

| | | | | |
|--------------------|--------------------|----------------|--------------|-------------|
| DATE IN 3/20/98 | SUSPENSE 4/9/98 | ENGINEER DC | LOGGED MN | TYPE DHC |
|--------------------|--------------------|----------------|--------------|-------------|

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

900

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

Date

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 87505-6429Form C-107-A
New 3-12-96

APPROVAL PROCESS :

☒ Administrative
☐ Hearing

APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE

☒ YES ☐ NO

Burlington Resources Oil and Gas

PO Box 4289, Farmington, NM 87499

Operator

Roelofs A

#2-A

Address

F-14-29N-08W

San Juan

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 7437

API NO. 30-045-23149

Federal ☒ , State ☐ , Fee ☐

| The following facts are submitted in support of downhole commingling: | Upper Zone | Intermediate Zone | Lower Zone |
|---|--|-------------------|---|
| 1. Pool Name and Pool Code | Pictured Cliffs - 72359 | | Mesa Verde - 72319 |
| 2. Top and Bottom of Pay Section (Perforations) | 3036'-3164' | | 4688'-5653' |
| 3. Type of production (Oil or Gas) | Gas | | Gas |
| 4. Method of Production (Flowing or Artificial Lift) | Flowing | | Flowing |
| 5. Bottomhole Pressure | (Current) a. 510psi (see attachment) | | a. 265 psi (see attachment) |
| Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original | (Original) b. 796 psi (see attachment) | | b. 697 psi (see attachment) |
| 6. Oil Gravity (°API) or Gas BTU Content | BTU 1116 | | BTU 1123 |
| 7. Producing or Shut-In? | Producing | | Producing |
| Production Marginal? (yes or no) | Yes | | <input checked="" type="checkbox"/> Yes |
| * If Shut-In and oil/gas/water rates of last production | Date: N/A Rates: | | Date: N/A Rates: |
| Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data | | | |
| * If Producing, give data and oil/gas/water of recent test (within 60 days) | Date: 3/98 Rates: 6 mcf/d 0.0 bopd | | Date: 3/98 Rates: 10 mcf/d 0.4 bopd |
| 8. Fixed Percentage Allocation Formula - % for each zone (total of %'s to equal 100%) | Will be supplied upon completion. | | 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 ☐ No11. 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 ☐ No13. 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 3/19/98TYPE OR PRINT NAME Mary Ellen Lutey TELEPHONE NO. (505) 326-9700

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102
Supersedes C-128
Effective 1-1-65

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

| | | | | | |
|--|----------------------|------------------------|---|---------------------------|-----------------------|
| Operator EL PASO NATURAL GAS COMPANY | | | Lease ROELOFS "A" (SF-078502-A) | | Well No. 2A |
| Unit Letter F | Section 14 | Township 29N | Range 8W | County San Juan | |

Actual Footage Location of Well:
1460 feet from the **North** line and **1740** feet from the **West** line

