

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

RELEASE 8-30-93



August 5, 1993

**CERTIFIED RETURN RECEIPT REQUESTED**

Farmington District

New Mexico Oil Conservation Division  
Attn: Mr. William J. LeMay  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

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

Dear Sirs:

Union Oil Company of California (UNOCAL) requests permission to downhole commingle production from the Blanco Mesaverde and Basin Dakota formations in the following well:

Rincon Unit No. 125M  
1800' FNL, 1700' FWL  
Section 26, T27N, R6W  
Rio Arriba County, New Mexico

As provided by Order No. R-9893, administrative approval may be granted without notice and hearing.

As required for an exception to rule 303-A, the following information is attached:

1. An acreage dedication plat showing offset lease ownership.
2. A Form C-116 showing current productivity from each zone.
3. A wellbore diagram with completion detail.
4. A bottomhole pressure from each zone and a calculated adjustment to a common datum.
5. Gas analyses from each zone.
6. An allocation formula for commingled production.
7. A copy of the notification letter sent to all offset operators and the Bureau of Land Management.

REC'D  
OIL CONSERVATION DIVISION  
AUG 10 1993

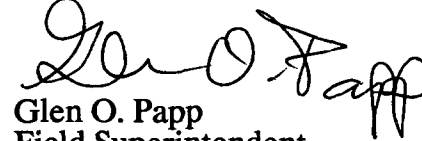
The Blanco Mesaverde formation is uneconomic to drill as a stand alone well. To develop these reserves, a dual or commingled completion is required. We estimate an ultimate recovery of approximately 750 MMCF from the Mesaverde horizon, which would otherwise remain undeveloped. Also, commingling will allow for better lift of liquids production and benefits from compression.

Both zones produce essentially dry gas. Therefore, the respective formation fluids are compatible. Also, no crossflow will occur between the commingled zones.

If you have any questions, please contact Dana Delventhal at (505)326-7600. Thank you for your consideration in this matter.

Sincerely,

Union Oil Company of California  
dba UNOCAL



Glen O. Papp  
Field Superintendent

Attachments

GOP/DLD/df

# OFFSET LEASE OWNERSHIP

R 6 W

T 27 N

22	23	EL PASO SF079365	EL PASO
	RINCON UNIT #125M		24
27	26	EL PASO SF079367B	25
EL PASO SF079210	CAULKINS 3547	EL PASO E290-28 E290-6 E290-28	EL PASO E290-28 E290-28
34	35	E290-36 E290	36

Submit 2 copies to Appropriate District Office.  
 DISTRICT I  
 P.O. Box 1980, Hobbs, NM 88240  
 DISTRICT II  
 P.O. Drawer DD, Artesia, NM 88210  
 DISTRICT III  
 1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico  
 Energy, Minerals and Natural Resources Department  
**OIL CONSERVATION DIVISION**  
 P.O. Box 2088  
 Santa Fe, New Mexico 87504-2088

Form C-116  
 Revised 1/1/89

**GAS - OIL RATIO TEST**

Operator		Pool		County										
Union Oil Company of California		Blanco Mesaverde/Basin Dakota		Rio Arriba										
Address		TYPE OF TEST - (X)		Completion		Special								
3300 N. Butler, Suite 200, Farmington, NM 87401		<input type="checkbox"/> Scheduled <input checked="" type="checkbox"/> Special		<input type="checkbox"/> Special		<input type="checkbox"/> Special								
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT./BBL.	
		U	S	T						R	WATER BBL.S.	GRAV. OIL		OIL BBL.S.
Rincon Unit	125M	F	26	27N	6W	12/10/92	F 14/64"	370		24	-0-	-0-	333	--
Blanco Mesaverde						12/18/92	F 15/64"	270		24	15	-0-	278	--
Basin Dakota														

**Instructions:**

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 located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.  
 Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.  
 Report casing pressure in lieu of tubing pressure for any well producing through casing.  
 (See Rule 301, Rule 1116 & appropriate pool rules.)

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

*Glen O. Papp*  
 Signature

Glen O. Papp  
 Printed name and title  
 Field Superintendent

August 5, 1993  
 Date

(505) 326-7600  
 Telephone No.

