Unocal North American
Oil & Gas Division
Unocal Corporation
3300 North Butler Avenue
Suite 200
Farmington, New Mexico 87401
Telephone (505) 326-7600
Fax: (505) 326-6145

UNOCAL 76

July 6, 1992

Farmington District

RECEIVED
JUL - 7 1992
OIL CON. DIV.
DIST. 3

New Mexico Oil Conservation Division
1000 Rio Brazos Rd.
Aztec, New Mexico 87410
Attn: Frank Chavez

SUBJECT:
Requesting Approval for
Exception to Rule 303-A
for Gas and Oil Production
Rincon Unit, Well No. 180-M
Sec 21, T-27-N, R-6-W
Rio Arriba County, New Mexico

Attached is a copy of the application sent to David Catanach for his approval; this copy is for your information.

Very truly yours,

Union Oil Company of California
dba Unocal

Glen O. Papp
District Production Engineer

Unocal North American
Oil & Gas Division
Unocal Corporation
3300 North Butler Avenue
Suite 200
Farmington, New Mexico 87401
Telephone (505) 326-7600
Fax: (505) 326-6145

UNOCAL 76

July 6, 1992

Farmington District **Certified Return Receipt**
P 671 272 502

New Mexico Oil Conservation Division
310 Old Santa Fe Trail, Box 2088
Santa Fe, NM 87504-2088
Attn: David Catanach

SUBJECT:
Requesting Approval for
Exception to Rule 303-A
for Gas and Oil Production
Rincon Unit, Well No. 180-M
Sec 21, T-27-N, R-6-W
Rio Arriba County, New Mexico

Union Oil Company of California, dba Unocal, requests permission to surface commingle gas and condensate from its Rincon Unit, Well No. 180-M, Rio Arriba County, New Mexico. The following describes and demonstrates how Unocal proposes to allocate gas production under the context of BLM Onshore Oil and Gas Order No. 5, Measurement of Gas for commingling, and allocate condensate under the New Mexico Oil Conservation Commission Manual for the Installation and Operation of Commingling Facilities.

The Rincon Unit, No. 180-M well is a development gas well scheduled to be drilled by Unocal. The well is to be completed as a dual Dakota/Mesa Verde producer; and it is anticipated that it will be ready for pipeline deliveries August 24, 1992. The local gas gathering company, El Paso Natural Gas (EPNG), has requested that Unocal deliver this gas to a pre-determined tie-in point on their gathering system. EPNG wishes only to set one sales meter, at this tie-in point, in order to minimize chart handling.

Unocal is proposing to set two allocation meters at the well site and measure gas from each stream separately. Downstream of the allocation meters the gas will be surface commingled in the flow line and measured again at the EPNG sales meter downstream (Exhibit No. 1). Royalties will be paid based on the gas volume measured at EPNG's sales meter.

Unocal is also proposing to surface commingle produced fluids from the individual separators into a common stock tank. Royalties will be paid on the liquid volumes sold from the tank (Exhibit No. 2).

The proposed location is within existing Dakota and Mesa Verde participating areas within the Rincon Unit (Exhibit No. 3). The lease is a federal lease and it is described in Exhibit No. 4. The royalty ownership in the two formations is the same on this tract.

Unocal is requesting from the New Mexico Oil Conservation Division, approval for surface commingling of the produced gas, and the following method of allocating production from the central meter to the individual meters. Unocal will calculate a monthly allocation factor, as shown in Exhibit No. 5, part 1. The allocation factor will then be used as illustrated in Exhibit No. 5, part 2, to determine individual meter volumes. To ensure the accuracy of the individual meters, Unocal will continue to calibrate, perform orifice plate inspections, and settlement tests as described in BLM Onshore Oil and Gas order No. 5, Measurement of Gas.