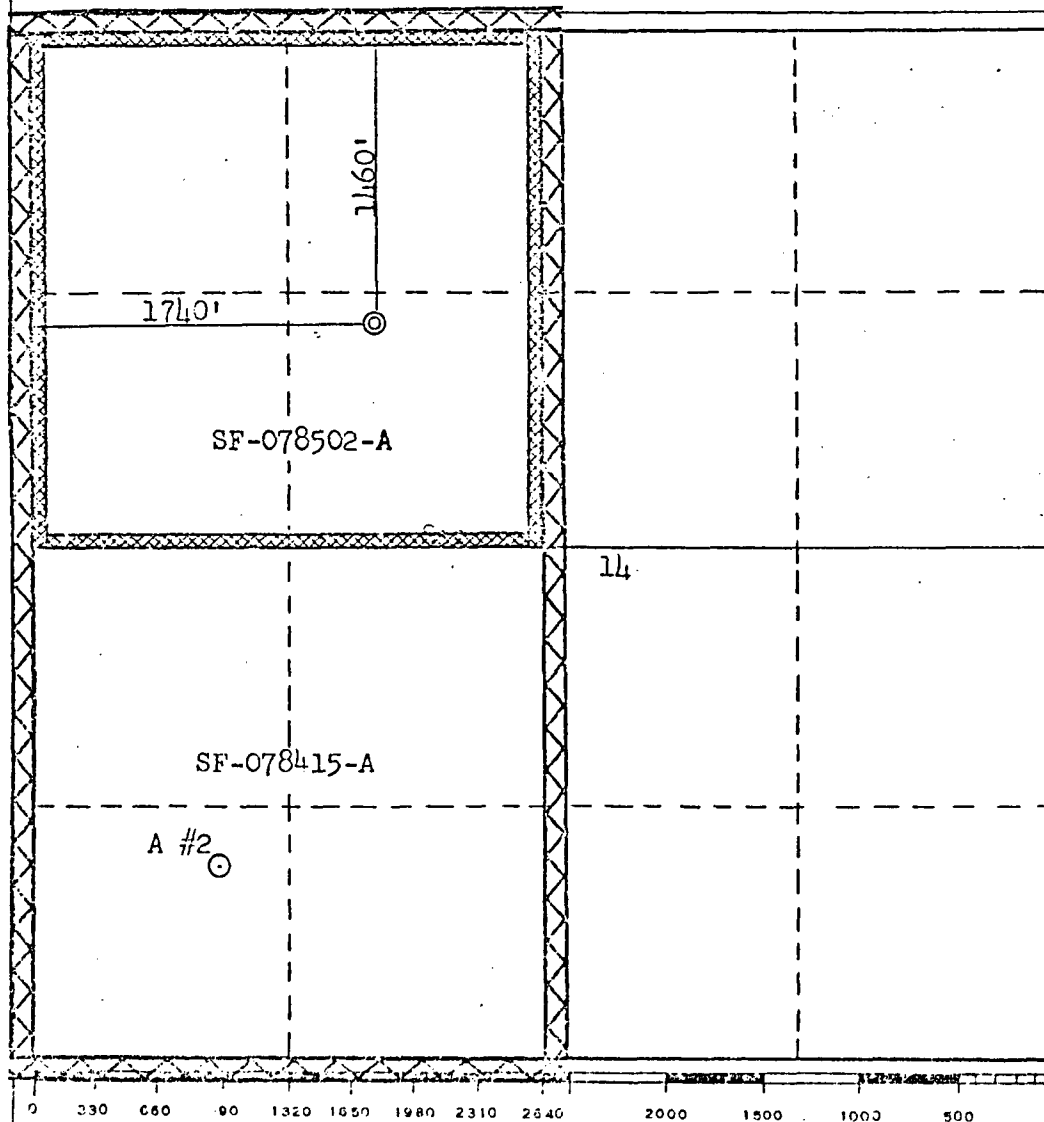
| | | | |
|-----------------------------------|--|---|--|
| Ground Level Elev. 6345 | Producing Formation Pictured Cliffs-Mesa Verde | Pool Blanco Pictured Cliffs Blanco Mesa Verde | Dedicated Acreage: 160.00 & 320.00 acres |
|-----------------------------------|--|---|--|

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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.

D. G. Brisco

Name
Drilling Clerk

Position
El Paso Natural Gas Co.

