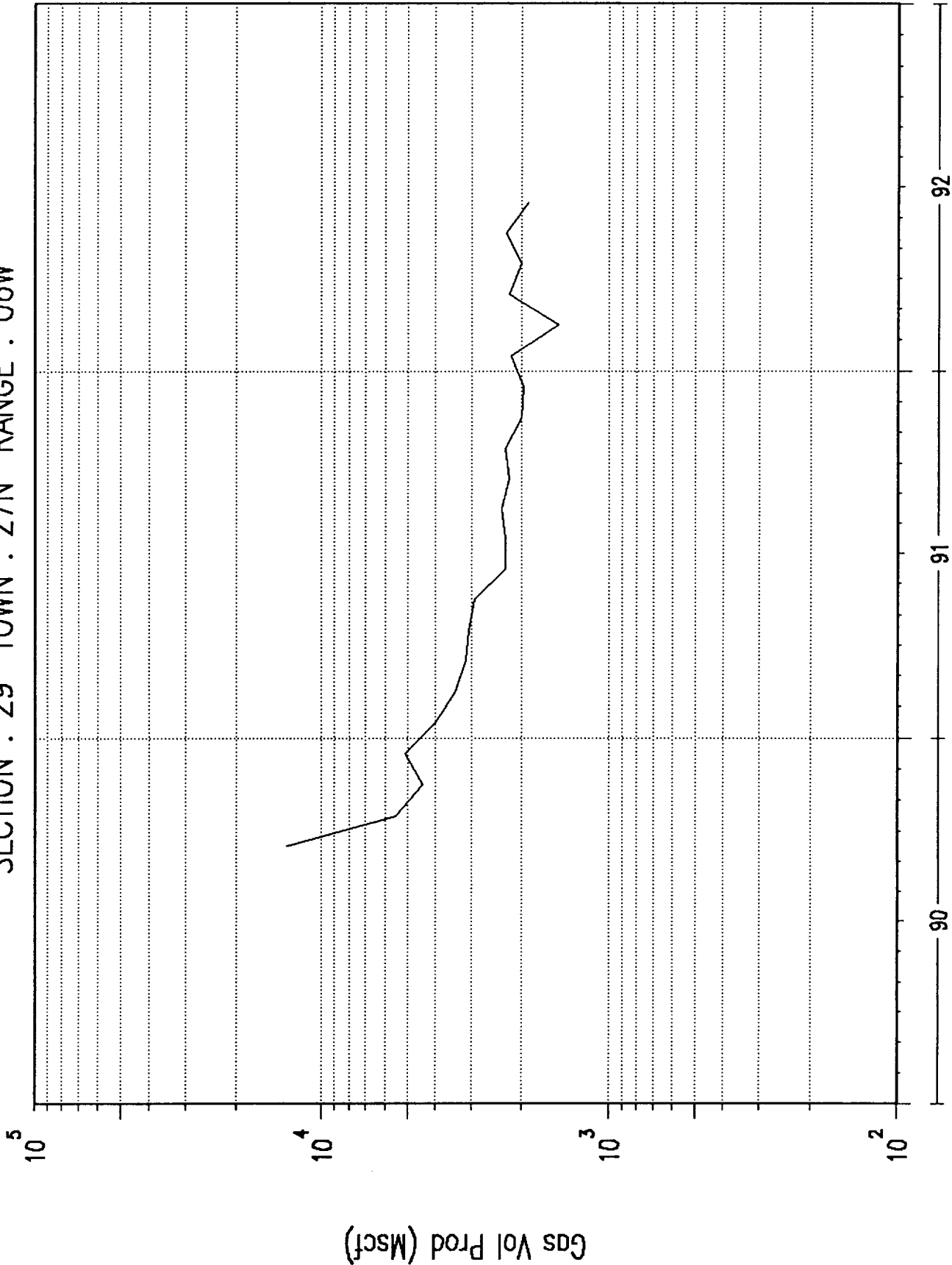


WELL: RINCON UNIT 259:FC  
COUNTY : RIO ARRIBA STATE : NM  
SECTION : 29 TOWN : 27N RANGE : 06W



RINCON UNIT  
PAYING WELL DETERMINATION  
PARTICIPATING AREA APPLICATIONS  
FRUITLAND COAL  
WELL # 259

DATE : 08/17/92  
TIME : 16:05:02  
DBS FILE : RESMGMT  
SETUP FILE : FEDERAL  
SEQ NUMBER : 657

INPUT DATA							CALCULATED DATA					
ITEM	SCHEDULING RATES			SCHEDULE UNTIL		PROCEDURE		ULTIMATE	LAST	EFF. DECL	INIT. RATE	FINAL RATE
401 START	09/90											
406 GAS	26361.00	X	M/M	12/2000	AD	H/1.912	99.99	412.620	11/00	99.99	26361.	1737.
411 "	693.60	250.00	M/M	X	YRS	EXP	5.00	516.468	10/20	5.00	694.	250.
416 PRI/GAS	1.14	1.14	\$/M	TO	LIFE	FLAT	.00		10/20		1.140	1.140
