

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 4, 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. 127M
850' FNL, 800' FWL
Section 28, 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.

NEW MEXICO OIL CONSERVATION DIVISION
REC'D
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

A handwritten signature in black ink, appearing to read "Glen O. Papp", with a stylized flourish at the end.

Glen O. Papp
Field Superintendent

Attachments

GOP/DLD/df

OFFSET LEASE OWNERSHIP

R 6 W

T 27 N

20	21	22
29	28	27
RINCON UNIT #127M		
		
32	33	34
CAULKINS 3547		EL PASO CAULKINS SF079210 3547

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 ☒ Scheduled ☐ Special ☐										
3300 N. Butler, Suite 200, Farmington, NM 87401														
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT/BBL.	
		U	S	T						R	WATER BBL.	GRAV. OIL		OIL BBL.
Rincon Unit	127M	D	28	27N	6W	11/25/92	48/64"	30						
Blanco Mesaverde						12/03/92	16/64"	390						
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.

Signature

Glen O. Papp Field Superintendent

Printed name and title

August 4, 1993 (505) 326-7600

Date

Telephone No.

RINCO UNIT NO. 127-M
850' FNL, 800' FWL, SEC 28 T27N R6W
RIO ARRIBA COUNTY, NM

KB DATUM = 13' ABOVE G.L.
GROUND ELEVATION = 6656'

12 1/4" HOLE

8-5/8" 24# J-55 @ 380'
CMT'D W/ 240 SX
CIRC TO SURFACE

7 7/8" HOLE

DV TOOL @ 3578'
CMT'D STAGE #3 W/955 SX - CIRC TO SURFACE.

UPPER MESA VERDE
4884-4930', W/4 SPF

LOWER MESA VERDE
5224-76', W/4 SPF

XO Sliding Sleeve
@ 5243'

Gulberson Uni VI
pkr @ 5252'

DV Tool @ 5707'
CMT'D STAGE #2 W/430 SXS

TUBING DETAIL

242 JTS 2-3/8" EUE 8RD J-55
@ 7656'

DAKOTA
7424-52', 7550-74', 7584-7600', 7606-42',
W/4 SPF

5 1/2" 17# N-80, J-55
@ 7774',
CMT'D STAGE #1 W/400 SXS

PBTD @ 7730'

TD @ 7775'

B & R SERVICE, INC.

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

Company Unocal Lease Rineon Well 127-M
County Rio Arriba State N.M. Date 11-25-92
Shut-In _____ Zero Point K.B. Tbg. Pressure 1140
Casing Pressure _____ Tbg. Depth _____ Casing Perf. _____
Max. Temp. _____ Fluid Level None

<u>DEPTH</u>	<u>PSIG</u>	<u>GRADIENT</u>
0	1135	- - -
1000	1165	.030
2000	1196	.031
3000	1226	.030
4000	1257	.031
5000	1288	.031
6000	1316	.028
7000	1343	.027
7100	1347	.040
7200	1350	.030
7300	1352	.020
7400	1354	.020
7523	1356	.016

B & R SERVICE, INC.
P.O. BOX 1018
FARMINGTON, N.M.

FLUID LEVEL SURVEY

COMPANY: UNOCAL CORPORATION COUNTY: RIO ARriba
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	3308'	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. 127 M

After a 7 day SI period:

$$\text{Mesaverde BHP} = 716 \text{ psi @ } 5080'$$

$$\text{Dakota BHP} = 1356 \text{ psi @ } 7523'$$

$$\text{Gas Gradient} = 0.031 \text{ psi/ft}$$

Adjusting to a common datum of 5080':

$$\text{Mesaverde BHP} = 716 \text{ psi}$$

$$\text{Dakota BHP} = 1356 - [(0.031)(7523 - 5080)] = 1280 \text{ psi}$$

Therefore the reservoir pressures fall within the 50% requirement.



