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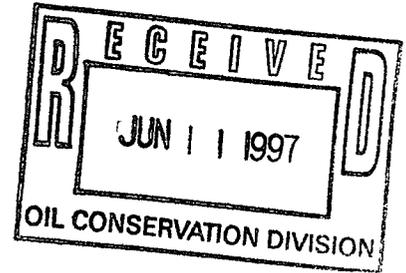
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June 11, 1997

**HAND-DELIVERED**

Mr. David Catanach, Hearing Examiner  
Oil Conservation Division  
New Mexico Department of Energy,  
Minerals and Natural Resources  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505



Re: ***Oil Conservation Division Case No. 11724:  
Application of Gillespie-Crow, Inc. for Unit Expansion, Statutory Unitization,  
and Qualification of the Expanded Unit Area for the Recovered Oil Tax Rate and  
Certification of a Positive Production Response Pursuant to the "New Mexico  
Enhanced Oil Recovery Act," Lea County, New Mexico***

Dear Mr. Catanach:

Pursuant to your request, enclosed for your consideration is Hanley Petroleum, Inc. and Yates Petroleum Corporation's proposed Order pertaining to the May 15, 1997 Examiner hearing in the above-referenced case.

If you need anything further from Hanley or Yates to proceed with your consideration of this matter, please advise.

Very truly yours,

A handwritten signature in black ink, appearing to read "William F. Carr".

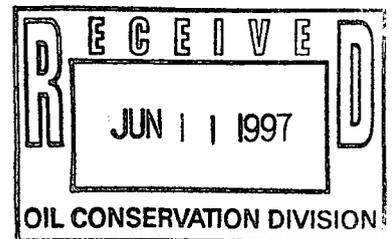
WILLIAM F. CARR  
ATTORNEY FOR HANLEY PETROLEUM, INC. and YATES PETROLEUM CORPORATION  
WFC:mlh

Enclosure

cc: Rand Carroll, Esq. (w/enclosure)  
James Bruce, Esq. (w/enclosure)  
W. Thomas Kellahin, Esq. (w/enclosure)  
J. Scott Hall, Esq. (w/enclosure)

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

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



CASE NO. 11724  
ORDER NO. R-\_\_\_\_\_

APPLICATION OF GILLESPIE-CROW, INC. FOR UNIT EXPANSION,  
STATUTORY UNITIZATION, AND QUALIFICATION OF THE EXPANDED UNIT  
AREA FOR THE RECOVERED OIL TAX RATE AND CERTIFICATION OF A  
POSITIVE PRODUCTION RESPONSE PURSUANT TO THE "NEW MEXICO  
ENHANCED OIL RECOVERY ACT," LEA COUNTY, NEW MEXICO.

PROPOSED ORDER OF THE DIVISION  
OF  
HANLEY PETROLEUM, INC.  
AND  
YATES PETROLEUM CORPORATION

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**BY THE DIVISION:**

This cause came on for hearing at 8:15 a. m. on May 15, 1997, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this \_\_\_\_ day of June, 1997, the Division Director, having considered the record and the recommendations of the Examiner, and being fully advised in the premises,

**FINDS THAT:**

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) In November 1994, Gillespie-Crow, Inc. ("Gillespie") proposed the formation of the West Lovington Strawn Unit ("WLSU") to the other interest owners in the West Lovington Strawn Pool for the alleged purpose of implementing a pressure maintenance project. Negotiations for the formation of this unit were limited to the owners of interest in what Gillespie had predetermined to be the boundaries of the proposed unit. Following lengthy negotiations between Gillespie and the other owners of interest in the proposed unit area, Gillespie filed its application with the Oil Conservation Division pursuant to the Statutory Unitization Act, Sections 70-7-1 through 70-7-21, NMSA, (1978), for the unitization of the following described 1,458.95 acres, more or less, of Federal, State and Fee lands in the West Lovington Strawn Pool:

TOWNSHIP 15 SOUTH, RANGE 35 EAST, NMPM

Section 33: All

Section 34: W/2

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMPM

Section 1: Lots 1 through 8

TOWNSHIP 16 SOUTH, RANGE 36 EAST, NMPM

Section 6: Lots 3 through 5

(3) The boundaries of the WLSU as proposed by Gillespie in 1995 included, according to Gillespie's geological interpretation, all acreage in the West Lovington Strawn Pool which contained hydrocarbon pore volume. *See* Gillespie Exhibit No. 3, Case 11195, August 29, 1995.

