

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 & Gas Company

PO Box 4289, Farmington, NM 87499

Operator

Address

San Juan 28-6 Unit

158

G 11-27N-06W

Rio Arriba

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 7462 API NO. 30-039-20390 Federal ☒ State ☐ Fee ☐

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	
1. Pool Name and Pool Code	Mesaverde - 72319		Basin Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	5068-5802'(proposed)		7640' - 7830'
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	a. (Current) Est. 756 b. (Original) Est. 1466	a. RECEIVED AUG 28 1998 OIL CON. DIV. DIST. 3	a. 1234 b. 3744
6. Oil Gravity (°API) or Gas BTU Content	BTU (Est.) 1219		BTU 1092
7. Producing or Shut-In?	Not yet completed		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: n/a Rates: n/a	Date: Rates:	Date: n/a Rates: 54 MCF/D
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 ☒ 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. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). R-10696

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 Jennifer Dobson TITLE Production Engineer DATE 08-24-98TYPE OR PRINT NAME Jennifer Dobson TELEPHONE NO. (505) 326-9700

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer 00, 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
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-
Revised February 21, 1988
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-20390	² Pool Code 72319/71599	³ Pool Name Blanco Mesaverde/Basin Dakota
⁴ Property Code 7462	⁵ Property Name SAN JUAN 28-6 UNIT	⁶ Well Number 158
⁷ GRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY	⁹ Elevation 6648'

¹⁰ Surface Location

UL or lot no. G	Section 11	Township 27N	Range 6W	Lot Idn	Feet from the 1460	North/South line NORTH	Feet from the 1840	East/West line EAST	County RIO ARRI
--------------------	---------------	-----------------	-------------	---------	-----------------------	---------------------------	-----------------------	------------------------	--------------------

¹¹ Bottom Hole Location If Different From Surface

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

¹² Dedicated Acres MV-E/320 DK-N/320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
---	-------------------------------	----------------------------------	-------------------------

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

<div>Not resurveyed, prepared from a plat by David O. Vilven dated 3-31-71.</div> <div>RECEIVED AUG 28 1998 OIL CON. DIV. DIST. 2</div>	<div>1460'</div> <div>1840'</div> <div>11</div>	<div>¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</div> <div>Signature Peggy Bradfield Printed Name Regulatory Administrator Title 7-14-98 Date</div> <div>¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this was plotted from field notes of actual surveys made or under my supervision and that the same is true or correct to the best of my belief.</div> <div>JULY 13, 1998 Date of Survey Signature and Seal of Surveyor NEALE EDWARDS NEW MEXICO 6857 Certificate No. 100886</div>
---	---	--

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer 00, 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
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-
Revised February 21, 1998
Instructions on
Submit to Appropriate District Of
State Lease - 4 Cor
Fee Lease - 3 Cor

☐ AMENDED REPC

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-039-20390		2 Pool Code 72319/71599		3 Pool Name Blanco Mesaverde/Basin Dakota	
4 Property Code 7462		5 Property Name SAN JUAN 28-6 UNIT			6 Well Number 158
7 OGRID No. 14538		8 Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY			9 Elevation 6648'

10 Surface Location

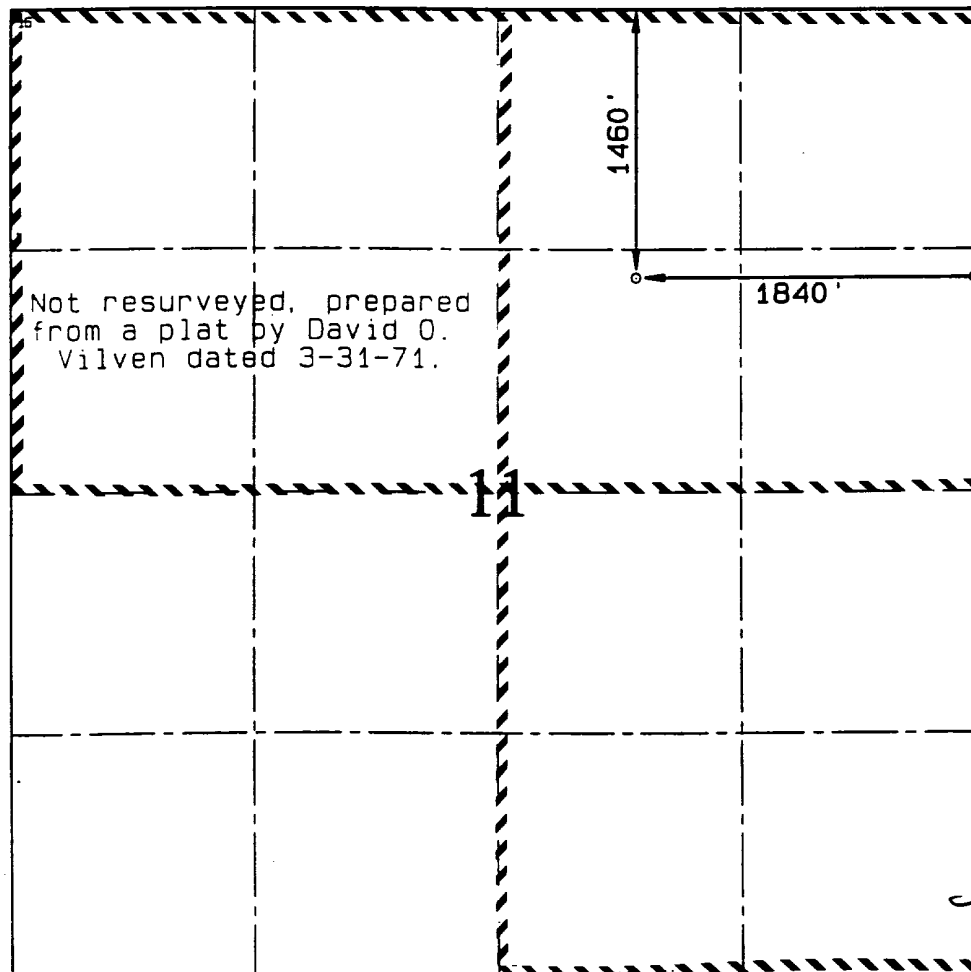
11 UL or lot no. G	12 Section 11	13 Township 27N	14 Range 6W	15 Lot 10n	16 Feet from the 1460	17 North/South line NORTH	18 Feet from the 1840	19 East/West line EAST	20 County RIO ARRIE
-----------------------	------------------	--------------------	----------------	------------	--------------------------	------------------------------	--------------------------	---------------------------	------------------------

