DISTRICT!

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

State of New Mexico Energy, Minerals and Natural Resources Department **OIL CONSERVATION DIVISION**

2040 S. Pacheco Santa Fe, New Mexico 87505-6429

APPROVAL PROCESS : _X_ Administrative ___Hearing

DISTRICT III

811 South First St., Artesia, NM 88210-2835

1000 RIO Brazos Rd, Aztec, HM 87410-1693 APPLICATION FOR DOWNHOLE COMMINGLING EXISTING WELLBORE

Burlington Resources Oil &	Gas Company		289, Farmington, NM 87499
Perstor BAN JUAN 28-6 UNIT	66	Address B-11-27N-06W	Rio Arriba
0.110	Well No.	Unit Ltr Sec - Twp - Rge	County Specing Unit Lease Types: (check 1 or more)
OGRID NO14568 Property	Code7462 API	NO30-039-07145Federal>	(, State, (and/or) FeeX
The following facts are submitted in support of downhole comminging:	Upper Zone	Sintermediate Zone	Zana Zana Zana Zana Zana Zana Zana Zana
Pool Name and Pool Code	Pictured Cliffs - 72439		Blanco Mesaverde - 72319
2. Top and Bottom of Pay Section (Perforations)	3424-3490'	DEGETA	5076-5732'
3. Type of production (Oil or Gas)	gas	OCT 2 8 1997	gas
4. Method of Production (Flowing or Artificial Lift)	flowing		flowing Cu1
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current	(Current) a. 358 psi	• DIST. 3	a. 742 psi
Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Original) b. 1227 psi	b.	b. 1253 psi
6. Oil Gravity (°API) or Gas BTU Content	BTU 1106		BTU 1196
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 	Date: Rates:	Date: Rates:	Date: Rates:
Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data			
* If Producing, give data and oil/gas/water water of recent test (within 60 days)	Date: 8/97 Rates: 44 MCFD	Date: Rates:	Date: 8/97 Rates: 39 MGFD
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)	Oil: % Gas: %	OH: % Gas: %	Oil: Gas: % To Be Supplied Upon Completion
submit attachments with supplements all working, overriding, an If not, have all working, overriding, and Have all offset operators been a life. Will cross-flow occur?x_ production be recovered, and life. Are all produced fluids from a life. Will the value of production be	orting data and/or explination of the control of th	aining method and providing rate tical in all commingled zones? sts been notified by certified mail the proposed downhole comming uids compatible, will the formatic ula be reliablexYes pling? Yes _X_ No(If Yes, eral lands, either the Commission ng of this applicationXYes	gling? _x_YesNo ons not be damaged, will any cross-flov No (If No, attach explanation) x_Yes No , attach explanation) oner of Public Lands or the United Sta s No
* C-102 for each zone * Production curve fo * For zones with no p * Data to support allo * Notification list of a	or each zone for at least roduction history, estim ocation method or formu Il offset operators.	wing its spacing unit and acreage one year. (If not available, attac ated production rates and suppo la. royalty interests for uncommon i ents required to support comming	h explanation.) rting data.

