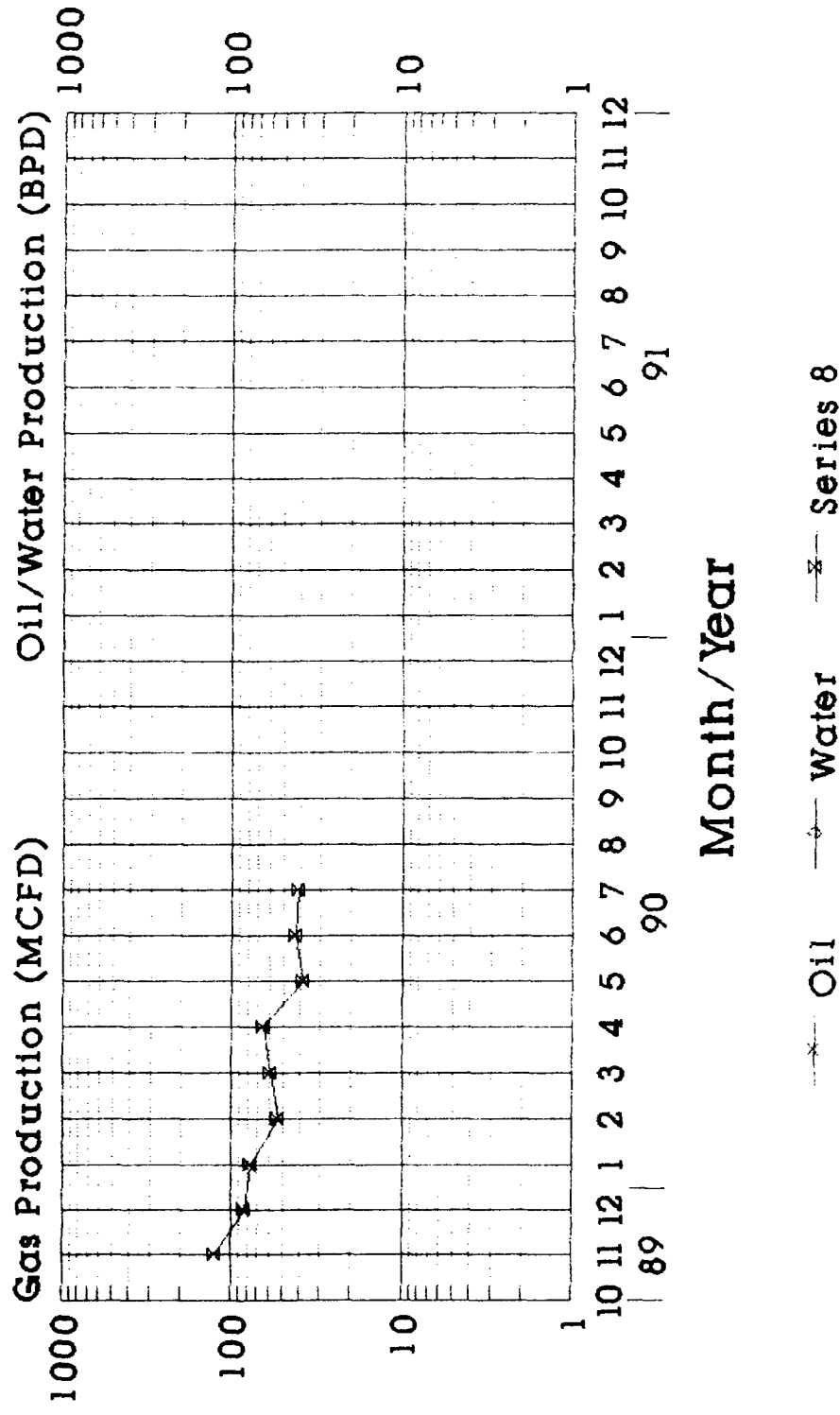


# RINCON UNIT #243

## RIO ARriba COUNTY, NEW MEXICO



Production based on actual days on

## LEASE TOTAL

0 1 0 RINCON UNIT 243 P.A. N MEXICO BH

TYPE 0 SEP 28, 1990 8:27 AM

	GROSS GWG	NET GWG	GWG SOLD	TOTAL INV	GWG INCOME
1989	4,599	3,794	3,794	382,247	9,106
1990	13,051	10,767	10,767		25,841
1991	8,249	6,805	6,805		16,332
1992	7,538	6,219	6,219		14,925
1993	6,980	5,758	5,758		13,820
1994-37	199,524	164,607	164,607		280,088
	=====	=====	=====	=====	=====
TOTAL	239,940	197,950	197,950	382,247	360,112

\*\*\*\*\*  
 INVESTMENT PARAMETERS - - - 10/89 :EFFECTIVE DATE

DISC RATE	PRESENT WORTH BEFORE TAX	AFTER TAX	RATE OF RETURN, %	BEFORE TAX	AFTER TAX
10%	-289,617	-191,491	PROFIT / INV (10% DISC)	< -100	< -100
15%	-303,100	-204,807	PROFIT / INV (15% DISC)	-0.77	-0.51
20%	-311,294	-213,935	INV. EFFICIENCY (@ 10%)	-0.81	-0.55
50%	-326,134	-236,866	INV. EFFICIENCY (@ 15%)	-0.8	-0.7
			PAYOUT, YEARS	101.0	101.0
			INITIAL INVESTMENT		382,247

TYPE 0	SEP 28, 1990	8:27 AM			
	GAR	TOTAL EXP	PRODN TAX	CASH-BT	CASH-AT
1989	9,106	1,399	899	-374,540	-297,900
1990	25,841	5,552	2,552	20,289	30,247
1991	16,332	4,613	1,613	11,719	21,544
1992	14,925	4,474	1,474	10,451	18,337
1993	13,820	4,365	1,365	9,455	15,996
1994-37	280,088	166,321	34,321	113,766	84,247
	=====	=====	=====	=====	=====
TOTAL	360,112	186,724	42,225	-208,858	-127,526

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

**RINCON UNIT**

**TRACT NO. 1 (UNIT TRACT NO. 1)**  
(Acreage in Unit Tract: 520.00 ac.)

LESSOR:	U.S.A.
SERIAL NO.:	SF-079052
ACREAGE DESCRIPTION:	<u>Township 27 North, Range 6 West</u> Section 18: SE/4, E/2 SW/4
WORKING INTEREST OWNER(S):	Union Oil Company of California - 100%
ACREAGE INCLUDED IN INITIAL PARTICIPATING AREA:	240.00 acres
PERCENTAGE OF FRUITLAND COAL FORMATION PRODUCTION ALLOCATED TO THIS TRACT:	25.02398%

**TRACT NO. 2 (UNIT TRACT NO. 17)**  
(Acreage in Unit Tract: 157.76 ac.)

LESSOR:	U.S.A.
SERIAL NO.:	SF-079404-A
ACREAGE DESCRIPTION:	<u>Township 27 North, Range 6 West</u> Section 18: Lots 3 & 4
WORKING INTEREST OWNER(S):	El Paso Natural Gas Company - 100%
ACREAGE INCLUDED IN INITIAL PARTICIPATING AREA:	79.08
PERCENTAGE OF FRUITLAND COAL FORMATION PRODUCTION ALLOCATED TO THIS TRACT:	8.24540%

TRACT NO. 3 (UNIT TRACT NO. 15)  
(Acreage in Unit Tract: 959.40 ac.)

LESSOR:	U.S.A.
SERIAL NO.:	SF-079366
ACREAGE DESCRIPTION:	<u>Township 27 North, Range 6 West</u> Section 21: SW/4
WORKING INTEREST OWNER(S):	Union Oil Company of California-83.33% El Paso Natural Gas Company -16.67%
ACREAGE INCLUDED IN INITIAL PARTICIPATING AREA:	160.00
PERCENTAGE OF FRUITLAND COAL FORMATION PRODUCTION ALLOCATED TO THIS TRACT:	16.68266%

TRACT NO. 4 (UNIT TRACT NO. 15A)  
(Acreage in Unit Tract: 1599.32 ac.)

LESSOR:	U.S.A.
SERIAL NO.:	SF-079366
ACREAGE DESCRIPTION:	<u>Township 27 North, Range 6 West</u> Section 21: NW/4
WORKING INTEREST OWNER(S):	Union Oil Company of California - 100%
ACREAGE INCLUDED IN INITIAL PARTICIPATING AREA:	160.00
PERCENTAGE OF FRUITLAND COAL FORMATION PRODUCTION ALLOCATED TO THIS TRACT:	16.68265%

TRACT NO. 5 (UNIT TRACT NO. 14)  
(Acreage in Unit Tract: 840.00 ac.)

LESSOR:	U.S.A.
SERIAL NO.:	SF-079365
ACREAGE DESCRIPTION:	<u>Township 27 North, Range 6 West</u> Section 23: S/2
WORKING INTEREST OWNER(S):	Union Oil Company of California-83.33% El Paso Natural Gas Company -16.67%
ACREAGE INCLUDED IN INITIAL PARTICIPATING AREA:	320.00
PERCENTAGE OF FRUITLAND COAL FORMATION PRODUCTION ALLOCATED TO THIS TRACT:	33.36531%

**SUMMARY OF LANDS INCLUDED IN THE  
INITIAL BASIN FRUITLAND COAL PARTICIPATING AREA**

**RINCON UNIT**

<u>LEASE</u>	<u>UNIT TRACT NO.</u>	<u>ACREAGE</u>	<u>PERCENTAGE</u>
U.S.A. SF-079052	1	240.00	25.02398
U.S.A. SF-079404-A	17	79.08	8.24540
U.S.A. SF-079366	15	160.00	16.68266
U.S.A. SF-079366	15A	160.00	16.68265
U.S.A. SF-079365	14	320.00	33.36531
		<hr/>	<hr/>
		959.08	100.00000%

**SUMMARY OF WORKING INTEREST OWNERSHIP  
IN THE INITIAL BASIN FRUITLAND COAL PARTICIPATING AREA**

<u>WORKING INTEREST OWNER</u>	<u>WORKING INTEREST PERCENTAGE</u>
Union Oil Company of California	83.41327%
El Paso Natural Gas Company	16.58673%

STATE OF NEW MEXICO

COUNTY OF SAN JUAN

APPLICANT'S STATEMENT AND AFFIDAVIT

BEFORE ME, the undersigned authority on this day personally appeared Paul West, District Production Manager, 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 an initial Basin Fruitland Coal Gas participating area in the Rincon Unit, in the W/2 Section 27, T27N-R6W, comprising 316.31 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 (Unocal).
- 5) That he is of lawful age, that he is a responsible official of Unocal, that he is duly authorized to make this Statement and Affidavit on behalf of Unocal, 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 November 21, 1990.

Andrea K. Liase  
Notary Public in and for  
San Juan County, New Mexico

My Commission Expires:

6/2/94

# State of New Mexico



W.R. HUMPHRIES  
COMMISSIONER



## Commissioner of Public Lands

P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

October 3, 1990

Mr. William Hering, District Petroleum engineer  
Unocal Oil & Gas Division  
Unocal Corporation  
3300 North Butler Avenue  
Suite 200  
Farmington, NM 87401

Re: Rincon Unit  
Rio Arriba County, New Mexico  
1990 Plan of Development, Third Revision

Dear Mr. Hering:

The Commissioner of Public Lands this date approved the 1990 Plan of Development for the Rincon Unit. Our approval is subject to like approval by all other appropriate agencies.

The possibility of drainage by wells outside of the Unit Area and the need for further development may exist. You will be contacted at a later date regarding these possibilities.

