 1988, pending the results of the reopened hearing,) and 3) the reopened hearing will consider the proper boundary of the Gavilan and West Puerto.

In order to grant this request, the Secretary <u>does not</u> need to rehear the evidence presented at the original hearing or rule on the merits of the arguments presented at the original hearing. The Secretary can grant this request based upon the previous hearing record, the Commission orders and the arguments of

counsel. The requested amendments will not change the substance or direction of the Commission orders but rather will clarify those orders, provide proper test data for review, and will give all parties a fair and equal standing at the reopened hearing.

Accordingly, Applicants' request the Secretary open this hearing on or before July 29, 1987, which date is within twenty days of the denial of Applicants' Application for Rehearing. However, in light of the short time period for the hearing to be convened the Secretary could use this initial hearing to set the ground rules for a hearing to be resumed shortly after July 29, 1987.

Respectfully submitted,
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## CERTIFICATE OF SERVICE

I hereby certify that I caused a true and correct copy of the foregoing Application for Review to be mailed to the following persons this 22nd day of July, 1987.

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WPP/69

# STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

CASES NOS. 7980, 8946, 9113, AND 9114
ORDER NO. R-7407-E

CASE NO. 8950 ORDER NO. R-6469-D

# MEMORANDUM OF LAW AND AUTHORITY IN SUPPORT OF APPLICATION FOR REVIEW

I.

#### BACKGROUND

On March 30, 1987, a five day hearing commenced before the Commission to consider appropriate pool rules, allowables and boundaries for two adjacent pools: the Gavilan and the West Puerto. On June 8, 1987, the Commission entered Orders R-6469-D and R-7407-E ordering, among other things, as follows:

- 1. The two pools are separate, with weak communication;
- 2. All wells in both pools should have bottomhole pressure tests run at three different times to determine rate sensitivity to production levels;
- 3. The allowables for the Gavilan Pool (which had previously been arbitrarily reduced by 83%) should be restored to 1280 bopd and a 2000:1 GOR for 640-acre proration units (640 bopd for a 320 acre proration unit) for a three-month period, beginning July 1, 1987, in order to determine rate sensitivity;
- 4. The allowables for Gavilan should be restricted again in October 1987 for a period of ninety (90) days as part of the rate sensitivity testing;

- 5. In January 1988 testing should cease and the information obtained is to be analyzed by the Commission prior to reopening the hearing in May 1988 for such further orders as may be appropriate in light of the test data;
- 6. The Gavilan allowables are to remain restricted at 17% (an 83% cut) of the statewide depth bracket top allowable until the May 1988 reopened hearing and so long thereafter until the results of said hearing are put into effect.

Both sides filed Applications for Rehearing with the Commission. Applicants herein objected to the imposition of the additional five months of restricted allowables to run from January to May 1988; requested that the reopened hearing date be moved to February 1988 to alleviate this arbitrary continuation of the allowable restriction; and requested that isolation bottomhole tests be conducted on certain key wells which would more accurately establish the boundary between the Gavilan and West Puerto as well as be determinative of the rate sensitivity question. These requests were denied as a matter of law on July 9, 1987 when the Commission took no action on the Applicants' Application for Rehearing.

The opposing parties, BMG, et al., also filed an Application for Rehearing, objecting to the Commission's determination that the Gavilan and West Puerto Fields were separate; objecting to the reinstatement of statewide depth bracket allowables to the Gavilan and objecting to the rate sensitivity testing ordered by the Commission, which Application for Rehearing was also denied as a matter of law on July 9, 1987.

## APPEAL TO THE SECRETARY

Applicants have filed their Application for Review by the Secretary, not to overturn the Commission's substantive orders, but to clarify and amend them in four vital ways:

- 1. To order the testing requested by Applicant and required by the Commission's order as necessary to obtain relevant data.
- 2. To advance the reopened hearing date from May 1988 to February 1988; or
- 3. In the alternative, to reinstate previous statewide depth bracket allowables to the Gavilan, effective January 1, 1988, of 702 bopd and a 2000/1 GOR for a 320 acre proration unit (and twice this amount for a 640 acre production unit) pending the reopened hearing.
- 4. To clarify that the reopened hearing will consider the appropriate boundary between the Gavilan and West Puerto based on the new testing and production data.