TYPE OR PRINT NAME _Jennifer L. Dobson____ TELEPHONE NO. (505) 599-4026__

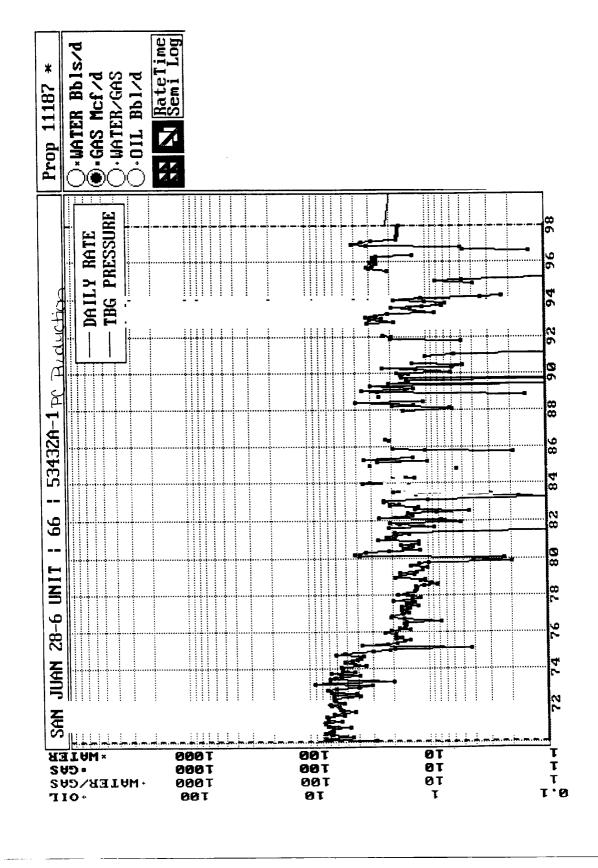
NEW MEXICO

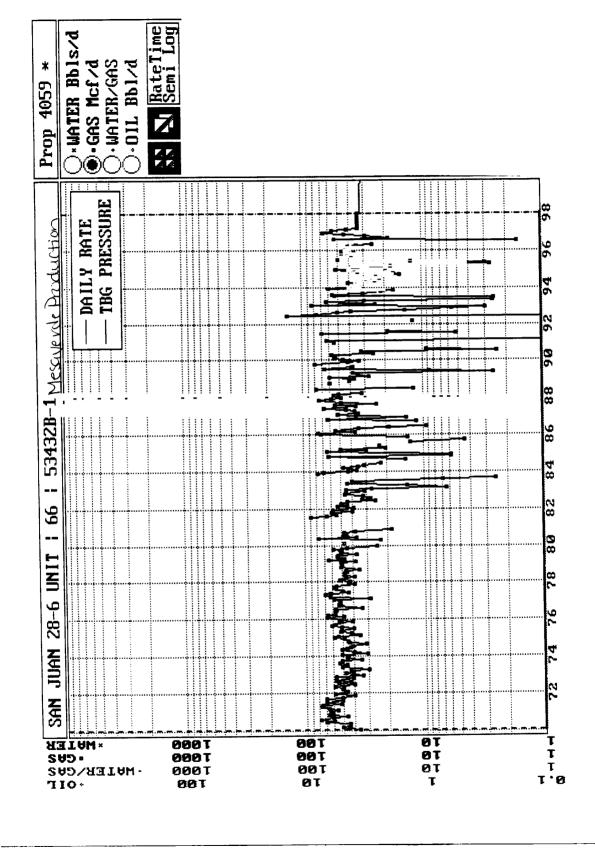
DE LINSERLATION COMMISSION

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WELL LUCATION AND SAN PRORATION FLAT

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1147. I	EL PASO 1	VATURAL GA	S COMPANY	san juan 28-6 unit	SF 079363
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supervision	n and that t	the same are	true and correct to	- I	the answer to Question 1
best of my	knowledge	and belief.		. Is	yes, are there any other dually
				cor	mpleted wells within the
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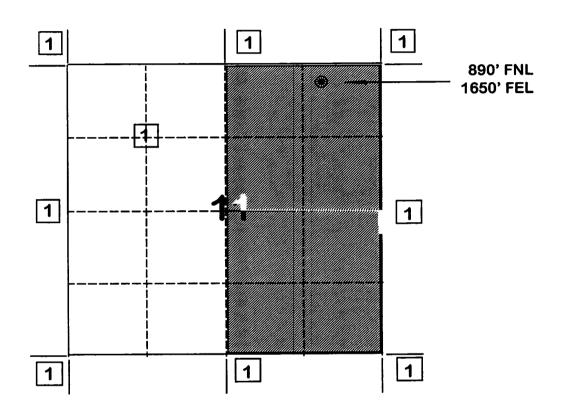


BURLINGTON RESOURCES OIL AND GAS COMPANY

San Juan 28-6 Unit #66 OFFSET OPERATOR \ OWNER PLAT

Pictured Cliffs / Mesaverde Formations Commingle Well

Township 27 North, Range 6 West



1) Burlington Resources Oil and Gas Co.