**RINCO UNIT NO. 125-M**  
**1800' FNL, 1700' W-L SEC 26 T27N R6W**  
**RIO ARRIBA COUNTY, NM**

12 1/4" Hole

**KB DATUM = 13' ABOVE G.L.**  
**GROUND ELEVATION = 6674'**

**8-5/8" 24# K-55 @ 368'**  
**Cmt'd w/ 250 SX - CIRC**  
**To Surface**

**DV TOOL @ 3624'**  
**Cmt'd Stage #3 w/ 645 sxs- Circ To Surface**  
**TOC @ 4330' by Wireline Survey**

7-7/8" Hole

UPPER MESAVERDE  
**4990-5004', 5014-50', 5062-70'**  
**5076-5100' w/ 4 SPF**

**"XO" Sliding Sleeve**  
**@ 5597'**

LOWER MESAVERDE  
**5298-5314', 5472-90', 5520-64' w/ 4 SPF**

**Gulberson Uni VI**  
**pkc @ 5609'**

**5720' Perforations to Cmt Squeeze**

**TUBING DETAIL**  
**246 lbs 2-3/8" EUE 8rd J-55**  
**@ 7788'**

**DV TOOL @ 6038'**  
**Cmt'd Stage #2 w/300 sxs**

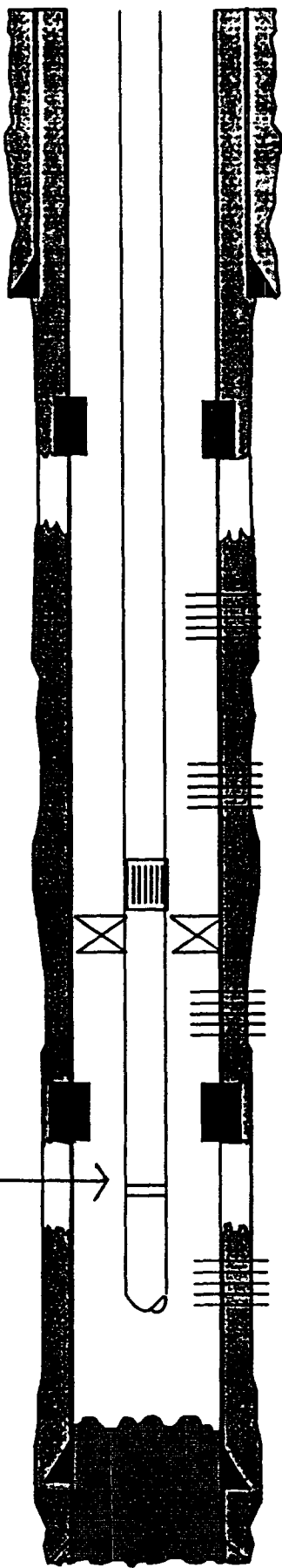
**T.O.C @ 7140' by Wireline Surveys**

DAKOTA  
**7520-32', 7544-54', 7606-16'**  
**7642-68', 7694-7708', 7714-26', 7750-84', w/ 4 SPF**

**5-1/2" 17# N-80, J-55**  
**@ 7857'**  
**Cmt'd Stage 1 w/ 330 sxs**

**PBTD = 7810'**

**TD @ 7877'**



# B & R SERVICE, INC.

P. O. Box 1048  
Farmington, New Mexico 87499  
(505) 325-2393

Company Unocal Lease Rincon Well 125-M  
County Rio Arriba State N.Mex. Date 12-10-92  
Shut-In \_\_\_\_\_ Zero Point K.B. Tbg. Pressure 788  
Casing Pressure \_\_\_\_\_ Tbg. Depth \_\_\_\_\_ Casing Perf. \_\_\_\_\_  
Max. Temp. \_\_\_\_\_ Fluid Level 6075

<u>DEPTH</u>	<u>PSIG</u>	<u>GRADIENT</u>
0	790	- - -
1000	808	.018
2000	833	.025
3000	858	.025
4000	883	.025
5000	909	.026
6000	952	.043
7000	1325	.373
7200	1410	.425
7400	1498	.440
7652	1607	.433

B & R SERVICE, INC.  
 P.O. BOX 1048  
 FARRINGTON, N.M.

FLUID LEVEL SURVEY

COMPANY: UNOCAL CORPORATION COUNTY: RIO ARBIBA

FIELD: RINCON DATE: \_\_\_\_\_ STATE: N. MEX.

LEASE AND WELL NO.	LOCATION	TIME	ELEV.	DATUM	CASING PRESSURE PSIG	JOINTS TO FLUID	FEET TO FLUID	FLUID ABOVE DATUM	PRESSURE AT DATUM
10/30/92 RINCON 158 M				MID PERF. 5039'	540	110	3432'	1607'	1231 PSIG
11/01/92 RINCON 151 M				MID PERF. 5211'	750	130	4108'	1103'	1228 PSIG
11/04/92 RINCON 171 M				MID PERF. 4883'	340	152	4758'	125'	394 PSIG
12/17/92 RINCON 184 M				MID PERF. 5127'	965	105	3508'	1819'	1753 PSIG
12/19/92 RINCON 136 E				MID PERF. 4845'	600	118	3729'	1116'	1139 PSIG
12/19/92 RINCON 127 M				MID PERF. 5080'	610	153	4835'	245'	716 PSIG
12/22/92 RINCON 125 M?				MID PERF. 5277'	480	154	4882'	395'	789 PSIG
12/22/92 RINCON 137 E				MID PERF. 6712'	1120	205	6765'	0'	1120 PSIG
7/15/93 RINCON 126 M				MID PERF. 5224'	780	155	4898'	326'	921 PSIG
12/4/92 RINCON 168 E				MID PERF. 6608'	1020	203	6415'	193'	1104 PSIG

