

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 28-5 Unit 54E C 20-28N-05W Rio Arriba
Lease Well No. Unit Ltr. - Sec - Twp - Rge County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 7460 API NO. 30-039-23813 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	Wildcat Munoz Canyon Gallup - 96767		Basin Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	6912' - 7333'		7712' - 7902'
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) 2298 b. (Original) 2298	RECEIVED SEP 23 1998 OIL CON. DIV. DIST. 3	a. 1313 b. 3215
6. Oil Gravity (°API) or Gas BTU Content	BTU 1185		BTU 1032
7. Producing or Shut-In?	producing		Shut-in
Production Marginal? (yes or no)	yes		no
* 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: n/a Rates:	Date: Rates:	Date: n/a Rates: 0/105/0
	Date: n/a Rates: 40 MCF/D	Date: Rates:	Date: n/a Rates:
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)	Oil: % Gas: % will be supplied upon completion	Oil: % Gas: %	Oil: % Gas: % will be supplied upon completion

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.
10. Are all working, overriding, and royalty interests identical in all commingled zones? ☐ Yes ☒ No
If not, have all working, overriding, and royalty interests been notified by certified mail? ☐ Yes ☒ No
Have all offset operators been given written notice of the proposed downhole commingling? ☒ Yes ☐ No
11. Will cross-flow occur? ☒ Yes ☐ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☒ Yes ☐ No (If No, attach explanation)
12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No
13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)
14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No
15. NMOC Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). R-10695
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 9-21-98

TYPE OR PRINT NAME Jennifer Dobson

TELEPHONE NO. (505) 326-9700

1980, Hobbs, NM 88241-1980

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-10
Revised February 21, 1995
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

District II
Drawer 00, Artesia, NM 88211-0719

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

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
PO Box 2088, Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-23813		Pool Code 96767/71599	Pool Name WC:Munoz Canyon Gallup/Basin Dakota
Property Code 7460	Property Name SAN JUAN 28-5 UNIT		Well Number 54E
GRID No. 14538	Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY		Elevation 6644'

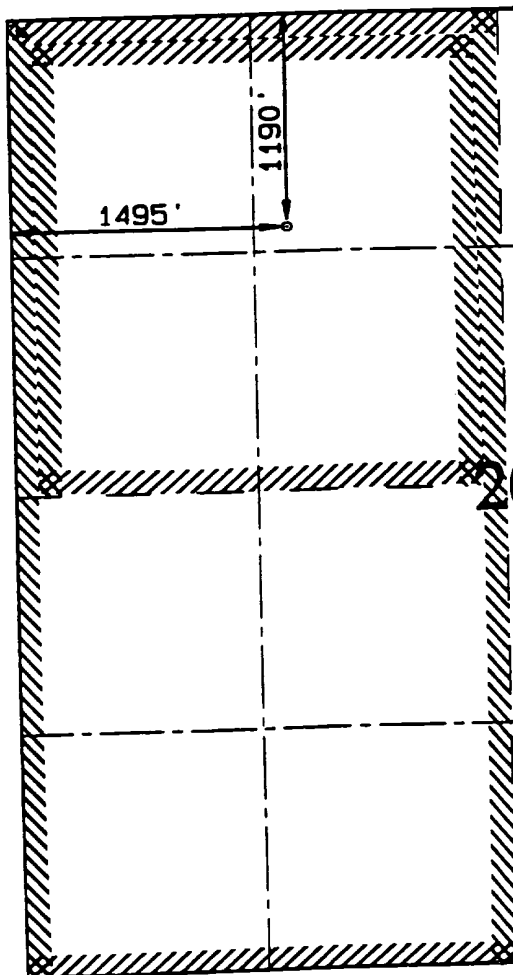
10 Surface Location

UL or lot no. C	Section 20	Township 28N	Range 5W	Lot 10	Feet from the 1190	North/South line North	Feet from the 1495	East/West line West	County RIO ARriba
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11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 10	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres Gal - 160 DK - W/320					Joint or Infill	Consolidation Code	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



*Not re-surveyed:
Prepared from plat
By: William E. Mahnke II
Dated: July 9, 1985

20 RECEIVED
SEP 23 1998
OIL CON. DIV.
DIST. 3

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

Peggy Bradfield
Signature
Peggy Bradfield
Printed Name
Regulatory Administrator
Title
12-2-97
Date

18 SURVEYOR CERTIFICATION

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.

