DHC 1/14/97

1443

BURLINGTON RESOURCES

SAN JUAN DIVISION

December 23, 1996

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

Re: San Juan 29-7 Unit #123
950'FSL, 1520'FEL Section 26, T-29-N, R-7-W, Rio Arriba County, NM
API #30-039-23620

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 well was originally drilled as a single Dakota and the Mesa Verde is being added.

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. Production curve for the Dakota for at least one year;
4. Notification list of offset operators - Burlington is the offset operator;
5. Shut in wellhead pressure and calculated down hole pressure;
6. Nine-section plats for the Mesa Verde and Dakota.

Notification of Mesa Verde and Dakota interest owners is covered under Order #R-10697 issued November 12, 1996.

As we discussed, we would like to amend our allocation method to a method approved by the District Office of the New Mexico Oil Conservation Division. This will afford us greater flexibility in determining the most accurate allocation formula. The following allocation formula is submitted to the District Office for approval: Mesa Verde -89% gas and 100% oil; Dakota -11% gas and 0% oil. These percentages are based on isolated flow tests from the Mesa Verde and Dakota during completion operations.

Please let me know if you require additional data.

Sincerely,

Peggy Bradfield
Regulatory/Compliance Administrator

encs.

3535 East 30th St., 87402-8891, 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

APPLICATION FOR DOWNHOLE COMMINGLING

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

APPROVAL PROCESS :
_X_ Administrative ___Hearing

EXISTING WELLBORE
_X__ YES ___ NO

BURLINGTON RESOURCES (Operator) PO BOX 4289 FARMINGTON, NM 87499 (Address)

SAN JUAN 29-7 UNIT (Lease) 123 (Well No.) O-26 -29N-7W (Unit Ltr. - Sec - Twp - Rge) RIO ARRIBA (County)

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 014538 Property Code 7465 API NO. 30-039-23620 Federal _X_ , State _____, (and/or) Fee _X_

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)	Proposed: 4814'-5505'		7407'-7624'
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. 549 psi (see attachment)	a.	a. 1199 psi (see attachment)
	(Original) b. 1310 psi (see attachment)	b.	b. 3184psi (see attachment)
6. Oil Gravity (°API) or Gas BTU Content	BTU 1205		BTU 1054
7. Producing or Shut-In?	SHUT - IN		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: 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: 100 % Gas: 89 %	Oil: % Gas: %	Oil: 0 % Gas: 11 %

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). _____Order R-10697 _____

16. ATTACHMENTS:
* C-7.102 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 Peggy Bradfield TITLE Regulatory Administrator DATE 12-19-96

TYPE OR PRINT NAME Peggy Bradfield 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-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code	³ Pool Name
30-039-23620	72319/71599	Blanco Mesaverde/Basin Dakota

⁴ Property Code	⁵ Property Name	⁶ Well Number
7465	San Juan 29-7 Unit	123

⁷ OGRID No.	⁸ Operator Name	⁹ Elevation
14538	BURLINGTON RESOURCES OIL & GAS COMPANY	6360'

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
O	26	29-N	7-W		950	South	1520	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.
E/320 E/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

16

Not resurveyed, prepared from a plat by Fred B. Kerr, Jr. dated 8-1-79.

26

1520'

950'

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 Administrator
Title
11-5-96
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.

