

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 27-5 Unit

138E

O 19-27N-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 7454 API NO. 30-039-23758 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 Cereza Canyon Gallup - 96766		Basin Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	6750' - 7151'		7560' - 7748'
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: Gas & Oil - Flowing: All Gas Zones: Estimated or Measured Original	a. (Current) 1570 b. (Original) 1570	a. RECEIVED AUG 26 1998 OIL CON. DIV. DIST. 3	a. 864 b. 2741
6. Oil Gravity (°API) or Gas BTU Content	BTU 1224		BTU 1219
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 <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: 3/110/0
* If Producing, give data and oil/gas/water water of recent test (within 60 days)	Date: n/a Rates: 160 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 ☐ 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-10694

16. ATTACHMENTS:

- * C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- * Production curve for each zone for at least one year. (If not available, attach explanation.)
- * For zones with no production history, estimated production rates and supporting data.
- * Data to support allocation method or formula.
- * Notification list of all offset operators.
- * Notification list of working, overriding, and royalty interests for uncommon interest cases.
- * Any additional statements, data, or documents required to support commingling.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Jennifer Dobson TITLE Production Engineer DATE 08-17-98TYPE OR PRINT NAME Jennifer Dobson TELEPHONE NO. (505) 326-9700

00241-1980

NM 88211-0719

Aztec, NM 87410

Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources DepartmentOIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

97 DEC -2 PM 1:39

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 0-039-23758		Pool Code 96766/71599	Pool Name WC:Cereza Canyon Gallup/Basin Dakota
Property Code 7454	Property Name SAN JUAN 27-5 UNIT		Well Number 138E
OGRID No. 14538	Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY		Elevation 5603'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	19	27N	5W		800	South	1650	East	RIO ARriba

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
Dedicated Acres Gal - 160 DK E/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

<div>36</div> <div>RECEIVED AUG 26 1998 OIL CON. DIV. DIST. 3</div>	<div>*Not re-surveyed: Prepared from plat By: Fred B. Kerr Jr. Dated: May 1, 1985</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>Signature <i>Peggy Bradfield</i> Peggy Bradfield Printed Name Regulatory Administrator Title 12-2-97 Date</div>	
<div>19</div>	<div>800'</div> <div>1650'</div>	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.	
		<div>NOVEMBER 20, 1997 Date of Survey Signature and Seal of Professional Surveyor <i>NEALE C. EDWARDS</i> NEW MEXICO 6857 6857 Certificate Number</div>	

