DATE IN 1/20/99	SUSPENSE 2/9/99	ENGINEER DC	LOGGED BY KV	TYPE DHC

ABOVE THIS LINE FOR DIVISION USE ONLY

2189

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

2040 South Pacheco, Santa Fe, NM 87505

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]

RECEIVED
JAN 20 1999
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] 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

[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
	Peggy Bradfield		

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
X__ YES ___ NO

Burlington Resources Oil and Gas PO Box 4289, Farmington, NM 87499

Operator | Address

San Juan 28-6 Unit	109M	J-1-27N-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. 30-039-25450 Federal __X_ __ , State _____, 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		Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	4918'-5821'		7480'-7665'
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	(Current) a. 724 psi (see attachment)		a. 877 psi (see attachment)
	(Original) b. 984 psi (see attachment)		b. 2221 psi (see attachment)
6. Oil Gravity (°API) or Gas BTU Content	BTU 1148		BTU 1082
7. Producing or Shut-In?	Producing		Producing
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: N/A Rates:
* If Producing, give data and oil/gas/water water of recent test (within 60 days)	Date: 11/1/98 Rates: 147 mcfd 0.0 bopd		Date: 11/1/98 Rates: 69 mcfd 0.0 bopd
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)	Will be supplied upon completion.		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? __Yes _ x_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 L. Tom Loveland TITLE Production Engineer DATE 1/18/99

TYPE OR PRINT NAME L. Tom Loveland 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-10
Revised February 21, 199
Instructions on bac
Submit to Appropriate District Offic
State Lease - 4 Copie
Fee Lease - 3 Copie

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

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

4 Property Code	5 Property Name	6 Well Number
	San Juan 28-6 Unit	109M

7 OGRID No.	8 Operator Name	9 Elevation
14538	MERIDIAN OIL INC.	6485'

10 Surface Location

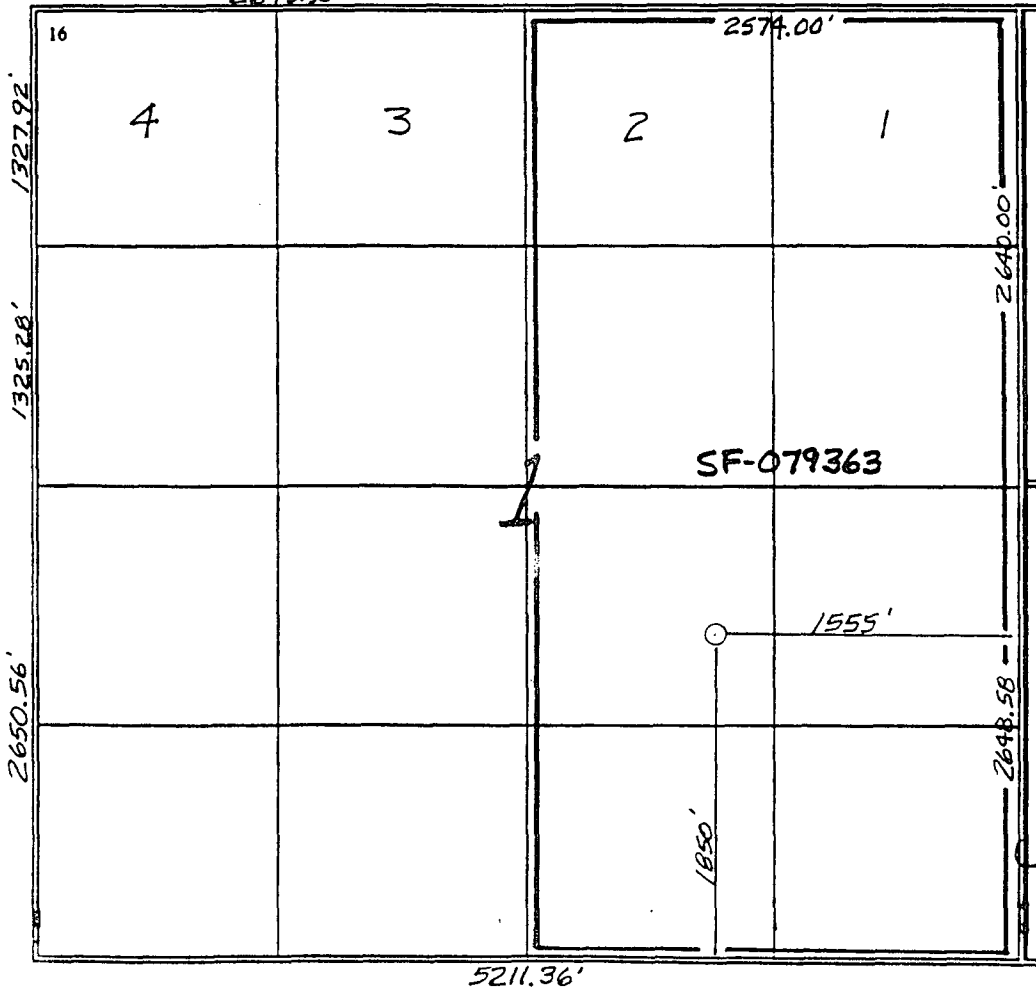
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	1	27 N	6 W		1850	South	1555	East	R.A.