If we may be of further help, please do not hesitate to contact Clyde Langdale at (505) 827-5791.

Sincerely,

W. R. HUMPHRIES

BY:

*Floyd O. Prando*  
Floyd O. Prando, Director  
Oil, Gas & Minerals Division

cc: OCD  
Unit Corresp.  
Unit POD

**Unocal Oil & Gas Division**

Unocal Corporation

3300 North Butler Avenue

Suite 200

Farmington, New Mexico 87401

Telephone (505) 326-7600

Fax: (505) 326-6145

UNION DIVISION  
RECEIVED



'90 AUG 23 AM 9 23

August 21, 1990

Farmington District

U.S. Dept. of the Interior  
Branch of Land Management  
Branch of Fluid Minerals  
Farmington Resource Area  
1235 La Plata Highway  
Farmington, NM 87401

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

Oil Conservation Division  
State of New Mexico  
P.O. Box 2088  
Santa Fe, NM 87504-2088

RE: 1990 Plan of Development  
Third Revision  
Rincon Unit  
Rio Arriba County, NM

Gentlemen:

Unocal (Union Oil of California) is the operator of the Rincon Unit in Rio Arriba County, New Mexico. As stated in the original plan filed January 8, 1990, last year's Plan of Development included the drilling and completion of ten development gas wells; however, only five of the ten were actually drilled and completed. These include:

Well Name/Number	Formation	Location
Rincon #239	Basin Fruitland Coal	SW/4 S18, T27N, R06W
Rincon #240	Basin Fruitland Coal	SW/4 S21, T27N, R06W
Rincon #241	Basin Fruitland Coal	SW/4 S22, T27N, R06W
Rincon #242	Basin Fruitland Coal	SW/4 S23, T27N, R06W
Rincon #243	Basin Fruitland Coal	SW/4 S27, T27N, R06W



The remaining five wells were reevaluated and dropped from consideration.

Following is the revised 1990 Plan of Development for the Rincon Unit:

Proposed for the 1990 calendar year is the drilling and completion of thirty-nine (39) development gas wells. All will be drilled and completed in the Basin Fruitland Coal Formation. These wells and their proposed locations are presented below.

Well Name/Number	Formation	Location
Rincon #246	Basin Fruitland Coal	NE/4 S23,T27N,R06W
Rincon #248	Basin Fruitland Coal	SW/4 S26,T27N,R06W
Rincon #249	Basin Fruitland Coal	NE/4 S27,T27N,R06W
Rincon #251	Basin Fruitland Coal	SW/4 S28,T27N,R06W
Rincon #252	Basin Fruitland Coal	NE/4 S18,T27N,R06W
Rincon #253	Basin Fruitland Coal	SW/4 S17,T27N,R06W
Rincon #254	Basin Fruitland Coal	NE/4 S20,T27N,R06W
Rincon #255	Basin Fruitland Coal	SW/4 S20,T27N,R06W
Rincon #256	Basin Fruitland Coal	SW/4 S16,T27N,R06W
Rincon #257	Basin Fruitland Coal	NE/4 S16,T27N,R06W
Rincon #258	Basin Fruitland Coal	NE/4 S17,T27N,R06W
Rincon #259	Basin Fruitland Coal	NE/4 S29,T27N,R06W
Rincon #260	Basin Fruitland Coal	NE/4 S32,T27N,R06W
Rincon #261	Basin Fruitland Coal	SW/4 S29,T27N,R06W
Rincon #264	Basin Fruitland Coal	SW/4 S19,T27N,R06W
Rincon #265	Basin Fruitland Coal	NE/4 S30,T27N,R06W
Rincon #266	Basin Fruitland Coal	SW/4 S30,T27N,R06W
Rincon #269	Basin Fruitland Coal	SW/4 S12,T26N,R07W
Rincon #270	Basin Fruitland Coal	NE/4 S12,T26N,R07W
Rincon #271	Basin Fruitland Coal	SW/4 S01,T26N,R07W
Rincon #272	Basin Fruitland Coal	NE/4 S01,T26N,R07W
Rincon #273	Basin Fruitland Coal	SW/4 S36,T27N,R07W
Rincon #274	Basin Fruitland Coal	NE/4 S36,T27N,R07W
Rincon #276	Basin Fruitland Coal	NE/4 S13,T27N,R07W
Rincon #277	Basin Fruitland Coal	SW/4 S13,T27N,R07W
Rincon #278	Basin Fruitland Coal	NE/4 S14,T27N,R07W
Rincon #279	Basin Fruitland Coal	SW/4 S14,T27N,R07W
Rincon #280	Basin Fruitland Coal	NE/4 S15,T27N,R07W
Rincon #281	Basin Fruitland Coal	NE/4 S23,T27N,R07W
Rincon #285	Basin Fruitland Coal	NE/4 S27,T27N,R07W
Rincon #286	Basin Fruitland Coal	SW/4 S26,T27N,R07W
Rincon #287	Basin Fruitland Coal	SW/4 S27,T27N,R07W
Rincon #290	Basin Fruitland Coal	SW/4 S33,T27N,R07W
Rincon #291	Basin Fruitland Coal	NE/4 S34,T27N,R07W

Well Name/Number	Formation	Location
*****		

Rincon #292	Basin Fruitland Coal	SW/4 S35,T27N,R07W
Rincon #293	Basin Fruitland Coal	NE/4 S35,T27N,R07W
Rincon #294	Basin Fruitland Coal	NE/4 S02,T26N,R07W
Rincon #295	Basin Fruitland Coal	NE/4 S11,T26N,R07W
Rincon #300	Basin Fruitland Coal	NE/4 S06,T26N,R06W
Rincon #301	Basin Fruitland Coal	SW/4 S25,T27N,R07W

Additionally, a number of existing wells will be plugged back to, and dualled with the Basin Fruitland Coal Gas formation. These wells will replace, location for location, new drilling wells presented in the last revision.

Well Name/Number	Workover Type	Location
*****		

Rincon #3 PC	Plug-Back	6P,T26N,R06W
Rincon #19 PC	Plug-Back	30E,T27N,R06W
Rincon #24 PC	Dual	32M,T27N,R06W
Rincon #34 PC	Plug-Back	28K,T27N,R07W
Rincon #35 PC	Plug-Back	34K,T27N,R07W
Rincon #49 PC	Dual	31B,T27N,R06W
Rincon #50 PC	Dual	31L,T27N,R06W
Rincon #56 PC	Plug-Back	2J,T26N,R07W
Rincon #59 PC	Dual	24J,T27N,R07W
Rincon #60 PC	Dual	25B,T27N,R07W
Rincon #62 PC	Dual	28P,T27N,R06W
Rincon #65 PC	Dual	23O,T27N,R07W
Rincon #66 PC	Dual	22H,T27N,R07W
Rincon #73 PC	Plug-Back	33H,T27N,R07W
Rincon #84NP MV	Dual	26A,T27N,R07W
Rincon #93 PC	Dual	11P,T26N,R07W
Rincon #117 PC	Plug-Back	21I,T27N,R06W
Rincon #118 PC	Dual	22A,T27N,R06W
Rincon #122 PC	Plug-Back	26I,T27N,R06W

A number of wells will be plugged and abandoned this year. These include the following:

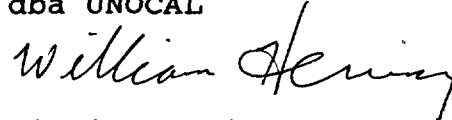
Well Name/Number	Formation	Location
*****		

Rincon 8	Mesa Verde	20K,T27N,R06W
Rincon 28	Pictured Cliffs	29B,T27N,R06W
Rincon 36	Pictured Cliffs	14N,T27N,R07W
Rincon 89	Pictured Cliffs	13P,T27N,R07W
Rincon 112	Pictured Cliffs	20O,T27N,R06W
Rincon 191	Chacra	11E,T26N,R07W
Rincon 238	Chacra	22A,T27N,R07W

Unocal believes that all unit drilling obligations have been met, however, additional wells to prevent drainage or to meet any other regulatory or legal requirement will be assessed and drilled as the need arises. This plan has been sent to each Rincon Unit working interest owner. The above drilling development work is subject to partner and management approval.

Yours very truly,

Union Oil Company of California  
dba UNOCAL

A handwritten signature in cursive script that reads "William Hering".

William Hering  
District Petroleum Engineer



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
FARMINGTON RESOURCE AREA  
1235 LAPLATA HIGHWAY  
FARMINGTON, NEW MEXICO 87401

TAKE  
PRIDE IN  
AMERICA

IN REPLY REFER TO:

Rincon Unit (POD)  
3180 (019)

AUG. 03 1990

Union Oil of California  
3300 North Butler Ave., Suite 200  
Farmington, NM 87401

Gentlemen:

One approved copy of your second revised 1990 Plan of Development for the Rincon Unit area, Rio Arriba County, New Mexico is enclosed. Such plan, proposing an additional six (6) Fruitland Coal wells (Rincon Unit 297-302) for a total of 59 Fruitland Coal wells was approved on this date (subject to like approval by the appropriate officials of the State of New Mexico).

The possibility of drainage by wells outside of the unit boundary may exist. You will be contacted at a later date about this possibility.

If you have any questions, please contact Kenny Howell, Petroleum Engineer, at the above address or telephone (505) 327-5344.

Sincerely,

John L. Keller, Chief  
Branch of Mineral Resources

cc: New Mexico Oil Conservation Division, 310 Old Santa Fe Trail, Room 206,  
Santa Fe, NM 87503  
Commissioner of Public Lands, State of New Mexico, P. O. Box 1148, Santa  
Fe, NM 87504

**Unocal Oil & Gas Division**

Unocal Corporation  
3300 North Butler Avenue  
Suite 200

Farmington, New Mexico 87401

Telephone (505) 326-7600

Fax: (505) 326-6145

OIL CONSERVATION DIVISION  
RECEIVED



'90 JUL 12 AM 8 52

July 10, 1990

Farmington District

U.S. Dept. of the Interior  
Branch of Land Management  
Branch of Fluid Minerals  
Farmington Resource Area  
1235 La Plata Highway  
Farmington, NM 87401

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

Oil Conservation Division  
State of New Mexico  
P.O. Box 2088  
Santa Fe, NM 87504-2088

RE: 1990 Plan of Development  
Second Revision  
Rincon Unit  
Rio Arriba County, NM

Gentlemen:

Unocal (Union Oil of California) is the operator of the Rincon Unit in Rio Arriba County, New Mexico. As stated in the original plan filed January 8, 1990, last year's Plan of Development included the drilling and completion of ten development gas wells; however, only five of the ten were actually drilled and completed. These include:

Well Name/Number	Formation	Location
*****		
Rincon #239	Basin Fruitland Coal	SW/4 S18, T27N, R06W
Rincon #240	Basin Fruitland Coal	SW/4 S21, T27N, R06W
Rincon #241	Basin Fruitland Coal	SW/4 S22, T27N, R06W
Rincon #242	Basin Fruitland Coal	SW/4 S23, T27N, R06W
Rincon #243	Basin Fruitland Coal	SW/4 S27, T27N, R06W

The remaining five wells were reevaluated and dropped from consideration.

Following is the revised 1990 Plan of Development for the Rincon Unit:

Proposed for the 1990 calendar year is the drilling and completion of fifty-nine (59) development gas wells. All will be drilled and completed in the Basin Fruitland Coal Formation. These wells and their proposed locations are presented below.

