

**DISTRICT I**  
P.O. Box 1980, Hobbs, NM 88241-1980

**DISTRICT II**  
811 South First St., Artesia, NM 88210-2835

**DISTRICT III**  
1000 Rio Brazos Rd, Aztec, NM 87410-1693

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107-A  
New 3-12-96

**OIL CONSERVATION DIVISION**

2040 S. Pacheco  
Santa Fe, New Mexico 87505-6429

APPROVAL PROCESS :

Administrative  Hearing

EXISTING WELLBORE

YES  NO

**APPLICATION FOR DOWNHOLE COMMINGLING**

PO Box 4289, Farmington, NM 87499

**Burlington Resources Oil & Gas Company**

Operator	Address		
Sunray D	2R	A 21-30-10	San Juan
Lease	Well No.	Unit Ltr. - Sec - Twp - Rge	County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 7566 API NO. 30-045-23862 Federal  State \_\_\_\_\_ (and/or) Fee \_\_\_\_\_

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Blanco Pictured Cliffs - 72359		Blanco Mesaverde - 72319
2. Top and Bottom of Pay Section (Perforations)	2964-3066'		5142-5553'
3. Type of production (Oil or Gas)	gas		gas
4. Method of Production (Flowing or Artificial Lift)	flowing		flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Current) a. 346 psi (see attachment)	a.	a. 381 psi (see attachment)
	(Original) b. 926 psi (see attachment)	b.	b. 617 psi (see attachment)
6. Oil Gravity (°API) or Gas BTU Content	BTU 1159		BTU 1238
7. Producing or Shut-In?	producing		producing
Production Marginal? (yes or no)	yes		yes
* If Shut-In and oil/gas/water rates of last production	Date: n/a Rates:	Date: Rates:	Date: n/a Rates:
* If Producing, give data and oil/gas/water of recent test (within 60 days)	Date: 12-96 Rates: 17 mcf/d; 0 bopd	Date: Rates:	Date: 12-96 Rates: 79 mcf/d; 0.8 bopd
8. Fixed Percentage Allocation Formula - % for each zone (total of %'s to equal 100%)	Oil: % Gas: % will be supplied upon completion	Oil: % Gas: %	Oil: % Gas: % will be supplied upon completion

**RECEIVED**  
FEB 21 1997  
OIL CON. DIV.  
DIST. 3

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.
10. Are all working, overriding, and royalty interests identical in all commingled zones?  Yes  No  
If not, have all working, overriding, and royalty interests been notified by certified mail?  Yes  No  
Have all offset operators been given written notice of the proposed downhole commingling?  Yes  No
11. Will cross-flow occur?  Yes  No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable.  Yes  No (If No, attach explanation)
12. Are all produced fluids from all commingled zones compatible with each other?  Yes  No
13. Will the value of production be decreased by commingling?  Yes  No (If Yes, attach explanation)
14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application.  Yes  No
15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). \_\_\_\_\_
16. ATTACHMENTS:  
\* C-102 for each zone to be commingled showing its spacing unit and acreage dedication.  
\* Production curve for each zone for at least one year. (If not available, attach explanation.)  
\* For zones with no production history, estimated production rates and supporting data.  
\* Data to support allocation method or formula.  
\* Notification list of all offset operators.  
\* Notification list of working, overriding, and royalty interests for uncommon interest cases.  
\* Any additional statements, data, or documents required to support commingling.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Mary Ellen Lutey TITLE Production Engineer DATE 2/17/97

TYPE OR PRINT NAME Mary Ellen Lutey TELEPHONE NO. ( 505 ) 326-9700

OIL CONSERVATION DIVISION

1979

Form E OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

Form C-107  
Revised 10-1-78

All distances must be from the outer boundaries of the Section.

