

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING  
GOVERNOR

ANITA LOCKWOOD  
CABINET SECRETARY



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

RECEIVED  
DEC 01 1994

OIL CON. DIV.  
FILE 3

COMMINGLING ORDER PLC-105

UNOCAL Oil & Gas Division  
3300 North Butler, Suite 200  
Farmington, NM 87401

Attention: Brett H. Liggett

The above-named company is hereby authorized to commingle Basin Fruitland Coal Gas, South Blanco-Pictured Cliffs, Otero Chacra, Blanco-Mesaverde, South Blanco Tocito Gallup, Largo Gallup and Basin-Dakota Pool production from the following 178 wells listed on Exhibit "A" attached hereto.

Production shall be allocated to each well by utilizing individual well allocation meters and deriving allocation factors as shown on Exhibit "B" attached hereto.

FURTHER: The operator shall notify the Aztec District Office of the Division upon implementation of the commingling process.

NOTE: This installation shall be installed and operated in accordance with the applicable provisions of Rule 309-B of the Division Rules and Regulations and the Division "Manual for the Installation and Operation of Commingling Facilities." It is the responsibility of the producer to notify the transporter of this commingling authority.

REMARKS: The commingled liquid production from the subject wells shall be stored in the CDP No. 4 tank battery facility, and commingled gas production sold at Central Delivery Point No. 4 custody transfer meter located in Unit M of Section 30, Township 27 North, Range 6 West, NMPM, Rio Arriba County, New Mexico.

DONE at Santa Fe, New Mexico, on this 21st day of March, 1994.

*William J. Lemay, Jr.* *by MES*

WILLIAM J. LEMAY,  
Division Director

cc: Oil Conservation Division - Hobbs  
Oil Conservation Division - Data Processing  
NM State Land Office - Oil & Gas Division  
US Bureau of Land Management - Carlsbad

Exhibit "A"  
Commingling Order PLC-105

| Rincon Unit Well No. | Producing Pool(s)                         | S-T-R      |
|----------------------|-------------------------------------------|------------|
| 1E ✓                 | Blanco Mesaverde/Basin Dakota             | 30-27N-06W |
| 2                    | South Blanco Pictured Cliffs              | 06-26N-06W |
| 3                    | South Blanco Pictured Cliffs              | 06-26N-06W |
| 4                    | South Blanco Pictured Cliffs              | 31-27N-06W |
| 5                    | South Blanco Pictured Cliffs              | 32-27N-06W |
| 9                    | South Blanco Pictured Cliffs              | 31-27N-06W |
| 11                   | Basin Dakota                              | 06-26N-06W |
| 13                   | South Blanco Pictured Cliffs              | 06-26N-06W |
| 16                   | South Blanco Pictured Cliffs              | 25-27N-07W |
| 17                   | South Blanco Pictured Cliffs              | 02-26N-07W |
| 18R                  | South Blanco Pictured Cliffs/Otero Chacra | 35-26N-07W |
| 19                   | Basin Fruitland Coal                      | 30-27N-06W |
| 21                   | Blanco Mesaverde                          | 16-27N-06W |
| 21A                  | Blanco Mesaverde                          | 16-27N-06W |
| 22                   | South Blanco Pictured Cliffs              | 23-27N-07W |
| 23                   | Blanco Mesaverde                          | 35-27N-07W |
| 24                   | South Blanco Pictured Cliffs              | 32-27N-06W |
| 25                   | South Blanco Pictured Cliffs              | 36-27N-07W |
| 27                   | South Blanco Pictured Cliffs              | 13-27N-07W |
| 29A                  | Blanco Mesaverde                          | 22-27N-06W |
| 32                   | Blanco Mesaverde                          | 16-27N-06W |
| 32A                  | Blanco Mesaverde                          | 16-27N-06W |
| 37                   | South Blanco Pictured Cliffs              | 26-27N-07W |
| 38                   | South Blanco Pictured Cliffs              | 26-27N-07W |
| 39                   | South Blanco Pictured Cliffs              | 26-27N-07W |
| 40                   | South Blanco Pictured Cliffs              | 26-27N-07W |

