



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION  
AZTEC DISTRICT OFFICE

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

OIL CONSERVATION DIVISION  
BOX 2088  
SANTA FE, NEW MEXICO 87501

DATE 3/6/87

RE: Proposed MC \_\_\_\_\_  
Proposed DHC α \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed SWD \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed PMX \_\_\_\_\_

Gentlemen:

I have examined the application dated 2/10/87 # \_\_\_\_\_  
for the Merichini Reid A #1 G-13-29N-10W  
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yours truly,

[Signature]

# MERIDIAN OIL

February 10, 1987

Mr. David Catanach  
New Mexico Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Re: Downhole Commingle - Reid A #1 (MD)  
Unit G, Section 13, T-29-N, R-10-W  
San Juan County, New Mexico

Dear Mr. Catanach:

Southland Royalty Company requests administrative approval to downhole commingle the production from the Reid A #1 gas well located in Unit G, Section 13, T-29-N, R-10-W, San Juan County, New Mexico. This well produces from the Blanco Mesa Verde and Basin Dakota pools. The well is owned 100% by Meridian Oil Inc. (62.50%-Southland Royalty Company; 37.50%-El Paso Natural Gas Company in both zones).

The well is operated by Meridian Oil Inc. which feels that downhole commingling is the most efficient way to produce the well. Additionally, the well has been found to have a packer leak and the current tubing configuration is non-conductive for effective gas flow to the surface.

In November, 1986, the annual packer leakage test indicated communication between zones. We have confirmed the leakage from in-house testing conducted in December, 1986. As can be seen from the enclosed well schematic, there are two places where a leak can exist: at the Baker R-3 packer or within the 1 1/2" tubing string. A recent wireline test was unable to go below 300' and was not able to test the tubing string.

The attached production decline curve shows a substantial jump in Mesa Verde production and a decline in Dakota production, corresponding to about the time the leak was detected. It is anticipated that when the restrictions are removed from the wellbore, the Mesa Verde will drop to 94 MCF/D and the Dakota will increase to 142 MCF/D. The total commingled rate should be 236 MCF/D. Present oil production is .1 BOPD for the Mesa Verde and .2 BOPD for the Dakota. Both zones produce only trace amounts of water but not enough to cause formation damage due to commingling.

Mr. David Catanach  
Page Two  
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The reserve estimations for the zones are 218 MMCF for the Mesa Verde and 519.5 MMCF for the Dakota. Production allocations based on reserves would be 30% Mesa Verde and 70% Dakota. Oil reserves are 220 barrels for the Mesa Verde and 1,050 barrels for the Dakota for a 17% Mesa Verde and 83% Dakota allocation. It is, therefore, proposed that the gas be allocated 30% to the Mesa Verde and 70% to the Dakota.

The shut-in pressure recorded for the Dakota zone was 541 psig and 525 psig for the Mesa Verde zone. The calculated bottom hole pressure of the lower zone (Dakota) is 626 psig and the upper zone is 577 psig. The ratio of the bottom hole pressures is 1.08/1.00; therefore, no migration of gas or liquids will occur since neither zone is pressured over 50% of the other.

All offset operators of the proposed commingling have been notified, including the Bureau of Land Management.

A well plat, offset ownership plat and production decline curves are attached to this proposal.

Sincerely,



W. D. Welch  
Production Engineer

WDW:oh  
Attachments

TEST HISTORY FOR REID A 1 (MV-DK)

BASIN DAKOTA DWIGHTS NUMBER = 30429N10W13A00DK

TEST DATE	CUM TO DATE	WHSIP	BHP	BHP/Z	T	POTEN	WH FLOW	BBL/D COND	BBL/D WATER
07-07-67	0	1999	2363	2691	2	4876	0	0	0
07-02-70	950104	940	1097	1191	2	1210	545	0	0
04-10-71	1172484	848	988	1064	2	1009	475	0	0
06-18-72	1446853	727	845	901	2	804	410	0	0
05-02-73	1614388	782	910	985	2	860	289	0	0
08-02-75	2089902	536	621	652	2	600	235	0	0
04-17-77	2354641	526	609	639	2	389	245	0	0
05-16-79	2626021	433	500	520	2	399	258	0	0
02-16-81	2901367	590	684	721	2	349	332	0	0
05-02-83	3013549	594	688	726	2	4	398	0	0
08-14-85	3105606	541	626	657	2	12	414	0	0

BLANCO MESA VERDE DWIGHTS NUMBER = 30429N10W13A00MV

TEST DATE	CUM TO DATE	WHSIP	BHP	BHP/Z	T	POTEN	WH FLOW	BBL/D COND	BBL/D WATER
09-07-67	0	866	956	1064	2	2043	0	0	0
07-17-70	353493	593	652	701	2	227	347	0	0
06-18-71	422878	520	571	609	2	182	389	0	0
07-18-72	496366	487	535	568	2	204	320	0	0
05-02-73	542646	537	590	631	2	166	169	0	0
08-02-74	659338	323	354	368	2	241	135	0	0
08-02-76	800592	290	317	328	2	178	177	0	0
00-03-78	883459	405	444	467	2	210	212	0	0
10-03-78	919421	405	444	467	2	210	212	0	0
08-16-80	1038466	327	358	373	2	205	224	0	0
12-24-81	1116901	404	443	466	2	147	310	0	0
06-09-82	1139902	440	483	510	2	40	412	0	0
04-04-84	1206926	525	577	616	2	119	423	0	0