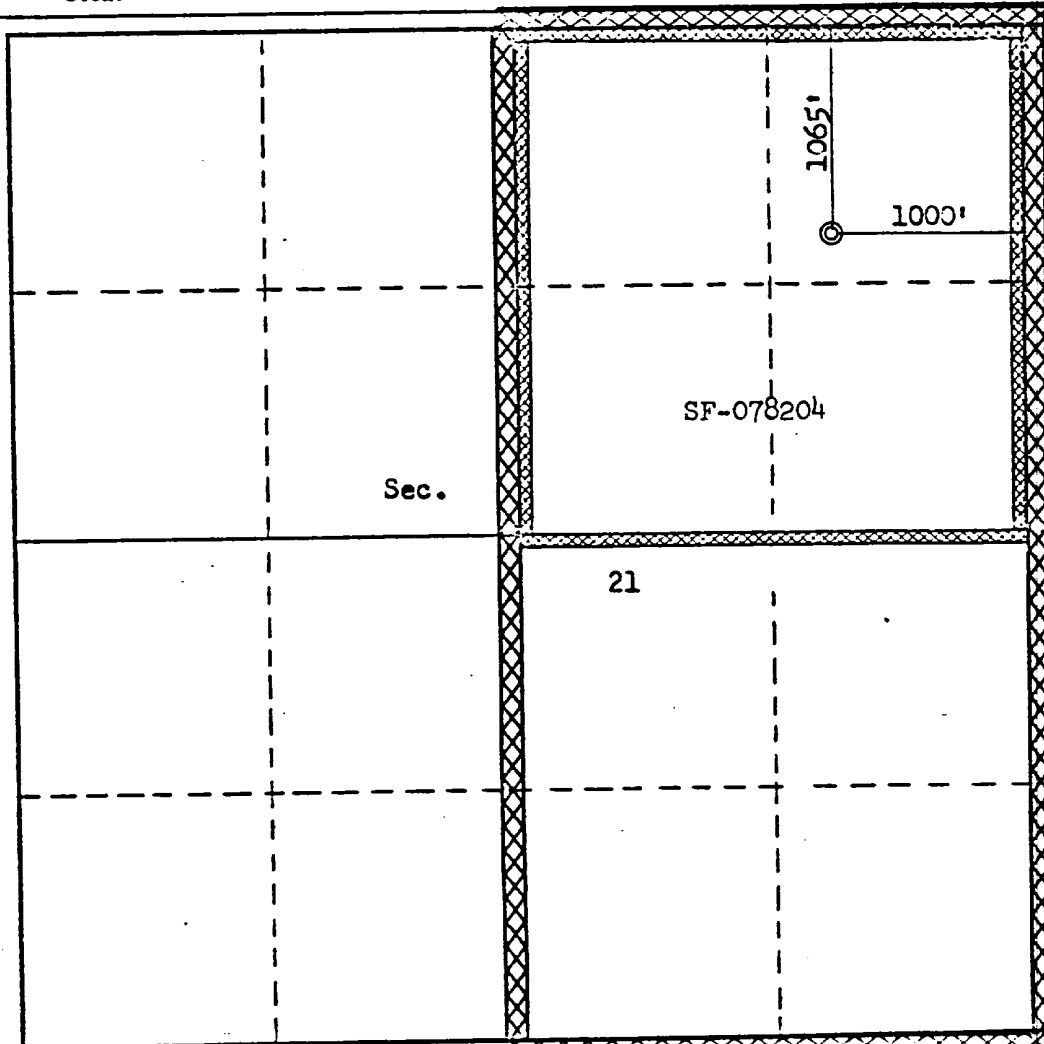
Operator EL PASO NATURAL GAS COMPANY		Lease SUNRAY "D" (SF-078204)		Well No. 2R
Unit Letter A	Section 21	Township 30N	Range 10W	County San Juan
Actual Footage Location of Well: 1065 feet from the North line and 1000 feet from the East line				
Ground Level Elev. 6343	Producing Formation PICTURED CLIFFS	Pool BLANCO MESA VERDE BLANCO PICTURED CLIFFS EXT.	Dedicated Acreage: 165.04 ± 326.44 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

Yes  No If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



**CERTIFICATION**

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

*A. G. Bisco*  
Drilling Clerk

El Paso Natural Gas Co.

