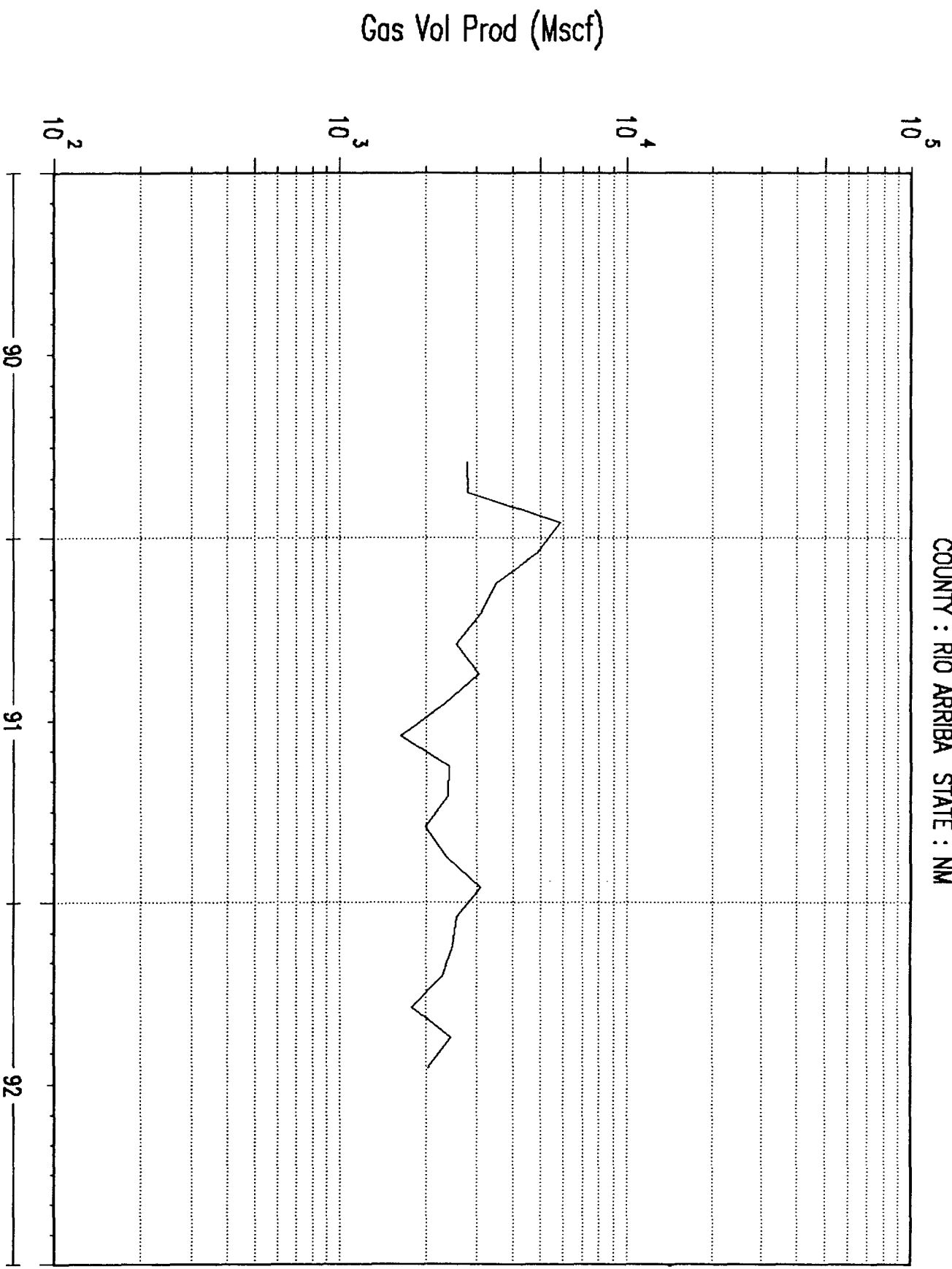


WELL: RINCON UNIT 269:FC
SECTION : 12 TOWN : 26N RANGE : 07W
COUNTY : RIO ARriba STATE : NM



NOON UNIT
DYING WELL DETERMINATION
PARTICIPATING AREA APPLICATION
PUITLAND COAL
WELL # 269

DATE : 09/02/92
TIME : 16:19:55
DBS FILE : RESMGMT
SETUP FILE : FEDERAL
SEQ NUMBER : 645

INPUT DATA								CALCULATED DATA				
ITEM	SCHEDULING RATES			SCHEDULE UNTIL		PROCEDURE		ULTIMATE	LAST	EFF. DECL	INIT. RATE	FINAL RATE
01 START	09/90											
06 GAS	9360.80	X	M/M	10/96	AD	H/3.203	99.99	191.778	9/96	99.99	9361.	1849.
11 "	1509.60	250.00	M/M	X	YRS	EXP	5.00	486.542	10/31	5.00	1510.	250.
16 PRI/GAS	1.31	1.31	\$/M	TO	LIFE	FLAT	.00		10/31		1.310	1.310
21 OPC/T	250.00	250.00	\$/M	TO	LIFE	FLAT	.00		10/31		250.000	250.000
26 NET/WI	87.50	87.50	%	TO	LIFE	FLAT	.00		10/31		.875	.875
36 NET/NIC	87.50	87.50	%	TO	LIFE	FLAT	.00		10/31		.875	.875
46 NET/NIG	87.50	87.50	%	TO	LIFE	FLAT	.00		10/31		.875	.875
01 STX/OIL	3.75	3.75	%	TO	LIFE	PC	0		8/90		.037	.037
02 STX/GAS	3.94	3.94	%	TO	LIFE	PC	.00		8/90		.039	.039
03 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
301 COMPL	191.03	.00	M\$N	09/90	AD	191.027	9/90	.	191.0	191.0

RESERVE PARAMETERS		ITEM		ITEM
001 LOSS	NO			
003 CUMD, MB	.00	CUMD, MMF	.00	CUML, MB

PROJECT ASSUMPTIONS

BASE DATE : 8/89 P.W. DATE : 8/89 REPORT DATE : 8/89
QUALIFIERS - PROD : OWNER : OTHER :

INCON UNIT
AYING WELL DETERMINATION
ARTICIPATING AREA APPLICATION
RUITLAND COAL
ELL # 269

DATE : 09/02/92
TIME : 16:19:55
DES FILE : RESMGMT
SETUP FILE : FEDERAL
SEQ NUMBER : 645

RESERVES AND ECONOMICS

AS OF DATE: 3/99