NOVEMBER 20, 1997
Date of Survey
Signature and Seal of Professional Surveyor
NEALE C. EDWARDS
NEW MEXICO
6857
6857
Certificate Number

DK

SON JUAN 28-5 UNIT : 54E : 54329A-1

Prop 1629 *

• WATER
• OIL/GAS
• OIL
• GAS

□ SIWHP
+ FWHP

● *GAS Mcf/d
○ •OIL Bbl/d
○ •OIL/GAS
○ •WATER Bbls/d

RateTime
Semi Log

Handwritten notes: "54E 28-5" and "SON JUAN 28-5 UNIT : 54E : 54329A-1"

10
1
100

1
0.1
0.1

1
0.01
0.01

Major = GAS

93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12

Gallup

SAN JUAN 28-5 UNIT : 54E : 54329B-1

*WATER
*OIL/GAS
*OIL
*GAS

□ SIWHP
+ FWHP

Prop 7

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

☒ RateTime
☒ Semi Log

10
1
100

1
0.1
10.1

0.1
0.01
0.01

93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12

Major = GAS

SJ 28-5 #54E
Bottom Hole Pressures
Cullender and Smith Method
Version 1.0 3/13/94

Dakota

DK-Current

GAS GRAVITY	0.621
COND. OR MISC. (C/M)	C
%N2	0.15
%CO2	1.22
%H2S	0
DIAMETER (IN)	1.5
DEPTH (FT)	7967
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	148
FLOWRATE (MCFPD)	113
SURFACE PRESSURE (PSIA)	1083
BOTTOMHOLE PRESSURE (PSIA)	1313.5

DK-Original

GAS GRAVITY	0.621
COND. OR MISC. (C/M)	C
%N2	0.15
%CO2	1.22
%H2S	0
DIAMETER (IN)	1.5
DEPTH (FT)	7967
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	148
FLOWRATE (MCFPD)	113
SURFACE PRESSURE (PSIA)	2625
BOTTOMHOLE PRESSURE (PSIA)	3215.2

De raven

Page No.: 1

Print Time: Thu Aug 20 16:55:42 1998

Property ID: 1628

Property Name: SAN JUAN 28-5 UNIT | 54 | 50693A-1

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

--DATE--	---CUM GAS--	M FWHP-	M FBHP-	M SIWHP	M SIBHP
■■■■■■■■■■	■■■■■■■■■■ Mcf■■■■■■■■■■	■■■■■■■■■■ Psi■■■■■■■■■■	■■■■■■■■■■ Psi■■■■■■■■■■	■■■■■■■■■■ Psi■■■■■■■■■■	■■■■■■■■■■ Psi■■■■■■■■■■
12/24/62	0	0.0	<i>orig</i>	2625.0	3097.0
01/15/63	0			2629.0	
05/06/63	41000			1679.0	
04/22/64	137000			1348.0	
06/21/65	256000			1229.0	
05/23/66	361000			1141.0	
05/26/67	473000			984.0	
05/20/68	572000			957.0	
06/19/70	755870	436.0		858.0	1002.0
04/27/71	822634	386.0		822.0	959.0
05/15/72	905811	460.0		833.0	972.0
07/23/73	972655	431.0		1046.0	1224.0
05/05/75	1057586	249.0		1132.0	1326.0
07/05/77	1137950	274.0		1182.0	1386.0
10/04/79	1206041	422.0		1182.0	1386.0
08/12/81	1252029	306.0		1224.0	1436.0
12/12/85	1351967	308.0		1160.0	1360.0
10/04/88	1410682	369.0		1112.0	1303.0
04/08/90	1431387	352.0		1522.0	1790.0
04/04/94	1512579		<i>cur</i>	1083.0	

OPR008M2 0092

0008 CHROMATOGRAPH GAS SAMPLE DETAIL

17:56:26.8 08/20/98

Unparent

GPM

** DATA AT 14.730 PSIG UNLESS NOTED **

MOL % (AT 14.73)

HYDROGEN	_____	
HELIUM	_____	
NITROGEN	__0.15	
OXYGEN	_____	
HYDROGEN SULFIDE	_____	
CARBON DIOXIDE	__1.22	
METHANE	__91.71	
ETHANE	__4.62	1.2359
PROPANE	__1.29	0.3555
ISO-BUTANE	__0.26	0.0850
N-BUTANE	__0.30	0.0946
ISO-PENTANE	__0.12	0.0439
N-PENTANE	__0.08	0.0290
HEXANE	_____	
HEXANE PLUS	__0.25	0.1091
HEPTANE PLUS	_____	
TOTALS	100.00	1.9530