Unocal is also requesting approval for surface commingling of the produced condensate, and the following method for allocating production. Unocal will conduct initial condensate production tests of equivalent time frames for each of the two zones. The condensate produced during the test period from each pool will be used to calculate an average daily rate (Exhibit No. 6, Part 1). Each month this rate will be multiplied by the days on production, to yield a volume produced for the month (Exhibit No. 6, Part 3). The corrected volumes will be allocated as per Exhibit 6, Part 5. To ensure the accuracy of the allocation factor, Unocal proposes to retest the zones six months after the initial test and then annually thereafter.

Should you have any questions or need any additional information to process this request, please feel free to contact me at the above letterhead address or phone.

Very truly yours,

Union Oil Company of California
dba Unocal

Glen O. Papp
District Production Engineer

pmh

Attachment

cc:NMOCD Aztec Office--Frank Chavez
BLM--Ken Townsend

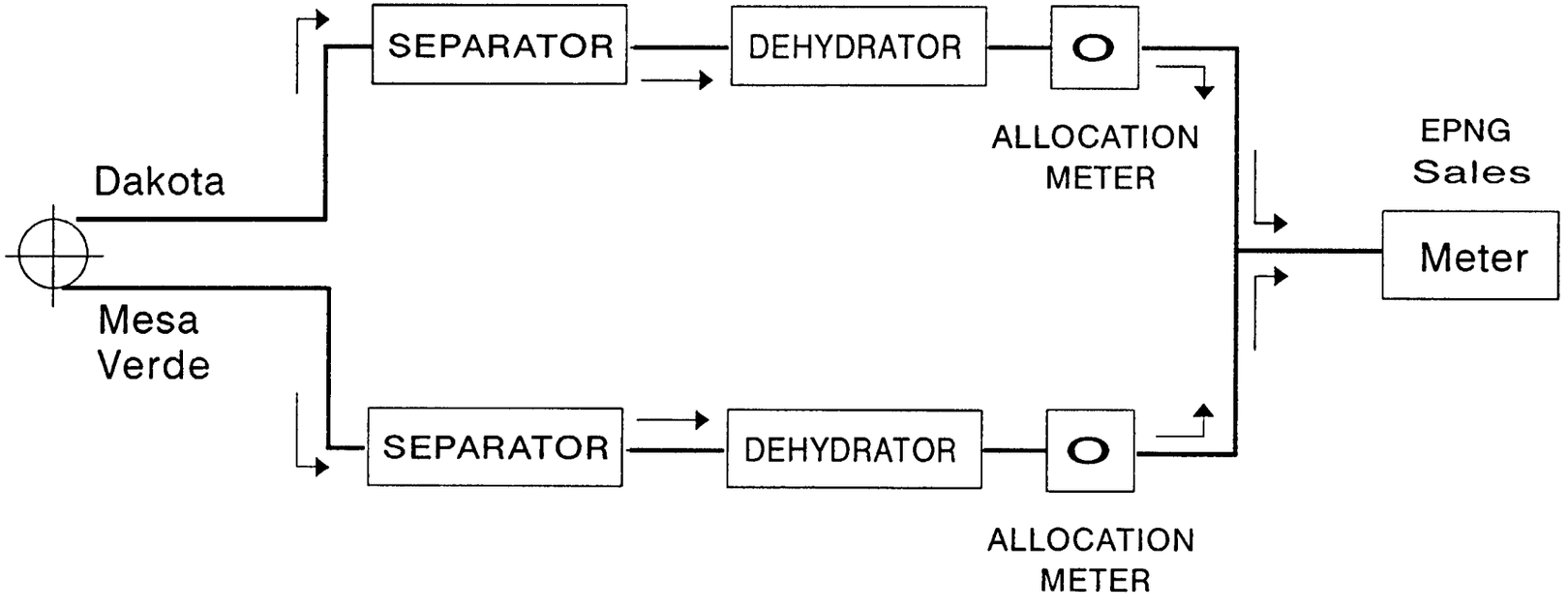
