DATE IN 1/27/98	SUSPENSE 2/16/98	ENGINEER DC	LOGGED KV	TYPE DHC

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1818

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
JAN 27 1998
OIL CONSERVATION DIVISION

[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	1/26/98
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 87505-6429

APPLICATION FOR DOWNHOLE COMMINGLING

Form C-107-A
New 3-12-96

APPROVAL PROCESS :
_X_ Administrative ___Hearing

EXISTING WELLBORE
__ YES __x_ NO

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

San Juan 28-6 Unit	169M	I 2-27N-06W	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. 30-039-25703 Federal ___x__ , State __x____, (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. 734 psi (see attachment)	a.	a. 1116 psi (see attachment)
	(Original) b. 1238 psi (see attachment)	b.	b. 3209 psi (see attachment)
6. Oil Gravity (□API) or Gas BTU Content	BTU 1204		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). ___Reference Order ____R-10696___ attached

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: 1/26/98

TYPE OR PRINT NAME Sean 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-1
Revised February 21, 19
Instructions on ba
Submit to Appropriate District Offi
State Lease - 4 Cop
Fee Lease - 3 Cop

☐ AMENDED REPOI

WELL LOCATION AND ACREAGE DEDICATION PLAT

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

Property Code	Property Name	Well Number
7462	San Juan 28-6 Unit	169M

OGRID No.	Operator Name	Elevation
14538	BURLINGTON RESOURCES OIL & GAS COMPANY	6508'

Surface Location

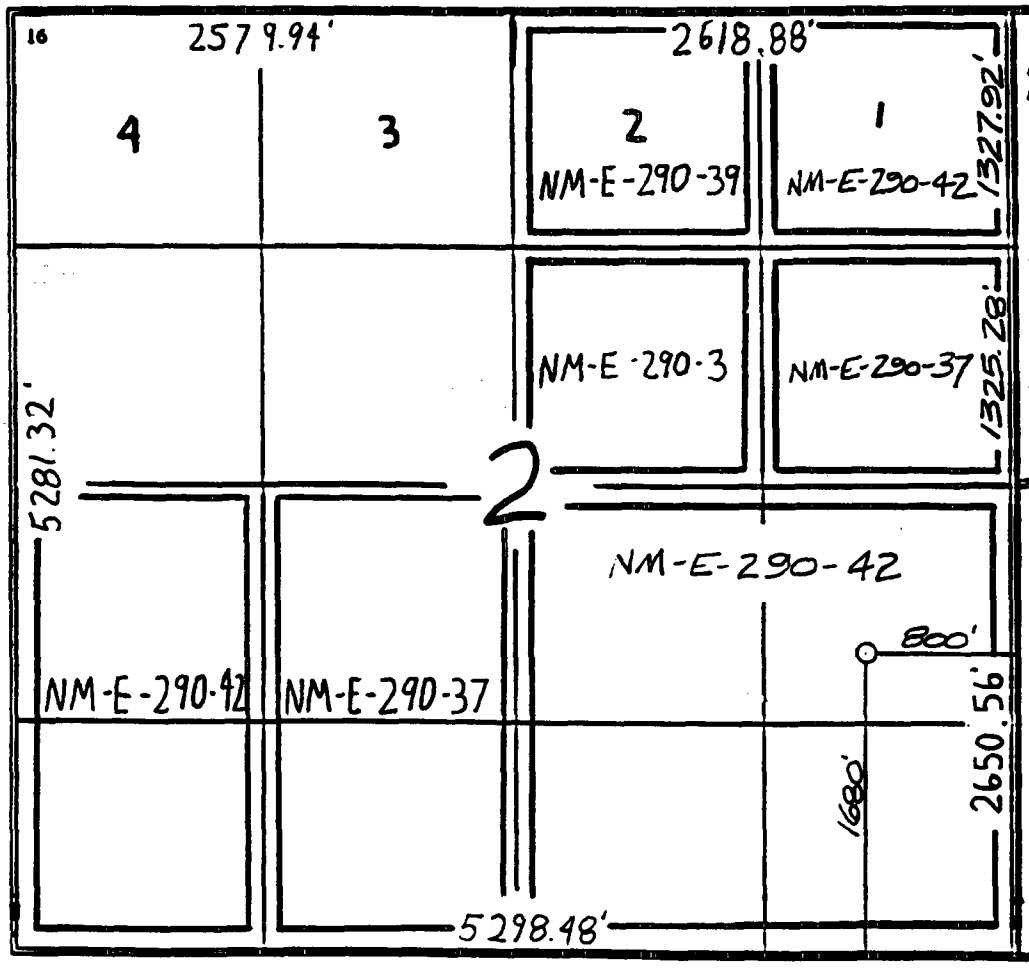
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	2	27	6		1680	South	800	East	R.A.

