

DATE IN 9/16/97	SUSPENSE 10/7/97	ENGINEER DC	LOGGED W	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
- Engineering Bureau -

1714

**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]

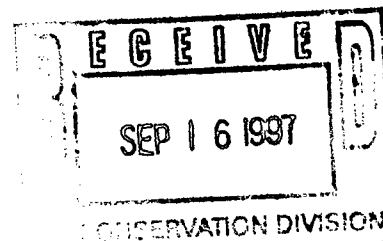
**[1] TYPE OF APPLICATION - Check Those Which Apply for [A]**

- [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

9/15/97

# **BURLINGTON RESOURCES**

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SAN JUAN DIVISION

September 15, 1997

SENT FEDERAL EXPRESS

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

Re: Canyon Largo Unit #239E  
1785'FNL, 1455'FWL Section 1, T-25-N, R-6-W  
30-039-25549

Dear Mr. LeMay:

This is a request for administrative approval for downhole commingling the Blanco Mesa Verde and Basin Dakota pools in the subject well.

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 curves for Mesa Verde and Dakota;
4. Notification list of offset operators;
5. Shut in wellhead pressure and calculated down hole pressure of surrounding wells;
6. Nine-section plats for the Mesa Verde and Dakota.

Notification of Mesa Verde and Dakota interest owners is covered under Order R-10786 dated April 3, 1997 attached.

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

xc: Bureau of Land Management - hand delivered  
NMOCD - Aztec office

E

**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

**CANYON LARGO UNIT**

**239E**

**F 1-25N-6W**

**Rio Arriba**

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 6886 API NO. 30-039-25549 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 Mesaverde - 72319		Basin Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	5099-5373		7081-7330
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. 844 psi (see attachment)  (Original) b. 1331 psi (see attachment)	a.  b.	a. 934 psi (see attachment)  b. 2615 psi (see attachment)
6. Oil Gravity ( <sup>o</sup> API) or Gas BTU Content	BTU 1080		BTU 1080
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  Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: n/a Rates:  <i>4/50 mcf/d</i>	Date: Rates:	Date: n/a Rates:  <i>175 mcf/d</i>
* If Producing, give data and oil/gas/water water of recent test (within 60 days)	Date: n/a Rates:  <i>4/50 mcf/d</i>	Date: Rates:	Date: n/a Rates:  <i>175 mcf/d</i>
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. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). Reference Order R-10786

**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  TITLE Production Engineer DATE 07/24/97

TYPE OR PRINT NAME Robert L. Goodwin III TELEPHONE NO. ( 505 ) 326-9713

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
PO Drawer DD, Artesia, NM 88211-0719  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-  
Revised February 21, 1971  
Instructions on back  
Submit to Appropriate District Of  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPC

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number 30-039-		Pool Code 72319/71599	Pool Name Blanco Mesaverde/Basin Dakota
Property Code 6886	Property Name Canyon Largo Unit		Well Number 239E
OGRID No. 14538	Operator Name MERIDIAN OIL INC.		Elevation 6677'

**10 Surface Location**

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
F	1	25 N	6 W		1785	North	1455	West	Rio Arr

**11 Bottom Hole Location If Different From Surface**

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
W/320.60-W/320/60			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATE  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<b>17 OPERATOR CERTIFICATION</b> <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i>  Signature Peggy Bradfield Printed Name Regulatory Administrator Title  Date
	<b>18 SURVEYOR CERTIFICATION</b> <i>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 belief.</i> 7-20-95  Date of Survey Signature and Seal of Professional Surveyor  Certificate Number

