

BURLINGTON RESOURCES

SAN JUAN DIVISION

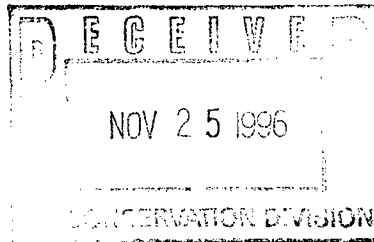
DHC 12/16/96

1411

Release Date:
11/27/96
No attch

November 22, 1996

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



Re: San Juan 27-5 Unit #41
1650'FSL, 1650'FWL Section 21, T-27-N, R-5-W, Rio Arriba County, NM
API #30-039-06979

Dear Mr. LeMay:

This is a request for administrative approval for downhole commingling the South Blanco Pictured Cliffs and Blanco Mesa Verde pools in the subject well. This is currently a Pictured Cliffs/Mesa Verde dual completion.

To comply with the New Mexico Oil Conservation Division rules, Burlington Resources Oil & Gas Company 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 both the Pictured Cliffs and Mesa Verde for at least one year;
4. Notification list of offset operators - Burlington is the offset operator;
5. Shut in wellhead pressure and calculated down hole pressure;
6. Nine-section plats for the Pictured Cliffs and Mesa Verde.

Notification of Pictured Cliffs and Mesa Verde interest owners is covered under Order #R-10694 issued November 12, 1996.

Because we are adding pay in the Mesa Verde, a fixed percent allocation cannot be calculated at this time. Allocation will be based on percentage of pitot gauge obtained during workover.

Please let me know if you require additional data.

Sincerely,

A handwritten signature in cursive script, appearing to read "Peggy Bradfield".

Peggy Bradfield
Regulatory/Compliance Administrator

encs.

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

APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE

☒ YES ☐ NO

Burlington Resources Oil & Gas Company

PO Box 4289, Farmington, NM 87499

Operator

Address

San Juan 27-5 Unit

41

K-21-27N-5W

Rio Arriba

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 7454 API NO. 30-039-06979 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	Tapacito Pictured Cliffs - 85920		Blanco Mesaverde - 72319
2. Top and Bottom of Pay Section (Perforations)	3290-3326'		4924-5546'
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. 423 psi	a.	a. 728 psi
	(Original) b. 1117	b.	b. 1189 psi
6. Oil Gravity ($^{\circ}$ API) or Gas BTU Content	BTU 1140		BTU 1222
7. Producing or Shut-In?	Shut in		Shut-in
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In and oil/gas/water rates of last production 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: 7-18-98 Rates: 43 MCF/D	Date: Rates:	Date: 7-18-98 Rates: 70 MCF/D
	Date: Rates:	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)			

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). ☐ R-10694

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 Peggy Bradfield TITLE Regulatory Administrator DATE 10-2-96

TYPE OR PRINT NAME Peggy Bradfield TELEPHONE NO. (505) 326-9700

Section A.

Date **FEBRUARY 16, 1959**

Operator **EL PASO NATURAL GAS COMPANY** Lease **SAN JUAN 27-5 UNIT** FEE
 Well No. **41 (PM)** Unit Letter **K** Section **21** Township **27-N** Range **5-W** NEPM
 Located **1650** Feet From **SOUTH** Corner **1650** From East **WEST** Corner
 County **RIO ARriba** G. L. Elevation **6503** Dedicated Acreage **320 & 160** Acre
 Name of Producing Formation **MESA VERDE AND PICTURED CLIFF** Also **BLANCO MV, WILDCAT PC**

1. Is the Operator the only owner in the dedicated acreage outlined on this plan? 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 Communitization:
3. If the answer to question two is "no", list all the owners and their respective interests below:

Owner

Land Description



Section B.