MP NUMBER 73516

EFFECTIVE DATE 19970101

-- GASOLINE CONTENT (GPM) --

26/70 GASOLINE _____

100% PROPANE _____

EXCESS BUTANES _____

TOTAL

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

CALCULATED __0.6210

MEASURED _____

SULPHUR GRAINS / 100 CU FT _____

03=MAIN SCREEN

24=HELP

PA1=TERMINATE

REQUESTED RECORD NOT FOUND (NEXT RECORD DISPLAYED)
OPR008M1 0092 0008 CHROMATOGRAPH TEST MAIN SCREEN

OK Print

17:56:17.2 08/20/98

FUNCTION (A,C,D,I) I ** DATA AT TEST PRESSURE UNLESS NOTED **
MP NUMBER 73516 SAN JUAN 28-5 UNIT 54
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 19961207 --- (AT 14.73 PSIG) --
SAMPLE LINE PRESSURE (PSIG) _____ WET 1066.136 DRY 1085.000
SAMPLE LINE TEMPERATURE (DEG F) _____
TEST DATE _____ ----- BTU/CF -----
TEST PRESSURE (PSIG) _14.730 WET _1066.136 DRY _1085.000
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 _____

Page No.: 1

Print Time: Tue Aug 11 09:59:10 1998

Property ID: 1629

Property Name: SAN JUAN 28-5 UNIT | 54E | 54329A-1

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

--DATE--	---CUM GAS--	M FWHP-	M FBHP-	M SIWHP	M SIBHP
	Mc	Psi	Psi	Psi	Psi
10/07/85	0			1602.0	<i>original</i>
12/12/85	42225	315.0		1057.0	0.0
09/19/86	117591	318.0		882.0	0.0
12/18/87	260717	379.0		728.0	0.0
10/04/88	329905	358.0		702.0	0.0
04/08/90	401308	389.0		912.0	0.0
09/29/92	573187			619.0	
01/31/94	694337			501.0	<i>Current</i>

REQUESTED RECORD NOT FOUND (NEXT RECORD DISPLAYED)

OPR008M1 1153

0008 CHROMATOGRAPH TEST MAIN SCREEN

17:20:33.3 07/22/98

FUNCTION (A,C,D,I) I ** DATA AT TEST PRESSURE UNLESS NOTED **
MP NUMBER 95515 SAN JUAN 28-5 UNIT 54E
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 19961210 --- (AT 14.73 PSIG) --
SAMPLE LINE PRESSURE (PSIG) WET 1014.057 DRY 1032.000
SAMPLE LINE TEMPERATURE (DEG F) _____
TEST DATE _____ ----- BTU/CF -----
TEST PRESSURE (PSIG) 14.730 WET 1014.057 DRY 1032.000
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 _____

OPR008M2 1153

0008 CHROMATOGRAPH GAS SAMPLE DETAIL

17:20:37.6 07/22/98

	MOL %	GPM (AT 14.73)
HYDROGEN	_____	
HELIUM	_____	
NITROGEN	__0.17	
OXYGEN	_____	
HYDROGEN SULFIDE	_____	
CARBON DIOXIDE	__1.63	
METHANE	__95.03	
ETHANE	__2.39	0.6393
PROPANE	__0.35	0.0965
ISO-BUTANE	__0.12	0.0393
N-BUTANE	__0.08	0.0252
ISO-PENTANE	__0.06	0.0220
N-PENTANE	__0.03	0.0109
HEXANE	_____	
HEXANE PLUS	__0.14	0.0611
HEPTANE PLUS	_____	
TOTALS	100.00	0.8943

** DATA AT 14.730 PSIG UNLESS NOTED **

MP NUMBER 95515

EFFECTIVE DATE 19970101

-- GASOLINE CONTENT (GPM) --

26/70 GASOLINE _____

100% PROPANE _____

EXCESS BUTANES _____

TOTAL

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

CALCULATED __0.5940

MEASURED _____

SULPHUR GRAINS / 100 CU FT _____

03=MAIN SCREEN

24=HELP

PA1=TERMINATE

FDG055M4 1153

WELL PRODUCTION 8/8'S VOLUME

07/22/98 17:16:15

DP NO: 54329A

DATE: 980504 (YYMMDD FORMAT)

SAN JUAN 28-5 UNIT

54E

SCROLL FORWARD BY DATE: _

S

E	DATE	HOURS	-OIL PRODN-	-GAS PRODN-	-WATER PRODN-		
L PRODUCED	ON	(BOPD	BOPM)	(MCFD	MCFM)	(BWPD	BWPM)
—	05/04/98	0.0	0.00	0.00	0	0	0.00
—	05/03/98	0.0	0.00	0.00	0	0	0.00
—	05/02/98	0.0	0.00	0.00	0	0	0.00
—	05/01/98	6.3	0.00	0.00	0	0	0.00
—	04/30/98	24.0	0.00	0.00	12	3138	0.00
—	04/29/98	24.0	0.00	0.00	12	3126	0.00
—	04/28/98	24.0	0.00	0.00	71	3114	0.00
—	04/27/98	24.0	0.00	0.00	79	3043	0.00
—	04/26/98	24.0	0.00	0.00	98	2964	0.00
—	04/25/98	24.0	0.00	0.00	102	2866	0.00
—	04/24/98	24.0	0.00	0.00	93	2764	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 1153

