DATE IN	SUSPENSE	ENGINEER	LOGGED	TYPE
10/22/97	11/12/97	DC	MW	DHC

ABOVE THIS LINE FOR DIVISION USE ONLY

1726

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

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]

RECEIVED
OCT 22 1997

[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] and [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

[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** - Statement of Understanding

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, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Peggy Bradfield	Peggy Bradfield	Regulatory/Compliance Administrator	10-21-97
Print or Type Name	Signature	Title	Date

BURLINGTON RESOURCES

SAN JUAN DIVISION

October 20, 1997

Mr. William LeMay
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Re: San Juan 28-6 Unit #166M
940'FNL, 1480'FWL Section 1, T-27-N, R-06-W, Rio Arriba County, NM
API #30-039-not assigned

Dear Mr. LeMay:

This is a request for administrative approval for downhole commingling the Blanco Mesa Verde and Basin Dakota pools in the subject well. This is a new drill Mesa Verde/Dakota well for the 1998 Program.

To comply with the New Mexico Oil Conservation Division rules, Burlington Resources Oil & Gas Company is submitting the following for your approval of this commingling:

1. Form C107A - Application for Downhole Commingling;
2. C-102 plat for each zone showing its spacing unit and acreage dedication;
3. Anticipated production curve for the Mesa Verde and Dakota for at least year;
4. Notification list of offset operators - Burlington is the operator of the unit;
5. Shut in wellhead pressure and calculated down hole pressure of surrounding wells;
6. Nine-section plats for the Mesa Verde and Dakota.

Notification of Mesa Verde and Dakota interest owners is covered under Order R-10696 dated November 12, 1996.

We will consult with the Supervisor of the Aztec District Office of the New Mexico Oil Conservation Division to establish an allocation formula.

Please let me know if you require additional data.

Sincerely,

Peggy Bradfield

Peggy Bradfield
Regulatory/Compliance Administrator

Xc: Bureau of Land Management – Farmington
NMOCD – Aztec

3535 East 30th St., 87402-8801, P.O. Box 4289, Farmington, New Mexico 87499-4289, Telephone 505-326-9700, Fax 505-326-9833

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 :
_X_ Administrative ___Hearing

EXISTING WELLBORE
__ YES _x NO

APPLICATION FOR DOWNHOLE COMMINGLING

Burlington Resources Oil & Gas Company — PO Box 4289, Farmington, NM 87499
Operator — Address

San Juan 28-6 Unit | 166M | C 01-27N-6W | Rio Arriba
Lease | Well No. | Unit Ltr. - Sec - Twp - Rge | County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. __14538___ Property Code _7462_____ API NO. _30-039-not assigned Federal __X___ , 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	Blanco 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 Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Current) a. 673 psi (see attachment) (Original) b. 1251 psi (see attachment)	a. b.	a. 834 psi (see attachment) b. 3213 psi (see attachment)
6. Oil Gravity (°API) or Gas BTU Content	BTU 1109		BTU 1032
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 Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: n/a Rates:	Date: Rates:	Date: n/a Rates:
* 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 __x_No
If not, have all working, overriding, and royalty interests been notified by certified mail? ___Yes __x_No
Have all offset operators been given written notice of the proposed downhole commingling? _X_Yes ____No

11. Will cross-flow occur? _x__ 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. __x___ Yes _____No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each other? __x_ Yes ___ No

13. Will the value of production be decreased by commingling? ___ Yes _X_ 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. _X__Yes ___ No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). _____R-10696_____

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

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

SIGNATURE Sean Woolverton TITLE Production Engineer DATE 10/21/97

TYPE OR PRINT NAME Sean C. Woolverton TELEPHONE NO. (505) 326-9700

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-
Revised February 21, 1
Instructions on b
Submit to Appropriate District Of
State Lease - 4 Cop
Fee Lease - 3 Cop

☐ AMENDED REPO

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code	³ Pool Name
30-039-	72319/71599	Blanco Mesaverde/Basin Dakota