421 OPC/T	250.00	250.00	\$/M	TO	LIFE	FLAT	.00		10/20		250.000	250.000
426 NET/WI	87.50	87.50	%	TO	LIFE	FLAT	.00		10/20		.875	.875
436 NET/NIC	87.50	87.50	%	TO	LIFE	FLAT	.00		10/20		.875	.875
446 NET/NIG	87.50	87.50	%	TO	LIFE	FLAT	.00		10/20		.875	.875
501 STX/OIL	3.75	3.75	%	TO	LIFE	PC	0		8/90		.037	.037
502 STX/GAS	3.94	3.94	%	TO	LIFE	PC	.00		8/90		.039	.039
503 ATX	5.46	5.46	%	TO	LIFE	PC	.00		8/90		.055	.055

INVESTMENT	TANGIBLES & INTANGIBLES		TIME		PROCEDURE	TOTAL T&I	MONTH	RISK INV.	TOT. T&I&R	ESC. T&I&R
801 CDMP	222.01	.00	M&N	09/90	AD	222.006	9/90	.	222.0	222.0

RESERVE PARAMETERS		ITEM		ITEM	
201 LOSS	NO				
203 CUMQ, MB	.00	CUMG, MMF	.00	CUML, MB	

PROJECT ASSUMPTIONS

BASE DATE : 9/90 P.W. DATE : 9/90 REPORT DATE : 9/90  
QUALIFIERS - PROD : OWNER : OTHER :

