

HOLLAND & HART LLP



Michael H. Feldewert

Recognized Specialist in the Area of
Natural Resources - oil and gas law -
New Mexico Board of Legal Specialization
mfeldewert@hollandhart.com
44524-0005

February 20, 2004

VIA HAND DELIVERY

David R. Catanach, Hearing Examiner
Oil Conservation Division,
New Mexico Energy, Minerals and Natural Resources Dept.
1220 South St. Francis
Santa Fe, NM 87504

RECEIVED

FEB 20 2004

Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

Re: Case No. 12940 (Reopened)
Application of Mewbourne Oil Company to Reopen Case No. 12940 To Amend
And Make Permanent The Special Rules And Regulations For The Shugart-
Strawn Pool, And for A Discovery Allowable,
Eddy County, New Mexico.

Dear Mr. Catanach:

Enclosed is a proposed order jointly submitted by Gruy Petroleum Management
Company, Harvey E. Yates Company, and Pecos Production Company in hard copy and on disk.

Sincerely,

Michael H. Feldewert

TMT:jlj

Enclosures

cc: James Bruce (with copy of proposed order)

3196506_1.DOC

Holland & Hart LLP

Phone [505] 988-4421 Fax [505] 983-6043 www.hollandhart.com

110 North Guadalupe Suite 1 Santa Fe, NM 87501 Mailing Address P.O. Box 2208 Santa Fe, NM 87504-2208

Aspen Billings Boise Boulder Cheyenne Colorado Springs Denver Denver Tech Center Jackson Hole Salt Lake City Santa Fe Washington, D.C. ♻

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

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

**APPLICATION OF MEWBOURNE OIL COMPANY TO
REOPEN CASE NO. 12940 TO AMEND AND MAKE
PERMANENT THE SPECIAL RULES AND
REGULATIONS FOR THE SHUGART-STRAWN
POOL, AND FOR A DISCOVERY ALLOWABLE,
EDDY COUNTY, NEW MEXICO,**

**Case No. 12940 (Reopened)
Order No. R-11856-A**

ORDER OF THE DIVISION

*(Submitted by Gruy Petroleum Management Company,
Harvey E. Yates Company, and Pecos Production Company)*

BY THE DIVISION:

This case came on for hearing on November 20, 2004, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this ____ day of _____, 2004, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.

(2) In case No. 12940, the applicant, Mewbourne Oil Company ("Mewbourne"), requested creation of a new pool for the production of oil from the Strawn formation comprised of the NE/4 of Section 8, Township 18 South, Range 31 East, NMPM, Eddy County, New Mexico. Mewbourne presented evidence that a new pool had been discovered and that special rules and regulations should be established providing for a special depth bracket allowable of 1,120 barrels of oil per day and a special gas-oil ratio of 4,000 cubic feet of gas per barrel of oil.

(3) By Order No. R-11856, dated October 28, 2002, the Division granted Mewbourne's application and created the Shugart-Strawn Pool initially comprised of the NE/4 of Section 18. Order No. R-11856 also established "*Temporary Special Pool Rules for the Shugart-Strawn Pool*" which provide:

(a) 160-acre spacing and proration units consisting of a single governmental quarter section;

(b) that wells are to be located no closer than 660 feet to the outer boundary of the spacing unit nor closer than 330 feet to any quarter-quarter section line or subdivision inner boundary;

(c) a special depth bracket allowable 1,120 barrels of oil per day, and

(d) a special limiting gas-oil ratio of 4,000 cubic feet of gas per barrel of oil.

(4) Division Order No. R-11856 also contained the following findings based on the evidence presented by Mewbourne:

(17) The engineering evidence currently available demonstrates that approval of Mewbourne's request for 160-acre spacing, a limiting GOR of 4000:1, and a special depth bracket allowable of 1,120 barrels of oil per day for the Shugart-Strawn Pool will not result in the excessive waste of reservoir energy, will not reduce the ultimate recovery of oil from this Strawn reservoir, and will not violate correlative rights.

(18) The special pool rules for the Shugart-Strawn Pool established by this order should remain in effect for a temporary period of eighteen months in order to allow the operators in the pool the opportunity to obtain additional engineering data to support the permanent adoption of these rules.

(19) This case should be reopened at an examiner hearing in March, 2004, at which time the operators in the Shugart-Strawn Pool should appear to show cause why the temporary special pool rules established by this order should not be rescinded.

(5) The Shugart-Strawn Pool has since been expanded and currently includes the following acreage in Eddy County, New Mexico:

Township 18 South, Range 31 East, N.M.P.M.