⁴ Property Code	⁵ Property Name	⁶ Well Number
7462	San Juan 28-6 Unit	166M

⁷ OGRID No.	⁸ Operator Name	⁹ Elevation
14538	BURLINGTON RESOURCES OIL & GAS COMPANY	6502'

¹⁰ Surface Location

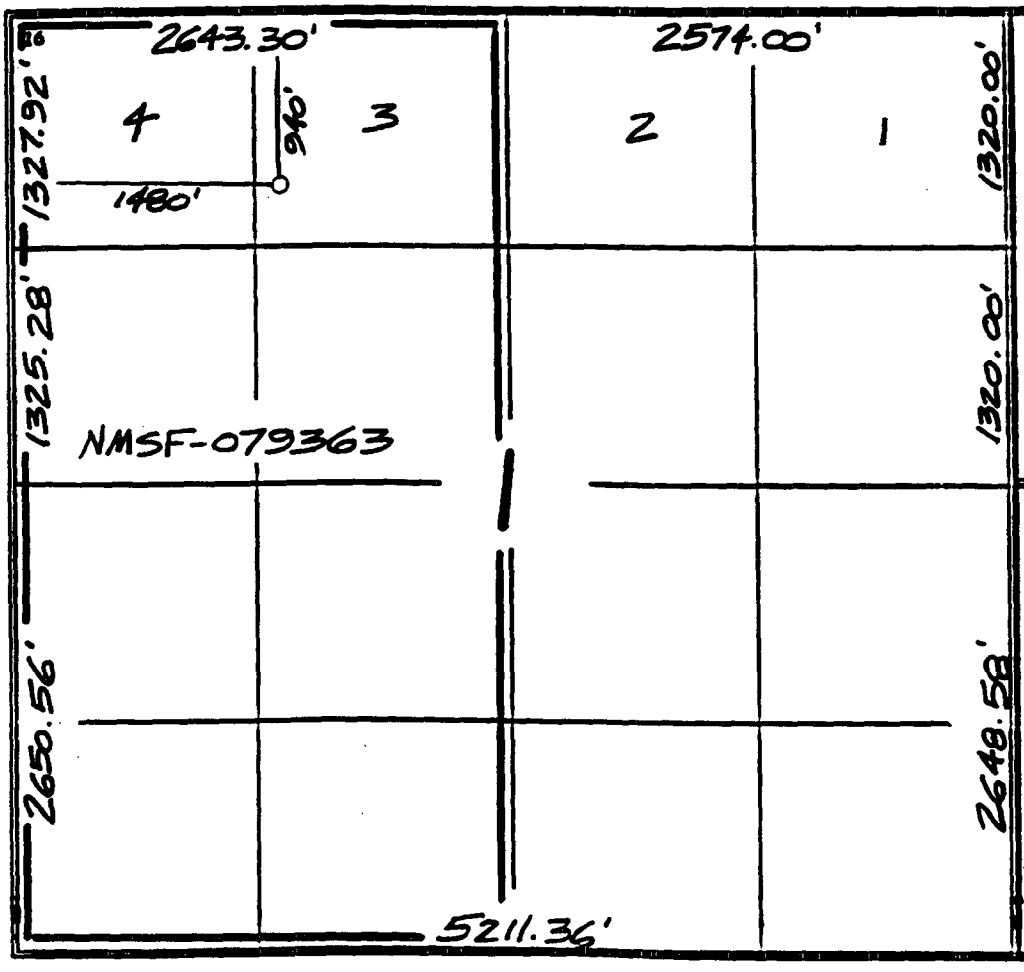
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	1	27-N	6-W		940	North	1480	West	R.A.