(4) Although Hanley Petroleum, Inc. ("Hanley") and Yates Petroleum Corporation ("Yates") own working interest in tracts immediately offsetting the proposed unit boundaries, neither were included in the negotiations and neither participated or were otherwise involved in the negotiations which resulted in the selection of the Unit boundaries or the participation formula by which unit production is allocated to the owners thereof.

(5) By Division Order No. R-10449, issued in Case No. 11195, dated August 29, 1995, the West Lovington-Strawn Unit Area ("WLSU"), as proposed by Gillespie, comprised

of the 1,458.95 acres, was approved for unitization under the Statutory Unitization Act. The Unit became effective October 1, 1995.

(6) In August through October 1995, Gillespie drilled the State "S" Well No. 1 ("State "S" Well") 990 feet from the unit boundary at a location 1650 feet from the South and East lines of Section 34, Township 15 South, Range 35 East, NMPM. Gillespie dedicated to this well the W/2 SE/4 of said Section 34 which is comprised of Tracts 12 and 13. These tracts have been communitized and share the production from the State "S" Well. The State "S" Well is a commercial well in the Strawn formation and is in communication with the WLSU. Yates owns working interest in the acreage dedicated to this well.

(7) In March , 1996, Gillespie drilled the Snyder EC Well No. 1 located 1980 feet from the East line and 1346 feet from the North line of Section 6, Township 16 South, Range 36 East, NMPM. This well is a commercial well located on acreage owned by Gillespie which is in communication with the WLSU. *See* Testimony of Savage.

(8) In February and March, 1996, Hanley drilled and completed its Chandler Well No. 1 ("Chandler Well") located 330 feet from the South line and 1650 feet from the East line (Unit O) of Section 28, Township 15 South, Range 35 East, NMPM and dedicated thereto the S/2 SE/4 of said Section 28. This is a commercial well which is completed in the West Lovington-Strawn Pool immediately offsetting the Unit.

(9) In October 1995, information from the State "S" Well No. 1 showed the reservoir extended beyond the unit boundary. Although Gillespie advised Yates in January 1996 that it would bring the acreage dedicated to this well into the unit "immediately on payout" it delayed filing its application for unit expansion until January 1997. *See* Testimony of Boneau.

(10) During the spring of 1996, Gillespie curtailed the production from the State "S" Well and, at the same time, increased the production from the offsetting wells inside the Unit thereby draining production from non-unit Tracts 12 and 13 which are dedicated to the State "S" Well. *See* Testimony of Boneau, Hanley/Yates Exhibit No. 7.

(11) By letter dated September 13, 1996, Gillespie first proposed to expand the Unit

to include the tracts dedicated to the State "S" Well and the Chandler Well. This was the first time Hanley was contacted by Gillespie concerning Hanley's participation in decisions concerning the WLSU.

(12) At a meeting on September 19, 1996, Gillespie proposed to expand the unit to include only the tracts that were dedicated to the State "S" Well and the Chandler Well. *See* Testimony of Boneau.

(13) Hanley and Yates opposed the proposed limited expansion of the Unit under the existing unit participation formula. Whereupon, Gillespie filed an application (Case 11599) to restrict production from wells outside the unit but in the West Lovington Strawn Pool to the same withdrawal rates established by Gillespie for the WLSU.

(14) By Order No. R-9722-C and R-10448-A in Case 11599, dated February 26, 1997, the Division rejected the application of Gillespie for a reduced allowable for only wells in the pool but outside the unit area and enacted measures to assure the prudent operation of this entire reservoir under one set of rules. In Finding 15 of this Order, the Division found:

- A. the West Lovington-Strawn Pool was a common reservoir which extended beyond the boundaries of the WLSU;

("According to the geological and technical evidence presented, the larger porous mound that contains the reservoir that comprises the WLSU extends beyond the horizontal limits set forth in Order No. R-10449" which approved the boundaries of the WLSU");

- B. production from each well in this pool can effect production from all other wells in this reservoir;

(the State "S" Well and The Chandler Well "are both in pressure communication with the WLSU wells and are also capable of top allowable production.")

