

DATE IN 9/28/98	SUSPENSE 10/19/98	ENGINEER DC	LOGGED BY NW	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

2040 South Pacheco, Santa Fe, NM 87505



2121

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATION FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
 [DD-Directional Drilling] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

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

[A] Location - Spacing Unit - Directional Drilling

☐ NSL ☐ NSP ☐ DD ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

SEP 28 1998

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO

U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Certification

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data (including API numbers, pool codes, etc.), pertinent information and any required notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Print or Type Name

Signature

Title

Date

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

114M

M 17-27N-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. 30-039-25922 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	Mesaverde - 72319		Basin Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	WILL BE SUPPLIED UPON COMPLETION		WILL BE SUPPLIED UPON COMPLETION
3. Type of production (Oil or Gas)	gas		gas
4. Method of Production (Flowing or Artificial Lift)	flowing		flowing
5. Bottomhole Pressure	(Current) a. 454	a.	a. 961
Oil Zones - Artificial Lift: Estimated Current	(Original) b. 1327	b.	b. 3278
Gas & Oil - Flowing: Measured Current			
All Gas Zones: Estimated or Measured Original			
6. Oil Gravity (°API) or Gas BTU Content	BTU 1226		BTU 1126
7. Producing or Shut-In?	Shut-in		Shut-in
Production Marginal? (yes or no)	no		yes
* If Shut-In and oil/gas/water rates of last production	Date: n/a Rates:	Date: Rates:	Date: n/a 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: n/a Rates:	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 ☐ No15. 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

District I
Box 1980, Hobbs, NM 88241-1980

District II
Box 100, Artesia, NM 88211-0719

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

District IV
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
Revised February 2
Instructions
Submit to Appropriate District
State Lease - 4
Fee Lease - 3

☐ AMENDED RE

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-		*Pool Code 72319/71599	*Pool Name Blanco Mesaverde/Basin Dakota
*Property Code 7454	*Property Name SAN JUAN 27-5 UNIT		*Well Number 114M
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY		*Elevation 6590'

10 Surface Location

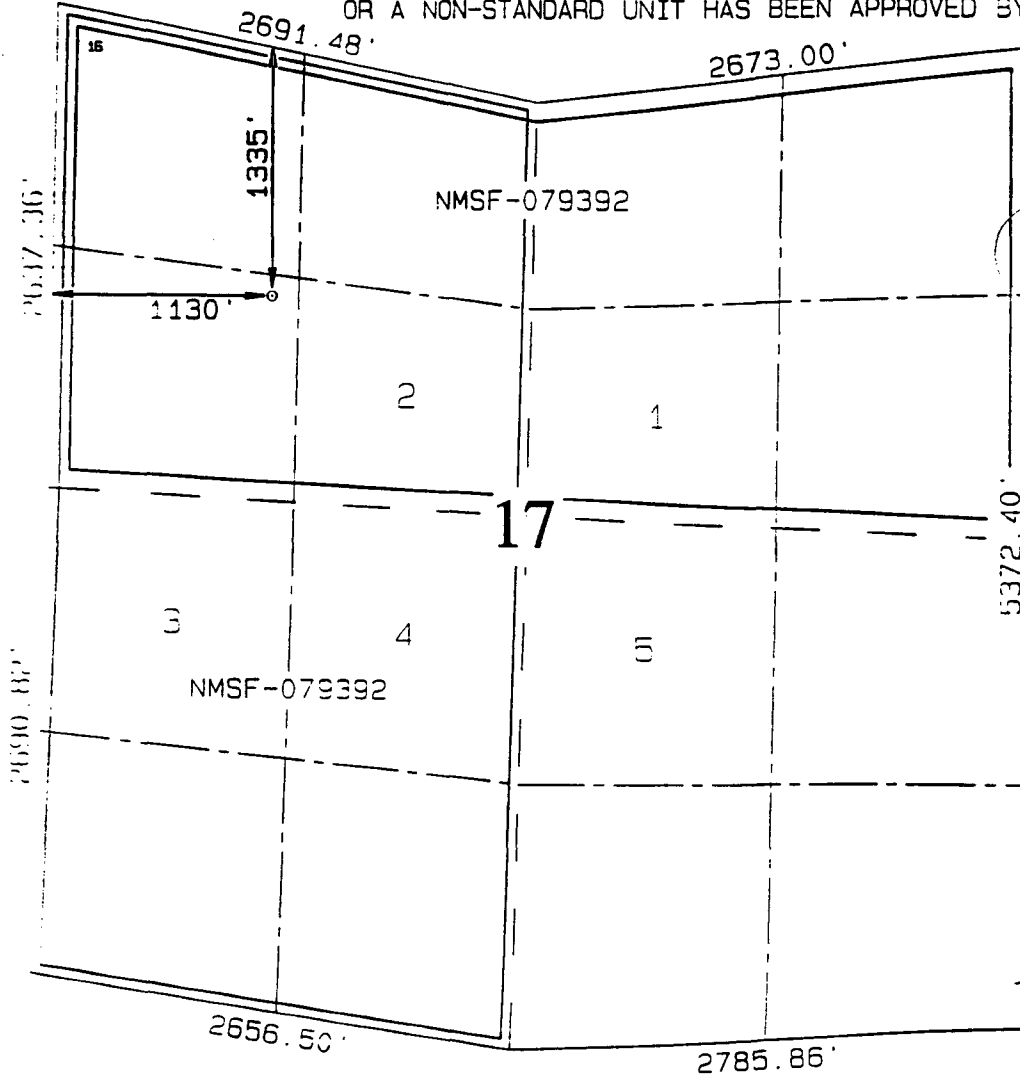
*T or lot no. E	*Section 17	*Township 27N	*Range 5W	*Lot Idn	*Feet from the 1335	*North/South line NORTH	*Feet from the 1130	*East/West line WEST	*Co. R. ARR
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11 Bottom Hole Location If Different From Surface