Section 5: S/2

Section 8: N/2

(6) In its present application, Mewbourne seeks to (i) amend the special pool rules to increase the depth bracket allowable to 1,350 BOPD and to increase the limiting gas-oil ratio to 10,000 cubic feet of gas for each barrel of oil produced; (ii) to make these proposed changes and the remaining pool rules permanent; and (iii) to be awarded a discovery allowable for its proration unit comprised of the NE/4 of Section 8.

(7) The two other operators in this pool, Gruy Petroleum Management Company and Harvey E. Yates Company appeared at the hearing in opposition to the application. **Opposition Exhibit 1.** Pecos Production Company, the largest working interest owner in the pool, also appeared at the hearing in opposition to the application (collectively, the "Opponents"). **Tr. at p. 100, lines 11-17 and at p. 104.**

(8) No other interest owner appeared at the hearing.

(9) As the applicant requesting a change in the existing pool rules, Mewbourne bore the burden of demonstrating that sufficient reservoir information is available “to ensure” that its proposed increase in the allowable and the limiting gas-oil ratio “can be produced without damage to the reservoir and without causing surface or underground waste.” Division Rule 505.F.

(10) The Opposition, through a geologist from Pecos Production Company (“Pecos”), presented evidence demonstrating that:

(a) Pecos holds substantial working interests in all four of the 160-acre proration units currently comprising this pool. **Opposition Exhibit 1; Tr. at p. 100, lines 11-17, and at p. 104.**

(b) Three new wells are expected to be drilled in the Shugart-Strawn Pool before March of 2004 that will provide important data on the extent and nature of this field: Pecos intends to drill a well in the SW/4 NW/4 of Section 9, Gruy intends to drill in the N/2 SE/4 of Section 5 and Mewbourne intends to drill a well in the E/2 NW/4 of Section 8. **Opposition Exhibit 1; Tr. at p. 102-103.**

(c) The data from these additional wells will provide information useful in setting permanent field rules. **Tr. at p. 114-115.**

(d) Existing well control and 2-D seismic indicates a north plunging nose of the Strawn reef extends into Section 5. **Opposition Exhibits 3, 4 and 5; Tr. at p. 107-113, and at p. 127-128.**

(e) Based on this information, Pecos and Gruy intend to drill a well into the north plunging nose in Section 5. ***Id.***

(f) Volumetric calculations based on structure and isopach maps developed using well control and 2-D seismic closely match the material balance calculations performed by Pecos’ engineer. **Tr. at p. 112, at p. 135-140; Opposition Exhibits 6 and 8.**

(11) The Opposition, through engineers from Pecos and Gruy, presented testimony demonstrating that:

(a) The Shugart Strawn Pool as a whole is operating under the current allowables. **Opposition Exhibit 14; Tr. at p. 175.**

(b) Mewbourne’s proration unit comprised of the NE/4 of Section 8 is the only proration unit capable of producing at the current allowable, and is the only

proration unit that will benefit from an increase in the current allowable. **Opposition Exhibits 15-18; Tr. at p. 150, 166 and 175.**

(c) Approximately 7.15 million barrels of oil exist within the Shugart- Strawn pool, and approximately 57.8% of that oil is located beneath Mewbourne's proration unit comprised of the NE/4 of Section 8. **Opposition Exhibit 6 and 9; Tr. at p. 136.**

(d) The percentage of oil located under Mewbourne's proration unit comprised of the NE/4 of Section 8 is less than 57.8% if the Strawn reef located above the perforations in Mewbourne's Fren 8 Fed. Well No. 2 is not productive. **Tr. at p. 146-147.**

(e) The cumulative production of oil to date from the proration units is consistent with the percentage of oil in place under each proration unit. **Opposition Exhibit 9; Tr. at p. 140-142.**

(f) Increasing the special depth bracket allowable to 1,350 barrels of oil per day and increasing the special limiting gas-oil ratio to 10,000 cubic feet of gas per barrel of oil, as proposed by Mewbourne, will result in Mewbourne producing over 64% of the projected oil in place and over 73% of the gas from the field. **Opposition Exhibit 9; Tr. at p. 144-145.**

(g) At current allowable production rates, Mewbourne is likely to recover equal to or more than its just and equitable share of the oil in place over time since Mewbourne's wells in the NE/4 of Section 8 are curtailed and not declining like all other wells producing from this pool. **Opposition Exhibits 9, 15-18; Tr. at p. 142-145, and p. 167.**