FARMINGTON

SAN JUAN 28-6 UNIT

BLANCO MESAVERDE (PRORATED GAS FIELD MESAVERDE ZONE

66

			DAYS	=====	OIL ===	====	=====	======	GAS	=====	=====		
MO	Т	S	ON	PC	PROD	GRV	PC	PROD	ON	BTU	PRESS	WATER	PROD
1	2	F					01	1720	31	1209	15.025		
2	2	F					01	1274	28	1196	15.025		
3	2	F					01	951	31	1196	15.025		
4	2	F					01	1210	30	1196	15.025		
5	2	F					01	1058	31	1196	15.025		
6	2	F					01	1166	30	1196	15.025		
7	2	F					01	937	27	1196	15.025		
8	2	F					01	1203	31	1196	15.025		
9													
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11													
12													

PF6 - RETURNS TO ANNUAL DISPLAY PF3 - TRANSFER TO UPDATE

PF10 - HELP INFORMATION

00/00/00 00:00:00:0 PRS 10/03/97

PF9 - DISPLAY MONTHLY INJECTIC

FARMINGTON

SAN JUAN 28-6 UNIT

BLANCO P.C. SOUTH (GAS) FIELD PICTURED CLIFFS ZONE

			DAYS	=====	OIL ===	====	======	=====	GAS	=====	=====		
МО	Т	S	ON	PC	PROD	GRV	PC	PROD	ON	BTU	PRESS	WATER I	PROD
1	2	F					01	1063	31	1132	15.025		
2	2	F					01	887	28	1106	15.025		
3	2	F					01	885	31	1106	15.025		
4	2	F					01	825	30	1106	15.025		
5	2	F					01	724	31	1106	15.025		
6	2	F					01	559	30	1106	15.025		
7	2	S					01	548	24	1106	15.025		
8	2	F					01	744	17	1106	15.025		
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PF6 - RETURNS TO ANNUAL DISPLAY PF3 - TRANSFER TO UPDATE

PF10 - HELP INFORMATION

PF9 - DISPLAY MONTHLY INJECTIC

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Page No.: 1
Print Time: Thu Oct 16 15:31:46 1997
Property ID: 11187
Property Name: SAN JUAN 28-6 UNIT | 66 | 53432A-1 PC
Table Name: K:\ARIES\RR98PDP\TEST.DBF

DATE	CUM_GAS Mcf	M SIWHP Psi
11/02/57 12/20/57 09/14/58 06/14/59 06/14/60 06/13/61 09/24/62 05/06/63 04/22/64 05/03/65 06/07/66 05/25/67 05/25/67 05/25/67 05/27/68 06/22/71 06/22/71 06/07/72 08/29/73 07/15/74	0 50000 97000 173000 197000 252000 273000 302000 329000 359000 384000 408000 435355 455076 483946 505383 529400 545514	1119.0 1118.0 Original 840.0 788.0 744.0 717.0 663.0 652.0 639.0 623.0 602.0 591.0 574.0 549.0 514.0 516.0 498.0 501.0
03/19/84 07/24/84 11/18/85	604445 605346 610022	316.0 852.0 330.0 Current

Page No.: 1
Print Time: Thu Oct 16 15:31:13 1997
Property ID: 4059
Property Name: SAN JUAN 28-6 UNIT | 66 | 53432B-1 Mescalerde
Table Name: K:\ARIES\RR98PDP\TEST.DBF

DATE	CUM_GAS Mcf	M SIWHP Psi	
11/02/57	0	1076.0	
12/27/57	0	1075.0	original
09/14/58	35000	869.0	J
06/14/59	66000	824.0	
06/14/60	120000	638.0	
06/13/61	163000	625.0	
06/04/62	196000	629.0	
05/06/63	228000	613.0	
04/22/64	260000	604.0	
05/03/65	286000	644.0	
06/07/66	309000	659.0	
05/25/67	326000	674.0	
05/27/68	342000	679.0	
07/28/70	384490	656.0	
06/22/71	405895	621.0	
06/07/72	425174	631.0	
11/30/83	604557	593.0	
10/20/86	634174	612.0	
06/17/91	692125	631.0	
08/01/91	692873	643.0	Current

San Juan 28-6 #66 Bottom Hole Pressures Flowing and Static BHP Cullender and Smith Method