Well Name/Number	Formation	Location
*****		
Rincon #244	Basin Fruitland Coal	NE/4 S21,T27N,R06W
Rincon #245	Basin Fruitland Coal	NE/4 S22,T27N,R06W
Rincon #246	Basin Fruitland Coal	NE/4 S23,T27N,R06W
Rincon #247	Basin Fruitland Coal	NE/4 S26,T27N,R06W
Rincon #248	Basin Fruitland Coal	SW/4 S26,T27N,R06W
Rincon #249	Basin Fruitland Coal	NE/4 S27,T27N,R06W
Rincon #250	Basin Fruitland Coal	NE/4 S28,T27N,R06W
Rincon #251	Basin Fruitland Coal	SW/4 S28,T27N,R06W
Rincon #252	Basin Fruitland Coal	NE/4 S18,T27N,R06W
Rincon #253	Basin Fruitland Coal	SW/4 S17,T27N,R06W
Rincon #254	Basin Fruitland Coal	NE/4 S20,T27N,R06W
Rincon #255	Basin Fruitland Coal	SW/4 S20,T27N,R06W
Rincon #256	Basin Fruitland Coal	SW/4 S16,T27N,R06W
Rincon #257	Basin Fruitland Coal	NE/4 S16,T27N,R06W
Rincon #258	Basin Fruitland Coal	NE/4 S17,T27N,R06W
Rincon #259	Basin Fruitland Coal	NE/4 S29,T27N,R06W
Rincon #260	Basin Fruitland Coal	NE/4 S32,T27N,R06W
Rincon #261	Basin Fruitland Coal	SW/4 S29,T27N,R06W
Rincon #262	Basin Fruitland Coal	SW/4 S32,T27N,R06W
Rincon #263	Basin Fruitland Coal	NE/4 S19,T27N,R06W
Rincon #264	Basin Fruitland Coal	SW/4 S19,T27N,R06W
Rincon #265	Basin Fruitland Coal	NE/4 S30,T27N,R06W
Rincon #266	Basin Fruitland Coal	SW/4 S30,T27N,R06W
Rincon #267	Basin Fruitland Coal	NE/4 S31,T27N,R06W
Rincon #268	Basin Fruitland Coal	SW/4 S31,T27N,R06W
Rincon #269	Basin Fruitland Coal	SW/4 S12,T26N,R07W
Rincon #270	Basin Fruitland Coal	NE/4 S12,T26N,R07W
Rincon #271	Basin Fruitland Coal	SW/4 S01,T26N,R07W
Rincon #272	Basin Fruitland Coal	NE/4 S01,T26N,R07W
Rincon #273	Basin Fruitland Coal	SW/4 S36,T27N,R07W
Rincon #274	Basin Fruitland Coal	NE/4 S36,T27N,R07W
Rincon #275	Basin Fruitland Coal	SW/4 S24,T27N,R07W
Rincon #276	Basin Fruitland Coal	NE/4 S13,T27N,R07W
Rincon #277	Basin Fruitland Coal	SW/4 S13,T27N,R07W
Rincon #278	Basin Fruitland Coal	NE/4 S14,T27N,R07W
Rincon #279	Basin Fruitland Coal	SW/4 S14,T27N,R07W
Rincon #280	Basin Fruitland Coal	NE/4 S15,T27N,R07W
Rincon #281	Basin Fruitland Coal	NE/4 S23,T27N,R07W
Rincon #282	Basin Fruitland Coal	NE/4 S22,T27N,R07W
Rincon #283	Basin Fruitland Coal	SW/4 S23,T27N,R07W

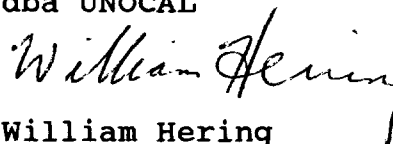
Well Name/Number	Formation	Location
*****		

Rincon #284	Basin Fruitland Coal	NE/4 S26,T27N,R07W
Rincon #285	Basin Fruitland Coal	NE/4 S27,T27N,R07W
Rincon #286	Basin Fruitland Coal	SW/4 S26,T27N,R07W
Rincon #287	Basin Fruitland Coal	SW/4 S27,T27N,R07W
Rincon #288	Basin Fruitland Coal	SW/4 S28,T27N,R07W
Rincon #289	Basin Fruitland Coal	NE/4 S33,T27N,R07W
Rincon #290	Basin Fruitland Coal	SW/4 S33,T27N,R07W
Rincon #291	Basin Fruitland Coal	NE/4 S34,T27N,R07W
Rincon #292	Basin Fruitland Coal	SW/4 S35,T27N,R07W
Rincon #293	Basin Fruitland Coal	NE/4 S35,T27N,R07W
Rincon #294	Basin Fruitland Coal	NE/4 S02,T26N,R07W
Rincon #295	Basin Fruitland Coal	NE/4 S11,T26N,R07W
Rincon #296	Basin Fruitland Coal	SW/4 S11,T26N,R07W
Rincon #297	Basin Fruitland Coal	SW/4 S34,T27N,R07W
Rincon #298	Basin Fruitland Coal	SW/4 S02,T26N,R07W
Rincon #299	Basin Fruitland Coal	SW/4 S06,T26N,R06W
Rincon #300	Basin Fruitland Coal	NE/4 S06,T26N,R06W
Rincon #301	Basin Fruitland Coal	SW/4 S25,T27N,R07W
Rincon #302	Basin Fruitland Coal	NE/4 S25,T27N,R07W

Unocal believes that all unit drilling obligations have been met, however, additional wells to prevent drainage or to meet any other regulatory or legal requirement will be assessed and drilled as the need arises. This plan has been sent to each Rincon Unit working interest owner. The above drilling development work is subject to partner and management approval.

Yours very truly,

Union Oil Company of California  
dba UNOCAL



William Hering  
District Petroleum Engineer

WH/ma

Unocal Oil & Gas Division  
Unocal Corporation  
3300 North Butler Avenue  
Suite 200  
Farmington, New Mexico 87401  
Telephone (505) 326-7600  
Fax: (505) 326-6145



March 15, 1990

#299

Farmington District

U.S. Dept. of the Interior  
Branch of Land Management  
Branch of Fluid Minerals  
Farmington Resource Area  
1235 La Plata Highway  
Farmington, NM 87401

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

Oil Conservation Division  
State of New Mexico  
P.O. Box 2088  
Santa Fe, NM 87504-2088

RE: Revised 1990 Plan of Development  
Rincon Unit  
Rio Arriba County, NM

Gentlemen:

Unocal (Union Oil of California) is the operator of the Rincon Unit in Rio Arriba County, New Mexico. As stated in the original plan filed January 8, 1990 last year's Plan of Development included the drilling and completion of ten development gas wells; however, only five of the ten were actually drilled and completed. These include:

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The remaining five wells were reevaluated and not drilled.



Following is the 1990 Plan of Development for the Rincon Unit:

Proposed for the 1990 calendar year is the drilling and completion of fifty-three (53) development gas wells. All will be drilled and completed in the Basin Fruitland Coal Formation. These wells and their proposed locations are presented below.

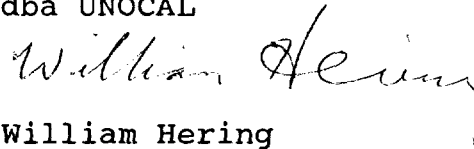
Well Name/Number	Formation	Location
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Rincon #262	Basin Fruitland Coal	SW/4 S32,T27N,R06W
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Rincon #264	Basin Fruitland Coal	SW/4 S19,T27N,R06W
Rincon #265	Basin Fruitland Coal	NE/4 S30,T27N,R06W
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Unccal believes that all unit drilling obligations have been met, however, additional wells to prevent drainage or to meet any other regulatory or legal requirement will be assessed and drilled as the need arises. This plan has been sent to each Rincon Unit working interest owner. The above drilling development work is subject to partner and management approval.

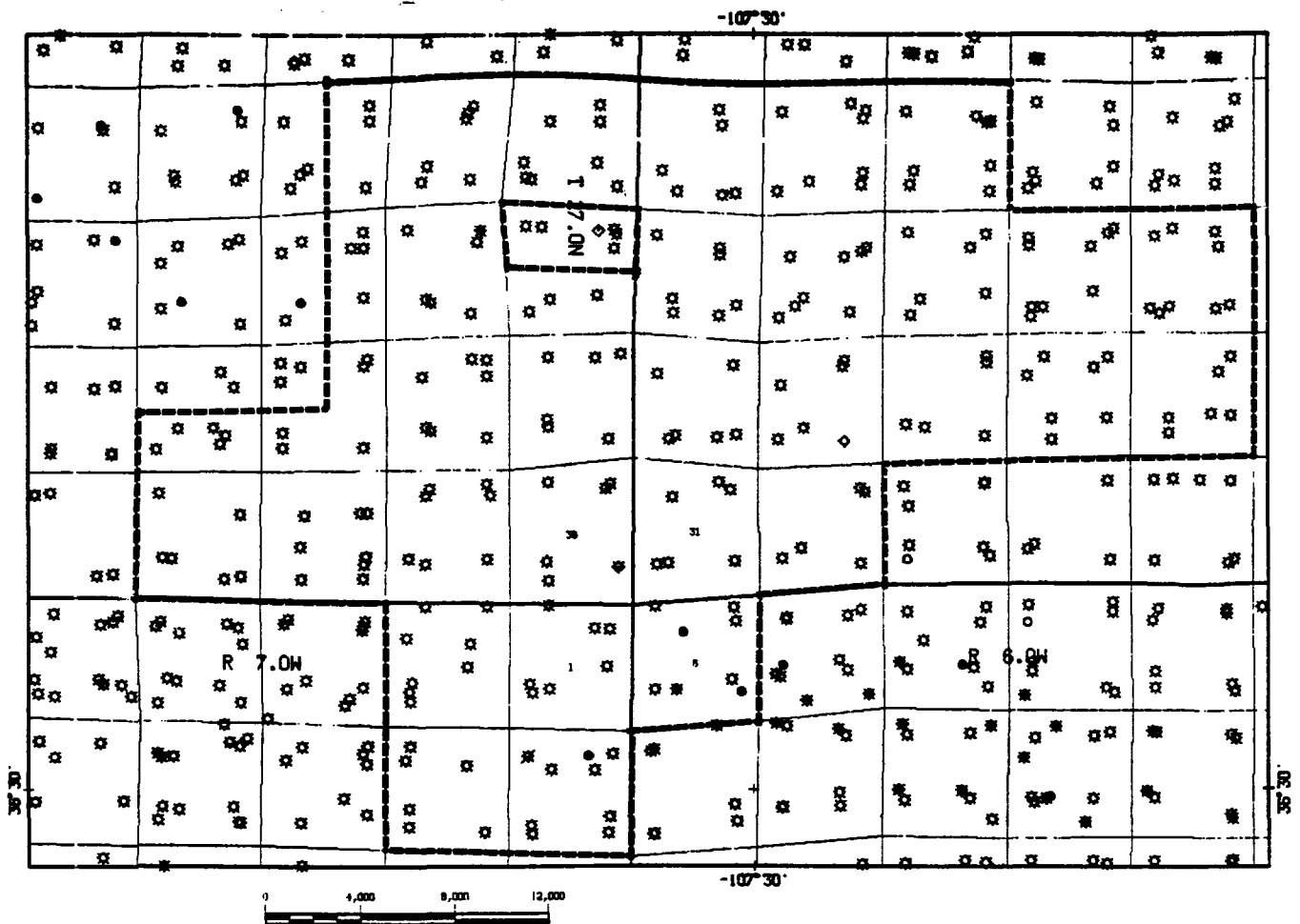
Yours very truly,

Union Oil Company of California  
dba UNOCAL



William Hering  
District Petroleum Engineer

WH/ma



Legend		<div style="text-align: center;"> <b>Union</b>  OIL AND GAS DIVISION  CENTRAL REGION CASPER DISTRICT </div>			
<ul style="list-style-type: none"> <li>○ WELL LOCATION</li> <li>◇ ABANDONED DRY HOLE</li> <li>◊ DRY HOLE (OIL SHOW)</li> <li>◈ DRY HOLE (GAS SHOW)</li> <li>⊗ DRY HOLE (GAS &amp; OIL SHOW)</li> <li>● OIL WELL</li> <li>⊗ ABANDONED OIL WELL</li> <li>⊗ OIL WELL (GAS SHOW)</li> <li>⊗ GAS WELL</li> <li>⊗ ABANDONED GAS WELL</li> <li>⊗ GAS WELL (OIL SHOW)</li> <li>⊗ OIL AND GAS WELL</li> <li>⊗ ABANDONED OIL AND GAS WELL</li> <li>⊗ WATER DISPOSAL WELL</li> <li>⊗ ILLUSTRATED WELL</li> </ul>		<b>LOCATION MAP</b> RINCON UNIT AREA <b>SAN JUAN BASIN</b>			
		INTERPRETED BY John Zager	STATE NEW MEXICO	SCALE 1 IN = 4000 FT	ELEVATION SEA LEVEL
		FIELD CLIFFS	SEPARATOR DEFAULT	GRID GRID & HATCHES	CONTOUR INTERVAL