¹¹ Bottom Hole Location If Different From Surface

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

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
MV-W/320.32 DK-W/320.32			

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



¹⁷ OPERATOR CERTIFICATIC

I hereby certify that the information contained herein i true and complete to the best of my knowledge and be

Signature
Peggy Bradfield
Printed Name
Regulatory Administrat
Title
Date

¹⁸ SURVEYOR CERTIFICATIC

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

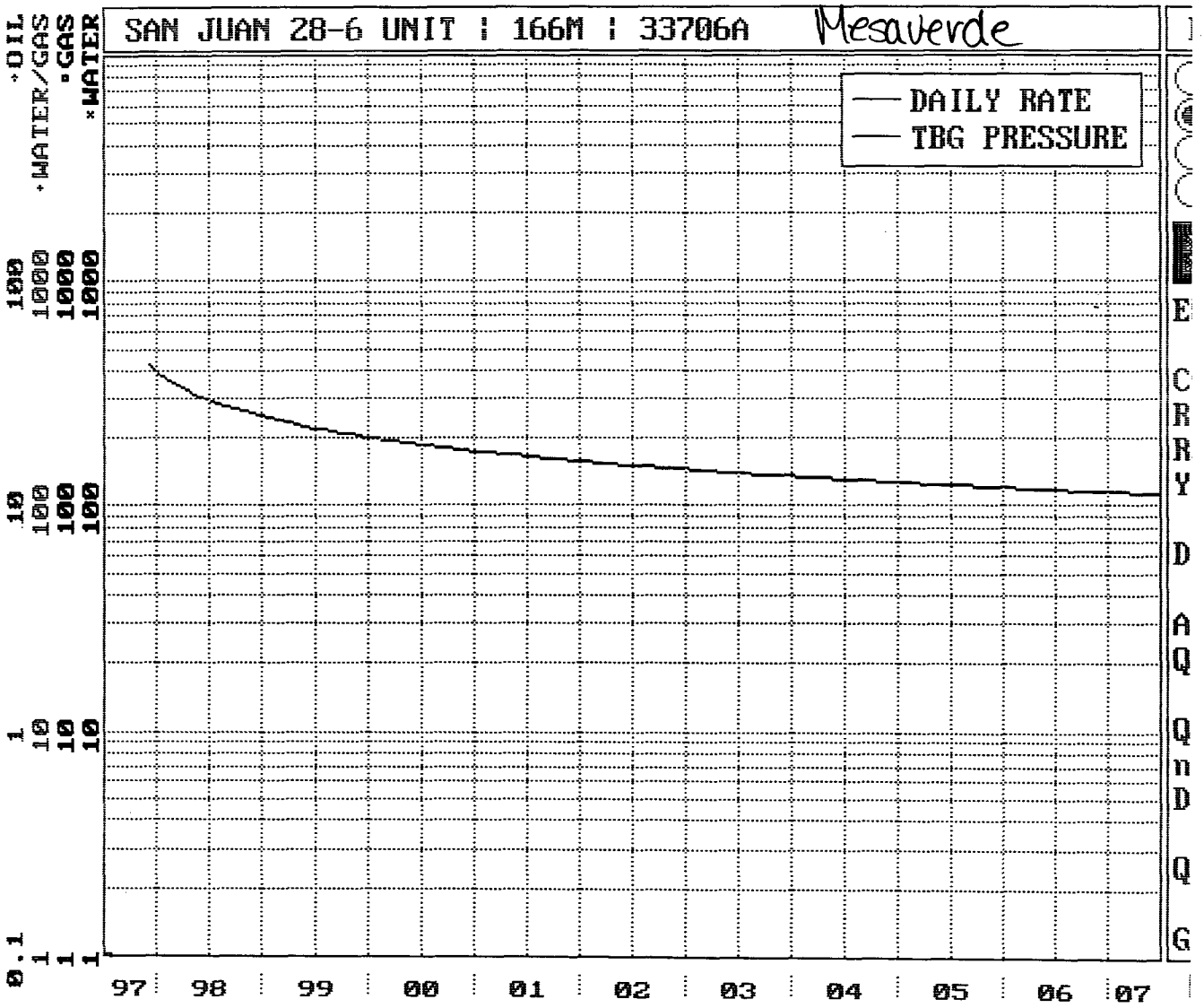
5/22/97
Date of Survey

Signature and Seal of Professional Surveyor

NEALE C. EDWARDS
NEW MEXICO
6857
REGISTERED PROFESSIONAL SURVEYOR

6857
Certificate Number

EXPECTED PRODUCTION CURVE



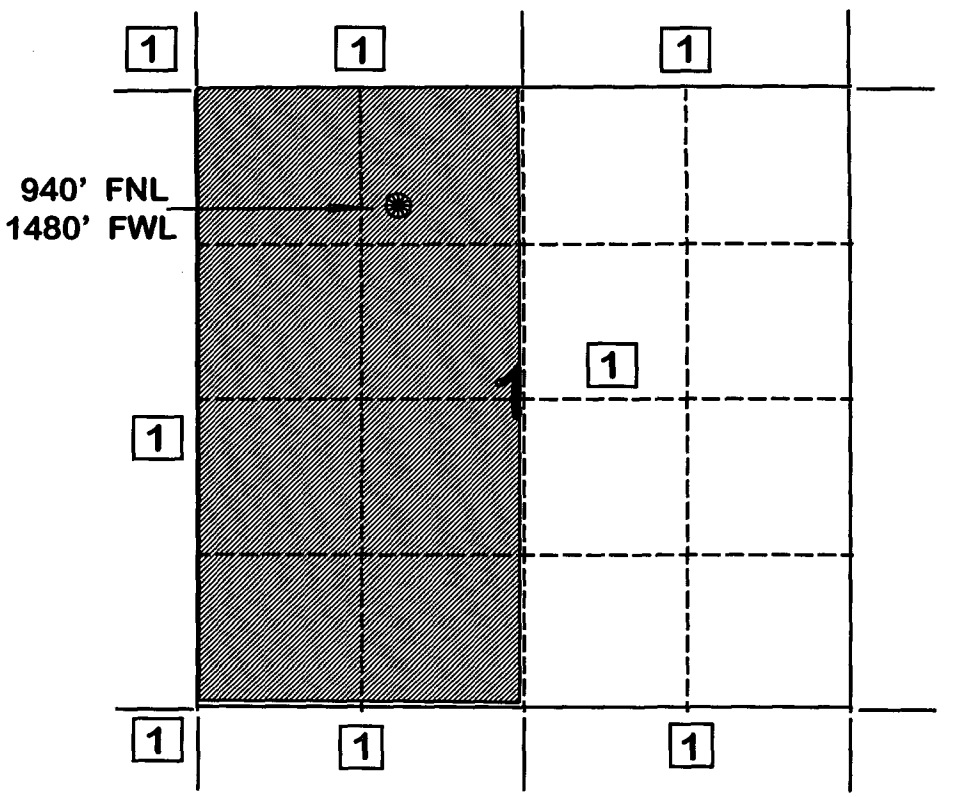
EXPECTED PRODUCTION CURVE

BURLINGTON RESOURCES OIL AND GAS COMPANY

San Juan 28-6 Unit #166M
OFFSET OPERATOR \ OWNER PLAT

Mesaverde/Dakota Formations Commingle Well

Township 27 North, Range 6 West



1) Burlington Resources Oil and Gas Company

San Juan 28-6 Unit #166M