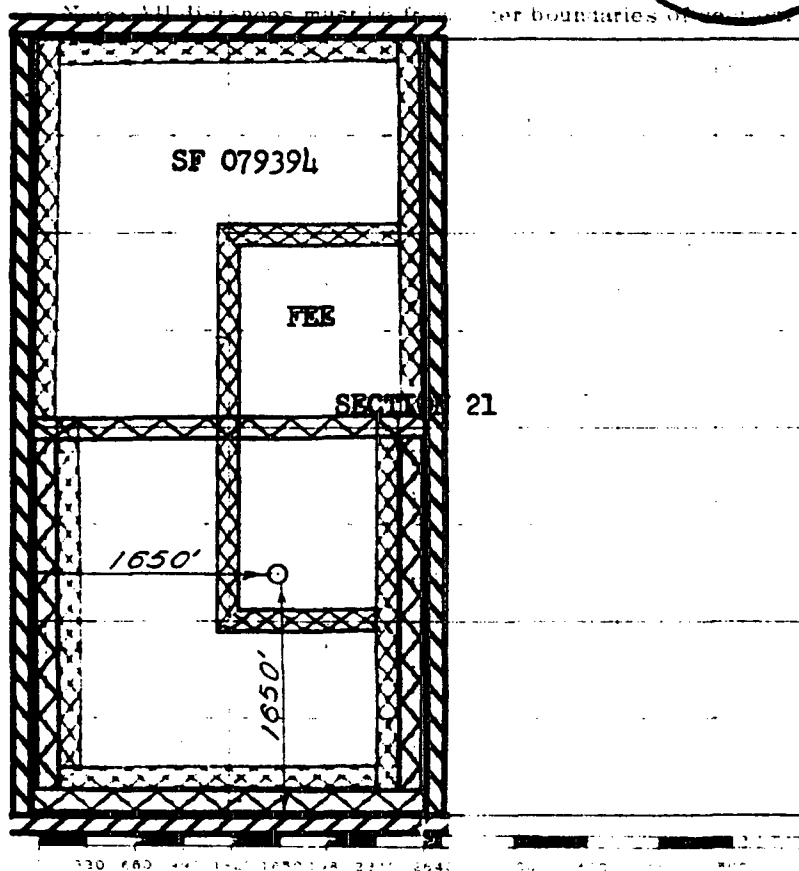
This is to certify that the information in Section A above is true and complete to the best of my knowledge and belief.

El Paso Natural Gas Company

(Operator)
ORIGINAL SIGNED J.J. TILLERON
 (Representative)

Box 997

(Address)

Farmington, New Mexico

Scale 4 inches equal 1 mile

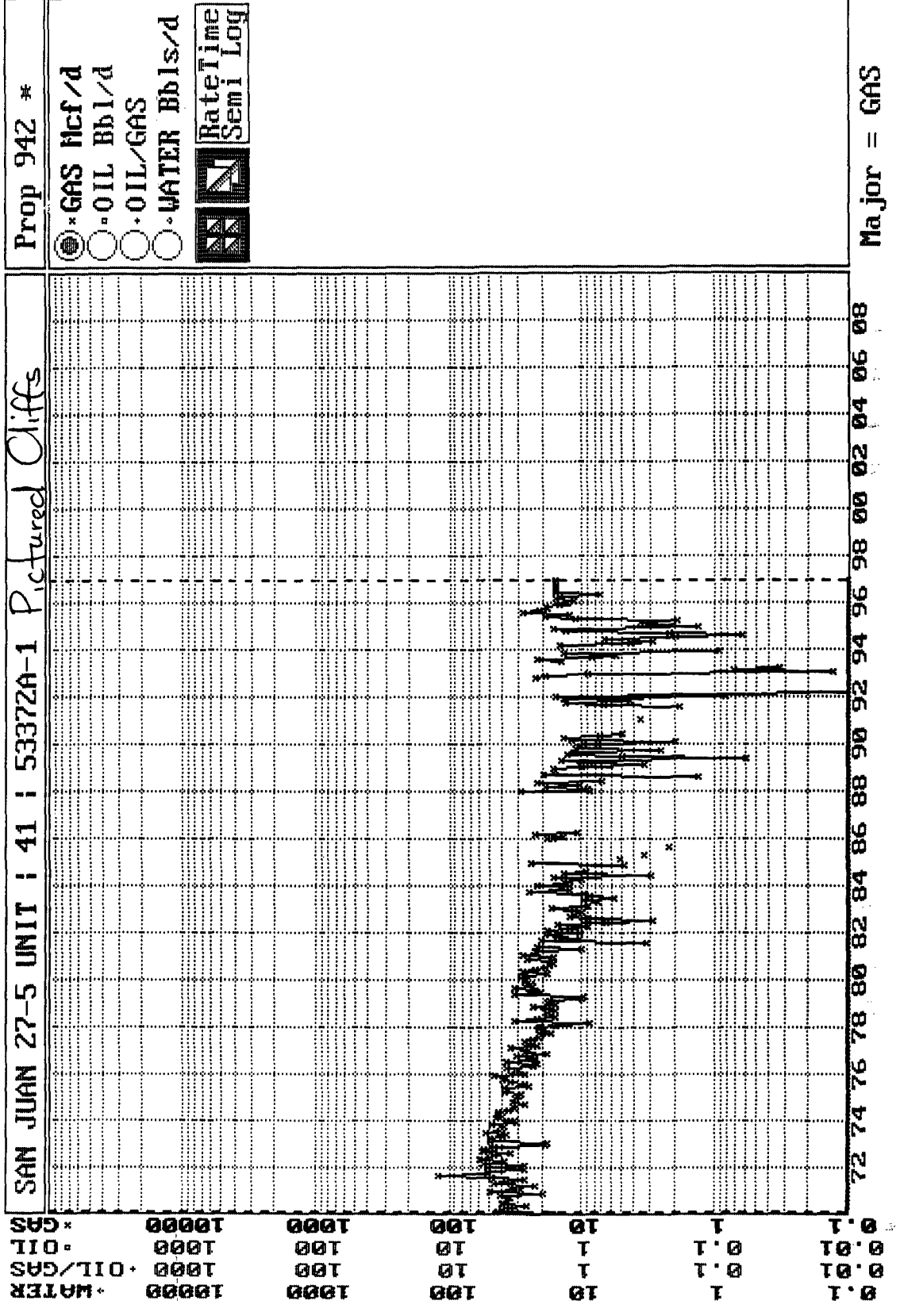
This is to certify that the above plat was prepared from field notes of actual survey made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