County
July 20, 1978

Date

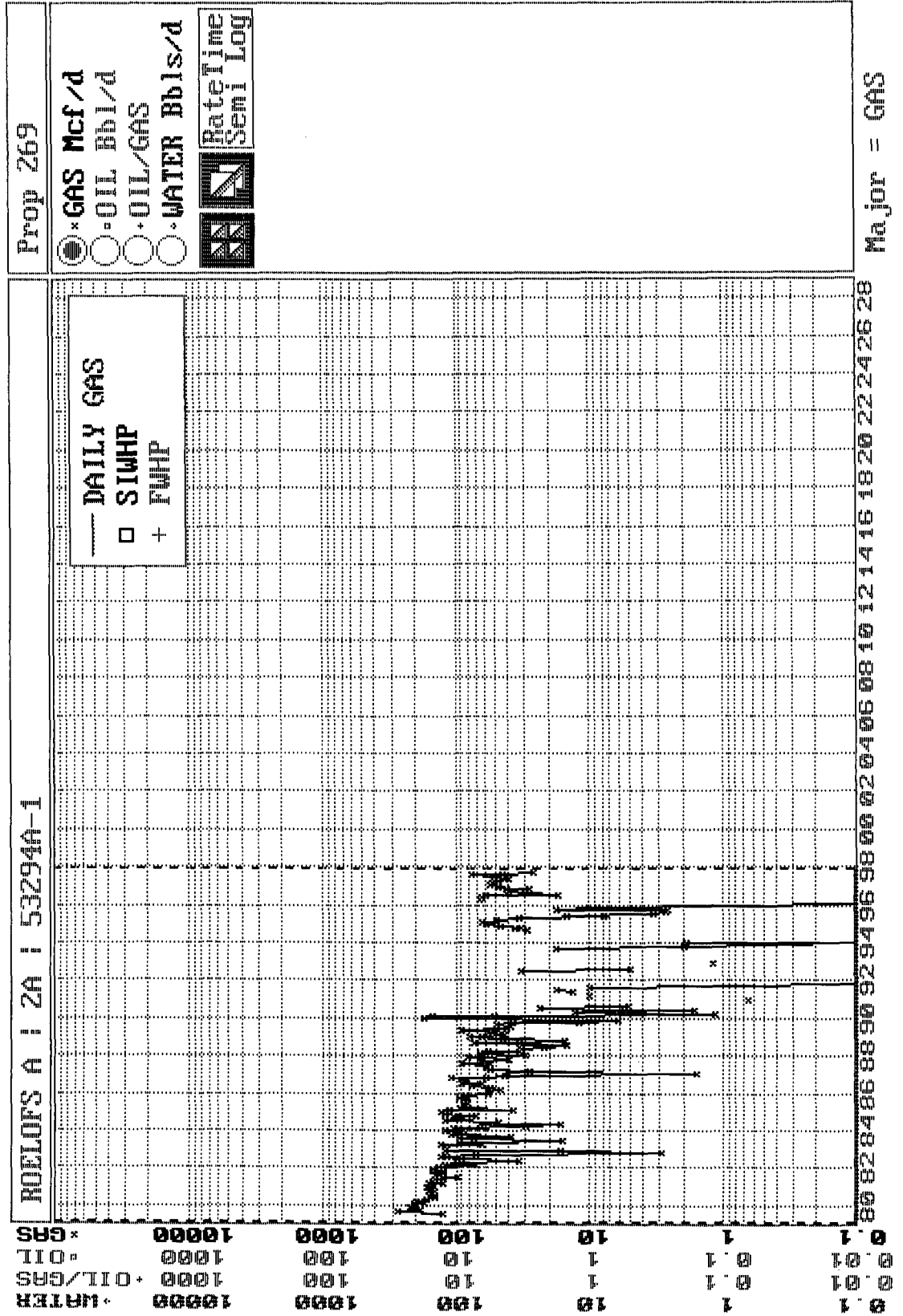
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