*T or lot no.	*Section	*Township	*Range	*Lot Idn	*Feet from the	*North/South line	*Feet from the	*East/West line	*Co.
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*Dedicated Acres MV-W/320.41 DK-N/311.82	*Joint or Infill	*Consolidation Code	*Order No.
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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



OPERATOR CERTIFICATE

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

6-16-98
Date

SURVEYOR CERTIFICATE

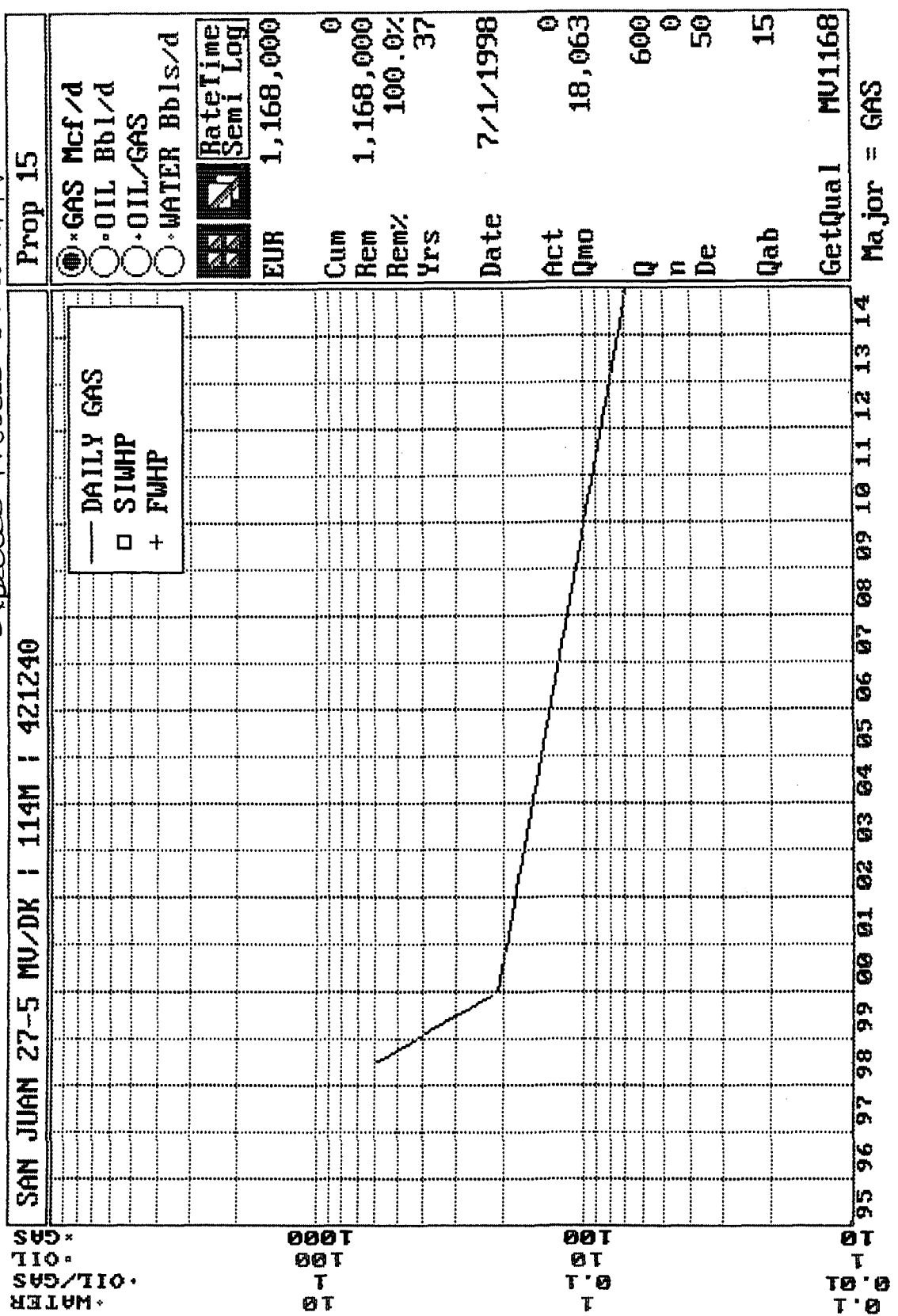
I hereby certify that the well location shown on this plat was located from field notes of actual surveys made on or under my supervision, and that the same is true and correct to the best of my belief.