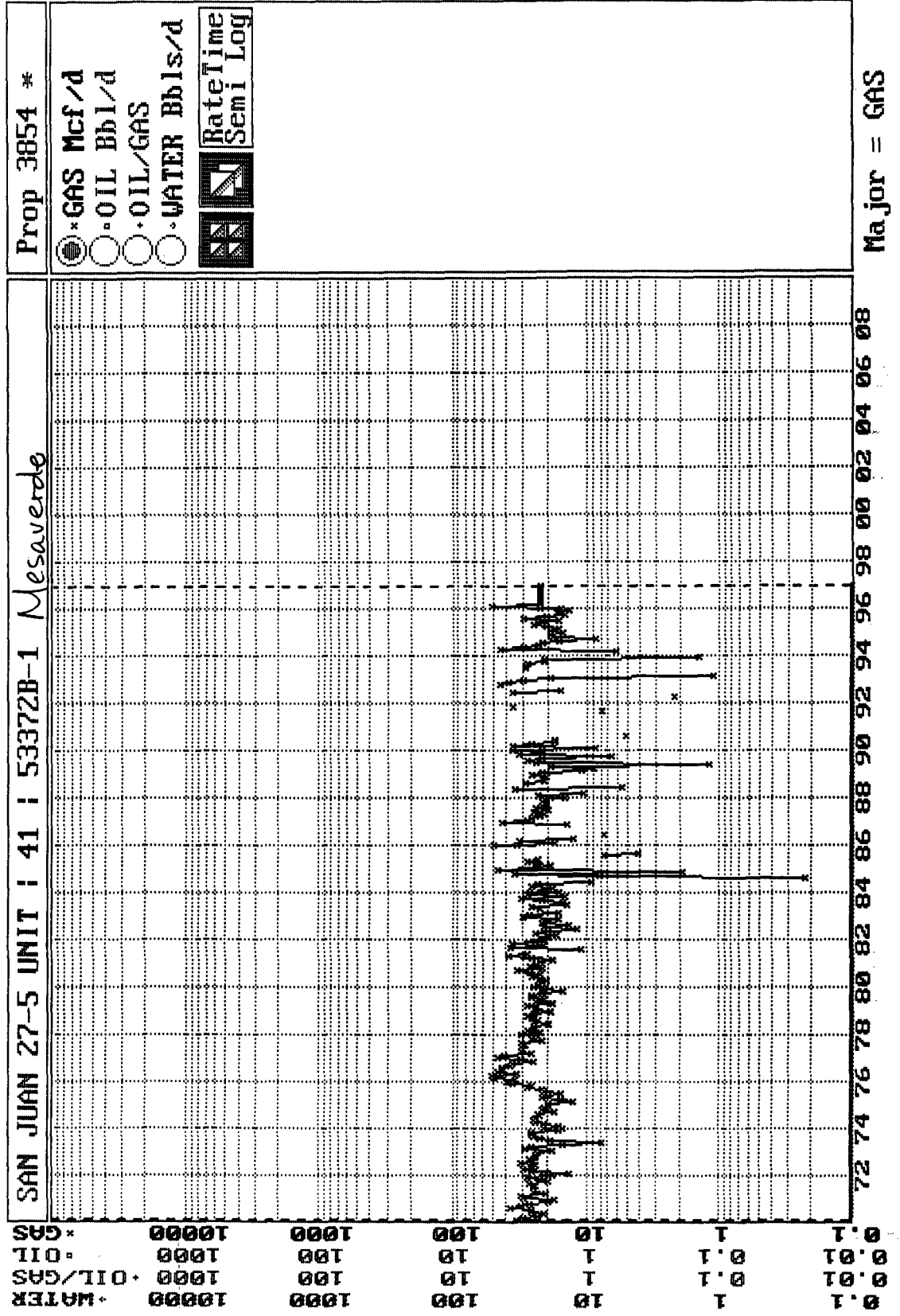
(Seal)