RINCON UNIT  
PAYING WELL DETERMINATION  
PARTICIPATING AREA APPLICATIONS  
FRUITLAND COAL  
WELL # 259

DATE : 08/17/92  
TIME : 16:05:02  
DBS FILE : RESMGMT  
SETUP FILE : FEDERAL  
SEQ NUMBER : 657

RESERVES AND ECONOMICS

AS OF DATE: 9/90

-END-	GROSS OIL	GROSS GAS	OIL TO NET	GAS TO NET	--GROSS PRICES--		REVENUE TO NET	OPER NET	TOTAL NET	NET INCOME	CUMULATIVE CUM	DISC
MO-YR	PRODUCTION	PRODUCTION	INTEREST	INTEREST	OIL	GAS	INTEREST	EXPENSES	INVESTMENT	BEFORE FIT	NET INCOME	NET INCOME
----	MB----	MMF----	MB----	MMF----	\$/B--	\$/M--	M\$----	M\$----	M\$----	M\$----	M\$----	M\$----
8-91	.000	113.417	.000	99.240	.00	1.140	108.676	8.559	222.006	-121.889	-121.889	-124.920
8-92	.000	55.875	.000	48.890	.00	1.140	53.539	5.548	.000	47.991	-73.898	-82.239
8-93	.000	42.656	.000	37.324	.00	1.140	40.873	4.857	.000	36.016	-37.882	-52.698
8-94	.000	35.782	.000	31.310	.00	1.140	34.287	4.497	.000	29.790	-8.092	-30.150
8-95	.000	31.392	.000	27.468	.00	1.140	30.079	4.267	.000	25.812	17.720	-12.119
8-96	.000	28.277	.000	24.743	.00	1.140	27.095	4.104	.000	22.991	40.711	2.705
8-97	.000	25.922	.000	22.681	.00	1.140	24.838	3.981	.000	20.857	61.568	15.118
8-98	.000	24.060	.000	21.053	.00	1.140	23.054	3.884	.000	19.171	80.738	25.650
8-99	.000	22.542	.000	19.724	.00	1.140	21.599	3.804	.000	17.795	98.533	34.674
8-00	.000	21.273	.000	18.613	.00	1.140	20.383	3.738	.000	16.645	115.179	42.467
8-01	.000	11.267	.000	9.858	.00	1.140	10.796	3.214	.000	7.581	122.760	45.779
8-02	.000	7.807	.000	6.831	.00	1.140	7.480	3.033	.000	4.447	127.207	47.553
8-03	.000	7.416	.000	6.489	.00	1.140	7.106	3.013	.000	4.093	131.299	49.061
8-04	.000	7.044	.000	6.164	.00	1.140	6.750	2.994	.000	3.756	135.056	50.338
8-05	.000	6.692	.000	5.855	.00	1.140	6.412	2.975	.000	3.437	138.493	51.417
S TOT	.000	441.420	.000	386.242	.00	1.140	422.968	62.469	222.006	138.493	138.493	51.417
AFTER	.000	68.706	.000	60.118	.00	1.140	65.834	43.407	.000	22.427	160.920	56.172
TOTAL	.000	510.126	.000	446.360	.00	1.140	488.802	105.876	222.006	160.920	160.920	56.172

	OIL	GAS		P.W. %	P.W., M\$
	-----	-----		-----	-----
GROSS WELLS	.0	1.0	LIFE, YRS.	5.00	88.626
GROSS ULT., MB & MMF	.000	510.126	DISCOUNT %	10.00	42.831
GROSS CUM., MB & MMF	.000	.000	UNDISCOUNTED PAYOUT, YRS.	15.00	11.269
GROSS RES., MB & MMF	.000	510.126	DISCOUNTED PAYOUT, YRS.	20.00	-11.905
NET RES., MB & MMF	.000	446.360	UNDISCOUNTED NET/INVEST.	25.00	-29.419
NET REVENUE, M\$	.000	508.850	DISCOUNTED NET/INVEST.	30.00	-43.315
INITIAL PRICE, \$	.000	1.140	RATE-OF-RETURN, PCT.	40.00	-63.874
INITIAL N.I., PCT.	00.000	87.500	INITIAL W.I., PCT.	60.00	-89.266
				80.00	-104.547
				100.00	-114.904

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



September 8, 1992

Farmington District

Bureau of Land Management  
Minerals Division  
1235 La Plata Hwy  
Farmington, New Mexico 87401  
Attn: Duane Spencer  
Chief of Reservoir Management

RECEIVED  
SEP 28 1992  
OIL CONSERVATION DIVISION

Re: Application for the Initial  
Basin Fruitland Coal Gas  
Participating Area "C"  
Rincon Unit, Rio Arriba County,  
New Mexico

Gentlemen:

Enclosed please find two copies of the Application for Approval for the Initial Basin Fruitland Coal Gas Participating Area "C" in the Rincon Unit, Rio Arriba County, New Mexico. Enclosed also are geologic and engineering data in support of this application.

Union Oil Company of California, as operator of the Rincon Unit, respectfully requests your approval of this application.