WELL PRODUCTION 8/8'S VOLUME

07/22/98 17:16:59

START OF DATA

DP NO: 54329B

DATE: 980720 (YYMMDD FORMAT)

SAN JUAN 28-5 UNIT *gl*

54E

SCROLL FORWARD BY DATE: _

S

E	DATE	HOURS	-OIL PRODN-	-GAS PRODN-	-WATER PRODN-
L PRODUCED	ON	(BOPD	BOPM)	(MCFD MCFM)	(BWPD BWPM)
—	07/20/98	24.0	0.00	0.00	41 808 0.00 0.00
—	07/19/98	24.0	0.00	0.00	41 767 0.00 0.00
—	07/18/98	24.0	0.00	0.00	43 726 0.00 0.00
—	07/17/98	24.0	0.00	0.00	56 683 0.00 0.00
—	07/16/98	19.6	0.00	0.00	78 627 0.00 0.00
—	07/15/98	3.6	0.00	0.00	0 549 0.00 0.00
—	07/14/98	24.0	0.00	0.00	50 549 0.00 0.00
—	07/13/98	24.0	0.00	0.00	49 499 0.00 0.00
—	07/12/98	24.0	0.00	0.00	41 450 0.00 0.00
—	07/11/98	24.0	0.00	0.00	36 409 0.00 0.00
—	07/10/98	24.0	0.00	0.00	38 373 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 1153

WELL PRODUCTION 8/8'S VOLUME

07/22/98 17:17:07

DP NO: 54329B

DATE: 980709 (YYMMDD FORMAT)

SAN JUAN 28-5 UNIT

54E

SCROLL FORWARD BY DATE: _

S

E	DATE	HOURS	-OIL PRODN-	-GAS PRODN-	-WATER PRODN-			
L	PRODUCED	ON	(BOPD	BOPM)	(MCFD	MCFM)	(BWPD	BWPM)
—	07/09/98	24.0	0.00	0.00	40	335	0.00	0.00
—	07/08/98	24.0	0.00	0.00	36	295	0.00	0.00
—	07/07/98	24.0	0.00	0.00	36	259	0.00	0.00
—	07/06/98	24.0	0.00	0.00	36	223	0.00	0.00
—	07/05/98	24.0	0.00	0.00	31	187	0.00	0.00
—	07/04/98	24.0	0.00	0.00	38	156	0.00	0.00
—	07/03/98	24.0	0.00	0.00	48	118	0.00	0.00
—	07/02/98	24.0	0.00	0.00	33	70	0.00	0.00
—	07/01/98	24.0	0.00	0.00	37	37	0.00	0.00
—	06/30/98	24.0	0.00	0.00	65	2381	0.00	0.00
—	06/29/98	24.0	0.00	0.00	48	2316	0.00	0.00