The parties to a Commission proceeding have two statutory avenues of appeal: appeal directly to the district court (§ 70-2-25 NMSA 1978) or appeal for review by the Secretary of the Energy, Minerals and Natural Resources Department.

(§ 70-2-26 NMSA 1978, see copies of these stautory provisions attached to this memorandum) Applicants have chosen to pursue their rights by appeal to the Secretary for they believe that with the proposed amendments to the Commission's orders, all

parties can proceed to the reopened hearing on a relatively equal basis, with sufficient data to once and for all resolve the controversy surrounding the Gavilan and West Puerto. On the other hand, if Applicants appeal to the district court the entire validity of the Commission orders would be at issue. Although Applicants have objected and preserved their objections to several errors in the Commission orders, they believe those objections do not need to be raised if the orders are amended as requested.

III.

#### STATUTORY AUTHORITY

Statutory authority for appeal to the Secretary states that the Secretary may hold a public hearing to determine whether the orders appealed "contravene the statewide plan or the public interest." (§ 70-2-26 NMSA 1978) Applicants have specifically reviewed the "Policy-Level Plan for the Development and Management of New Mexico's Energy and Mineral Resources" ("Plan") to understand the statewide plan and how it may affect this Application. The Plan sets out four goals, two of which are directly applicable to this controversy:

- To optimize state revenues from the production of mineral resources;
- 2. To stimulate economic development in New Mexico by optimizing the supply of mineral resources. (P. 6 of the Plan)

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The Plan further states that developers are entitled to expect a reasonable degree of regulatory stability at the state and local levels and to be assisted by the State in the drilling, production and transportation of natural resources. (P. 7 of the Plan)

Applicants believe that the subject orders of the Commission are in contravention of the stated goals of the Plan. Specifically, the orders require Applicants to restrict their production by 83% of the previous statewide depth bracket allowables from January 1988 to May 1988, after the Commission ordered testing period is over. There is no justification in the orders for continuing this arbitrary restriction. restriction will result in a tremendous loss of revenue to the State of New Mexico as affected wells have the ability to produce an additional 400,000 barrels of oil and 750,000 mcf of gas under normal allowables, providing at least \$800,000 in additional tax revenues to the State over this five-month period. The State also loses one-half of the royalty production attributable to federal leases which is not produced due to these severe allowable restrictions. This arbitrary restriction clearly contravenes the stated goals of the Plan. This error can be easily corrected by amending the Commission's orders to provide for a February 1988 hearing date, or, in the alternative, to reinstate the previous statewide allowables in January 1988, pending the reopened hearing.

MEMORANDUM OF LAW AND AUTHORITY - Page 5

Further, Applicants believe the Commission orders, as written, are contrary to the public interest. It is in the public's interest to have orders which encourage the legitimate development and production of resources and which fairly require the compilation of data to resolve disputes. The orders, as written, do not encourage the development and production of resources because they arbitrarily and unnecessarily continue restriction (by 83%) of the statewide allowables. Applicants have diligently developed the minerals on their property, and spent millions of dollars in doing so, with the understanding that statewide rules would apply to them just as they apply to other operators in the State. Changing these rules, in midstream, without any finding that these changes are necessary to prevent waste or protect correlative rights, unquestionably has a chilling effect on development of reserves in New Mexico and therefore clearly affects the public interest.

The orders also fail to require the fair compilation of data on an equal and reasonable basis so that the issues before the Commission can be resolved at the reopened hearing. In order to determine the questions of rate sensitivity and the appropriate boundary location, it is necessary to obtain isolated bottomhole pressure tests on the wells requested in Applicants' Application for Rehearing and this Application for Review. Without this data, the issues the Commission has reserved for the reopened

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hearing cannot be intelligently and completely resolved. public interest will be thwarted if ultimate resolution of those issues is made without consideration of the relevant data.

IV.