APRIL 21, 1998
Date of Survey

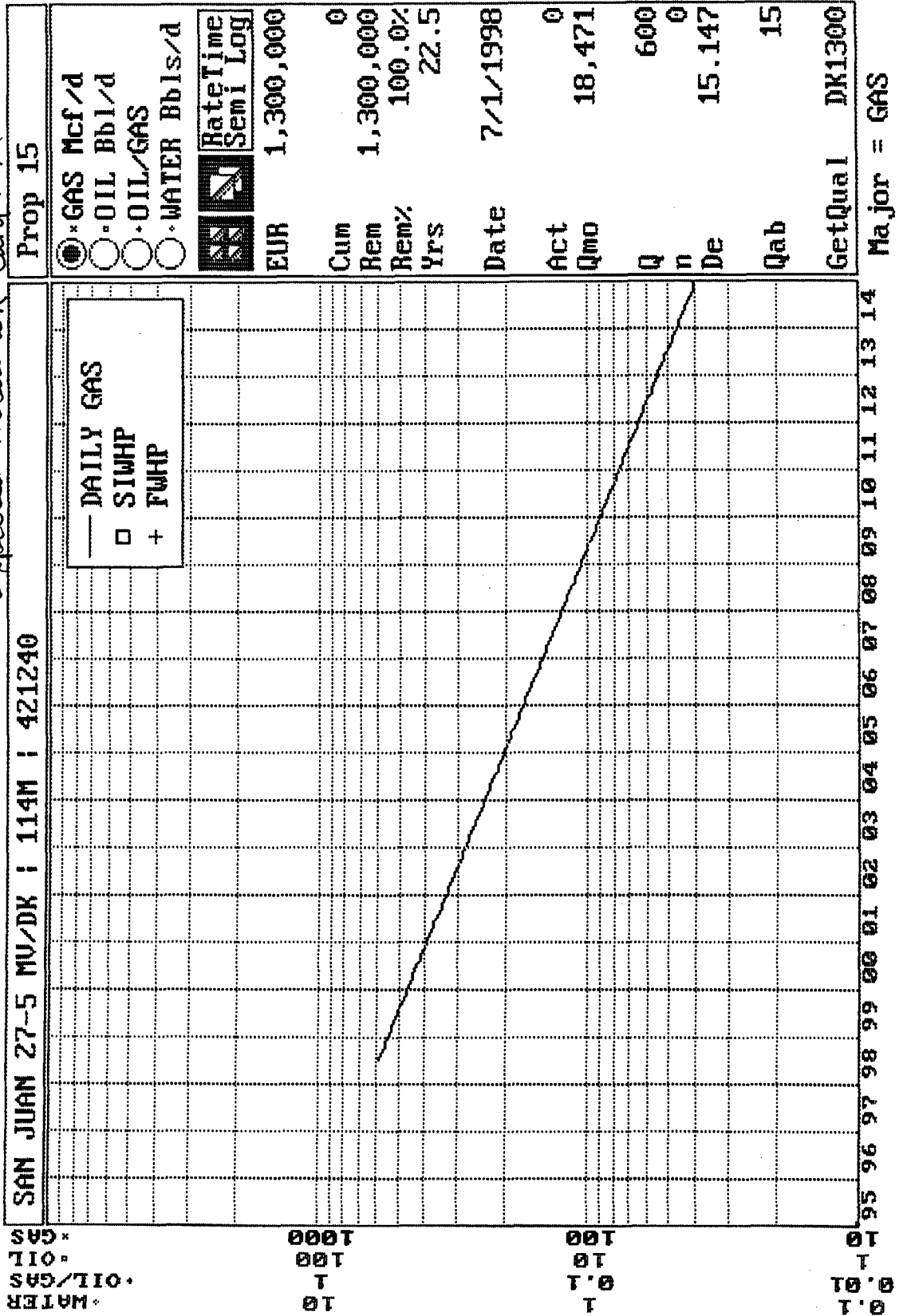
Signature and Seal of Professional Surveyor