11 Bottom Hole Location If Different From Surface

21 UL or lot no.	22 Section	23 Township	24 Range	25 Lot 10n	26 Feet from the	27 North/South line	28 Feet from the	29 East/West line	30 County
------------------	------------	-------------	----------	------------	------------------	---------------------	------------------	-------------------	-----------

31 Dedicated Acres MV-E/320 DK-N/320	32 Joint or Infill	33 Consolidation Code	34 Order No.
--	--------------------	-----------------------	--------------

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



17 OPERATOR CERTIFICATION
I hereby certify that the information contained here is true and complete to the best of my knowledge and belief.

Signature
Peggy Bradfield
Printed Name
Regulatory Administrator
Title
7-14-98
Date

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

JULY 13, 1998
Date of Survey

Signature and Seal of Surveyor
NEALE C. EDWARDS
NEW MEXICO
6857
Certificate Number

SAN JUAN 28-6 UNIT : 158 : 52419A-1

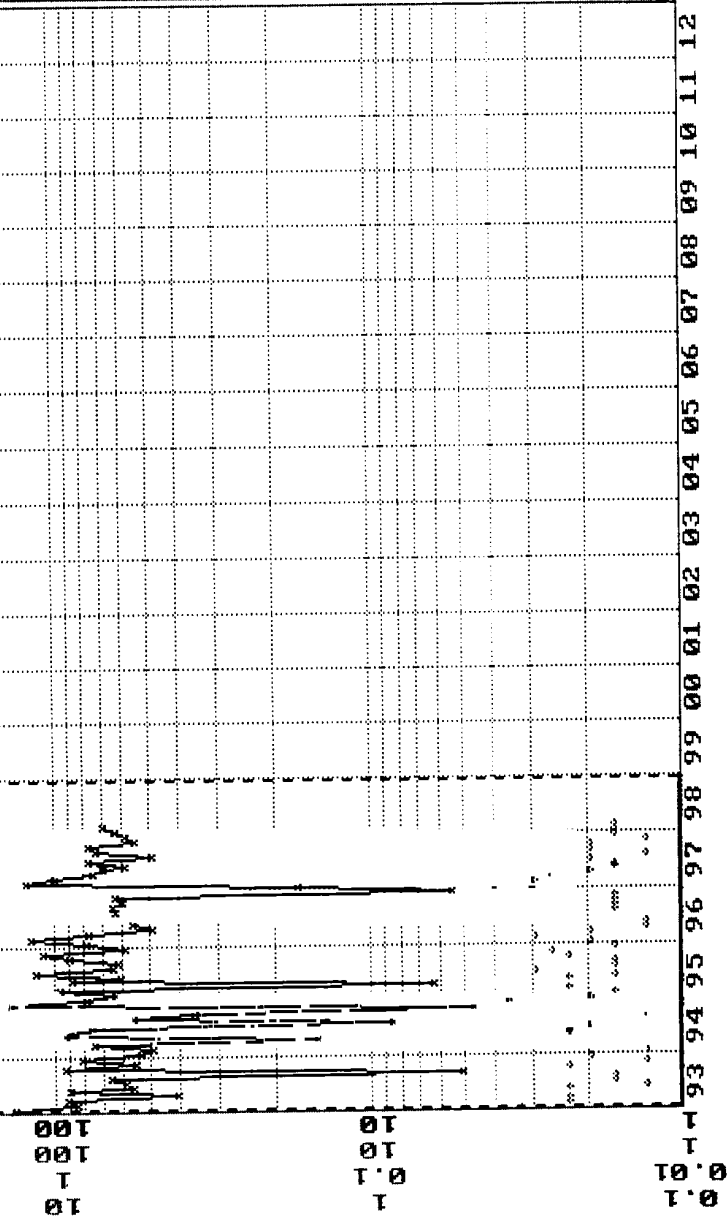
Prop 1756 *

• WATER
• OIL/GAS
• OIL
• GAS

□ SIWHP
+ FWHP

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

RateTime
Semi Log



Major = GAS

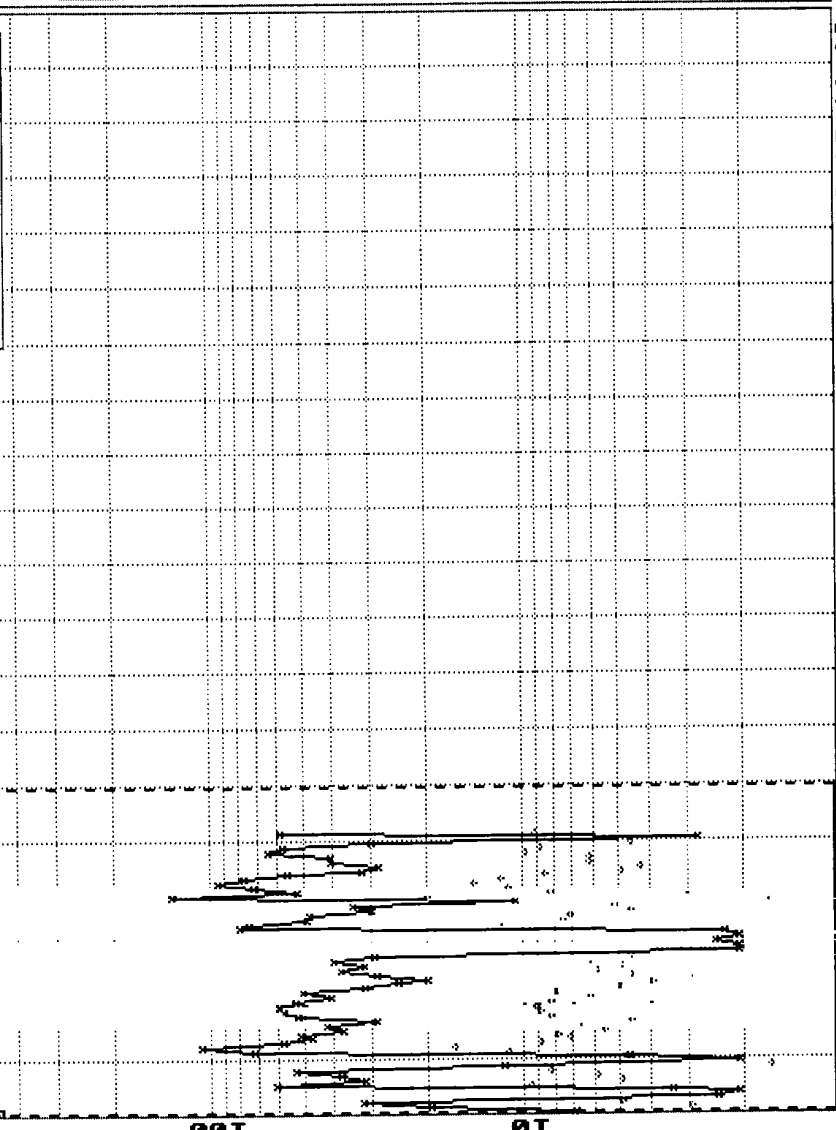
• WATER
 • OIL/GAS
 • OIL
 • GAS

SAN JUAN 28-6 UNIT : 24 : 49372A-1

Prop 1820 *

- ☒ • GAS Mcf/d
 - ☐ • OIL Bbl/d
 - ☐ • OIL/GAS
 - ☐ • WATER Bbls/d
- Rate
 Time
 Semi Log

- ☐ SIWHP
☐ FWHP



Major = GAS

SJ 28-6 #158
Bottom Hole Pressures
Cullender and Smith Method
Version 1.0 3/13/94

Mesaverde		Dakota	
<u>MV-Current</u>		<u>DK-Current</u>	
