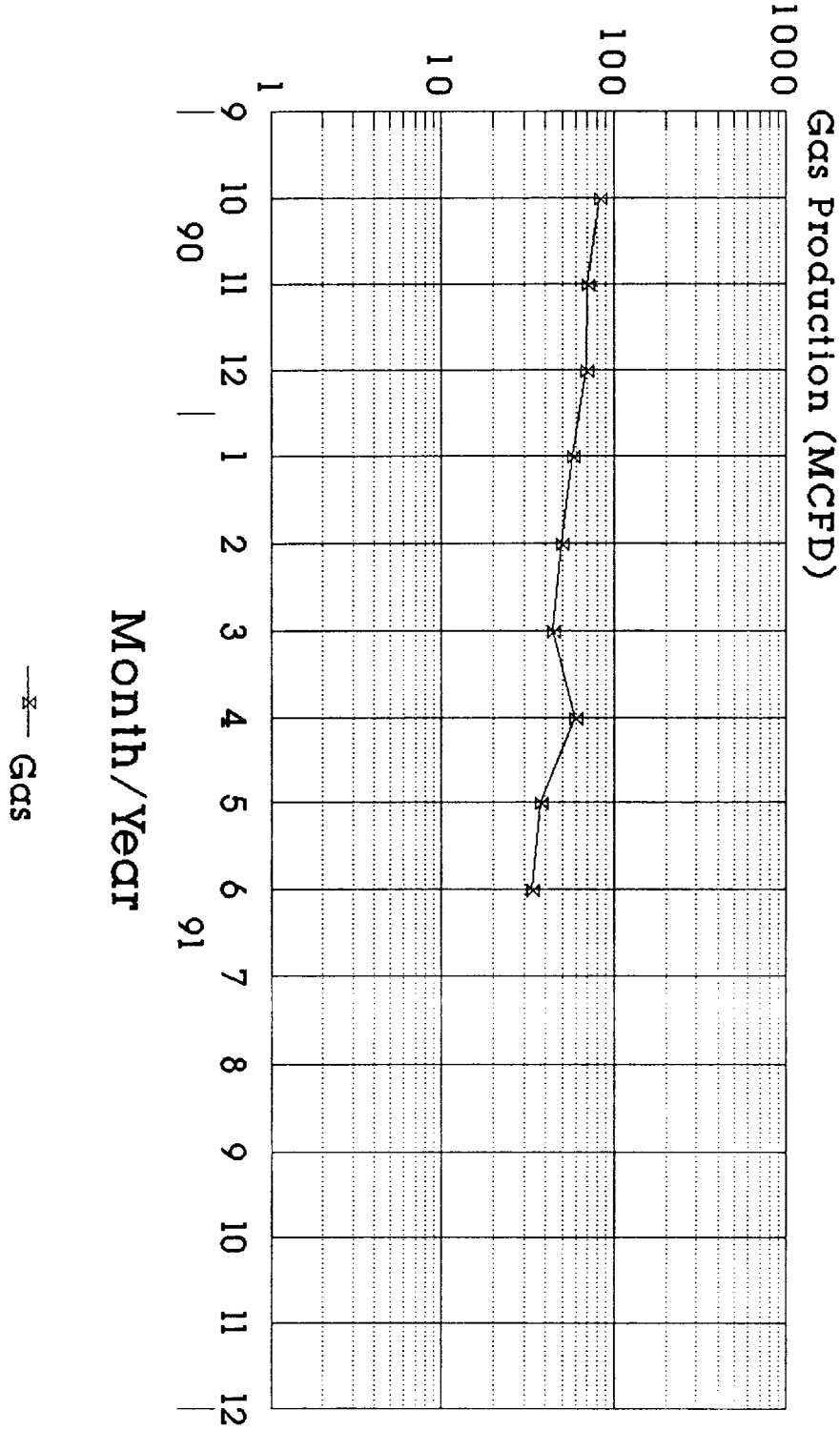


# RINCON UNIT #261

## RIO ARriba COUNTY, NEW MEXICO



Production based on actual days on



GLOBAL FILE: \$UNOCAL1

EVALUATION #39 IN PROJECT FILE "P.A. " 09/26/91 09:02:53

10 IDENT "30 25 U091205 " " "  
20 DATES AUG 1990 AUG 1990 OCT 1990  
30 NAME "RINCON U. #261 - FT TAXCR "  
40 FIELD "BASIN FRUITLAND COAL "  
50 CNTYSTATE "NEW MEXICO "  
60 FORMATION "FRUITLAND COAL "  
70 OPERATOR "UNOCAL "  
80 ECONOMICS ELIM  
90 OWNERSHIP 1. 0.809987  
120 COMMENT "PROD DECLINE BASED ON AVG WELL CASE "  
130 COMMENT "FIRST 9 MONTHS = ACTUAL PROD. "  
140 GPROD P MON 2.569 2.094 2.122 1.767 1.369 1.354 1.471 1.153 1.35  
160 GPROD \* EXP \* \* \* 10. 5.  
170 GPROD \* EXP \* \* \* 7. 36.  
190 GPROD \* EXP \* \* \* 5.  
210 TAN I MON 77400. 0. 0. 0.  
220 INTAN I MON 180600. 0.  
230 COMMENT "FIRST 9 MONTHS = ACTUAL GAS PRICES "  
240 PRGAS P MON 1.27 1.61 1.66 1.45 0.95 0.75 0.74 0.73 0.76  
260 PRGAS \* CON 1.2  
290 FACTOR 1.18 PRGAS  
310 LOETOT P CON 300.  
320 AVALPS \* CON 3.5  
\*\*\* START OF INSERT FILE C1-TAX  
10 COMMENT "ASSUMES CONSTANT TAX CREDIT "  
20 COMMENT "\$.84 1990, \$.92 1991-2003 "  
30 TEMP1 \* CON 0.  
40 CADD TEMP1 GPROD  
50 FACTOR 1000. TEMP1  
60 FACTOR 1.18 TEMP1  
70 TEMP5 JAN 1990 CON 0.84  
80 TEMP5 JAN 1991 CON 0.92  
90 TEMP5 JAN 2003 CON 0.  
100 CADD TEMP2 TEMP1  
110 CFACTOR TEMP5 TEMP2  
120 FACTOR 0.809987 TEMP2  
130 CADD TAXCR TEMP2  