END-	GROSS OIL	GROSS GAS	OIL TO NET	GAS TO NET	--GROSS PRICES--		REVENUE TO NET	OPER NET	TOTAL NET	INCOME CUMULATIVE	CUM	DISC
0-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\$---
7-90	.000	.000	.000	.000	.00	.000	.000	.000	.000	.000	.000	.000
7-91	.000	48.929	.000	42.813	.00	1.310	53.875	5.348	191.027	-142.500	-142.500	-131.834
7-92	.000	34.539	.000	30.221	.00	1.310	38.030	4.701	.000	33.329	-109.171	-104.602
7-93	.000	29.125	.000	25.485	.00	1.310	32.069	4.376	.000	27.693	-81.478	-83.762
7-94	.000	26.124	.000	22.958	.00	1.310	28.765	4.196	.000	24.569	-56.909	-66.725
7-95	.000	24.108	.000	21.095	.00	1.310	26.545	4.074	.000	22.471	-34.438	-52.367
7-96	.000	22.620	.000	19.792	.00	1.310	24.906	3.985	.000	20.922	-13.516	-40.047
7-97	.000	18.427	.000	16.124	.00	1.310	20.290	3.733	.000	16.557	3.041	-31.049
7-98	.000	16.917	.000	14.803	.00	1.310	18.628	3.642	.000	14.985	18.027	-23.553
7-99	.000	16.070	.000	14.061	.00	1.310	17.694	3.591	.000	14.103	32.130	-17.052
7-00	.000	15.265	.000	13.357	.00	1.310	16.808	3.543	.000	13.265	45.395	-11.415
7-01	.000	14.500	.000	12.688	.00	1.310	15.966	3.497	.000	12.469	57.864	-6.532
7-02	.000	13.774	.000	12.052	.00	1.310	15.166	3.453	.000	11.713	69.577	-2.305
7-03	.000	13.084	.000	11.448	.00	1.310	14.406	3.412	.000	10.995	80.572	1.353
7-04	.000	12.428	.000	10.875	.00	1.310	13.684	3.372	.000	10.312	90.884	4.515
3 TOT	.000	305.909	.000	267.671	.00	1.310	336.833	54.922	191.027	90.984	90.884	4.515
AFTER	.000	170.448	.000	149.142	.00	1.310	187.678	75.872	.000	111.806	202.690	23.165
TOTAL	.000	476.357	.000	416.813	.00	1.310	524.511	130.795	191.027	202.690	202.690	23.165