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	Joint or Infill	Consolidation Code	Order No.
MV-E/320.32 DK-S/320			

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



17 OPERATOR CERTIFICATIO

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

Signature
Peggy Bradfield
Printed Name
Regulatory Administrator
Title
Date

18 SURVEYOR CERTIFICATIO

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

5/23/97
Date of Survey

Signature and Seal of Professional Surveyor

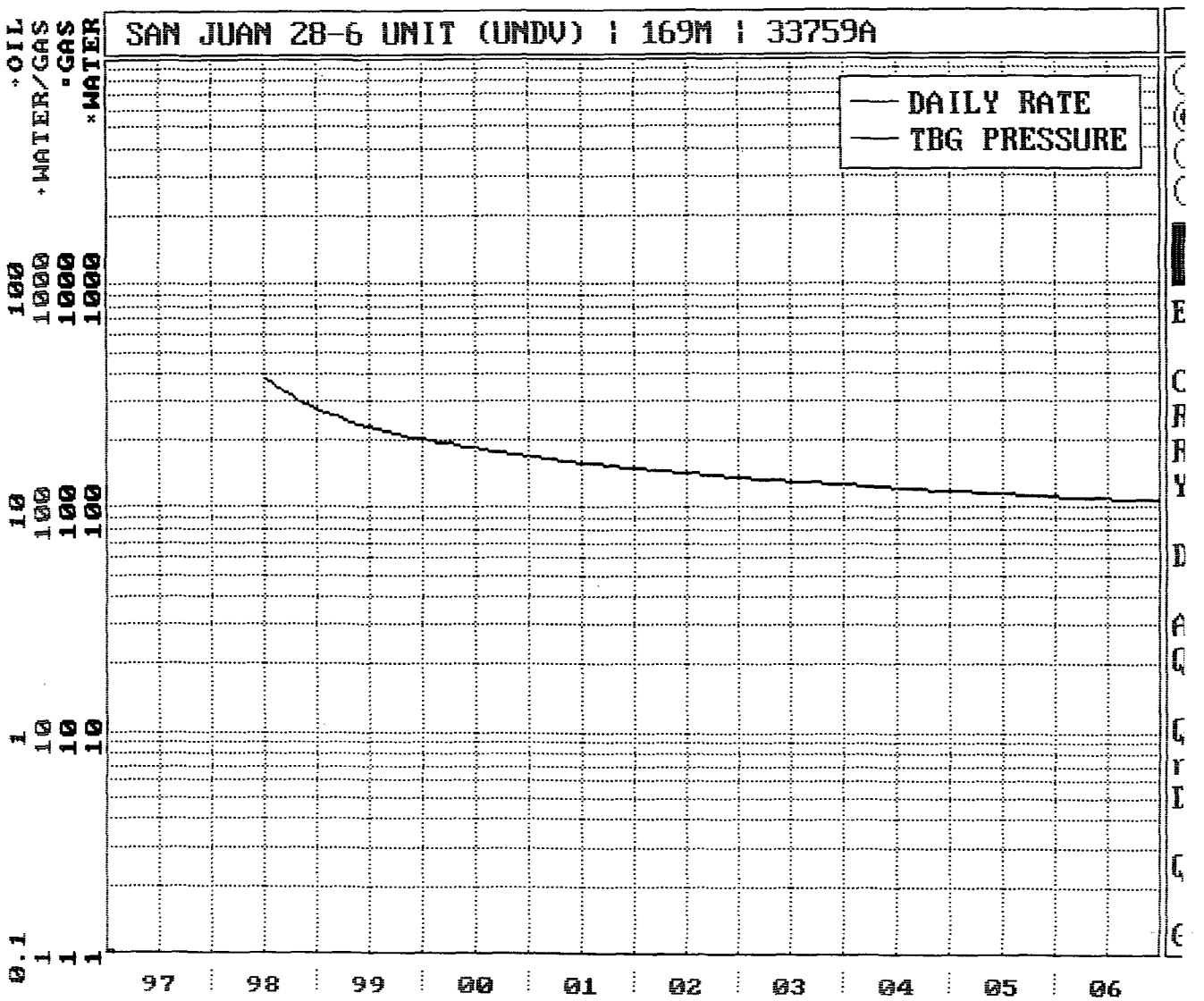
NEALE C. EDWARDS
NEW MEXICO
6857
REGISTERED PROFESSIONAL SURVEYOR

6857
Certificate Number

San Juan 28-6 Unit #169M

Expected Production Curve

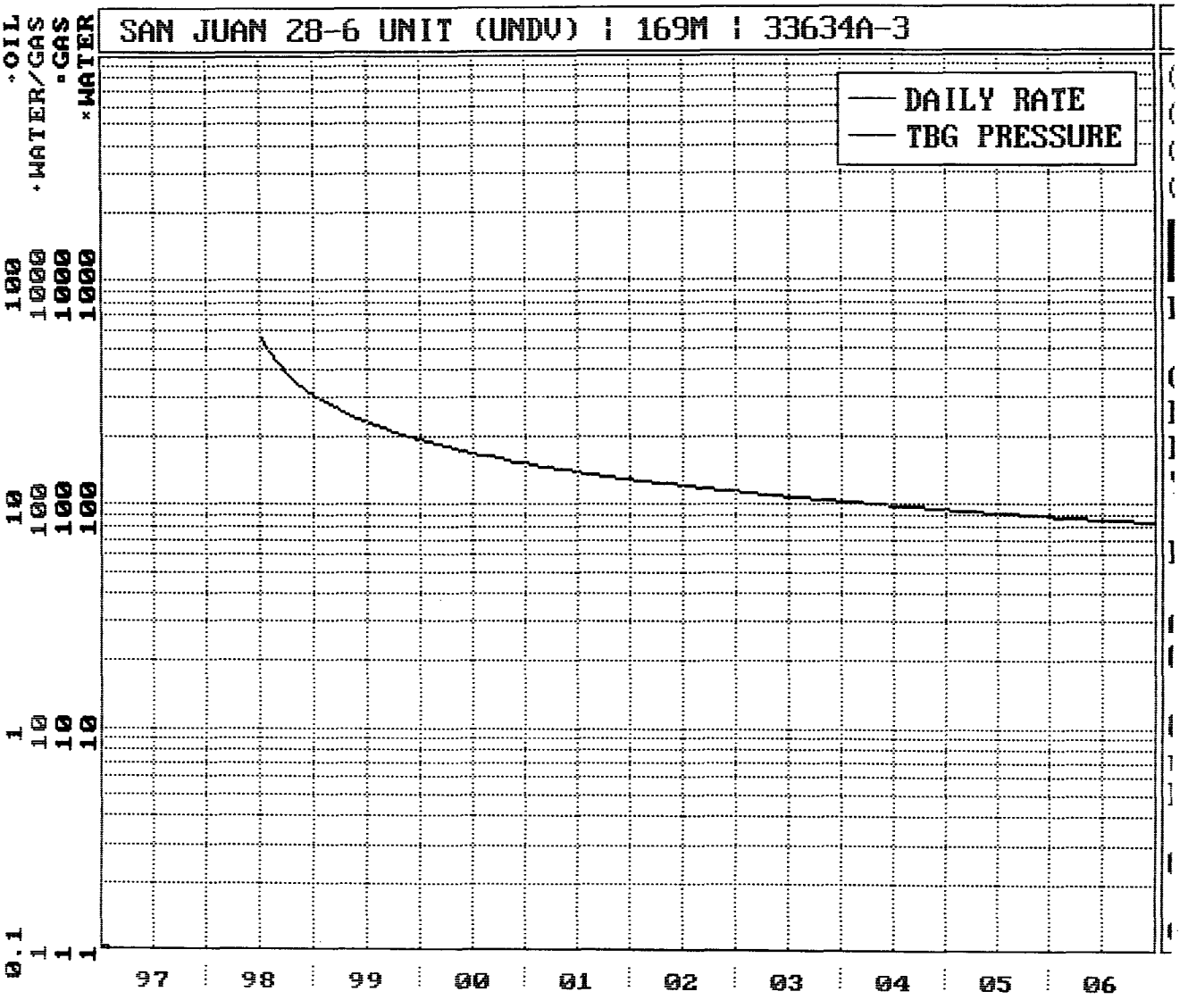
Blanco Mesaverde



San Juan 28-6 Unit #169M

Expected Production Curve

Basin Dakota



SJ 28-6 Unit #169M

Bottom Hole Pressures

Flowing and Static BHP