11/04/96
Date of Survey

Signature and Seal of Professional Surveyor

NEALE C. EDWARDS
NEW MEXICO
6857
REGISTERED PROFESSIONAL SURVEYOR

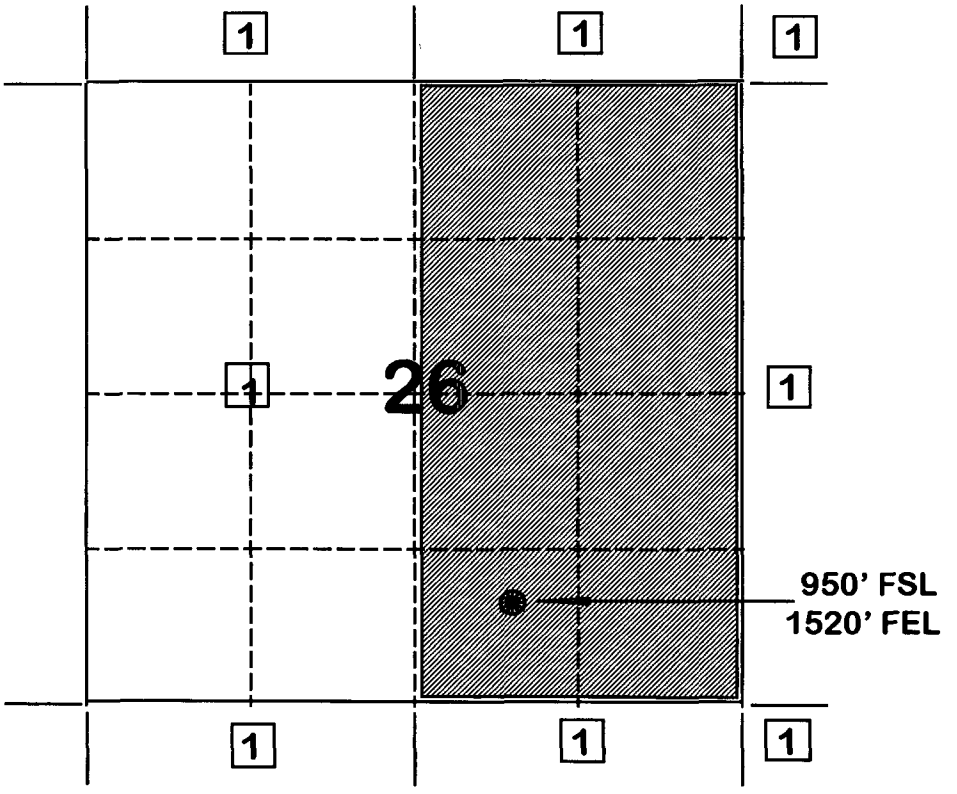
Certificate Number

BURLINGTON RESOURCES OIL AND GAS COMPANY

San Juan 29-7 Unit #123
OFFSET OPERATOR \ OWNER PLAT

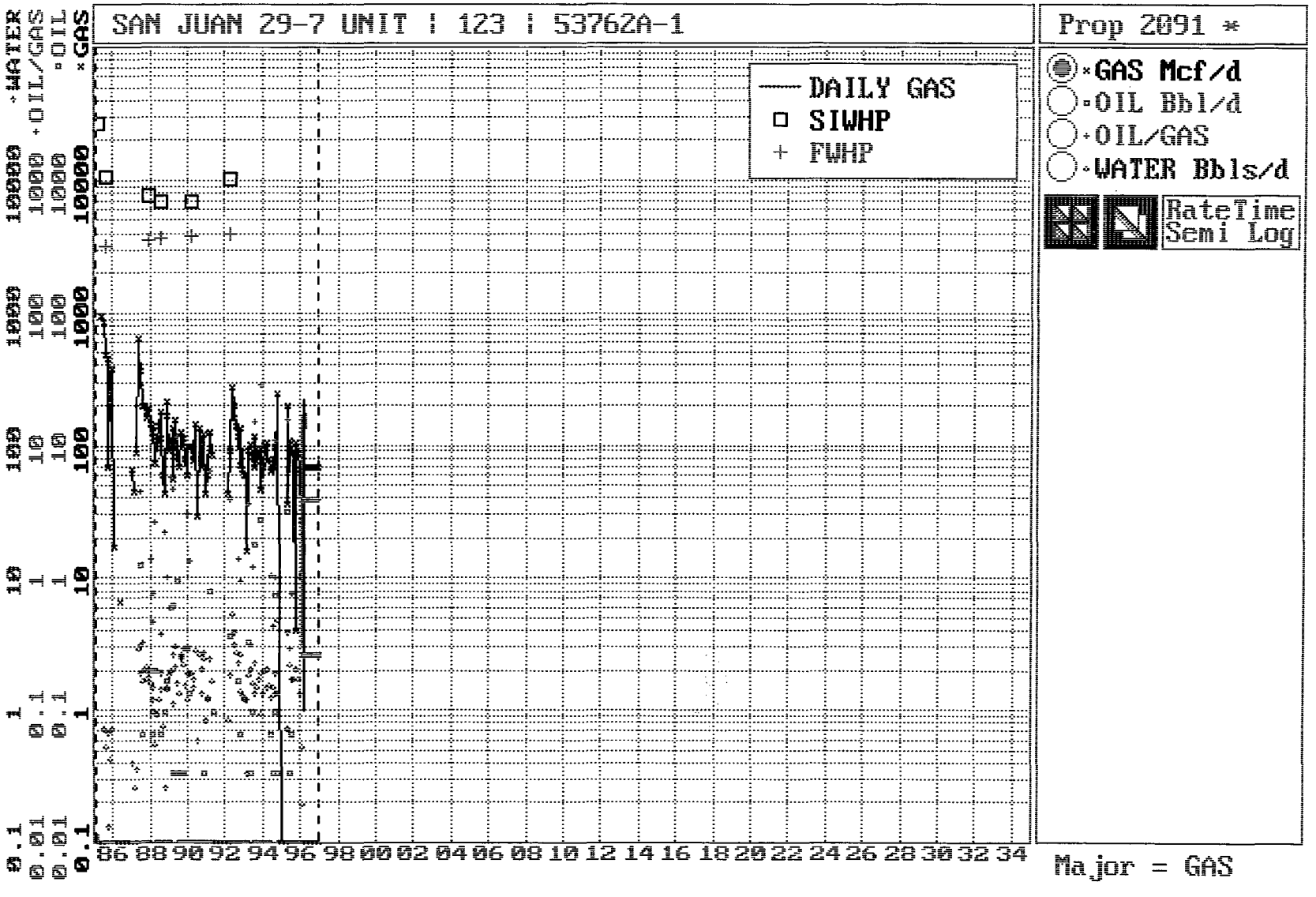
Mesaverde/Dakota Formations Commingle Well