GAS GRAVITY	0.702	GAS GRAVITY	0.627
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.29	%N2	0.16
%CO2	0.8	%CO2	1.25
%H2S	0	%H2S	0
DIAMETER (IN)	2	DIAMETER (IN)	1.5
DEPTH (FT)	5375	DEPTH (FT)	7862
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	129	BOTTOMHOLE TEMPERATURE (DEG F)	156
FLOWRATE (MCFPD)	55	FLOWRATE (MCFPD)	54
SURFACE PRESSURE (PSIA)	654	SURFACE PRESSURE (PSIA)	1022
BOTTOMHOLE PRESSURE (PSIA)	755.7	BOTTOMHOLE PRESSURE (PSIA)	1234.4
<u>MV-Original</u>		<u>DK-Original</u>	
GAS GRAVITY	0.702	GAS GRAVITY	0.627
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.29	%N2	0.16
%CO2	0.8	%CO2	1.25
%H2S	0	%H2S	0
DIAMETER (IN)	2	DIAMETER (IN)	1.5
DEPTH (FT)	5375	DEPTH (FT)	7862
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	129	BOTTOMHOLE TEMPERATURE (DEG F)	156
FLOWRATE (MCFPD)	55	FLOWRATE (MCFPD)	54
SURFACE PRESSURE (PSIA)	1248	SURFACE PRESSURE (PSIA)	3082
BOTTOMHOLE PRESSURE (PSIA)	1465.7	BOTTOMHOLE PRESSURE (PSIA)	3743.9

Page No.: 1

Print Time: Wed Jul 22 11:25:56 1998

Property ID: 1756

Property Name: SAN JUAN 28-6 UNIT | 158 | 52419A-1

Table Name: Q:\PUBLIC\GENTITY\GDPNOS\TEST.DBF

--DATE-- ---CUM GAS-- GAS RATE M SIWHP M SIBHP
-----Mcf----- --Psi-- --Psi--

DK

07/22/71	0	2574.0	3082.0	Original
11/C4/71	40291	1429.0	1703.0	
06/C7/72	83980	1151.0	1366.0	
08/29/73	146382	937.0	1108.0	
09/C4/75	235303	748.0	882.0	
01/23/77	285015	805.0	950.0	
11/23/77	311342	850.0		
06/C6/79	351471	833.0	983.0	
09/19/83	449189	740.0	872.0	
11/18/85	500055	676.0	796.0	
07/C7/88	556271	865.0	1022.0	Current
09/29/92	633906	758.0		

GPM
MOL % (AT 14.73)