Date Signed **FEBRUARY 12, 1959**

Paul O. Kilmer
 Registered Professional Engineer and Land Surveyor

Farmington, New Mexico





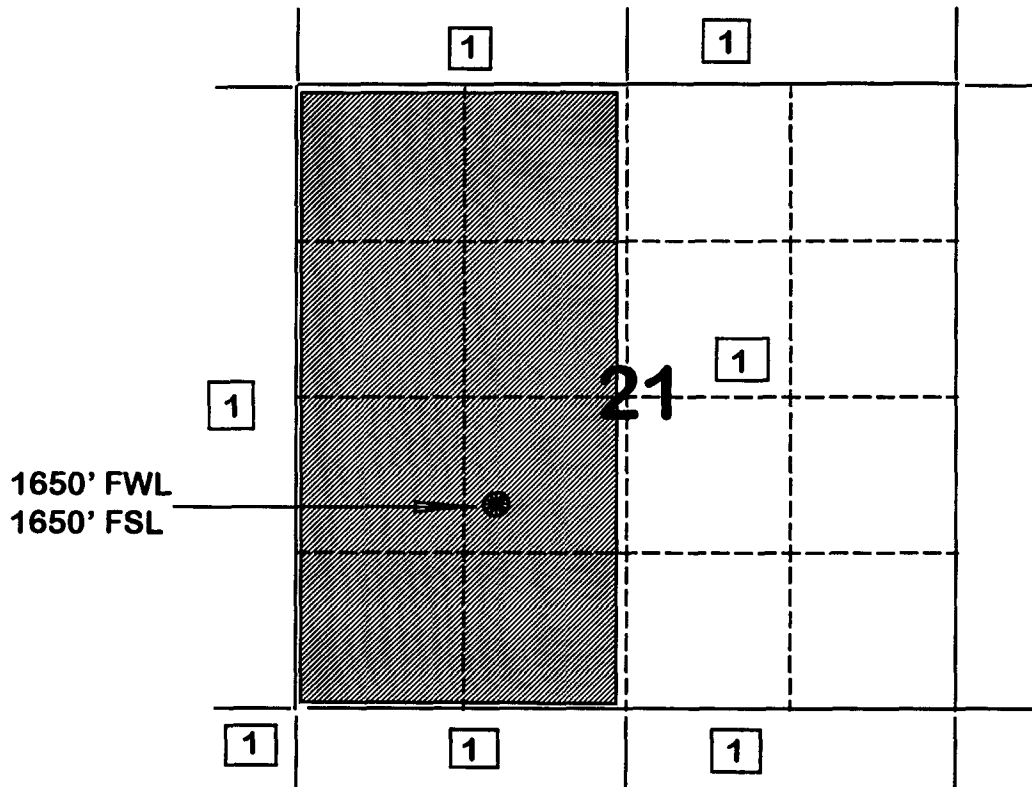
BURLINGTON RESOURCES OIL AND GAS COMPANY

San Juan 27-5 Unit #41

OFFSET OPERATOR \ OWNER PLAT

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

Township 27 North, Range 5 West



1) Burlington Resources Oil and Gas Company Successor to Meridian Oil Inc.