Very Truly Yours,  
Union Oil Company of California  
DBA UNOCAL

William L. Irwin  
District Petroleum Engineer

xc: Commissioner of Public Lands  
P.O. Box 1148  
Santa Fe, New Mexico 87504-1148

Oil Conservation Division  
New Mexico Department of Energy & Minerals  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

APPLICATION FOR THE INITIAL BASIN FRUITLAND COAL GAS PARTICIPATING  
AREA C - RINCON UNIT - RIO ARriba COUNTY, NEW MEXICO

Duane Spencer  
Chief of Reservoir Management  
Bureau of Land Management - Minerals Division  
1235 La Plata Highway  
Farmington, New Mexico 87401

Union Oil Company of California, as unit operator of the Rincon Unit, respectfully submits for your approval the following described lands to constitute the initial participating area C for the Basin Fruitland Coal Gas producing formation:

TOWNSHIP 27 NORTH, RANGE 7 WEST, N.M.P.M.

Section 36: North/2

Containing 320 acres, more or less

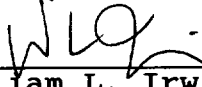
In support of this application, and in addition to the geologic and engineering reports, the following are attached:

- 1) Structure Top - Basin Fruitland Coal Gas Formation
- 2) Basin Fruitland Coal Gas Formation Gross Isopach
- 3) Type Log
- 4) Land Map - Rincon Unit
- 5) Rincon Unit #274 Fruitland Coal Gas Production Decline Curve
- 6) Rincon Unit #274 Fruitland Coal Gas Economics
- 7) Schedule of Lands and Working Interest Ownership in the initial Basin Fruitland Coal Gas Participating Area C (Participation Allocation Formula)
- 8) Applicant's Statement and Affidavit

This application is predicated on nine months of actual production history from the Rincon Unit #274 well which first delivered on October 4, 1990.

Applicant respectfully requests your approval of the hereinabove selection of lands to constitute the initial Basin Fruitland Coal Gas Formation Participating Area C, to be effective the date of first sales October 4, 1990 as referenced in the "Agreement for the Development and Operation of the Rincon Unit Area": Article 11, "Participation After Discovery", (Rincon Unit Agreement June 1, 1951).

Dated this 8th day of September, 1992.

  
\_\_\_\_\_  
William L. Irwin  
District Petroleum Engineer  
Union Oil Company of California

### Well Summary

Well Name: Rincon Unit #274  
Location: 1850'FNL, 1115'FEL, Sec 36, T27N, R7W  
Elevation: 6550' GL  
Total Depth: 3000'  
Lease Number: E-289-3  
Pool/Formation: Basin Fruitland Coal Gas  
Spud Date: 7-14-90  
Completion Date: 7-28-90  
1st Delivery Date: 10-04-90  
Perf'd Interval: 2844-2850, 2853-2857, 2860-2883, 2905-2909,  
2910-2919, 2921-2946.

### Geologic Summary

The Fruitland Formation was deposited in a coastal plain environment landward of the Pictured Cliffs strandline. It consists of shales, siltstones, sandstones and coal. The coals were deposited in low-lying areas such as lagoons, swamps and bayous behind the barrier islands, bars, and beaches of the Pictured Cliffs sandstone. The coal is best developed in the basal Fruitland, and extends aerially over the entire basin with the exception of a small region on the eastern margin. Net coal varies from 20 to 80 feet thick with the thickest sections being in the north-central part of the basin. The Rincon Unit coals range in thickness from 30 to 70 feet and in some areas of the unit are split into an upper and a basal coal zone. The coal itself is considered High Volatile C Bituminous in rank. Regional dip is 1 to 2 degrees to the northeast, and structure does not appear to be a factor in natural gas entrapment anywhere in the area of the unit.