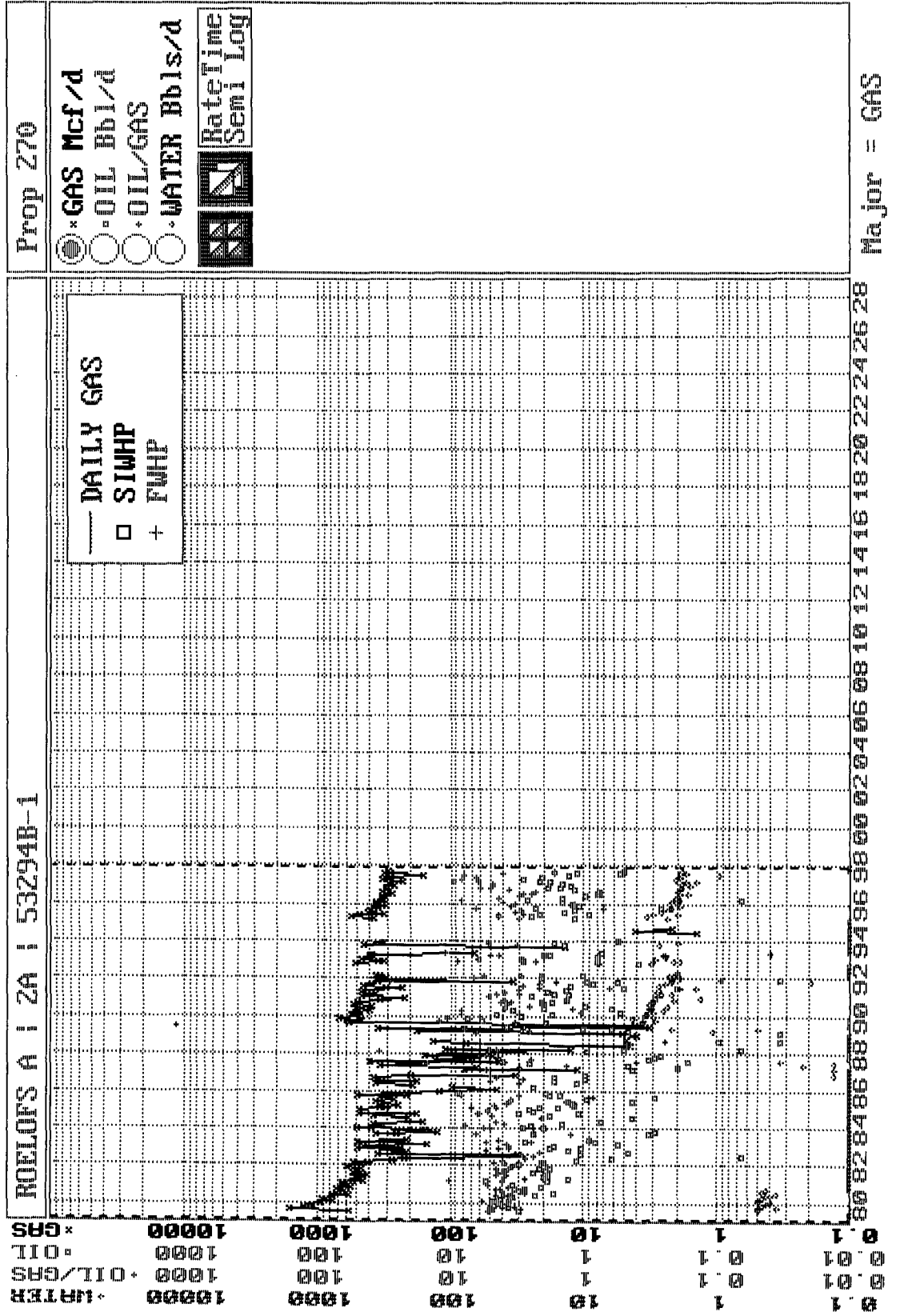
Date Survey

Registered Land
July 20, 1978

and/or Land
20750

Certificate No. 3950





FARMINGTON

1998 MONTHLY PRODUCTION FOR 53294A

PHS030M1

ROELOFS A 2A

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 | .19 | 31 | 1150 | 15.025 | | | |
| 2 | | | | | | | | <u>.31</u> | | | | | | |
| 3 | | | | | | | | .6 | | | | | | |
| 4 | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | |

PF6 - RETURNS TO ANNUAL DISPLAY

PF3 - TRANSFER TO UPDATE

PF10 - HELP INFORMATION

PF9 - DISPLAY MONTHLY INJECTION

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

PRS 03/04/98

FARMINGTON

1998 MONTHLY PRODUCTION FOR 53294B

PHS030M1

ROELOFS A 2A

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 | | 02 | 13 | | 01 | 309 | | | 15.025 | | 2 | |
| 2 | | | | | <u>131</u> | | | <u>31</u> | | | | | | |
| 3 | | | | | 4 | | | 10 | | | | | | |
| 4 | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | |

PF6 - RETURNS TO ANNUAL DISPLAY

PF3 - TRANSFER TO UPDATE

PF10 - HELP INFORMATION

PF9 - DISPLAY MONTHLY INJECTION

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

PRS 03/04/98

PC

Page No.: 34
Print Time: Thu Jun 26 08:10:11 1997
Property ID: 6682
Property Name: ROELOFS A | 2A | 53294A-1
Table Name: K:\ARIES\RR98PDP\TEST.DBF

| <u>--DATE--</u> | <u>--CUM OIL--</u> | <u>---CUM GAS--</u> | <u>M SIWHP</u> |
|-----------------|--------------------|---------------------|----------------|
| | Bbl | Mcf | Psi |
| 01/01/78 | | 0 | 692.0 |
| 09/04/79 | | 18036 | 590.0 |
| 07/18/80 | | 72989 | 524.0 |
| 06/11/81 | | 122227 | 507.0 |
| 05/19/82 | | 161163 | 507.0 |
| 09/19/84 | | 226342 | 521.0 |
| 12/15/92 | | 360787 | 446.0 |

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

VERSION 1.0 3/13/94

| | |
|--------------------------------|-------|
| GAS GRAVITY | 0.67 |
| COND. OR MISC. (C/M) | C |
| %N2 | 0.14 |
| %CO2 | 0.74 |
| %H2S | 0 |
| DIAMETER (IN) | 1.6 |
| DEPTH (FT) | 5378 |
| SURFACE TEMPERATURE (DEG F) | 60 |
| BOTTOMHOLE TEMPERATURE (DEG F) | 115 |
| FLOWRATE (MCFPD) | 0 |
| SURFACE PRESSURE (PSIA) | 692 |
| BOTTOMHOLE PRESSURE (PSIA) | 796.1 |

ROELOFS A #2A PICTURED CLIFFS - (ORIGINAL)

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

VERSION 1.0 3/13/94

| | |
|--------------------------------|-------|
| GAS GRAVITY | 0.67 |
| COND. OR MISC. (C/M) | C |
| %N2 | 0.14 |
| %CO2 | 0.74 |
| %H2S | 0 |
| DIAMETER (IN) | 1.6 |
| DEPTH (FT) | 5378 |
| SURFACE TEMPERATURE (DEG F) | 60 |
| BOTTOMHOLE TEMPERATURE (DEG F) | 115 |
| FLOWRATE (MCFPD) | 0 |
| SURFACE PRESSURE (PSIA) | 446 |
| BOTTOMHOLE PRESSURE (PSIA) | 509.9 |

ROELOFS A #2A PICTURED CLIFFS - (CURRENT)

mv

Page No.: 33
Print Time: Thu Jun 26 08:10:10 1997
Property ID: 3710
Property Name: ROELOFS A | 2A | 53294B-1
Table Name: K:\ARIES\RR98PDP\TEST.DBF

| <u>--DATE--</u> | <u>--CUM OIL--</u> Bbl | <u>---CUM GAS---</u> Mcf | <u>M SIWHP</u> Psi |
|-----------------|---------------------------|-----------------------------|-----------------------|
| 10/31/78 | | 0 | 600.0 |
| 09/04/79 | | 101058 | 553.0 |
| 07/18/80 | | 361786 | 444.0 |
| 06/11/81 | | 554816 | 427.0 |
| 02/10/83 | | 775105 | 454.0 |
| 09/19/84 | | 910971 | 421.0 |
| 09/03/86 | | 1122100 | 382.0 |
| 09/07/89 | | 1240924 | 374.0 |
| 01/24/91 | | 1478280 | 208.0 |
| 06/14/91 | | 1537158 | 220.0 |
| 07/15/93 | | 1722150 | 267.0 |
| 11/29/93 | | 1738454 | 230.0 |

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

VERSION 1.0 3/13/94

| | |
|--------------------------------|-------|
| GAS GRAVITY | 0.72 |
| COND. OR MISC. (C/M) | C |
| %N2 | 0.2 |
| %CO2 | 1.07 |
| %H2S | 0 |
| DIAMETER (IN) | 1.9 |
| DEPTH (FT) | 5647 |
| SURFACE TEMPERATURE (DEG F) | 60 |
| BOTTOMHOLE TEMPERATURE (DEG F) | 155 |
| FLOWRATE (MCFPD) | 0 |
| SURFACE PRESSURE (PSIA) | 600 |
| BOTTOMHOLE PRESSURE (PSIA) | 697.2 |

