

DATE 11A 2/24/97	SUSPENSE 3/17/97	ENGINEER BS	LOGGED KV	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

1512

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
[DD-Directional Drilling] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

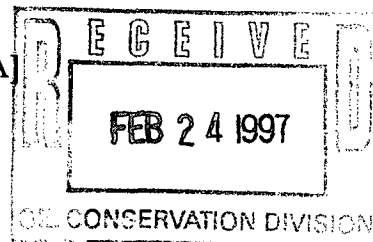
[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling
☐ NSL ☐ NSP ☐ DD ☐ SD

Check One Only for [B] and [C]

[B] Commingling - Storage - Measurement
☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR



[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☐ Offset Operators, Leaseholders or Surface Owner
- [C] ☐ Application is One Which Requires Published Legal Notice
- [D] ☒ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Peggy Bradfield

Print or Type Name

Signature

Regulatory/Compliance Administrator

Title

2-20-97

Date

BURLINGTON RESOURCES

SAN JUAN DIVISION

February 20, 1997

SENT FEDERAL EXPRESS

Mr. William LeMay
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Re: Sunray A #1
992'FNL, 998'FEL Section 15, T-30-N, R-10-W, San Juan County, NM
API #30-045-

Dear Mr. LeMay:

This is a request for administrative approval for downhole commingling the Blanco Pictured Cliffs and Blanco Mesa Verde in the subject well. This well was originally drilled as a Pictured Cliffs/Mesa Verde dual; it is intended to commingle.

To comply with the New Mexico Oil Conservation Division rules, Burlington Resources Oil & Gas is submitting the following for your approval of this commingling:

1. Form C107A - Application for Downhole Commingling;
2. C-102 plat for each zone showing its spacing unit and acreage dedication;
3. Production curve for Pictured Cliffs and Mesa Verde for at least one year;
4. Notification list of offset operators;
5. Shut in wellhead pressure and calculated down hole pressure;
6. Nine-section plats for the Mesa Verde and Pictured Cliffs

We will consult with the Supervisor of the Aztec District Office of the New Mexico Oil Conservation Division to establish an allocation formula.

Please let me know if you require additional data.

Sincerely,



Peggy Bradfield
Regulatory/Compliance Administrator
encs.

xc: Bureau of Land Management

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

Form C-107-A
New 3-12-96
APPROVAL PROCESS :
☒ Administrative ☐ Hearing
EXISTING WELLBORE
☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Burlington Resources Oil & Gas Company PO Box 4289, Farmington, NM 87499

Operator	Address		
Sunray A	1	A 15-30-10	San Juan
Lease	Well No.	Unit Ltr. - Sec - Twp - Rge	County
Spacing Unit Lease Types: (check 1 or more)			
OGRID NO. 14538 Property Code 7561 API NO. 30-045-09540 Federal <input checked="" type="checkbox"/> , 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)	3174-3203'		5412-5526'
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. 333 psi (see attachment) (Original) b. 1140 psi (see attachment)	a. b.	a. 404 psi (see attachment) b. 1156 psi (see attachment)
6. Oil Gravity (°API) or Gas BTU Content	BTU 1173		BTU 1210
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 <small>Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data</small>	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: 25 mcfd; 0 bopd	Date: Rates:	Date: 12-96 Rates: 32 mcfd; 0 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

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. NMOC 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

Well Location and Acreage Dedication Plat

Section A.

Date **MAY 5, 1960**

Operator **EL PASO NATURAL GAS COMPANY** Lease **SUNRAY** SF **078125**
 Well No. **1-A(PM)** Unit Letter **A** Section **15** Township **30-N** Range **10-W** NMPM
 Located **992** Feet From **NORTH** Line, **998** Feet From **EAST** Line
 County **SAN JUAN** G. L. Elevation **6531** Dedicated Acreage **160 & 320** Acres
 Name of Producing Formation **PICTURED CLIFFS AND MESA VERDE** Pool **WILDEAT PC, BLANCO MV**

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below? **Yes** ☒ **No** ☐
2. If the answer to question one is "no", have the interests of all the owners been consolidated by communitization agreement or otherwise? **Yes** ☐ **No** ☐ If answer is "yes", Type of Consolidation.
3. If the answer to question two is "no", list all the owners and their respective interests below:

Owner

Land Description

RECEIVED

MAY 24 1960

Section B.