### Engineering Summary

The Rincon Unit #274 was drilled and completed by Union Oil Company of California as a Basin Fruitland Coal Gas producer in 1990. Surface pipe measuring 8-5/8" was set at 353 feet and cemented with 350 sacks to surface. Production casing measuring 4-1/2" was then set at 2999 feet and cemented in two stages to surface with 665 sacks cement. After drilling out to PBTD of 2996' the upper and lower coal zones were perforated from 2844'-2946' with 4 shots per foot and fracture stimulated with 320,000# 20/40 sand, 1.35 MMSCF N<sub>2</sub> and 32,550 gallons cross-linked gel water. The recorded initial potential and 24 hour shut-in pressure were 676 MCFD and 305 psi, respectively. The well was first delivered to the El Paso Natural Gas pipeline system on October 4, 1990. The current deliverability for the well against a 150# line pressure is 160 MCFD.

Volumetrics calculated on the below-listed parameters yields a recoverable gas volume of 0.52 Bcf.

Net Pay: 64 ft  
Drainage area: 160 acres  
Gas Content: 150 SCF/ton  
Tonnage Factor: 2010 tons/acre-feet (from density log)  
Recovery Factor: 17%

Economics

Economics are attached. Given the investment cost to complete this well discounted payout should occur in 10.37 years with a 13.32% rate of return. Compared with net total revenue this Basin Fruitland Coal Gas well produces in economic quantities above operating costs.

STATE OF NEW MEXICO

COUNTY OF SAN JUAN

APPLICANT'S STATEMENT AND AFFIDAVIT

BEFORE ME, the undersigned authority on this day personally appeared William L. Irwin, District Petroleum Engineer, known to me to be the person whose name is subscribed to this instrument, who, having been by me first duly sworn, upon oath states as follows:

- 1) That this Statement and Affidavit is made concerning this application for the initial Basin Fruitland Coal Gas Participating Area C in the Rincon Unit, in N/2 Section 36, T27N-R7W, comprising 320 acres.
- 2) That to the best of his information, knowledge and belief, the information supplied is true.
- 3) That notice of this application has been mailed or delivered to the Rincon Unit working interest owners in accordance with the unit agreement and the unit operating agreement.
- 4) That he certifies that the information and data contained in the application are true and correct and that all copies of records or summaries of such records relied upon in the application are true, correct and authentic copies of documents on file in the offices of Union Oil Company of California.
- 5) That he is of lawful age, that he is a responsible official of Union, that he is duly authorized to make this Statement and Affidavit on behalf of Union, that he has knowledge of the facts contained herein, that this Statement and Affidavit is true and correct, and that he adopts the allegations herein as his sworn statement.

SUBSCRIBED AND SWORN TO before me, this undersigned authority, on this day of Sept 8<sup>th</sup> 1992.

Melissa Osburn  
Notary Public in and for  
San Juan County, New Mexico

My Commission Expires:

1/11/96



SCHEDULE OF LANDS  
AND  
WORKING INTEREST OWNERSHIP  
IN INITIAL BASIN FRUITLAND COAL  
PARTICIPATING AREA "C"

RINCON UNIT

Tract No. 1 (Unit Tract No. 25)  
(Acreage in Unit Tract: 880.00 ac.)

LESSOR:	State of New Mexico
SERIAL NO.:	E-290-28
ACREAGE DESCRIPTION:	<u>Township 27 North, Range 7 West</u> Section 36: NW/4
WORKING INTEREST OWNER(S):	Union Oil Company of California - 83.33% Meridian Oil, Inc., as Agent - 16.67%
ACREAGE INCLUDED IN BASIN FRUITLAND COAL PARTICIPATING AREA "C":	160.00 acres
PERCENTAGE OF FRUITLAND COAL FORMATION PRODUCTION ALLOCATED TO THIS TRACT:	50%

Tract No. 2 (Unit Tract No. 23)  
(Acreage in Unit Tract: 200.00 ac.)