| Rincon Unit Well No. | Producing Pool(s)            | S-T-R      |
|----------------------|------------------------------|------------|
| 41                   | South Blanco Pictured Cliffs | 35-27N-07W |
| 42                   | South Blanco Pictured Cliffs | 35-27N-07W |
| 43                   | South Blanco Pictured Cliffs | 25-27N-07W |
| 44                   | South Blanco Pictured Cliffs | 25-27N-07W |
| 48                   | South Blanco Pictured Cliffs | 30-27N-06W |
| 49                   | South Blanco Pictured Cliffs | 31-27N-06W |
| 51                   | South Blanco Pictured Cliffs | 06-26N-06W |
| 52                   | South Blanco Pictured Cliffs | 20-27N-06W |
| 54                   | South Blanco Pictured Cliffs | 14-27N-07W |
| 55                   | South Blanco Pictured Cliffs | 02-26N-07W |
| 56                   | South Blanco Pictured Cliffs | 02-26N-07W |
| 57                   | Basin Dakota                 | 01-26N-07W |
| 58                   | South Blanco Pictured Cliffs | 24-27N-07W |
| 59                   | South Blanco Pictured Cliffs | 24-27N-07W |
| 60                   | South Blanco Pictured Cliffs | 25-27N-07W |
| 61                   | South Blanco Pictured Cliffs | 30-27N-06W |
| 62                   | South Blanco Pictured Cliffs | 28-27N-06W |
| 64                   | South Blanco Pictured Cliffs | 23-27N-07W |
| 65                   | South Blanco Pictured Cliffs | 23-27N-07W |
| 67                   | South Blanco Pictured Cliffs | 22-27N-07W |
| 68                   | South Blanco Pictured Cliffs | 27-27N-07W |
| 70                   | South Blanco Pictured Cliffs | 27-27N-07W |
| 72                   | South Blanco Pictured Cliffs | 33-27N-07W |
| 75                   | South Blanco Pictured Cliffs | 34-27N-07W |
| 76                   | South Blanco Pictured Cliffs | 34-27N-07W |
| 77                   | South Blanco Pictured Cliffs | 34-27N-07W |
| 78                   | Blanco Mesaverde             | 14-27N-07W |
| 79                   | Blanco Mesaverde             | 17-26N-06W |

| Rincon Unit Well No. | Producing Pool(s)                             | S-T-R      |
|----------------------|-----------------------------------------------|------------|
| 79A                  | Blanco Mesaverde                              | 17-27N-06W |
| 80                   | Blanco Mesaverde                              | 18-27N-06W |
| 81                   | Blanco Mesaverde                              | 17-27N-06W |
| 81A                  | Blanco Mesaverde                              | 17-27N-06W |
| 84                   | Blanco Mesaverde                              | 26-27N-07W |
| 87                   | South Blanco Pictured Cliffs                  | 13-27N-07W |
| 88                   | South Blanco Pictured Cliffs/Blanco Mesaverde | 13-27N-07W |
| 88A                  | Blanco Mesaverde                              | 13-27N-07W |
| 90                   | South Blanco Pictured Cliffs                  | 13-27N-07W |
| 91                   | South Blanco Pictured Cliffs                  | 02-26N-07W |
| 97                   | South Blanco Pictured Cliffs/Blanco Mesaverde | 11-26N-07W |
| 97A                  | Blanco Mesaverde                              | 18-27N-06W |
| 98                   | South Blanco Pictured Cliffs/Blanco Mesaverde | 18-27N-06W |
| 103                  | South Blanco Pictured Cliffs                  | 18-27N-06W |
| 104                  | South Blanco Pictured Cliffs                  | 21-27N-06W |
| 105                  | South Blanco Pictured Cliffs                  | 21-27N-06W |
| 106                  | South Blanco Pictured Cliffs                  | 16-27N-06W |
| 107                  | South Blanco Pictured Cliffs/Blanco Mesaverde | 16-27N-06W |
| 108                  | Blanco Mesaverde/Basin Dakota                 | 17-27N-06W |
| 108A                 | Blanco Mesaverde                              | 18-27N-06W |
| 108E                 | Otero Chacra/Basin Dakota                     | 19-27N-06W |
| 109                  | South Blanco Pictured Cliffs                  | 19-27N-06W |
| 110                  | South Blanco Pictured Cliffs                  | 19-27N-06W |
| 111                  | South Blanco Pictured Cliffs                  | 20-27N-06W |
| 113                  | Blanco Mesaverde                              | 20-27N-06W |

