

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 6, 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 Undesignated Gallup and Basin Dakota formations in the following well:

Rincon Unit No. 137E
1540' FSL, 1500' FEL
Section 24, T27N, R7W
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
RECEIVED
AUG 10 1993

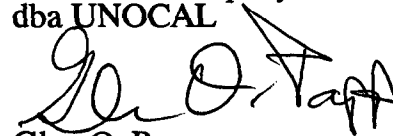
The Undesignated Gallup formation is uneconomic to drill as a stand alone well. To develop these reserves, a dual or commingled completion is required. We estimate an ultimate recovery of approximately 300 MMCF from the Gallup horizon, which would otherwise remain undeveloped. Also, commingling will 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", is written over the typed name.

Glen O. Papp
Field Superintendent

Attachments

GOP/DLD/df

OFFSET LEASE OWNERSHIP

R 7 W

R 6 W

13	14	18
23	EL PASO 79298C 24	19 RINCON UNIT #137E
26	25	30

T 27 N

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

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

GAS - OIL RATIO TEST

Operator		Pool		County									
Union Oil Company of California		Undesignated Gallup/Basin Dakota		Rio Arriba									
Address		TYPE OF TEST - (X)		Completion ☒ Special ☐									
3300 N. Butler, Suite 200, Farmington, NM 87401		SCHEDULED											
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.S.	GRAV. OIL	
Rincon Unit	137E	J	24	27N	7W								
Undesignated Gallup						12/15/92	F 15/64"	125		24	-0-	-0-	108
Basin Dakota						12/23/92	F 15/64"	340		24	11	1	446
													446,000

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 6, 1993

Date

(505) 326-7600

Telephone No.

RINCON UNIT NO. 137-M
1540' FSL, 1500' FEL SEC 24 T27N R7W
RIO ARRIBA COUNTY, NM

12 1/4" Hole

KB DATUM = 13' ABOVE G.L.
GROUND ELEVATION = 6619'

8-5/8" 24# J-55 @ 365'
Cmt'd w/ 220 SX - CIRC
To Surface

7-7/8" Hole

DV TOOL @ 3525'
Cmt'd Stage #3 w/ 859 sxs- Circ To Surface

DV TOOL @ 5785'
Cmt'd. Stage #2 w/250 sxs

GALLUP

6576-6604, 6636-68, 6720-52, 6756-80,
6814-48' W/4 SPF

"XO" Sliding Sleeve
@ 6876'
Gulberson Uni VI
pkc @ 6884'

TUBING DETAIL
232 lts 2-3/8" EUE 8rd J-55
@ 7650'

DAKOTA

7376-7410, 7496-7516, 7538-48, 7550-90,
7602-44' W/4 SPF

5-1/2" 17# S-95 & K-55
@ 7714'
Cmt'd Stage #1 w/ 250 sxs

PBTD = 7667'

TD @ 7714'

B & R SERVICE, INC.

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

Company Unocal Lease Rincon Well 137-M DAKOTA
County Rio Arriba State N.Mex. Date 12-15-92
Shut-In _____ Zero Point K.B. Tbg. Pressure 810
Casing Pressure _____ Tbg. Depth _____ Casing Perf. _____
Max. Temp. _____ Fluid Level 5200

<u>DEPTH</u>	<u>PSIG</u>	<u>GRADIENT</u>
0	808	- - -
1000	835	.027
2000	858	.023
3000	876	.018
4000	896	.020
5000	916	.020
6000	1268	.352
6500	1483	.430
7000	1702	.438
7100	1744	.420
7200	1787	.430
7300	1830	.430
7400	1874	.440
7500	1916	.420

B & R SERVICE, INC.
P.O. BOX 1048
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. 137 E

After a 7 day SI period:

$$\text{Gallup BHP} = 1120 \text{ psi @ } 6712'$$

$$\text{Dakota BHP} = 1916 \text{ psi @ } 7500'$$

$$\text{Gas Gradient} = 0.020 \text{ psi/ft}$$

Adjusting to a common datum of 6712':

$$\text{Gallup BHP} = 1120 \text{ psi}$$

$$\text{Dakota BHP} = 1916 - [(0.020)(7500 - 6712)] = 1900 \text{ psi}$$

Therefore the reservoir pressures fall within the 50% requirement.



WELL ANALYSIS COMPARISON

LEASE: RINCON 137M

DECEMBER 29, 1992

DATE: 12/15/92 12/22/92

NO.: 20044 20048
DAKOTA

	MOLE %	MOLE %
	-----	-----
NITROGEN	1.567	0.170
CO2	0.685	1.119
METHANE	81.952	89.887
ETHANE	9.493	5.827
PROPANE	3.460	1.597
I-BUTANE	0.429	0.281
N-BUTANE	0.989	0.432
I-PENTANE	0.321	0.185
N-PENTANE	0.321	0.139
HEXANE+	0.783	0.363
BTU'S	1201.5	1111.5
-----	-----	-----
GPM	4.5204	2.5034
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SPEC GRAV	0.7024	0.6369
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RINCON UNIT NO. 137 E