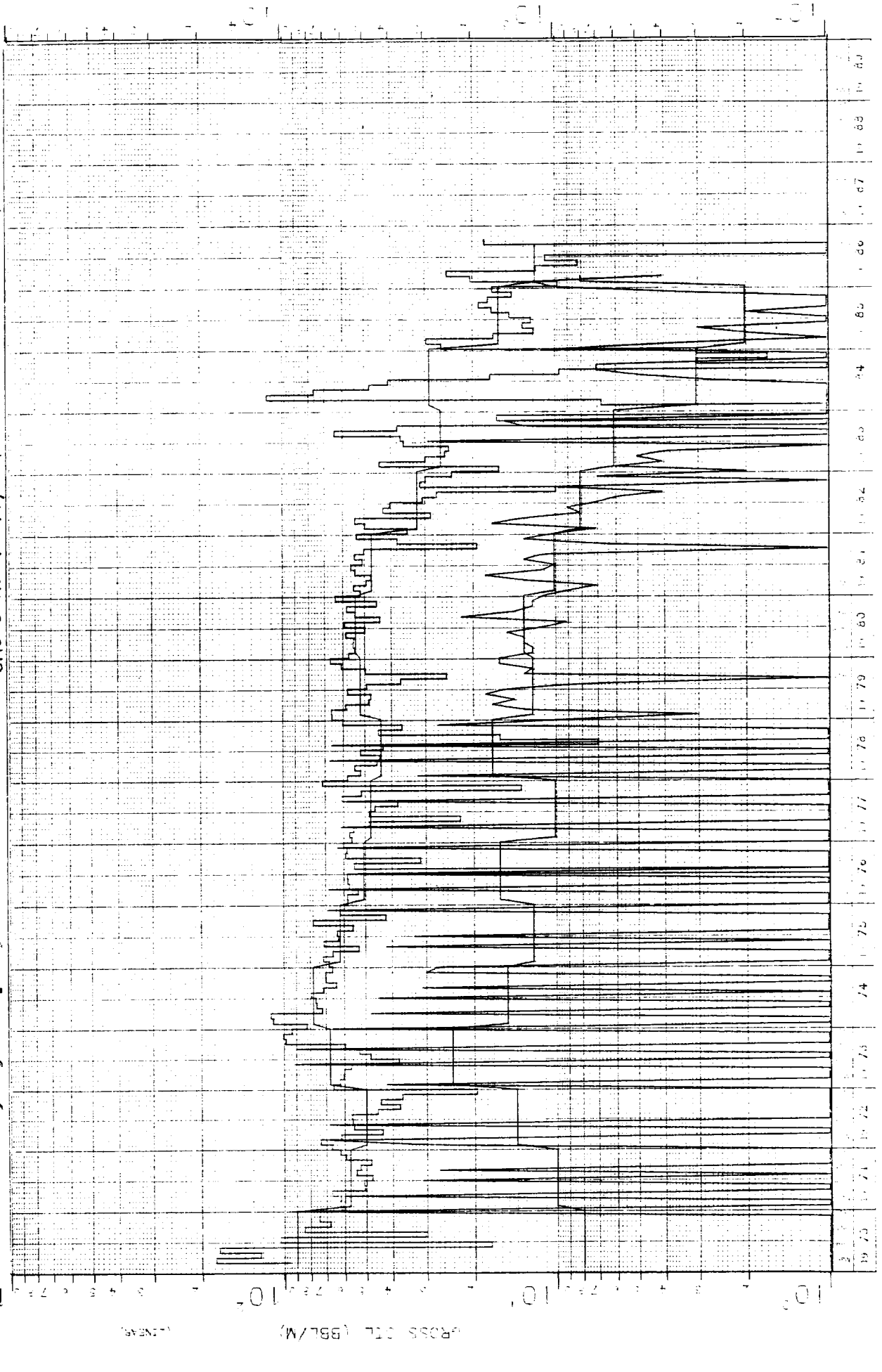
SOURCE: DWIGHTS PRODUCTION HISTORY 12/18/86

DWIGHTS NUMBER : 50429N10W13A00MV  
 LEASE/WELL NAME : REID A  
 RESERVOIR :  
 FIELD : BLANCO MESAVERDE (PRORATED GAS)  
 OPERATOR : SOUTHLAND ROYALTY CO