NEALE C. EDWARDS
NEW MEXICO
6857
Professional Surveyor
Certificate Number

Expected Production Curve/MV



Expected Production Curve DK



SJ 27-5 #114M**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	0.707	GAS GRAVITY	0.647
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.22	%N2	0.34
%CO2	0.9	%CO2	1.33
%H2S	0	%H2S	0
DIAMETER (IN)	2	DIAMETER (IN)	2
DEPTH (FT)	5680	DEPTH (FT)	7768
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	122	BOTTOMHOLE TEMPERATURE (DEG F)	145
FLOWRATE (MCFPD)	891	FLOWRATE (MCFPD)	2301
SURFACE PRESSURE (PSIA)	370	SURFACE PRESSURE (PSIA)	710
BOTTOMHOLE PRESSURE (PSIA)	453.7	BOTTOMHOLE PRESSURE (PSIA)	960.5
<u>MV-Original</u>		<u>DK-Original</u>	
GAS GRAVITY	0.707	GAS GRAVITY	0.647
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.22	%N2	0.34
%CO2	0.9	%CO2	1.33
%H2S	0	%H2S	0
DIAMETER (IN)	2	DIAMETER (IN)	2
DEPTH (FT)	5680	DEPTH (FT)	7768
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	122	BOTTOMHOLE TEMPERATURE (DEG F)	145
FLOWRATE (MCFPD)	891	FLOWRATE (MCFPD)	2301
SURFACE PRESSURE (PSIA)	1113	SURFACE PRESSURE (PSIA)	2637
BOTTOMHOLE PRESSURE (PSIA)	1326.6	BOTTOMHOLE PRESSURE (PSIA)	3277.7

Page No.: 1

Print Time: Wed Aug 12 16:01:22 1998

Property ID: 1333

Property Name: SAN JUAN 27-5 UNIT | 114 | 52294A-1 DK Parent Well

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

--DATE--	---CUM_GAS--	M FWHP-	M FBHP-	M SIWHP	M SIBHP
	Mcf	Psi	Psi	Psi	Psi
08/06/69	0	0.0		2637.0	3172.0
09/19/69	22000			2624.0	
11/05/69	60000			1747.0	
11/23/70	250882	782.0		1348.0	1612.0
07/22/71	366474	633.0		1077.0	1282.0
06/06/72	502152	403.0		854.0	1012.0
07/19/73	625722	421.0		863.0	1023.0
09/04/75	855475	270.0		741.0	876.0
06/08/77	1025179	278.0		642.0	758.0
06/06/79	1197679	334.0		614.0	724.0
06/03/81	1352164	267.0		633.0	747.0
09/19/83	1494386	300.0		857.0	1016.0
11/19/85	1624467	247.0		753.0	891.0
06/20/88	1750623	298.0		950.0	1128.0
05/29/90	1869944	296.0		797.0	944.0
04/29/92	1952346	320.0		710.0	839.0