C-116 ADJUSTMENT

BASIN DAKOTA

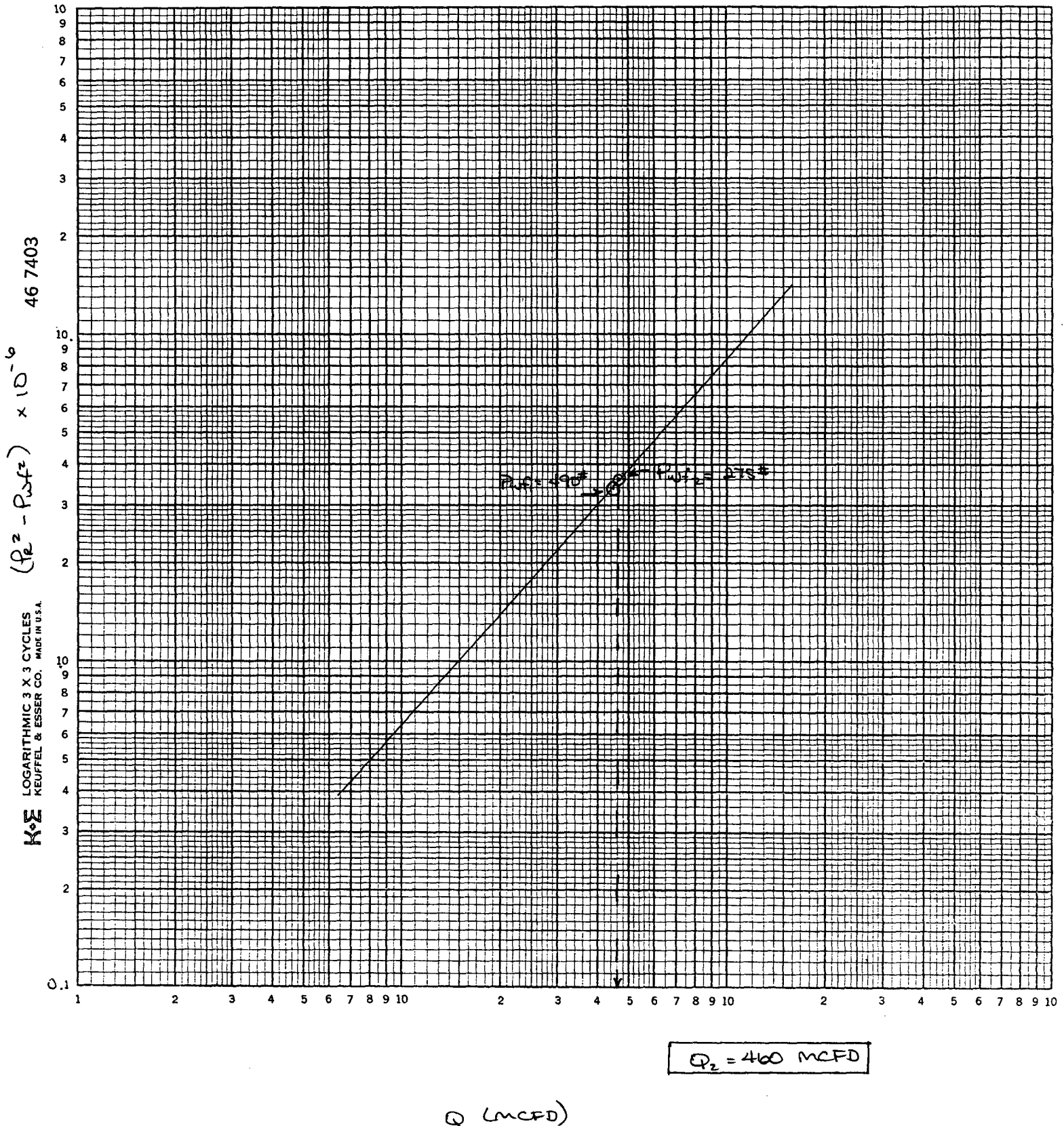
$n = 0.75$

$P_R = 1116 \text{ psi @ } 7500'$

$P_{wf1} = 490 \text{ psi @ } 7500'$

$Q_1 = 446 \text{ MCFD}$

$P_{wf2} = 275 \text{ psi @ } 7500'$



RINCON UNIT NO. 137 E
ALLOCATION FORMULA

(BASED ON ADJUSTED C-116)

<u>GAS PRODUCTION:</u>	Gallup Rate	108 MCFD
	Dakota Rate	<u>460</u> MCFD
	Total Rate	<u>568</u> MCFD

Therefore,	Gallup	19%
	Dakota	81%

<u>OIL PRODUCTION:</u>	Gallup Rate	0 BOPD
	Dakota Rate	<u>1</u> BOPD
	Total Rate	<u>1</u> BOPD

Therefore,	Gallup	0%
	Dakota	100%

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UNOCAL 76

August 6, 1993

Farmington District

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

Dear Sirs:

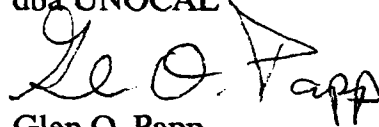
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Rio Arriba County, New Mexico

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

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Unocal Corporation
3300 North Butler Avenue
Suite 200
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UNOCAL 76

August 6, 1993

Farmington District

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

Dear Sirs:

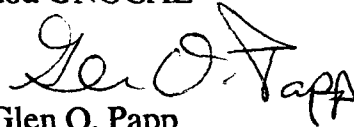
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