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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

ADMINISTRATIVE ORDER DHC-920

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

Attention: Glen O. Papp

RECEIVED
SEP 23 1993
OIL CON. DIV.]
DIST. 3

*Rincon Unit Well No. 170-M
Unit I, Section 20, Township 27 North, Range 6 West, NMPM,
Rio Arriba County, New Mexico.
Blanco Mesaverde and Basin Dakota Pools*

Dear Mr. Papp:

Reference is made to your recent application for an exception to Rule 303-A of the Division Rules and Regulations to permit the subject well to commingle production from both pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion and required separation of the two zones is hereby placed in abeyance.

In accordance with the provisions of Rule 303-C-4., total commingled oil production from the subject well shall not exceed 50 barrels per day, and total water production shall not exceed 100 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by Division Rules and Regulations or by the gas allowable for each respective prorated pool as printed in the Division's San Juan Basin Gas Proration Schedule.

Assignment of allowable to the well and allocation of production from the well shall be on the following basis:

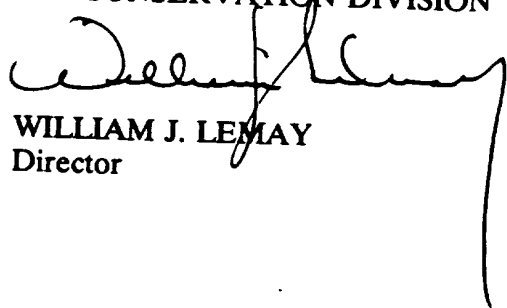
Blanco Mesaverde Pool	Oil	50%	Gas	25%
Basin Dakota Pool	Oil	50%	Gas	75%

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

Pursuant to Rule 303-C-5, the commingling authority granted by the order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.

Approved at Santa Fe, New Mexico on this 17th day of September, 1993.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY
Director

S E A L

WJL/BES/amg

cc: Oil Conservation Division - Aztec
US Bureau of Land Management - Farmington



STATE OF NEW MEXICO
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

Date: 8-27-95

Atty: David Catonach

Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87504-2088

RE: Proposed MC _____
Proposed NSL _____
Proposed WFX _____
Proposed NSP _____

Proposed DHC X _____
Proposed SWD _____
Proposed PMX _____
Proposed DD _____

Gentlemen:

I have examined the application received on 8-16-95
for the VNOCAL RENCOW #170M
OPERATOR LEASE & WELL NO.

I-20-27N-06W and my recommendations are as follows:
UL-S-T-R

Approve

Yours truly,

Ernie Busch

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 12, 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. 170M
1495' FSL, 935' FEL
Section 20, 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.

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". The signature is fluid and cursive, with the first name "Glen" being the most prominent.

Glen O. Papp
Field Superintendent

Attachments

GOP/DLD/df

OFFSET LEASE OWNERSHIP

R 6 W

T 27 N

18	17	16
19	20 RINCON UNIT #170M	21
30	29	28

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-1116
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.S.	GRAV. OIL	
Rincon Unit Blanco Mesaverde Basin Dakota	170M	I	20	27N	6W	10/31/92	F 15/64"	255		24	-0-	179	--
						11/08/92	F 20/64"	505		24	3	480	--

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

Printed name and title
Field Superintendent

Date
August 11, 1993

(505) 326-7600

Telephone No.

RINCON INIT NO. 170-M
1595' FSL, 935' FEL SEC 20 T27N R6W
RIO ARriba COUNTY, NM

12 1/4" Hole

KB DATUM = 13' ABOVE G.L.
GROUND ELEVATION = 6598'

8-5/8" 24# J-55 @ 370'
Cmt'd w/ 240 SX - CIRC
To Surface

7-7/8" Hole

DV TOOL @ 3502'
Cmt'd Stage #3 w/ 955 sxs- Circ To Surface

UPPER MESAVERDE

4883-99', 4899-4919', 4941-53' 4961-67'

"XO" Sliding Sleeve
@ 5505'

LOWER MESAVERDE

5067-93', 5154-74', 5223-41', 5259-69', 5363-77'
5385-5401', 5413-53', w/ 2 SPF

Gulberson Uni VI
pkr @ 5513'

DV TOOL @ 5717'
Cmt'd Stage #2 w/455 sxs

TUBING DETAIL
243 Jts 2-3/8" EUE 8rd J-55
@ 7612'

DAKOTA

7400-40', 7524-50', 7570-78', 7584-7634'
w/ 4 SPF

5-1/2" 17# N-80, J-55
@ 7765'
Cmt'd Stage 1 w/ 400 sxs

PBTD = 7716'

TD @ 7772'

B & R SERVICE, INC.

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

Company UNOCAL CORPORATION Lease RINCON Well 170 M (DAK)
County RIO ARriba State N. MEX. Date 10/31/92
Shut-In _____ Zero Point G.L. Tbg. Pressure 1300
Casing Pressure _____ Tbg. Depth _____ Casing Perf. _____
Max. Temp. _____ Fluid Level 6820'

DEPTH	PSIG	GRADIENT
0	1300	----
1000	1349	.049
2000	1391	.047
3000	1429	.038
4000	1468	.039
5000	1504	.036
6000	1540	.036
7000	1630	.090
7417	1800	.408
7517	1844	.440

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

FLUID LEVEL SURVEY

COMPANY: UNOCAL CORPORATION

COUNTY: RIO ARriba

FIELD: RINCON

DATE:

STATE: N. MEX.[illegible]

AVERAGE TUBING LENGTH:

REMARKS:

RINCON UNIT NO. 170 M

After a 7 day SI period:

Mesaverde BHP = 940 psi @ 5168'

Dakota BHP = 1844 psi @ 7517'

Gas Gradient = 0.039 psi/ft

Adjusting to a common datum of 5168':

Mesaverde BHP = 940 psi

Dakota BHP = $1844 - [(0.039)(7517 - 5168)] = 1752$ psi

Therefore the reservoir pressures fall within the 50% requirement.



