## ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

STATE OF NEW MEXICO

OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE

3-1-94

POST OFFICE BOX 1980 HOBBS, NEW MEXICO 88241-1980 (505) 393-6161

BRUCE KING GOVERNOR

OIL CONSERVATION DIVISION P. O. BOX 2088 SANTA FE, NEW MEXICO 87501

DHC-755

RE: Proposed: MC DHC NSL NSP SWD WFX PMX

Gentlemen:

I have examined the application for the:

31-55-33E Operator No. S-T-R

and my recommendations are as follows:

Yours very truly,

CX

Derry Sexton Supervisor, District 1

/ed



ClayDesta Center 6 Desta Drive, Suite 5250 Midland, Texas 79705-5510 Phone: 915-682-9756 Fax **#**: 915-687-4109 Brian Sherran Leonard-Kersh-District Production Manager West Texas/Rocky Mountain District Production & Engineering Division Mark Burkett District Petroleum Engineer Sammy Reed

Production Superintendent

February 25, 1994

New Mexico Department of Energy & Minerals Oil Conservation Division P. O. Box 2088 Santa Fe, New Mexico 87501-2088

Re:

Application for Downhole Commingling
E P Operating Limited Partnership
Lambirth No. 3
Peterson, South (Pennsylvanian) Field
Peterson, South (Fusselman) Field
Roosevelt County, New Mexico

Gentlemen:

E P Operating Limited Partnership requests authority for downhole commingling of production from the Peterson, South (Pennsylvanian) Field and the Peterson, South (Fusselman) Field in the above captioned well located in Roosevelt County, New Mexico.

In accordance with Rule 303-A of the Oil Conservation Division Rules and Regulations, information necessary upon application of a permit for downhole commingling of two oil zones is hereby submitted.

Attachments

cc: New Mexico Department of Energy & Minerals Oil Conservation Division
P. O. Box 1980
Hobbs, New Mexico 88241-1980

bcc: B. K. Irani

Sincerely, M

Ralph B. Telford Petroleum Engineer

| a. | Operator:                                     | EP Operating Limited Partnership<br>ClayDesta National Bank Building<br>Suite 5250<br>6 Desta Drive<br>Midland, Texas 79705 |
|----|---|---|
| b. | Lease Name:<br>Well Number:<br>Well Location: | Lambirth<br>3<br>Unit Letter - G<br>Section 31, T-5-S, R-33-E<br>1980' FEL, 1980' FNL<br>Roosevelt County, New Mexico       |

- c. Plat Attached as Exhibit No. 1
- d. Form C-116 is attached for the Fusselman and the Pennsylvanian completions for the Lambirth No. 3 in the South Peterson Penn Field is attached as Exhibit Nos. 2 & 3.
- e. A production decline curve for the Penn is attached as Exhibit No. 4.
- f. Both zones require artificial lift. The original reservoir pressure of the South Peterson Penn Pool was 2186 psi as taken from a buildup performed in April of 1985. The reservoir pressure for the South Peterson Fusselman Pool was 4022 psi as of June of 1979.

The Lambirth No. 3 was spudded on June 5, 1978, and was drilled to a total depth of 8030'. The well was perforated in the lower Fusselman from 7940' to 7944'. After acidizing, the interval tested wet and was squeezed. Next, the Upper Fusselman was perforated from 7840' to 7849' and acidized. The well was completed as an oil well on July 26, 1978, from the Fusselman Formation. The well produced for two months with an average daily oil rate of 18 BOPD. Subsequently, a rework began on October 12, 1978, which plugged back at 7800' with a cast iron bridge plug and 10' of cement was placed on top. The Peterson Lime zone (sometimes referred to as the Lower Penn) was then tested. The Peterson Lime was perforated from 7702' to 7715' and treated with 2500 gallons of acid. The well was potentialed on August 20, 1979, for 643 MCFG, 11 BO, and a trace of water on a 9/64" choke with 875 psi tubing pressure. The well produced 9,535 BO and 509,911 MCFG before being recompleted in 1986. The current completion in the Penn Formation was performed on February 28, 1986. A retrievable bridge plug was set at 7685' to isolate the Penn from the Peterson Lime. The formation was perforated from 7653' to 7660' and acidized. The well potentialed 606 MCFG, 135 BO, and 0 BW on March 5, 1986. In June of 1986, the retrievable bridge plug set between the Peterson Lime Formation and the Penn Formation was removed.