140 FACTOR 0.001 TEMP2  
\*\*\* END OF INSERT FILE

GLOBAL FILE: \$UNOCAL2

NAME : RINCON U. #261 - FT TAXCR  
FIELD : BASIN FRUITLAND COAL  
CNTY, STATE: NEW MEXICO  
FORMATION : FRUITLAND COAL  
OPERATOR : UNOCAL

	GROSS PROD OIL + COND	NET VOLUME OIL + COND	GROSS GAS PRODUCTION	NET GAS VOLUME	NET EQ PROD (RE: BOE)	EFFECTIVE O+C PRICE	NET REV OIL + COND	EFFECTIVE GAS PRICE	NET GAS REVENUE	NET TOTAL REVENUE
	---MMBLS---	---MMBLS---	---MMCF---	---MMCF---	---EMMBLS---	---\$/BBL---	---M\$---	---\$/MCF---	---M\$---	---M\$---
( 5MO)1990	0.0	0.0	6.8	5.5	0.9	0.00	0.0	1.77	9.7	9.7
1991	0.0	0.0	16.4	13.2	2.2	0.00	0.0	1.25	16.5	16.5
1992	0.0	0.0	14.9	12.0	2.0	0.00	0.0	1.42	17.0	17.0
1993	0.0	0.0	13.8	11.2	1.9	0.00	0.0	1.42	15.9	15.9
1994	0.0	0.0	12.9	10.4	1.7	0.00	0.0	1.42	14.7	14.7
1995	0.0	0.0	12.1	9.8	1.6	0.00	0.0	1.42	13.9	13.9
1996	0.0	0.0	11.5	9.3	1.6	0.00	0.0	1.42	13.2	13.2
1997	0.0	0.0	10.9	8.8	1.5	0.00	0.0	1.42	12.5	12.5
1998	0.0	0.0	10.4	8.4	1.4	0.00	0.0	1.42	11.9	11.9
1999	0.0	0.0	9.9	8.0	1.3	0.00	0.0	1.42	11.3	11.3
2000	0.0	0.0	9.4	7.6	1.3	0.00	0.0	1.42	10.7	10.7
2001	0.0	0.0	8.9	7.2	1.2	0.00	0.0	1.42	10.2	10.2
2002	0.0	0.0	8.5	6.8	1.1	0.00	0.0	1.42	9.7	9.7
2003	0.0	0.0	8.0	6.5	1.1	0.00	0.0	1.42	9.2	9.2
2004	0.0	0.0	7.6	6.2	1.0	0.00	0.0	1.42	8.7	8.7
SUB TOTAL	0.0	0.0	161.8	131.1	21.8	0.00	0.0	1.41	185.3	185.3
REMAINDER	0.0	0.0	73.3	59.4	9.9	0.00	0.0	1.42	84.1	84.1
TOT 28.2 YR	0.0	0.0	235.2	190.5	31.7	0.00	0.0	1.41	269.4	269.4