PROJECT :  
 STATE : NEW MEXICO  
 COUNTY : SAN JUAN  
 LOCATION : 13A29N 10W  
 PAGE NUMBER : 0000002 -A

GAS cum: 1,249,501 OIL cum: 2,653

Southland Royalty Company



OIL BY MONTH      GAS BY MONTH      OIL BY ANNUAL AVG      GAS BY ANNUAL AVG

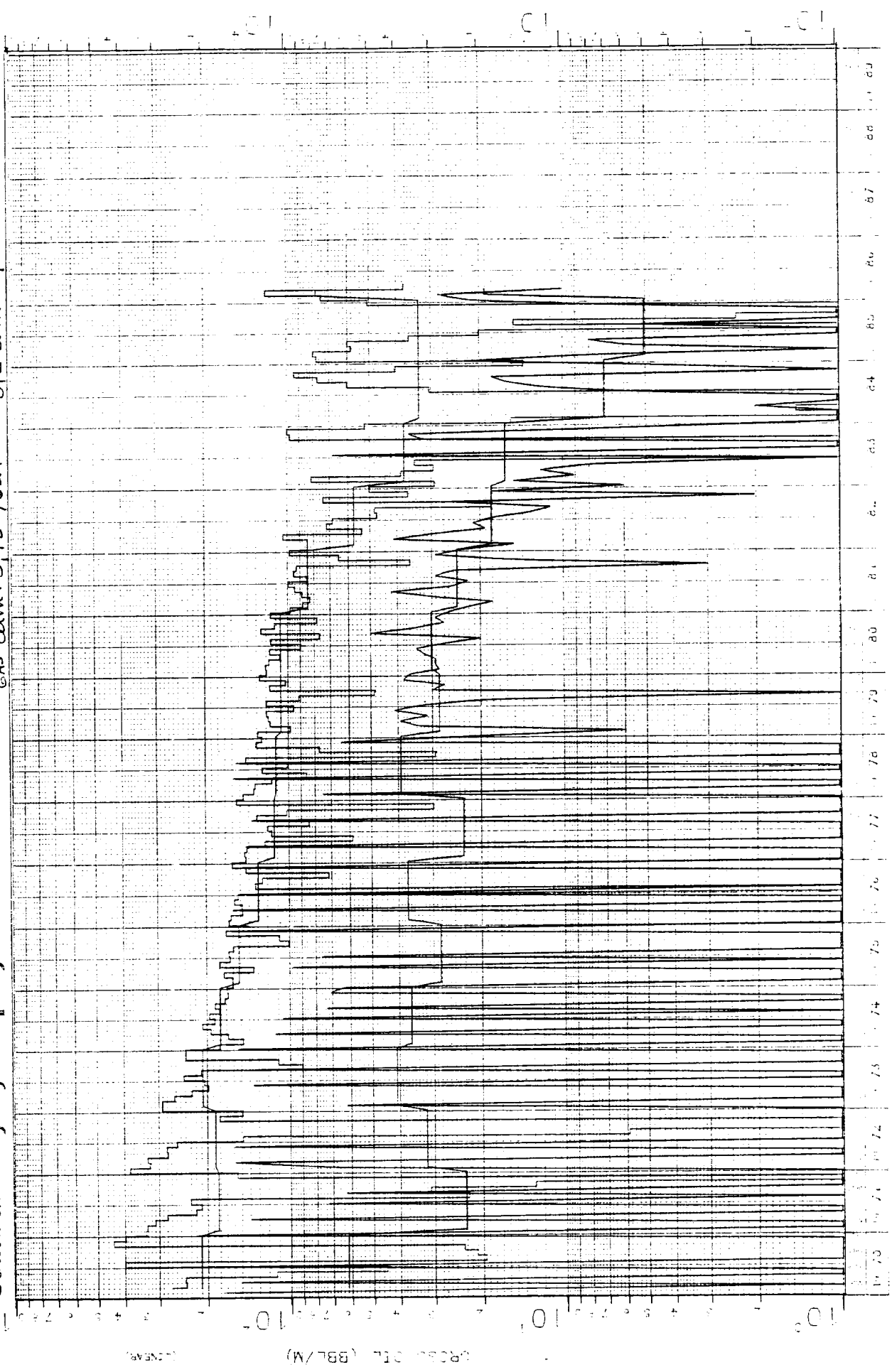
PROJECT : NEW MEXICO  
 STATE : SAN JUAN  
 COUNTY : 13A29N 10W  
 LOCATION : 0000001-A  
 PAGE NUMBER :

DWIGHT'S NUMBER : 50429N10W13A00DK  
 LEASE/WELL NAME : REID A  
 RESERVOIR :  
 FIELD : BASIN DAKOTA (PRORATED GAS)  
 OPERATOR : SOUTHLAND ROYALTY CO