DAKOTA

CANYON LARGO UNIT : 239E : 35662A-1

• OIL  
• WATER/GAS  
• GAS  
• WATER

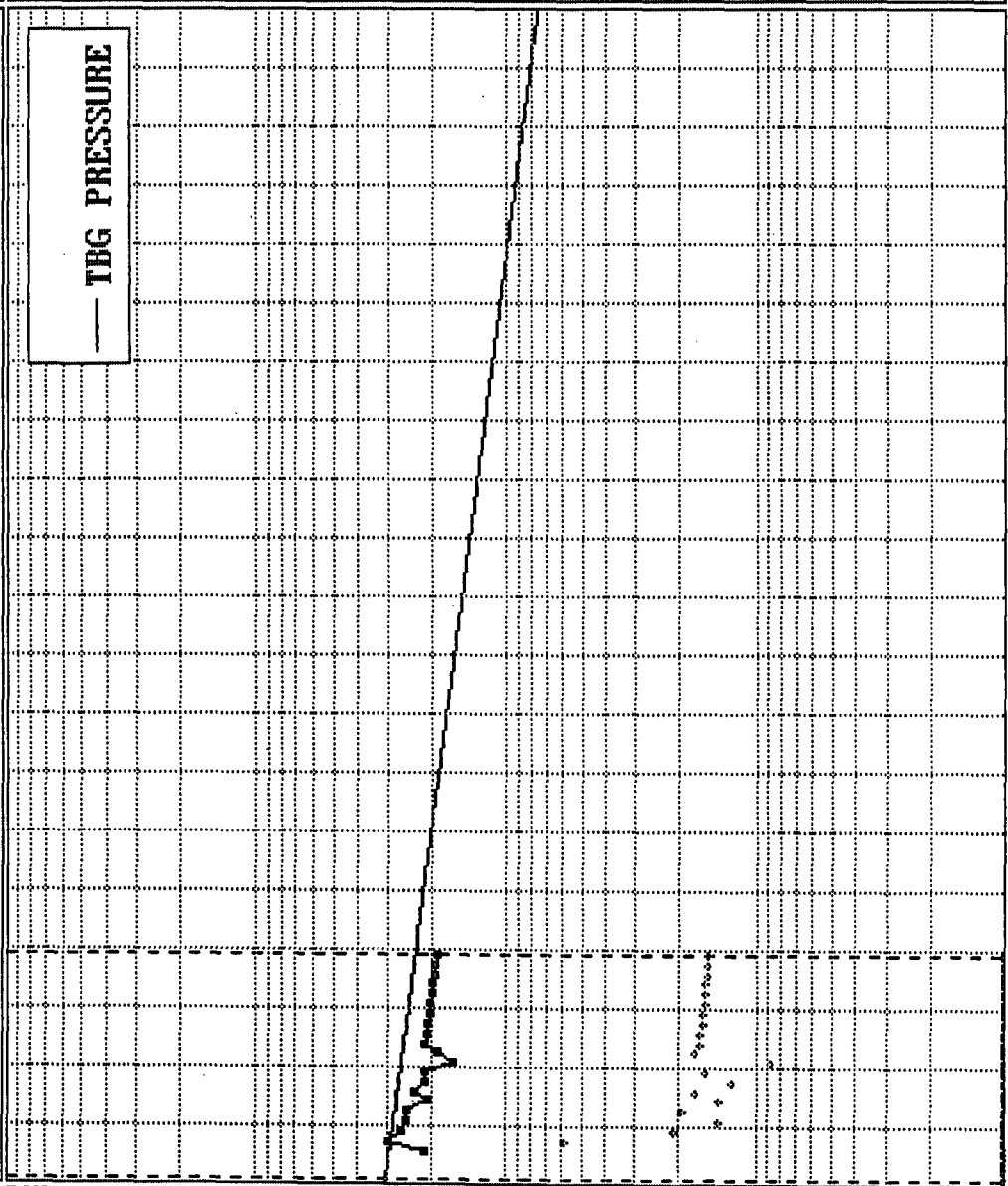
Prop 150 \*

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

RateTime  
Semi Log

ANTICIPATED  
DAKOTA  
PRODUCTION PROFILE  
AFTER  
COMINGLING

— TBG PRESSURE



Major = GAS

# MESAVERDE

CANYON LARGO UNIT : 239E : 35662B-1

• OIL  
• WATER/GAS  
• GAS  
• WATER

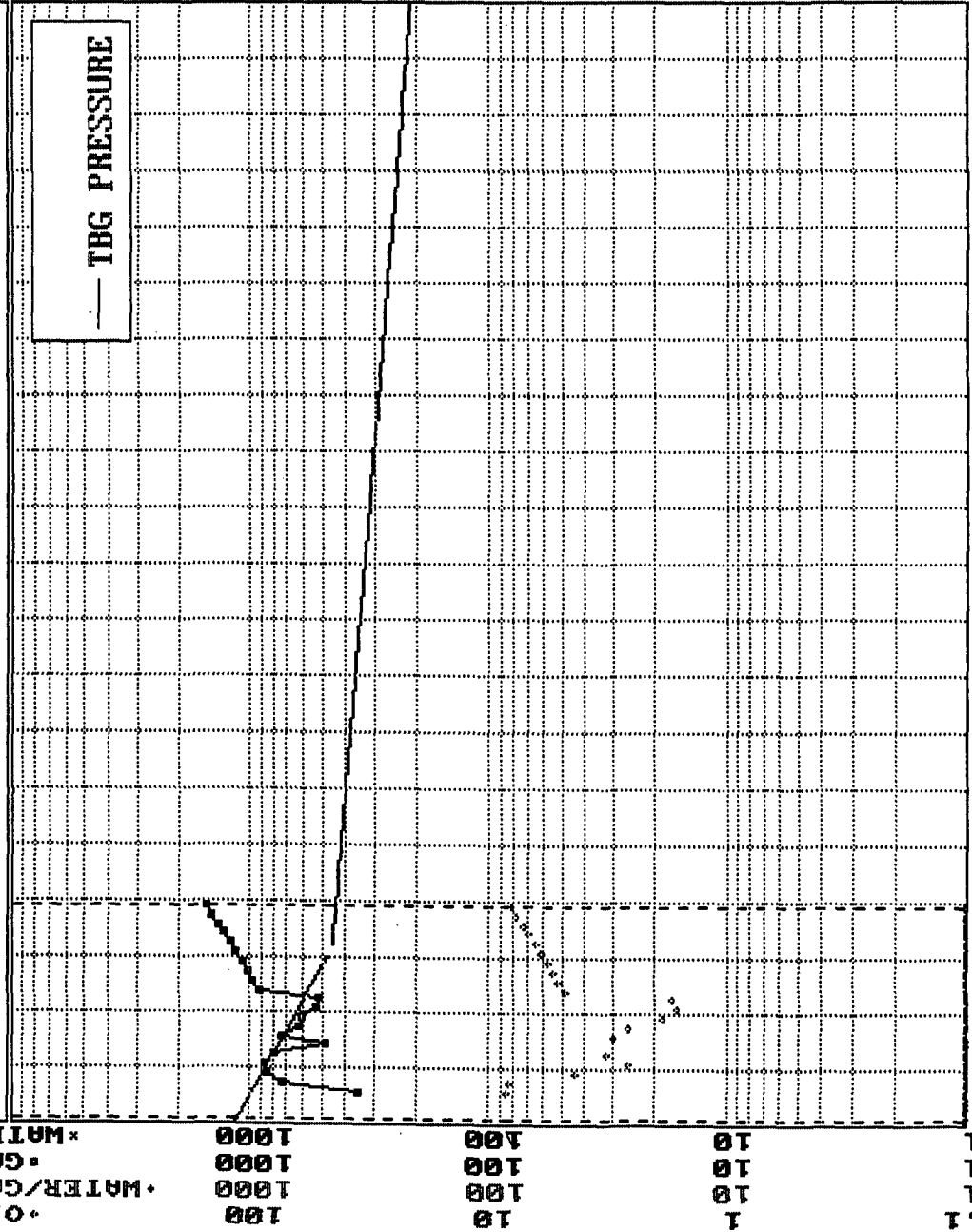
Prop 151 \*

- ☐ • WATER Bbls/d
- ☒ • GAS Mcf/d
- ☐ • WATER/GAS
- ☐ • OIL Bbl/d

RateTime  
Semi Log

ANTICIPATED  
MESAVERDE  
PRODUCTION PROFILE  
AFTER  
COMINGLING

— TBG PRESSURE



Major = GAS

# TEFTELLER INC

## Pressure Gradient Report

COMP : MERIDIAN OIL INC WELL : CANYON LARGO UNIT 239E T : 0.0  
 FIELD : RES : DAKOTA DATUM : 7250.0  
 DATE : 04/16/1996 STATUS : S.I. HRS : 0.0  
 TBG : 1-1/2 DPTH : END : 7320 PKR : S N :  
 CSG : DPTH : PERFS : GRAD : 0.445000 T D : 7508

Depth (ft)	Pressure (psig)	Delta P (psi)	Gradient (psi/ft)
0	2034.0		
2000	2154.0	120.0	0.0600
4000	2280.0	126.0	0.0630
6000	2429.0	149.0	0.0745
6850	2485.0	56.0	0.0659
7050	2526.0	41.0	0.2050
7250	2615.0	89.0	0.4450
7250	2615.0	0.0	

REMARKS : TUBING PRESSURE 2034  
 TOP OF WATER @ 6971

BHT@ 7250 = 182

INITIAL DAKOTA BHP

# TEFTELLER INC

## Pressure Gradient Report

COMP : MERIDIAN OIL INC WELL : CANYON LARGO UNIT 239E T : 0.0  
 FIELD : RES : MESA VERDE DATUM : 5300.0  
 DATE : 04/16/1996 STATUS : S.I. HRS : 0.0  
 TBG : 1-1/2 DPTH : END : 5360 PKR : S N :  