Page No.: 2

Print Time: Wed Aug 12 16:01:23 1998

Property ID: 1422

Property Name: SAN JUAN 27-5 UNIT | 26 | 53356B-1 *MV Parent Well*

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

--DATE--	---CUM GAS--	M FWHP-	M FBHP-	M SIWHP	M SIBHP
#####	#####Mcf#####	###Psi###	###Psi###	###Psi###	###Psi###
03/20/57	0	0.0		<i>orig</i> 1113.0	0.0
04/30/57	0			1112.0	
09/14/58	64000			797.0	
06/14/59	97000			709.0	
09/22/60	141000			661.0	
06/13/61	167000			662.0	
10/01/62	204000			665.0	
04/19/63	222000			663.0	
04/29/64	252000			646.0	
05/10/65	278000			634.0	
04/19/66	306000			643.0	
05/16/67	328000			624.0	
08/14/68	358000			567.0	
10/07/70	417947	417.0		637.0	0.0
07/22/71	434953	402.0		608.0	0.0
06/06/72	456399	379.0		606.0	0.0
05/02/78	592378	278.0		582.0	0.0
04/21/86	717960	312.0		622.0	0.0
08/22/89	765092	313.0		522.0	0.0
04/15/91	790903			358.0	
05/13/91	792250	340.0		<i>cur</i> 370.0	0.0

	MOL %	GPM (AT 14.73)
HYDROGEN	_____	
HELIUM	_____	
NITROGEN	___0.22	
OXYGEN	_____	
HYDROGEN SULFIDE	_____	
CARBON DIOXIDE	___0.90	
METHANE	___81.88	
ETHANE	___9.57	2.5600
PROPANE	___4.38	1.2071
ISO-BUTANE	___0.80	0.2617
N-BUTANE	___1.14	0.3594
ISO-PENTANE	___0.39	0.1427
N-PENTANE	___0.27	0.0978
HEXANE	_____	
HEXANE PLUS	___0.45	0.1963
HEPTANE PLUS	_____	
TOTALS	100.00	4.8250

** DATA AT 14.730 PSIG UNLESS NOTED **

MP NUMBER ^{MW} 71835

EFFECTIVE DATE 19980401

-- GASOLINE CONTENT (GPM) --

26/70 GASOLINE _____

100% PROPANE _____

EXCESS BUTANES _____

TOTAL

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

CALCULATED _0.7070

MEASURED _____

SULPHUR GRAINS / 100 CU FT _____

03=MAIN SCREEN

24=HELP

PA1=TERMINATE

REQUESTED RECORD NOT FOUND (NEXT RECORD DISPLAYED)

OPR008M1 1005

0008 CHROMATOGRAPH TEST MAIN SCREEN

16:00:58.3 08/12/98

FUNCTION (A,C,D,I) I

** DATA AT TEST PRESSURE UNLESS NOTED **

MP NUMBER

71835

SAN JUAN 27-5 UNIT

26 *ml Parent well*

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 1204.684 DRY 1226.000

SAMPLE LINE TEMPERATURE (DEG F)

TEST DATE

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

TEST PRESSURE (PSIG)

14.730

WET 1204.684 DRY 1226.000

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

GPM

** DATA AT 14.730 PSIG UNLESS NOTED **

MOL % (AT 14.73)

HYDROGEN	_____	
HELIUM	_____	
NITROGEN	___0.34	
OXYGEN	_____	
HYDROGEN SULFIDE	_____	
CARBON DIOXIDE	___1.33	
METHANE	___88.19	
ETHANE	___6.93	1.8538
PROPANE	___1.74	0.4795
ISO-BUTANE	___0.42	0.1374
N-BUTANE	___0.39	0.1230
ISO-PENTANE	___0.22	0.0805
N-PENTANE	___0.09	0.0326
HEXANE	_____	
HEXANE PLUS	___0.35	0.1527
HEPTANE PLUS	_____	
TOTALS	100.00	2.8595

MP NUMBER DK 87072
EFFECTIVE DATE 19970201

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

----- SPECIFIC GRAVITY -----
CALCULATED _____0.6470
MEASURED _____

SULPHUR GRAINS / 100 CU FT _____

03=MAIN SCREEN

24=HELP

PA1=TERMINATE

REQUESTED RECORD NOT FOUND (NEXT RECORD DISPLAYED)