C. all wells in this reservoir should be treated the same;

(" ...all producing wells whether inside or outside the WLSU should be treated the same");

D. that to efficiently produce this reservoir, measures should be adopted to assure prudent operations, and

("...to prevent waste and premature abandonment of this reservoir, measures should be enacted to assure that adequate reservoir pressure is maintained throughout and that the gas cap within this reservoir is managed in a prudent manner");

E. these measures should include a reduced allowable for all wells in this pool and elimination of the project allowable for the WLSU.

("...In order to assure fairness for all operators of wells within this reservoir a single depth bracket oil allowable of 250 barrels of oil per day for a standard 80-acre oil spacing and proration unit should be adopted for the West Lovington-Strawn Pool ... the concept of a project allowable being assigned to the West Lovington Strawn Pressure Maintenance Project Area should cease.")

The Division ordered a reduction in the allowables for this pool from 445 BOPD to 250 BOPD and abolished the project allowable for the West Lovington Strawn Pressure Maintenance Project. *See* Order paragraph 5, Order Nos. R-9722-C and R-10448-A.

(15) At this time, the applicant, Gillespie-Crow, Inc. seeks an order expanding the West Lovington-Strawn Unit under the Statutory Unitization Act to include the following two 80-acre tracts:

TOWNSHIP 15 SOUTH, RANGE 35 EAST, NMPM

Section 28: S/2 SE/4

Section 34: W/2 SE/4

Applicant also seeks to qualify these two tracts for the recovered oil tax rate and certification of a positive production response pursuant to the "New Mexico Enhanced Oil Recovery Act."

- (16) In support of its application, Gillespie presented evidence which showed:
- A. the State "S" Well and the Chandler Well are commercial wells and that the acreage dedicated to these wells is in communication in the Strawn formation with the WLSU;
  - B. the 80-acre tracts dedicated to these wells should be included in the WLSU;
  - C. in the future, the unit operator intends to expand the WLSU only to include tracts dedicated to commercial wells; and
  - D. an additional well has been proposed to test the Strawn formation 330 feet outside the tract dedicated to the State "S" Well at a location 2310 feet from the North and East lines of Section 34, Township 15 South, Range 35 East, NMPM, in which Yates and others own interests and which, if completed as a commercial well, would be the basis for an additional application to expand this statutory unit.

(17) Hanley and Yates appeared in opposition to the proposed expansion and presented evidence which established:

- A. Yates and Hanley own no interest in the WLSU, however, each owns working interest in the proposed Unit expansion and in other tracts in the West Lovington-Strawn Pool which offset the current unit boundary. *See* Testimony of Boneau.
- B. There were lengthy discussions between the parties to the original unit agreement concerning the unit participation formula. These negotiations, among other things, resulted in an increase in the porosity

feet assigned to the Phillips Petroleum Company's tracts in exchange for Phillips' joinder in the Unit. Transcript of June 16, 1995 hearing in Cases 11194 and 11195 at 49 through 52 incorporated into the record of Case 11724.

- C. Unlike Phillips, Hanley and Yates have been denied the opportunity to negotiate regarding the share of unit production allocated under the unit plan to tracts in which they own interests. *See* Testimony of Boneau.

(18) Hanley and Yates presented their geological study including 2-D and 3-D seismic and well control data which:

- A. confirmed the findings in Division Order No. R-9722-C and R-10448-A by demonstrating that the algal reef mound that contains the reservoir that comprises the WLSU extends beyond the current pool boundaries. (See Testimony of Bracken, Hanley/Yates Exhibits 8 through 17);
- B. demonstrated that there are multiple oil/water contacts in this reservoir. (See Testimony of Bracken, Hanley/Yates Exhibits 15 and 16);
- C. showed the extent of the Strawn mound pore development in the West Lovington-Strawn Pool. (See Testimony of Bracken, Hanley/Yates Exhibit 17); and
- D. established that there are tracts in this pool which are directly affected by unit operations which will not benefit from unit operations unless the unit is expanded to include the entire pool. (See Testimony of Bracken.)