0.1
0.01
0.001

1
0.1
0.01
10

10
1
0.1
100

• WATER
• OIL/GAS
• OIL
• GAS

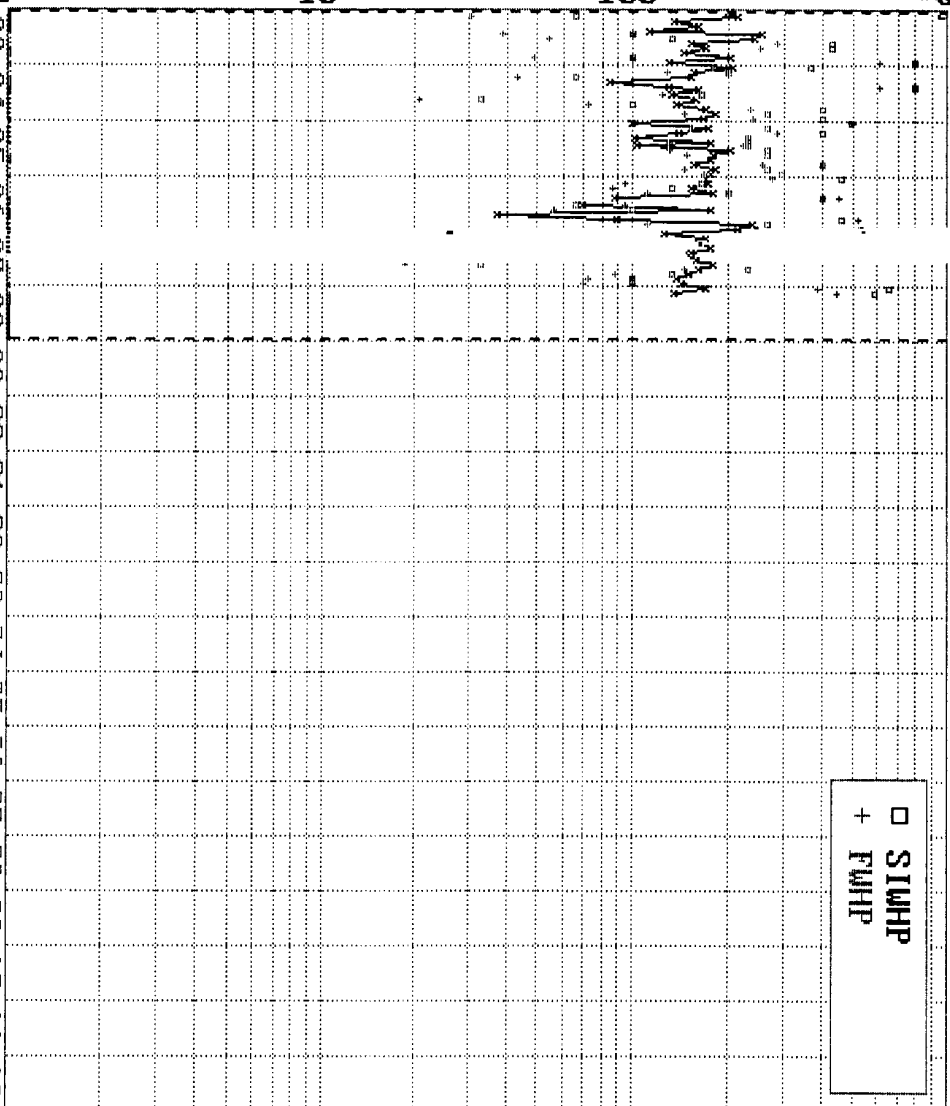
SAN JUAN 27-5 UNIT : 138E : 540750-1

Prop 1362 *

□ SIUHP
+ FWHP

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

RateTime
Semi Log



Major = GAS

*WATER
 +OIL/GAS
 °OIL
 *GAS

10
 1
 100
 100

1
 0.1
 10
 10

0.1
 0.01
 1
 1

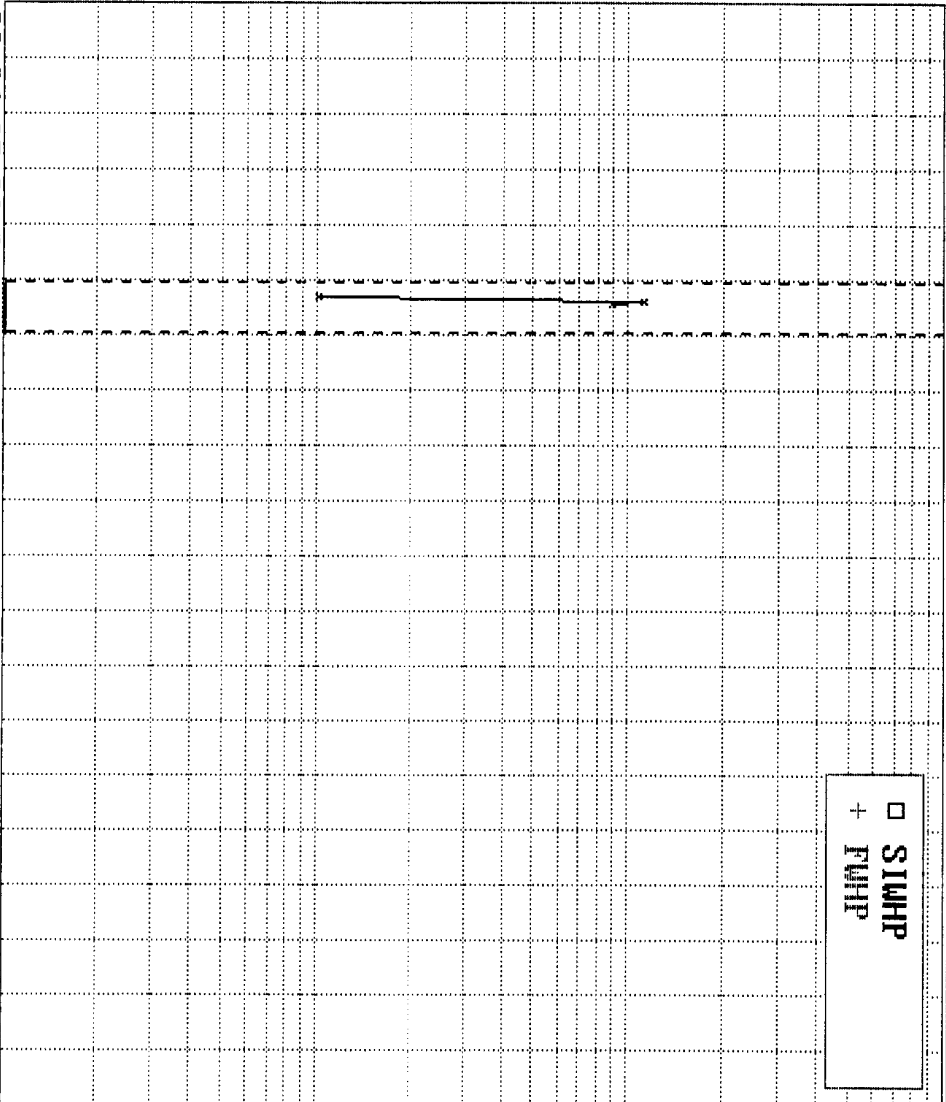
SAN JUAN 27-5 UNIT : 138E : 54075B-1

Prop 46

☐ SIWHP
 + FWHP

☒ *GAS Mcf/d
☐ °OIL Bbl/d
☐ +OIL/GAS
☐ °WATER Bbls/d

☒ RateTime
☒ Semi Log



Major = GAS

SJ 27-5 #138E
Bottom Hole Pressures
Cullender and Smith Method
Version 1.0 3/13/94

Dakota

DK-Current

GAS GRAVITY	0.715
COND. OR MISC. (C/M)	C
%N2	1.94
%CO2	0.54
%H2S	0
DIAMETER (IN)	2
DEPTH (FT)	7767
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	145
FLOWRATE (MCFPD)	110
SURFACE PRESSURE (PSIA)	699
BOTTOMHOLE PRESSURE (PSIA)	863.8

DK-Original

GAS GRAVITY	0.715
COND. OR MISC. (C/M)	C
%N2	1.94
%CO2	0.54
%H2S	0
DIAMETER (IN)	2
DEPTH (FT)	7767
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	145
FLOWRATE (MCFPD)	110
SURFACE PRESSURE (PSIA)	2145
BOTTOMHOLE PRESSURE (PSIA)	2741.4