EXHIBIT No. 1

UNOCAL 76

GAS ACCOUNTING SCHEMATIC

RINCON UNIT # 180-M

RIO ARRIBA COUNTY, NEW MEXICO



GASMAP1

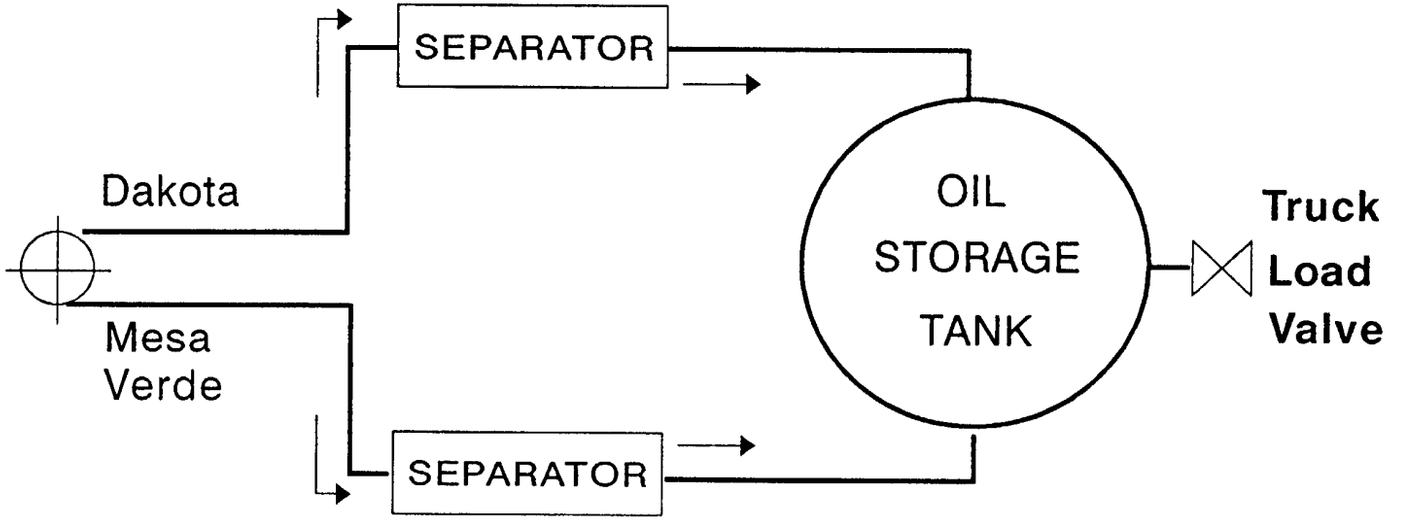
EXHIBIT No. 2

UNOCAL 76

CONDENSATE ACCOUNTING SCHEMATIC

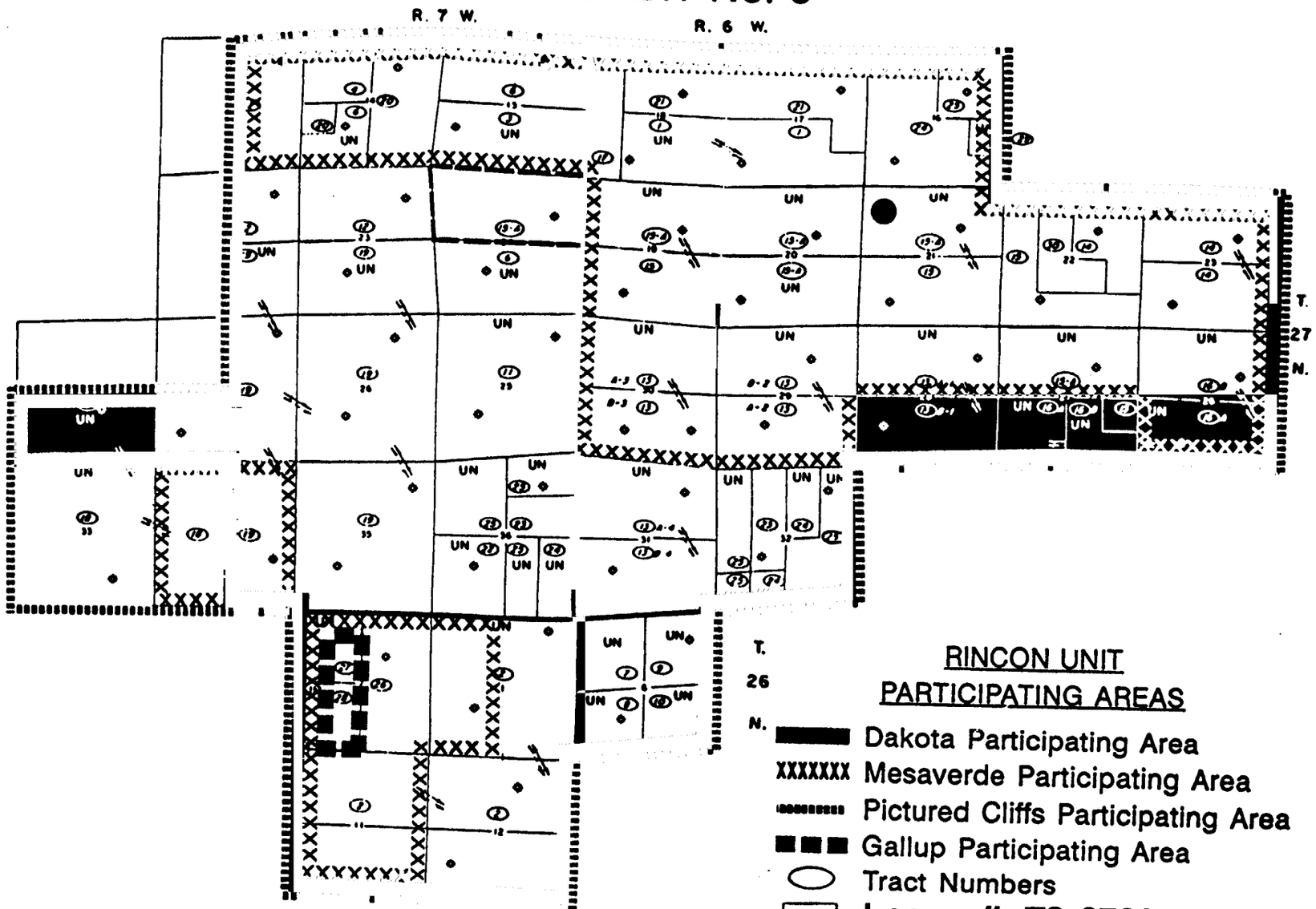
RINCON UNIT # 180-M

RIO ARRIBA COUNTY, NEW MEXICO



OILMAP1

EXHIBIT No. 3



Rio Arriba County, New Mexico

EXHIBIT NO #4
LEASE DISCRIPTION

FEDERAL LEASE	# ACRES	DESCRIPTION
SF – 079366	2558.72	SEC.s 19, 20, 21 ALL SEC 22: W/2 NW/4, W/2 SW/4, SE/4 SW/4, S/2 SE/4 SEC 23: N/2, NE/4 SE/4