| g. | South Peterson Penn Pool -      | 49.0° API |
|----|---------------------------------|-----------|
| Б. | South Peterson Fusselman Pool - | 48.3° API |

| h. | Estimated production from the Penn zone:      | 1 BOPD         |
|----|---|----------------|
|    | Estimated production from the Fusselman zone: | <u>13 BOPD</u> |
|    | Sum of individual streams:                    | 14 BOPD        |

According to Order No. R-6882 dated February 1, 1982, commingled production from zones with the lowermost pool existing between 7000 feet and 7999 feet may not exceed 50 BOPD.

i. Penn Production 1 BOPD 20 MCFGPD \* Fusselman Production <u>13 BOPD</u> 26 MCFGPD \*\* 14 BOPD 46 MCFGPD

| Oil Production - | 7% Penn and 93 % Fusselman  |
|------------------|-----------------------------|
| Gas Production - | 43% Penn and 57 % Fusselman |

\*- Penn Production was estimated from the current rate of the well. \*\*- Fusselman Production was estimated from the last rate the well r

- Fusselman Production was estimated from the last rate the well produced at and its GOR.
- j. The offset operator has been notified and the waiver letter is attached as Exhibit No. 5.



| C-116<br>Revised 1-1-65                                       | 4        | KOOSEVELL                    | TEST CNIA               | V. OIL GAS RAT           | 14 48.4 20 49 2450/1 |   |              |       |              |            | I hereby certify that the above information<br>is true and complete to the best of my know-<br>ledge and belief.   |   | Oen not   | (Signature)   | 9 | October 16, 1978<br>(Date) |
|---|----------|------------------------------|-------------------------|--------------------------|----------------------|---|--------------|-------|--------------|------------|--|---|---|---|---|----------------------------|
|   | County   | NOX<br>NOX                   |                         |                          |                      |   | <br>         | <br>  | <br>         |            | ell is<br>igned  | / base  | e with  |   |   | ۲ ۵<br>۲                   |
| Z   | Co       | - [                          | Scheduled               | DAILY<br>ALLOW-<br>ARI F | 25                   |   |              |       |              |            | in which w<br>can be ass   | ific gravity  | accordanc   |   |   | EXHIBIT 2                  |
| DISSIMMO  |          |                              | - ocned                 | TBG.<br>PRESS.           | 30<br>CP             |   |              | <br>  |              |            | or the pool<br>r that well   | 50° F. Spec   | mission in  |   |   | Û                          |
| TION CO   |          | E OF                         | -<br>-<br>-             | CHOKE<br>SIZE            | 1                    |   | <br>         | <br>; | <br>         |            | st.<br>st.<br>ltowable fr  | erature of (  | vation Corr   | -<br>-<br>-<br>-  |   |                            |
| TIO   | -        | Fusselman<br>TYPEOF          |                         | SUTAT                    |                      |   | <br>         | <br>  | <br>         |            | sial te<br>unit a<br>tolerar   | tempe   | onser   |   |   |                            |
| NEW MEXICO OIL CONSERVATION COMMISSIUN<br>GAS-OIL RATIO TESTS |          | Ъ                            |                         | DATE OF<br>TEST          | 8-29-78              |   |              |       |              |            | d on the offic<br>eding the top<br>s 25 percent t  | 15.025 psla and a temperature of 60° F. Specific gravity base   | igh casing.<br>Mexico Oil C   |   |   |                            |
| EXICO G   | 1        | Peterson                     | -                       |                          | 33E                  |   | <br>         | <br>  | <br>         |            | l produce<br>not excee<br>ge of this   | e of 15.0   | cing throt<br>the New   |   |   |                            |
| M M   |          | South                        |                         | N 01                     | 5 S                  | A |              |       |              |            | nt of oi<br>a rate<br>dvanta   | ire bas   | l produ   | 10 2011   |   |                            |
| Z   | Pool     | م                            | 01                      | LOCATION                 |                      |   | <br><u> </u> | <br>  | <br>         |            | e amou<br>edat   | press   | ny wel  |   |   |                            |
|   |          |                              | 79701                   |                          |                      |   | <br>         | <br>  | <br>         |            | han the<br>produc  | on.<br>data   | re for a  | ate ate   |   |                            |
|   |          |                              | Texas                   |                          | ງ ເວ                 |   | <br>         | <br>  | <br>         |            | eater t<br>all be  | nmissl  | pressu:   | 5<br>5<br>5   |   |                            |
|   |          | INC.                         | - 1                     | MELL<br>WELL             | m                    |   | <br>         | <br>  | <br><u> </u> |            | wable gr<br>well sha   | y the Con<br>in MCF ⊞   | of tubing 1   | this repo   |   | ·                          |
|   | Operator | ENSERCH EXPLORATION, Address | P.O. Box 4815, Midland, | LEASE NAME               | Lambirth             |   |              |       |              | - <u> </u> | No well will be assigned an allowable greater than the amount of oil produced on the official test.<br>During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is | increased allowables when authorized by the Commission.<br>Gas volumes must be reported in MCF measured at a pressure base of | will be 0.60.<br>Report casing preasure in lieu of tubing pressure for any well producing through casing. | Mail original and one copy of this report to the district office of the rew means of the rew means of the rest.<br>Rule 301 and appropriate pool rules. |   | •                          |