Unocal Oil & Gas Division  
Unocal Corporation  
3300 North Butler Avenue  
Suite 200  
Farmington, New Mexico 87401  
Telephone (505) 326-7600  
Fax: (505) 326-6145

DIVISION

'90 FEB 19 AM 10 01



March 15, 1990

Farmington District

U.S. Dept. of the Interior  
Branch of Land Management  
Branch of Fluid Minerals  
Farmington Resource Area  
1235 La Plata Highway  
Farmington, NM 87401

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

Oil Conservation Division  
State of New Mexico  
P.O. Box 2088  
Santa Fe, NM 87504-2088

RE: Revised 1990 Plan of Development  
Rincon Unit  
Rio Arriba County, NM

Gentlemen:

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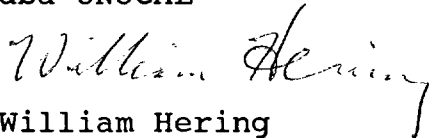
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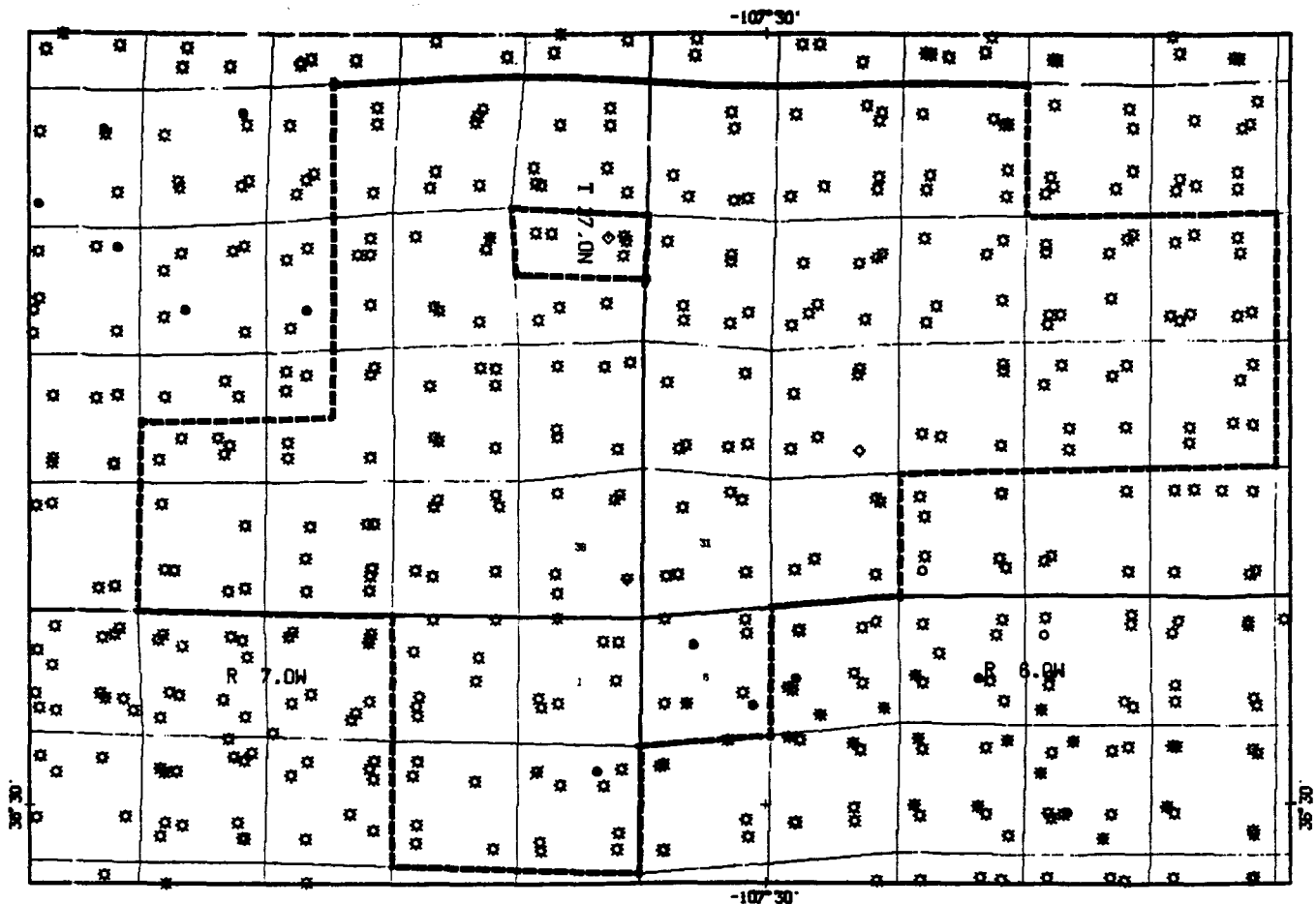
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Yours very truly,

Union Oil Company of California  
dba UNOCAL

  
William Hering  
District Petroleum Engineer

WH/ma



Legend		<div style="text-align: center;"> <b>Union</b>  OIL AND GAS DIVISION  CENTRAL REGION CASPER DISTRICT </div>			
<ul style="list-style-type: none"> <li>○ WELL LOCATION</li> <li>◇ ABANDONED DRY HOLE</li> <li>◊ DRY HOLE (OIL SHOW)</li> <li>◈ DRY HOLE (GAS SHOW)</li> <li>⊕ DRY HOLE (GAS &amp; OIL SHOW)</li> <li>● OIL WELL</li> <li>✱ ABANDONED OIL WELL</li> <li>⊗ OIL WELL (GAS SHOW)</li> <li>⊠ GAS WELL</li> <li>✱ ABANDONED GAS WELL</li> <li>⊗ GAS WELL (OIL SHOW)</li> <li>⊠ OIL AND GAS WELL</li> <li>✱ ABANDONED OIL AND GAS WELL</li> <li>✱ WASTE DISPOSAL WELL</li> <li>✱ VALUATION WELL</li> </ul>		<b>LOCATION MAP</b> <b>RINCON UNIT AREA</b> <b>SAN JUAN BASIN</b>			
		INTERVIEWED BY <b>John Zager</b>	STATE <b>NEW MEXICO</b>	SCALE <b>1 IN = 4000 FT</b>	ELEVATION <b>SEA LEVEL</b>
		VERIFIER <b>CLIFFE</b>	SURVEY FILE <b>DEFAULT</b>	CROSS SECTION <b>210763</b>	CONTOUR INTERVAL <b></b>

NEW MEXICO OIL CONSERVATION DIVISION  
RECEIVED

'90 MAR 30 AM 9 20

Rincon Unit (POD)  
3180 (019)

MAR 12 1990

Unocal Oil and Gas  
Attn: William Wering  
3300 North Bultar Avenue, Suite 200  
Farmington, NM 87401

Gentlemen:

One approved copy of the First Revision of your 1990 Plan of Development for the Rincon Unit area, Rio Arriba County, New Mexico, is enclosed. Such plan, proposing the drilling of an additional 38 Fruitland Coal wells (Rincon No. 259 through No. 296) was approved on this date subject to like approval by the appropriate officials of the State of New Mexico.

The possibility of drainage by wells outside of the unit boundary may exist. You will be contacted at a later date about this possibility.

If you have any questions, please contact Gail Keller at the above address or telephone (505) 327-5344.

Sincerely,

Joel Farrell

John Keller  
Chief, Branch of Minerals

Enclosure

cc: New Mexico Oil Conservation Division, 310 Old Santa Fe Trail,  
Room 205, Santa Fe, NM 87503  
Commissioner of Public Lands, State of New Mexico, P. O. Box 1148,  
Santa Fe, NM 87504



Unocal Oil & Gas Division  
Unocal Corporation  
3300 North Butler Avenue  
Suite 200  
Farmington, New Mexico 87401  
Telephone (505) 326-7600-  
Fax: (505) 326-6145

2-6-90

90 FEB 5 AM 9 19

**UNOCAL** 76

February 2, 1990

Farmington District

U.S. Dept. of the Interior  
Branch of Land Management  
Branch of Fluid Minerals  
Farmington Resource Area  
1235 La Plata Highway  
Farmington, NM 87401

D -  
UNIT LETTER  
THX  
127

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

Oil Conservation Division  
State of New Mexico  
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Santa Fe, NM 87504-2088

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The remaining five wells were reevaluated and not drilled. Following is the 1990 Plan of Development for the Rincon Unit.

Proposed for the 1990 calendar year is the drilling and completion of fifteen (15) development gas wells. All will be drilled and completed in the Basin Fruitland Coal Formation. These wells and their proposed locations are presented below.