Bottom Hole Pressures

Flowing and Static BHP

Cullender and Smith Method

Version 1.0 3/13/94

Mesaverde		Dakota	
MV-Current		**DK-Current**	
GAS GRAVITY	0.646	GAS GRAVITY	0.603
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.28	%N2	0.29
%CO2	0.96	%CO2	1.38
%H2S	0	%H2S	0
DIAMETER (IN)	2	DIAMETER (IN)	1.5
DEPTH (FT)	5535	DEPTH (FT)	7690
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	137	BOTTOMHOLE TEMPERATURE (DEG F)	198
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	590	SURFACE PRESSURE (PSIA)	710
BOTTOMHOLE PRESSURE (PSIA)	673.3	BOTTOMHOLE PRESSURE (PSIA)	834.2
MV-Original		**DK-Original**	
GAS GRAVITY	0.646	GAS GRAVITY	0.603
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.28	%N2	0.29
%CO2	0.96	%CO2	1.38
%H2S	0	%H2S	0
DIAMETER (IN)	2	DIAMETER (IN)	1.5
DEPTH (FT)	5535	DEPTH (FT)	7690
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	137	BOTTOMHOLE TEMPERATURE (DEG F)	198
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1085	SURFACE PRESSURE (PSIA)	2699
BOTTOMHOLE PRESSURE (PSIA)	1250.6	BOTTOMHOLE PRESSURE (PSIA)	3213.0