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-116 Revised 1/1/89

OIL CONSERVATION DIVISION P.O. Box 2088 Santa Fe, New Mexico 87504-2088

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT II P.O. Drawer DD, Artesia, NM 88210 DISTRICT III

P.O. Box 1980, Hobbs, NM 88240

Submit 2 copies to Appropriate

District Office. DISTRICT I

## CAS\_OIL DATIO TEST

| Operating Limited Partnership       Peterson, Penn, South (Associated)       Roosevelt         state Drive, Suite 5250, Midland, TX 79705–5510       TPECF       Associated       Associated <t< th=""><th>×</th><th></th><th></th><th></th><th></th><th>י<br/> _</th><th></th><th><b>V</b>A</th><th></th><th>105</th><th></th><th></th><th>ပိ</th><th>County</th><th></th><th>Î</th><th></th></t<>   | ×                                       |            |         |          |         | י<br> _            |                           | <b>V</b> A   |              | 105                    |                |            | ပိ             | County       |              | Î             |          |
|--|---|------------|---------|----------|---------|--------------------|---------------------------|--------------|--------------|------------------------|----------------|------------|----------------|--------------|--------------|---------------|----------|
| esta Drive, Suite 5230, Midland, TX 79705–5510 TEST (M) Scheduled Competen Com | EP Operating Limited Part               | tnersh     | ĺр      |          |         | Ρ€                 | - 1                       | enn,         | , South      |                        | iated)         |            | щ              | looseve      | elt          |               |          |
| Image: Less NAME     WELL     LOCATION     DATE OF     EACH     PROD. DURING TEST       Imbirth     U     S     T     R     TEST     RG.     RG. <th>esta Drive, Suite</th> <th>0, Mid</th> <th>land,</th> <th></th> <th>797</th> <th></th> <th>10</th> <th>TYPE<br/>TEST</th> <th>оғ<br/>(X)</th> <th>Schedule</th> <th>P</th> <th>ర</th> <th>mpletion</th> <th></th> <th>S</th> <th>ecial</th> <th>X</th>  | esta Drive, Suite                       | 0, Mid     | land,   |          | 797     |                    | 10                        | TYPE<br>TEST | оғ<br>(X)    | Schedule               | P              | ర          | mpletion       |              | S            | ecial         | X        |
| LessenAME     NO.     U     S     T     R     TEST     Fill State     ALLOW     TEST     OIL     METR     GaN.     OIL       mbirth     3     G     31     5S     33E     02/10/94     * 48/64"     40#     1     24     0     49.0     1       Well is now being produced by plunger lift.     Mell is now being produced by plunger lift.     1     24     0     49.0     1  |   | WELL       |         |          | NOL     |                    | DATE OF                   | sn.          | 1            | Car                    | DAILY          | LENGTH     | PRC            | DURIN        | IG TEST      |               |          |
| mbirth       3       G       31       55       33E       02/10/94       * 48/64"       1       24       0         Well is now being produced by plunger lift.           24       0   | LEASE NAME                              | Ö          | ∍       | S        | -       | æ                  | TEST                      | TAT2         |              | PRESS.                 | ALLOW-<br>ABLE | HOURS      | WATER<br>BBLS. | GRAV.<br>OIL | OIL<br>BBLS. | GAS<br>M.C.F. | ·        |
| Well is now being produced by plunger  | Lambirth                                | °,         | Ċ       | 31       | 55      | 33E                | 02/10/94                  |              | 48/64"       | 40#                    |                | 24         | 0              | 49.0         | 1            | 20            | _        |
|  | Well                                    | nced b     | v plu   | nger     |         | •<br>              |                           |              |              |                        |                |            |                |              |              |               |          |
|  |   |            |         |          |         |                    |                           |              |              |                        |                |            |                |              |              |               |          |
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|  |   |            |         |          |         |                    |                           |              |              |                        |                |            |                |              |              |               |          |