	OIL	GAS			P.W. %	P.W., M\$
	-----	-----			-----	-----
GROSS WELLS	.0	1.0	LIFE, YRS.	40.00	5.00	68.863
GROSS ULT., MB & MMF	.000	476.357	DISCOUNT %	8.50	10.00	9.490
GROSS CUM., MB & MMF	.000	.000	UNDISCOUNTED PAYOUT, YRS.	7.82	15.00	-21.473
GROSS RES., MB & MMF	.000	476.357	DISCOUNTED PAYOUT, YRS.	13.63	20.00	-39.352
NET RES., MB & MMF	.000	416.813	UNDISCOUNTED NET/INVEST.	2.06	25.00	-50.322
NET REVENUE, M\$.000	546.024	DISCOUNTED NET/INVEST.	1.13	30.00	-57.274
INITIAL PRICE, \$.000	1.310	RATE-OF-RETURN, PCT.	11.53	40.00	-64.539
INITIAL N.I., PCT.	00.000	87.500	INITIAL W.I., PCT.	87.500	60.00	-67.559
					80.00	-65.358
					100.00	-61.756

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 21 1992

OIL CONSERVATION DIVISION

Re: Application for the Initial
Basin Fruitland Coal Gas
Participating Area "D"
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 "D" 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 D - 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 D for the Basin Fruitland Coal Gas producing formation:

TOWNSHIP 27 NORTH, RANGE 6 WEST, N.M.P.M.

Section 29: East/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 #259 Fruitland Coal Gas Production Decline Curve
- 6) Rincon Unit #259 Fruitland Coal Gas Economics
- 7) Schedule of Lands and Working Interest Ownership in the initial Basin Fruitland Coal Gas Participating Area D (Participation Allocation Formula)
- 8) Applicant's Statement and Affidavit

This application is predicated on nine months of actual production history from the Rincon Unit #259 well which first delivered on September 6, 1990

Applicant respectfully requests your approval of the hereinabove selection of lands to constitute the initial Basin Fruitland Coal Gas Formation Participating Area D, to be effective the date of first sales September 6, 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 #259
Location: 1708'FNL, 957'FEL, Sec 29, T27N, R6W
Elevation: 6658' GL
Total Depth: 3232'
Lease Number: SF-079364
Pool/Formation: Basin Fruitland Coal Gas
Spud Date: 7-3-90
Completion Date: 8-5-90
1st Delivery Date: 9-6-90
Perf'd Interval: 3065-3073, 3077-3081, 3083-3089, 3094-3100,
3128-3135, 3139-3155, 3157-3177.

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 #259 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 355 feet and cemented with 350 sacks to surface. Production casing measuring 4-1/2" was then set at 3231 feet and cemented in two stages to surface with 820 sacks cement. After drilling out to PBTD of 3226' the upper and lower coal zones were perforated from 3065'-3177' with 4 shots per foot and fracture stimulated with 320,000# 20/40 sand, 1.33 MMSCF N₂ and 32,550 gallons cross-linked gel water. The recorded initial potential and 24 hour shut-in pressure were 804 MCFD and 575 psi, respectively. The well was first delivered to the El Paso Natural Gas pipeline system on September 6, 1990. The current deliverability for the well against a 150# line pressure is 109 MCFD.

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

Net Pay: 67 ft
Drainage area: 160 acres
Gas Content: 137 SCF/ton
Tonnage Factor: 2105 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 5.82 years with a 17.44% 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 D in the Rincon Unit, in the E/2 Section 29, T27N-R6W, 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. 8th, 1992.

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

My Commission Expires:

1/11/93

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

RINCON UNIT

Tract No. 1 (Unit Tract No. 13)
(Acreage in Unit Tract: 2605.33 ac.)

LESSOR:	U.S.A.
SERIAL NO.:	SF-079364
ACREAGE DESCRIPTION:	<u>Township 27 North, Range 6 West</u> Section 29: 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 "D":	160.00 acres
PERCENTAGE OF FRUITLAND COAL FORMATION PRODUCTION ALLOCATED TO THIS TRACT:	50%

Tract No. 2 (Unit Tract No. 13)
(Acreage in Unit Tract: 2605.33 ac.)

LESSOR:	U.S.A.
SERIAL NO.:	SF-079364
ACREAGE DESCRIPTION:	<u>Township 27 North, Range 6 West</u> Section 29: SE/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 "D":	160.00 acres
PERCENTAGE OF FRUITLAND COAL FORMATION PRODUCTION ALLOCATED TO THIS TRACT:	50%

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

<u>Lease</u>	<u>Unit Tract No.</u>	<u>Acreage</u>	<u>Percentage</u>
U.S.A. SF-079364	13	160.00	50.00%
U.S.A. SF-079364	13	160.00	50.00%

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

<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%