This is to certify that the information in Section A above is true and complete to the best of my knowledge and belief.

El Paso Natural Gas Company

(Operator)

ORIGINAL SIGNED J.J. TILLERSON

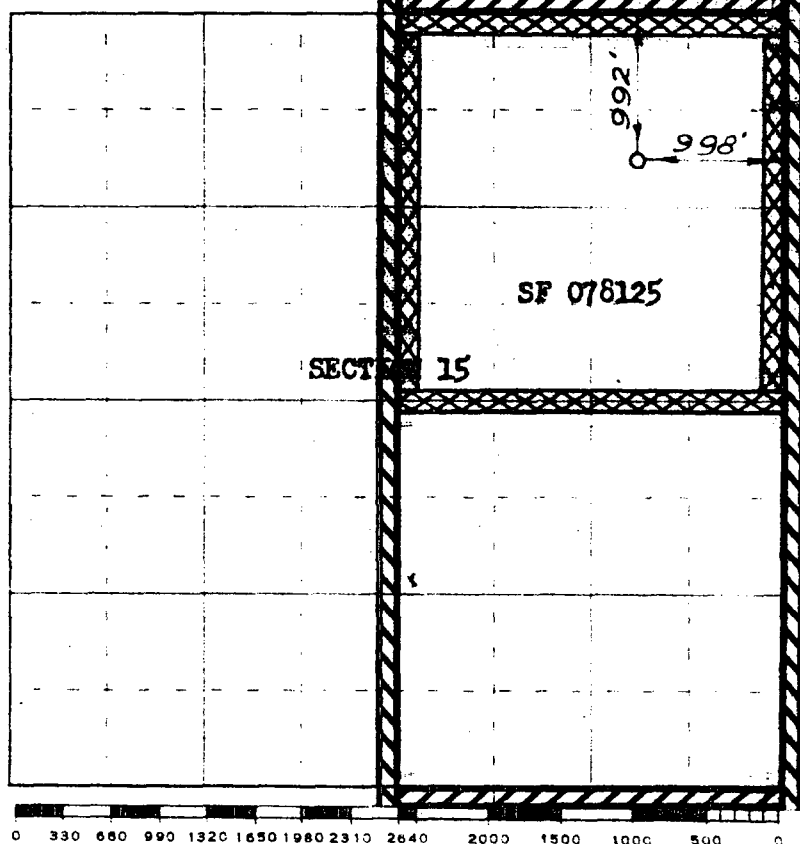
Box 997

(Representative)

Farmington, New Mexico

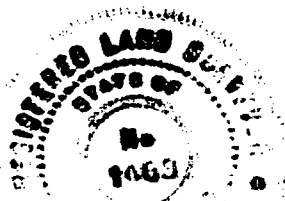
(Address)

Note: All distances must be from outer boundary of

U. S. GEOLOGICAL SURVEY
MEXICO

Scale 4 inches equal 1 mile

NOTE: THIS PLAT IS RE-ISSUED TO SHOW CORRECTED LOCATION. 8 17 60



(Seal)