ENTER I UNDER SEL FOR MAINTENANCE

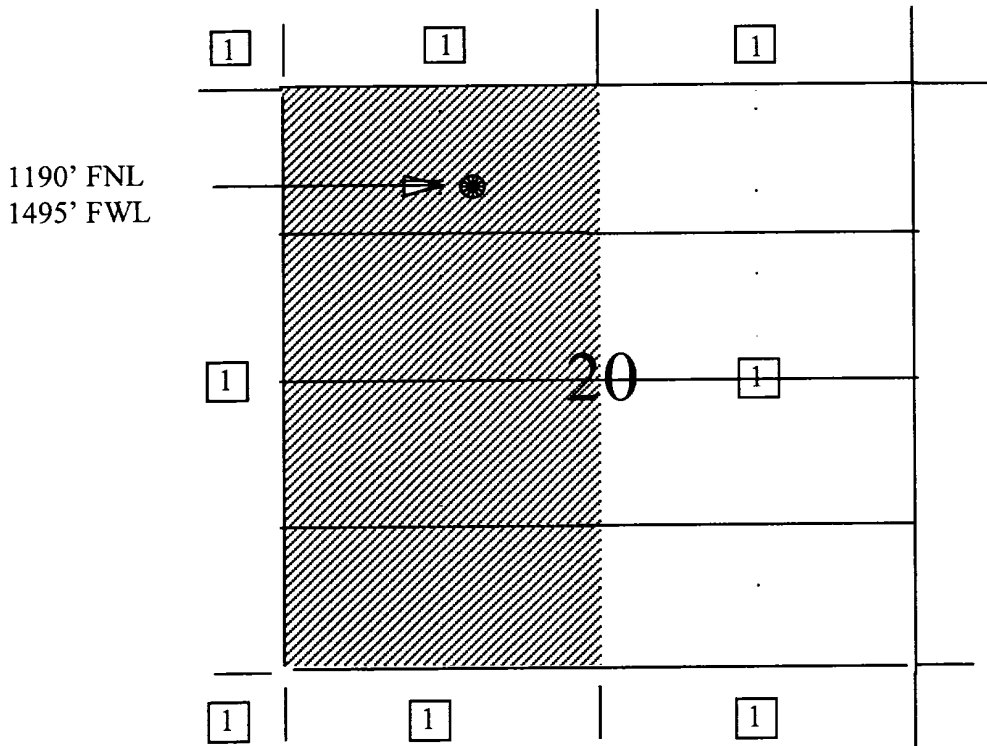
PF6=NRI	PF10=BROWSE MENU	PF11=INQ/UPDATE MENU
PF12=MAIN MENU	ENTER=BACKWARDS	PF24=HELP

BURLINGTON RESOURCES OIL AND GAS COMPANY

**San Juan 28-5 Unit #54E
OFFSET OPERATOR \ OWNER PLAT
Downhole Commingle**

Dakota (W/2) / Gallup (NW/4) Formations Well

Township 28 North, Range 5 West



1) Burlington Resources

DATE: July 28, 1998
NAME: SAN JUAN 28-5 UNIT 54E
FORM: DAKOTA
LOCATION
UNIT: C
SEC: 20
TWN: 28N
RNG: 5W

<p>11/85 San Juan 28-5 Unit 61E 52/256 (97) O/O</p> <p>7/59 San Juan 28-5 Unit 34 83/2690 (97) O/4</p> <p>12/62 San Juan 28-5 Unit 61 91/1973 (97) O/O</p> <p>11/85 San Juan 28-5 Unit 34E 92/550 (97) O/O</p> <p>11/85 San Juan 28-5 Unit 33 0/2298 (88) O/O</p> <p>12/68 INA</p> <p>9/68 San Juan 28-5 Unit 75 73/1404 (97) O/O</p> <p>[17]</p> <p>9/69 San Juan 28-5 Unit 83 115/2332 (97) O/O</p> <p>1/86 San Juan 28-5 Unit 84E 221/1161 (97) O/2</p> <p>4/71 San Juan 28-5 Unit 84 168/2931 (97) [16] O/1</p>	<p>11/85 San Juan 28-5 Unit 57M 119/829 (97) O/1</p> <p>7/82 San Juan 28-5 Unit 57M 119/829 (97) O/1</p> <p>11/85 San Juan 28-5 Unit 35M 131/40 (97) O/O</p> <p>11/59 San Juan 28-5 Unit 35 62/1500 (97) O/1</p> <p>12/62 San Juan 28-5 Unit 57 0/1822 (97) O/O</p> <p>11/85 San Juan 28-5 Unit 54E 140/966 (97) O/O</p> <p>11/62 San Juan 28-5 Unit 63 247/4876 (97) O/1</p> <p>11/85 San Juan 28-5 Unit 63E 95/327 (97) O/O</p> <p>12/82 San Juan 28-5 Unit 54 113/1598 (97) O/O</p> <p>11/62 San Juan 28-5 Unit 60 84/3762 (97) O/O</p> <p>5/97 San Juan 28-5 Unit 60M 167/35 (97) O/O</p> <p>11/62 San Juan 28-5 Unit 58M 507/154 (97) O/O</p> <p>10/62 San Juan 28-5 Unit 58 82/2109 (97) O/O</p> <p>11/81 San Juan 28-5 Unit 59M 172/1030 (97) O/1</p> <p>10/62 San Juan 28-5 Unit 59 80/2677 (97) [30] O/1</p> <p>1/97 San Juan 28-5 Unit 58M 507/154 (97) O/O</p> <p>11/62 San Juan 28-5 Unit 64M 228/83 (97) 1/0</p> <p>2/63 San Juan 28-5 Unit 64 278/4898 (97) 1/14</p> <p>12/62 San Juan 28-5 Unit 65 594/8749 (97) O/13</p> <p>7/97 San Juan 28-5 Unit 65M 237/36 (97) O/O</p>	<p>11/85 San Juan 28-5 Unit 57M 119/829 (97) O/1</p> <p>7/82 San Juan 28-5 Unit 57M 119/829 (97) O/1</p> <p>11/85 San Juan 28-5 Unit 35M 131/40 (97) O/O</p> <p>11/59 San Juan 28-5 Unit 35 62/1500 (97) O/1</p> <p>12/62 San Juan 28-5 Unit 57 0/1822 (97) O/O</p> <p>11/85 San Juan 28-5 Unit 54E 140/966 (97) O/O</p> <p>11/62 San Juan 28-5 Unit 63 247/4876 (97) O/1</p> <p>11/85 San Juan 28-5 Unit 63E 95/327 (97) O/O</p> <p>12/82 San Juan 28-5 Unit 54 113/1598 (97) O/O</p> <p>11/62 San Juan 28-5 Unit 60 84/3762 (97) O/O</p> <p>5/97 San Juan 28-5 Unit 60M 167/35 (97) O/O</p> <p>11/62 San Juan 28-5 Unit 58M 507/154 (97) O/O</p> <p>10/62 San Juan 28-5 Unit 58 82/2109 (97) O/O</p> <p>11/81 San Juan 28-5 Unit 59M 172/1030 (97) O/1</p> <p>10/62 San Juan 28-5 Unit 59 80/2677 (97) [30] O/1</p> <p>1/97 San Juan 28-5 Unit 58M 507/154 (97) O/O</p> <p>11/62 San Juan 28-5 Unit 64M 228/83 (97) 1/0</p> <p>2/63 San Juan 28-5 Unit 64 278/4898 (97) 1/14</p> <p>12/62 San Juan 28-5 Unit 65 594/8749 (97) O/13</p> <p>7/97 San Juan 28-5 Unit 65M 237/36 (97) O/O</p>
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28
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LEGEND
COMPLETION DATE
WELL NAME
MCF/D-CUM(MMF)
BOP/D-CUM(MBO)