 CSG : DPTH : PERFS : GRAD : 0.380000 T D : 7508

Depth (ft)	Pressure (psig)	Delta P (psi)	Gradient (psi/ft)
0	959.0		
2000	1017.0	58.0	0.0290
4000	1075.0	58.0	0.0290
4900	1195.0	120.0	0.1333
5100	1255.0	60.0	0.3000
5300	1331.0	76.0	0.3800
5300	<u>1331.0</u>	0.0	

REMARKS : TUBING PRESSURE 959  
 TOP OF FLUID @ 4554

TOP OF WATER @ 5190

INITIAL MESAVERDE BHP



Canyon Largo Unit NP # 237  
(Closest Offset with Data)

Date	Measured SIBHP (Psi)
Jul-74	1430
Oct-74	1311
May-75	1106
May-76	731
Apr-78	768
Jun-80	725
Dec-89	605
Nov-91	535
Oct-93	422

Canyon Largo Unit # 239 E  
(Mesa Verde)

Date	Anticipated SIBHP (Psi)
Apr-96	1331 ← INITIAL BHP
Jul-96	1212
Jan-97	1007
Jul-97	844 ← CURRENT BHP
Jan-98	632
Jan-00	669
Mar-02	626
Sep-11	506
Aug-13	436
Jul-15	323

FARMINGTON 1996 MONTHLY PRODUCTION FOR 35662A  
 CANYON LARGO UNIT 239E  
 BASIN DAKOTA (PRORATED GAS) FIELD DAKOTA ZONE

PHS030M1

MO	T	S	DAYS	ON	PC	OIL	PROD	GRV	PC	GAS	PROD	ON	BTU	PRESS	WATER	PROD
1	2	S							01					15.025		
2	2	S							01					15.025		
3	2	S							01					15.025		
4	2	F	15	02					01	6626	15	1080	15.025			
5	2	F	31	02		177			01	9176	31	1080	15.025			
6	2	F	30	02		64	50.7		01	8167	30	1080	15.025			
7	2	F	31	02		43			01	7693	31	1079	15.025			
8	2	F	31	02		60			01	7681	31	1079	15.025			
9	2	F	23	02		43			01	6364	23	1079	15.025			
10	2	F	31	02		53	50.4		01	7253	31	1079	15.025			
11	2	F	30	02		38			01	6537	30	1079	15.025			
12	2	F	31	02		48			01	6604	31	1079	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 07/03/97