WELL ANALYSIS COMPARISON

LEASE: RINCON 170M

NOVEMBER 9, 1992

DATE: 10/31/92 11/7/92

NO.: 20032 20033
MESAVERDE DAKOTA

	MOLE %	MOLE %
NITROGEN	0.469	0.206
CO2	0.912	1.203
METHANE	82.696	88.424
ETHANE	8.389	6.798
PROPANE	4.689	1.638
I-BUTANE	0.782	0.389
N-BUTANE	1.087	0.489
I-PENTANE	0.361	0.358
N-PENTANE	0.247	0.240
HEXANE+	0.368	0.255
BTU'S	1212.5	1125.9
GPM	4.5169	2.8805
SPEC GRAV	0.7015	0.6478

RWCON UNIT NO. 170 N

C-116 ADJUSTMENT

BASIN DAKOTA

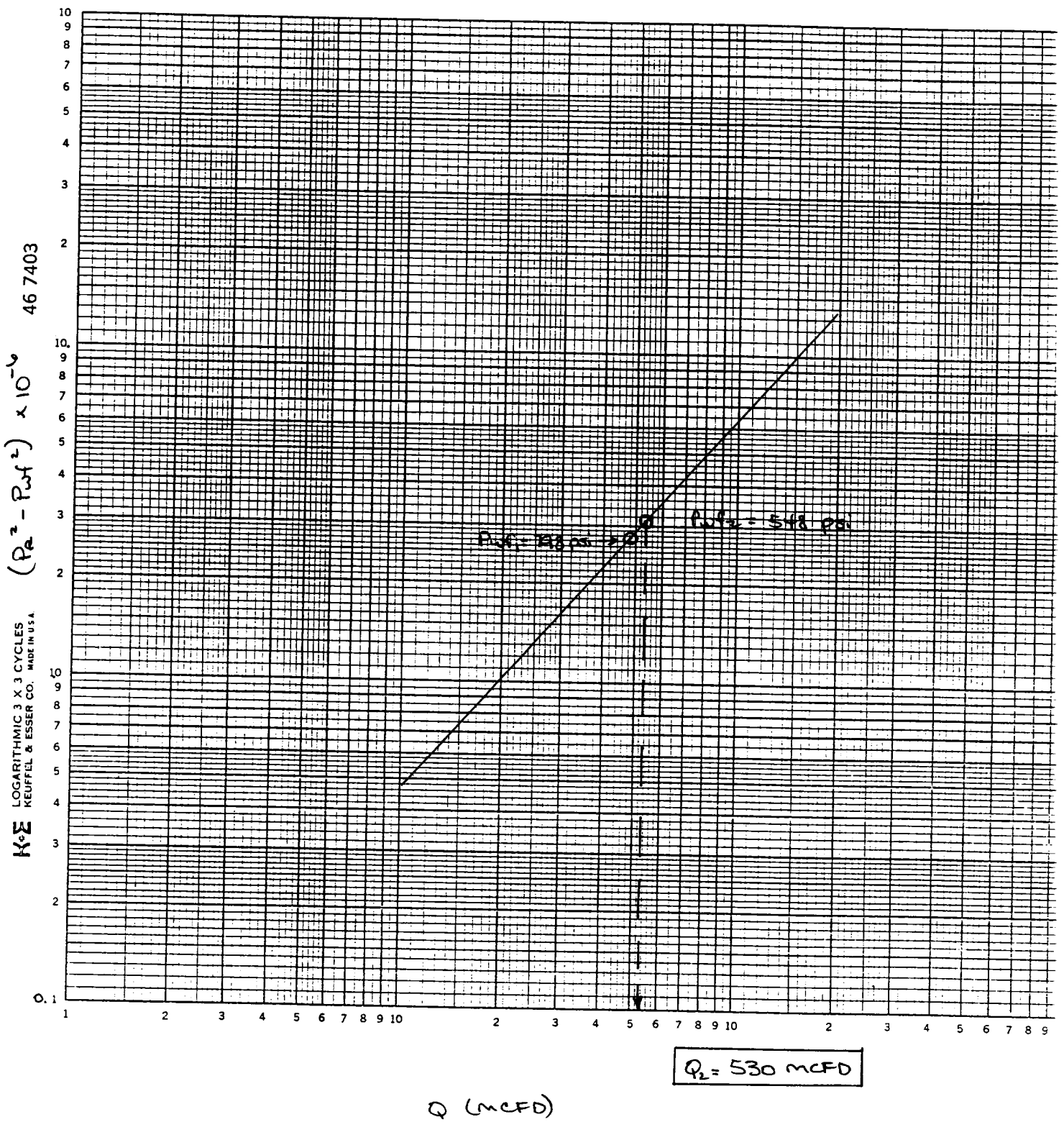
$n=0.75$

$P_R = 1844 \text{ psi @ } 7517'$

$P_{wf1} = 798 \text{ psi @ } 7517'$

$Q_1 = 480 \text{ mcfD}$

$P_{wf2} = 548 \text{ psi @ } 7517'$



RINCON UNIT NO. 170 M
ALLOCATION FORMULA

(BASED ON ADJUSTED C-116)

<u>GAS PRODUCTION:</u>	Mesaverde Rate	179 MCFD
	Dakota Rate	<u>530</u> MCFD
	Total Rate	<u>709</u> MCFD

Therefore,	Mesaverde	25%
	Dakota	75%

<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%

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 12, 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. 170M
1495' FSL, 935' FEL
Section 20, 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