(505) 325-6622

ANALYSIS NO. UN020038

WELL/LEASE INFORMATION

COMPANY: UNOCAL CORPORATION

WELL NAME: RINCON #127M

LINE PRESSURE: 249 PSIG

LOCATION:

SAMPLE TEMP.: 64 DEG.F

COUNTY: RIO ARRIBA, NM

WELL FLOWING: YES

FORMATION: DAKOTA

DATE SAMPLED: 12/3/92

SMPL SRC:

SAMPLED BY: KIVA

REMARKS: TAKEN AT TEST UNIT

ANALYSIS

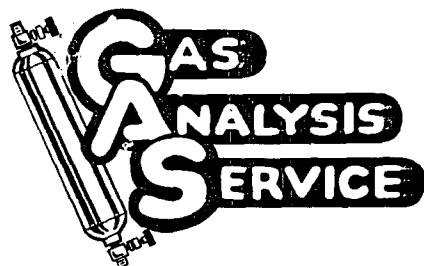
COMPONENT	MOLE%	GPM
NITROGEN	0.200	0.0000
CO2	1.256	0.0000
METHANE	87.116	0.0000
ETHANE	7.436	1.9891
PROPANE	2.165	0.5967
I-BUTANE	0.411	0.1344
N-BUTANE	0.559	0.1763
I-PENTANE	0.256	0.0937
N-PENTANE	0.173	0.0627
HEXANE+	0.428	0.1867
TOTAL	100.000	3.2395
COMPRESSIBILITY FACTOR	(1/Z)	1.0029
BTU/CU.FT. (DRY) CORRECTED FOR	(1/Z)	1142.6
BTU/CU.FT. (WET) CORRECTED FOR	(1/Z)	1122.7
REAL SPECIFIC GRAVITY		0.6593

ANALYSIS RUN AT 14.73 PSIA & 60 DEGREES F

CYLINDER PRESSURE: 254 PSIG

DATE RUN: 12/4/92

ANALYSIS RUN BY: CHELLE DURBIN



(505) 325-6622

ANALYSIS NO. UN020036

WELL/LEASE INFORMATION

COMPANY: UNOCAL CORPORATION

WELL NAME: RINCON #127M

LINE PRESSURE: 110 PSIG

LOCATION:

SAMPLE TEMP.: 60 DEG.F

COUNTY: RIO ARRIBA, NM

WELL FLOWING: YES

FORMATION: MESAVERDE

DATE SAMPLED: 11/25/92

SMPL SRC:

SAMPLED BY: KIVA

REMARKS: TAKEN AT TEST UNIT

ANALYSIS

COMPONENT	MOLE%	GPM
NITROGEN	0.364	0.0000
CO2	1.044	0.0000
METHANE	89.523	0.0000
ETHANE	6.141	1.6427
PROPANE	1.790	0.4933
I-BUTANE	0.312	0.1021
N-BUTANE	0.377	0.1189
I-PENTANE	0.133	0.0487
N-PENTANE	0.084	0.0304
HEXANE+	0.232	0.1012
TOTAL	100.000	2.5373
COMPRESSIBILITY FACTOR	(1/Z)	1.0026
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)		1106.3
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)		1087.1
REAL SPECIFIC GRAVITY		0.6343