Farmington, New Mexico

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

Date Surveyed **FEBRUARY 13, 1953**

James P. Lease
 Registered Professional Engineer and/or Land Surveyor

SUNRAY A : 1 : 53615A-1

Prop 5012 *

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

**RateTime
Semi Log**

**SIWHP
FWHP**

Legend:
□ SIWHP
+ FWHP

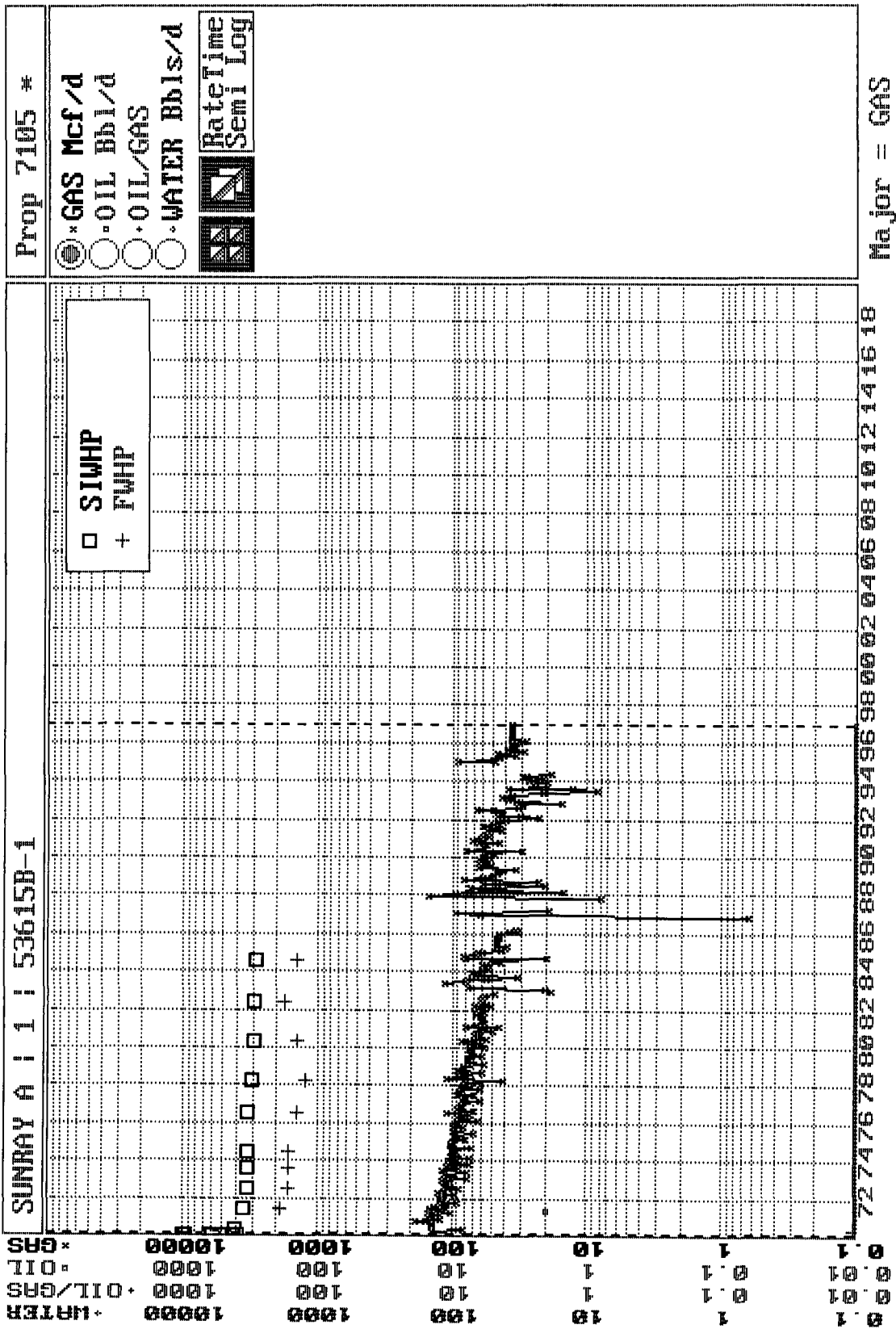
Y-axis (Flow Rate):
1000
100
10
1
0.1
0.01