AVERAGE TUBING LENGTH:  
 REMARKS:

RINCON UNIT NO. 125 M

After a 7 day SI period:

$$\text{Mesaverde BHP} = 789 \text{ psi @ } 5277'$$

$$\text{Dakota BHP} = 1607 \text{ psi @ } 7652'$$

$$\text{Gas Gradient} = 0.025 \text{ psi/ft}$$

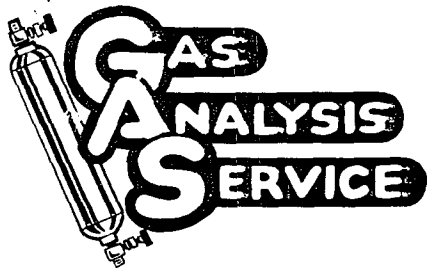
Adjusting to a common datum of 5277':

$$\text{Mesaverde BHP} = 789 \text{ psi}$$

$$\text{Dakota BHP} = 1607 - [(0.025)(7652 - 5277)] = 1548 \text{ psi}$$

Therefore the reservoir pressures fall within the 50% requirement.





WELL ANALYSIS COMPARISON  
-----

LEASE: RINCON 125M

DECEMBER 21, 1992

DATE:	12/10/92	12/17/92
NO.:	20041	20045
	MESAVERDE	DAKOTA
	MOLE %	MOLE %
	-----	-----
NITROGEN	0.436	0.241
CO2	1.044	1.235
METHANE	82.256	87.142
ETHANE	9.097	6.414
PROPANE	4.333	2.354
I-BUTANE	0.768	0.588
N-BUTANE	1.073	0.757
I-PENTANE	0.381	0.442
N-PENTANE	0.265	0.275
HEXANE+	0.347	0.552
BTU'S	1211.2	1159.8
-----	-----	-----
GPM	4.6039	3.2976
-----	-----	-----
SPEC GRAV	0.7023	0.6706
-----	-----	-----