Cullender and Smith Method

Version 1.0 3/13/94

Mesaverde

MV-Current

GAS GRAVITY	0.706
COND. OR MISC. (C/M)	C
%N2	0.35
%CO2	0.79
%H2S	0
DIAMETER (IN)	2
DEPTH (FT)	5460
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	137
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	634
BOTTOMHOLE PRESSURE (PSIA)	733.5

MV-Original

GAS GRAVITY	0.706
COND. OR MISC. (C/M)	C
%N2	0.35
%CO2	0.79
%H2S	0
DIAMETER (IN)	2
DEPTH (FT)	5460
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	137
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1058
BOTTOMHOLE PRESSURE (PSIA)	1238.4

Dakota

DK-Current

GAS GRAVITY	0.603
COND. OR MISC. (C/M)	C
%N2	0.16
%CO2	1.46
%H2S	0
DIAMETER (IN)	1.5
DEPTH (FT)	7502
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	198
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	950
BOTTOMHOLE PRESSURE (PSIA)	1116.4

DK-Original

GAS GRAVITY	0.603
COND. OR MISC. (C/M)	C
%N2	0.16
%CO2	1.46
%H2S	0
DIAMETER (IN)	1.5
DEPTH (FT)	7502
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	198
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	2707
BOTTOMHOLE PRESSURE (PSIA)	3208.9

Page No.: 1
Print Time: Mon Jan 12 10:43:02 1998
Property ID: 4088
Property Name: SAN JUAN 28-6 UNIT | 92 | 53445B-1
Table Name: K:\ARIES\RR98PDP\TEST.DBF

San Juan 28-6 #169M

Mesaverde Offset

--DATE--	M_SIWHP Psi	
06/03/59	1058.0	-original
06/23/59	1057.0	
10/22/59	824.0	
06/14/60	770.0	
10/14/60	768.0	
12/20/61	775.0	
06/04/62	750.0	
10/21/63	730.0	
12/02/64	771.0	
05/03/65	640.0	
06/07/66	711.0	
05/25/67	701.0	
05/27/68	704.0	
07/28/70	668.0	
06/21/71	630.0	
06/07/72	632.0	
01/20/74	599.0	
11/20/74	599.0	
00/27/76	586.0	
00/27/76	586.0	
00/27/76	586.0	
10/27/76	586.0	
05/02/78	599.0	
04/18/86	612.0	
06/17/91	622.0	
08/01/91	634.0	-current