(h) Under Mewbourne's proposal, the NE/4 of Section 8 would recover a disproportionate and inequitable share of the oil in place and use a disproportionate and inequitable share of the reservoir energy. **Opposition Exhibit 9; Tr. at p. 162.**

(i) The gas-oil ratios for the wells as a whole within the Shugart-Strawn pool appear to be around 6,000 cubic feet of gas per barrel of oil. **Opposition Exhibits 13-18; Tr. at p. 148 and 173-174.**

(j) Increasing the gas-oil ratio to 6,000 cubic feet of gas per barrel of oil appears to afford each interest owner in the pool the opportunity to recover his just and equitable share of the oil in place and to use his just and equitable share of reservoir energy. **Opposition Exhibit 9; Tr. at p. 148 and p. 158-159.**

(k) Calculations of the oil in place, both by volumetric analysis and by material balance, do not support the increases in the oil allowable and the gas-oil

ratio proposed by Mewbourne. **Opposition Exhibit 9; Tr. at p. 134-35 and at p. 148-150**

(12) The Opposition, through an engineer from Gruy Petroleum Management Company, also presented evidence demonstrating that:

(a) The reservoir energy for the Shugart Strawn Pool is solution gas. **Tr. at p. 161.**

(b) Wells perforated in the upper portion of the Strawn reef have higher gas-oil ratios than wells perforated in the lower portions of the Strawn reef. **Opposition Exhibits 11 and 12; Tr. 168.**

(c) Mewbourne's Fren 8 Federal Com Well No. 2, one of the oldest and most prolific wells in the pool, is perforated at a lower part of the reef and producing at a lower gas-oil ratio than the more recent wells perforated at a higher point in the reef. **Opposition Exhibit 11; Mewbourne Exhibit 12.**

(d) A gas cap appears to be forming in the Strawn reef. **Opposition Exhibits 11 and 12; Tr. 168.**

(e) Mewbourne appears to have the ability to perforate its Fren 8 Fed. Well No. 2 at a higher point in the Strawn reef and thereby increase its gas-oil ratio. **Opposition Exhibits 11 and 12; Tr. at p. 106 and 169.**

(f) Mewbourne's wells in the NE/4 of Section 8 are situated in the structurally highest position on the Strawn reef and will therefore have majority control over the dissipation of any gas cap. **Tr. at p. 166 and 168-171.**

(g) The gas-oil ratio in the Shugart-Strawn Pool appears to be rate sensitive. **Opposition Exhibit 18; Tr. 180-183.**

(h) Curtailment of gas production from the NE/4 of Section 8 appears necessary to avoid the premature loss of reservoir energy and increase the ultimate recovery of oil from this pool. **Tr. at p. 168, 176, 183.**

(i) Increasing the oil allowable and the gas-oil ratio as proposed by Mewbourne will be provide Mewbourne with disproportionate control over the reservoir energy to the detriment of the other proration units, potentially damage the reservoir, and may ultimately reduce the total quantity of oil that can be recovered from this pool. **Opposition Exhibits 9, 11 and 12; Tr. at p. 166, 171-172, 184-185.**

(13) Mewbourne's geologic witness testified that his Isopach map of the Shugart-Strawn Pool (Mewbourne Exhibit 3) is based solely on well control data and does not take into account data from seismic in the area. **Tr. at p. 21-22.**

(14) Mewbourne's engineering witness testified in October of 2002 that the Cedar Lake Reef Pool, which is operated under special pool rules identical to those now governing the Shugart-Strawn Pool, is the most analogous pool and that its special pool rules are adequate to properly and equitably drain these types of reservoirs. **Tr. at p. 80-82; Mewbourne Exhibit 9.**

(15) Mewbourne's engineering witness also testified that:

(a) Mewbourne was in violation of the production restrictions under the current pool rules for six months before it took action to correct the violation. **Tr. at p. 75-76; Mewbourne Exhibit 12.**

(b) Mewbourne drilled and completed its Fren 8 Fed Well No. 6 in the NE/4 of Section 8 even though it was overproduced in that proration unit and in violation of the production restrictions under the current pool rules. **Opposition Exhibit 18; Mewbourne Exhibit 11.**

(c) Mewbourne's present application was filed to obtain authority to open up its new and existing wells in the NE/4 of Section 8, and avoid existing production restrictions. **Opposition Exhibit 18; Tr. at p. 70 and at p. 86, line 24-p. 85, line 10.**

(d) Under the existing pool rules, Mewbourne is producing more oil than any other spacing unit in the pool. **Tr. at p. 77.**