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.
320/320	I		

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 CERTIFICATION

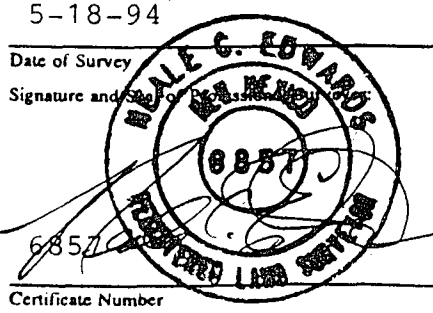
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Signature
Peggy Bradfield
Printed Name
Regulatory Representative
Title
Date

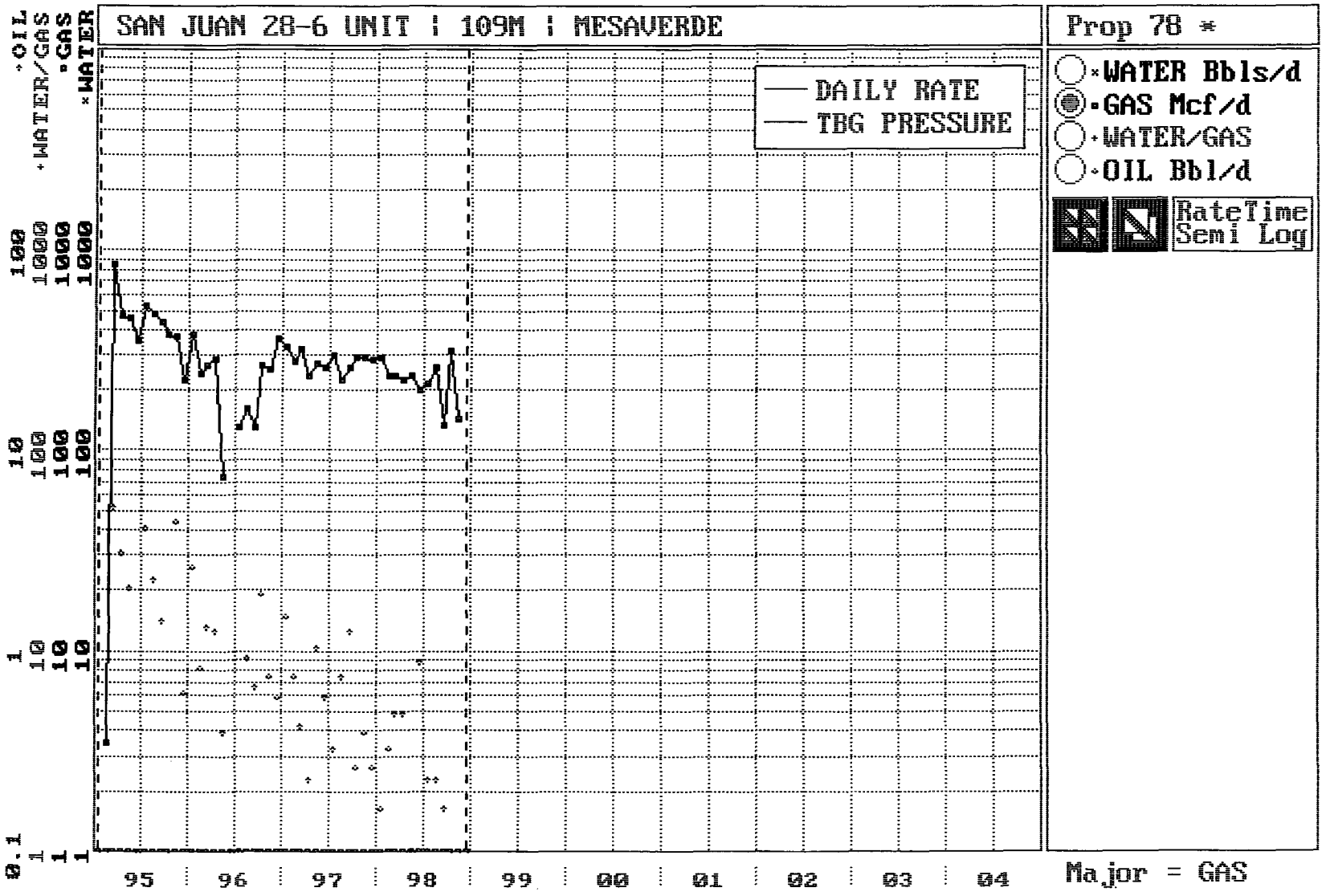
18 SURVEYOR CERTIFICATION

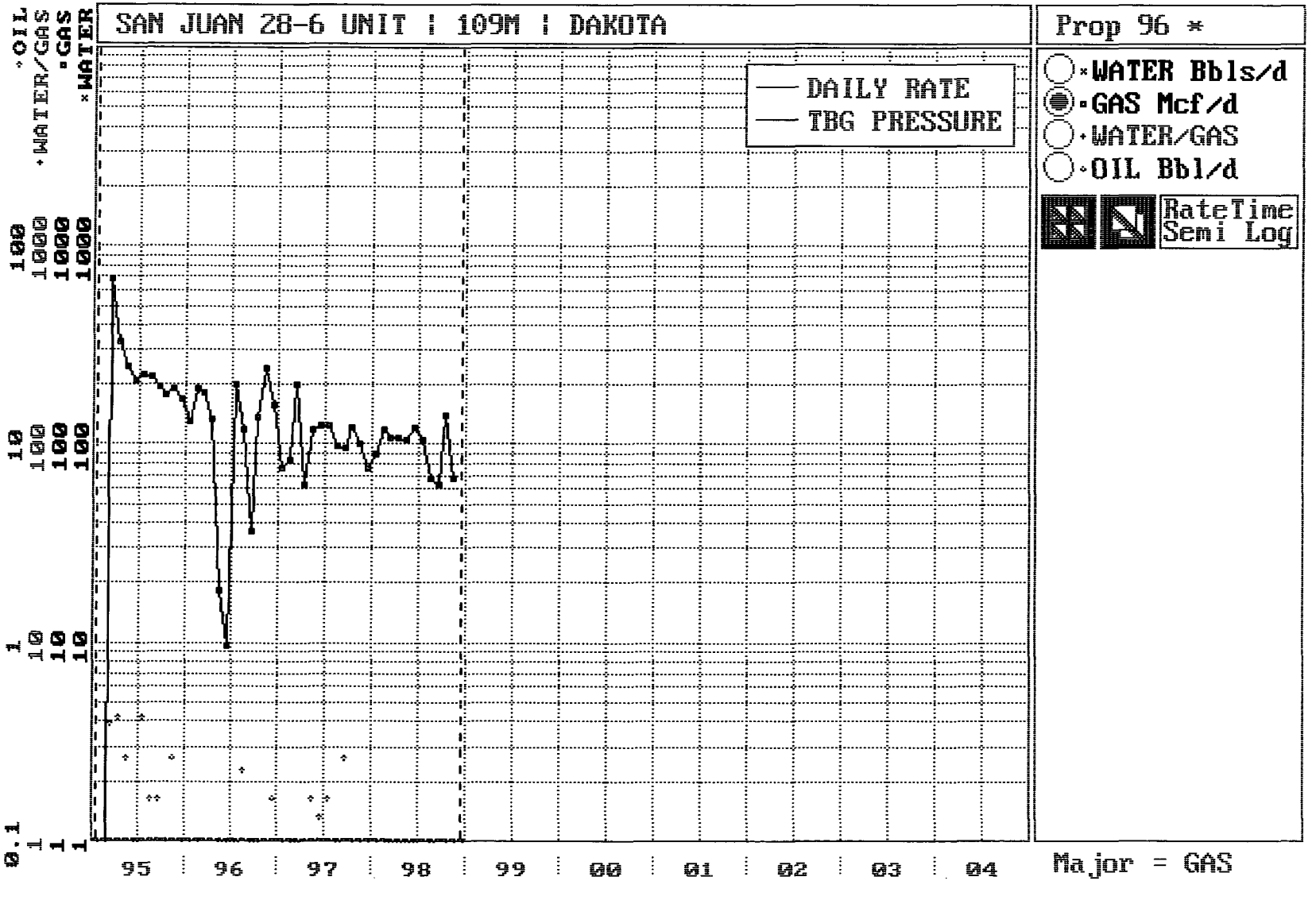
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