#### CONCLUSION

Applicants, therefore, request the Secretary grant their Application for Review, hold a hearing to consider oral arguments of the parties and enter an order amending or modifying the Commission's Order as requested by Applicants.

> Respectfully submitted, SCOTT, DOUGLASS & LUTON

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#### CERTIFICATE OF SERVICE

I hereby certify that I caused a true and correct copy of the foregoing Memorandum of Law and Authority in Support of Application for Review to be mailed to the following persons this 22nd day of July, 1987.

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#### 70-2-25. Rehearings; appeals.

- A. Within twenty days after entry of any order or decision of the commission, any party of record adversely affected thereby may file with the commission an application for rehearing in respect of any matter determined by such order or decision, setting forth the respect in which such order or decision is believed to be erroneous. The commission shall grant or refuse any such application in whole or in part within ten days after the same is filed, and failure to act thereon within such period shall be deemed a refusal thereof and a final disposition of such application. In the event the rehearing is granted, the commission may enter such new order or decision after rehearing as may be required under the circumstances.
- B. Any party of record to such rehearing proceeding dissatisfied with the disposition of the application for rehearing may appeal therefrom to the district court of the county wherein is located any property of such party affected by the decision by filing a petition for the review of the action of the commission within twenty days after the entry of the order following rehearing or after the refusal or [of] rehearing as the case may be. Such petition shall state briefly the nature of the proceedings before the commission and shall set forth the order or decision of the commission complained of and the grounds of invalidity thereof upon which the applicant will rely; provided, however, that the questions reviewed on appeal shall be only questions presented to the commission by the application for reheating. Notice of such appeal shall be served upon the adverse party or parties and the commission in the manner provided for the service of summons in . civil proceedings. The trial upon appeal shall be without a jury, and the transcript of proceedings before the commission, including the evidence taken in hearings by the commission, shall be received in evidence by the court in whole or in part upon offer by either party, subject to legal objections to evidence. The commission action complained of shall be prima facie valid and the burden shall be upon the party or parties seeking review to establish the invalidity of such action of the commission. The court shall determine the issues of fact and of law and shall enter its order either affirming or vacating the order of the commission. Appeals may be taken from the judgment or decision of the district court to the supreme court in the same manner as provided for appeals from any other final judgment entered by a district court in this state. The trial of such application for relief from action of the commission and the hearing of any appeal to the supreme court from the action of the district court shall be expedited to the fullest possible extent.
- C. The pendency of proceedings to review shall not of itself stay or suspend operation of the order or decision being reviewed, but during the pendency of such proceedings, the district court in its discretion may, upon its own motion or upon proper application of any party thereto, stay or suspend, in whole or in part, operation of the order or decision pending review thereof, on such terms as the court deems just and proper and in accordance with the practice of courts exercising equity jurisdiction; provided, that the court, as a condition to any such staying or suspension of operation of an order or decision may require that one or more parties secure, in such form and amount as the court may deem just and proper, one or more other parties against loss or damage due to the staying or suspension of the commission's order or decision, in the event that the action of the commission shall be affirmed.
- D. The applicable rules of practice and procedure in civil cases for the courts of this state shall govern the proceedings for review and any appeal therefrom to the supreme court of the state to the extent such rules are consistent with provisions of the Oil and Gas Act [70-2-1 to 70-2-36 RMSA 1978].

#### 70-2-26. Review of oil conservation commission decision; appeals.

The secretary of [the] energy and minerals department may hold a public hearing to determine whether an order or decision issued by the oil conservation commission contravenes the department's statewide plan or the public interest. The hearing shall be held within twenty days after the entry of the commission-order or decision following a relearing or after the order refusing a rehearing as the case may be. The hearing shall be a de novo proceeding and the secretary shall enter such order or decision as may be required under the circumstances, having due regard for the conservation of the state's oil, gas and mineral resources, and the commission shall modify its own order or decision to comply therewith. If a rehearing before the commission was granted, the record of the rehearing shall be made part of the record of the hearing before the secretary. If the application for rehearing was denied, the record of the hearing before the commission or the division shall be made part of the record of the hearing before the secretary. Such orders and decisions of the secretary may be appealed by any party to the original hearing or the rehearing before the commission, or by any party to the hearing before the secretary held pursuant to this section, in accordance with the procedure of Subsections B, C and D of Section 70-2-25 RMSA 1978 except that the appeal shall not be a de novo proceeding and shall be limited to a review of the record of the hearing held pursuant to the provisions of this section.