ANALYSIS RUN AT 14.73 PSIA & 60 DEGREES F

CYLINDER PRESSURE: 96 PSIG

DATE RUN: 11/30/92

ANALYSIS RUN BY: CHELLE DURBIN

RINCON UNIT NO. 127 M

C-116 ADJUSTMENT

BASIN DAKOTA

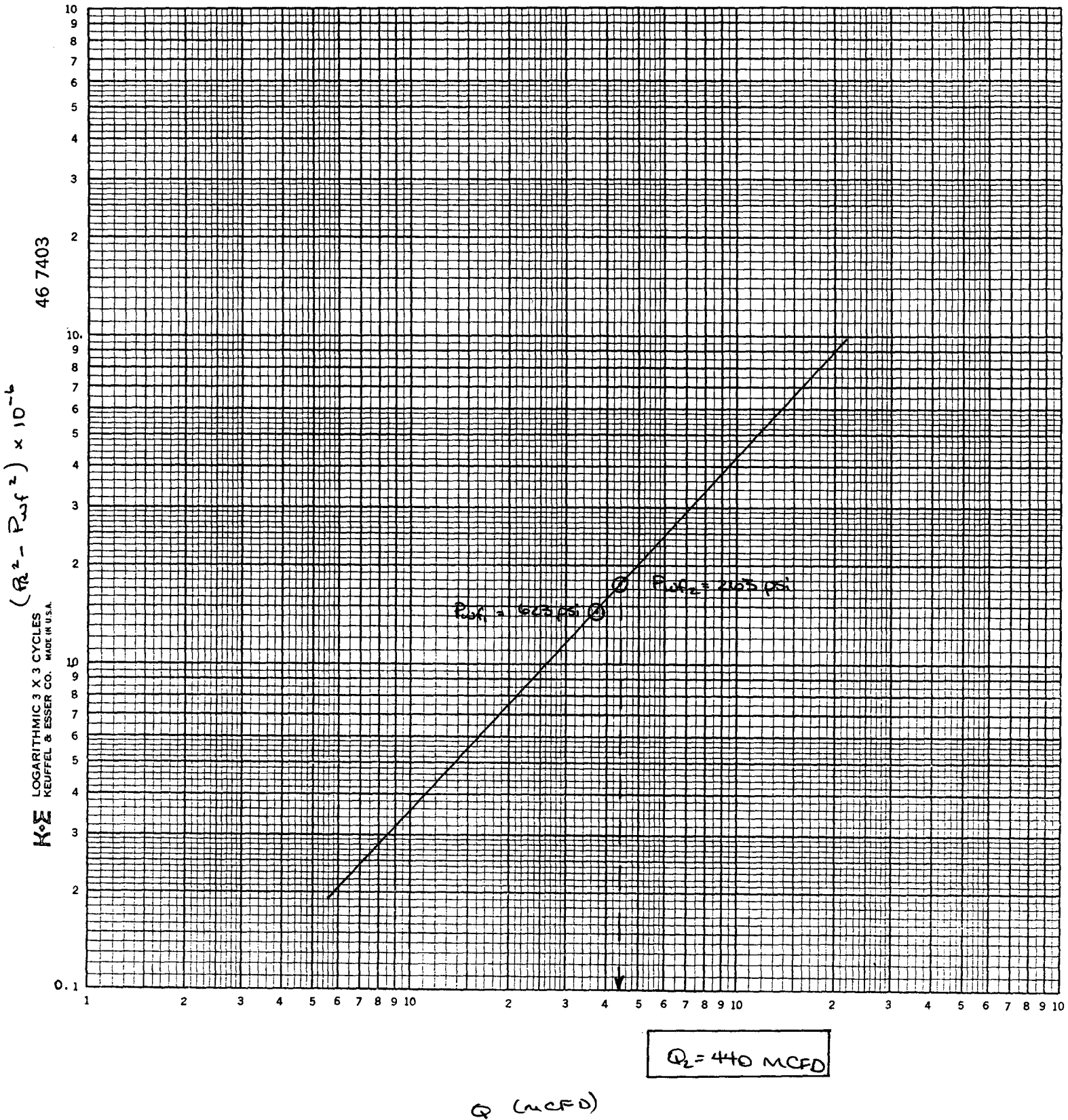
$n = 0.75$

$P_R = 1356 \text{ psi @ } 7523'$

$P_{wf1} = 623 \text{ psi @ } 7523'$

$Q_1 = 366 \text{ MCFD}$

$P_{wf2} = 263 \text{ psi @ } 7523'$



RINCON UNIT NO. 127 M
ALLOCATION FORMULA
(BASED ON ADJUSTED C-116)

GAS PRODUCTION:

Mesaverde Rate	88 MCFD
Dakota Rate	<u>440</u> MCFD
Total Rate	<u>528</u> MCFD

Therefore,

Mesaverde	17%
Dakota	83%

OIL PRODUCTION:

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 4, 1993

Farmington District

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

Dear Sirs:

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Rincon Unit No. 127 M
850' FNL, 800' FWL
Section 28, 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
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Fax: (505) 326-6145



August 4, 1993

Farmington District

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

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Glen O. Papp
Field Superintendent

GOP/DLD/df

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Unocal Corporation
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August 4, 1993

Farmington District

Caulkins Oil Company
310 North First
Bloomfield, New Mexico 87413

Dear Sirs:

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Rio Arriba County, New Mexico

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Sincerely,

Union Oil Company of California
dba UNOCAL

Glen O. Papp
Field Superintendent

GOP/DLD/df