OTHER WELLS ON LEASE # SF – 079366

WELL #	PRODUCING ZONE	LOCATION	WELL STATUS
8	MV	1450' FSL, 1450' FWL, Sec. 20	Producing
29	MV	1180' FNL, 815' FWL, Sec. 22	Producing
33	MV	802' FSL, 950' FEL, Sec. 22	Producing
52	PC	1650' FNL, 990' FEL, Sec. 20	Producing
98	MV	990' FNL, 990' FEL, Sec. 21	Producing
98	PC	990' FNL, 990' FEL, Sec. 21	Producing
99-A	MV	1760' FNL, 810' FEL, Sec. 27	Producing
99	MV	1025' FNL, 1025' FEL, Sec. 27	Producing
99	PC	1025' FNL, 1025' FEL, Sec. 27	Producing
107	MV	1500' FSL, 1500' FWL, Sec. 19	Producing
108-A	MV	1460' FSL, 1020' FEL, Sec. 19	Producing
108	DK	1750' FNL, 1750' FEL, Sec. 19	Producing
108	MV	1750' FNL, 1750' FEL, Sec. 19	Producing
109	PC	1050' FNL, 840' FWL, Sec. 19	Producing
110	PC	990' FSL, 1700' FEL, Sec. 19	Producing
111	PC	1650' FNL, 1165' FWL, Sec. 20	Producing
112	PC	990' FSL, 1450' FEL, Sec. 20	Producing
113	MV	1500' FNL, 800' FEL, Sec. 20	Producing
114	PC	1790' FSL, 1800' FWL, Sec. 20	Producing
115	MV	1550' FSL, 1550' FWL, Sec. 21	Producing
116	PC	890' FNL, 990' FWL, Sec. 21	Producing
117	PC	1750' FSL, 990' FEL, Sec. 21	Producing
119	PC	1100' FSL, 900' FWL, Sec. 22	Producing
120	PC	1500' FNL, 840' FWL, Sec. 22	Producing
141	PC	990' FNL, 1550' FWL, Sec. 27	Producing
142	PC	1650' FSL, 1040' FEL, Sec. 27	Producing
158	DK	1090' FSL, 1450' FWL, Sec. 22	Disconnected
165	DK	1450' FNL, 1600' FEL, Sec. 27	Producing
170	DK	990' FSL, 790' FWL, Sec. 20	Producing
171	DK	890' FSL, 1140' FWL, Sec. 21	Producing
174	DK	990' FSL, 1650' FWL, Sec. 19	Producing
175	DK	1840' FNL, 1760' FEL, Sec. 20	Producing
180	DK	1550' FNL, 1650' FEL, Sec. 21	Producing
195	PC	1460' FNL, 1750' FEL, Sec. 19	Producing
240	FC	1500' FSL, 1750' FWL, Sec. 18	Producing
241	FC	1500' FSL, 990' FWL, Sec. 22	Producing
254	FC	1419' FNL, 794' FEL, Sec. 20	Producing
255	FC	1185' FSL, 1840' FWL, Sec. 20	Producing
261	FC	798' FSL, 1254' FWL, Sec. 29	Producing
263	FC	1369' FNL, 1015' FEL, Sec. 19	Producing
264	FC	1200' FSL, 798' FWL, Sec. 19	Producing

EXHIBIT #5
GAS
ALLOCATION CALCULATIONS

1) Allocation Factor (AF):

$$AF = \frac{\text{Integrated Central Meter Volume (MCF/MO)}}{\sum_{1}^{2} \text{Integrated Individual Meter Volumes (MCF/MO)}}$$

2) Allocation to Individual Zones:

Zone	Integrated Individual Meter Volume	Monthly AF	Allotted Volume (MCF/MO)
Mesa Verde	Vol_1	AF	$Vol_1 \times AF$
Dakota	Vol_2	AF	$Vol_2 \times AF$

EXBT4

EXHIBIT #6
CONDENSATE
ALLOCATION CALCULATIONS

1) Production Test completed on both zones, yields:

Mesa Verde Test Rate = R_1 (BPD)

Dakota Test Rate = R_2 (BPD)

2) Days On / Month

Mesa Verde Days On = A

Dakota Days On = B

3) i) Actual Total Monthly Gauge Volume: G (BPM)

ii) Calculated Individual Volumes:

Mesa Verde = $R_1 \times A$

Dakota = $R_2 \times B$

Total Volume = $R_1(A) + R_2(B)$

4) Allocation Factor (AF):

$$AF = \frac{G}{R_1(A) + R_2(B)}$$

5) Corrected Allocation Volumes:

Mesa Verde = $AF \times R_1(A)$

Dakota = $AF \times R_2(B)$

EXBT5