5-18-94
Date of Survey
Signature and Seal of Professional Surveyor:



6857
Certificate Number


SAN JUAN 28-6 UNIT : 109M : MESAVERDE
DAILY RATE
TBG PRESSURE
Prop 78 *
WATER Bbls/d
GAS Mcf/d
WATER/GAS
OIL Bbl/d
RateTime
Semi Log
OIL
WATER/GAS
GAS
WATER
95
96
97
98
99
00
01
02
03
04
Major = GAS


SAN JUAN 28-6 UNIT : 109M : DAKOTA
DAILY RATE
TBG PRESSURE
Prop 96 *
WATER Bbls/d
GAS Mcf/d
WATER/GAS
OIL Bbl/d
RateTime
Semi Log
OIL
WATER/GAS
GAS
WATER
100
1000
1000
10
100
100
1
10
10
0.1
1
1
95
96
97
98
99
00
01
02
03
04
Major = GAS

San Juan 28-6 Unit #109M
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method
Version 1.0 1/14/98

Mesaverde		Dakota	
MV-Current		**DK-Current**	
GAS GRAVITY	0.672	GAS GRAVITY	0.633
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.31	%N2	0.30
%CO2	0.92	%CO2	1.84
%H2S	0	%H2S	0
DIAMETER (IN)	7	DIAMETER (IN)	2.375
DEPTH (FT)	5370	DEPTH (FT)	7573
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	152	BOTTOMHOLE TEMPERATURE (DEG F)	182
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	634	SURFACE PRESSURE (PSIA)	739
BOTTOMHOLE PRESSURE (PSIA)	724.0	BOTTOMHOLE PRESSURE (PSIA)	877.1
MV-Original		**DK-Original**	
GAS GRAVITY	0.672	GAS GRAVITY	0.633
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.31	%N2	0.30
%CO2	0.92	%CO2	1.84
%H2S	0	%H2S	0
DIAMETER (IN)	7	DIAMETER (IN)	2.375
DEPTH (FT)	5370	DEPTH (FT)	7573
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	152	BOTTOMHOLE TEMPERATURE (DEG F)	182
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	858	SURFACE PRESSURE (PSIA)	1839
BOTTOMHOLE PRESSURE (PSIA)	984.3	BOTTOMHOLE PRESSURE (PSIA)	2220.7

Page No.: 1
Print Time: Thu Jan 07 16:30:54 1999
Property ID: 78
Property Name: SAN JUAN 28-6 UNIT | 109M | MESAVERDE
Table Name: S:\TLOVELAN\ARIES\99PROJ\TEST.DBF

--DATE--	--CUM_OIL- Bbl	---CUM_GAS-- Mcf	M_SIWHP Psi	
02/28/95		0	835.0	
04/03/95		1553	858.0	Original SIWHP

Page No.: 1
Print Time: Mon Jan 11 08:38:04 1999
Property ID: 1925
Property Name: SAN JUAN 28-6 UNIT | 78 | 53437B-1 MESAVERDE
Table Name: Q:\PUBLIC\GENTITY\GDPNOS\TEST.DBF