# STATE OF NEW MEX. ) ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

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

CASES NOS. 7980, 8946, 9113, AMD 9114 ORDER NO. R-7407-E

CASE NO. 7980

IN THE MATTER OF CASE 7980 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDER NO. R-7407, WHICH ORDER PROMULGATED TEMPORARY SPECIAL RULES AND REGULATIONS FOR THE GAVILAN-MANCOS OIL POOL IN RIO ARRIBA COUNTY, INCLUDING A PROVISION FOR 320-ACRE SPACING UNITS.

# CASE NO. 8946

IN THE MATTER OF CASE 8946 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDER NO. R-7407-D, WHICH ORDER PROMULGATED A TEMPORARY LIMITING GAS-OIL RATIO AND DEPTH BRACKET ALLOWABLE FOR THE GAVILAN-MANCOS OIL POOL IN RIO APRIBA COUNTY.

#### CASE NO. 9113

APPLICATION OF BENSON-MONTIN-GREER DRILLING CORPORATION, JEROME P. McHUGH & ASSOCIATES, AND SUN EXPLORATION AND PRODUCTION COMPANY TO ABOLISH THE GAVILAN-MANCOS OIL PCOL, TO EXTEND THE WEST PUERTO CHIQUITO-MANCOS OIL POOL, AND TO AMEND THE SPECIAL RULES AND REGULATIONS FOR THE WEST PUERTO CHIQUITO-MANCOS OIL PCOL, RIO ARRIBA COUNTY, NEW MEXICO.

#### **CASE NO. 9114**

APPLICATION OF MESA GRANDE RESOURCES, INC. FOR THE EXTENSION OF THE GAVILAN-MANCOS OIL POOL AND THE CONTRACTION OF THE WEST PUERTO CHIQUITO-MANCOS OIL POOL, RIO ARRIBA COUNTY, NEW MEXICO.

# ORDER OF THE COMMISSION

#### BY THE COMMISSION:

These causes came on for hearing on March 30 and 31 and April 1, 2, and 3, 1987 at Santa Fe, New Mexico before the Oil Conservation Commission of New Mexico hereinafter referred to as the "Commission."

-2-Cases Nos. 7980, 8946, 9113 and 9114 Order No. R-7407-E

NOW, on this 8th day of June, 1987, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearings 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 and the subject matter thereof.
- (2) At the time of hearing, Cases 7980, 8946, 8950, 9113 and 9114 were consolidated for purposes of testimony.
- (3) Case 7980 involves review of temporary pool rules promulgated by Order R-7407 and Case 8946 involves reopening the matter of temporary reduction of allowable and gas/oil ratio limit, under Order R-7407-D, both orders pertaining to the Gavilan-Mancos Oil Pool.
- (4) Case 8950 involves reopening the matter of temporary reduction of allowable and gas/oil ratio limit under Order R-3401-A pertaining to the West Puerto-Chiquito-Mancos Oil Pool.
- (5) Case 9113 involves a proposal to abolish the Gavilan-Mancos Oil Pool and consolidate that pool into the West Puerto-Chiquito-Mancos Oil Pool and Case 9114 involves a proposal to shift the boundary between Gavilan-Mancos and West Puerto Chiquito-Mancos Oil Pools.
- (6) The evidence shows that there is limited pressure communication between the two designated pools, and that there are two weakly connected areas separated by some restriction at or near the common boundary of the two designated pools.
- (7) The evidence shows there are three principal productive zones in the Mancos formation in both presently designated pools, designated A, B, and C zones listed from top to bottom and that, while all three zones are productive in both designated pools, West Puerto Chiquito produces primarily from the C zone and Gavilan produces chiefly from the A and B zones.
- (8) It is clear from the evidence that there is natural fracture communication between zones A and B but that natural fracture communication is minor or non-existent between zones B and C.