** DATA AT 14.730 PSIG UNLESS NOTED **

HYDROGEN	_____	
HELIUM	_____	
NITROGEN	___0.16	
OXYGEN	_____	
HYDROGEN SULFIDE	_____	
CARBON DIOXIDE	___1.25	
METHANE	___92.19	
ETHANE	___3.60	0.9630
PROPANE	___1.28	0.3528
ISO-BUTANE	___0.40	0.1308
N-BUTANE	___0.36	0.1135
ISO-PENTANE	___0.21	0.0768
N-PENTANE	___0.13	0.0471
HEXANE	_____	
HEXANE PLUS	___0.42	0.1832
HEPTANE PLUS	_____	
TOTALS	100.00	1.8672

MP NUMBER 87284
EFFECTIVE DATE 19980401

-- GASOLINE CONTENT (GPM) --
26/70 GASOLINE _____
100% PROPANE _____
EXCESS BUTANES _____
TOTAL

----- SPECIFIC GRAVITY -----
CALCULATED _0.6270
MEASURED _____

SULPHUR GRAINS / 100 CU FT _____

03=MAIN SCREEN

24=HELP

PA1=TERMINATE

REQUESTED RECORD NOT FOUND (NEXT RECORD DISPLAYED)

OPR008M1 3111

0008 CHROMATOGRAPH TEST MAIN SCREEN

10:52:45.2 07/21/98

FUNCTION (A,C,D,I) I

** DATA AT TEST PRESSURE UNLESS NOTED **

MP NUMBER 87284

SAN JUAN 28-6 UNIT

158

EFFECTIVE DATE 19980401

REGION CD 42

SAN JUAN

MP TYPE CODE 10

GAS METER - WELLHEAD SALES

SAMPLE TYPE CODE (GAS, LIQ, BTU)

GAS

----- BTU/CF -----

SAMPLE DATE

19980401

--- (AT 14.73 PSIG) --

SAMPLE LINE PRESSURE (PSIG)

WET 1073.014 DRY 1092.000

SAMPLE LINE TEMPERATURE (DEG F)

TEST DATE

----- BTU/CF -----

TEST PRESSURE (PSIG)

14.730

WET 1073.014 DRY 1092.000

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

DP NO: 52419A

DATE: 980627 (YYMMDD FORMAT)

SAN JUAN 28-6 UNIT

158

SCROLL FORWARD BY DATE: _

S

E	DATE	HOURS	-OIL PRODN-	-GAS PRODN-	-WATER PRODN-
L	PRODUCED	ON	(BOPD BOPM)	(MCFD MCFM)	(BWPD BWPM)
06/27/98	24.0	0.00	0.00	54 1458	0.00 0.00
06/26/98	24.0	0.00	0.00	54 1404	0.00 0.00
06/25/98	24.0	0.00	0.00	54 1350	0.00 0.00
06/24/98	24.0	0.00	0.00	54 1296	0.00 0.00
06/23/98	24.0	0.00	0.00	54 1242	0.00 0.00
06/22/98	24.0	0.00	0.00	54 1188	0.00 0.00
06/21/98	24.0	0.00	0.00	54 1134	0.00 0.00
06/20/98	24.0	0.00	0.00	54 1080	0.00 0.00
06/19/98	24.0	0.00	0.00	54 1026	0.00 0.00
06/18/98	24.0	0.00	0.00	54 972	0.00 0.00
06/17/98	24.0	0.00	0.00	54 918	0.00 0.00

ENTER I UNDER SEL FOR MAINTENANCE

PF6=NRI PF10=BROWSE MENU PF11=INQ/UPDATE MENU
 PF12=MAIN MENU ENTER=BACKWARDS PF24=HELP

DP NO: 52419A

DATE: 980708 (YYMMDD FORMAT)

SAN JUAN 28-6 UNIT

158

SCROLL FORWARD BY DATE: _

S

E	DATE	HOURS	-OIL PRODN-	-GAS PRODN-	-WATER PRODN-		
L PRODUCED	ON	(BOPD	BOPM)	(MCFD	MCFM)	(BWPD	BWPM)
07/08/98	24.0	0.00	0.00	54	432	0.00	0.00
07/07/98	24.0	0.00	0.00	54	378	0.00	0.00
07/06/98	24.0	0.00	0.00	54	324	0.00	0.00
07/05/98	24.0	0.00	0.00	54	270	0.00	0.00
07/04/98	24.0	0.00	0.00	54	216	0.00	0.00
07/03/98	24.0	0.00	0.00	54	162	0.00	0.00
07/02/98	24.0	0.00	0.00	54	108	0.00	0.00
07/01/98	24.0	0.00	0.00	54	54	0.00	0.00
06/30/98	24.0	0.00	0.00	54	1620	0.00	0.00
06/29/98	24.0	0.00	0.00	54	1566	0.00	0.00
06/28/98	24.0	0.00	0.00	54	1512	0.00	0.00

ENTER I UNDER SEL FOR MAINTENANCE

PF6=NRI PF10=BROWSE MENU PF11=INQ/UPDATE MENU
PF12=MAIN MENU ENTER=BACKWARDS PF24=HELP

FDG055M4 3111

WELL PRODUCTION 8/8'S VOLUME

07/21/98 10:50:24

START OF DATA

DP NO: 52419A

DATE: 980719 (YYMMDD FORMAT)