Page No.: 1

Print Time: Tue Aug 11 11:28:16 1998

Property ID: 1362

Property Name: SAN JUAN 27-5 UNIT | 138E | 54075A-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

08/23/85	0		2145.0	<i>orig</i>	
05/05/86	49213	328.0	1284.0		0.0
08/31/87	199243	291.0	847.0		0.0
06/28/88	265301	302.0	1001.0		0.0
07/31/90	416587	278.0	1096.0		0.0
07/28/92	554344	342.0	699.0	<i>curr.</i>	0.0

08/11/98

LAND WELL REPORT

APPROVED 03/12/98

LWR210NL

INQUIRY

COMPANY OWNERSHIP

<WELLSTAT

WELL: 54075B

SAN JUAN 27-5 UNI 138E

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OWNER	PROD	INTEREST %	I-TYPE	TRUST	EVENT	AUTH	INIT	REVISED
-----	----	-----	-----	-----	-----	-----	-----	-----
21 BROG	ALL	1.976751	ORI		CUR	FW	LKD	03/12/98
21 BROG	ALL	10.312500	NPI		CUR	FW	LKD	03/12/98
21 BROG	ALL	64.164834	NWI		CUR	FW	LKD	03/12/98
21 BROG	ALL	90.275556	GWI		CUR	FW	LKD	03/12/98
21 BROG	ALL	50.414833	NWI		APO1	FW	LKD	03/12/98
21 BROG	ALL	73.608889	GWI		APO1	FW	LKD	03/12/98

TOTAL COMPANY NET/GROSS REVENUE INTEREST: NET: OIL 76.454085 GAS 76.45408
GROSS: OIL 90.275556 GAS 90.27555

** CONTAINS OWNERSHIP REMARKS **

BLOCK POSTING:

=====

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

08/11/98

LAND WELL REPORT

APPROVED 03/12/98

LWR210NL

INQUIRY

COMPANY OWNERSHIP

<WELLSTAT:

WELL: 54075A

SAN JUAN 27-5 UNI 138E

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OWNER	PROD	INTEREST %	I-TYPE	TRUST	EVENT	AUTH	INIT	REVISED
-----	----	-----	-----	-----	-----	----	----	-----
21 BROG	OIL	0.024120	RI		CUR	DOU		
21 BROG	OIL	0.040185	UMI		CUR	DOU		
21 BROG	GAS	2.102238	NWI		CUR	DOU		
21 BROG	GAS	2.754308	GW		CUR	DOU		
21 BROG	GAS	0.024120	RI		CUR	DOU		
21 BROG	GAS	0.040185	UMI		CUR	DOU		
21 BROG	ALL	36.366404	NWI		CUR	DOU	WMB	07/02/98
21 BROG	ALL	52.408291	GW		CUR	DOU	WMB	07/02/98
21 BROG	ALL	0.004126	RI		CUR	DOU		
21 BROG	ALL	0.914594	ORI		CUR	DOU		

TOTAL COMPANY NET/GROSS REVENUE INTEREST: NET: OIL 44.088527 GAS 46.19076

GROSS: OIL 52.448476 GAS 55.20278

** NO OWNERSHIP REMARKS **

BLOCK POSTING:

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

FDG055M4 1153

WELL PRODUCTION 8/8'S VOLUME

07/22/98 17:19:55

DP NO: 54075B

DATE: 980709 (YYMMDD FORMAT)

SAN JUAN 27-5 UNIT

138E

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	129	1289	0.00	0.00
_	07/08/98	24.0	0.00	0.00	129	1160	0.00	0.00
_	07/07/98	24.0	0.00	0.00	129	1031	0.00	0.00
_	07/06/98	24.0	0.00	0.00	129	902	0.00	0.00
_	07/05/98	24.0	0.00	0.00	129	773	0.00	0.00
_	07/04/98	24.0	0.00	0.00	161	644	0.00	0.00
_	07/03/98	24.0	0.00	0.00	161	483	0.00	0.00
_	07/02/98	24.0	0.00	0.00	161	322	0.00	0.00
_	07/01/98	24.0	0.00	0.00	161	161	0.00	0.00
_	06/30/98	24.0	0.00	0.00	161	4581	0.00	0.00
_	06/29/98	24.0	0.00	0.00	161	4420	0.00	0.00

ENTER I UNDER SEL FOR MAINTENANCE

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

DP NO: 54075B

DATE: 980628 (YYMMDD FORMAT)

SAN JUAN 27-5 UNIT

138E

SCROLL FORWARD BY DATE: _

S

E	DATE	HOURS	-OIL PRODN-	-GAS PRODN-	-WATER PRODN-
L	PRODUCED	ON	(BOPD	(MCFD MCFM)	(BWPD BWPM)
—	06/28/98	24.0	0.00	0.00	161 4259 0.00 0.00
—	06/27/98	24.0	0.00	0.00	161 4098 0.00 0.00
—	06/26/98	24.0	0.00	0.00	161 3937 0.00 0.00
—	06/25/98	24.0	0.00	0.00	161 3776 0.00 0.00
—	06/24/98	24.0	0.00	0.00	161 3615 0.00 0.00
—	06/23/98	24.0	0.00	0.00	161 3454 0.00 0.00
—	06/22/98	24.0	0.00	0.00	161 3293 0.00 0.00
—	06/21/98	24.0	0.00	0.00	161 3132 0.00 0.00
—	06/20/98	24.0	0.00	0.00	161 2971 0.00 0.00
—	06/19/98	24.0	0.00	0.00	161 2810 0.00 0.00
—	06/18/98	24.0	0.00	0.00	161 2649 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

REQUESTED RECORD NOT FOUND (NEXT RECORD DISPLAYED)

OPR008M1 3006

0008 CHROMATOGRAPH TEST MAIN SCREEN

12:26:50.8 08/05/9

FUNCTION (A,C,D,I) I ** DATA AT TEST PRESSURE UNLESS NOTED **
MP NUMBER 85892 SAN JUAN 27-5 UNIT 138E
EFFECTIVE DATE 19980601
REGION CD 42 SAN JUAN
MP TYPE CODE 10 GAS METER - WELLHEAD SALES