	NET LOE (FIX + VAR)	NET WORKOVR EXP	NET TOTAL DIRECT EXP	NET TOTAL TAXES	NET ADMIN EXPENSE	NET TOTAL INVESTMENT	BTAX CASHFLOW	INCOME TAXES PAID	ATAX CASHFLOW	CUM ATAX CASHFLOW
	---M\$---	---M\$---	---M\$---	---M\$---	---M\$---	---M\$---	---M\$---	---M\$---	---M\$---	---M\$---
( 5MO)1990	0.9	0.0	0.9	1.2	0.3	258.0	-250.7	-55.9	-194.8	-194.8
1991	3.6	0.0	3.6	2.6	1.1	0.0	9.2	-22.2	31.4	-163.3
1992	3.6	0.0	3.6	2.5	1.1	0.0	9.9	-18.6	28.5	-134.9
1993	3.6	0.0	3.6	2.3	1.1	0.0	8.8	-16.6	25.4	-109.5
1994	3.6	0.0	3.6	2.2	1.1	0.0	7.9	-15.0	22.9	-86.5
1995	3.6	0.0	3.6	2.0	1.1	0.0	7.2	-13.6	20.8	-65.7
1996	3.6	0.0	3.6	1.9	1.1	0.0	6.6	-10.2	16.8	-48.9
1997	3.6	0.0	3.6	1.8	1.1	0.0	6.0	-8.6	14.6	-34.3
1998	3.6	0.0	3.6	1.7	1.1	0.0	5.5	-7.0	12.5	-21.7
1999	3.6	0.0	3.6	1.7	1.1	0.0	5.0	-6.8	11.7	-10.0
2000	3.6	0.0	3.6	1.6	1.1	0.0	4.5	-6.5	11.0	1.0
2001	3.6	0.0	3.6	1.5	1.1	0.0	4.0	-6.3	10.3	11.3
2002	3.6	0.0	3.6	1.4	1.1	0.0	3.6	-6.1	9.7	21.0
2003	3.6	0.0	3.6	1.4	1.1	0.0	3.2	1.2	2.0	23.0
2004	3.6	0.0	3.6	1.3	1.1	0.0	2.8	1.1	1.7	24.7
SUB TOTAL	51.3	0.0	51.3	27.2	15.4	258.0	-166.6	-191.3	24.7	24.7
REMAINDER	49.5	0.0	49.5	12.3	14.9	0.0	7.4	2.8	4.6	29.3
TOT 28.2 YR	100.8	0.0	100.8	39.6	30.3	258.0	-159.2	-188.5	29.3	29.3

NAME : RINCON U. #261 - FT TAXCR  
FIELD : BASIN FRUITLAND COAL  
CNTY, STATE: NEW MEXICO  
FORMATION : FRUITLAND COAL  
OPERATOR : UNOCAL