SAN JUAN 28-6 UNIT

158 SCROLL FORWARD BY DATE: _

S

E	DATE	HOURS	-OIL PRODN-	-GAS PRODN-	-WATER PRODN-
L	PRODUCED	ON	(BOPD BOPM)	(MCFD MCFM)	(BWPD BWPM)
-	07/19/98	24.0	0.00 0.00	54 1026	0.00 0.00
-	07/18/98	24.0	0.00 0.00	54 972	0.00 0.00
-	07/17/98	24.0	0.00 0.00	54 918	0.00 0.00
-	07/16/98	24.0	0.00 0.00	54 864	0.00 0.00
-	07/15/98	24.0	0.00 0.00	54 810	0.00 0.00
-	07/14/98	24.0	0.00 0.00	54 756	0.00 0.00
-	07/13/98	24.0	0.00 0.00	54 702	0.00 0.00
-	07/12/98	24.0	0.00 0.00	54 648	0.00 0.00
-	07/11/98	24.0	0.00 0.00	54 594	0.00 0.00
-	07/10/98	24.0	0.00 0.00	54 540	0.00 0.00
-	07/09/98	24.0	0.00 0.00	54 486	0.00 0.00

ENTER I UNDER SEL FOR MAINTENANCE

PF6=NRI PF10=BROWSE MENU PF11=INQ/UPDATE MENU
 PF12=MAIN MENU ENTER=BACKWARDS PF24=HELP

Page No.: 1

Print Time: Wed Jul 22 11:30:28 1998

Property ID: 1820

Property Name: SAN JUAN 28-6 UNIT | 24 | 49372A-1 *MV*

Table Name: Q:\PUBLIC\GENTITY\GDPNOS\TEST.DBF

--DATE--	---CUM GAS--	GAS RATE	M SIWHP	M SIBHP	
.....Mcf.....Psi.....Psi.....	
11/13/55	0		1095.0	1248.0	<i>Offset Well</i>
12/01/55	0		1094.0		<i>Original</i>
08/24/56	45000		862.0		
04/24/57	80000		737.0		
09/06/58	140000		829.0		
06/14/59	173000		794.0		
06/14/60	215000		675.0		
06/13/61	255000		664.0		
06/04/62	289000		654.0		
08/02/63	330000		645.0		
04/22/64	355000		635.0		
05/03/65	388000		619.0		
06/07/66	421000		634.0		
05/25/67	448000		611.0		
05/27/68	477000		605.0		
07/28/70	540011		536.0	604.0	
06/22/71	570514		496.0	558.0	
06/07/72	600802		477.0	537.0	
05/02/74	653611		530.0	597.0	
09/10/76	710800		521.0	587.0	
05/09/89	930084		582.0	656.0	
05/20/91	958502		568.0		
06/09/91	959495		580.0	654.0	<i>Current</i>

*Tbg Diam 2"
5375'
TD*

#24 offset

OPR008M2 0117

0008 CHROMATOGRAPH GAS SAMPLE DETAIL

12:40:25.5 07/22/9

	MOL %	(AT 14.73)
HYDROGEN	_____	
HELIUM	_____	
NITROGEN	<u>0.29</u>	
OXYGEN	_____	
HYDROGEN SULFIDE	_____	
CARBON DIOXIDE	<u>0.80</u>	
METHANE	<u>81.54</u>	
ETHANE	<u>10.35</u>	2.7686
PROPANE	<u>4.42</u>	1.2182
ISO-BUTANE	<u>0.68</u>	0.2224
N-BUTANE	<u>1.03</u>	0.3248
ISO-PENTANE	<u>0.31</u>	0.1134
N-PENTANE	<u>0.21</u>	0.0761
HEXANE	_____	
HEXANE PLUS	<u>0.37</u>	0.1614
HEPTANE PLUS	_____	
TOTALS	100.00	4.8849

** DATA AT 14.730 PSIG UNLESS NOTED **

MP NUMBER 71158

EFFECTIVE DATE 19970101

-- GASOLINE CONTENT (GPM) --

26/70 GASOLINE _____

100% PROPANE _____

EXCESS BUTANES _____

TOTAL

----- SPECIFIC GRAVITY -----

CALCULATED 0.7020

MEASURED _____

SULPHUR GRAINS / 100 CU FT _____

03=MAIN SCREEN

24=HELP

PA1=TERMINATE

Tbg Diameter

TD —

REQUESTED RECORD NOT FOUND (NEXT RECORD DISPLAYED)

OPR008M1 3111

0008 CHROMATOGRAPH TEST MAIN SCREEN

10:52:26.4 07/21/98

FUNCTION (A,C,D,I) I

** DATA AT TEST PRESSURE UNLESS NOTED **

MP NUMBER 71158

SAN JUAN 28-6 UNIT

24 *Offset Well*

EFFECTIVE DATE 19970101

REGION CD 42

SAN JUAN

MP TYPE CODE 10

GAS METER - WELLHEAD SALES

SAMPLE TYPE CODE (GAS, LIQ, BTU)

GAS

----- BTU/CF -----

SAMPLE DATE

19961204

--- (AT 14.73 PSIG) --

SAMPLE LINE PRESSURE (PSIG)

WET 1197.806 DRY 1219.000

SAMPLE LINE TEMPERATURE (DEG F)

TEST DATE

----- BTU/CF -----

TEST PRESSURE (PSIG)

14.730

WET 1197.806 DRY 1219.000

TEST TEMPERATURE (DEG F)

60

VAPOR FACTOR

TEST LIFE (MONTHS)

6

TESTER SOURCE BA NUMBER

098795 EL PASO FIELD SERVICES

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

FDG055M4 3111

WELL PRODUCTION 8/8'S VOLUME

07/21/98 10:51:2

START OF DATA

DP NO: 49372A

DATE: 980719 (YYMMDD FORMAT)