OPR008M1 1005

0008 CHROMATOGRAPH TEST MAIN SCREEN

16:01:23.0 08/12/98

FUNCTION (A,C,D,I) I

** DATA AT TEST PRESSURE UNLESS NOTED **

MP NUMBER

87072

SAN JUAN 27-5 UNIT

114 *DK Parent*

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 1106.423 DRY 1126.000

SAMPLE LINE TEMPERATURE (DEG F)

TEST DATE

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

TEST PRESSURE (PSIG)

_14.730

WET _1106.423 DRY _1126.000

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

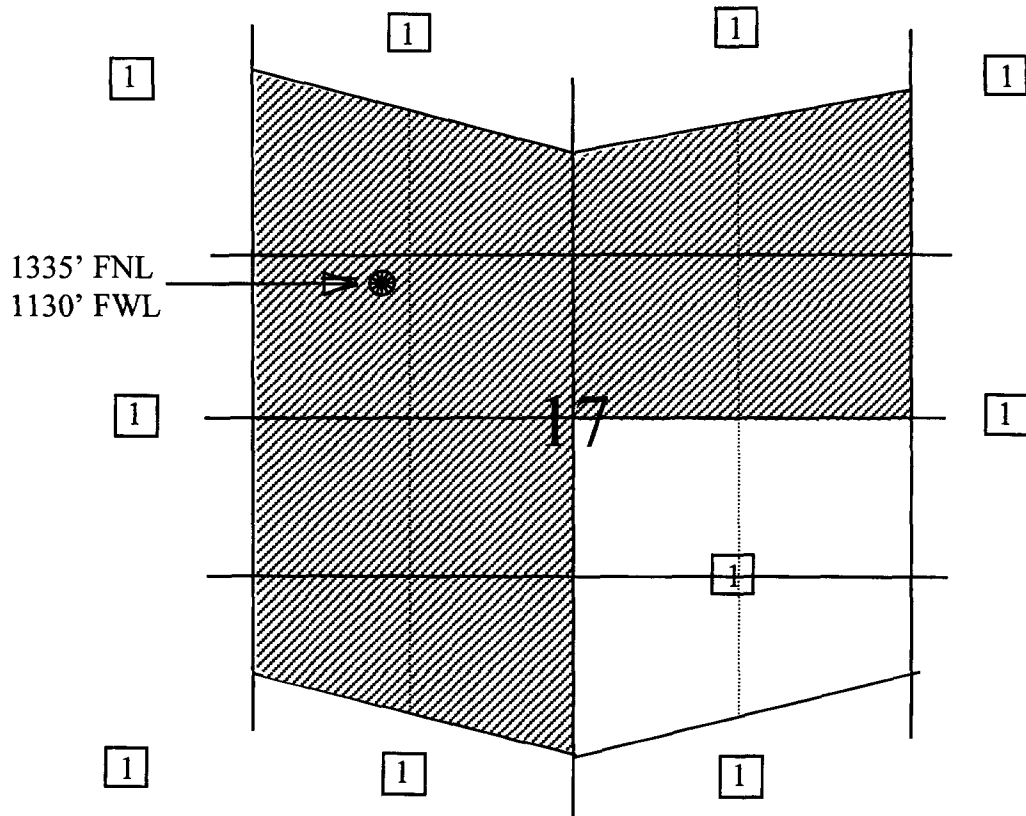
PA1=TERMINATE _____

BURLINGTON RESOURCES OIL AND GAS COMPANY

**San Juan 27-5 Unit #114M
OFFSET OPERATOR \ OWNER PLAT
Downhole Commingle**

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

Township 27 North, Range 5 West



1) Burlington Resources

DATE: November 06, 1997

NAME: SAN JUAN 27-5 UNIT 3A
114M

FORM: MESAVERDE

LOCATION

UNIT: M

SEC: 17

TWN: 27N

RNG: 5W

T
27
N

8/96 San Juan 27-5 Unit 126M 66/1599 (97)	6/62 San Juan 27-5 Unit 69 1408/2144 (97)	10/80 San Juan 27-5 Unit 64A 476/812 (97)	9/66 San Juan 27-5 Unit 2 836/1319 (97)
[7] 3/59 San Juan 27-5 Unit 46 569/2257 (97)	4/86 San Juan 27-5 Unit 69M 359/896 (97)	5/62 San Juan 27-5 Unit 70 906/1010 (97) [8] 11/61 San Juan 27-5 Unit 63 888/1297 (97)	[9] 10/81 San Juan 27-5 Unit 86M 483/824 (97)
8/96 San Juan 27-5 Unit 163M 129/1685 (97)	10/60 San Juan 27-5 Unit 49 466/700 (97)	7/96 San Juan 27-5 Unit 40M 204/2470 (97)	7/58 San Juan 27-5 Unit 38 1359/1436 (97) [16]
[18] 3/59 San Juan 27-5 Unit 47 452/563 (97)	11/85 San Juan 27-5 Unit 49A 525/1198 (97)	3/56 San Juan 27-5 Unit 15 720/1054 (97)	
[19] 3/59 San Juan 27-5 Unit 48 943/1589 (97)	3/60 San Juan 27-5 Unit 50 504/748 (97)	3/58 San Juan 27-5 Unit 37 862/1411 (97)	4/58 San Juan 27-5 Unit 30 549/950 (97)
	2/57 San Juan 27-5 Unit 19 1278/1811 (97)	[20] 2/57 San Juan 27-5 Unit 19 1278/1811 (97)	[21] 3/59 San Juan 27-5 Unit 41 431/624 (97) San Juan 27-5 Unit 125E 48/2135 (97)

LEGEND
COMPLETION DATE

WELL NAME
CUM(MMF)-EUR

R-6-W

DATE: January 26, 1998