- (9) The reservoir consists of fractures ranging from major channels of high transmissibility to micro-fractures of negligible transmissibility, and possibly, some intergranular porosity that must feed into the fracture system in order for oil therein to be recovered.
- (10) The productive capacity of an individual well depends upon the degree of success in communicating the wellbore with the major fracture system.
- (11) Interference tests indicate: 1) a high degree of communication between certain wells, 2) the ability of certain wells to economically and efficiently drain a large area of at least 640 acres; and 3) the probability exists that the better wells recover oil from adjacent tracts and even more distant tracts if such tracts have wells which were less successful in connecting with the major fracture system.
- (12) There is conflicting testimony as to whether the reservoir is rate-sensitive and the Commission should act to order the operators in West Puerto Chiquito and Gavilan-Mancos pools to collect additional data during 90-day periods of increased and decreased allowables and limiting gas-oil ratios.
- (13) Two very sophisticated model studies conducted by highly skilled technicians with data input from competent reservoir engineers produced diametrically opposed results so that estimates of original oil in place, recovery efficiency and ultimate recoverable oil are very different and therefore are in a wide range of values.
- (14) There was agreement that pressure maintenance would enhance recovery from the reservoir and that a unit would be required to implement such a program in the Gavilan-Mancos Pool.
- (15) Estimates of the amount of time required to deplete the Gavilan pool at current producing rates varied from 33 months to approximately five years from hearing date.
- (16) Many wells are shut in or are severely curtailed by OCD limits on permissible gas venting because of lack of pipeline connections and have been so shut in or curtailed for many months, during which time reservoir pressure has been shown by pressure surveys to be declining at 1 psi per day or more, indicating severe drainage conditions.
- (17) No party requested making the temporary rules permanent, although certain royalty (not unleased minerals)

owners requested a return to 40-acre spacing, without presenting supporting evidence.

- (18) Proration units comprised of 640 acres with the option to drill a second well would permit wider spacing and also provide flexibility.
- (19) Recognizing that the two designated pools constitute two weakly connected areas with different geologic and operating conditions, the administration of the two areas will be simplified by maintaining two separate pools.
- (20) A ninety day period commencing July 1, 1987, should be given for the connection for casinghead gas sale from now-unconnected wells in the Gavilan pool, after which allowables should be reduced in that pool until said wells are connected.
- (21) To provide continuity of operation and to prevent waste by the drilling of unnecessary wells, the temporary spacing rules promulgated by Order R-7407 should remain in effect until superceded by this Order.
- (22) Rules for 640-acre spacing units with the option for a second well on each unit should be adopted together with a provision that units existing at the date of this order should be continued in effect.

# IT IS THEREFORE ORDERED THAT:

- (1) The application of Benson-Montin-Greer et al in Case No. 9113 to abolish the Gavilan-Mancos pool and extend the West Puerto Chiquito-Mancos pool to include the area occupied by the Gavilan-Mancos Pool is denied.
- (2) The application of Mesa Grande Resources, Inc. for the extension of the Gavilan-Mancos and the concomitant contraction of West Puerto Chiquito-Mancos Pool is denied.
- (3) Rule 2 of the temporary special rules and regulations for the Gavilan-Mancos Oil Pool as promulgated by Order R-7407 is hereby amended as follows:
  - Rule 2 (a). A standard proration unit shall consist of between 632 and 648 acres consisting of a governmental section with at least one and not more than two wells drilled or recompleted thereon; provided that if the second well is drilled or recompleted on a standard unit it shall not be located in the same quarter section, nor

closer than 1650 feet to the first well drilled on the unit; and provided further that proration units formed prior to the date of this order are hereby granted exception to this rule.