SAN JUAN 28-6 UNIT

24 SCROLL FORWARD BY DATE: _

S

E	DATE	HOURS	-OIL PRODN-	-GAS PRODN-	-WATER PRODN-		
L	PRODUCED	ON	(BOPD	BOPM)	(MCFD	MCFM)	(BWPD BWPM)
—	07/19/98	24.0	0.00	0.00	52	589	0.00 0.00
—	07/18/98	24.0	0.00	0.00	64	537	0.00 0.00
—	07/17/98	24.0	0.00	0.00	71	473	0.00 0.00
—	07/16/98	24.0	0.00	0.00	81	402	0.00 0.00
—	07/15/98	24.0	0.00	0.00	321	321	0.00 0.00
—	07/14/98	24.0	0.00	0.00	0	0	0.00 0.00
—	07/13/98	24.0	0.00	0.00	0	0	0.00 0.00
—	07/12/98	24.0	0.00	0.00	0	0	0.00 0.00
—	07/11/98	24.0	0.00	0.00	0	0	0.00 0.00
—	07/10/98	24.0	0.00	0.00	0	0	0.00 0.00
—	07/09/98	24.0	0.00	0.00	0	0	0.00 0.00

ENTER I UNDER SEL FOR MAINTENANCE

PF6=NRI PF10=BROWSE MENU PF11=INQ/UPDATE MENU
 PF12=MAIN MENU ENTER=BACKWARDS PF24=HELP

DP NO: 49372A

DATE: 980627 (YYMMDD FORMAT)

SAN JUAN 28-6 UNIT

24

SCROLL FORWARD BY DATE: _

S

E	DATE	HOURS	-OIL PRODN-	-GAS PRODN-	-WATER PRODN-
L	PRODUCED	ON	(BOPD BOPM)	(MCFD MCFM)	(BWPD BWPM)
—	06/27/98	24.0	0.00	0.00	51 1441 0.00 0.00
—	06/26/98	24.0	0.00	0.00	62 1390 0.00 0.00
—	06/25/98	24.0	0.00	0.00	61 1328 0.00 0.00
—	06/24/98	24.0	0.00	0.00	42 1267 0.00 0.00
—	06/23/98	24.0	0.00	0.00	0 1225 0.00 0.00
—	06/22/98	24.0	0.00	0.00	0 1225 0.00 0.00
—	06/21/98	24.0	0.00	0.00	6 1225 0.00 0.00
—	06/20/98	24.0	0.00	0.00	6 1219 0.00 0.00
—	06/19/98	24.0	0.00	0.00	141 1213 0.00 0.00
—	06/18/98	24.0	0.00	0.00	55 1072 0.00 0.00
—	06/17/98	24.0	0.00	0.00	51 1017 0.00 0.00

ENTER I UNDER SEL FOR MAINTENANCE

PF6=NRI PF10=BROWSE MENU PF11=INQ/UPDATE MENU
 PF12=MAIN MENU ENTER=BACKWARDS PF24=HELP

DP NO: 49372A

DATE: 980616 (YYMMDD FORMAT)

SAN JUAN 28-6 UNIT

24

SCROLL FORWARD BY DATE: _

S

E	DATE	HOURS	-OIL PRODN-	-GAS PRODN-	-WATER PRODN-
L	PRODUCED	ON	(BOPD BOPM)	(MCFD MCFM)	(BWPD BWPM)
-	06/16/98	24.0	0.00	0.00	78 966 0.00 0.00
-	06/15/98	24.0	0.00	0.00	51 838 0.00 0.00
-	06/14/98	24.0	0.00	0.00	0 837 0.00 0.00
-	06/13/98	24.0	0.00	0.00	55 837 0.00 0.00
-	06/12/98	24.0	0.00	0.00	55 732 0.00 0.00
-	06/11/98	24.0	0.00	0.00	55 727 0.00 0.00
-	06/10/98	24.0	0.00	0.00	55 672 0.00 0.00
-	06/09/98	24.0	0.00	0.00	55 617 0.00 0.00
-	06/08/98	24.0	0.00	0.00	55 562 0.00 0.00
-	06/07/98	24.0	0.00	0.00	63 507 0.00 0.00
-	06/06/98	24.0	0.00	0.00	79 444 0.00 0.00

ENTER I UNDER SEL FOR MAINTENANCE

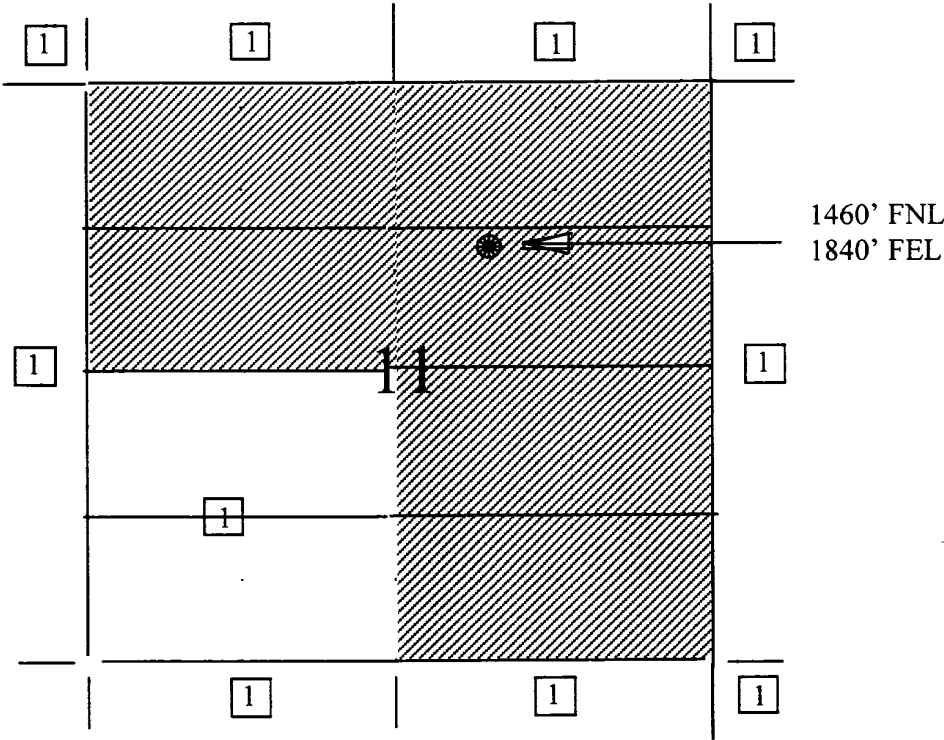
PF6=NRI PF10=BROWSE MENU PF11=INQ/UPDATE MENU
 PF12=MAIN MENU ENTER=BACKWARDS PF24=HELP