DATE: July 28, 1998
NAME: SAN JUAN 28-5 UNIT 54E
FORM: GALLUP
LOCATION
UNIT: C
SEC: 20
TWN: 28N
RNG: 5W

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

[16]	[17]	[18]
[21]	5/98 San Juan 28-5 Unit 54E 208/2 (88) 0/0	[19]
[28]	[29]	[30]

T
28
N

R-5-W

07/14/98 10:19 5053251148

TEFTELLER INC.

001
PAGE:01

9156947602

TO: TEFTELLER

JUL-14 98 09:34 FROM: TEFTELLER INC

Company: BURLINGTON RESOURCES
 Well: SAN JUAN 28-5 UNIT #54E
 Field: GALLUP FORMATION
 Engineer:
 Gauge Type: AMERADA
 Gauge Range: 0-3000
 Gauge Depth: 7300 ft
 Serial No.: 31196

County: RIO ARriba
 State: NEW MEXICO
 Date: 05/20/1998
 Well Type:
 Test Type: STATIC GRADIENT
 Status: SHUT-IN
 File Name: 31918

Tubing: 1 1/2" TO 7328
 Tubing: TO
 Casing: TO
 Perfs.: 6912-7333
 Shut-in Time 168 hrs

PBTD 7380 ft
 Oil Level
 H2O Level 7254 ft

Shut-in BHP	2298 @	7300 ft	Shut-in BHT	0 F @	0 ft
Shut-in WHP	1830		Shut-in WHT	0 F	
Casing CSGP	1830				

[Tefteller Incorporated]