 NAME: SAN JUAN 27-5 UNIT 114M
 FORM: DAKOTA
 LOCATION
 UNIT: 17
 SEC: 17
 TWN: 27N
 RNG: 5W

<p>3/86 * San Juan 27-5 Unit 126M 333/638</p> <p>10/62 * San Juan 27-5 Unit 69 2582/3440</p> <p>10/71 * [7] 4/86 * San Juan 27-5 Unit 126 1418/1994</p> <p>San Juan 27-5 Unit 69M 537/1687</p>	<p>11/62 * San Juan 27-5 Unit 70 [8] 900/3257</p> <p>10/69 * San Juan 27-5 Unit 112 1652/2059</p>	<p>8/69 * San Juan 27-5 Unit 83 1606/2293</p> <p>[9] 10/81 * San Juan 27-5 Unit 86M 643/1429</p> <p>2/63 * San Juan 27-5 Unit 86 1552/1844</p>
<p>11/85 * San Juan 27-5 Unit 163M 837/1710</p> <p>12/73 * San Juan 27-5 Unit 163 1396/1702</p> <p>5/72 * San Juan 27-5 Unit 137 [18] 1272/1602</p> <p>12/85 * San Juan 27-5 Unit 137E 951/1203</p>	<p>6/69 * San Juan 27-5 Unit 114 2301/3025</p> <p>[17]</p> <p>9/71 * San Juan 27-5 Unit 123 1499/2566</p>	<p>4/90 * San Juan 27 Unit 40M 539/1373</p> <p>2/63 * San Juan 27-5 Unit 90 [16] 2423/3509</p> <p>8/69 * San Juan 27-5 Unit 40 2156/3502</p>
<p>10/71 * San Juan 27-5 Unit 133 3017/3720</p> <p>3/86 * San Juan 27-5 Unit 138E 861/1655</p>	<p>2/86 * San Juan 27-5 Unit 139M 727/1556</p> <p>5/72 * [20] San Juan 27-5 Unit 139 1577/2283</p>	<p>9/71 * San Juan 27-5 Unit 122 1460/2015</p> <p>9/71 * [21] 4/86 * San Juan 27-5 Unit 125 1475/3065</p> <p>San Juan 27-5 Unit 125E 767/1585</p>

LEGEND
 COMPLETION DATE *
 WELL NAME
 CUM(MMF)-EUR

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 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 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 presented 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 C 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.

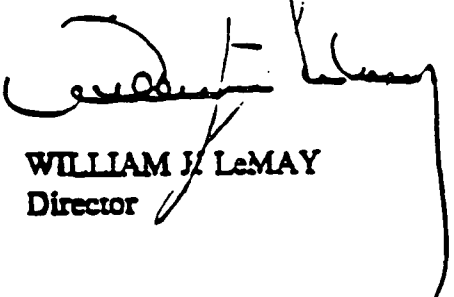
(2) Upon filing of Division Form No. C-107-A's for wells subsequently downhole commingled within the San Juan 27-5 Unit Area, the applicant shall not be required to submit supporting data to justify the classification of the Pictured Cliffs and Dakota formations as "marginal", supporting data to verify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