BURLINGTON RESOURCES OIL AND GAS COMPANY

**San Juan 28-6 Unit #158
OFFSET OPERATOR \ OWNER PLAT
Downhole Commingle**

Mesaverde (E/2) / Dakota (N/2) Formations Well

Township 27 North, Range 6 West



1) Burlington Resources

DATE: July 23,1998
NAME: SAN JUAN 28-6 UNIT 158
FORM: DAKOTA
LOCATION
UNIT: G
SEC: 11
TWN: 27N
RNG: 6W

LEGEND
COMPLETION DATE
WELL NAME
MCF/D-CUM(MMF)
BOP/D-CUM(MBO)

[3] <div>7/64 • San Juan 28-6 Unit 115 104/1339 (97)</div>		[2] <div>6/73 • San Juan 28-6 Unit 180 40/708 (97)</div>		[1] <div>11/66 • San Juan 28-6 Unit 109 129/1932 (97)</div> <div>11/94 • San Juan 28-6 Unit 109M 107/146 (97)</div>	
[10] <div>2/97 • San Juan 28-6 Unit 207M 198/54 (97)</div> <div>7/79 • San Juan 28-6 Unit 207 116/1133 (97)</div>		[11] <div>7/71 • San Juan 28-6 Unit 158 [11] 70/754 (97)</div> <div>5/74 • San Juan 28-6 Unit 208 74/901 (97)</div>		[12] <div>8/71 • San Juan 28-6 Unit 161 [12] 130/1489 (97)</div>	
[15] <div>6/74 • San Juan 28-6 Unit 209 60/842 (97)</div> <div>11/62 • San Juan 28-6 Unit 111 101/2102 (97)</div>		[14] <div>10/73 • San Juan 28-6 Unit 181 82/1049 (97)</div> <div>7/72 • San Juan 28-6 Unit 168 67/832 (97)</div>		[13] <div>7/73 • San Juan 28-6 Unit 183 [13] 235/2873 (97)</div> <div>9/73 • San Juan 28-6 Unit 179 82/1339 (97)</div>	

T
27
N

DATE: July 23, 1998
NAME: SAN JUAN 28-6 UNIT 158
FORM: MESAVERDE
LOCATION
UNIT: G
SEC: 11
TWN: 27N
RNG: 6W

LEGEND
COMPLETION DATE
WELL NAME
MCF/D-CUM(MMF)
BOP/D-CUM(MBO)

<div>2/57 San Juan 28-6 Unit 74 87/1174 (97) 0/4</div> <div>[3]</div> <div>2/57 San Juan 28-6 Unit 75 71/1319 (97) 0/4</div> <div>6/97 San Juan 28-6 Unit 115M 175/58 (97) 0/0</div>	<div>6/59 San Juan 28-6 Unit 92 60/805 (97) 0/0</div> <div>10/57 San Juan 28-6 Unit 77 75/892 (97) 0/0</div>	<div>3/58 San Juan 28-6 Unit 78 101/1165 (97) 0/1</div> <div>[1] 11/94 San Juan 28-6 Unit 109M 280/298 (97) 1/1</div> <div>7/55 San Juan 28-6 Unit 26 58/970 (97) 0/0</div>
<div>10/55 San Juan 28-6 Unit 25 141/2029 (97) 1/10</div> <div>2/97 San Juan 28-6 Unit 207M 196/115 (97) 0/0 [10]</div> <div>11/55 San Juan 28-6 Unit 24 56/1044 (97) 0/0</div>	<div>11/57 San Juan 28-6 Unit 66 38/763 (97) 0/0</div> <div>[11] San Juan 28-6 Unit 158</div> <div>7/58 San Juan 28-6 Unit 79 5/1089 (97) 0/2</div>	<div>4/58 San Juan 28-6 Unit 80 51/709 (97) [12] 0/0</div> <div>13/607 (97) 0/0 San Juan 28-6 Unit 81</div>
<div>10/80 San Juan 28-6 Unit 6A 74/428 (97) 1/3</div> <div>11/53 San Juan 28-6 Unit 6 100/1507 (97) 1/3</div> <div>10/80 San Juan 28-6 Unit 27A 124/780 (97) 1/8</div>	<div>[14] 12/80 San Juan 28-6 Unit 67A 93/452 (97) 1/3</div> <div>6/56 San Juan 28-6 Unit 64 98/2113 (97) 1/14</div>	<div>8/58 San Juan 28-6 Unit 82 26/590 (97) [13] 0/0</div> <div>8/57 San Juan 28-6 Unit 68 79/1233 (97) 1/5</div>

T
27
N

R-6-W

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. 11628
ORDER NO. R-10696

APPLICATION OF BURLINGTON RESOURCES
OIL & GAS COMPANY FOR THE ESTABLISHMENT
OF A DOWNHOLE COMMINGLING "REFERENCE
CASE" FOR ITS SAN JUAN 28-6 UNIT PURSUANT
TO DIVISION RULE 303.E. AND THE ADOPTION
OF SPECIAL ADMINISTRATIVE RULES THEREFOR,
SAN JUAN COUNTY, NEW MEXICO..