- (b). A buffer zone is hereby created consisting of the east half of sections bordering Township 1 West. Only one well per section shall be drilled in said buffer zone and if such well is located closer than 2310 feet from the western boundary of the West Puerto Chiquito-Mancos Oil Pool it shall not be allowed to produce more than one-half the top allowable for a 640-acre proration unit.
- barrels of oil per day per 640 acres with a limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil. Operators are required to monitor reservoir performance, including but not limited to, production rates, gas-oil ratios, reservoir pressures, and shall report this information to the Commission within 30 days after completion of the tests. Within the first week of July, 1987, bottom hole pressure tests shall be taken on all wells. Wells shall be shut-in until pressure stabilizes or for a period not longer than 72 hours. Additional bottom hole tests shall be taken within the first week of October, 1987, with similar testing requirements. All produced gas, including gas vented or flared, shall be metered. Operators are required to submit a testing schedule to the District Supervisor of the Aztec office of the Oil Conservation Division prior to testing so that tests may be witnessed by OCD personnel.
- (5) Beginning October 1, 1987, the allowable shall be 800 barrels of oil per day per 640 acres with a limiting gas-oil ratio of 600 cubic feet of gas per barrel of oil. Operators are required to monitor reservoir performance as in (4) above with bottom hole pressure tests to be taken within the first week of January, 1988. This allowable and GOR limitation shall remain in effect until further notice from the Commission.
- (6) In order to prevent further waste and impairment of correlative rights each well in the Gavilan-Mancos Oil Pool shall be connected to a gas gathering system by October 1, 1987 or within ninety days of completion. If Wells presently unconnected are not connected by October 1 the Director may reduce the Gavilan-Mancos allowable as may be appropriate to prevent waste and protect correlative rights. In instances where it can be shown that connection is absolutely uneconomic the well involved may be granted authority to flow or vent the

-6-Cases Nos. 4980, 8946, 9113 and 9114 Order No. R-7407-E

gas under such circumstances as to minimize waste as determined by the Director.

- (7) The temporary special pool rules promulgated by Order R-7407 are hereby extended to the effective date of this order and said rules as amended herein are hereby made permanent.
- (8) This case shall be reopened at a hearing to be held in May, 1988 to review the pools in light of information to be gained in the next year and to determine if further changes in rules may be advisable.
- (9) Jurisdiction of this cause is retained for 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, Chairman and Secretary

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# STATE OF NEW MEXICO ENERGY AND MINERALS DEF INTENT OIL CONSERVATION DIVISION

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

> CASE 8950 Order No. R-6469-D

IN THE MATTER OF CASE 8950 BEING REOPENED PURSUANT TO THE PROVISIONS OF COMMISSION ORDERS NOS. R-6469-C AND R-3401-A, AS AMENDED, WHICH ORDER PROMULGATED A TEMPORARY ALLOWABLE AND LIMITING GAS-OIL RATIO FOR THE WEST PUERTO CHIQUITO-MANCOS OIL POOL IN RIO ARRIBA COUNTY.

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing on March 30 and 31 and April 1, 2, and 3, 1987 at Santa Fe, New Mexico before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 8th day of June, 1987 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 this cause and the subject matter thereof.
- (2) At the time of hearing, Cases 7980, 8946, 8950, 9113 and 9114 were consolidated for purposes of testimony.
- (3) Case 8950 involves re-opening the matter of temporary reduction of allowable and gas/oil ratio limit under Order R-6469-C/R-3401-A pertaining to the West Puerto Chiquito-Mancos Oil Pool.
- (4) Case 9113 involves a proposal to abolish the Gavilan-Mancos Oil Pool and consolidate that pool into the West Puerto Chiquito-Mancos Oil Pool and Case 9114 involves a proposal to shift the boundary between Gavilan-Mancos and West Puerto Chiquito-Mancos Oil Pool.