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*****		
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Yours Very Truly,

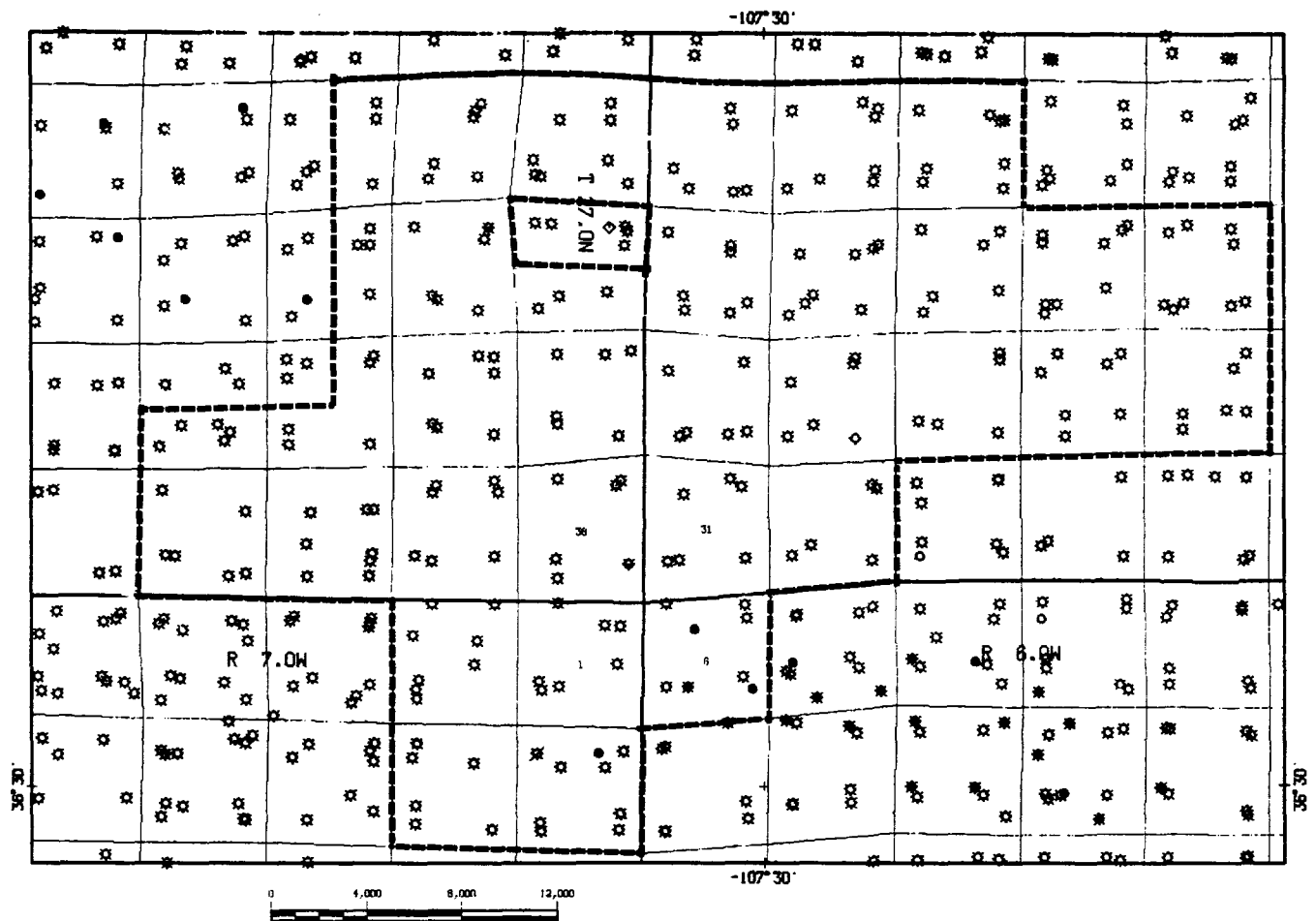


William Hering  
District Petroleum Engineer

BH/ma

RINCON UNIT PRODUCTION WELLS

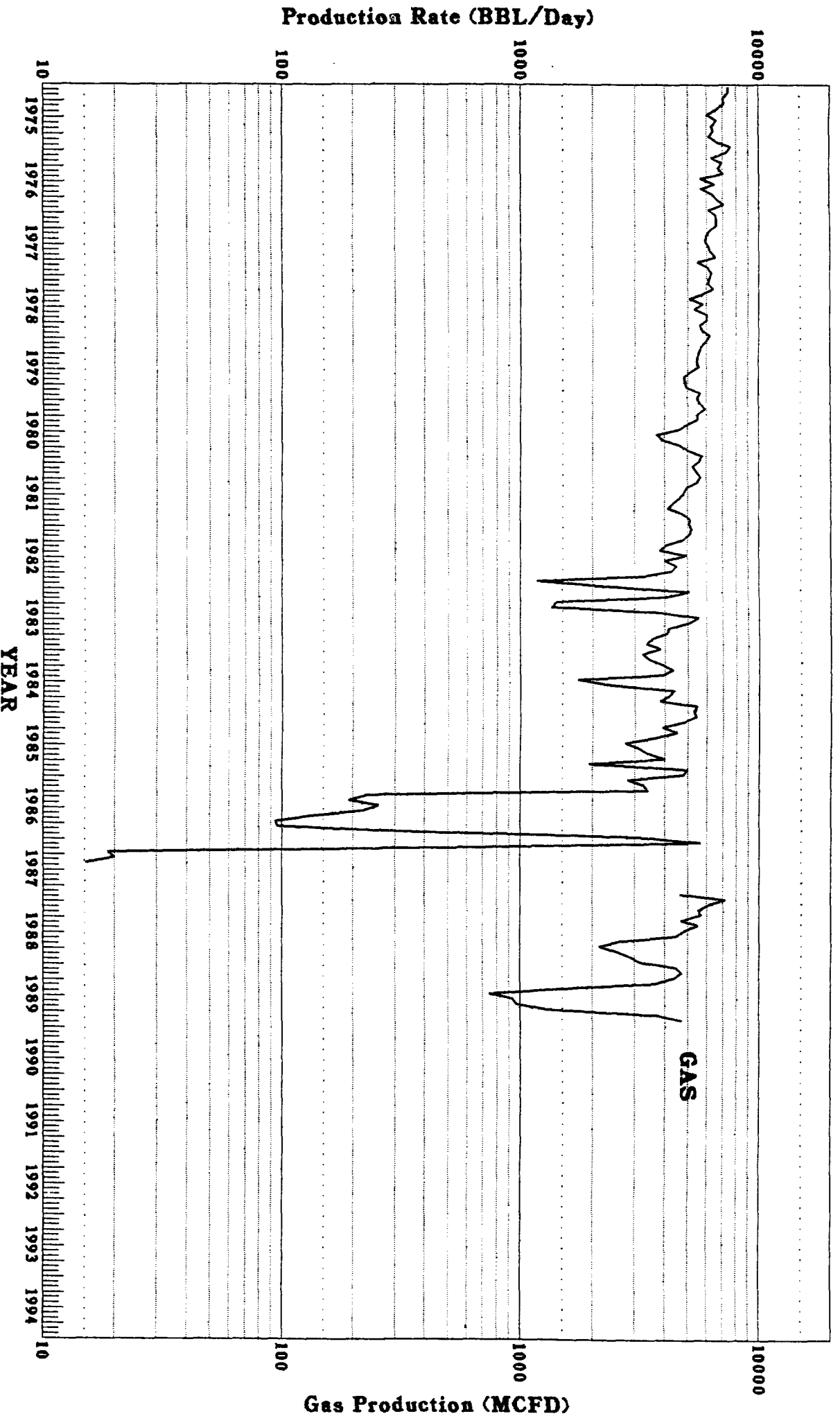
Pictured Cliffs Plugged and Abandoned	3
Pictured Cliffs in P.A.	103
Pictured Cliffs/Chacra Dual in P.A.	1
Pictured Cliffs/Mesa Verde Duals in P.A.	9
Mesa Verde in P.A.	28
Mesa Verde Non-P.A.	2
Mesa Verde/Chacra Duals in P.A.	4
Mesa Verde/Dakota Duals in P.A.	6
Mesa Verde/Dakota Duals Non-P.A.	5
Dakota in P.A.	47
Dakota Non-P.A.	1
Gallup/Dakota Dual in P.A.	1
Chacra in P.A.	8
Fruitland	<u>5</u>
Total	<u>223</u>
Total Less P.A.'s	<u>220</u>



Legend		<div style="text-align: center;"> <b>union</b>  OIL AND GAS DIVISION  CENTRAL REGION CASPER DISTRICT </div>			
<ul style="list-style-type: none"> <li>○ WELL LOCATION</li> <li>◇ ABANDONED DRY HOLE</li> <li>◆ DRY HOLE (OIL SHOW)</li> <li>◊ DRY HOLE (GAS SHOW)</li> <li>◈ DRY HOLE (GAS &amp; OIL SHOW)</li> <li>● OIL WELL</li> <li>✱ ABANDONED OIL WELL</li> <li>✱ OIL WELL (GAS SHOW)</li> <li>✱ GAS WELL</li> <li>✱ ABANDONED GAS WELL</li> <li>✱ GAS WELL (OIL SHOW)</li> <li>✱ OIL AND GAS WELL</li> <li>✱ ABANDONED OIL AND GAS WELL</li> <li>✱ WATER DISPOSAL WELL</li> <li>✱ IRRIGATION WELL</li> </ul>		<b>LOCATION MAP</b> RINCON UNIT AREA <b>SAN JUAN BASIN</b>			
		INTERPRETED BY John Zagar	STATE NEW MEXICO	SCALE 1 IN = 4000 FT	datum SEA LEVEL
		VELOCITY CLIFFS	SEPT 2011 FILE DEFAULT	THIS AREA IS NOT TO BE CONSIDERED	CONTOUR INTERVAL

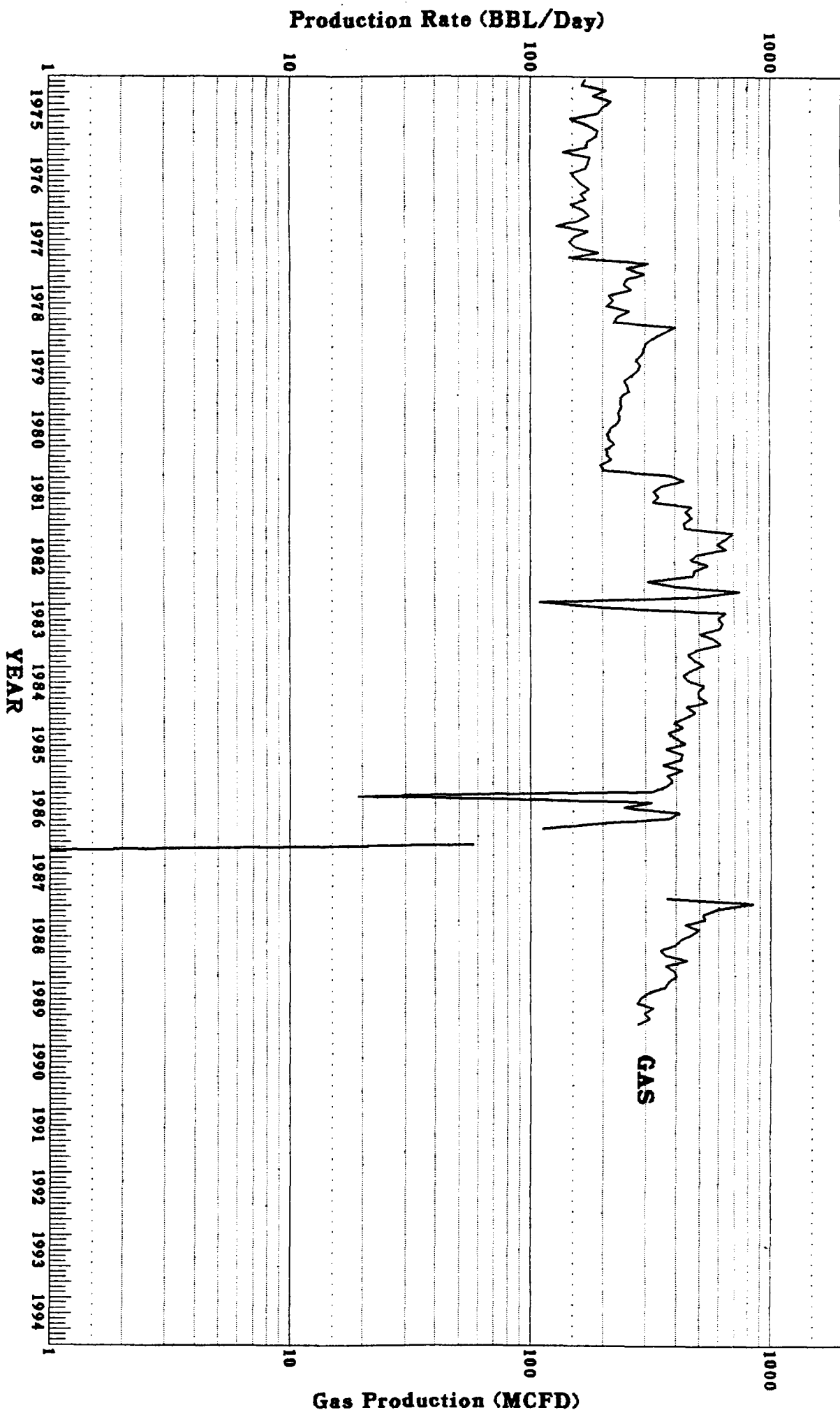
FIELD--BLANCO S  
FORMATION--PICTURED CLIFFS  
RIO ARriba COUNTY, NEW MEXICO