SAMPLE TYPE CODE (GAS,LIQ,BTU) GAS ----- BTU/CF -----
SAMPLE DATE 19980601 --- (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 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 _____

	MOL %	GPM (AT 14.73)
HYDROGEN	_____	
HELIUM	_____	
NITROGEN	___1.94	
OXYGEN	_____	
HYDROGEN SULFIDE	_____	
CARBON DIOXIDE	___0.54	
METHANE	___79.55	
ETHANE	___10.89	2.9131
PROPANE	___4.07	1.1217
ISO-BUTANE	___0.52	0.1701
N-BUTANE	___1.20	0.3784
ISO-PENTANE	___0.36	0.1317
N-PENTANE	___0.41	0.1485
HEXANE	_____	
HEXANE PLUS	___0.52	0.2269
HEPTANE PLUS	_____	
TOTALS	100.00	5.0904

** DATA AT 14.730 PSIG UNLESS NOTED **

MP NUMBER 85892

EFFECTIVE DATE 19980601

-- GASOLINE CONTENT (GPM) --

26/70 GASOLINE _____

100% PROPANE _____

EXCESS BUTANES _____

TOTAL

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

CALCULATED _0.7150

MEASURED _____

SULPHUR GRAINS / 100 CU FT _____

03=MAIN SCREEN

24=HELP

PA1=TERMINATE

DATE: July 27, 1998
NAME: SAN JUAN 27-5 UNIT 138E
FORM: DAKOTA
LOCATION
UNIT: O
SEC: 19
TWN: 27N
RNG: 5W

LEGEND
COMPLETION DATE
WELL NAME
MCFD-CUM(MMF)
BOPD-CUM (MBO)

<p>7/73 San Juan 28-6 Unit 183 235/2873 (97) 0/6 [13]</p> <p>9/73 San Juan 28-6 Unit 179 82/1339 (97) 0/0</p>	<p>11/85 San Juan 27-5 Unit 163M 93/846 (97) 1/1</p> <p>11/73 San Juan 27-5 Unit 163 107/1395 (97) 0/1</p> <p>4/72 San Juan 27-5 Unit 137 73/1271 (97) 0/0 [18]</p> <p>12/85 San Juan 27-5 Unit 137E 181/953 (97) 0/1</p>	<p>8/69 San Juan 27-5 Unit 114 180/2306 (97) 1/9</p> <p>[17]</p> <p>8/71 San Juan 27-5 Unit 123 133/1504 (97) 0/3</p>
<p>4/72 San Juan 28-6 Unit 171 135/1448 (97) 0/0 [24]</p> <p>11/69 San Juan 28-6 Unit 146 103/1915 (97) 0/5</p>	<p>4/72 San Juan 27-5 Unit 138 78/1960 (97) 0/3 [19]</p> <p>9/71 San Juan 27-5 Unit 133 212/3013 (97) 0/4</p> <p>3/86 San Juan 27-5 Unit 138E 155/866 (97) 0/1</p>	<p>8/71 San Juan 27-5 Unit 131 132/1367 (97) 0/4</p> <p>3/86 San Juan 27-5 Unit 139 180/750 (97) 0/2</p> <p>4/72 San Juan 27-5 Unit 139 152/1582 (97) 0/5 [20]</p>
<p>11/62 San Juan 28-6 Unit 110 104/1986 (97) 0/6</p> <p>8/71 San Juan 28-6 Unit 157 166/4001 (97) 0/5</p> <p>1/95 San Juan 28-6 Unit 157M 261/323 (97) 1/0</p>	<p>4/72 San Juan 27-5 Unit 141 146/2742 (97) 0/4</p> <p>9/73 San Juan 27-5 Unit 164 111/1216 (97) 0/3</p> <p>3/86 San Juan 27-5 Unit 165M 135/719 (97) 0/2</p> <p>4/72 San Juan 27-5 Unit 140 170/1534 (97) 0/5</p>	<p>9/73 San Juan 27-5 Unit 165 172/1698 (97) 1/8</p> <p>[29]</p> <p>[30]</p>