27-5 #41 Initial PC

BHP.XLS

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

VERSION 1.0 3/13/94

GAS GRAVITY	<u>0.651</u>
COND. OR MISC. (C/M)	<u>M</u>
%N2	<u>0.45</u>
%CO2	<u>0.28</u>
%H2S	<u>0</u>
DIAMETER (IN)	<u>2.441</u>
DEPTH (FT)	<u>3290</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>100</u>
FLOWRATE (MCFPD)	<u>1000</u>
SURFACE PRESSURE (PSIA)	<u>1020</u>
BOTTOMHOLE PRESSURE (PSIA)	<u>1117.7</u>

27-5 #41 Current PC

BHP.XLS

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

VERSION 1.0 3/13/94

GAS GRAVITY	0.651
COND. OR MISC. (C/M)	M
%N2	0.45
%CO2	0.28
%H2S	0
DIAMETER (IN)	2.441
DEPTH (FT)	3290
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	100
FLOWRATE (MCFPD)	1000
SURFACE PRESSURE (PSIA)	385
BOTTOMHOLE PRESSURE (PSIA)	422.7

27-5 #41 Initial MV

BHP.XLS

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

VERSION 1.0 3/13/94

GAS GRAVITY	0.699
COND. OR MISC. (C/M)	M
%N2	0.29
%CO2	0.74
%H2S	0
DIAMETER (IN)	2.441
DEPTH (FT)	4924
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	120
FLOWRATE (MCFPD)	1000
SURFACE PRESSURE (PSIA)	1026
BOTTOMHOLE PRESSURE (PSIA)	1189.2

27-5 #41 Current MV

BHP.XLS

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

VERSION 1.0 3/13/94

GAS GRAVITY	0.699
COND. OR MISC. (C/M)	M
%N2	0.29
%CO2	0.74
%H2S	0
DIAMETER (IN)	2.441
DEPTH (FT)	4924
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	120
FLOWRATE (MCFPD)	1000
SURFACE PRESSURE (PSIA)	632
BOTTOMHOLE PRESSURE (PSIA)	727.7

REQUESTED RECORD NOT FOUND (NEXT RECORD DISPLAYED)

OPR008M1 0782 0008 CHROMATOGRAPH TEST MAIN SCREEN

18:29:39.6 10/01/96

FUNCTION (A,C,D,I) I ** DATA AT TEST PRESSURE UNLESS NOTED **
 MP NUMBER 72424 SAN JUAN 27-5 UNIT 41 (PC)
 EFFECTIVE DATE 19930801
 REGION CD 42 SAN JUAN
 MP TYPE CODE 10 GAS METER - WELLHEAD SALES

 SAMPLE TYPE CODE (GAS, LIQ, BTU) GAS ----- BTU/CF -----
 SAMPLE DATE 19930820 --- (AT 14.73 PSIG) --
 SAMPLE LINE PRESSURE (PSIG) WET 1130.006 DRY 1150.000
 SAMPLE LINE TEMPERATURE (DEG F) -----
 TEST DATE ----- BTU/CF -----
 TEST PRESSURE (PSIG) 14.730 WET 1130.006 DRY 1150.000
 TEST TEMPERATURE (DEG F) 60 VAPOR FACTOR -----
 TEST LIFE (MONTHS) 6
 TESTER SOURCE BA NUMBER 038689 PETROLEUM LAND CORP
 TEST PURPOSE CODE -----

 03=DETAIL SCR 04=MP-NM BRWS 06=MP/DS LST 07=MP/WN LST
 11=PREV SCR 12=MAIN MENU 20=NEXT REC
 21=REFRESH SCR 22=PREV MENU 24=HELP PA1=TERMINATE
 B MY JOB LU #2