Print Time: Mon Jan 12 10:43:03 1998
Property ID: 1882
Property Name: SAN JUAN 28-6 UNIT | 180 | 44068A-1
Table Name: K:\ARIES\RR98PDP\TEST.DBF

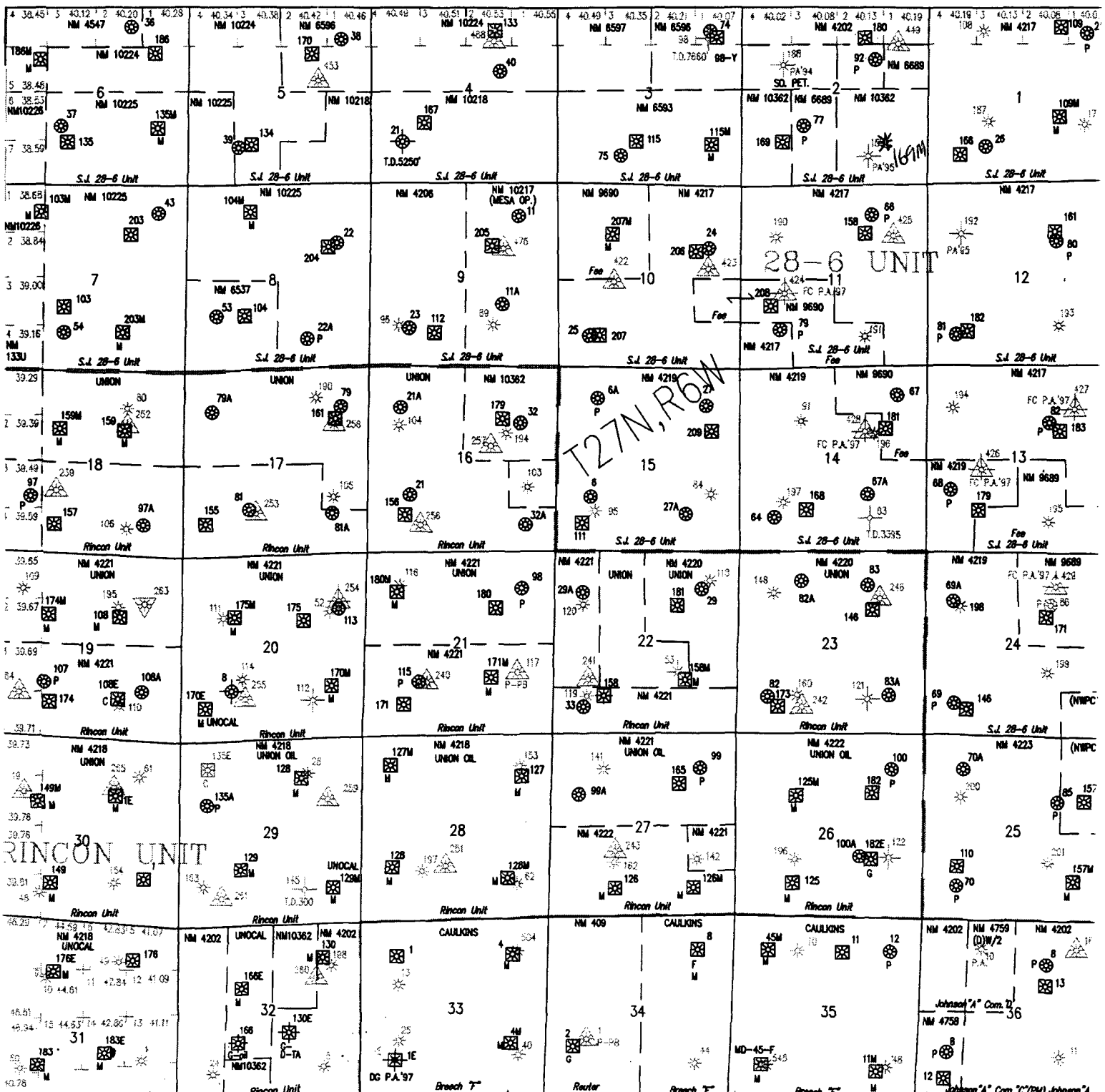
San Juan 28-6 #169M
Dakota Offset

--DATE--	M SIWHP Psi	
06/28/73	2707.0	- original
09/14/73	1662.0	
10/11/74	1262.0	
09/04/75	913.0	
00/27/76	826.0	
00/27/76	826.0	
00/27/76	826.0	
10/27/76	826.0	
02/12/78	849.0	
06/06/79	802.0	
11/04/81	849.0	
02/17/84	905.0	
