

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

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

BURLINGTON RESOURCES OIL & GAS COMPANY
OperatorPO Box 4289, Farmington, NM 87499
Address

Largo Federal

#1

K, Sec. 34, T29N, R09W

San Juan

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code API NO. 30-045-0764500 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	Blanco Mesa Verde		Basin Dakota
2. Top and Bottom of Pay Section (Perforations)	3809' - 4499'		6491' - 6694'
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: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated or Measured Original	(Current) a. 627 psia @ 4154' (Original) b. 1090 psia @ 4154'	a. b.	a. 482 psia @ 6593' b. 2405 psia @ 5745'
6. Oil Gravity ($^{\circ}$ API) or Gas BTU Content	1217 Btu		1196 Btu
7. Producing or Shut-In?	Producing		Producing
Production Marginal? (yes or no)	Yes		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: Rates:
* If Producing, give data and oil/gas/water of recent test (within 60 days)	Date: 7/31/98 Rates: 79 MCFD, 0.6 BOD, 0 BWD	Date: Rates:	Date: 7/31/98 Rates: 35 MCFD, 0 BOD, 0 BWD
8. Fixed Percentage Allocation Formula - % for each zone (total of %'s to equal 100%)	Oil: Gas: Will supply after commingling	Oil: Gas: Will supply after commingling	Oil: Gas: Will supply after commingling

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 ☐ No

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

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 Kevin L. Midkiff TITLE Operations Engineer DATE 9/25/98TYPE OR PRINT NAME Kevin L. Midkiff TELEPHONE NO. (505) 326-9700

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

SECTION A.

DATE APRIL 30, 1965

OPERATOR Southern Union Production Company LEASE FEDERAL LARGO
WELL NO. 1 UNIT LETTER K SECTION 34 TOWNSHIP 29 North RANGE 9 West NMPN
LOCATED 1450 FEET FROM South LINE, 1450 FEET FROM West LINE
COUNTY San Juan G. L. ELEVATION 5781 DEDICATED ACREAGE 320 ACRES
NAME OF PRODUCING FORMATION DAKOTA & MESAVARDE POOL Basin Dakota & Blanco Mesaverde