B MY JOB NUM LU #26

FARMINGTON 1996 MONTHLY PRODUCTION FOR 35662B  
 CANYON LARGO UNIT 239E  
 BLANCO MESAVERDE (PRORATED GAS) FIELD MESAVERDE ZONE

PHS030M1

MO	T	S	DAYS	ON	PC	OIL	PROD	GRV	PC	GAS	PROD	ON	BTU	PRESS	WATER	PROD
1	2	S							01					15.025		
2	2	S							01					15.025		
3	2	S							01					15.025		
4	2	F	15	02		258	51.4		01	10805	15	1080	15.025			
5	2	F	31	02		252	51.6		01	22481	31	1080	15.025			
6	2	F	30	02		135	54.0		01	26023	30	1080	15.025			
7	2	F	31	02		79			01	26679	31	1079	15.025			
8	2	F	31	02		114	54.2		01	24104	31	1079	15.025			
9	2	F	20	02					01	14546	20	1079	15.025			
10	2	F	31	02		92			01	22498	31	1079	15.025			
11	2	F	30	02		80	55.0		01	19249	30	1079	15.025			
12	2	F	31	02		57			01	18800	31	1079	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 07/03/97

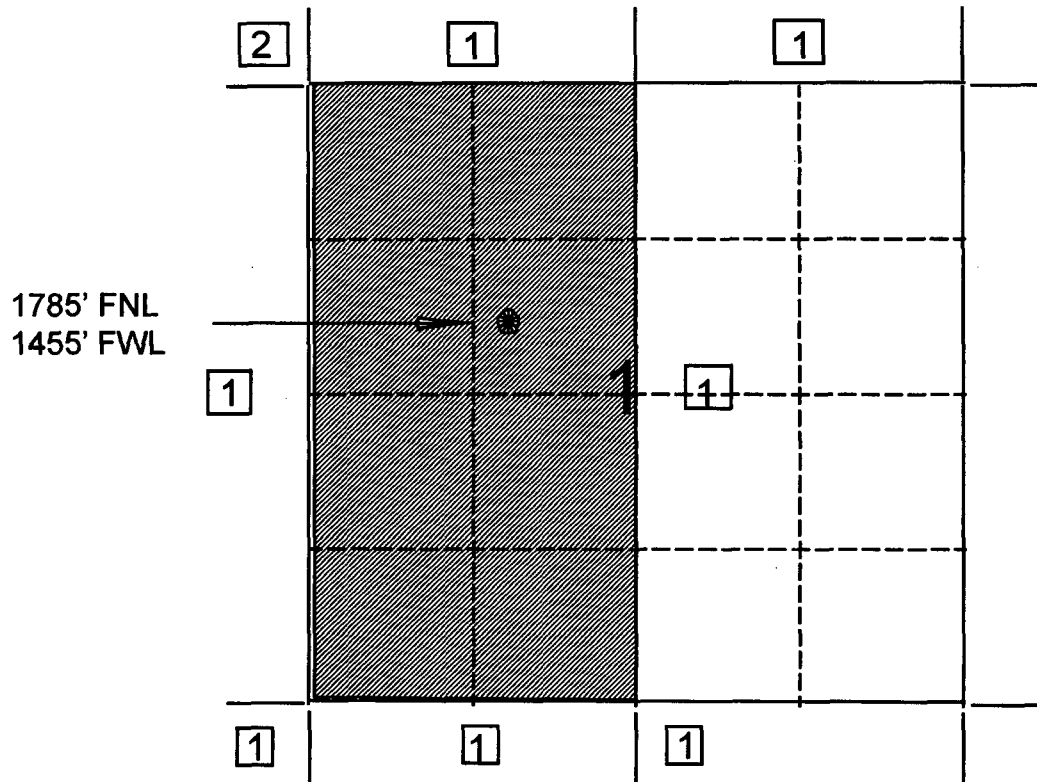
B MY JOB NUM LU #26

***BURLINGTON RESOURCES OIL AND GAS COMPANY***

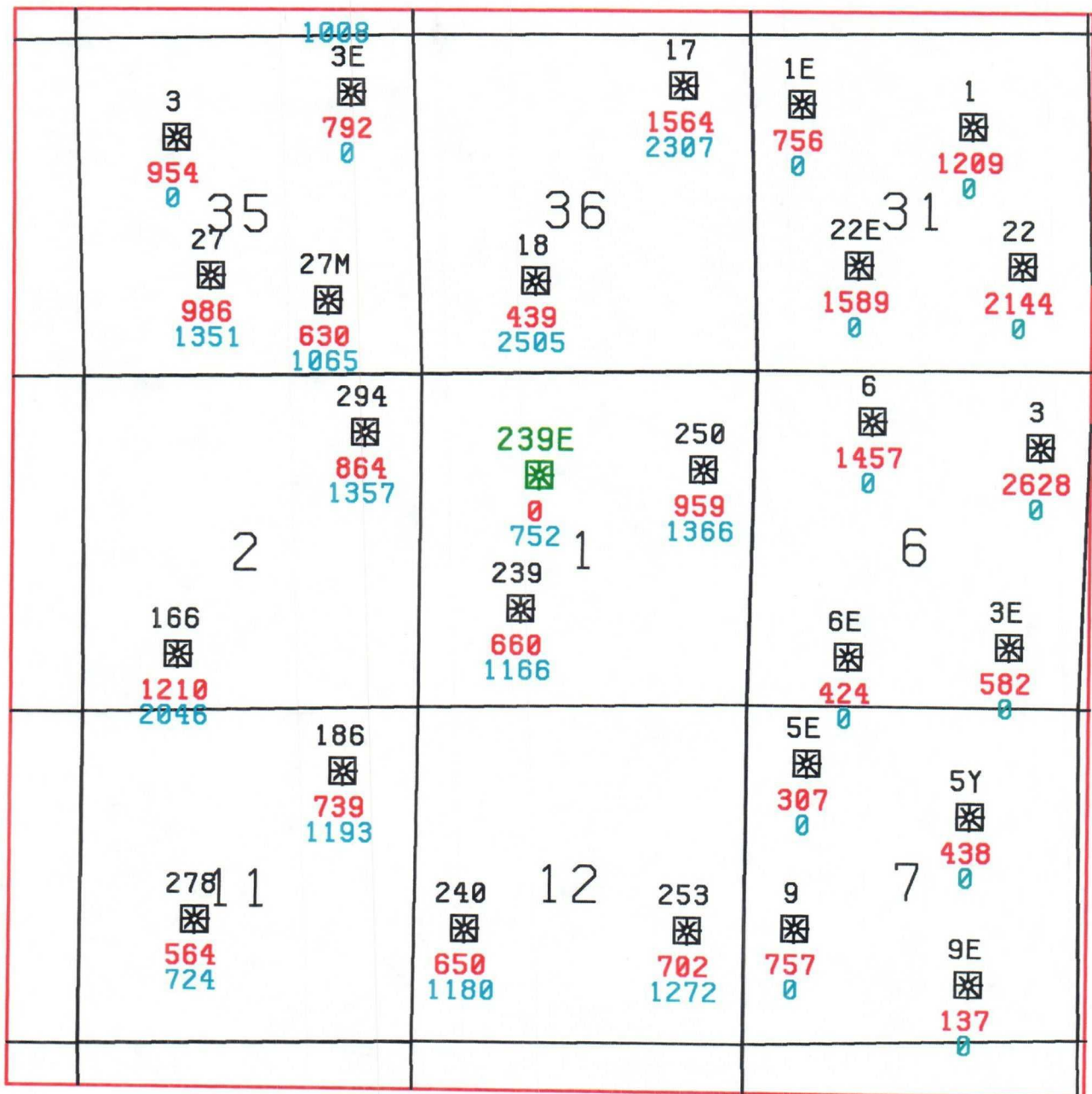
**CANYON LARGO UNIT #239E  
OFFSET OPERATOR \ OWNER PLAT**