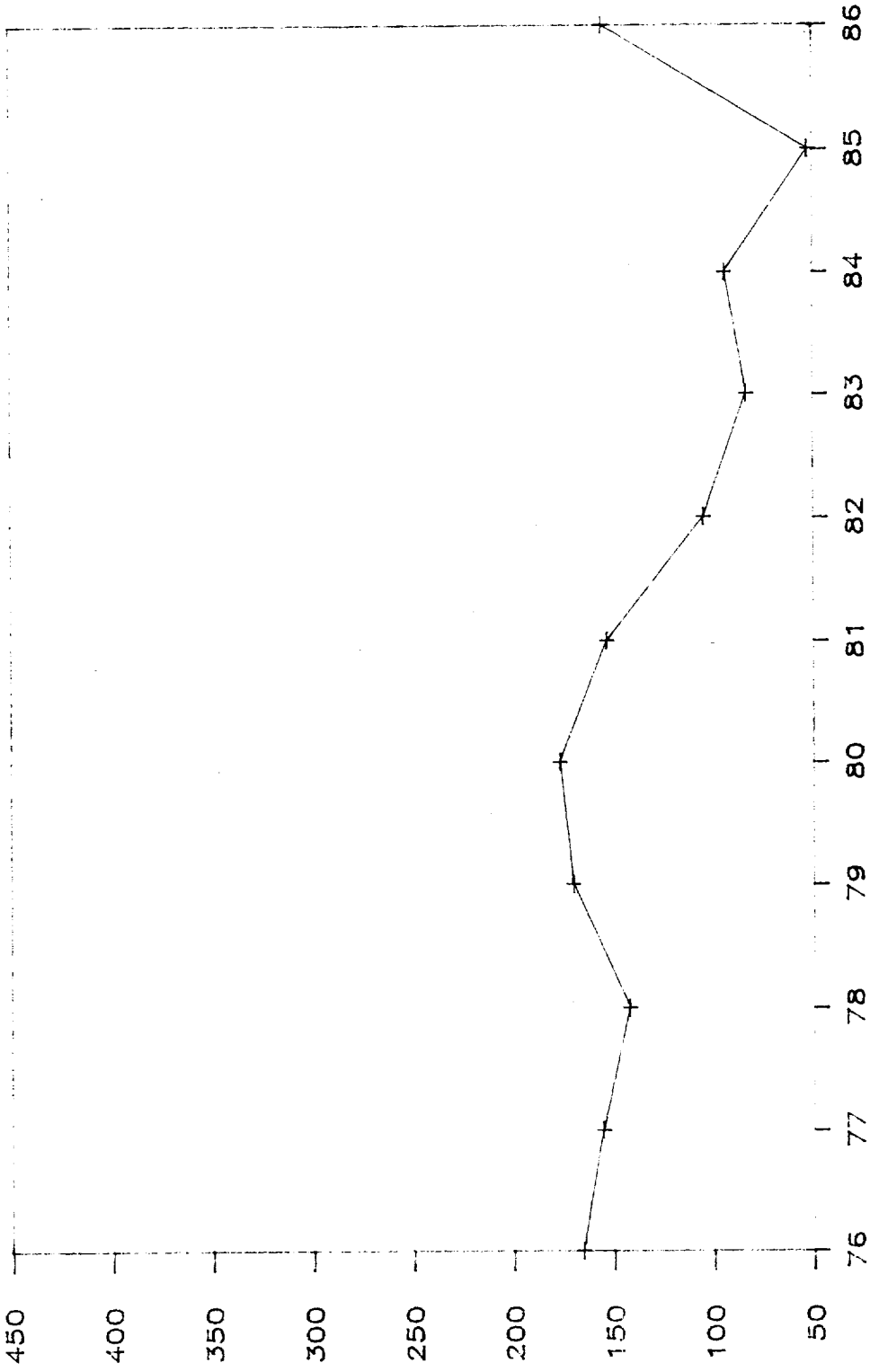
**Southland Royalty Company**

Gas cum: 3,133,621 Oil cum: 8,883



# REID A 1

YEARLY AVG MCF/D

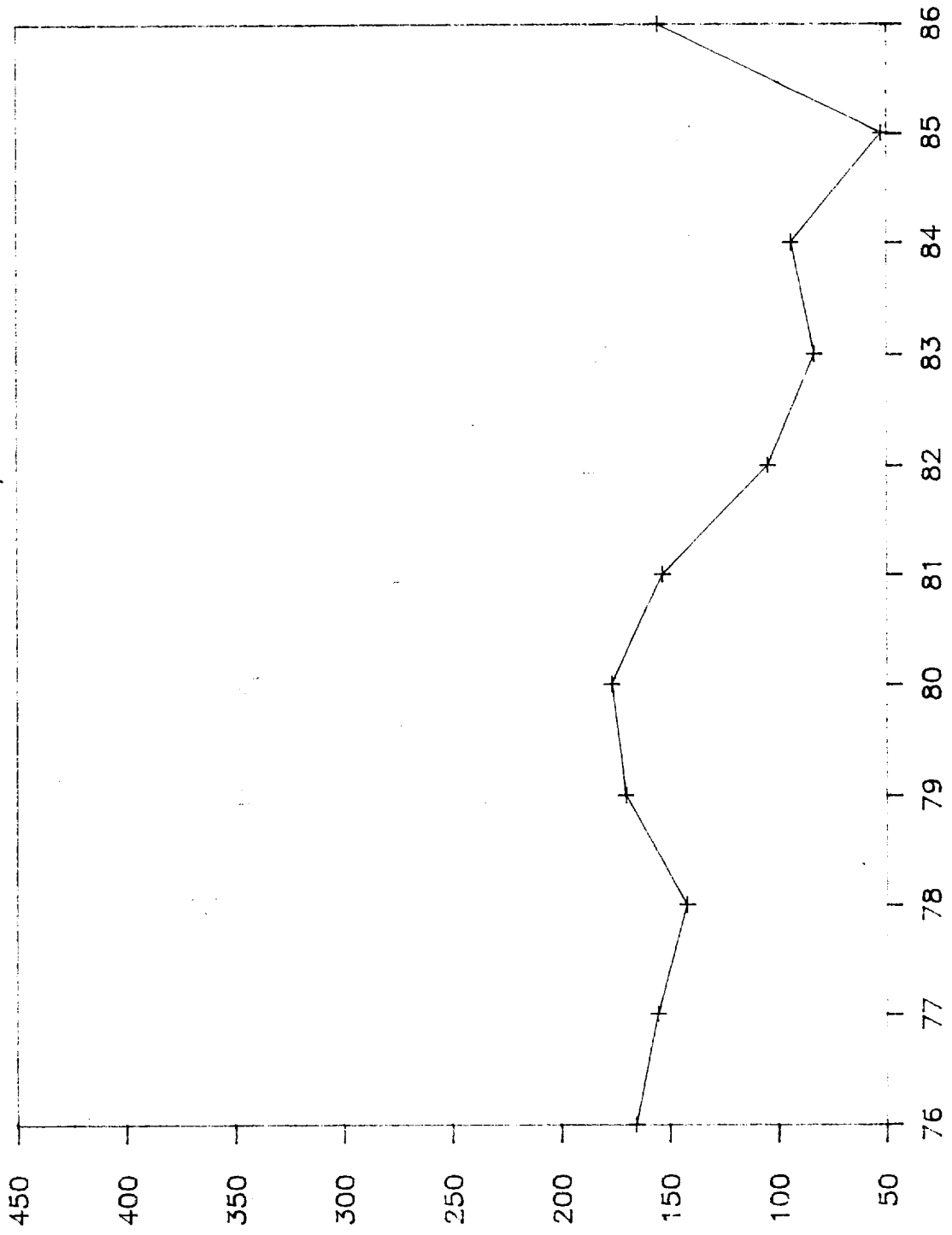


MCF PER DAY

+ MESA VERDE MCF/D

# REID A 1

YEARLY AVG MCF/D



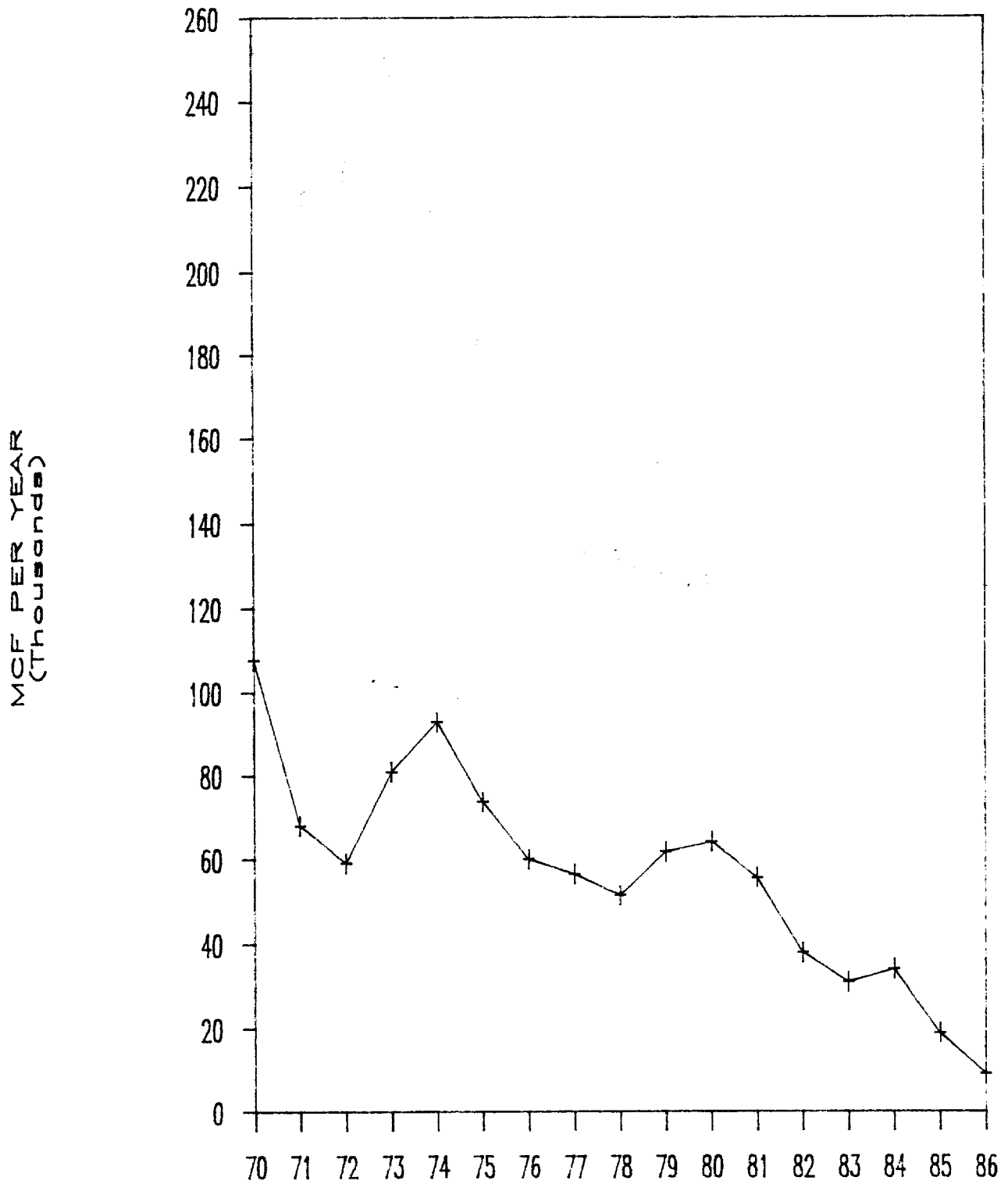
MCF PER DAY

+ MESA VERDE MCF/D



# REID A 1

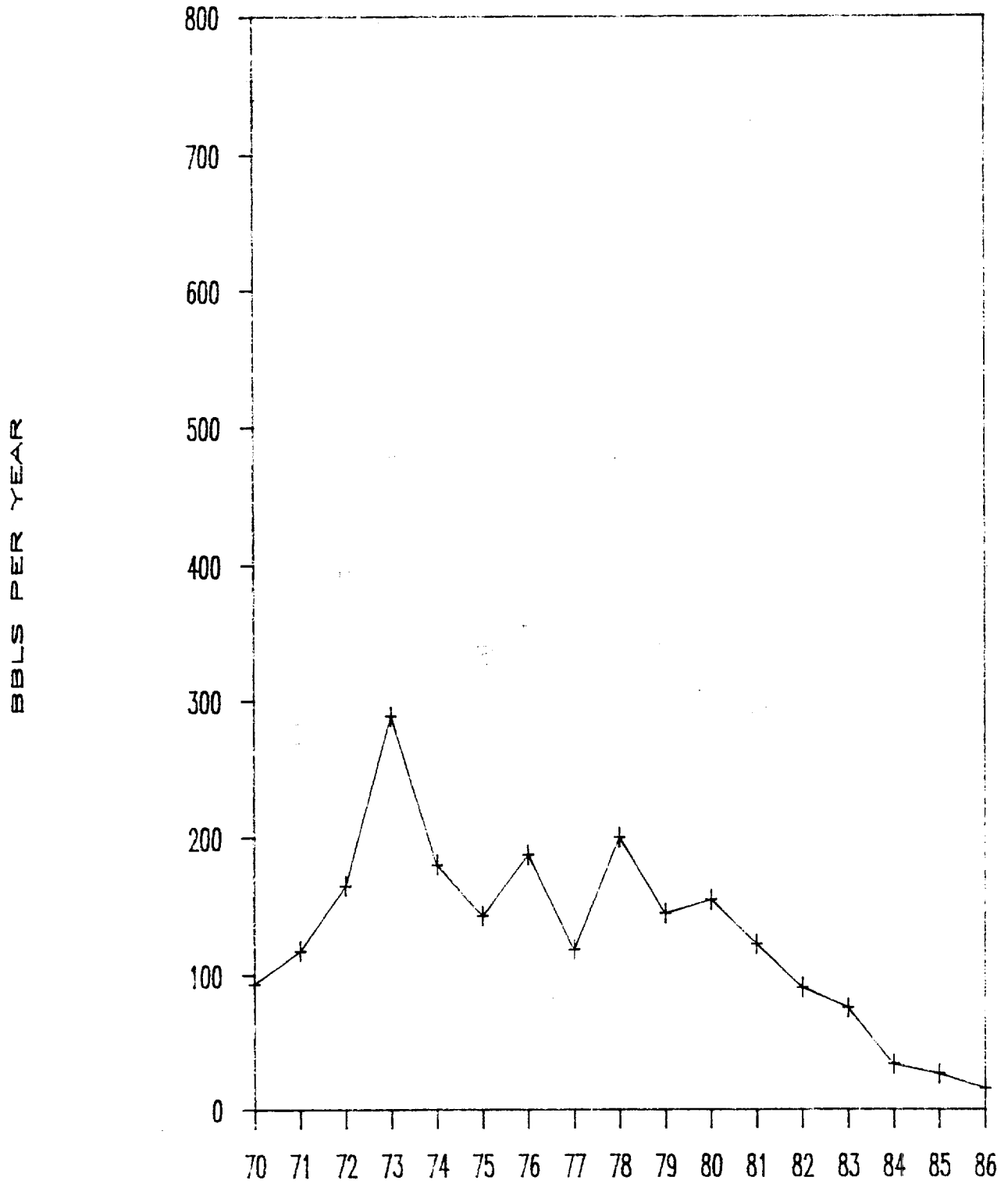
## YEARLY GAS



+ MV GAS MCF/YR

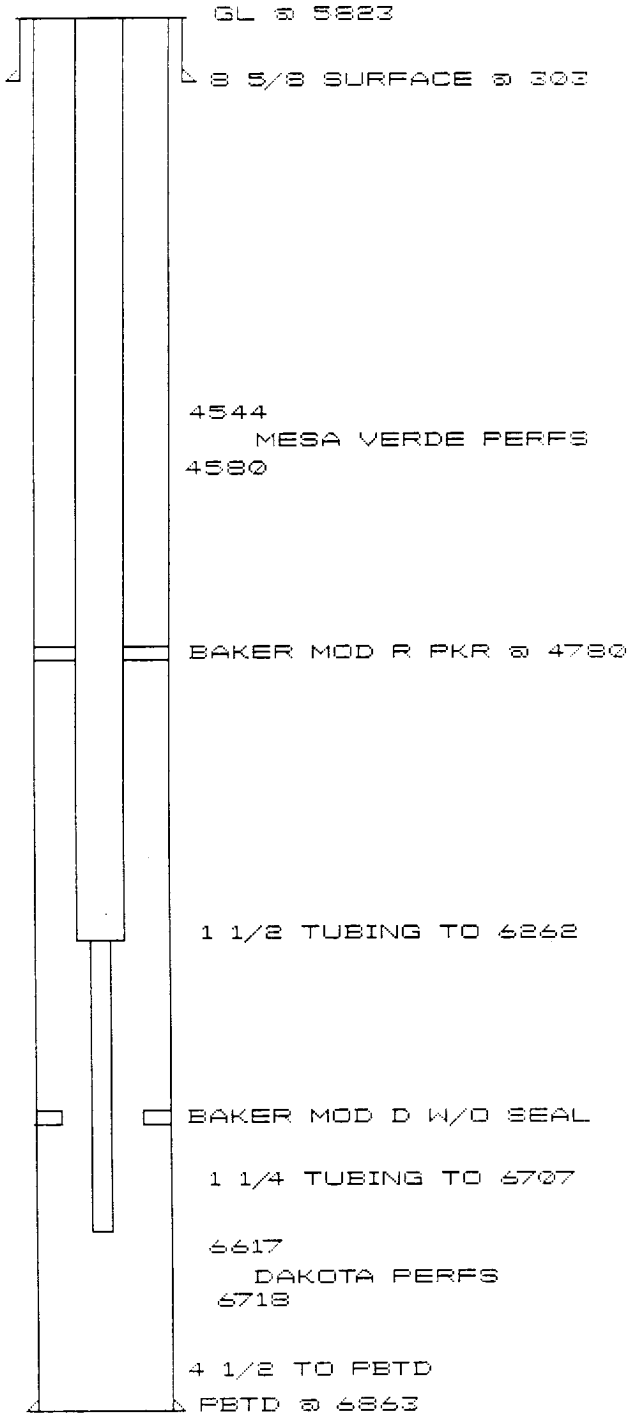
# REID A 1

## YEARLY OIL



+ MV BBLS/YR

MERIDIAN OIL INC.  
REID A #1  
WELLBORE DIAGRAM



DATE: DECEMBER 19, 1986  
 NAME: REID A #1  
 FORMATION: DAKOTA

LOCATION: UNIT A SEC. 13 T-29-N, R-10-W