--DATE--	--CUM_OIL- Bbl	---CUM_GAS-- Mcf	M_SIWHP Psi
03/07/58		0	1109.0
07/30/58		0	1108.0
12/14/58		47000	831.0
06/14/59		77000	824.0
06/14/60		149000	662.0
12/14/60		186000	611.0
06/13/61		209000	630.0
06/04/62		254000	650.0
05/06/63		299000	629.0
04/22/64		337000	632.0
05/03/65		379000	634.0
06/07/66		421000	624.0
05/25/67		456000	602.0
05/27/68		486000	578.0
07/28/70		550935	575.0
06/22/71		580418	528.0
06/07/72		607674	514.0
08/16/76		704226	423.0
05/02/78		765901	379.0
07/02/80		846702	422.0
06/04/82		887511	452.0
04/18/86		951052	462.0
07/29/91		1027559	582.0
07/30/91		1027559	570.0

MESAVERDE

← Current SIWHP used for the BHP calculation. This data point was selected based on the location of this well as an offest well and the current cumalative production of the San Juan 28-6 Unit #109M as of November 1, 1998, being 395,797 MCF.

Print Time: Thu Jan 07 16:30:54 1999
Property ID: 96
Property Name: SAN JUAN 28-6 UNIT | 109M | DAKOTA
Table Name: S:\TLOVELAN\ARIES\99PROJ\TEST.DBF

--DATE--	--CUM_OIL- Bbl	---CUM_GAS-- Mcf	M_SIWHP Psi	
02/28/95	0		1839.0	Original SIWHP

Page No.: 1
Print Time: Thu Jan 07 16:26:13 1999
Property ID: 1476
Property Name: SAN JUAN 27-5 UNIT | 59M | 53392A-1 DAKOTA
Table Name: Q:\PUBLIC\GENTITY\GDPNOS\TEST.DBF

--DATE--	--CUM_OIL- Bbl	---CUM_GAS-- Mcf	M_SIWHP Psi
08/06/81		0	1731.0
02/23/82		33568	1246.0
06/04/82		70941	974.0
09/19/83		174401	546.0
11/18/85		303914	739.0
07/07/88		411865	702.0
04/24/90		490129	460.0
06/23/93		599036	640.0

DAKOTA

← Current SIWHP used for BHP calculation This pressure was selcted based on the location of this well as an offset well and the current cumalative production of the San Juan 28-6 Unit #109M as of November 1, 1998, being 200,695 MCF.

FARMINGTON 1998 MONTHLY PRODUCTION FOR 33749A PHS030M1
SAN JUAN 28-6 UNIT 109M
BLANCO MESAVERDE (PRORATED GAS FIELD MESAVERDE ZONE

			DAYS		OIL			GAS						
MO	T	S	ON	PC	PROD	GRV	PC	PROD	ON	BTU	PRESS	WATER PROD	C
1	2	F	31	02	5		01	8995	31	1159	15.025		
2	2	F	28	02	10		01	7165	28	1159	15.025		
3	2	F	31	02	15		01	7187	31	1159	15.025		
4	2	F	30	02	15		01	6819	30	1148	15.025		
5	2	F	31	02			01	7162	31	1148	15.025		
6	2	F	29	02	27		01	6120	29	1148	15.025		
7	2	F	31	02	7		01	6492	31	1148	15.025		
8	2	F	31	02	7		01	7939	31	1148	15.025		
9	2	F	30	02	5		01	4073	30	1148	15.025		
10	2	F	31	02	3		01	9620	31	1148	15.025		
11	2	F			0		01	4399	30	1148	15.025		
12					0 bopd			4399÷30 = 146.6 mcf/d					

PF6 - RETURNS TO ANNUAL DISPLAY PF3 - TRANSFER TO UPDATE
PF10 - HELP INFORMATION PF9 - DISPLAY MONTHLY INJECTION
00/00/00 00:00:00:0 PRS 01/06/99

FARMINGTON 1998 MONTHLY PRODUCTION FOR 33799A PHS030M1
SAN JUAN 28-6 UNIT 109M
BASIN DAKOTA (PRORATED GAS) FIELD DAKOTA ZONE