X-axis (Time):
72 74 76 78 80 82 84 86 88 90 92 94 96 98 00 02 04 06 08 10 12 14 16 18

Major = GAS

72 74 76 78 80 82 84 86 88 90 92 94 96 98 00 02 04 06 08 10 12 14 16 18

PC

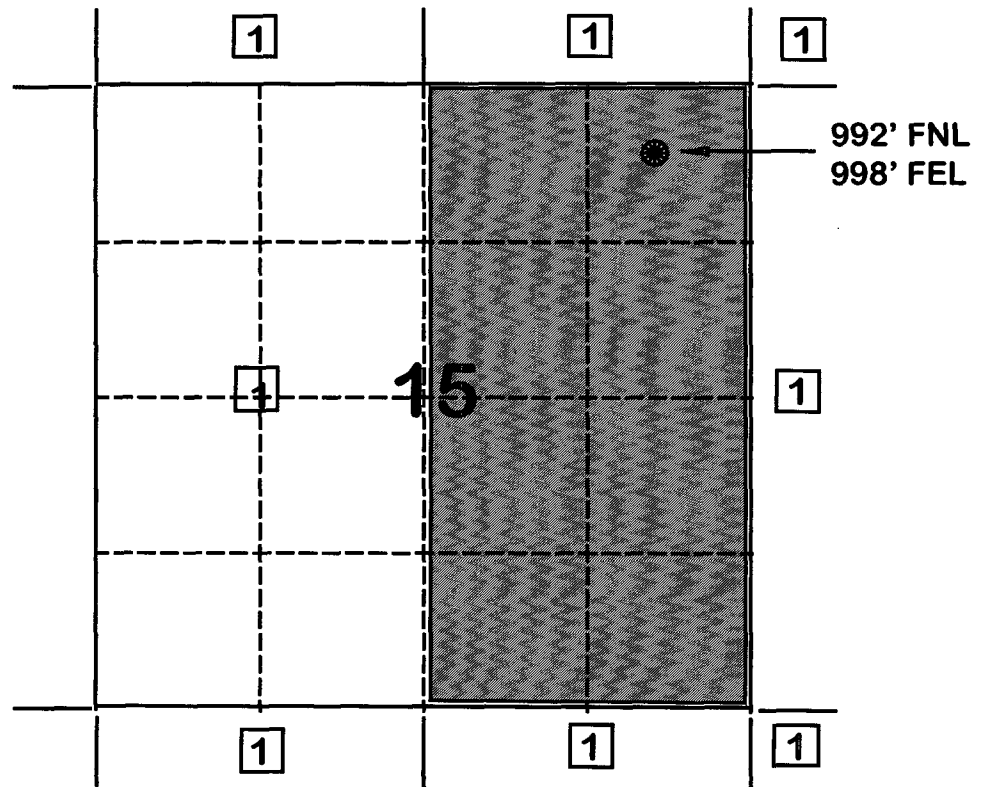


BURLINGTON RESOURCES OIL AND GAS COMPANY

**Sunray A #1
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.

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

VERSION 1.0 3/13/94

GAS GRAVITY	0.7
COND. OR MISC. (C/M)	C
%N2	0.37
%CO2	0.79
%H2S	0
DIAMETER (IN)	2.4
DEPTH (FT)	5580
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	150
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	352
BOTTOMHOLE PRESSURE (PSIA)	404.1

SUNRAY A #1 MESAVERDE - (CURRENT)

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

VERSION 1.0 3/13/94

GAS GRAVITY	0.7
COND. OR MISC. (C/M)	C
%N2	0.37
%CO2	0.79
%H2S	0
DIAMETER (IN)	2.4
DEPTH (FT)	5580
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	150
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	990
BOTTOMHOLE PRESSURE (PSIA)	1155.6

SUNRAY A #1 MESAVERDE - (ORIGINAL)