TYPE OF STIMULATION :

- o - OPEN HOLE SHOT
- # - OPEN HOLE FRAC'D
- \* - CASSED FRAC'D
- + - OPEN HOLE NATURAL
- o - NOT AVAILABLE

HOUCK (TENNECO)	HOUCK (MOI)	NYE GAS COM (AMOCO)
527-86 ----- o 2 744-287 0.08	532-85 ----- 3 * 4-292 2.3 12	514-85 ----- o 8E 477-85 * 81 ----- 104-297 7 2.8
639-81 * 1 ----- 68-301 1.1	726-86 * 2 ----- 154-292 2.2 757-86 * 2E ----- 434-293 0.03	656-85 * C1 ----- 488-85 o C 1E ----- 139-313 0.3 SAMMONS GAS COM
609 85 * 20 ----- 172-312 3.3 (SRC) HARE	REID A (SRC) 541-85 * 1 ----- 12-422 3.1 744-58 N.T. ----- 1M o 87-309 205-241 1.8 0.2	447-85 18 ----- o B 1M 96-303 0.2 567-85 ----- B 1 o 40-299 0.7
23 614-81 ----- 1R o 79-295 0.2	MARTINEZ GAS COM G (AMOCO) 630-86 ----- 1E o 378-290 0.2 497-287 * 1 2.6 733-85 24 ----- 1 * 96-306 2.3 484-85 o 1E ----- 122-300 0.5	SNIDER GAS COM (AMOCO) 422-85 ----- o 1M 84-317 0.17 GERK GAS COM (AMOCO)
CHAVEZ GAS COM (AMOCO)	MARTINEZ GAS COM F	

T  
29  
N

Most Recent SIP (PSIA)-Year  
 Present (MCF/D)-Line (PSIA)  
 Cumulative production (MMMCF)

DATE: DECEMBER 19, 1986

NAME: REID A 1

FORMATION: MESA VERDE

LOCATION: UNIT A SEC. 13 T-29-N R-10-1

TYPE OF STIMULATION :

0 - OPEN HOLE SHOT

# - OPEN HOLE FRAC'D

\* - CASIED FRAC'D

+ - OPEN HOLE NATURAL

o - NOT AVAILABLE

R-10-W | R-9-W

2A \* 601-86 412-86 \* 1R  
 -----  
 451-281 120-281  
 0.16 0.22

12 518-86 \* 1A  
 -----  
 445-282  
 0.1

(MOI)  
LACKEY A

11

369-81 \* 3  
 -----  
 27-298  
 0.4

(MOI)  
LACKEY A

SAMMONS GAS COM

2R \* 257-86 198-86 \* 1  
 -----  
 74-155 140-293  
 0.4 1.2

13 1M \* N.T.  
 -----  
 196-229  
 0.4

14

NT \* 22A  
 -----  
 153-173  
 0.3

NT \* 22  
 -----  
 155-74  
 0.25

(SRC)  
HARE

T  
29  
N

0000-00  
 -----  
 000-000  
 0000

(AMOCO)  
18

486-86 \* 1M \* 378-84  
 -----  
 70-307 72-302  
 0.14 2.0

(SRC)  
REID A

VALENCIA GAS COM

NT \* G 1  
 -----  
 34-308  
 0.8

24 674-86 \* I 1  
 -----  
 291-291  
 0.2

I 1A \* N T  
 -----  
 269-306  
 (AMOCO)