	GROSS TOTAL INVESTMENT	TOTAL GROSS OPER EXP	NUMBER GROSS WELLS	NET NGL VOLUME	EFFECTIVE NGL PRICE	NET NGL REVENUE	NET SULPHUR	NET PLANT OPER EXP	NET TRANS +TREAT+COMP	NET ABAND & SALVAGE
	-----M\$-----	-----M\$-----	-----	-----MBBLS-----	-----\$/BBL-----	-----M\$-----	-----M-TONS-----	-----M\$-----	-----M\$-----	-----M\$-----
( 5MO)1990	258.0	0.9	1.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
1991	0.0	3.6	1.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
1992	0.0	3.6	1.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
1993	0.0	3.6	1.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
1994	0.0	3.6	1.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
1995	0.0	3.6	1.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
1996	0.0	3.6	1.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
1997	0.0	3.6	1.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
1998	0.0	3.6	1.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
1999	0.0	3.6	1.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
2000	0.0	3.6	1.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
2001	0.0	3.6	1.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
2002	0.0	3.6	1.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
2003	0.0	3.6	1.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
2004	0.0	3.6	1.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
SUB TOTAL	258.0	51.3	1.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
REMAINDER	0.0	49.5	1.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
TOT 28.2 YR	258.0	100.8	1.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0

	NET LEASEHOLD	NET DRY HOLE	NET DRILLING	NET COMPLETION	NET FACILITIES	NET PLATFORM	NET PIPELINE	TAX DEPREC	TAX DEPLETION	IDC AMORT
	-----M\$-----	-----M\$-----	-----M\$-----	-----M\$-----	-----M\$-----	-----M\$-----	-----M\$-----	-----M\$-----	-----M\$-----	-----M\$-----
( 5MO)1990	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	2.7
1991	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	0.0	10.8
1992	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.5	0.0	10.8
1993	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	0.0	10.8
1994	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9	0.0	10.8
1995	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9	0.0	8.1
1996	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9	0.0	0.0
1997	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0
1998	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1999	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2002	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2003	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2004	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUB TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.4	0.0	54.2
REMAINDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT 28.2 YR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.4	0.0	54.2

NAME : RINCON U. #261 - FT TAXCR  
FIELD : BASIN FRUITLAND COAL  
CNTY, STATE: NEW MEXICO  
FORMATION : FRUITLAND COAL  
OPERATOR : UNOCAL

	TEMP #1	TEMP #2	TEMP #5	TEMP #6	NET CREDITS INPUT
	-----MS-----				
( 5MO)1990	8006.3	5.4	0.840	0.000	5.4
1991	19300.2	14.4	0.920	0.000	14.4
1992	17540.5	13.1	0.920	0.000	13.1
1993	16312.7	12.2	0.920	0.000	12.2
1994	15171.8	11.3	0.920	0.000	11.3
1995	14283.5	10.6	0.920	0.000	10.6
1996	13569.3	10.1	0.920	0.000	10.1
1997	12890.8	9.6	0.920	0.000	9.6
1998	12246.3	9.1	0.920	0.000	9.1
1999	11634.0	8.7	0.920	0.000	8.7
2000	11052.3	8.2	0.920	0.000	8.2
2001	10499.7	7.8	0.920	0.000	7.8
2002	9974.7	7.4	0.920	0.000	7.4
2003	9475.9	0.0	0.000	0.000	0.0
2004	9002.1	0.0	0.000	0.000	0.0
SUB TOTAL	190959.9	128.0	0.917	0.000	128.0
REMAINDER	86551.9	0.0	0.000	0.000	0.0
TOT 28.2 YR	277511.8	128.0	0.917	0.000	128.0

APPLICATION TO EXPAND THE BASIN FRUITLAND COAL GAS PARTICIPATING AREA  
- 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 expansion to the participating area for the Basin Fruitland Coal Gas producing formation, to wit:

TOWNSHIP 26 NORTH, RANGE 7 WEST, N.M.P.M.