**Mesaverde / Dakota Formations Commingle Well**

**Township 25 North, Range 6 West**

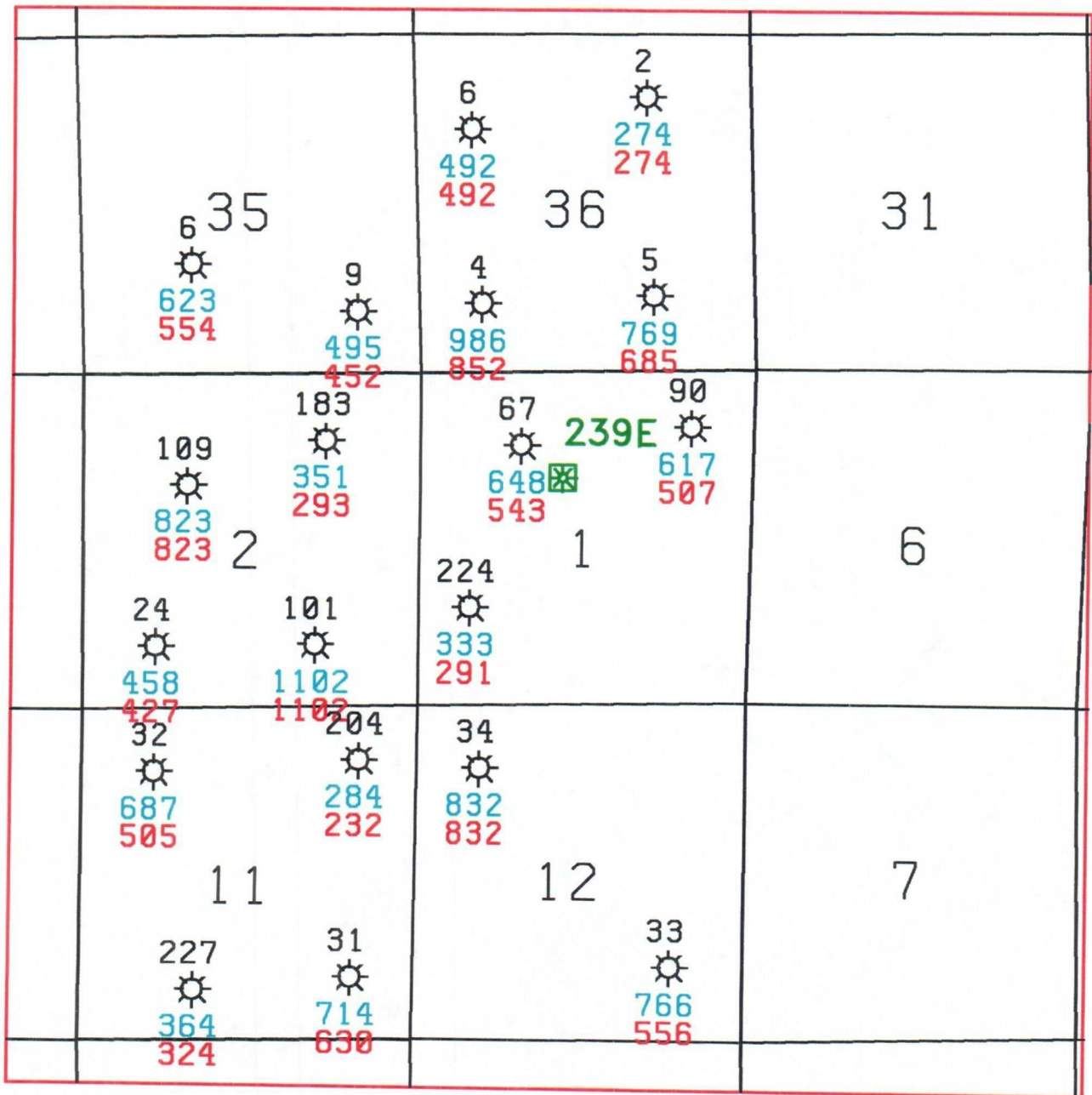


- 1) Burlington Resources Oil and Gas Company
- 2) Texaco Exploration & Production Inc.  
P.O. Box 2100  
Denver, CO 80201



Canyon Largo Unit #239E  
01F-25N-06W  
Dakota

DLA  
7/97



Canyon Largo Unit #239E

01F-25N-06W

Pictured Cliffs

DLA  
7/97

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:**

**CASE NO. 11685  
ORDER NO. R-10786**

**APPLICATION OF BURLINGTON RESOURCES OIL & GAS COMPANY FOR  
THE ESTABLISHMENT OF A DOWNHOLE COMMINGLING "REFERENCE  
CASE" FOR ITS CANYON LARGO UNIT PURSUANT TO DIVISION RULE 303.E  
AND THE ADOPTION OF SPECIAL ADMINISTRATIVE RULES THEREFOR,  
RIO ARriba COUNTY, NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This cause came on for hearing at 8:15 a.m. on January 23, 1997, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 3rd day of April, 1997, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

**FINDS THAT:**

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Burlington Resources Oil & Gas Company (Burlington), pursuant to the provisions of Division Rule 303.E., seeks to establish a downhole commingling "reference case" to provide exceptions for (a) marginal economic criteria, (b) pressure criteria, (c) allocation formulas and (d) modification of notification rules on a unit-wide basis for downhole commingling of Dakota, Mesaverde, Pictured Cliffs, Chacra, Gallup and Fruitland Coal gas production within existing or future drilled wells within the Canyon Largo Unit, Rio Arriba County, New Mexico.

(3) Division Rule No. 303.E., amended by Order No. R-10470-A, currently states:

**CASE NO. 11685**  
**Order No. R-10786**  
**Page -2-**

"If sufficient data exists on a lease, pool, formation, geographic area, etc., so as to render it unnecessary to repeatedly provide such data on Form C-107-A, an operator may except any of the various criteria required under Paragraph 303.D. of this rule by establishing a "reference case". The Division, upon its own motion, or by application from an operator, may establish "reference cases" either administratively or by hearing. Upon Division approval of such "reference cases" for specific criteria, subsequent applications to downhole commingle (Form C-107-A) will be required only to cite the Division order number which established such exceptions and shall not be required to submit data for those criteria."

(4) Burlington Resources Oil & Gas Company is the current operator and Merrion Oil & Gas Corporation (Merrion) is the sub-operator of the Gallup formation within the Canyon Largo Unit which encompasses some 49,876 acres in Townships 24 and 25 North, Ranges 6 and 7 West, NMPM, Rio Arriba County, New Mexico.

(5) Within the Canyon Largo Unit, Burlington or Merrion currently operate forty-five (45) Basin-Dakota Gas Pool wells, five (5) Blanco-Mesaverde Gas Pool wells, twenty-eight (28) Otero-Chacra Gas Pool wells, fifty-nine (59) Devils Fork-Gallup Pool wells, one-hundred forty (140) Ballard-Pictured Cliffs and South Blanco-Pictured Cliffs Gas Pool wells, and zero (0) Basin-Fruitland Coal Gas Pool wells.