| Rincon Unit Well No. | Producing Pool(s)                             | S-T-R      |
|----------------------|-----------------------------------------------|------------|
| 114                  | South Blanco Pictured Cliffs                  | 20-27N-06W |
| 115                  | South Blanco Pictured Cliffs/Blanco Mesaverde | 21-27N-06W |
| 116                  | South Blanco Pictured Cliffs                  | 21-27N-06W |
| 120                  | South Blanco Pictured Cliffs                  | 22-27N-06W |
| 123                  | Blanco Mesaverde                              | 13-27N-07W |
| 124                  | Blanco Mesaverde                              | 34-27N-07W |
| 126                  | Blanco Mesaverde/Basin Dakota                 | 27-27N-06W |
| 127M                 | Blanco Mesaverde/Basin Dakota                 | 28-27N-06W |
| 128                  | Blanco Mesaverde/Basin Dakota                 | 28-27N-06W |
| 129                  | Blanco Mesaverde/Basin Dakota                 | 29-27N-06W |
| 129M                 | Blanco Mesaverde/Basin Dakota                 | 29-27N-06W |
| 130                  | Blanco Mesaverde/Basin Dakota                 | 32-27N-06W |
| 130E                 | South Blanco Tocito Gallup/Basin Dakota       | 32-27N-06W |
| 133                  | Basin Dakota                                  | 14-27N-07W |
| 135                  | Blanco Mesaverde/Basin Dakota                 | 29-27N-06W |
| 135A                 | South Blanco Pictured Cliffs/Blanco Mesaverde | 29-27N-06W |
| 135E                 | Otero Chacra/Basin Dakota                     | 29-27N-06W |
| 136                  | Basin Dakota                                  | 23-27N-07W |
| 136E                 | Blanco Mesaverde/Basin Dakota                 | 23-27N-07W |
| 137                  | Blanco Mesaverde/Basin Dakota                 | 24-27N-07W |
| 137E                 | Blanco Mesaverde/Basin Dakota                 | 24-27N-07W |
| 138                  | Basin Dakota                                  | 25-27N-07W |
| 139                  | Basin Dakota                                  | 25-27N-07W |
| 149                  | Basin Dakota                                  | 30-27N-06W |
| 150                  | Blanco Mesaverde/Basin Dakota                 | 06-26N-06W |
| 151                  | Basin Dakota                                  | 14-27N-07W |

| Rincon Unit Well No. | Producing Pool(s)             | S-T-R      |
|----------------------|-------------------------------|------------|
| 151M                 | Blanco Mesaverde/Basin Dakota | 14-27N-07W |
| 154                  | South Blanco Pictured Cliffs  | 30-27N-06W |
| 155                  | Basin Dakota                  | 17-27N-06W |
| 156                  | Basin Dakota                  | 16-27N-06W |
| 157                  | Basin Dakota                  | 18-27N-06W |
| 159                  | Basin Dakota                  | 18-27N-06W |
| 159M                 | Blanco Mesaverde/Basin Dakota | 18-27N-06W |
| 161                  | Basin Dakota                  | 17-27N-06W |
| 162                  | South Blanco Pictured Cliffs  | 27-27N-06W |
| 163                  | South Blanco Pictured Cliffs  | 29-27N-06W |
| 164                  | Largo Gallup/Basin Dakota     | 02-26N-07W |
| 166                  | Basin Dakota                  | 32-27N-06W |
| 167                  | Basin Dakota                  | 13-27N-07W |
| 167M                 | Blanco Mesaverde/Basin Dakota | 13-27N-07W |
| 168                  | Basin Dakota                  | 36-27N-07W |
| 169                  | Basin Dakota                  | 26-27N-07W |
| 170                  | Basin Dakota                  | 20-27N-06W |
| 170M                 | Blanco Mesaverde/Basin Dakota | 20-27N-06W |
| 171                  | Basin Dakota                  | 21-27N-06W |
| 171M                 | Blanco Mesaverde/Basin Dakota | 21-27N-06W |
| 172                  | Basin Dakota                  | 26-27N-07W |
| 174                  | Basin Dakota                  | 19-27N-06W |
| 174M                 | Blanco Mesaverde/Basin Dakota | 19-27N-06W |
| 175                  | Basin Dakota                  | 20-27N-06W |
| 175M                 | Blanco Mesaverde/Basin Dakota | 20-27N-06W |
| 177                  | Basin Dakota                  | 13-27N-07W |
| 178                  | Basin Dakota                  | 23-27N-07W |
| 179                  | Basin Dakota                  | 16-27N-06W |