(19) Hanley and Yates recommended that the WLSU be expanded to include all tracts which contain hydrocarbon pore volume in the West Lovington-Strawn Pool, provided notice to all operators in the area of their intention to recommend additional acreage be included in the WLSU, and proposed that the boundaries of the WLSU be expanded to

include the following lands (“Expanded Unit Area”) in Lea County, New Mexico:

TOWNSHIP 15 SOUTH, RANGE 35 EAST, NMPM

Section 27: S/2 SW/4, NW/4 SW/4, SW/4 SE/4  
Section 28: S/2, NW/4, SW/4 NE/4  
Section 33: All  
Section 34: All  
Section 35: W/2 SW/4

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMPM

Section 1: Lots 1 through 11, NE/4 Lot 12  
Section 2: Lot 1

TOWNSHIP 16 SOUTH, RANGE 36 EAST, NMPM

Section 6: Lots 2 through 7, Lot 12

**FINDING:** The expansion of the WLSU as proposed by Gillespie does not include all of the Strawn reservoir that will be affected by the Pressure Maintenance Project operated by Gillespie in the West Lovington Strawn Pool. Expansion of the WLSU as proposed will have an adverse effect on tracts outside the unit but within this reservoir and therefore violates Section 70-7-11 NMSA (1978) and must be **denied**.

**FINDING:** There are working interest owners and royalty interest owners in this pool who are directly affected by Gillespie’s pressure maintenance project who will not receive the benefits of this pressure maintenance project unless the unit is expanded to include all tracts affected by pressure maintenance operations. The expansion of the WLSU as proposed by Gillespie therefore violates Section 70-7-6 (4) NMSA (1978) and must be **denied**.

**FINDING:** The boundaries of the Expanded Unit Area as proposed by Hanley and Yates are based on the best information available on this reservoir, will include all tracts

that are being directly affected by pressure maintenance operations in the WLSU, will share the benefits of unitization with all working interest owners and royalty owners directly affected by unit operations and, therefore, should be **approved** as the correct boundaries of the WLSU.

⤵ (20) Hanley and Yates presented the results of their engineering study in which the original oil in place in the West Lovington-Strawn Pool was determined by material balance and by volumetric methods. With this engineering study, values were calculated at ½ foot intervals for porosity, water saturation and total feet of pay for each well and the results:

- ⤵ A. showed that the Hanley/Yates material balance calculation is consistent with the material balance calculation of Gillespie for the same data was utilized by both (*See* Testimony of Savage);
- ⤵ B. established that the volumetric calculation of original oil in place of Hanley/Yates best represents the original oil in place in this reservoir for it is closer to the results of the material balance calculation than the volumetric calculation presented by Gillespie (*See* Testimony of Savage); and
- ⤵ C. Allocated hydrocarbon pore volume to each tract in the unit (*See*, Hanley/Yates Exhibit 18).

FINDING: The Hanley/Yates volumetric calculation of original oil in place more closely matches the results of the material balance calculations on this reservoir, best represents the original oil in place in the West Lovington-Strawn Pool and should be used for determinations made for the West Lovington-Strawn Unit.

(21) Hanley and Yates showed the impact of Gillespie's proposed unit expansion on the interest owners in this reservoir under the current allocation formula would be:

- A. Yates' share of production allocated to its interest in the acreage dedicated to the State "S" Well (Tracts 12 and 13) would **decrease by 59%** from a current production rate of 34 BOPD to 14 BOPD;

- B. Hanley's share of production allocated to its interest in the Chandler Well (Tract 14) would **decrease by 96%** from a current production rate of 194 BOPD to 8 BOPD; and
- C. The share of production allocated to the interest of Gillespie and the other original owners in the WLSU would **increase by 14%** from 2171 BOPD to 2527 BOPD. Testimony of Boneau, Hanley/Yates Exhibit No. 5.

(22) Hanley and Yates recommended that the current allocation formula be amended ("Amended Participation Formula") by the inclusion of current producing rates to be defined as the average rate of oil production for the six months that precede the reduction of allowable ordered by Division Order No. R-9722-C and R-10448-A (September 1996 through February 1997). *See* Testimony of Savage.