(6) According to its evidence and testimony, Burlington seeks to:

- a) establish a "reference case" for marginal economic criteria in the Dakota, Mesaverde, Pictured Cliffs, Chacra, Gallup and Fruitland Coal formations whereby these formations and/or pools may be identified as "marginal" on Form C-107-A's subsequently filed for wells within the Canyon Largo Unit. The applicant further proposes that the data provided in the immediate case serve as supplemental data or confirmation that these formations and/or pools should be classified as "marginal";
- b) establish a "reference case" for pressure criteria in the Dakota, Mesaverde, Pictured Cliffs, Chacra, Gallup and Fruitland Coal formations whereby the Division may utilize data provided in the immediate case to verify the pressure data provided on Form C-107-A's subsequently filed for wells within the Canyon Largo Unit;
- c) establish a "reference case" whereby the Division utilizes the data presented in the immediate case to endorse or approve certain methods of allocating production whereby the applicant need not submit additional data or justification when proposing a certain method of allocating production on Form C-107-A's subsequently filed for wells within the Canyon Largo Unit; and,

**CASE NO. 11685****Order No. R-10786****Page -3-**

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- d) establish a "reference case" or an administrative procedure for authorizing the downhole commingling of existing or future drilled wells within the Canyon Largo Unit without additional notice to each affected interest owner as required by Division Rule No. 303.D.

(7) In support of its request to except marginal economic criteria, the applicant presented geologic and engineering evidence and testimony which indicate that within the Canyon Largo Unit:

- a) in general, the Dakota formation within the Canyon Largo unit should be marginal, however, there is potential for encountering isolated compartmentalized Dakota producing sands which may produce at non-marginal rates;
- b) although there are only a small number of Mesaverde producing wells, there is extensive geologic data regarding the Mesaverde formation within the Canyon Largo Unit. This data indicates that the Mesaverde formation presents limited opportunities within the Canyon Largo Unit and should be considered a marginal reservoir;
- c) the better Pictured Cliffs and Chacra reservoir development lies within the northeast portion of the Canyon Largo Unit. The potential for further development of the Pictured Cliffs and Chacra formations outside this area is limited and both should be considered marginal reservoirs;
- d) there is extensive Gallup development in the southern portion of the Canyon Largo Unit, however remaining potential in the Gallup formation should be considered marginal;
- e) the Basin-Fruitland Coal reservoir within the Canyon Largo Unit is in an under-pressured area of the San Juan Basin and presents limited opportunity;
- f) the average recoverable oil and gas reserves and average initial producing rates from the various formations within the Canyon Largo Unit are summarized as follows:



**CASE NO. 11685**  
**Order No. R-10786**  
**Page -4-**

<u>FORMATION</u>	<u>AVERAGE ESTIMATED ULTIMATE RECOVERY</u>	<u>AVERAGE INITIAL PRODUCING RATE</u>
Dakota	987 MMCFG	196 MCFGD
Mesaverde	841 MMCFG	262 MCFGD
Pictured Cliffs	678 MMCFG	126 MCFGD
Chacra	1096 MMCFG	320 MCFGD
Gallup	501 MMCFG 44 MBO	76 MCFGD 14 BOPD
Fruitland Coal	NA	NA

(8) The evidence and testimony presented by the applicant indicate that the Dakota, Mesaverde, Pictured Cliffs, Chacra, Gallup and Fruitland Coal formations within the Canyon Largo Unit should be properly classified as "marginal".

(9) In support of its request to except pressure criteria within the Dakota, Mesaverde, Pictured Cliffs, Chacra, Gallup and Fruitland Coal formations within the Canyon Largo Unit, the applicant presented engineering evidence and testimony which indicate that the average shut-in bottomhole pressure at the time of initial development and average current shut-in bottomhole pressure within the subject formations are as follows:

<u>FORMATION</u>	<u>AVERAGE INITIAL SHUT-IN BOTTOMHOLE PRESSURE</u>	<u>AVERAGE CURRENT SHUT-IN BOTTOMHOLE PRESSURE</u>
Dakota	2754 psi	937 psi
Mesaverde	1431 psi	741 psi
Pictured Cliffs	822 psi	255 psi
Chacra	986 psi	280 psi
Gallup	NA	NA
Fruitland Coal	822 psi	822 psi

(10) There is sufficient pressure data available within the Canyon Largo Unit so as to except pressure criteria in the Dakota, Pictured Cliffs, Chacra and Gallup formations, however, there is insufficient data to except pressure criteria in the Fruitland Coal and Mesaverde formations as proposed by the applicant.

(11) The applicant testified that various allocation methods will be utilized for downhole commingled wells within the Canyon Largo Unit depending on the circumstances. Some of the methods and circumstances are described as follows:

- a) the subtraction method will likely be utilized in those instances involving the Basin-Fruitland Coal Gas Pool and in those instances where a zone with a well established decline rate is commingled with a newly completed zone;

Canyon Largo Unit # 186  
(Closest Offset with Data)

Date	Measured SIBHP (Psi)
Jul-72	3166
Nov-72	2163
Feb-74	1258
May-74	1151
May-75	1108
May-77	880
Jun-79	892
Aug-81	657
Jul-83	887
Sep-85	656
Mar-88	743
May-93	817

Canyon Largo Unit # 239 E  
(Dakota)

Date	Anticipated SIBHP (Psi)
Apr-96	2615 ← INITIAL BHP
Aug-96	1612
Jul-97	934 ← CURRENT BHP
Nov-97	707
Jan-98	600
Jan-99	557
Jan-01	329
Mar-03	341
May-05	106
Apr-07	336
Jun-09	105
Dec-11	192
Jan-17	266

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- b) a fixed allocation formula will be utilized in those instances where production history for both zones is available, or in those instances where newly completed zones are tested and stabilized flow rates obtained.