September 20, 1979

Date

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed  
July 7, 1979



Registered Professional Engineer and/or Land Surveyor  
*Fred B. Kerr, Jr.*  
Fred B. Kerr, Jr.

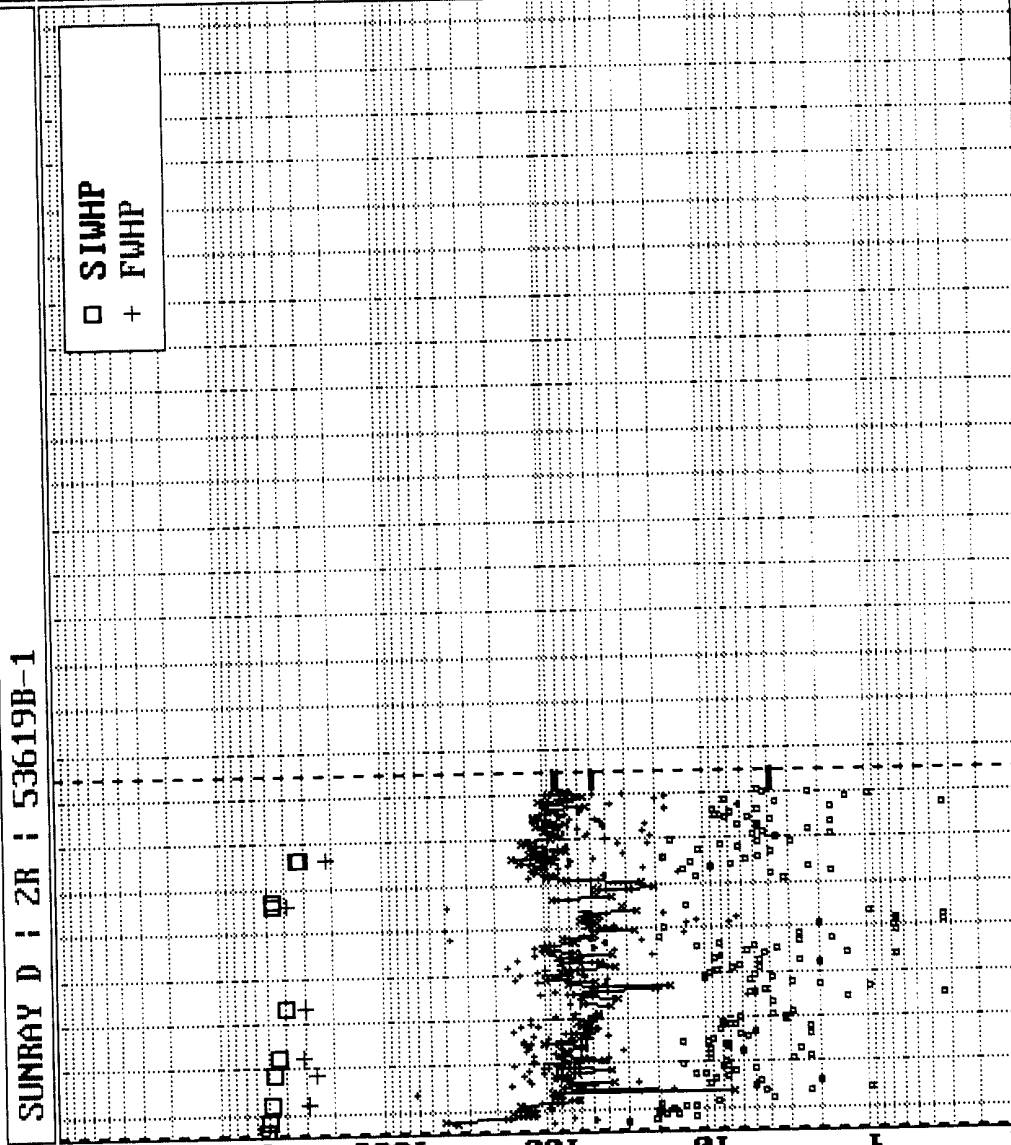