Section 12:

Containing 320 acres, more or less

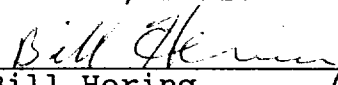
In support of this application, and in addition to the geologic and engineering reports, the following are attached:

- 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 #269 Fruitland Coal Gas Production Decline Curve
- 6) Rincon Unit #269 Fruitland Coal Gas Economics
- 7) Schedule of Lands and Working Interest Ownership in the expansion to the Basin Fruitland Coal Gas Participating Area (Participation Allocation Formula)
- 8) Applicant's Statement and Affidavit

This application is predicated on nine<sup>months</sup> of actual production history from the Rincon Unit #269 well which first delivered on October 18, 1990.

Applicant respectfully requests your approval of the hereinabove selection of lands to constitute the expansion to the Basin Fruitland Coal Gas Formation participating area, to be effective October 1, 1990.

Dated this 27th day of September, 1991.

  
\_\_\_\_\_  
Bill Hering  
District Petroleum Engineer  
Union Oil Company of California

### Well Summary

Well Name: Rincon Unit #269  
Location: 1800'FSL, 1200'FWL, Sec 12, T26N, R7W  
Elevation: 6498' GL  
Total Depth: 2781'  
Lease Number: SF-079160  
Pool/Formation: Basin Fruitland Coal Gas  
Spud Date: 7-4-90  
Completion Date: 9-1-90  
1st Delivery Date: 10-18-90  
Perf'd Interval: 2630-2634, 2680-2687, 2717-2732.

### 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 aurally 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 #269 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 360 feet and cemented with 300 sacks to surface. Production casing measuring 4-1/2" was then set at 2781 feet and cemented in two stages to surface with 750 sacks cement. After drilling out to PBTD of 2780' the upper and lower coal zones were perforated from 2630'-2732' with 4 shots per foot and fracture stimulated with 180,000# 20/40 sand, 773,950 SCF N2 and 19,725 gallons cross-linked gel water. The recorded initial potential and 24 hour shut-in pressure were 290 MCFD and 240 psi, respectively. The well was first delivered to the El Paso Natural Gas pipeline system on October 18, 1990. The current deliverability for the well against a 150# line pressure is 110 MCFD.

Volumetrics calculated on the below-listed parameters yields a recoverable gas volume of 0.32 Bcf.



Net Pay: 41 ft  
Drainage area: 160 acres  
Gas Content: 144 SCF/ton  
Tonnage Factor: 1969 tons/acre-feet (from density log)  
Recovery Factor: 17%

Economics

Completion Cost: \$249,000  
Royalty Burden: 19.00%  
Gas Price: \$1.20/MMBTU  
Operating Cost: \$300/month  
Tax Credit: \$0.84/MMBTU 1990, \$0.92/MMBTU 1991-2003.  
Production Rate: Maximum - 190 MCFD, Current - 80 MCFD,  
No associated water production

Economics based on the above are attached. Given the investment cost to complete this well payout should occur in 5.8 years. 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 Bill Hering, 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 expansion to the Basin Fruitland Coal Gas participating area in the Rincon Unit, in Section 12, T26N-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.