(23) Hanley and Yates showed the impact of their proposed unit expansion on the interest owners in this reservoir under their revised allocation formula would be as follows:

- A. Yates' share of production allocated to its interest in the acreage dedicated to the State "S" Well (Tracts 12 and 13) would **decrease by 21%** from a current production rate of 34 BOPD to 27 BOPD;
- B. Hanley's share of production allocated to its interest in the acreage dedicated to the Chandler Well (Tract 14) would **decrease by 17%** from a current production rate of 194 BOPD to 161 BOPD;
- C. The share of production allocated to the interest of Gillespie and the other original owners in the WLSU would **decrease by 3%** from 2171 BOPD to 2098 BOPD; and
- D. The share of production allocated to owners other than Yates in Tracts 12 and 13 and Tracts 15 through 30, much of which are owned by Gillespie and the other current owners in the WLSU, would **increase by 31%** from 253 BOPD to 366 BOPD. Testimony of Boneau, Hanley/Yates Exhibit No.5.

FINDING: The tract participation formula in the WLSU unit agreement does not allocate unitized hydrocarbons on a fair, reasonable and equitable basis to the owners in the expanded unit for:

- A. the current allocation of production from the WLSU based on only the subjective calculation of original oil in place is unfair;
  - (1) due to the uncertainty of the information on this reservoir as evidenced by the differences in the parties volumetric calculations, and
  - (2) the decrease in production allocated to the tracts dedicated to the State "S" Well and the Chandler Well ( 59% and 96%) when actual data on the producing characteristics of the wells on these 80-acre tracts is not considered;
- B. the owners of the tracts subsequently added to the unit did not have the opportunity to negotiate the pore volume assigned to their tracts as did the original interest owners in the unit area, and
- C. the current formula fails to provide value based on the actual well performance data which demonstrates the ability of the individual unit tracts to produce unitized substances.

FINDING: The participation formula used to determine the relative value of the individual tracts in the WLSU should be revised to include a factor based on the actual producing characteristics of the wells in this reservoir. The recommendation of Yates and Hanley for the inclusion of a factor in the participation formula of current producing rates for September 1996 through February 1997 should be adopted resulting in the following participation formula ("Amended Participation Formula"):

$$\text{UNIT PARTICIPATION} = (50\%)(\text{OOIP}\%) + (50\%)(\text{CURRENT OIL RATE } \%)$$

- (24) Utilizing the hydrocarbon pore volume map of Hanley and Yates and the

Amended Participation Formula, the following tract participation percentages result and should be established for the expanded West Lovington-Strawn Unit as follows:

<u>TRACT NUMBER</u>	<u>TRACT PARTICIPATION %</u>
WLSU	79.0964
State "S" No. 1 (Tracts 12 and 13)	8.8285
Chandler Well (Tract 14)	6.0557
15	2.5337
16	.0723
17	.5803
18	.0038
19	.0964
20	.0205
21	.9145
22	.0230
23	.0004
24	.9543
25	.0342
26	.0429
27	.0016
28	.4950
29	.2349
30	.0116

(25) The unitized management, operation and further development of the Expanded Unit Area of the West Lovington Strawn Unit, pursuant to the recommendation of Hanley and Yates, is feasible and reasonably necessary to effectively and efficiently carry on

enhanced recovery operations and should substantially increase the ultimate recovery of oil and gas from the West Lovington-Strawn Pool.

(26) The proposed unitized method of operation as applied to the Expanded Unit Area is feasible and will result with reasonable probability in the increased recovery of substantially more oil from the unitized portion of the pool than would otherwise be recovered without unitization.

(27) The estimated additional cost of the proposed unitized operations within the Expanded Unit Area will not exceed the estimated value of the additional oil and gas plus a reasonable profit.

(28) The Amended Participation Formula contained in the Unit Agreement allocated the produced and saved unitized substances to the separately owned tracts in the Expanded Unit Area, on a fair and reasonable and equitable basis.

(29) Unitization of the Expanded Unit under the Amended Participation Formula will benefit the working, royalty and overriding royalty interest owners of the oil and gas rights within the Expanded Unit Area of the West Lovington Strawn Unit.

(30) The Unit Agreement for the WLSU as hereby amended should be incorporated by reference into this order.