Page No.: 5
Print Time: Fri Oct 17 15:19:00 1997
Property ID: 1875
Property Name: SAN JUAN 28-6 UNIT | 166 | 44067A-1
Table Name: K:\ARIES\RR98PDP\TEST.DBF

San Juan 28-6 Unit
#166M

--DATE--	---CUM_GAS-- Mcf	M_SIWHP Psi	
08/01/72	10595	2699.0	- original
09/19/72	30869	1804.0	
08/29/73	150363	1200.0	
07/15/74	227403	1038.0	
09/04/75	309799	849.0	
06/28/77	416813	731.0	
06/06/79	529844	662.0	
06/03/81	623855	623.0	
09/19/83	710208	754.0	
05/20/85	772501	731.0	
07/07/88	865820	1054.0	
09/29/92	1029062	710.0	- current

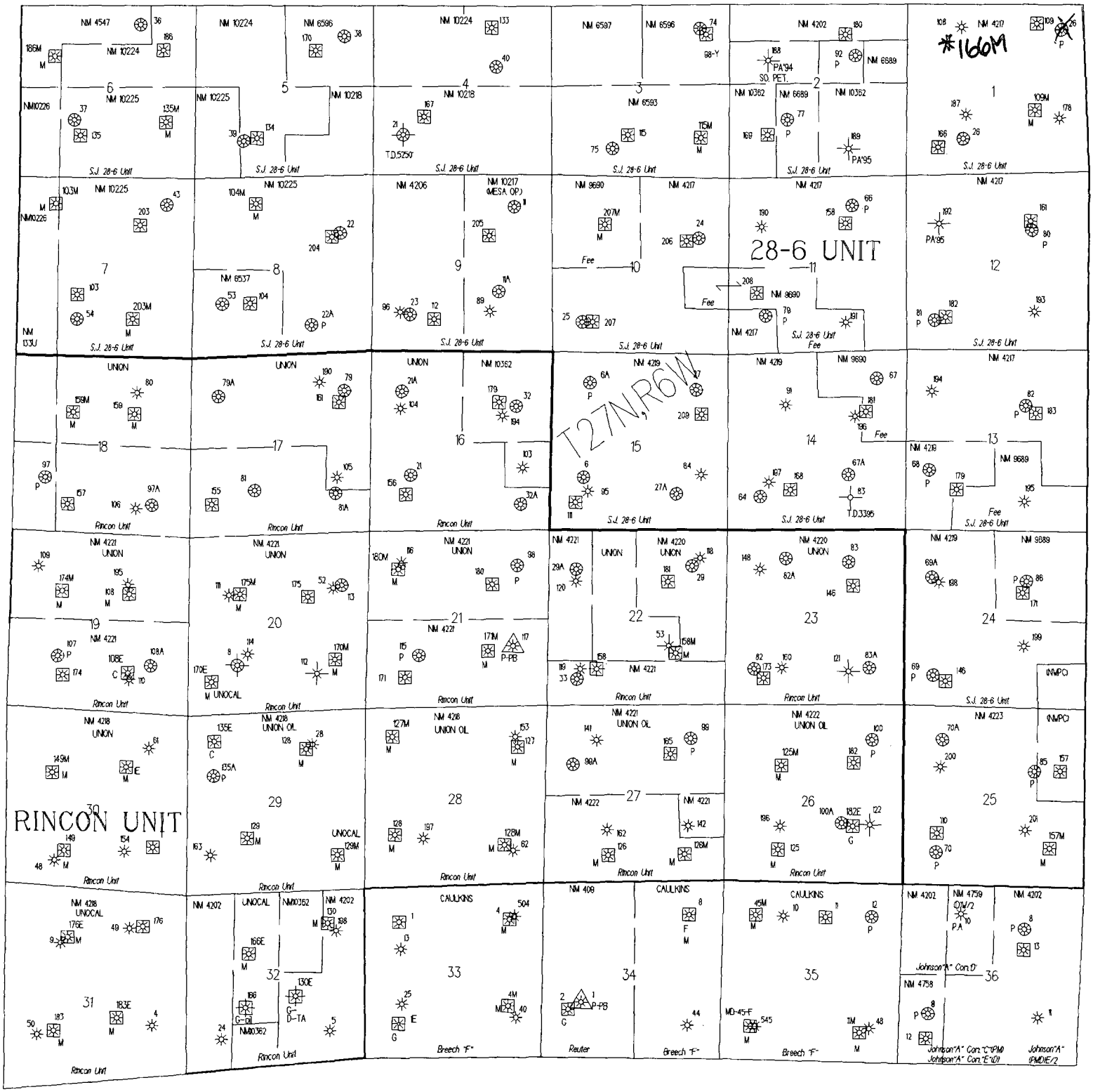
Dakota Offset

Page No.: 1
Print Time: Fri Oct 17 15:18:58 1997
Property ID: 3996
Property Name: SAN JUAN 28-6 UNIT | 26 | 49514A-1
Table Name: K:\ARIES\RR98PDP\TEST.DBF

San Juan 28-6 Unit
#166M
Mesaverde offset

--DATE--	---CUM_GAS-- Mcf	M_SIWHP Psi	
07/07/55	0	1085.0	- original
07/19/55	0	1084.0	
06/14/59	51000	825.0	
06/14/60	92000	773.0	
06/13/61	142000	695.0	
06/04/62	185000	665.0	
05/06/63	222000	658.0	
04/22/64	259000	656.0	
05/03/65	298000	674.0	
06/07/66	328000	728.0	
11/01/67	363000	759.0	
05/27/68	378000	752.0	
07/28/70	445750	700.0	
06/21/71	477810	665.0	
06/07/72	511000	622.0	
08/11/72	518517	632.0	
08/29/73	557673	600.0	
07/15/74	590725	615.0	
08/16/76	652288	476.0	
05/02/78	683304	530.0	
04/18/86	787820	612.0	
06/27/89	837398	522.0	
07/30/91	861346	578.0	
08/27/91	862850	590.0	- current

San Juan 28-6 Unit #166M
Blanco Mesaverde / Basin Dakota
27N-06W-01C



50R

0.1	1	10	100	-OIL
1	10	100	1000	-WATER/GAS
1	10	100	1000	-GAS

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:

c) establish a "reference case" whereby the Division utilizes the data presented in the immediate case to endorse or approve certain methods of allocating production whereby the applicant need not submit additional data or justification when proposing a certain method of allocating production on Form C-107-A's subsequently filed for wells within the San Juan 28-6 Unit; and,

d) establish a "reference case" or an administrative procedure for authorizing the downhole commingling of existing or future drilled wells within the San Juan 28-6 Unit without additional notice to each affected interest owner as required by Division Rule No. 303.D.

(7) In support of its request to except marginal economic criteria, the applicant presented geologic and engineering evidence and testimony which indicates that within the San Juan 28-6 Unit:

a) the structure and thickness of the Dakota and Pictured Cliffs formations are very consistent;

b) the average recoverable Dakota and Pictured Cliffs gas reserves underlying an undeveloped drill block are approximately 449 MMCFG and 186 MMCFG, respectively;

c) the average initial producing rate for a newly drilled or recompleted Dakota and Pictured Cliffs gas well is approximately 254 MCFGD and 216 MCFGD, respectively; and,

d) the estimated ultimate gas recoveries and initial producing rates from the Dakota and Pictured Cliffs formations are insufficient to justify drilling stand alone wells and/or dually completed wells to recover such gas reserves.

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

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

c) providing notice to each interest owner within the San Juan 28-6 Unit of subsequent downhole commingling 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.