(e) Mewbourne conducted an oil-in-place analysis for the Shugart Strawn Pool, but chose not to present its analysis to the Examiner. **Tr. at p. 68, line 22 – p. 69, line 3; at p. 89-90.**

(f) Mewbourne presented no data to determine whether its proposed increase in the producing rate will adversely affect correlative rights. **Tr. at p. 72 and at p. 88.**

(g) Mewbourne plans to drill a well in the NW/4 of Section 8 that will provide additional data on the nature and extent of the Shugart-Strawn Pool. **Tr. at p. 71.**

(16) The evidence submitted indicates there is not sufficient data available at this time "to ensure" that the oil allowable and the limiting gas-oil ratio can be increased without causing damage the reservoir and waste. Division Rule 505.F.

(17) The engineering evidence submitted demonstrates that approval of Mewbourne's application may result in the premature waste of reservoir energy and may reduce the ultimate recovery of oil from this pool.

(18) The evidence submitted demonstrates that approval of Mewbourne's application may violate the correlative rights of other operators in this pool.

(19) In order to prevent waste and to protect correlative rights, Mewbourne's application to increase the oil allowable and the gas-oil ratio should be denied.

(20) Mewbourne's application also seeks a discovery allowable to be produced primarily from its Fren 8 Federal Well No. 6, one of the most recent wells drilled and completed in this pool. **Tr. at p. 67; Mewbourne Exhibit 11.**

(21) Under Division Rule 509, discovery allowables are discretionary with the Division, are well specific, and do not extend to any and all wells producing within a particular proration unit.

(a) Division Rule 509.A. provides that the granting of a discovery allowable is discretionary with the Division and assignable to "a well completed as a bona fide discovery well in a new common source of supply."

(b) Division Rules 509.B. states that "the date the well is completed and new oil is run into stock tanks" determines "the well" that qualifies for a discovery allowable.

(c) Division Rule 509.C. sets forth the information that must be submitted on "the subject well" in order to qualify for a discovery allowable.

(d) Division Rule 509.E. sets forth the effective date for "a well's" discovery allowable.

(e) Division Rule 509.F. establishes the amount of "the well's daily allowable."

(f) Division Rule 509.G. establishes the gas-oil ratio for "a discovery well."

(22) Discovery allowables are also limited to "the well" (a) which is demonstrated to be the first well completed and producing from the new pool or for which the affidavit referenced in Rule 509.B. has been filed, and (b) for which the information required by Rule 509.C. has been submitted.

(23) The first well drilled through the Shugart-Strawn Pool was Gruy's Magnum 5 Fed. Well No. 2 in the SE/4 of Section 5. **Tr. at p. 28, line 21 – p. 29, line 4.**

(24) The first well completed and producing from the Shugart-Strawn Pool was Mewbourne's Fren "8" Federal Com Well No. 3 (API No. 30-015-32313). **Tr. at p. 18, lines 12-18, p. 23, lines 20-22; Mewbourne's Exhibit 11; Order R-11856, Finding paragraph (8).**

(25) The Fren "8" Federal Com Well No. 3 is located at an unorthodox well location 2276 feet from the North line and 1471 feet from the East line of Section 8, and encroaches on

the SE/4 of Section 8 by 296 feet under the existing pool rules. **Order R-11856, Finding paragraph (8).**

(26) No production penalty has been imposed on the Fren "8" Federal Com Well No. 3 despite its unorthodox location.

(27) Mewbourne did not request a discovery allowable for its Fren "8" Federal Com Well No. 3, or any other well, at the Division hearing in October 2002 that resulted in the establishment of the Shugart-Strawn Pool and the special pool rules governing this pool.

(28) Mewbourne failed to timely submit all the data required by Rule 509 to justify the granting of a discovery allowable for the Fren "8" Federal Com Well No. 3.

(29) Since the discovery well for this pool is located at an unorthodox well location, a discovery allowable is not warranted.

IT IS THEREFORE ORDERED THAT:

(1) Mewbourne's application to modify the "*Temporary Special Pool Rules for the Shugart-Strawn Pool*" to increase the depth bracket allowable to 1,350 BOPD and to increase the limiting gas-oil ratio to 10,000 cubic feet of gas for each barrel of oil produced, and to make those modification permanent, is denied.

(2) Mewbourne's application to be awarded a discovery allowable applicable to its proration unit comprised of the NE/4 of Section 8 is denied.

(3) Jurisdiction is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

LORI WROTENBERY
Director

SEAL