(31) The West Lovington Strawn Unit Agreement, as applied to the Expanded Unit Area, with the Amended Participation Formula provides for unitization of the West Lovington Strawn Unit Area upon terms and conditions that are fair, reasonable, equitable and which include:

- A. an allocation to the separately owned tracts in the Expanded Unit Area of all oil and gas that is produced from the Expanded Unit Area and which is saved, being the production that is not used in the conduct of unit operations or not unavoidably lost;
- B. a provision for the credits and charges to be made and the adjustment among

the owners in the Expanded Unit Area for their respective investments in wells, tanks, pumps, machinery, materials and equipment contributed to the unit operations;

- C. a provision governing how the costs of unit operations, including capital investments, shall be determined and charges to the separately owned tracts and how said costs shall be paid, including a provision providing when, how, and by whom the unit production allocated to an owner who does not pay his share of the costs of unit operations shall be credited to such owner, or the interest of such owner, and how his interest may be sold and proceeds applied to the payment of his costs;
- D. a provision for carrying any working owner on a limited, carried or net-profits basis, payable out of production, upon terms and conditions which are just and reasonable, and which allow an appropriate charge for interest for such service payable out of production, upon such terms and conditions determined by the Division to be just and reasonable, and providing that any non-consenting working interest owner being so carried shall be deemed to have relinquished to the unit operator all of his operating rights and working interest in and to the unit until his share of the costs, service charge and interest are repaid to the unit operator;
- E. a provision designating the unit operator and providing for the supervision and conduct of the unit operations, including the selection, removal or substitution of an operator from among the working interest owners to conduct the unit operations;
- F. a provision for voting procedure for the decision of matters to be decided by the working interest owners in respect to which each working interest owner shall have a voting interest equal to his unit participation; and
- G. the time when the unit operations shall commence and the manner in which, and the circumstances under which, the unit operations shall terminate and for the settlement of accounts upon such termination.

(32) The applicant requested that a 200 percent penalty be assessed against those working interest owners who do not voluntarily agree to join the proposed unit.

(33) Section 70-7-7.F NMSA of said "Statutory Unitization Act" provides that the unit plan of operation shall include a provision for carrying any working interest owner subject to limitations set forth in the statute, and any non-consenting working interest owner so carried shall be deemed to have relinquished to the unit operator all of his operating rights and working interest in and to the unit until his share of the costs has been repaid plus an amount not to exceed 200 percent thereof as a non-consent penalty.

(34) The Unit Operating Agreement, contains a provision whereby any working interest owner who elects not to pay his share of unit expense shall be liable for his share of such unit expense plus an additional 200 percent thereof as a non-consent penalty, and that such costs and non-consent penalty may be recovered from each non-consenting working interest owner's share of unit production.

FINDING: A non-consent penalty of 200 percent should be adopted in this case. The applicant should be authorized to recover from unit production each non-consenting working interest owner's share of unit expense plus 200 percent thereof.

FINDING: The statutory unitization of the Expanded Unit Area of the West Lovington Strawn Unit is in conformity with the above findings, and will prevent waste and will protect the correlative rights of all owners of interest within the proposed Unit Area.

(35) The expansion of the West Lovington Strawn Unit to include all acreage directly affected by unit operations as recommended by Hanley and Yates and the revision of the participation formula for the Unit to include a factor for the current producing rate for wells in the WLSU, all as described above, are in the best interest of conservation, will allocate the benefits of the WLSU with the working interest owners and royalty interest owners therein directly affected by unit operations, and will otherwise serve to prevent waste and protect correlative rights.

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IT IS THEREFORE ORDERED THAT:

(1) The application of Gillespie-Crow, Inc. for expansion of the West Lovington-Strawn Unit by the inclusion of two 80-acre tracts in Sections 28 and 34 of Township 15 South, Range 34 East, NMPM, pursuant to the Statutory Unitization Act is **denied**.

(2) The expansion of the West Lovington-Strawn Unit as proposed by Hanley and Yates to include the following described acreage is necessary to benefit the working interest owners and the royalty owners directly affected by unit operations and thereby is **approved** as the proper boundary for the West Lovington-Strawn Unit.