RINCON UNIT  
TOTAL



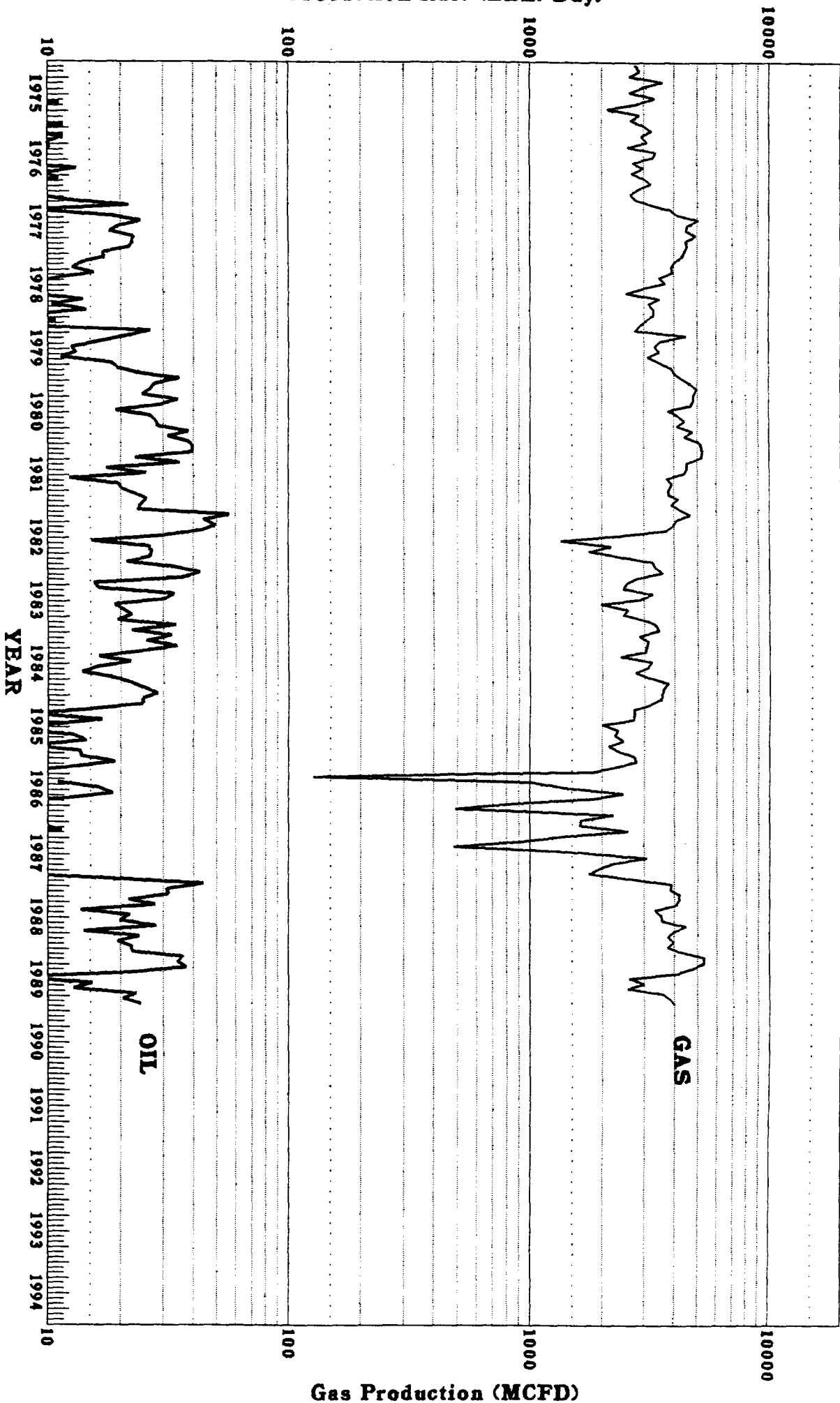
**FIELD--OTERO  
FORMATION--CHACRA  
RIO ARriba COUNTY, NEW MEXICO**

**RINCON UNIT  
TOTAL**

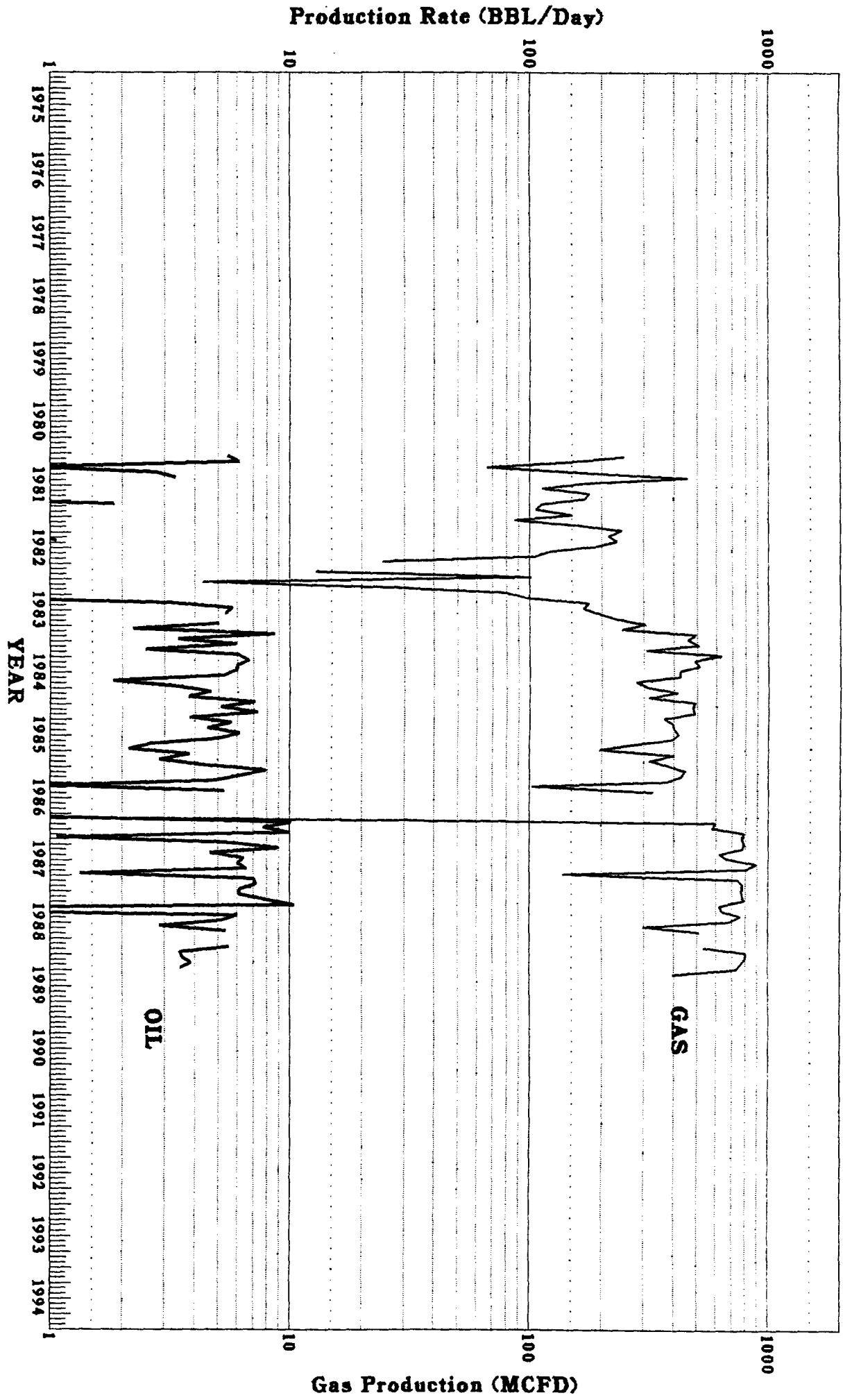


**FIELD--BLANCO  
FORMATION--MESAVERTDE  
RIO ARriba COUNTY, NEW MEXICO**

**RINCON UNIT  
TOTAL**



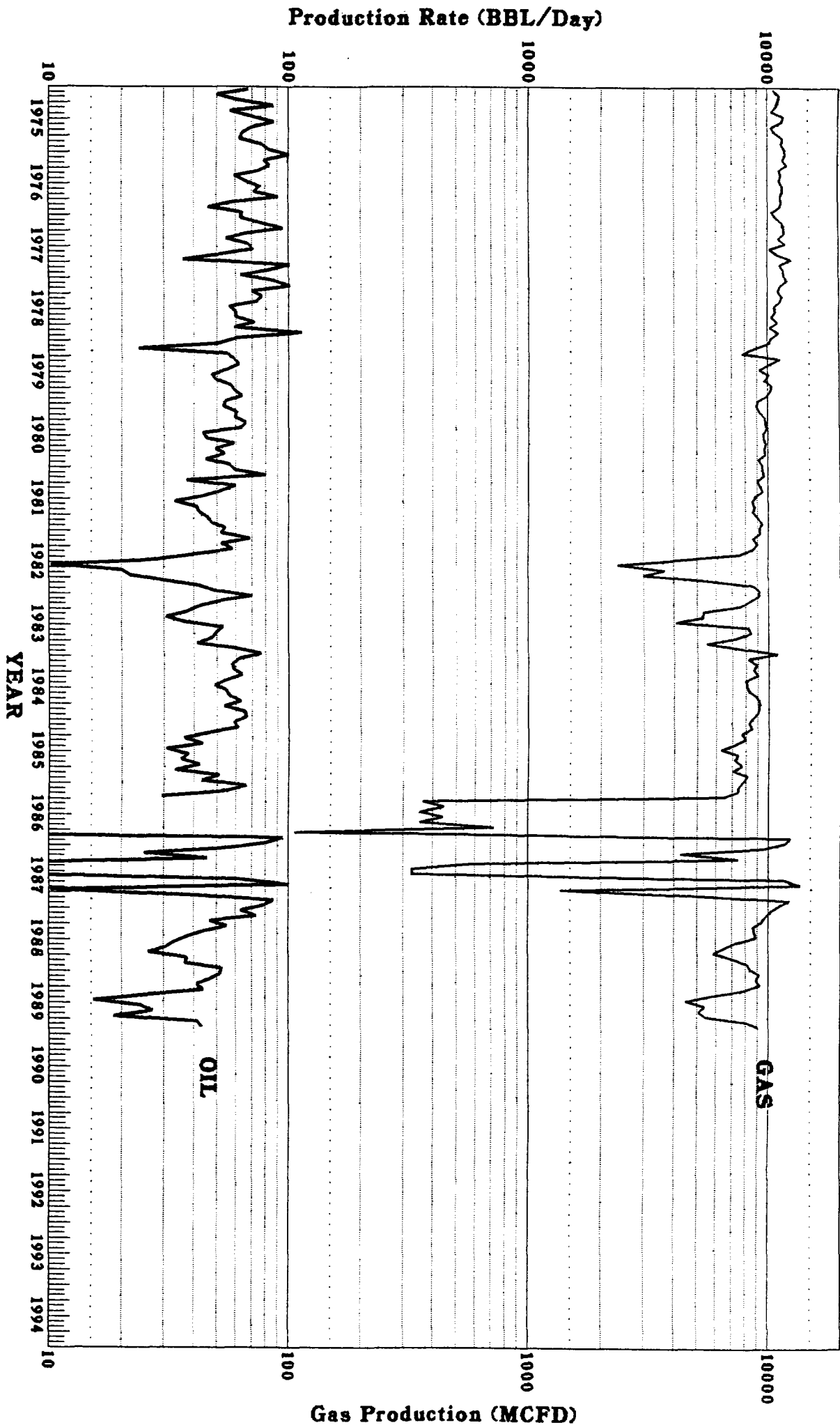
FIELD--LARGO  
 FORMATION--GALLUP GAS  
 RIO ARriba COUNTY, NEW MEXICO  
 RINCON UNIT #164 GL  
 E-291-35