MARTINEZ GAS COM

(AMOCO)  
19

390-86 \* 1A \* 439-86  
 -----  
 148-180 117-311  
 0.4 2.3

(AMOCO)  
19

599-84 \* 1M  
 -----  
 81-326

(AMOCO)  
GERK GAS COM

R-10-W | R-9-W

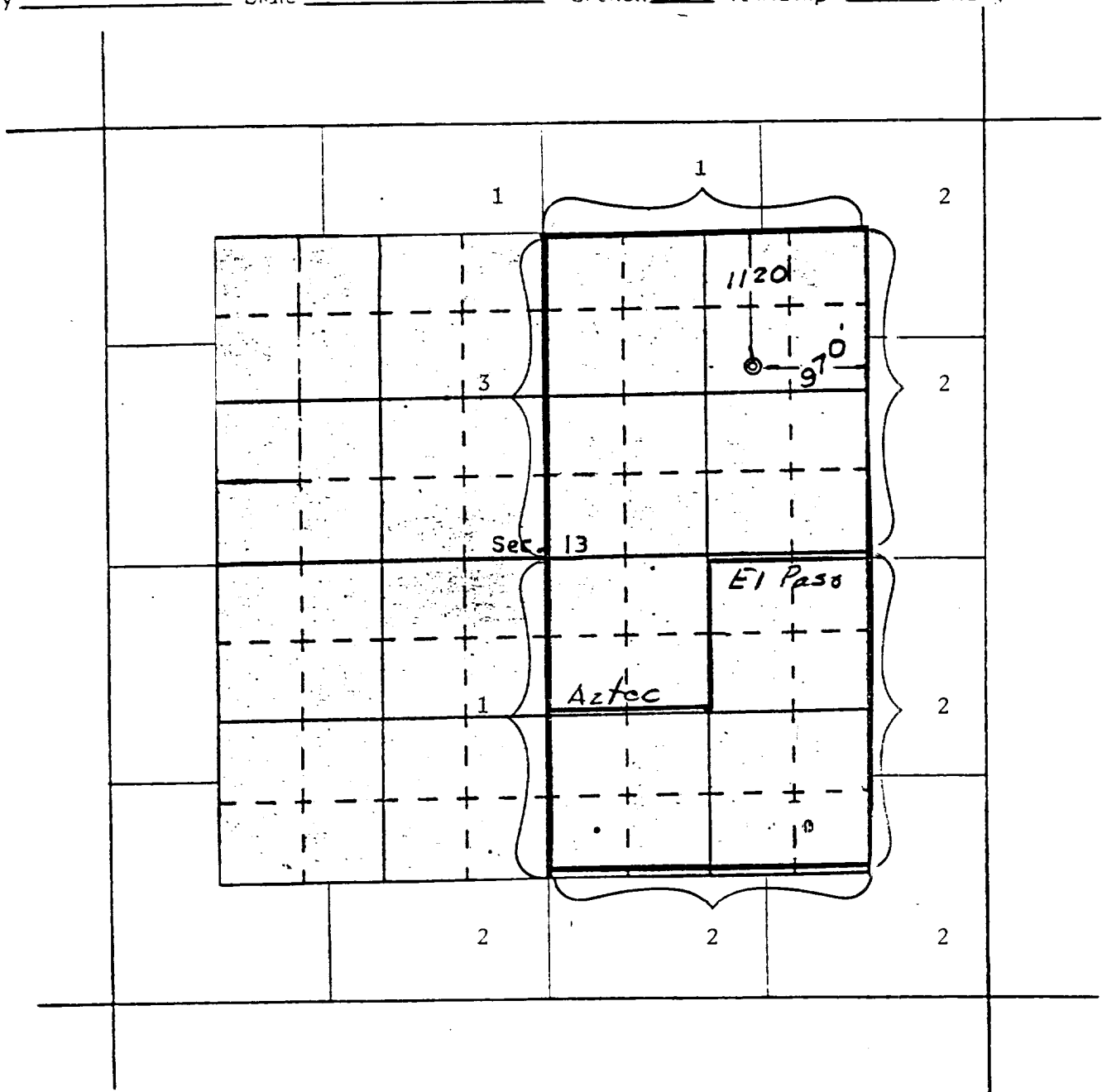
Most Recent SIP (PSIA)-Year  
 Present (MCF/D)-Line (PSIA)  
 Cumulative production (MMCF)

Well Name Reid A #1, Blanco Mesaverde/Basin Dakota

Footage----- 1120' FNL, 970' FEL

APPLICATION FOR COMMINGLE

County San Juan State New Mexico Section 13 Township 29N Range 10W



REMARKS:

(1) EL PASO NATURAL GAS COMPANY

(2) AMOCO PRODUCTION COMPANY

(3) SOUTHLAND ROYALTY COMPANY

*ld*



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100

100

100

40

20

50

100

100

100

100

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