Township 29 North, Range 7 West



1) Burlington Resources Oil and Gas Company Successor to Meridian Oil Inc.

DAKOTA


SAN JUAN 29-7 UNIT | 123 | 53762A-1
Prop 2091 *
DAILY GAS
SIWHP
FWHP
*GAS Mcf/d
OIL Bbl/d
OIL/GAS
WATER Bbls/d
RateTime
Semi Log
*WATER
OIL/GAS
OIL
*GAS
100000
10000
1000
100
10
1
0.1
0.01
1000
100
10
1
0.1
0.01
10000
1000
100
10
1
0.1
86 88 90 92 94 96 98 00 02 04 06 08 10 12 14 16 18 20 22 24 26 28 30 32 34
Major = GAS

FLOWING AND STATIC BHP
CULLENDER AND SMITH METHOD
VERSION 1.0 3/13/94

GAS GRAVITY	**0.708**
COND. OR MISC. (C/M)	**C**
%N2	**0.22**
%CO2	**0.94**
%H2S	**0**
DIAMETER (IN)	**2**
DEPTH (FT)	**5468**
SURFACE TEMPERATURE (DEG F)	**60**
BOTTOMHOLE TEMPERATURE (DEG F)	**150**
FLOWRATE (MCFPD)	**0**
SURFACE PRESSURE (PSIA)	**477**
BOTTOMHOLE PRESSURE (PSIA)	548.7

SAN JUAN 29-7 UNIT #58 MESAVERDE - CURRENT

FLOWING AND STATIC BHP
CULLENDER AND SMITH METHOD
VERSION 1.0 3/13/94

GAS GRAVITY	**0.708**
COND. OR MISC. (C/M)	**C**
%N2	**0.22**
%CO2	**0.94**
%H2S	**0**
DIAMETER (IN)	**2**
DEPTH (FT)	**5468**
SURFACE TEMPERATURE (DEG F)	**60**
BOTTOMHOLE TEMPERATURE (DEG F)	**150**
FLOWRATE (MCFPD)	**0**
SURFACE PRESSURE (PSIA)	**1119**
BOTTOMHOLE PRESSURE (PSIA)	1309.5

SAN JUAN 29-7 UNIT #58 MESAVERDE - ORIGINAL

Page No.: 1
Print Time: Tue Oct 15 16:04:57 1996
Property ID: 11085
Property Name: SAN JUAN 29-7 UNIT | 58 | 69655-1
Table Name: K:\ARIES\RR97PDP\TEST.DBF