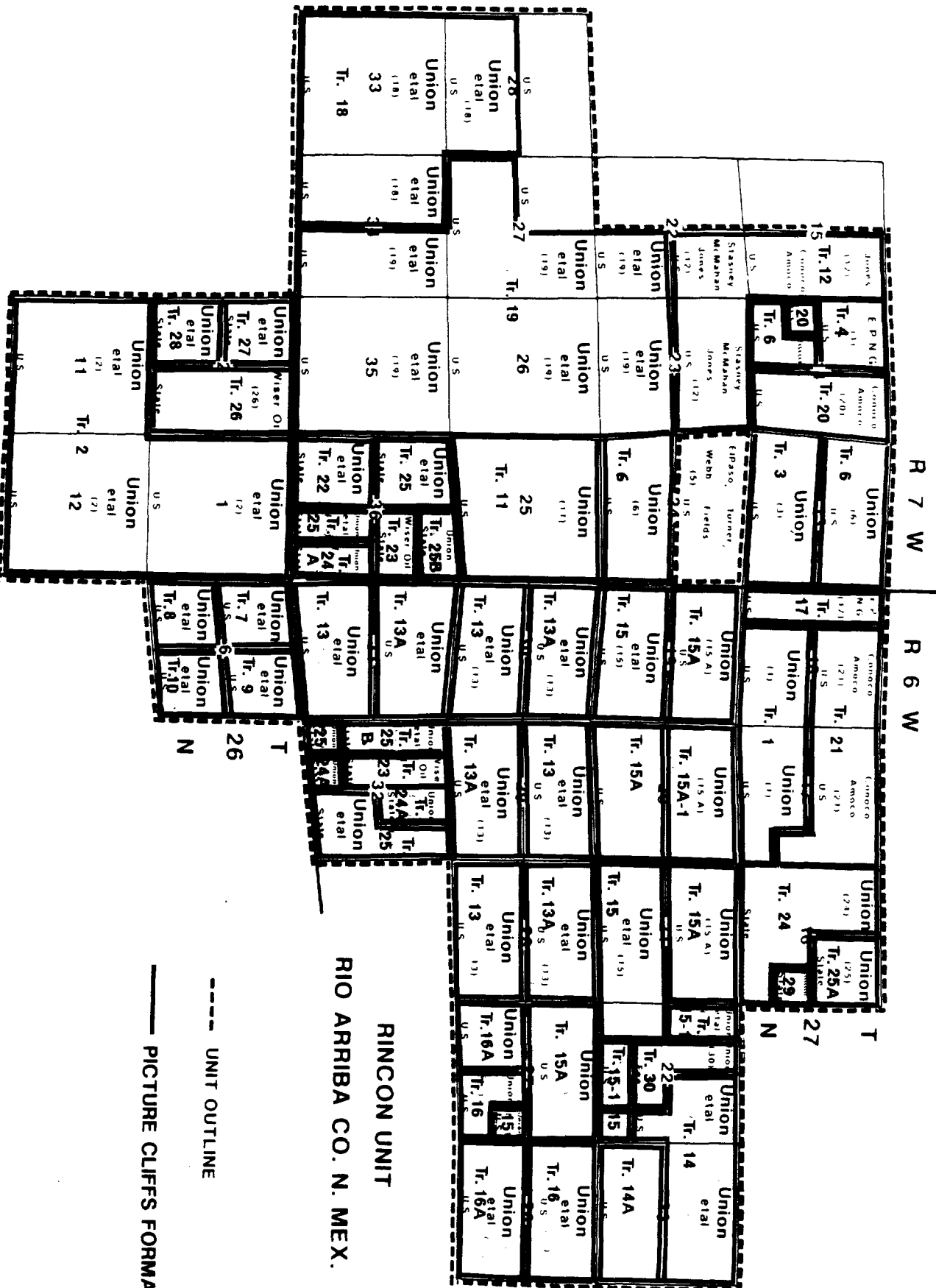
14:34 JAN 6, 1990

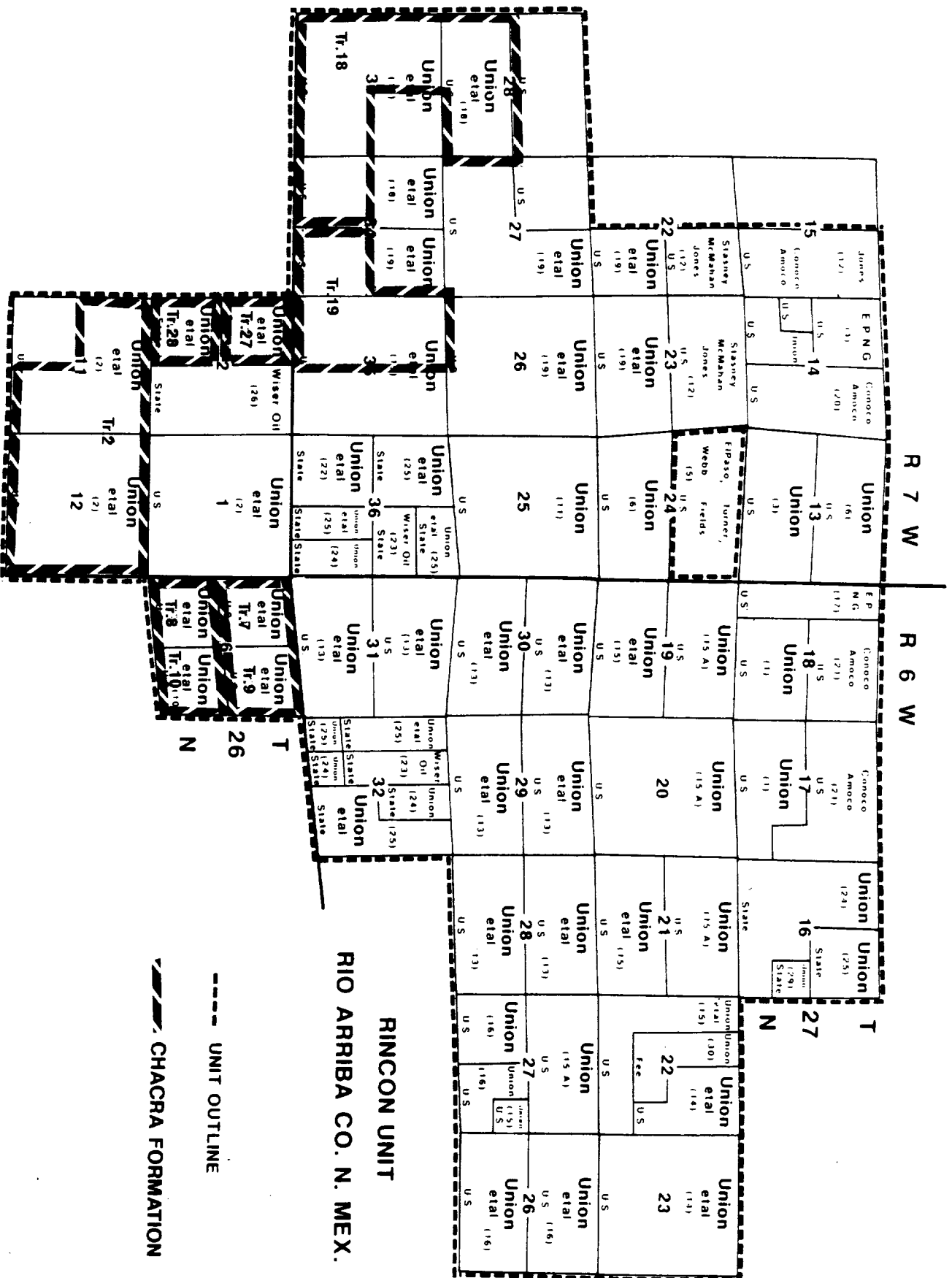


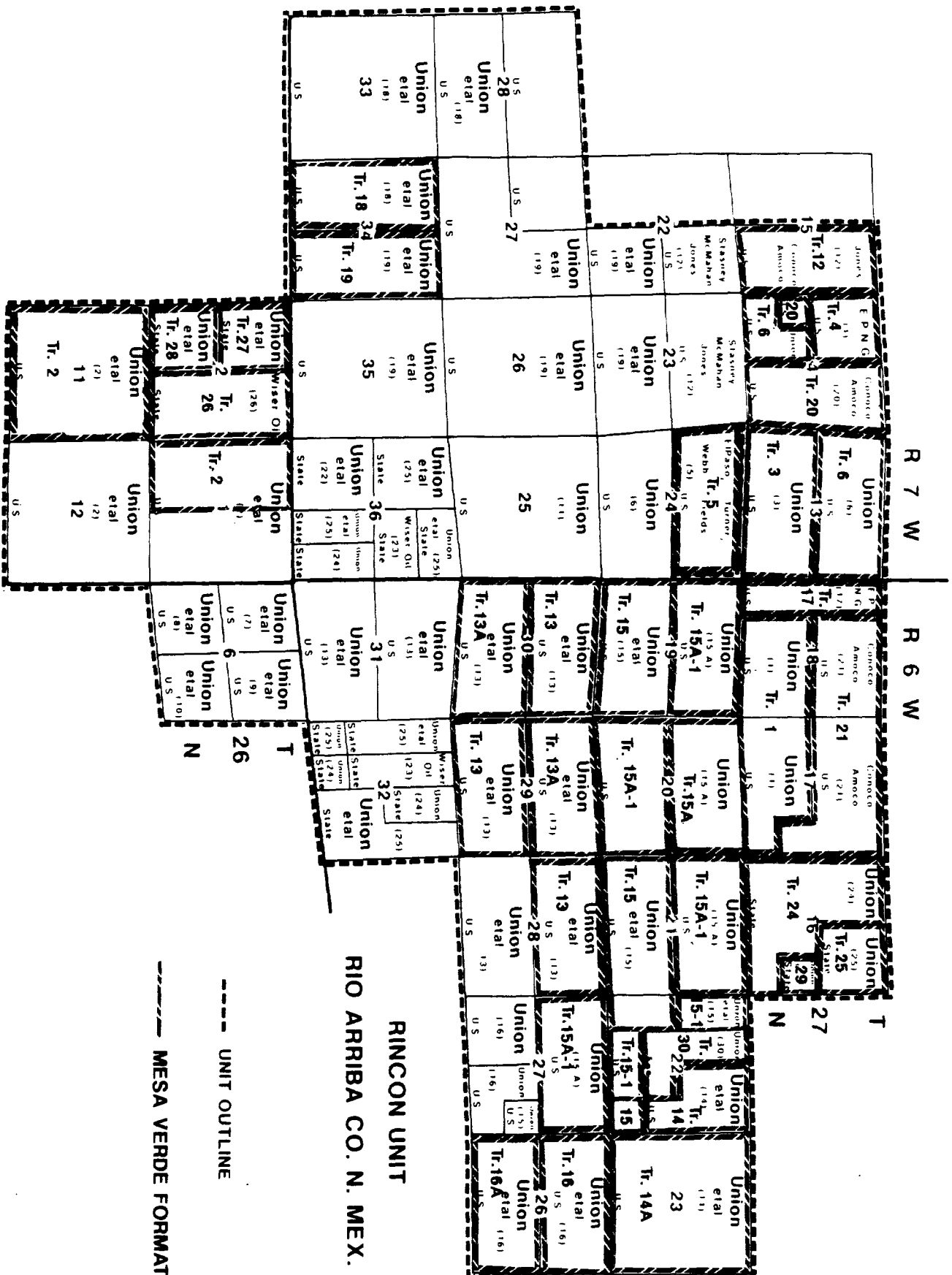
**RINCON UNIT**  
**TOTAL**

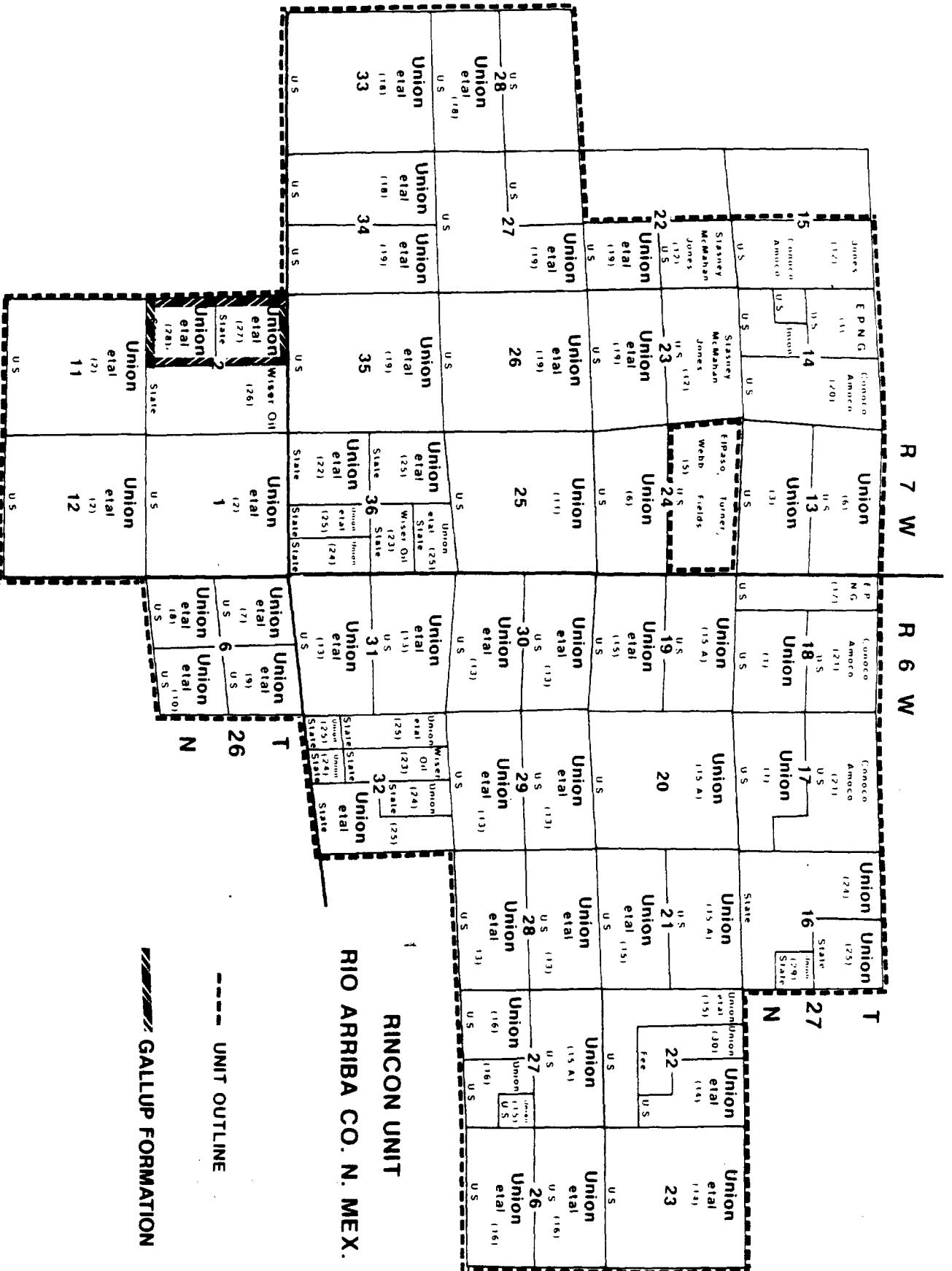


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UNIT OUTLINE  
 GALLUP FORMATION

RINCON UNIT  
 RIO ARRIBA CO. N. MEX.



#299

Unocal Oil & Gas Division  
Unocal Corporation  
913 West Broadway, P.O. Box 850  
Bloomfield, New Mexico 87413  
Telephone (505) 632-1811

**UNOCAL** 

July 21, 1989

*Handwritten: J. H. H. T. K.*  
**RECEIVED**  
JUL 24 1989  
OIL CONSERVATION DIV.  
SANTA FE

Bureau of Land Management  
Minerals Division  
Attn: Gary Stevens, District Supervisor  
1235 LaPlata Highway  
Farmington, New Mexico 87401

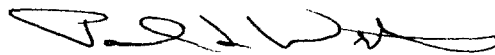
RE: Application for an Initial  
Participating Area - Gallup  
Formation - Rincon Unit

Gentlemen:

Enclosed please find two copies of the Application for Approval for an Initial Gallup Participating Area in the Rincon Unit. Enclosed also are geologic and engineering data in support of the application.

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

Very Truly Yours,



Paul West  
District Production Manager

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

WH/s1

APPLICATION FOR APPROVAL OF AN INITIAL GALLUP PARTICIPATING AREA -  
RINCON UNIT - RIO ARriba COUNTY, NEW MEXICO

Gary Stevens  
District Supervisor  
Bureau of Land Management - Minerals Division  
1235 LaPlata 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 for the Gallup producing formation, to wit:

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

Section 2: West/2

Containing 320.68 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 - Gallup SS
- 2) Gallup SS Gross Isopach
- 3) Stratigraphic Cross-Section
- 4) Land Map - Rincon Unit
- 5) Rincon Unit #164 Gallup Production Decline Curve
- 6) Rincon Unit #164 Gallup Economics
- 7) Schedule of Lands and Working Interest Ownership in the Initial Gallup Participating Area (Participation Allocation Formula)
- 8) Applicant's Statement and Affidavit

This proposed application is predicated on the past production history from the Rincon Unit #164 well completed in the Gallup Formation September 22, 1980 in the NW/4 of the SW/4, Section 2, T26N-R7W.

Applicant respectfully requests your approval of the hereinabove selection of lands to constitute the initial Gallup Formation participating area, to be effective September 22, 1980.

Dated this 21st day of July, 1989.



Paul West  
District Production Manager  
Union Oil Company of California

WH/s1



## Well Summary

WELL NAME: Rincon Unit #164

LOCATION: 1840' FSL, 1090' FWL,  
Sec. 2, T26N, R7W

ELEVATION: 6521' GL

TOTAL DEPTH: 7406'

LEASE NUMBER: NM-E-291-35

POOL/FORMATION: Basin Dakota

SPUD DATE: 08-09-69

Completion Date: 09-25-69

First Delivery: 10-30-69

Perf'd Interval: 7050' -7254'

POOL/FORMATION: Largo Gallup

SPUD DATE: 08-31-80

Completion Date: 09-22-80

First Delivery: 12-09-80

Perf'd Interval: 6211' - 6562'

COMMINGLING ORDER: NMOCD #R-6375

Dakota: 31% Gas-13% Condensate

Gallup: 69% Gas-87% Condensate