- (5) The evidence shows that there is limited pressure communication between the two designated pools, and that there are two weakly connected areas separated by some restriction at or near the common boundary of the two designated pools.
- (6) The evidence shows there are three principal productive zones in the Mancos formation in both presently designated pools, designated A, B, and C zones listed from top to bottom and that, while all three zones are productive in both designated pools. West Puerto Chiquito produces primarily from the C zone and Gavilan produces chiefly from the A and B zone.
- (7) It is clear from the evidence that there is natural fracture communication between zones A and B but that natural fracture communication is minor or non-existent between zones B and C.
- (8) Interference tests indicate: 1) a high degree of communication between certain wells, 2) the ability of certain wells to economically and efficiently drain a large area of at least 640 acres; and 3) the probability exists that the better wells recover oil from adjacent tracts and even more distant tracts if such tracts have wells which were less successful in connecting with the major fracture system.
- (9) There is conflicting testimony as to whether the reservoir is rate-sensitive and the Commission should act to order the operators in West Puerto Chiquito and Gavilan-Mancos pools to collect additional data during 90-day periods of increased and decreased allowables and limiting gas-oil ratios.
- (10) Estimates of the amount of time required to deplete the Gavilan Pool at current producing rates varied from 33 months to approximately five years from hearing date.
- (11) An allowable of 1280 barrels per day is based upon an extension of the depth bracket allowable table and should be the allowable for a 640-acre proration unit for a period of 90 days with a limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil.
- (12) The Oil Conservation Commission and their staff will evaluate the data collected, or contract to have the data evaluated, to ascertain whether the 1280 BOPD allowable and 2,000 to 1 limiting GOR will cause waste and/or provide a mechanism for confiscation of oil and gas through drainage via the highly transmissive fracture system.

- (13) After the initial 90-day period ends, the allowable should be reduced to 800 BOPD per 640 acres with a limiting GOR of 600 cubic feet of gas per barrel of oil.
- (14) The West Puerto Chiquito-Mancos Pool is dominated by the Canada Ojitos Unit on which a pressure maintenance program has been in progress since 1968 wherein all produced gas has been reinjected as well as outside purchased gas being injected.
- (15) From commencement of production in the West Puerto Chiquito Mancos Pool in 1964 until approximately the end of 1986, a period of 22 years, the West Puerto Chiquito Pool enjoyed a favored pressure differential to the area now designated the Gavilan Mancos Pool but now the pressure differential favors the Gavilan Mancos Pool.
- (16) The existing West Puerto Chiquito Mancos Pool wells located in the westernmost tier of sections in Township 25 North, Range 1 West, and the proper development of the Mancos Pool along the common existing boundary of the two pools will protect operators within the West Puerto Chiquito Mancos Pool from drainage by wells within the Gavilan Mancos Pool.
- (17) Recognizing that the two designated pools constitute two weakly connected areas with different geologic and operating conditions the administration of the two areas will be simplified by maintaining two separate pools.

# IT IS THEREFORE ORDERED THAT:

- (1) The application of Benson-Montin-Greer in Case No. 9113 to abolish the Gavilan-Mancos Pool and extend the West Puerto Chiquito-Mancos Pool to include the area occupied by the Gavilan-Mancos pool is denied.
- (2) The application of Mesa Grande Resources, Inc. for the extension of the Gavilan-Mancos and the concomitant contraction of West Puerto Chiquito-Mancos pool is denied.
- (3) Beginning July 1, 1987, the allowable shall be 1280 barrels of oil per day per 640 acres with a limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil. Operators are required to monitor reservoir performance, including but not limited to, production rates, gas-oil ratios, reservoir pressures, and shall report this information to the Commission within 30 days from completion of the tests. Within the first week of July, 1987, bottom hole pressure tests shall be taken

on all wells. Wells shall be shut-in until pressure stabilizes or for a period not longer than 72 hours. Additional bottom hole tests shall be taken within the first week of October, 1987, with similar testing requirements. All produced gas, including gas vented or flared, shall be metered. Operators are required to submit a testing schedule to the District Supervisor of the Aztec office of the Oil Conservation Division prior to testing so that tests may be witnessed by OCD personnel.

- (4) Beginning October 1, 1987, the allowable shall be 800 barrels of oil per day per 640 acres with a limiting gas-oil ratio of 600 cubic feet of gas per barrel of oil. Operators are required to monitor reservoir performance as in (3) above with bottom hole pressure tests to be taken within the first week of January, 1988. This allowable and GOR limitation shall remain in effect until further notice from the Commission.
- (5) This case shall be reopened at a hearing to be held in May, 1988 to review the pools in light of information to be gained in the next year and to determine if further changes in rules may be advisable.
- (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. LEMAT, Chairman and

Secretary

SEAL