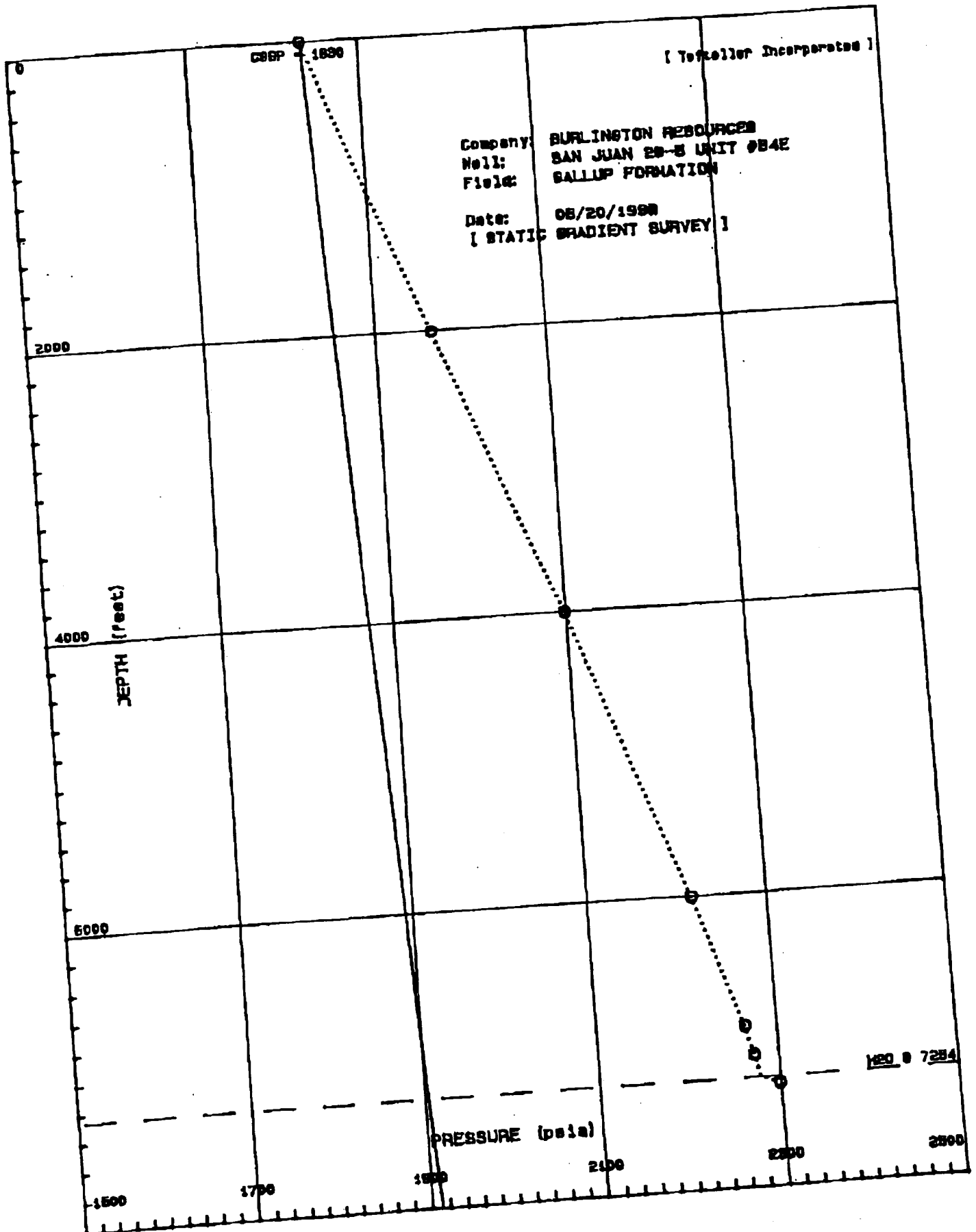
#	MD	TVD	PRESSURE	PSI/ft
1	0	0	1830.00	
2	2000	2000	1965.00	0.068
3	4000	4000	2098.00	0.067
4	6000	6000	2215.00	0.058
5	6900	6900	2264.00	0.054
6	7100	7100	2272.00	0.040
7	7300	7300	2298.00	0.130

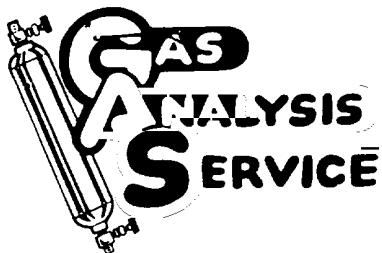
JUL-14 98 09:34 FROM: TELLER INC

TEFTELLER INC.
9156947602

TO: TEFTELLER

002
PAGE: 02





2030 AFTON PLACE
FARMINGTON, N.M. 87401
(505) 325-6622

ANALYSIS NO. BUR80751
CUST. NO. 52100- 15725

WELL/LEASE INFORMATION

CUSTOMER NAME BURLINGTON RESOURCES
WELL NAME SAN JUAN 28-5 #54E
COUNTY/ STATE
LOCATION
FIELD
FORMATION GALLUP
CUST.STN.NO.