--DATE--	---CUM_GAS-- Mcf	M_SIWHP Psi	
01/06/57	0	1119.0	← original
02/26/57	0	1118.0	
01/15/58	154000	808.0	
10/29/58	304000	723.0	
02/22/59	367000	734.0	
12/22/60	635000	653.0	
03/28/61	662000	690.0	
03/13/62	767000	696.0	
02/12/63	851000	710.0	
02/07/64	954000	676.0	
02/25/65	1066000	664.0	
02/28/66	1201000	630.0	
03/03/67	1324000	619.0	
03/05/68	1443000	610.0	
05/27/69	1586390	568.0	
08/18/70	1757283	587.0	
03/30/71	1819346	575.0	
06/12/72	1962122	529.0	
07/09/73	2118911	437.0	
08/21/74	2249996	444.0	
04/20/76	2429090	439.0	
05/16/78	2630938	468.0	
07/18/80	2810685	497.0	
05/19/82	2951746	484.0	
09/19/84	3099375	505.0	
09/03/86	3237007	460.0	
09/07/89	3425030	500.0	
02/18/91	3490190	530.0	
05/31/91	3500165	542.0	
05/03/93	3615698	477.0	← current

Mesaverde Parent of 29-7 # 123

FLOWING AND STATIC BHP
CULLENDER AND SMITH METHOD
VERSION 1.0 3/13/94

GAS GRAVITY	**0.619**
COND. OR MISC. (C/M)	**C**
%N2	**0.11**
%CO2	**1.55**
%H2S	**0**
DIAMETER (IN)	**1.5**
DEPTH (FT)	**7593**
SURFACE TEMPERATURE (DEG F)	**60**
BOTTOMHOLE TEMPERATURE (DEG F)	**200**
FLOWRATE (MCFPD)	**0**
SURFACE PRESSURE (PSIA)	**1012**
BOTTOMHOLE PRESSURE (PSIA)	1198.7

SAN JUAN 29-7 UNIT #123 DAKOTA-CURRENT

FLOWING AND STATIC BHP
CULLENDER AND SMITH METHOD
VERSION 1.0 3/13/94

GAS GRAVITY	**0.619**
COND. OR MISC. (C/M)	**C**
%N2	**0.11**
%CO2	**1.55**
%H2S	**0**
DIAMETER (IN)	**1.5**
DEPTH (FT)	**7593**
SURFACE TEMPERATURE (DEG F)	**60**
BOTTOMHOLE TEMPERATURE (DEG F)	**200**
FLOWRATE (MCFPD)	**0**
SURFACE PRESSURE (PSIA)	**2664**
BOTTOMHOLE PRESSURE (PSIA)	3184.3

SAN JUAN 29-7 UNIT #123 DAKOTA-ORIGINAL

Page No.: 1
Print Time: Tue Oct 15 16:02:56 1996
Property ID: 2091
Property Name: SAN JUAN 29-7 UNIT | 123 | 53762A-1
Table Name: K:\ARIES\RR97PDP\TEST.DBF

--DATE--	---CUM_GAS-- Mcf	M_SIWHP Psi	
03/19/85	0	2664.0	← original
08/12/85	70345	1082.0	
12/04/87	182407	772.0	
08/03/88	213774	702.0	
04/09/90	276156	692.0	
04/29/92	312880	1012.0	← current

Existing Dakota

PRODUCTION ALLOCATION FORMULA USING FLOW TEST INFORMATION AND ACTUAL PRODUCTION

San Juan 29-7 Unit #123
(Mesaverde/Dakota)Commingle
Unit O, 26-T29N-R07W
Rio Arriba County, New Mexico

Allocation Formula Method:

3 Hour Flow Test from Mesaverde and Dakota = 597 MCFD & 2.5 BO

Actual 1996 average Dakota production = 45 MCFD & 0 BO

GAS:

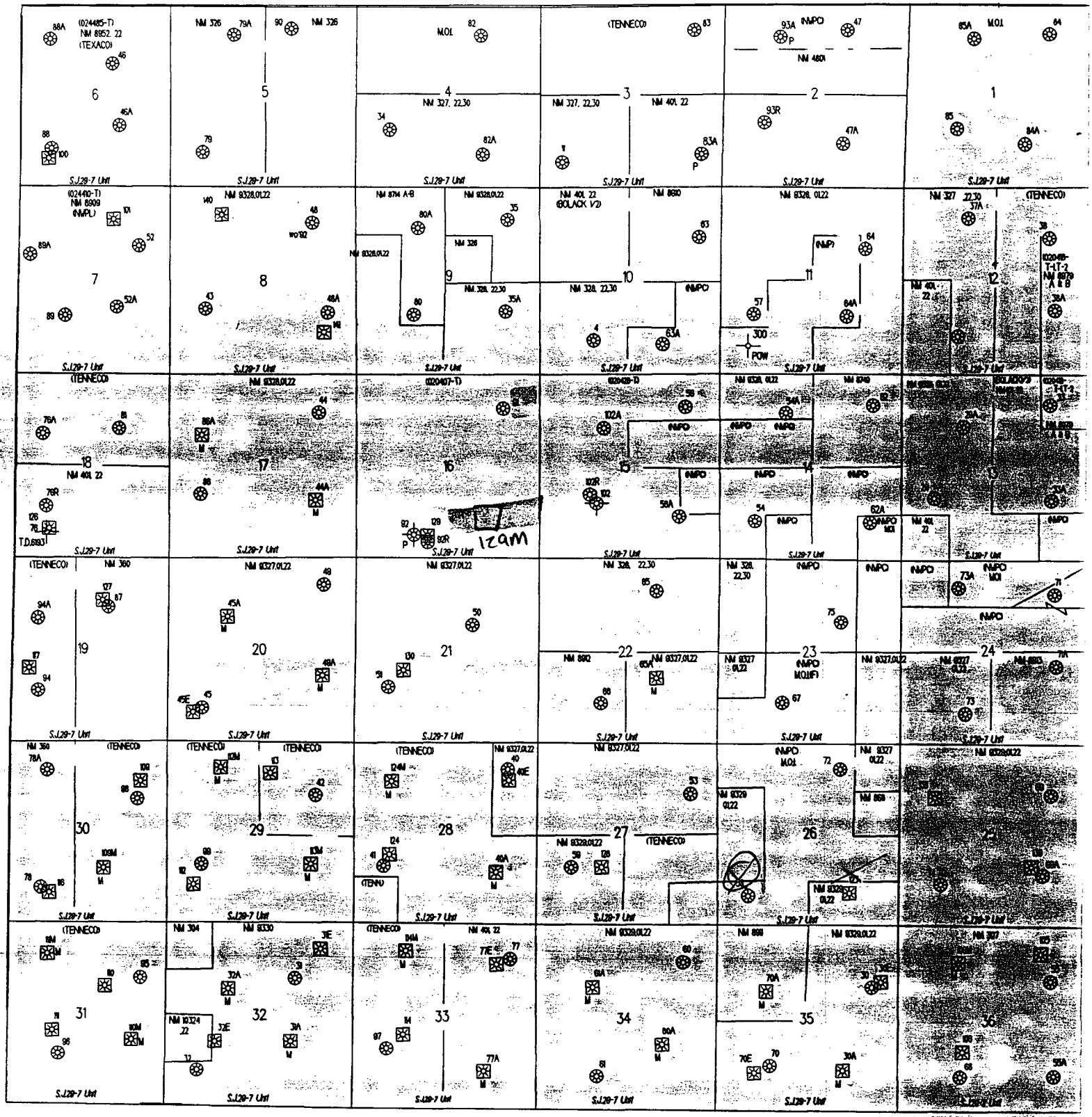
$$\frac{[(MV \,\&\, DK)\ 597\ MCFD - (DK)\ 68\ MCFD]}{(MV \,\&\, DK)\ 597\ MCFD} = (MV)\ \%$$ **Mesaverde 89%**

$$\frac{(DK)\ 68\ MCFD}{(MV \,\&\, DK)\ 597\ MCFD} = (DK)\ \%$$ **Dakota 11%**

OIL:

$$\frac{[(MV \,\&\, DK)\ 2.5\ BO - (DK)\ 0\ BO]}{(MV \,\&\, DK)\ 2.5\ BO} = (MV)\ \%$$ **Mesaverde 100%**

$$\frac{(DK)\ 0\ BO}{(MV \,\&\, DK)\ 2.5\ BO} = (DK)\ \%$$ **Dakota 0%**


SAN JUAN 29-7 UNIT
X - DK well to be recompleted
⊗ - MV offset