LESSOR:	State of New Mexico
SERIAL NO.:	E-290-3
ACREAGE DESCRIPTION:	<u>Township 27 North, Range 7 West</u> Section 36: S/2 NE/4
WORKING INTEREST OWNER(S):	The Wiser Oil Company 100%
ACREAGE INCLUDED IN INITIAL BASIN FRUITLAND COAL PARTICIPATING AREA "C":	80.00 acres
PERCENTAGE OF FRUITLAND COAL FORMATION PRODUCTION ALLOCATED TO THIS TRACT:	25%

Tract No. 3 (Unit Tract No. 25)  
(Acreage in Unit Tract: 880.00 ac.)

LESSOR:	State of New Mexico
SERIAL NO.:	E-290-28
ACREAGE DESCRIPTION:	<u>Township 27 North, Range 7 West</u> Section 36: N/2 NE/4
WORKING INTEREST OWNER(S):	Union Oil Company of California - 83.33% Meridian Oil, Inc., as Agent - 16.67%
ACREAGE INCLUDED IN INITIAL BASIN FRUITLAND COAL PARTICIPATING AREA "C":	80.00 acres
PERCENTAGE OF FRUITLAND COAL FORMATION PRODUCTION ALLOCATED TO THIS TRACT:	25%

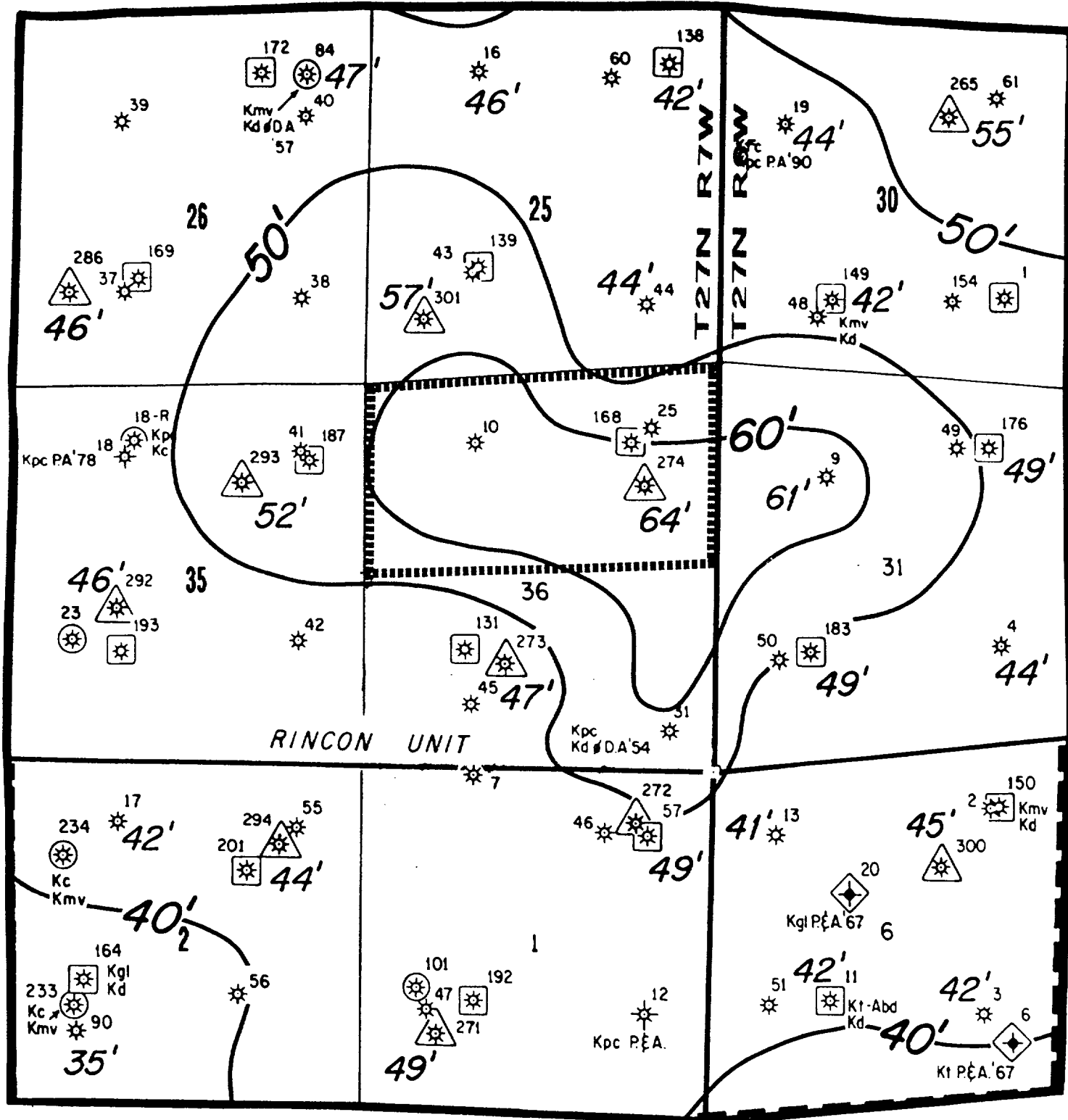
SUMMARY OF LANDS INCLUDED IN  
INITIAL FRUITLAND COAL PARTICIPATING AREA "C"