			DAYS		OIL			GAS						
MO	T	S	ON	PC	PROD	GRV	PC	PROD	ON	BTU	PRESS	WATER PROD	C
1	2	F	31	02	3		01	2759	31	1044	15.025		
2	2	F	28	02			01	3670	28	1044	15.025		
3	2	F	31	02			01	3316	31	1044	15.025		
4	2	F	30	02			01	3277	30	1082	15.025		
5	2	F	31	02			01	3214	31	1082	15.025		
6	2	F	29	02			01	3679	29	1082	15.025		
7	2	F	31	02	2		01	3193	31	1082	15.025		
8	2	F	31	02			01	2078	31	1082	15.025		
9	2	F	30	02	3		01	1900	30	1082	15.025		
10	2	F	31	02	3		01	4254	31	1082	15.025		
11	2	F			0		01	2060	30	1082	15.025		
12					0 bbpd			2060÷30 = 68.7 mcf/d					

PF6 - RETURNS TO ANNUAL DISPLAY PF3 - TRANSFER TO UPDATE
PF10 - HELP INFORMATION PF9 - DISPLAY MONTHLY INJECTION
00/00/00 00:00:00:0 PRS 01/06/99

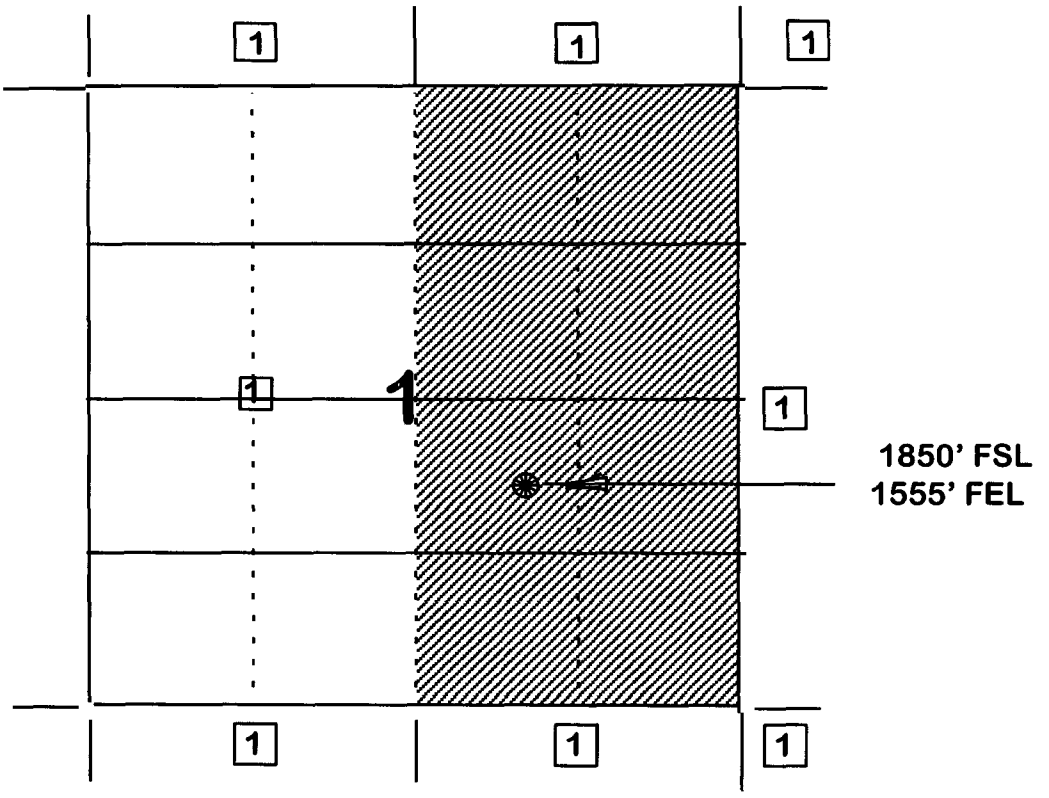
BURLINGTON RESOURCES OIL AND GAS COMPANY