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on October 17 and November 7, 1996, at Santa Fe, New Mexico, before Examiners David R. Catanach and Michael E. Stogner, respectively.

NOW, on this 12th day of November, 1996, 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, Fruitland Coal and Pictured Cliffs gas production within existing or future drilled wells within the San Juan 28-6 Unit, San Juan County, New Mexico.

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

"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) The applicant is the current operator of the San Juan 28-6 Unit which encompasses some 27,735 acres in Townships 27 and 28 North, Range 6 West, NMPM, San Juan County, New Mexico.

(5) Within the San Juan 28-6 Unit, the applicant currently operates ninety (90) Basin-Dakota Gas Pool wells, one hundred twenty-six (126) Blanco-Mesaverde Gas Pool wells, fifty-one (51) South Blanco-Pictured Cliffs Gas Pool wells, and fifty-eight (58) 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 and Pictured Cliffs formations whereby these formations and/or pools may be identified as "marginal" on Form C-107-A's subsequently filed for wells within the San Juan 28-6 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 and Pictured Cliffs 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 San Juan 28-6 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 San Juan 28-6 Unit; and,
- d) establish a "reference case" or an administrative procedure for authorizing the downhole commingling of existing or future drilled wells within the San Juan 28-6 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 indicates that within the San Juan 28-6 Unit:

- a) the structure and thickness of the Dakota and Pictured Cliffs formations are very consistent;
- b) the average recoverable Dakota and Pictured Cliffs gas reserves underlying an undeveloped drill block are approximately 449 MMCFG and 186 MMCFG, respectively;
- c) the average initial producing rate for a newly drilled or recompleted Dakota and Pictured Cliffs gas well is approximately 254 MCFGD and 216 MCFGD, respectively; and,
- d) the estimated ultimate gas recoveries and initial producing rates from the Dakota and Pictured Cliffs formations are insufficient to justify drilling stand alone wells and/or dually completed wells to recover such gas reserves.

(8) The evidence and testimony presented by the applicant indicates that the Dakota and Pictured Cliffs formations within the San Juan 28-6 Unit should be properly classified as "marginal".

(9) In support of its request to except pressure criteria within the Dakota and Pictured Cliffs formations within the San Juan 28-6 Unit, the applicant presented engineering evidence and testimony which indicates that:

- a) the average shut-in bottomhole pressure within the Dakota and Pictured Cliffs formations at the time of initial development was approximately 3,172 psi and 1,173 psi, respectively; and,
- b) the average current shut-in bottomhole pressure within the Dakota and Pictured Cliffs formations is approximately 980 psi and 393 psi, respectively.

(10) There is sufficient pressure data available within the San Juan 28-6 Unit so as to except pressure criteria as proposed by the applicant.

(11) The applicant testified that various allocation methods will be utilized for downhole commingled wells within the San Juan 28-6 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;
- 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 support of its request to establish a "reference case" or administrative procedure for providing notice within the San Juan 28-6 Unit the applicant presented evidence and testimony which indicates that:

- a) the interest ownership between two zones within a given wellbore in the San Juan 28-6 Unit is generally not common;
- b) pursuant to Division Rule No. 303.D., applicant is currently required to notify all interest owners within the San Juan 28-6 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 San Juan 28-6 Unit of subsequent downhole comminglings is unnecessary and is an excessive burden on the applicant;
- d) the downhole commingling of wells within the San Juan 28-6 Unit Area will benefit working, royalty, and overriding royalty interest owners. In addition, the downhole commingling of wells within the San Juan 28-6 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.

(14) An administrative procedure should be established within the San Juan 28-6 Unit for obtaining approval for subsequent 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.

(15) 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 San Juan 28-6 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 (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, Fruitland Coal and Pictured Cliffs gas production within existing or future drilled wells within the San Juan 28-6 Unit, San Juan County, New Mexico, is hereby approved.

(2) Upon filing of Division Form No. C-107-A's for wells subsequently downhole commingled within the San Juan 28-6 Unit Area, the applicant shall not be required to submit supporting data to justify the classification of the Pictured Cliffs and Dakota formations as "marginal", supporting data to verify the Pictured Cliffs and Dakota 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.

(3) In order to obtain Division authorization to downhole commingle wells within the San Juan 28-6 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.C. of the Division Rules and Regulations, provided however that the applicant shall not be required to provide notice to all interest owners within the San Juan 28-6 Unit of such proposed commingling.

(4) 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

S E A L

07/22/98

LAND WELL REPORT

PRELIMINARY

LWR210NL

INQUIRY

COMPANY OWNERSHIP

<WELLSTAT

WELL: 52419A SAN JUAN 28-6 UNI 158

=====

OWNER	PROD	INTEREST %	I-TYPE	TRUST	EVENT	AUTH	INIT	REVISED
-----	----	-----	-----	-----	-----	----	----	-----
21 BROG	ALL	43.480253	NWI		CUR	DOU	RH1	08/14/97
21 BROG	ALL	56.561882	GW		CUR	DOU	RH1	08/14/97
21 BROG	ALL	0.008014	RI		CUR	DOU		
21 BROG	ALL	2.649835	ORI		CUR	DOU	RH1	08/14/97

TOTAL COMPANY NET/GROSS REVENUE INTEREST: NET: OIL 46.138102 GAS 46.13810
GROSS: OIL 56.561882 GAS 56.56188

** CONTAINS OWNERSHIP REMARKS **

BLOCK POSTING:

=====

PF17=PRIOR PF18=REASON PF20=TOP PF21=RMKS PF11=BACK PF12=MENU PF24=HELP