<u>Lease</u>	<u>Unit Tract No.</u>	<u>Acreage</u>	<u>Percentage</u>
State of New Mexico E-290-28	25	160	50%
State of New Mexico E-290-3	23	80	25%
State of New Mexico E-290-28	25	80	25%

SUMMARY OF WORKING INTEREST OWNERSHIP  
INITIAL BASIN FRUITLAND COAL PARTICIPATING AREA "C"

<u>WORKING INTEREST OWNER</u>	<u>WORKING INTEREST PERCENTAGE</u>
Union Oil Company of California	5.00000%
San Juan-Unocal General Partnership	71.82091%
Wiser Oil Company	2.54378%
H. R. Stasney & Sons Company	1.30259%
Meridian Oil Inc., as Agent	10.59527%
Meridian Oil Inc., Individually	1.55217%
Jones Company, Ltd.	1.30259%
Conoco, Inc.	2.29005%
Amoco Production Company	2.29004%
Beryl B. McMahan	0.65130%
Beryl B. McMahan, Trustee of the Thomas V. McMahan Trust	0.32565%
Beryl B. McMahan, Trustee of the Gwin M. Lewis Trust	0.32565%
 TOTAL	 100.00000%





# PRODUCING INTERVAL

•	FARMINGTON	Kfm	
•	KIRTLAND	Kk	
△	FRUITLAND	Kf	
◊	PICTURED CLIFFS	Kpc	
◊	CHACRA	Kc	
◊	LA VENTANA	Klv	
◊	MESAVERDE	Kmv	<div> <div>Kch</div> <div>Km</div> <div>Kpl</div> </div> <div> <div>CLIFFHOUSE</div> <div>MENEFEE</div> <div>POINT LOOKOUT</div> </div>
◊	SALLUP	Ksl	<div> <div>Kt</div> <div>Kgh</div> </div> <div> <div>TOCITO</div> <div>GREENHORN</div> </div>
◊	DAKOTA	Kd	

**UNOCAL** 76

NORTH AMERICAN OIL & GAS DIVISION  
SOUTHWESTERN REGION

## RINCON UNIT

RIO ARRIBA COUNTY, NEW MEXICO

ISOPACH

FRUITLAND COAL

RINCON UNIT # 274

N $\frac{1}{2}$  SEC. 36 -T27N R7W

INTERP BY D.V.H. SCALE 2 1/2" = 1 Mi. C. 10'  
DRAFT BY DATE 9-26-90 PRE NO. (A) R 4