| Rincon Unit Well No. | Producing Pool(s)             | S-T-R      |
|----------------------|-------------------------------|------------|
| 180                  | Basin Dakota                  | 21-27N-06W |
| 180M                 | Blanco Mesaverde/Basin Dakota | 21-27N-06W |
| 186                  | Basin Dakota                  | 33-27N-07W |
| 187                  | Basin Dakota                  | 35-27N-07W |
| 190                  | South Blanco Pictured Cliffs  | 17-27N-06W |
| 193                  | Basin Dakota                  | 35-27N-07W |
| 194                  | South Blanco Pictured Cliffs  | 16-27N-06W |
| 195                  | South Blanco Pictured Cliffs  | 19-27N-06W |
| 197                  | South Blanco Pictured Cliffs  | 28-27N-06W |
| 199                  | South Blanco Pictured Cliffs  | 14-27N-07W |
| 201                  | Basin Dakota                  | 02-26N-07W |
| 202                  | Basin Dakota                  | 27-27N-07W |
| 223                  | Otero Chacra/Blanco Mesaverde | 34-27N-07W |
| 223A                 | Otero Chacra/Blanco Mesaverde | 34-27N-07W |
| 229                  | Basin Dakota                  | 34-27N-07W |
| 233                  | Otero Chacra/Blanco Mesaverde | 02-26N-07W |
| 234                  | Otero Chacra/Blanco Mesaverde | 02-26N-07W |
| 240                  | Basin Fruitland Coal          | 21-27N-06W |
| 243                  | Basin Fruitland Coal          | 27-27N-06W |
| 251                  | Basin Fruitland Coal          | 28-27N-06W |
| 252                  | Basin Fruitland Coal          | 18-27N-06W |
| 253                  | Basin Fruitland Coal          | 17-27N-06W |
| 254                  | Basin Fruitland Coal          | 20-27N-06W |
| 255                  | Basin Fruitland Coal          | 20-27N-06W |
| 256                  | Basin Fruitland Coal          | 16-27N-06W |
| 257                  | Basin Fruitland Coal          | 16-27N-06W |
| 258                  | Basin Fruitland Coal          | 17-27N-06W |
| 259                  | Basin Fruitland Coal          | 29-27N-06W |

| Rincon Unit Well No. | Producing Pool(s)    | S-T-R      |
|----------------------|----------------------|------------|
| 261                  | Basin Fruitland Coal | 29-27N-06W |
| 263                  | Basin Fruitland Coal | 19-27N-06W |
| 264                  | Basin Fruitland Coal | 19-27N-06W |
| 265                  | Basin Fruitland Coal | 30-27N-07W |
| 274                  | Basin Fruitland Coal | 36-27N-07W |
| 276                  | Basin Fruitland Coal | 13-27N-07W |
| 277                  | Basin Fruitland Coal | 13-27N-07W |
| 278                  | Basin Fruitland Coal | 14-27N-07W |
| 279                  | Basin Fruitland Coal | 14-27N-07W |
| 281                  | Basin Fruitland Coal | 23-27N-07W |
| 286                  | Basin Fruitland Coal | 26-27N-07W |
| 291                  | Basin Fruitland Coal | 34-27N-07W |
| 292                  | Basin Fruitland Coal | 35-27N-07W |
| 293                  | Basin Fruitland Coal | 35-27N-07W |
| 294                  | Basin Fruitland Coal | 02-26N-07W |
| 300                  | Basin Fruitland Coal | 06-26N-06W |
| 30                   | Basin Fruitland Coal | 25-27N-07W |

## Exhibit "B"

### Gas and Liquid Allocation Calculations

LAF: Liquid Allocation Factor

GAF: Gas Allocation Factor

N: Total Number of Wells in the Gathering System

n: nth Individual Well in the Gathering System

$$LAF(n) = \frac{N}{\sum_{i=1}^N} \frac{\text{Well Site Tank Liquid Volume, nth Well (bbl/mo)}}{\text{Well Site Tank Liquid Volume, nth Well (bbl/mo)}}$$

$$GAF(n) = \frac{N}{\sum_{i=1}^N} \frac{\text{Allocation Meter Volume, nth Well (Mcf/mo)}}{\text{Allocation Meter Volume, nth Well (Mcf/mo)}}$$

N = 178 Wells for CDP No. 4

Liquids allocated from the CDP No. 4 tank back to the nth well:

$$Q_n(\text{liquids}) = (LAF_n)(\text{Total Liquids, CDP No. tank (bbl/mo)})$$

Gas allocated from central custody transfer meter at CDP No. 4 back to the nth well:

$$Q_n(\text{gas}) = (GAF_n)(\text{Total Gas, CDP No. 4 Transfer Meter (Mcf/mo)})$$