MV

Organize Data ScreenGraph Economics Report Plot Utility Quit
 Browsing: SUNRAY A | 1 | 53615A-1 Property No.: 5012
 Table(T): TEST/M,P,H,E,T,Z,C,A,O,D,N,1,2,3,B,U,S Rec: 1/36/103224
 Item: 2/3/33 Name: DATE Type: Date Len: 8/27/203

--DATE--	---CUM GAS--	M SIWHP
	Mcf	Psi
04/15/53	0	990.0
05/15/53	0	991.0
07/20/53	4000	1034.0
04/15/54	22000	960.0
04/15/55	54000	986.0
06/15/56	92000	1044.0
08/07/57	123000	1027.0
05/06/58	144000	1022.0
04/14/59	170000	1012.0
04/14/60	200000	1027.0
11/06/60	236000	717.0
04/13/61	304000	673.0
07/04/62	429000	616.0
05/21/63	516000	606.0
05/15/64	581000	622.0

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 F2=Jump F4=NxtPro F6=NxtTbl F8=Print F10=Exit Shift+<- ->=Fast Tbl R & L

Organize Data ScreenGraph Economics Report Plot Utility Quit
 Browsing: SUNRAY A | 1 | 53615A-1 Property No.: 5012
 Table(T): TEST/M,P,H,E,T,Z,C,A,O,D,N,1,2,3,B,U,S Rec: 36/36/103224
 Item: 2/3/33 Name: DATE Type: Date Len: 8/27/203

--DATE--	---CUM GAS--	M SIWHP
	Mcf	Psi
05/27/71	1144471	464.0
06/14/72	1245623	389.0
08/20/73	1347662	368.0
06/13/74	1415152	374.0
06/29/76	1560190	396.0
04/24/78	1695353	371.0
05/07/80	1816775	397.0
05/10/82	1925919	381.0
07/17/84	1994054	406.0
04/01/86	2050749	392.0
10/08/88	2157299	253.0
05/07/89	2206952	248.0
07/12/91	2265453	499.0
12/16/91	2270142	487.0
10/20/93	2317340	352.0

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 F2=Jump F4=NxtPro F6=NxtTbl F8=Print F10=Exit Shift+<- ->=Fast Tbl R & L

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

VERSION 1.0 3/13/94

GAS GRAVITY	<u>0.66</u>
COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0.16</u>
%CO2	<u>0.56</u>
%H2S	<u>0</u>
DIAMETER (IN)	<u>2.4</u>
DEPTH (FT)	<u>5580</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>110</u>
FLOWRATE (MCFPD)	<u>0</u>
SURFACE PRESSURE (PSIA)	<u>291</u>
BOTTOMHOLE PRESSURE (PSIA)	<div>332.6</div>

SUNRAY A #1 PICTURED CLIFFS - (CURRENT)

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

VERSION 1.0 3/13/94

GAS GRAVITY	0.66
COND. OR MISC. (C/M)	C
%N2	0.16
%CO2	0.56
%H2S	0
DIAMETER (IN)	2.4
DEPTH (FT)	5580
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	110
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	980
BOTTOMHOLE PRESSURE (PSIA)	1140.4

SUNRAY A #1 PICTURED CLIFFS - (ORIGINAL)

PC

Organize Data ScreenGraph Economics Report Plot Utility Quit
 Browsing: SUNRAY A | 1 | 53615B-1 Property No.: 7105
 Table(T): TEST/M,P,H,E,T,Z,C,A,O,D,N,1,2,3,B,U,S Rec: 1/21/103224
 Item: 2/3/33 Name: DATE Type: Date Len: 8/27/203