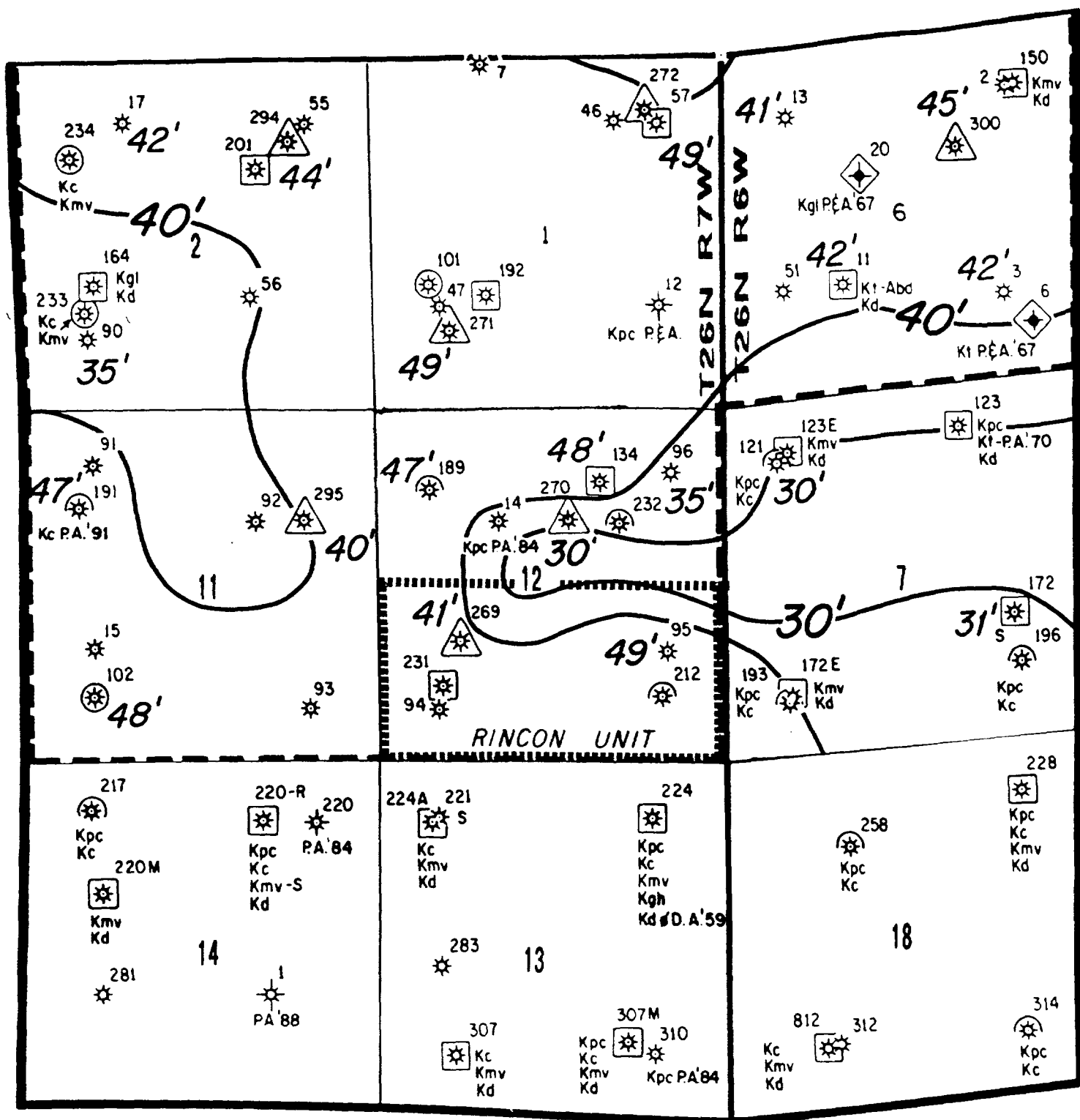
SUBSCRIBED AND SWORN TO before me, this undersigned authority, on this day of Sept. 27, 1991.

Sandra K. Lopez  
Notary Public in and for  
San Juan County, New Mexico

My Commission Expires:

6/2/94





# PRODUCING INTERVAL

●	FARMINGTON	Kfm
◆	KIRTLAND	Kk
△	FRUITLAND	Kf
⊙	PICTURED CLIFFS	Kpc
⊖	CHACRA	Kc
⊕	LA VENTANA	Kiv
⊗	MESAVERDE	Kmv
⊛	GALLUP	Kgi
⊜	DAKOTA	Kd

Kch  
 Kvi  
 Kgi

CLIFFHOUSE  
 MENEFE  
 POINT LOOKOUT

UNOCAL

76

NORTH AMERICAN OIL & GAS DIVISION  
 SOUTHWESTERN REGION

RINCON UNIT

RIO ARRIBA COUNTY, NEW MEXICO

ISOPACH

FRUITLAND COAL

RINCON UNIT # 269

S½ SEC. 12 T26N R7W

INTERP BY D.V.H.

SCALE 2 1/2" = 1 Mi. C. 10'

DRAFT BY

DATE 9-26-90

FILE NO. 14184