OPR008M2 0782 0008 CHROMATOGRAPH GAS SAMPLE DETAIL 18:29:44.3 10/01/96

***** DATA AT 14.730 PSIG UNLESS NOTED *****
 GPM
 MOL % (AT 14.73)
 HYDROGEN ----- MP NUMBER 72424
 HELIUM ----- EFFECTIVE DATE 19930801
 NITROGEN 0.45
 OXYGEN -----
 HYDROGEN SULFIDE -----
 CARBON DIOXIDE 0.28
 METHANE 89.15
 ETHANE 4.82 1.2894
 PROPANE 3.10 0.8544
 ISO-BUTANE 0.70 0.2290
 N-BUTANE 0.75 0.2365
 ISO-PENTANE 0.26 0.0951
 N-PENTANE 0.17 0.0616
 HEXANE -----
 HEXANE PLUS 0.32 0.1396
 HEPTANE PLUS -----
 TOTALS 100.00 2.9056
 -- GASOLINE CONTENT (GPM) --
 26/70 GASOLINE -----
 100% PROPANE -----
 EXCESS BUTANES -----
 TOTAL -----
 ----- SPECIFIC GRAVITY -----
 CALCULATED 0.6510
 MEASURED -----
 SULPHUR GRAINS / 100 CU FT -----

 03=MAIN SCREEN 24=HELP PA1=TERMINATE
 B MY JOB NUM LU #2

REQUESTED RECORD NOT FOUND (NEXT RECORD DISPLAYED)

OPR008M1 0782

O008 CHROMATOGRAPH TEST MAIN SCREEN

18:33:08.8 10/01/96

FUNCTION (A,C,D,I) I ** DATA AT TEST PRESSURE UNLESS NOTED **
MP NUMBER 72425 SAN JUAN 27-5 UNIT 41 (MV)
EFFECTIVE DATE 19930701
REGION CD 42 SAN JUAN
MP TYPE CODE 10 GAS METER - WELLHEAD SALES

SAMPLE TYPE CODE (GAS, LIQ, BTU) GAS ----- BTU/CF -----
SAMPLE DATE 19930729 --- (AT 14.73 PSIG) ---
SAMPLE LINE PRESSURE (PSIG) WET 1194.858 DRY 1216.000
SAMPLE LINE TEMPERATURE (DEG F) -----
TEST DATE ----- BTU/CF -----
TEST PRESSURE (PSIG) 14.730 WET 1194.858 DRY 1216.000
TEST TEMPERATURE (DEG F) 60 VAPOR FACTOR -----
TEST LIFE (MONTHS) 6
TESTER SOURCE BA NUMBER 038689 PETROLEUM LAND CORP
TEST PURPOSE CODE -----

03=DETAIL SCR 04=MP-NM BRWS 06=MP/DS LST 07=MP/WN LST
11=PREV SCR 12=MAIN MENU 20=NEXT REC
21=REFRESH SCR 22=PREV MENU 24=HELP PA1=TERMINATE
B MY JOB LU #2