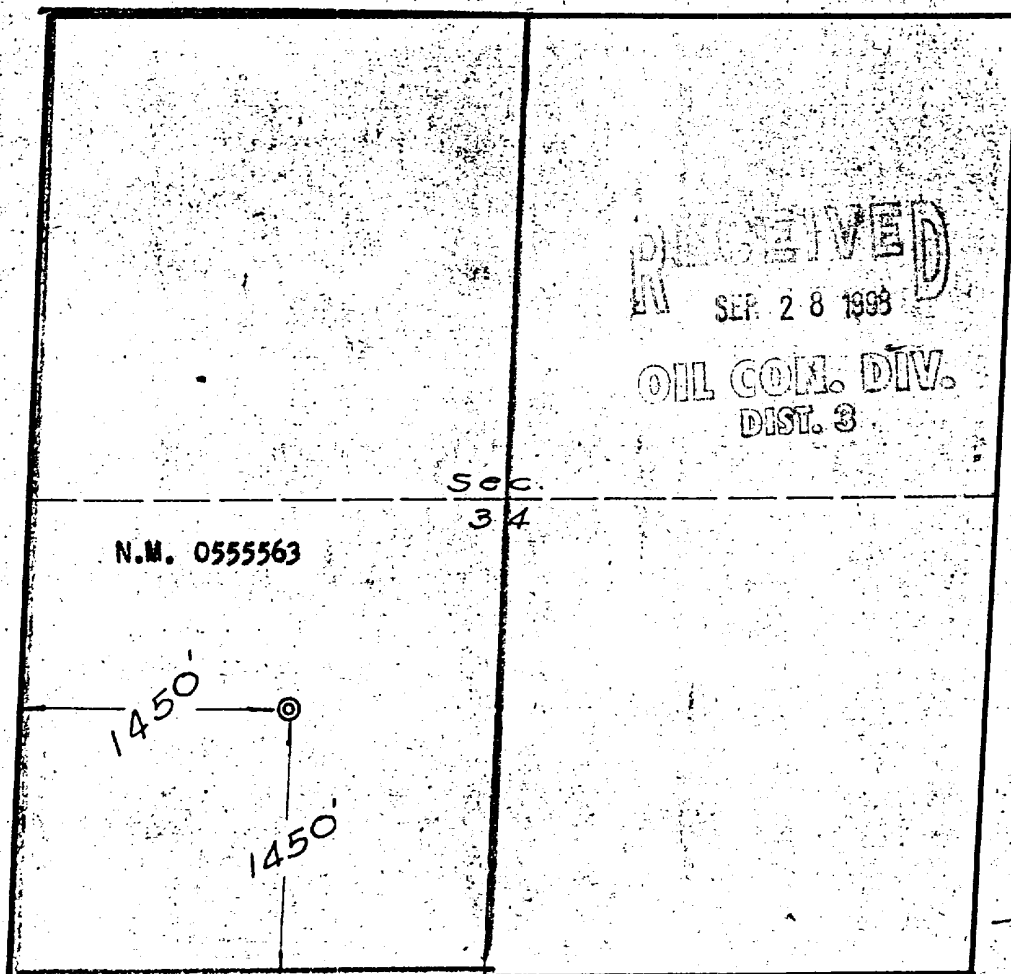
1. IS THE OPERATOR THE ONLY OWNER* IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES XX NO
2. IF THE ANSWER TO QUESTION ONE IS "NO," HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES NO IF ANSWER IS "YES," TYPE OF CONSOLIDATION

3. IF THE ANSWER TO QUESTION TWO IS "NO," LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

OWNER

LAND DESCRIPTION

SECTION B.



THIS IS TO CERTIFY THAT THE INFORMATION IN SECTION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

SOUTHERN UNION PRODUCTION CO.

(OPERATOR)

GILBERT D. NOLAND, JR.

P. O. Box 808
FARMINGTON, NEW MEXICO
(ADDRESS)

THIS IS TO CERTIFY THAT THE WELL LOCATION SHOWN ON THE PLAT IN SECTION B WAS PLOTTED FROM FIELD NOTES OF AERIAL SURVEYS MADE BY ME UNDER MY SUPERVISION AND THAT THE SAME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE SURVEYED April 29, 1965

FOUR STATES
ENGINEERING CO.