Certificate No. 3950

MV

Prop 5025 \*

- \*GAS Mcf/d
- \*OIL Bbl/d
- \*OIL/GAS
- \*WATER Bbls/d

 Rate Time  
 Semi Log



SUNRAY D : 2R : 53619B-1

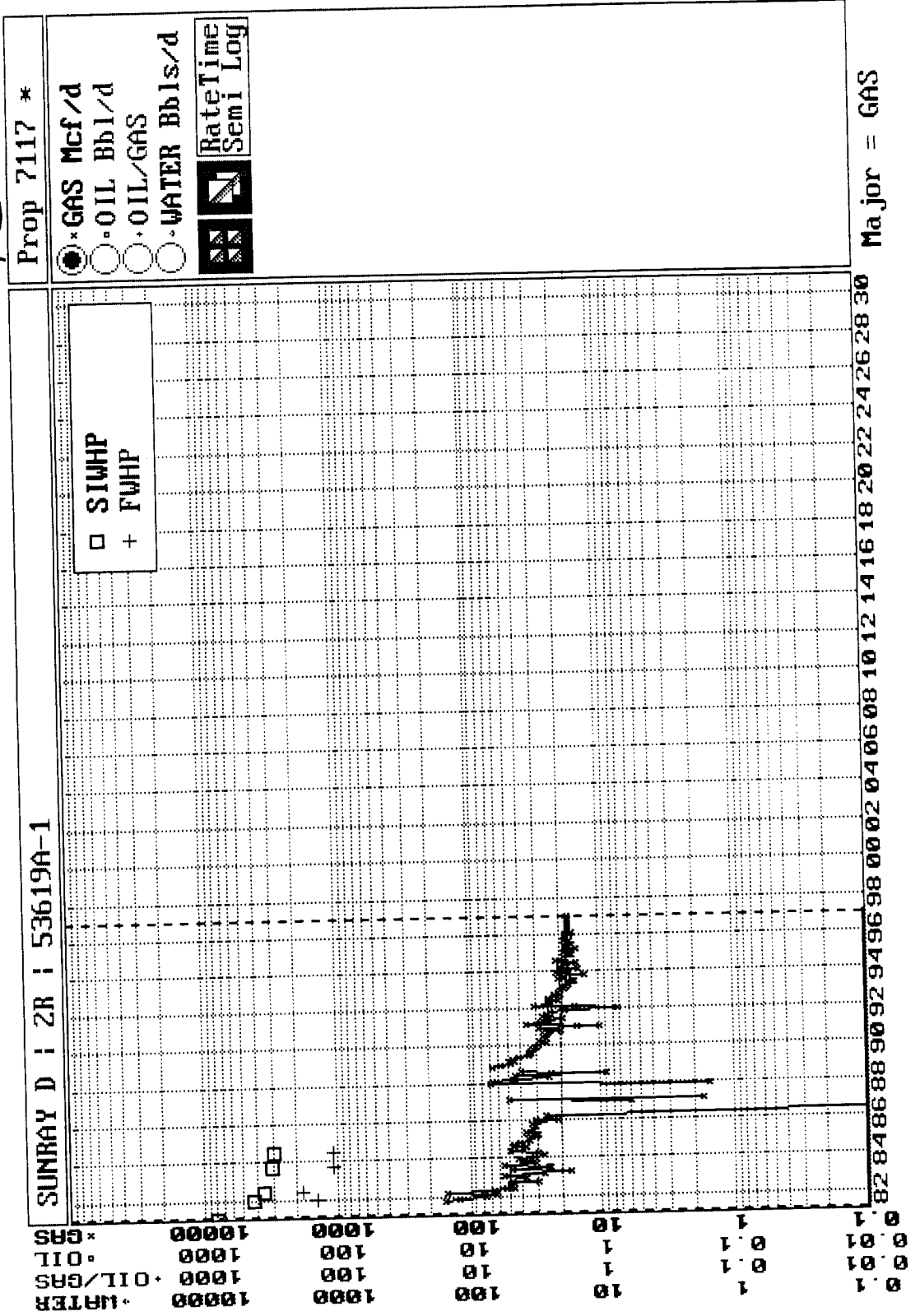
\* WATER 10000  
 \* OIL/GAS 1000  
 \* OIL 100  
 \* GAS 10000