## Geologic Summary

The Gallup was deposited as a series of sand bars on a continental shelf environment. The South Blanco Tocito (oil) and Largo Gallup (gas) fields produce from a single, continuous sand bar running east to west across the area. The bar is composed of two sandstone sequences and an intervening shaley section. Total gross sand thickness reaches a maximum of 46'.

This sand bar acts as a single reservoir with the Largo Gallup Field being the gas cap. The original gas/oil contact runs roughly NW to SE through Section 6, T26N, R6W, and the extreme southern portion of Section 36, T27N, R7W. As a result of oil production, the gas cap has expanded and moved these contacts downdip. Stratigraphic Cross Section A-A' shows the two-lobed nature of the sand bar, as well as the abrupt pinchout of the sand in a north-south direction. However, continuity of the sand is quite good in an east-west direction.

Formation Tops:

Pictured Cliffs	2745'	(+3787')
Mesa Verde:		
Cliff House	4413'	(+2119')
Point Lookout	5048'	(+1484')
Gallup	6542'	(- 10')
Greenhorn	6935'	(- 403')
Graneros	6996'	(- 464')
Dakota	7100'	(- 568')

## Engineering Summary

The Rincon Unit #164 was drilled and completed originally as a Basin Dakota gas producer by El Paso Natural Gas Company in 1969. The decline in Dakota production and the recognition of prolific Gallup gas production from offset non-unit wells led to the testing and completion of the Gallup Formation in this well by EPNG in 1980. After setting a bridge plug above the Dakota, the Gallup was perforated from 6211' to 6562' with 16 shots and fracture stimulated with 164,600# 20/40 sand, 39,050# 10/20 sand, and 121,000 gallons water. No after-frac gas gauge was obtained since the well initially produced large amounts of condensate. Downhole commingling of the Dakota and Gallup was approved by the NMOCD in 1980 and production was split using

### **Engineering Summary (con't)**

the state set allocation formula given in the well summary section. As shown on the attached decline curve, production gradually increased. This may have been due to line pressure decrease and also to formation clean-up. The current deliverability for both the Dakota and Gallup is 343 and 763 MCF/D, respectively.

Volumetrics calculated on the below-listed parameters yeilds a recoverable gas volume of 2.3 Bcf. This volume compares favorably with decline curve reserves of 2.2 Bcf.

Net Pay: 28 Ft.

Drainage Area: 260 Acres

Average Porosity: 14%

Average Water Saturation: 45%

Initial gas formation volume factor: 0.010 cu. ft/SCF

Abandonment gas formation volume factor: 0.190 cu. ft/SCF

### **Economics**

Gallup Completion Cost: \$75,040.00

Royalty Burden: 12.50%

Gas Price: \$0.85/MCF escalated to current of \$1.30/MCF

Condensate Price: Maximum - \$36./bbl., Minimum - \$13./bbl.,  
Current - \$15./bbl.

Operating Cost: \$150./month

Production Rate: Maximum - 750 MCF/D, Minimum - 90 MCF/D,  
Current - 480 MCF/D

Economics based on the above are attached. Given the \$75,040.00 cost to complete the Gallup zone the workover payed out in 2.0 years. The total expenses shown on the attachment include overhead as well as direct and indirect charges. Compared with gross annual revenue (GAR) the Gallup has and continues to produce in economic quantities above operating costs.

WH/sl