SOURCE
PRESSURE 265 PSIG
SAMPLE TEMP 83 DEG.F
WELL FLOWING N/A
DATE SAMPLED 6/16/98
SAMPLED BY STEVE ADAMS
FOREMAN/ENGR. LARY BYARS

REMARKS

ANALYSIS

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR *
NITROGEN	3.196	0.0000	0.00	0.0309
CO2	0.754	0.0000	0.00	0.0115
METHANE	79.897	0.0000	808.80	0.4426
ETHANE	9.823	2.6277	174.23	0.1020
PROPANE	3.451	0.9511	87.03	0.0525
I-BUTANE	0.655	0.2143	21.35	0.0131
N-BUTANE	0.940	0.2964	30.74	0.0189
I-PENTANE	0.405	0.1482	16.24	0.0101
N-PENTANE	0.251	0.0909	10.09	0.0063
HEXANE PLUS	0.628	0.2740	32.29	0.0202
TOTAL	100.000	4.6025	1,180.77	0.7080

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

** @ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z) 1.0032
BTU/CU.FT (DRY) CORRECTED FOR (1/Z) 1,184.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z) 1,163.9
REAL SPECIFIC GRAVITY 0.7104

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

DRY BTU @ 14.650 1,178.1
DRY BTU @ 14.696 1,181.8
DRY BTU @ 14.730 1,184.5
DRY BTU @ 15.025 1,208.3

CYLINDER # 335-9
CYLINDER PRESSURE 236 PSIG
DATE RUN 6/17/98
ANALYSIS RUN BY DAVE MARTIN



**BURLINGTON RESOURCES
WELL ANALYSIS COMPARISON**

LEASE : SAN JUAN 28-5 #54E
STN.NO. :

METER RUN
GALLUP

6/17/98
52100- 15725

SMPL DATE	6/16/98	5/26/98
TEST DATE	6/17/98	6/11/98
RUN NR.	BUR80751	BUR80748
NITROGEN	3.196	6.257
CO2	0.754	0.630
METHANE	79.897	75.711
ETHANE	9.823	9.763
PROPANE	3.451	3.714
I-BUTANE	0.655	0.819
N-BUTANE	0.940	1.198
I-PENTANE	0.405	0.604
N-PENTANE	0.251	0.387
HEXANE +	0.628	0.917
BTU	1,184.5	1,190.1
GPM	4.6025	5.0421
SP.GRAV.	0.7104	0.7444

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. 11627
ORDER NO. R-10695

APPLICATION OF BURLINGTON RESOURCES
OIL & GAS COMPANY FOR THE ESTABLISHMENT
OF A DOWNHOLE COMMINGLING "REFERENCE
CASE" FOR ITS SAN JUAN 28-5 UNIT PURSUANT
TO DIVISION RULE 303.E. AND THE ADOPTION
OF SPECIAL ADMINISTRATIVE RULES THEREFOR,
~~SAN JUAN COUNTY, NEW MEXICO.~~

Rio ARRIBA

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 28-5 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 28-5 Unit which encompasses some 17,399 acres in Township 28 North, Range 5 West, NMPM, San Juan County, New Mexico.

(5) Within the San Juan 28-5 Unit, the applicant currently operates sixty-seven (67) Basin-Dakota Gas Pool wells, seventy-one (71) Blanco-Mesaverde Gas Pool wells, sixteen (16) Gobernador-Pictured Cliffs, Oso-Pictured Cliffs and Tapacito-Pictured Cliffs Gas Pool wells, and nineteen (19) 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 28-5 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 28-5 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 28-5 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 28-5 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 28-5 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 1,258 MMCFG and 77 MMCFG, respectively;
- c) the average initial producing rate for a newly drilled or recompleted Dakota and Pictured Cliffs gas well is approximately 276 MCFGD and 136 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 28-5 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 28-5 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 were approximately 3,149 psi and 1,143 psi, respectively; and,
- b) the average current shut-in bottomhole pressure within the Dakota and Pictured Cliffs formations are approximately 1,059 psi and 714 psi, respectively.

(10) There is sufficient pressure data available within the San Juan 28-5 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 28-5 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 28-5 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 28-5 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 28-5 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 28-5 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 28-5 Unit Area will benefit working, royalty, and overriding royalty interest owners. In addition, the downhole commingling of wells within the San Juan 28-5 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 28-5 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 28-5 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 28-5 Unit, San Juan County, New Mexico, is hereby approved.

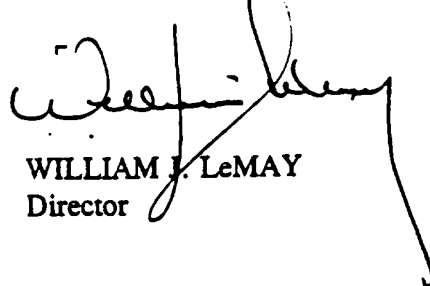
(2) Upon filing of Division Form No. C-107-A's for wells subsequently downhole commingled within the San Juan 28-5 Unit Area, the applicant shall not be required to submit supporting data to justify the classification of the Pictured Cliffs and Dakota formations as "marginal", supporting data to verify 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 28-5 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 28-5 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