10000  
 1000  
 100  
 10  
 1  
 0.1  
 0.01  
 0.001

Major = GAS

82 84 86 88 90 92 94 96 98 00 02 04 06 08 10 12 14 16 18 20 22 24 26 28 30

PC

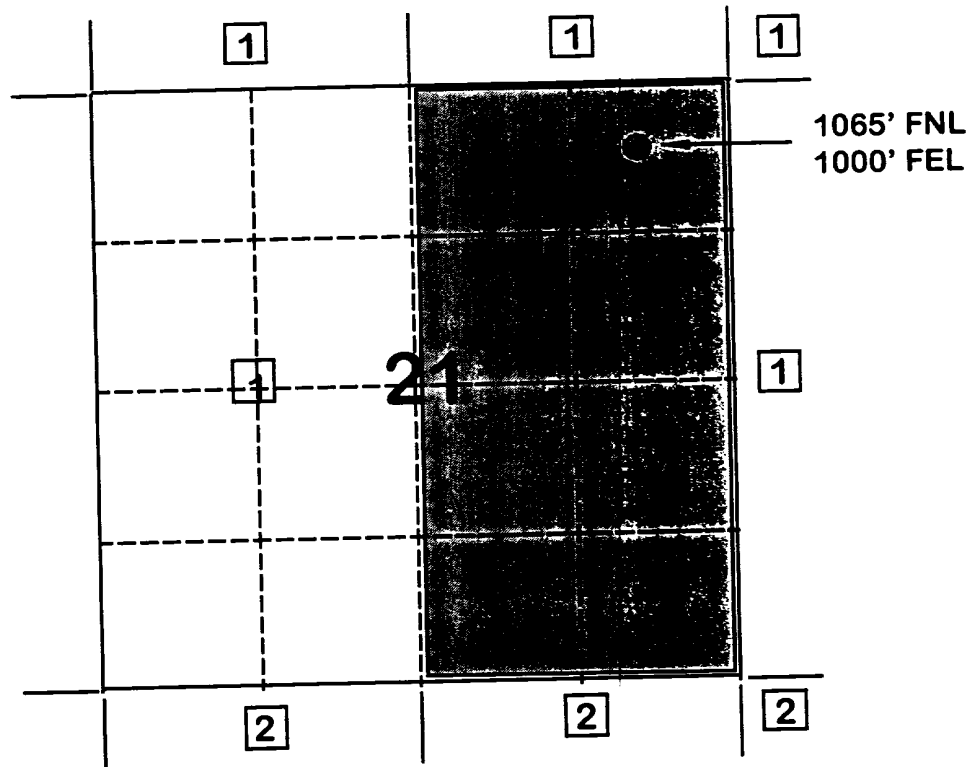


**BURLINGTON RESOURCES OIL AND GAS COMPANY**

**Sunray D #2R  
OFFSET OPERATOR \ OWNER PLAT**

**Mesaverde (E/2)/Pictured Cliffs (NE/4) Formations Commingle Well**

**Township 30 North, Range 10 West**



- 1) Burlington Resources Oil and Gas Company Successor to Meridian Oil Inc.
- 2) Amoco Production Company  
Attn: Bruce Zimney  
P.O. Box 800  
Denver, CO 80201