TOWNSHIP 15 SOUTH, RANGE 35 SOUTH, NMPM

Section 27: S/2 SW/4, NW/4 SW/4, SW/4 SE/4  
Section 28: S/2, NW/4, SW/4 NE/4  
Section 33: All  
Section 34: All  
Section 35: W/2 SW/4

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMPM

Section 1: Lots 1 through 11, NE/4 Lot 12  
Section 2: Lot 1

TOWNSHIP 16 SOUTH, RANGE 36 EAST, NMPM

Section 6: Lots 2 through 7, Lot 12

(3) The vertical limits of the West Lovington Strawn Unit Area shall comprise that interval which extends from an upper limit at the top of the Strawn formation to a lower limit at the base of the Strawn formation in the West Lovington-Strawn Pool. The top of the Strawn formation for unitization purposes is defined as all points underlying the Unit Area correlative to a depth of 11,420 feet and the base of the Strawn formation is defined as all points underlying the Unit Area correlative to a depth of 11,681 feet, both depths as

identified on the Compensated Neutron/Litho Density Log for the Speight Fee Well No. 1 located in Unit C (Lot 3) of Section 1, Township 16 South Range 35 East, NMPM, Lea County, New Mexico.

(4) The reduced allowable limitations imposed by Division Order Nos. R-9722-C and R-10448-A are necessary to assure prudent management of this entire reservoir until such time as the WLSU is expanded to include all tracts which are affected by the West Lovington Strawn Pressure Maintenance Project. These production restrictions, including the rescission of the Unit project allowable shall remain in effect until this unit is expanded to include all tracts that are affected by unit operations.

(5) The Participation formula in the West Lovington Strawn Unit Agreement is hereby amended as follows to include a factor based on the actual current producing rate of the wells in this reservoir from September 1996 through February 1997, and shall be:

$$\text{UNIT PARTICIPATION} = (50\%)(\text{OOIP}\%) + (50\%)(\text{CURRENT OIL RATE}\%)$$

(6) The West Lovington Strawn Unit Agreement, as amended, and the West Lovington Strawn Unit Operating Agreement, are hereby incorporated by reference into this order.

(7) The tract participation for the Expanded Unit Area of the West Lovington Strawn Unit is hereby established as follows:

<u>TRACT NUMBER</u>	<u>TRACT PARTICIPATION %</u>
WLSU	79.0964
State "S" No. 1 (Tracts 12 and 13)	8.8285

Chandler Well (Tract 14)	6.0557
15	2.5337
16	.0723
17	.5803
18	.0038
19	.0964
20	.0205
21	.9145
22	.0230
23	.0004
24	.9543
25	.0342
26	.0429
27	.0016
28	.4950
29	.2349
30	.0116

(8) The Unit Agreement, as amended by this order to include the Amended Participation Formula, and the Unit Operating Agreement for the West Lovington Strawn Unit provide for unitization and unit operation of the Expanded Unit Area upon terms and conditions that are fair, reasonable and equitable and which include those provisions described in Finding No. (30) above.

(9) This order shall not become effective unless and until the owners of seventy-five (75) percent of the working interest and seventy-five (75) percent of the royalty interest in the Expanded Unit Area of the West Lovington Strawn Unit have approved the plan for unit operations as required by Section 70-7-8 NMSA, (1978) Comp.

(10) If the persons owning the required percentage of interest in the Expanded Unit Area of the West Lovington Strawn Unit as set out in Section 70-7-8 NMSA, (1978) Comp., do not approve the plan for unit operations within a period of six (6) months from the date

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of entry of this order, this order shall cease to be of further force and effect and shall be revoked by the Division, unless the Division shall extend the time for ratification for good cause shown.

(11) When the persons owning the required percentage of interest in the Expanded Unit Area of the West Lovington Strawn Unit have approved the plan for unit operations, the interests of all persons in the Unit Area are unitized whether or not such persons have approved the plan of unitization in writing.

(12) The applicant as Unit Operator shall notify in writing the Division Director of any removal or substitution of said Unit Operator by any other working interest owner within the Unit Area.

(13) A non-consent penalty of 200 percent is hereby adopted in this case. The applicant shall be authorized to recover from unit production each non-consenting working interest owner's share of unit expense plus 200 percent thereof.

(14) Jurisdiction of this cause 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

WILLIAM J. LeMAY  
Director

SEAL