ROELOFS A #2A MESA VERDE - (ORIGINAL)

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

VERSION 1.0 3/13/94

| | |
|--------------------------------|-------|
| GAS GRAVITY | 0.72 |
| COND. OR MISC. (C/M) | C |
| %N2 | 0.2 |
| %CO2 | 1.07 |
| %H2S | 0 |
| DIAMETER (IN) | 1.9 |
| DEPTH (FT) | 5647 |
| SURFACE TEMPERATURE (DEG F) | 60 |
| BOTTOMHOLE TEMPERATURE (DEG F) | 155 |
| FLOWRATE (MCFPD) | 0 |
| SURFACE PRESSURE (PSIA) | 230 |
| BOTTOMHOLE PRESSURE (PSIA) | 264.6 |

ROELOFS A #2A MESA VERDE - (CURRENT)

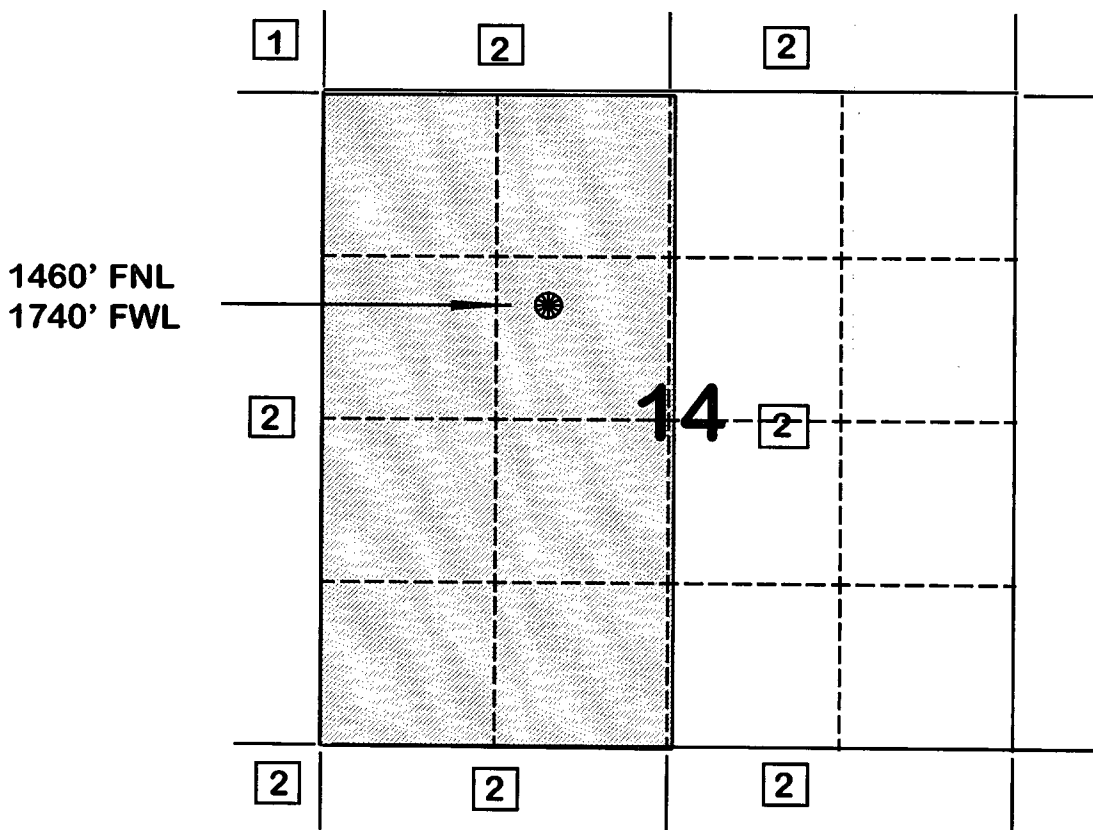
BURLINGTON RESOURCES OIL AND GAS COMPANY