**FLOWING AND STATIC BHP  
CULLENDER AND SMITH METHOD**

VERSION 10/3/13/54

GAS GRAVITY	<u>0.72</u>
COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0.34</u>
%CO2	<u>0.78</u>
%H2S	<u>0</u>
DIAMETER (IN)	<u>2.4</u>
DEPTH (FT)	<u>5654</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>150</u>
FLOWRATE (MCFPD)	<u>0</u>
SURFACE PRESSURE (PSIA)	<u>330</u>
BOTTOMHOLE PRESSURE (PSIA)	<u>381.0</u>

SUNRAY D 2R MESAVERDE - (CURRENT)

**FLOWING AND STATIC BHP  
CULLENDER AND SMITH METHOD**

VERSION: 1.0 3/13/54

GAS GRAVITY	<u>0.72</u>
COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0.34</u>
%CO2	<u>0.78</u>
%H2S	<u>0</u>
DIAMETER (IN)	<u>2.4</u>
DEPTH (FT)	<u>5654</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>150</u>
FLOWRATE (MCFPD)	<u>0</u>
SURFACE PRESSURE (PSIA)	<u>531</u>
BOTTOMHOLE PRESSURE (PSIA)	<input type="text" value="616.5"/>

SUNRAY D 2R MESAVERDE - (ORIGINAL )

MV

Organize Data ScreenGraph Economics Report Plot Utility Quit  
 Browsing: SUNRAY D | 2R | 53619B-1 Property No.: 5025  
 Table(T): TEST/M,P,H,E,T,Z,C,A,O,D,N,1,2,3,B,U,S Rec: 1/11/103224  
 Item: 2/3/33 Name: DATE Type: Date Len: 8/27/203

--DATE--	---CUM_GAS-- Mcf	M SIWHP Psi
03/11/81	0	531.0
03/25/81	0	532.0
08/10/81	23647	508.0
05/13/82	63393	481.0
09/15/83	93739	464.0
06/05/84	113164	441.0
08/21/86	155233	390.0
04/08/91	243033	479.0
05/20/91	245710	467.0
04/15/93	298520	318.0
04/20/93	295843	330.0

F1=Help F3=PrvPro F5=PrvTbl F7=Calcu F9=Utils Alt+TableLtr=Change Table  
 F2=Jump F4=NxtPro F6=NxtTbl F8=Print F10=Exit Shift+<- ->=Fast Tbl R & L



**FLOWING AND STATIC BHP  
CULLENDER AND SMITH METHOD**

VERSION 10.3/13/54

GAS GRAVITY	<u>0.66</u>
COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0.35</u>
%CO2	<u>0.35</u>
%H2S	<u>0</u>
DIAMETER (IN)	<u>1.25</u>
DEPTH (FT)	<u>5654</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>110</u>
FLOWRATE (MCFPD)	<u>0</u>
SURFACE PRESSURE (PSIA)	<u>302</u>
BOTTOMHOLE PRESSURE (PSIA)	<u>345.8</u>

SUNRAY D 2R PICTURED CLIFFS - (ORIGINAL)

**FLOWING AND STATIC BHP  
CULLENDER AND SMITH METHOD**

VERSION 1.0 3/13/54

GAS GRAVITY	<u>0.66</u>	
COND. OR MISC. (C/M)	<u>C</u>	
%N2	<u>0.35</u>	
%CO2	<u>0.35</u>	
%H2S	<u>0</u>	
DIAMETER (IN)	<u>1.25</u>	
DEPTH (FT)	<u>5654</u>	
SURFACE TEMPERATURE (DEG F)	<u>60</u>	
BOTTOMHOLE TEMPERATURE (DEG F)	<u>110</u>	
FLOWRATE (MCFPD)	<u>0</u>	
SURFACE PRESSURE (PSIA)	<u>798</u>	
BOTTOMHOLE PRESSURE (PSIA)	<table border="1"><tr><td>925.9</td></tr></table>	925.9
925.9		