R-6-W

R-5-W

T
27
N

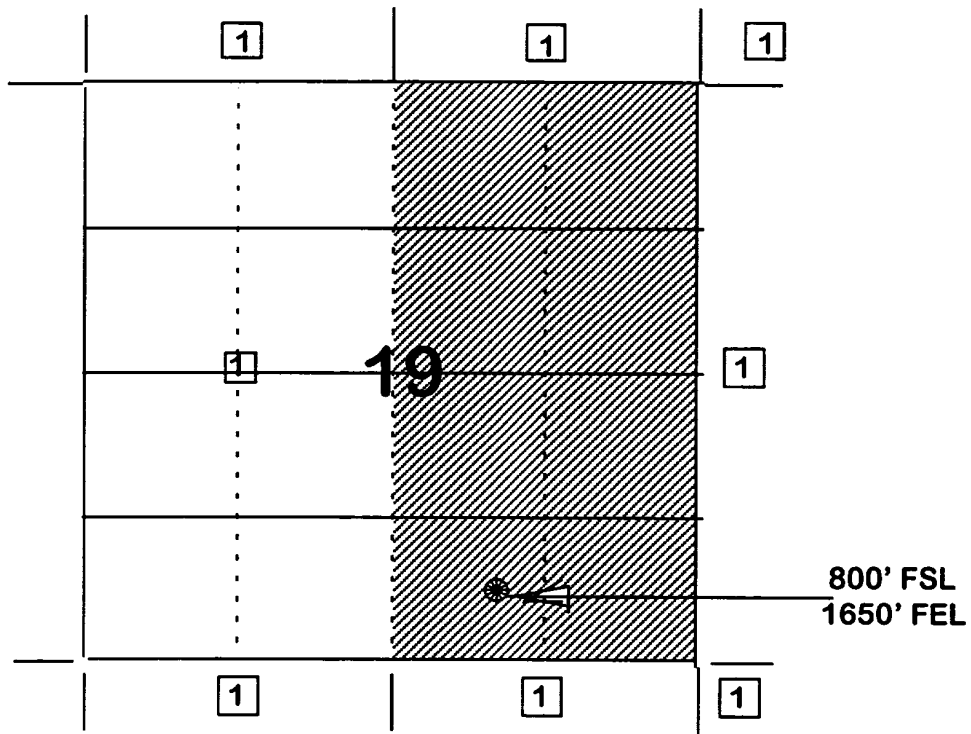
BURLINGTON RESOURCES OIL AND GAS COMPANY

OFFSET OPERATOR \ OWNER PLAT

San Juan 27-5 Unit #138E

Gallup (SE/4)/Dakota (E/2) Formations Commingle Well

Township 27 North, Range 5 West



1) Burlington Resources

DATE: July 27, 1998

NAME: SAN JUAN 27-5 UNIT 138E

FORM: GALLUP

LOCATION

UNIT: O
SEC: 19
TWN: 27N
RNG: 5W

[13]

[18]

[17]

[24]

[19]

[20]

4/98
*
San Juan 27-5 Unit 138E
110/3 (see)
0/0

[25]

[30]

[29]

T
27
N

LEGEND

COMPLETION DATE

WELL NAME
MCF/D-CUM(MMF)
BOPD-CUM (MBO)

R-6-W

R-5-W

Company: BURLINGTON RESOURCES
 Well: SAN JUAN 27-5 NO. 138-E
 Field:
 Engineer:
 Gauge Type:
 Gauge Range:
 Gauge Depth: 7050 ft
 Serial No.:

County: RIO ARRIBA
 State: NEW MEXICO
 Date: 5-13-98
 Well Type:
 Test Type: STATIC GRADIENTS
 Status: SHUT IN 5 DAYS
 File Name: 33748

Tubing: 1.5
 Tubing:
 Casing:
 Perfs.:

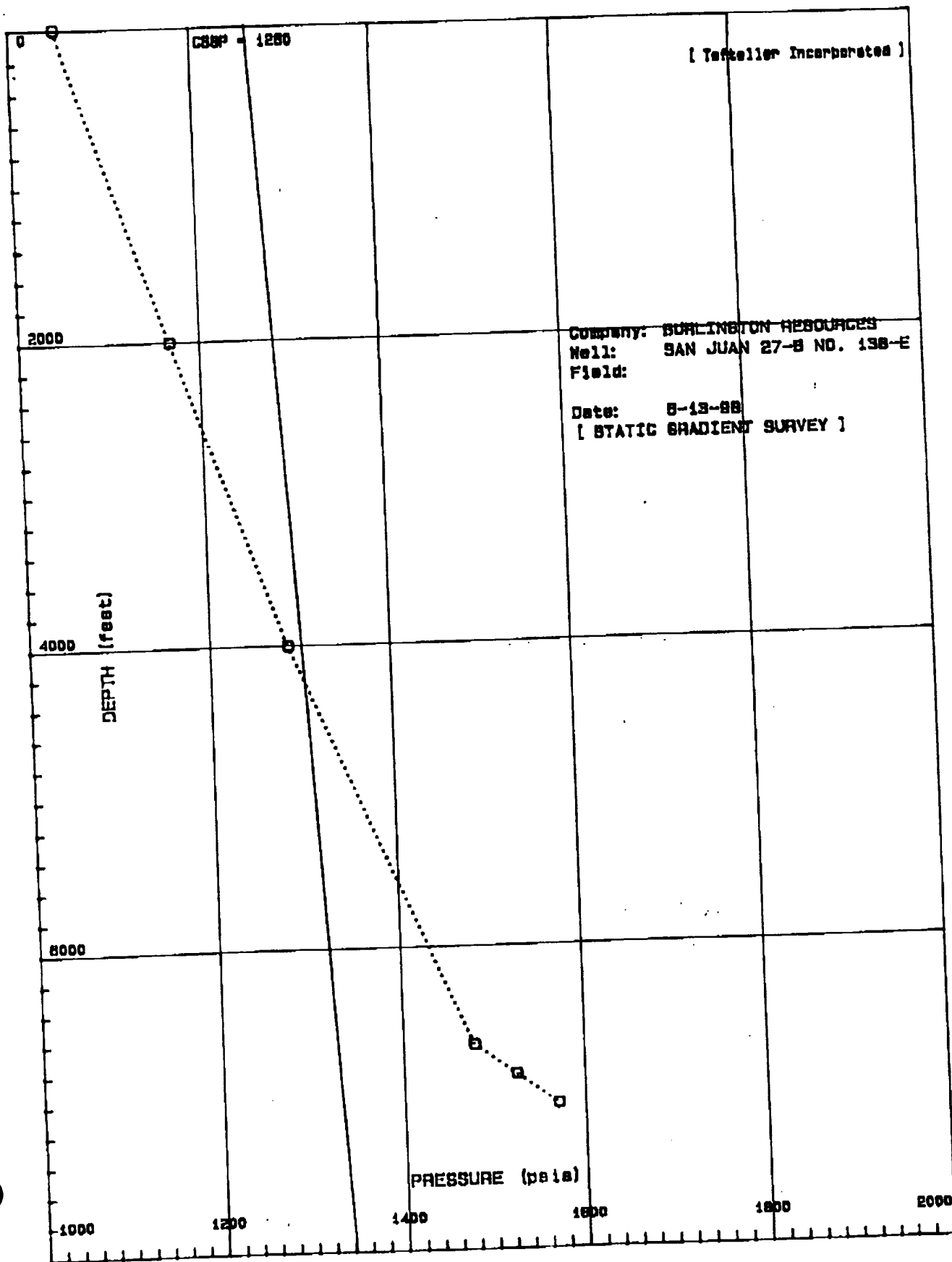
TO 7111
 TO
 TO

Oil Level
 H2O Level

Shut-in BHP 1570 @ 7050 ft Shut-in BHT 0 F @ 0 ft
 Shut-in WHP 1050 Shut-in WHT 0 F
 Casing CSGP 1260

D. Tefteller Incorporated J

#	MD	TVD	PRESSURE	PSI/ft
1	0	0	1050.00	
2	2000	2000	1166.00	0.058
3	4000	4000	1286.00	0.060
4	6650	6650	1478.00	0.072
5	6850	6850	1524.00	0.230
6	7050	7050	1570.00	0.230



Williams Field Services
Salt Lake City, Utah
CERTIFICATE OF ANALYSIS
For production month 05/98

06/10/98 14:47:11
PAGE 1

Station ID: 85892
Station Name: SJ 27-5 UNIT #138E COMMINGLE
Analysis Source: 85892