Version 1.0 3/13/94

Mesa Verde	Pictured Cliffs
MV - Current	PC-Current
GAS GRAVITY COND. OR MISC. (C/M) %N2 0.33 %CO2 0.73 %H2S 0 DIAMETER (IN) DEPTH (FT) SURFACE TEMPERATURE (DEG F) BOTTOMHOLE TEMPERATURE (DEG F) FLOWRATE (MCFPD) SURFACE PRESSURE (PSIA) BOTTOMHOLE PRESSURE (PSIA) 741.5	GAS GRAVITY COND. OR MISC. (C/M) %N2 %CO2 %H2S DIAMETER (IN) DEPTH (FT) SURFACE TEMPERATURE (DEG F) BOTTOMHOLE TEMPERATURE (DEG F) FLOWRATE (MCFPD) SURFACE PRESSURE (PSIA) BOTTOMHOLE PRESSURE (PSIA) 358.0
MV - Original	PC-Original
GAS GRAVITY COND. OR MISC. (C/M) %N2 0.33 %CO2 0.73 %H2S 0 DIAMETER (IN) DEPTH (FT) SURFACE TEMPERATURE (DEG F) BOTTOMHOLE TEMPERATURE (DEG F) FLOWRATE (MCFPD) SURFACE PRESSURE (PSIA) 0.707 0.73 60 60 80 80 1075 80 1075	GAS GRAVITY COND. OR MISC. (C/M) %N2 %CO2 %H2S DIAMETER (IN) DEPTH (FT) SURFACE TEMPERATURE (DEG F) BOTTOMHOLE TEMPERATURE (DEG F) FLOWRATE (MCFPD) SURFACE PRESSURE (PSIA) BOTTOMHOLE PRESSURE (PSIA) 100 1227.3

LEGEND
FIRST DELIVERY DATA
WELL NAME
MCF/D-CUM(MMCF)
BOPD-CUM(MBO)

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_	N	_

San Juan 28-6 Unit 3/58 #78 106 - 1159 1-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	#68 80 - 1228 1 - 5.5	
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San Juan 28-6 Unit (2) 0-0.2 10/57 *77 75-885 0-0 San Juan 28-6 Unit (11) (11) (11) (11) (14) 12/80	#67A #67A 90 - 446 6/56 1 - 3.3 #64 103 - 2107	2 - 14.7
San Juan 28-6 Unit 2/57	#6 107 - 1496 2 - 2.4 #27.A 123 - 770	2 - 8.4

October 24,1997 San Juan 28-6 Unit #66

Mesaverde

DATE: NAME: FMT LOCATION UNIT: B SEC: 11 TWN: 27N RNG: 06W

R-06-W

DATE: October 27,1997 NAME: San Juan 28-6 Unit #66 FMT: Pictured Cliffs LOCATION UNIT: B SEC: 11 TWN: 27N RNG: 06W	.		LEGEND FIRST DELIVERY DATA WELL NAME MCF/D-CUM(MMCF) BOPD-CUM(MBO)
10/62 3/58 San Juan 28-6 Unit 108 8 32/640 (97) 83/1140 (97) 12/74 [1] 6/73 San Juan 28-6 Unit 187 6/73 21/250 (97) San Juan 28-6 Unit 178 32/484 (97)	INA 4/58 12/74 San Juan 28-6 Unit 80 T 8/265 (95) [12] N 4/58 11/74 A/58 11/74 San Juan 28-6 Unit 81 San Juan 28-6 Unit 193 101/2408 (97) 26/457 (97)	San Juan 28-6 Unit 194 23/360 (97) 81/58 San Juan 28-6 Unit 82 12/460 (97) [13] San Juan 28-6 Unit 68	6/625 (97) 1/75 San Juan 28-6 Unit 195 7/115 (97)
INA 6/59 10/74 San Juan 28-6 Unit 92 San Juan 28-6 Unit 188 24/473 (87) 2/347 (94) 10/57 San Juan 28-6 Unit 77 36/877 (97) INA 12/74 San Juan 28-6 Unit 189 San Juan 28-6 Unit 189	San Juan 28-6 Unit 66 23/652 (97) 10/74 San Juan 28-6 Unit 190 16/249 (97) 18/	12/74 : Unit 91 7) San Juan 28-6 Unit 196 [14] 19/229 (37)	11/158 (97) P&A 6/58 6/58 San Juan 28-6 Unit 83 0/306 (82) R-06-W
Sa Sa	[10] Sa	[15] 4/58	12/314 (97)
	1	10/80 San Juan 28-6 Unit 6A 19/240 (97)	8/60 San Juan 28-6 Unit 95 22/502 (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. 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:

- 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