OPR008M2 0782

O008 CHROMATOGRAPH GAS SAMPLE DETAIL

18:33:12.2 10/01/96

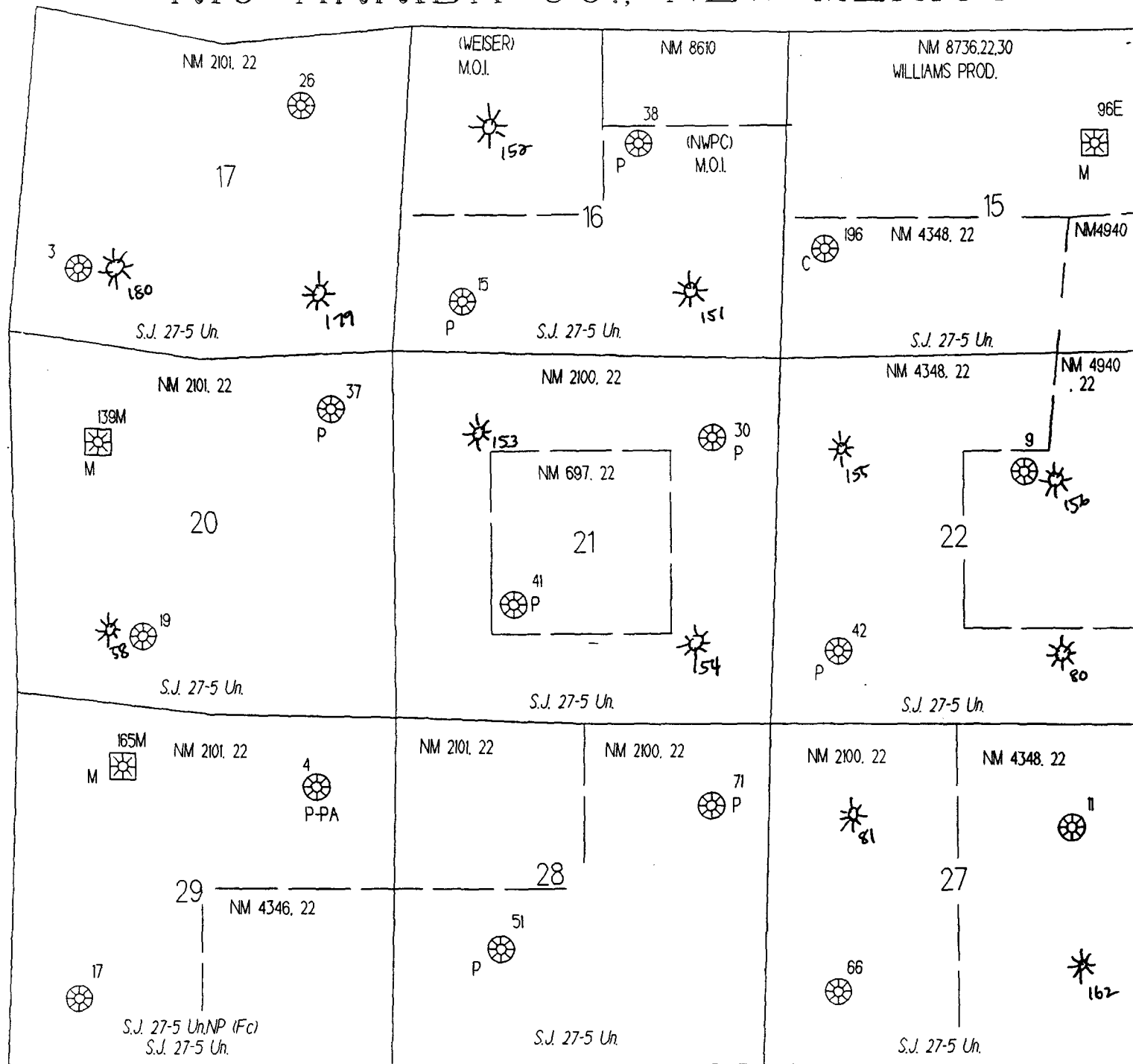
MP NUMBER 72425
EFFECTIVE DATE 19930701
GPM ** DATA AT 14.730 PSIG UNLESS NOTED **
MOL % (AT 14.73)
HYDROGEN -----
HELIUM -----
NITROGEN 0.29
OXYGEN -----
HYDROGEN SULFIDE -----
CARBON DIOXIDE 0.74
METHANE 82.24
ETHANE 9.67 2.5867
PROPANE 4.26 1.1741
ISO-BUTANE 0.76 0.2486
N-BUTANE 1.08 0.3405
ISO-PENTANE 0.39 0.1427
N-PENTANE 0.27 0.0978
HEXANE -----
HEXANE PLUS 0.30 0.1309
HEPTANE PLUS -----
TOTALS 100.00 4.7213
-- GASOLINE CONTENT (GPM) --
26/70 GASOLINE -----
100% PROPANE -----
EXCESS BUTANES -----
TOTAL -----
----- SPECIFIC GRAVITY -----
CALCULATED 0.6990
MEASURED -----
SULPHUR GRAINS / 100 CU FT -----

03=MAIN SCREEN 24=HELP PA1=TERMINATE
B MY JOB NUM LU #2

SAN JUAN 27-5 UNIT #41

SECTION 21, T27N, R5W

RIO ARRIBA CO., NEW MEXICO



- | | | | |
|---|----------------------|---|----------------|
|  | FRUITLAND SAND WELL |  | MESAVERDE WELL |
|  | FRUITLAND COAL WELL |  | DAKOTA WELL |
|  | PICTURED CLIFFS WELL |  | GALLUP WELL |