Lab Identifier: K001
Effective Date: 05/01/98

Operator: 005080
Analysis ID: 238298
Analyzed Date: 05/05/98

Sample On Date: 05/04/98
Sample Off Date: 05/04/98
Sample Type: S

Component	Mol %	GPM
Helium	0.0000	
CO	0.0000	
CO2	0.5380	
N2	2.9250	
Methane (C1)	78.1969	
Ethane (C2)	10.7771	2.882
Propane (C3)	4.1440	1.142
I-butane (IC4)	0.5500	0.180
N-butane (NC4)	1.2820	0.404
I-pentane (IC5)	0.4020	0.147
N-pentane (NC5)	0.4010	0.145
Hexanes (C6)	0.7840	0.342
Heptanes (C7)		
Octanes (C8)		
Nonanes (C9)		
Decanes (C10)		

TOTAL 100.0000 5.242

Calculation Parameters:

Specific Gravity @ 60 deg.F (AIR=1)
Ideal Gravity: 0.7266
Sample Gravity: 0.7288
Z Factor: 0.9966

BTU Calculated/cubic ft @ 60 deg.F
Ideal BTU: 1219.6631
Dry BTU @ 14.730: 1223.8575

Remark: C6

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. 11626
ORDER NO. R-10694

APPLICATION OF BURLINGTON RESOURCES
OIL & GAS COMPANY FOR THE ESTABLISHMENT
OF A DOWNHOLE COMMINGLING "REFERENCE
CASE" FOR ITS SAN JUAN 27-5 UNIT PURSUANT
TO DIVISION RULE 303.E AND THE ADOPTION
OF SPECIAL ADMINISTRATIVE RULES THEREFOR.
~~SAN JUAN~~ COUNTY, NEW MEXICO.

810 ARRIETA

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 27-5 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 27-5 Unit which encompasses some 23,043 acres in Township 27 North, Range 5 West, NMPM, San Juan County, New Mexico.

(5) Within the San Juan 27-5 Unit, the applicant currently operates one hundred and one (101) Basin-Dakota Gas Pool wells, one hundred and five (105) Blanco-Mesaverde Gas Pool wells, eighty-seven (87) South Blanco-Pictured Cliffs and Tapacito-Pictured Cliffs Gas Pool wells, and four (4) 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 27-5 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 27-5 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 27-5 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 27-5 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 27-5 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 583 MMCFG and 426 MMCFG, respectively;
- c) the average initial producing rate for a newly drilled or recompleted Dakota and Pictured Cliffs gas well is approximately 393 MCFGD and 63 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 27-5 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 27-5 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 3.141 psi and 1.118 psi, respectively; and.
- b) the average current shut-in bottomhole pressure within the Dakota and Pictured Cliffs formations are approximately 1.032 psi and 441 psi, respectively.

(10) There is sufficient pressure data available within the San Juan 27-5 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 27-5 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 27-5 Unit the applicant presents evidence and testimony which indicates that:

- a) the interest ownership between two zones within a given wellbore in the San Juan 27-5 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 27-5 Unit every time a Form C-107-A is submitted to the Division. There is a considerable number of such interest owners within the unit;

- c) providing notice to each interest owner within the San Juan 27-5 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 27-5 Unit Area will benefit working, royalty, and overriding royalty interest owners. In addition, the downhole commingling of wells within the San Juan 27-5 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 27-5 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 107-A. will provide the applicant a streamlined method for obtaining downhole commingling approvals within the San Juan 27-5 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 27-5 Unit, San Juan County, New Mexico, is hereby approved.

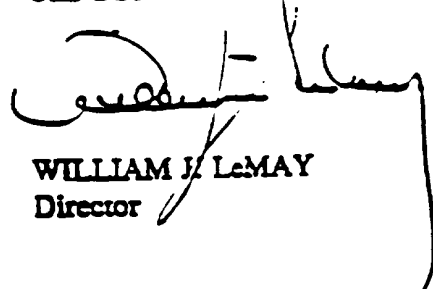
(2) Upon filing of Division Form No. C-107-A's for wells subsequently downhole commingled within the San Juan 27-5 Unit Area, the applicant shall not be required to submit supporting data to justify the classification of the Pictured Cliffs and Dakota formations as "marginal", supporting data to verify 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 27-5 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 27-5 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

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