(12) The allocation methods proposed by the applicant are routinely utilized by industry and approved by the Division and therefore, the proposal to except allocation formulas should be approved.

(13) In addition to the above, the applicant proposed utilizing a formula by which the production allocation may be determined by utilizing the BTU content and/or API gravity of the commingled stream.

(14) The proposed formula described in Finding No. (13) above should be used only to verify the results of production allocation derived by the methods described in Finding No. (11) above.

(15) In support of its request to establish a "reference case" or administrative procedure for providing notice within the Canyon Largo Unit the applicant presented evidence and testimony which indicate that:

- a) the interest ownership between two zones within a given wellbore in the Canyon Largo Unit is generally not common;
- b) pursuant to Division Rule No. 303.D., applicant is currently required to notify all interest owners within the Canyon Largo Unit every time a Form C-107-A is submitted to the Division. There are a considerable number of such interest owners within the unit;
- c) providing notice to each interest owner within the Canyon Largo Unit of subsequent downhole comminglings is unnecessary and is an excessive burden on the applicant;
- d) the downhole commingling of wells within the Canyon Largo Unit Area will benefit working, royalty, and overriding royalty interest owners. In addition, the downhole commingling of wells within the Canyon Largo Unit should not violate the correlative rights of any interest owner;
- e) no interest owner appeared at the hearing in opposition to the establishment of a "reference case" or administrative procedure for notice.

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(16) An administrative procedure should be established within the Canyon Largo Unit for obtaining approval for subsequently downhole commingled wells without notice to Unit interest owners, provided however that, all other provisions contained within Division Rule No. 303.C. are complied with.

(17) Approval of the proposed "reference cases" for marginal economic criteria, pressure criteria, allocation formulas and notice will lessen the burden on the applicant insofar as providing the data required pursuant to Division Rule No. 303.D. and Form C-107-A, will provide the applicant a streamlined method for obtaining downhole commingling approvals within the Canyon Largo Unit, and will not violate correlative rights.

**IT IS THEREFORE ORDERED THAT:**

(1) The application of Burlington Resources Oil & Gas Company to establish a "reference case" for marginal economic criteria and modification of notification rules on a unit-wide basis for downhole commingling of Dakota, Mesaverde, Pictured Cliffs, Chacra, Gallup and Fruitland Coal gas production within existing or future drilled wells within the Canyon Largo Unit, located in portions of Townships 24 and 25 North, Ranges 6 and 7 West, NMPM, Rio Arriba County, New Mexico, is hereby approved.

(2) The application of Burlington Resources Oil & Gas Company to establish a "reference case" for pressure criteria in the Dakota, Pictured Cliffs, Chacra and Gallup formations within the Canyon Largo Unit is hereby approved, provided however that, the portion of the application seeking to establish a "reference case" for pressure criteria in the Fruitland Coal and Mesaverde formations within the Canyon Largo Unit is hereby denied.

(3) Upon filing of Division Form No. C-107-A's for wells subsequently downhole commingled within the Canyon Largo Unit Area, the applicant shall not be required to submit supporting data to justify the classification of the Dakota, Mesaverde, Pictured Cliffs, Chacra, Gallup and Fruitland Coal formations as "marginal", supporting data to verify the Dakota, Pictured Cliffs, Chacra and Gallup pressure information provided, and support or justification for utilizing a given method or formula for allocation of production, provided however, in the event any of the data described above appearing on Form C-107-A appears to be beyond the data range provided in this case, the Division may require the submittal of additional supporting data.

(4) In order to obtain Division authorization to downhole commingle wells within the Canyon Largo Unit, the applicant shall file a Form C-107-A with the Santa Fe and Aztec Offices of the Division. Such application shall contain all the information required under Rule No. 303.D. of the Division Rules and Regulations, provided however that the applicant shall not be required to provide notice to all interest owners within the Canyon Largo Unit of such proposed commingling.

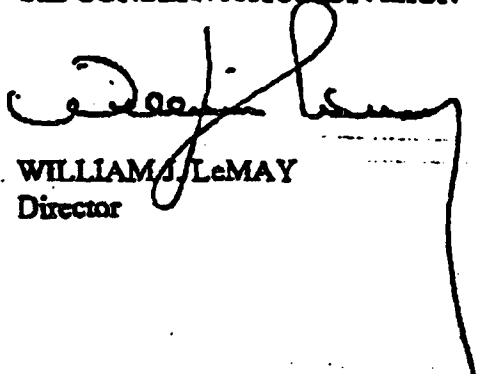
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(5) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



WILLIAM J. LeMAY  
Director

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