OFFSET OPERATOR \ OWNER PLAT
San Juan 28-6 Unit #109M

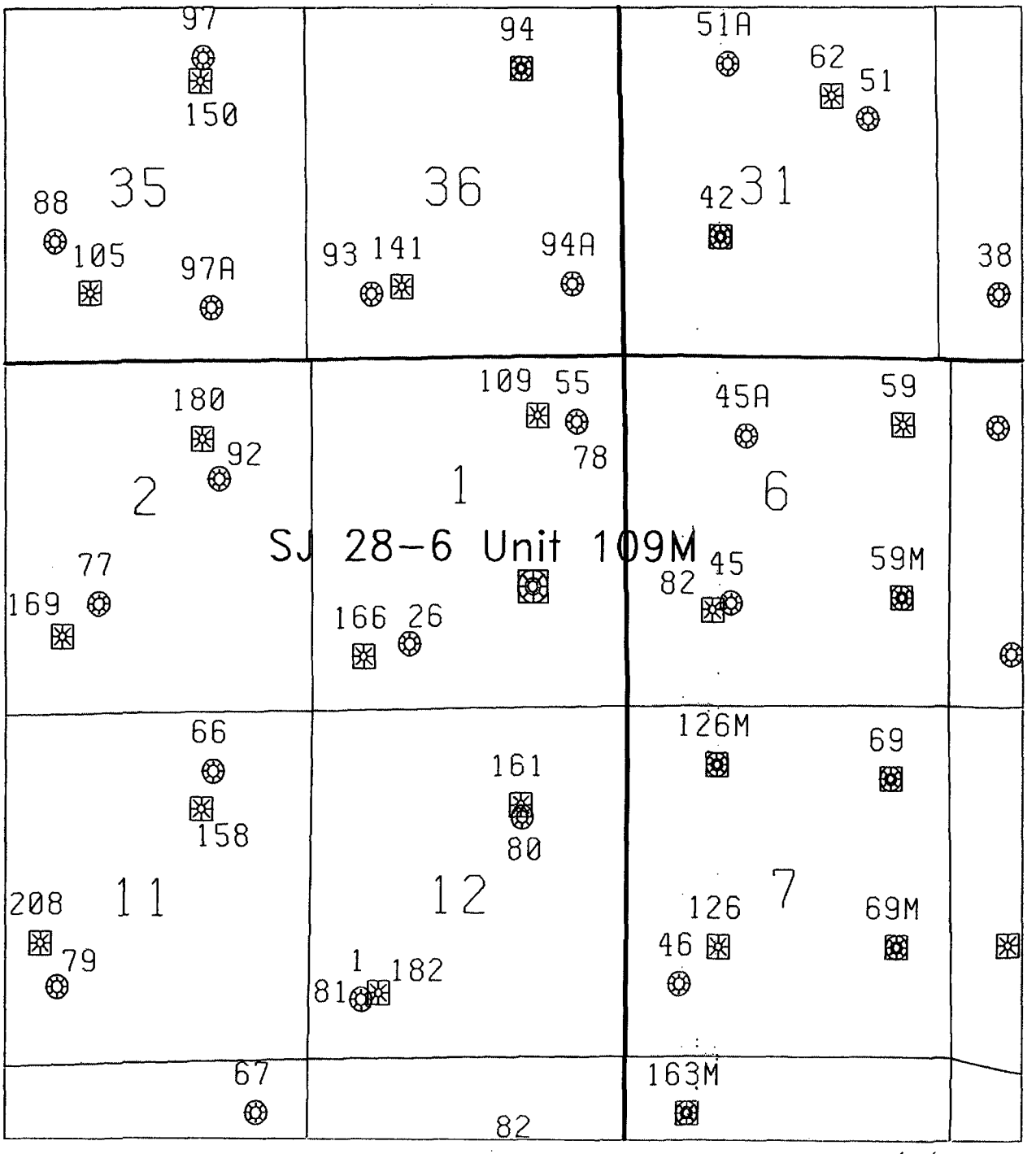
Mesaverde/Dakota Formations

Commingled well

Township 27 North, Range 6 West



1) Burlington Resources



plh 1/6/99

SJ 28-6 Unit 109M

Sec. 1, T 27N, R6W

Mesaverde/Dakota

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.