05/20/85	912.0	
10/13/88	1250.0	
05/29/90	950.0	- current

San Juan 28-6 Unit #169M

Blanco Mesaverde / Basin Dakota

27N-06W-02



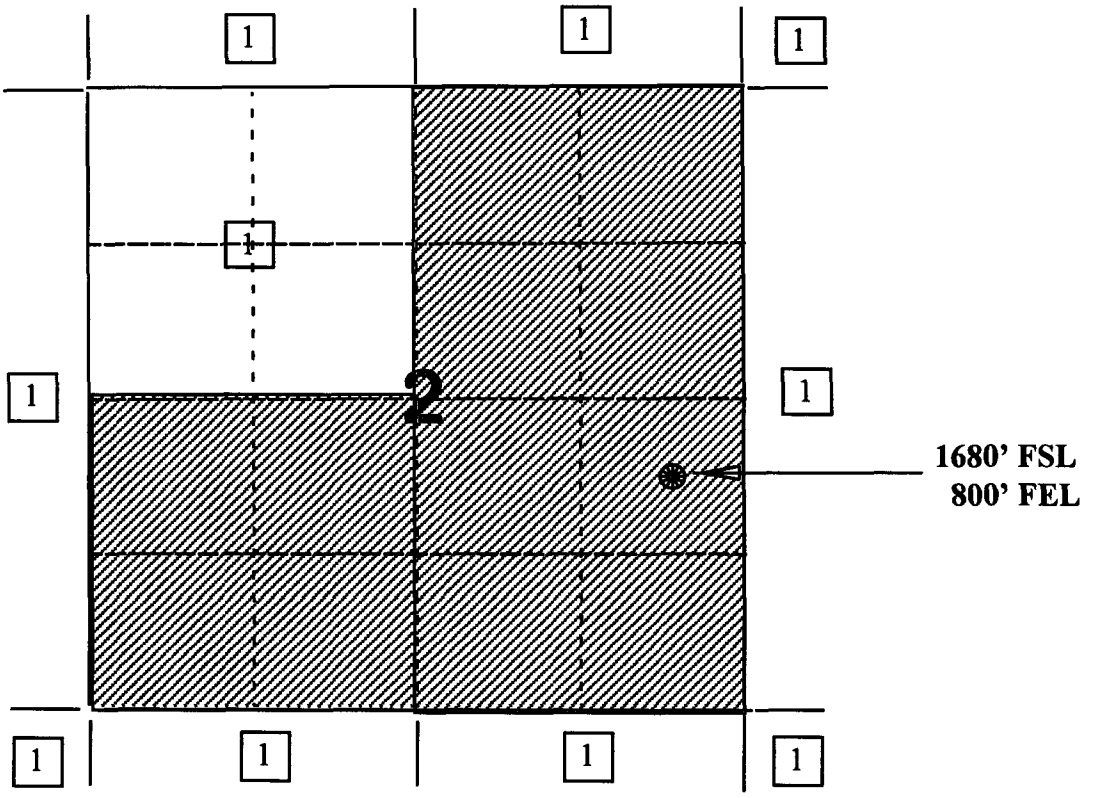
BURLINGTON RESOURCES OIL AND GAS COMPANY

San Juan 28-6 Unit #169M

OFFSET OPERATOR/OWNER PLAT

Mesaverde (E/2) /Dakota (S/2) Formations Commingle Well

Township 27 North, Range 6 West



1) Burlington Resources

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.