RINCON UNIT NO. 125 M

C-116 ADJUSTMENT

BASIN DAKOTA

$n = 0.75$

$P_R = 1607 \text{ psi @ } 7652'$

$P_{wf1} = 461 \text{ psi @ } 7652'$

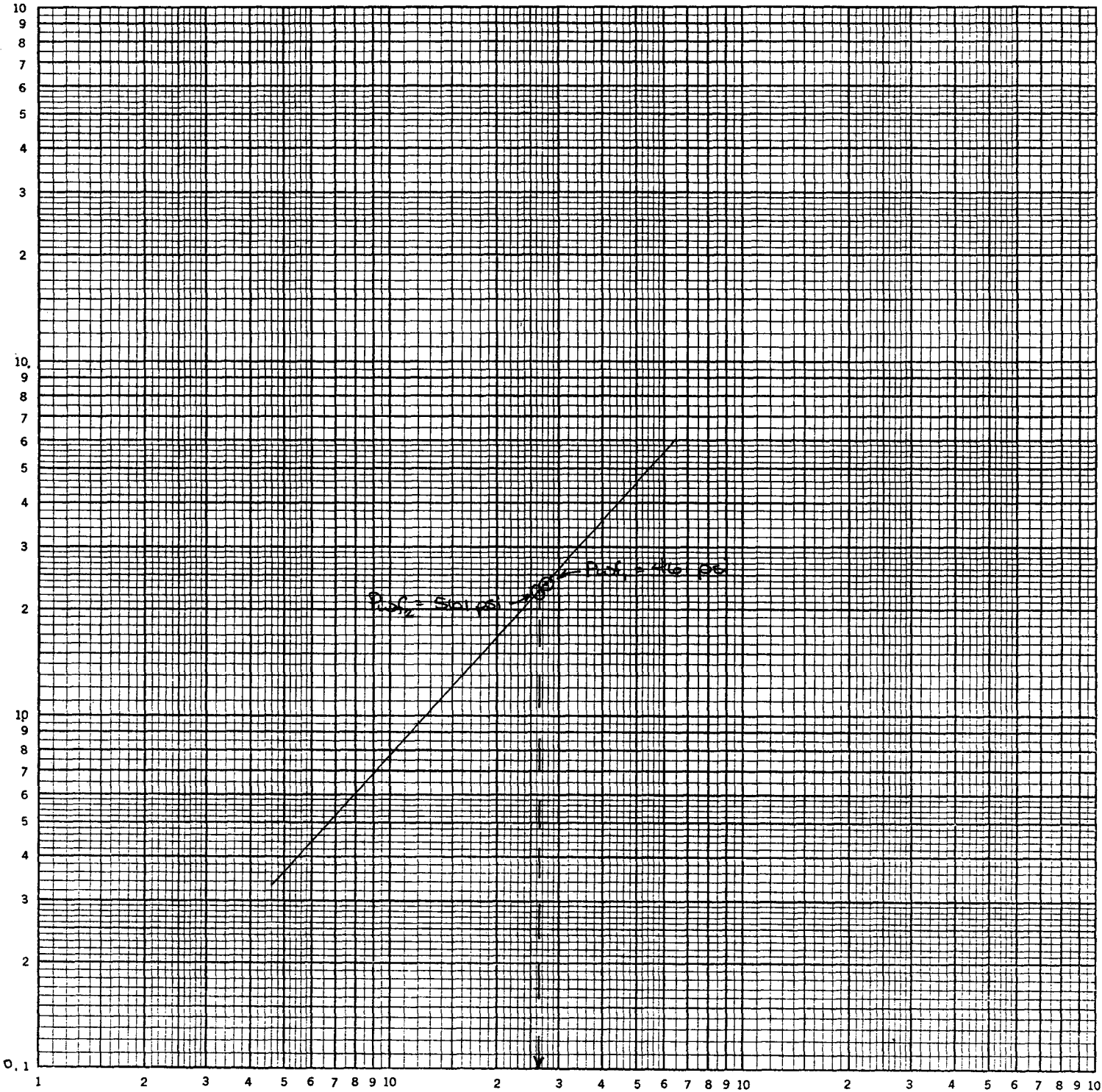
$Q_1 = 278 \text{ MCFD}$

$P_{wf2} = 561 \text{ psi @ } 7652'$

46 7403

$(P_R^2 - P_{wf}^2) \times 10^{-6}$

K\*Σ LOGARITHMIC 3 X 3 CYCLES  
KEUFFEL & ESSER CO. MADE IN U.S.A.



$Q_2 = 265 \text{ MCFD}$

$Q$  (MCFD)

RINCON UNIT NO. 125 M  
ALLOCATION FORMULA

<u>GAS PRODUCTION:</u>	Mesaverde Rate	333 MCFD
	Dakota Rate	<u>265</u> MCFD
	Total Rate	<u>598</u> MCFD

Therefore,	Mesaverde	56%
	Dakota	44%

<u>OIL PRODUCTION:</u>	Mesaverde Rate	0 BOPD
	Dakota Rate	<u>0</u> BOPD
	Total Rate	<u>0</u> BOPD

Therefore,	Mesaverde	50%
	Dakota	50%

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**UNOCAL 76**

August 5, 1993

Farmington District

United States Department of the Interior  
Bureau of Land Management  
1235 La Plata Highway  
Farmington, New Mexico 87401

Dear Sirs:

Union Oil Company of California (UNOCAL) has requested permission from the New Mexico Oil Conservation Division to downhole commingle production from the Blanco Mesaverde and Basin Dakota formations in the following well:

Rincon Unit No. 125 M  
1800' FNL, 1700' FWL  
Section 26, T27N, R6W  
Rio Arriba County, New Mexico

If you have any objections to this proposal, please notify the NMOCD within twenty (20) days. If you have any questions about this application, please contact Dana Delventhal at (505)326-7600.

Sincerely,

Union Oil Company of California  
dba UNOCAL

  
Glen O. Papp  
Field Superintendent

GOP/DLD/df

Unocal 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

August 5, 1993

Farmington District

Caulkins Oil Company  
310 North First  
Bloomfield, New Mexico 87413

Dear Sirs:

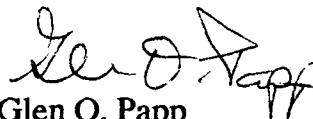
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Union Oil Company of California  
dba UNOCAL



Glen O. Papp  
Field Superintendent

GOP/DLD/df

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Unocal Corporation  
3300 North Butler Avenue  
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Farmington, New Mexico 87401  
Telephone (505) 326-7600  
Fax: (505) 326-6145



August 5, 1993

Farmington District

Meridian Oil Production Inc.  
P.O. Box 4289  
Farmington, New Mexico 87499

Dear Sirs:

Union Oil Company of California (UNOCAL) has requested permission from the New Mexico Oil Conservation Division to downhole commingle production from the Blanco Mesaverde and Basin Dakota formations in the following well:

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Rio Arriba County, New Mexico

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Sincerely,

Union Oil Company of California  
dba UNOCAL

A handwritten signature in black ink, appearing to read "Glen O. Papp".

Glen O. Papp  
Field Superintendent

GOP/DLD/df