SUNRAY D 2R PICTURED CLIFFS - (ORIGINAL )

PC

Organize Data ScreenGraph Economics Report Plot Utility Quit  
Browsing: SUNRAY D | 2R | 53619A-1 Property No.: 7117  
Table(T): TEST/M,P,H,E,T,Z,C,A,O,D,N,1,2,3,B,U,S Rec: 1/5/103224  
Item: 2/3/33 Name: DATE Type: Date Len: 8/27/203

<u>--DATE--</u>	<u>---CUM GAS--</u>	<u>M SIWHP</u>
	Mcf	Psi
01/01/80	0	798.0
12/14/81	10729	428.0
05/13/82	23348	351.0
09/15/83	40059	307.0
06/05/84	47852	302.0

F1=Help F3=PrvPro F5=PrvTbl F7=Calcu F9=Utils Alt+TableLtr=Change Table  
F2=Jump F4=NxtPro F6=NxtTbl F8=Print F10=Exit Shift+<- ->=Fast Tbl R & L

FARMINGTON  
SUNRAY D 2R  
BLANCO PICTURED CLIFFS (GAS) FIELD

1996 MONTHLY PRODUCTION FOR 53619A

PHS030M

PICTURED CLIFFS ZONE

MO	T	S	DAYS		OIL		GAS		WATER	PROD		
			ON	PC	PROD	GRV	PC	PROD			ON	BTU
1	2	F					01	536	31	1138	15.025	
2	2	F					01	481	29	1138	15.025	
3	2	F					01	540	31	1147	15.025	
4	2	F					01	241	30	1147	15.025	
5	2	F					01	3	31		15.025	
6	2	F					01	803	18	1147	15.025	
7	2	F					01	354	31	1146	15.025	
8	2	F					01	591	31	1146	15.025	
9	2	F					01	506	18	1146	15.025	
10	2	F					01	617	28	1146	15.025	
11	2	F					01	557	30	1146	15.025	
12	2	F					01	528	31	1146	15.025	

PF6 - RETURNS TO ANNUAL DISPLAY  
PF10 - HELP INFORMATION

PF3 - TRANSFER TO UPDATE  
PF9 - DISPLAY MONTHLY INJECTIC  
PRS 02/05/97

00/00/00 00:00:00:0

B MY JOB

NUM LU #27

FARMINGTON  
SUNRAY D 2R  
BLANCO MESAVERDE (PRORATED GAS FIELD)

1996 MONTHLY PRODUCTION FOR 53619B

PHS030M

MESAVERDE ZONE

MO	T	S	DAYS		OIL		GAS		WATER	PROD		
			ON	PC	PROD	GRV	PC	PROD			ON	BTU
1	2	F	31	02	13		01	2735	31	1216	15.025	
2	2	F	29	02	14	51.0	01	2139	29	1216	15.025	
3	2	F	31	02	7		01	2401	31	1216	15.025	
4	2	F	30	02	2		01	2808	30	1250	15.025	
5	2	F	31	02			01	1826	31	1250	15.025	
6	2	F	27	02	3		01	2267	27	1250	15.025	
7	2	F	31	02	1		01	2203	31	1250	15.025	
8	2	F	31	02			01	1568	31	1250	15.025	
9	2	F	19	02			01	1006	19	1226	15.025	
10	2	F	26	02	4		01	2021	26	1226	15.025	
11	2	F	30	02	18		01	2284	30	1226	15.025	
12	2	F	31	02	24		01	2444	31	1226	15.025	

PF6 - RETURNS TO ANNUAL DISPLAY  
PF10 - HELP INFORMATION

PF3 - TRANSFER TO UPDATE  
PF9 - DISPLAY MONTHLY INJECTIC  
PRS 02/05/97

00/00/00 00:00:00:0

B MY JOB

NUM LU #27

SUNRAY D #2R  
 SECTION 21. T30N. R10W  
 MESAVERDE - PICTURED CLIFFS