--DATE--	---CUM GAS--	M SIWHP
	Mcf	Psi
07/14/60	0	980.0
08/29/60	0	969.0
04/13/61	46000	632.0
07/04/62	85000	603.0
05/21/63	123000	525.0
05/15/64	157000	524.0
05/18/65	206000	488.0
04/19/66	241000	423.0
05/16/67	283000	419.0
04/24/68	314000	413.0
04/11/69	352994	393.0
04/22/70	383148	416.0
05/27/71	429339	349.0
06/14/72	475301	329.0
08/20/73	518750	326.0

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 Item: 2/3/33 Name: DATE Type: Date Len: 8/27/203

--DATE--	---CUM GAS--	M SIWHP
	Mcf	Psi
05/18/65	206000	488.0
04/19/66	241000	423.0
05/16/67	283000	419.0
04/24/68	314000	413.0
04/11/69	352994	393.0
04/22/70	383148	416.0
05/27/71	429339	349.0
06/14/72	475301	329.0
08/20/73	518750	326.0
06/13/74	547394	333.0
06/29/76	613053	332.0
04/24/78	667065	306.0
05/07/80	724497	299.0
05/10/82	769198	299.0
07/17/84	806565	291.0

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FARMINGTON

1996 MONTHLY PRODUCTION FOR 53615A

PHS030M1

SUNRAY A

1

BLANCO MESAVERDE (PRORATED GAS FIELD)

MESAVERDE ZONE

DAYS ===== OIL =====					===== GAS =====									
MO	T	S	ON	PC	PROD	GRV	PC	PROD	ON	BTU	PRESS	WATER	PROD	C
1	2	F	31	02	23		01	1078	31	1188	15.025			
2	2	F	29	02	21	5.4	01	2223	29	1188	15.025			
3	2	F	31	02	19		01	1244	31	1188	15.025			
4	2	F	30	02	21		01	3344	30	1188	15.025			
5	2	F	30	02	13		01	1954	30	1188	15.025			
6	2	F	27	02	14	64.0	01	1393	27	1188	15.025			
7	2	F	31	02	11		01	1371	31	1188	15.025			
8	2	F	31	02	9		01	1652	31	1188	15.025			
9	2	F	20	02	4		01	1118	20	1188	15.025			
10	2	F	28	02	19		01	1900	28	1186	15.025			
11	2	F	30	02	20		01	1579	30	1242	15.025			
12	2	F	31	02			0132 mcf	987	31	1242	15.025			

PF6 - RETURNS TO ANNUAL DISPLAY

PF3 - TRANSFER TO UPDATE

PF10 - HELP INFORMATION

PF9 - DISPLAY MONTHLY INJECTION

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

PRS 02/05/97

B MY JOB

NUM LU #11

FARMINGTON

1996 MONTHLY PRODUCTION FOR 53615B

PHS030M1

SUNRAY A

1

BLANCO PICTURED CLIFFS (GAS) FIELD

PICTURED CLIFFS ZONE

DAYS ===== OIL =====					===== GAS =====									
MO	T	S	ON	PC	PROD	GRV	PC	PROD	ON	BTU	PRESS	WATER	PROD	C
1	2	F					01	932	31	1152	15.025			
2	2	F					01	859	29	1152	15.025			
3	2	F					01	1069	31	1152	15.025			
4	2	F					01	963	30	1152	15.025			
5	2	F					01	927	31	1152	15.025			
6	2	F					01	786	18	1152	15.025			
7	2	F					01	771	31	1152	15.025			
8	2	F					01	1198	31	1152	15.025			
9	2	F					01	664	20	1152	15.025			
10	2	F					01	1199	31	1151	15.025			
11	2	F					01	1082	30	1150	15.025			
12	2	F					0125 mcf	777	31	1150	15.025			

PF6 - RETURNS TO ANNUAL DISPLAY

PF3 - TRANSFER TO UPDATE

PF10 - HELP INFORMATION

PF9 - DISPLAY MONTHLY INJECTION

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

PRS 02/05/97

B MY JOB

NUM LU #11

SUNRAY A #1
SECTION 15, T30N, R10W
MESAVERDE - PICTURED CLIFFS