|  |   |            |         |          |         |                    |                           |              |              |                        |                |            |                |              |              |               |          |
|  |   | -          |         |          |         |                    |                           |              |              |                        |                |            |                |              |              |               |          |
|  |   |            |         |          |         |                    |                           |              |              |                        |                |            |                |              |              |               |          |
|  |   |            |         |          |         |                    |                           |              |              |                        |                |            |                |              |              |               |          |
|  | nstructions:                            |            |         |          |         |                    |                           |              |              |                        |                | plete to t | the best of    | f my kno     | wledge a     | nd bel        | Ē.       |
| Instructions: complete to the best of my knowledge and belief.   | During gas-oil ratio test, each well    | shall be j | produce | xdata    | rate n  | ot exce            | eding the top             | unit a       | ullowable fo | or the poo             | l in           | J.Y.       |                | Q            |              |               |          |
|  | which well is located by more than 25 p | sercent. U | perato  | r is enc | courag  | ed to ti<br>hv the | lke advantage<br>Division | of thi       | s 25 percen  | nt toleranc            | •              | nature     | 1              |              |              |               | 1        |
| top unit allowable for the pool in age of this 25 percent tolerance in   | Gas volumes must be reported in         | MCF me:    | sured   | at a DI  |         | hase (             | of 15.025 psia            | and          | a temnerah   | ure of 60 <sup>c</sup> |                | D. Re(     |                | oductic      |              | erin          | t<br>e   |
|  | merific oravity hase will be 0.60.      |            |         | 1,<br>1  |         |                    |                           |              | moduum a     |                        | •              | nted name  | and title      |              |              |               |          |
| Signature<br>Signature<br>Signature<br>Sinted name and title   | Report casing pressure in lieu of tul   | bing press | ure for | any w    | ell pro | ducine             | through casir             | å            |              |                        | Fel            | bruary     | 25, 19         | 994          | (91          |               | 682-9756 |
| complete to the best of my knowledge and t<br>$ \overbrace{\begin{subarray}{c} \hline \hline$   |   | •••        |         | •        | •       | '                  | >                         | 2            |              |                        | -              |            |                |              |              |               |          |

(See Rule 301, Rule 1116 & appropriate pool rules.)

EXHIBIT 3

Date

Telephone No.

## EXHIBIT 4





ClayDesta Center 6 Desta Drive, Suite 5250 Midland, Texas 79705-5510 Phone: 915-682-9756 Fax #: 915-687-4109 Brian, S. Sherran teomand Kersh District Production Manager West Texas/Rocky Mountain District Production & Engineering Division Mark Burkett District Petroleum Engineer Sammy Reed Production Superintendent

February 21, 1994

Phillips Petroleum Company 4001 Penbrook Odessa, Texas 79762

> Re: Exception to New Mexico Rule 303-A (Downhole Commingling) EP Operating Company Lambirth No. 3 Peterson, South Field Roosevelt County, New Mexico

Gentlemen:

EP Operating Limited Partnership proposes to commingle downhole within the wellbore of the Lambirth No. 3 Well production from the South Peterson (Pennsylvanian) Field and the South Peterson (Fusselman) Field. If, as an offset operator, you have no objection to the granting of this exception provided for under the provisions of New Mexico Rule 303-C and hereby waive objection and notice of hearing on this application, please execute two (2) copies of this waiver and return them to the above address.

Please advise if there are questions or additional information is required for this purpose.

Sincerely.

Ralph Telford Petroleum Engineer

Name:

Title: Land Director-Permian Basin Region

Date: \_\_\_\_2/24/94 \_\_\_\_\_

**EXHIBIT 5**