Roelofs A #2A

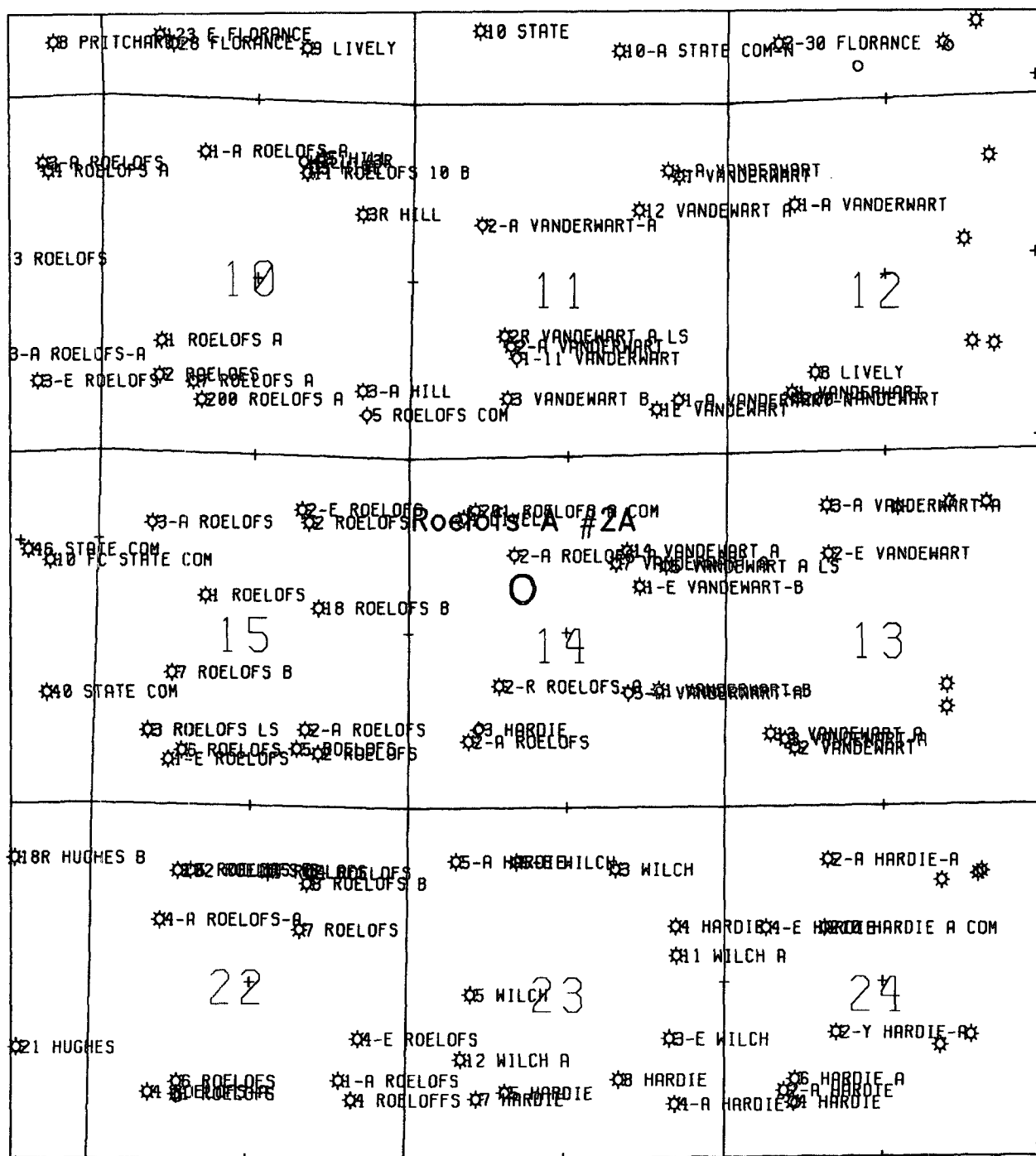
OFFSET OPERATOR \ OWNER PLAT

Mesaverde (W/2) / Pictured Cliffs (NW/4) Formations Commingle Well

Township 29 North, Range 8 West



- 1) Burlington Resources
- 2) Amoco Production Company
c/o Bruce Zimney
P.O. Box 800
Denver, CO 80201



Roelofs A #2A
F Sec 14 T29N, R08W
PC / MV