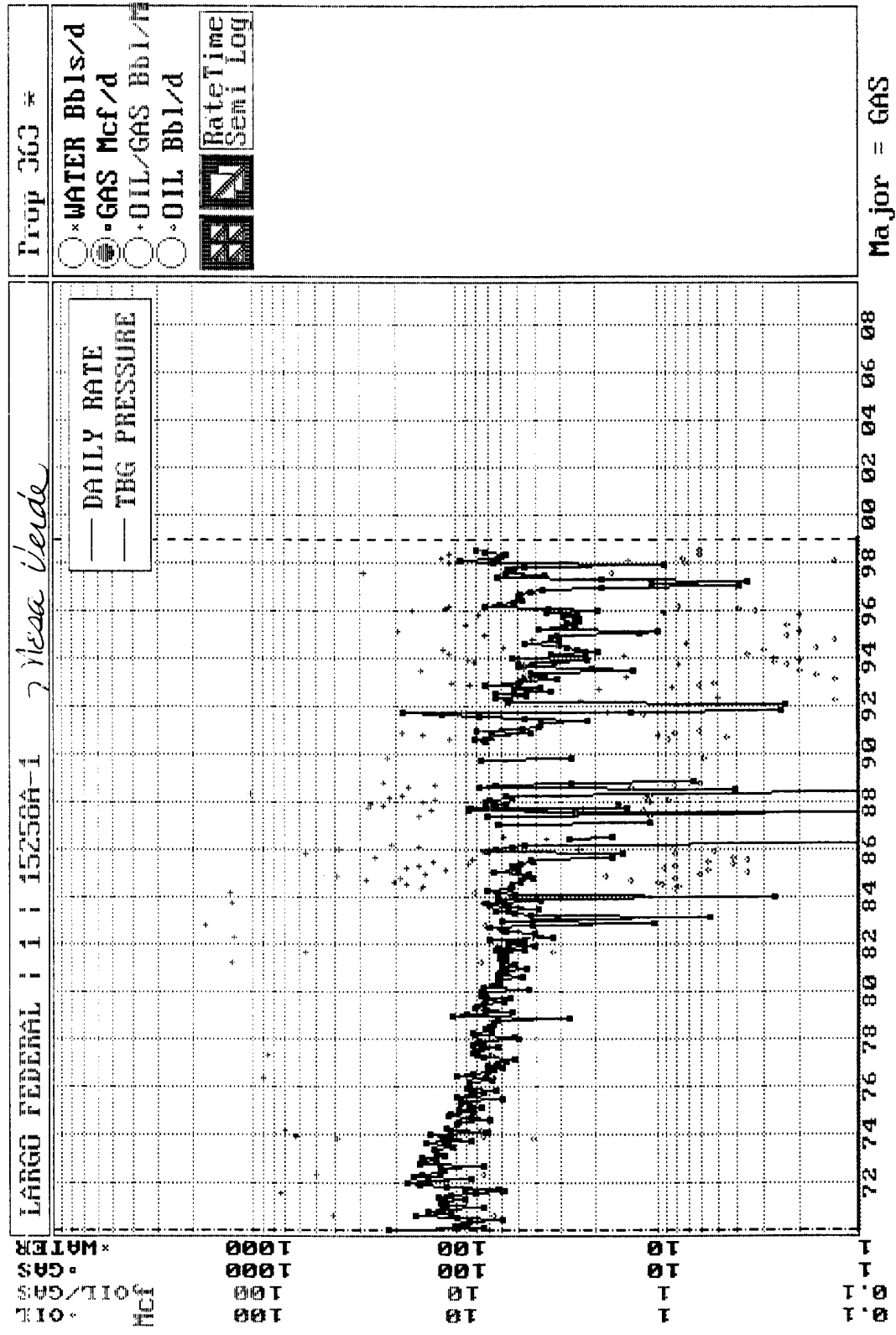
FARMINGTON, NEW MEXICO

Emmett A. Cochran
REGISTERED ENGINEER OR
LAND SURVEYOR

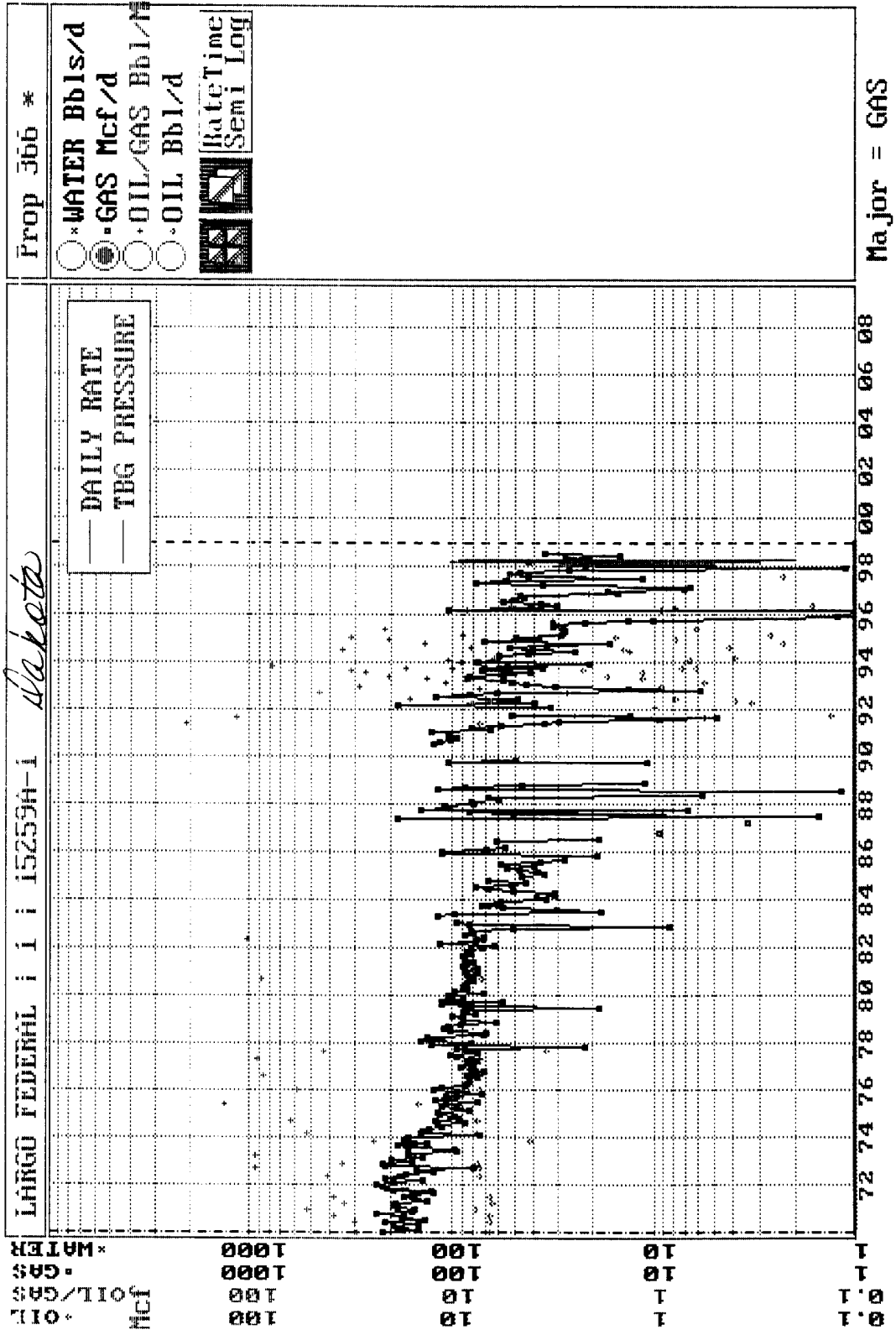
CERTIFICATE NO. 3602

Std. cor., U.S.G.L.O.
survey, 1916

Scale, 1" = 1000'



Major = GAS



Largo Federal #1
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method
Version 1.0 3/13/94

Mesaverde		Dakota	
<u>MV-Current</u>		<u>DK-Current</u>	
GAS GRAVITY	<u>0.727</u>	GAS GRAVITY	<u>0.727</u>
COND. OR MISC. (C/M)	<u>C</u>	COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0.35</u>	%N2	<u>0.40</u>
%CO2	<u>0.94</u>	%CO2	<u>0.98</u>
%H2S	<u>0</u>	%H2S	<u>0</u>
DIAMETER (IN)	<u>4.408</u>	DIAMETER (IN)	<u>4.408</u>
DEPTH (FT)	<u>4154</u>	DEPTH (FT)	<u>6593</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>	SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>124</u>	BOTTOMHOLE TEMPERATURE (DEG F)	<u>161</u>
FLOWRATE (MCFPD)	<u>0</u>	FLOWRATE (MCFPD)	<u>0</u>
SURFACE PRESSURE (PSIA)	<u>472</u>	SURFACE PRESSURE (PSIA)	<u>408</u>
BOTTOMHOLE PRESSURE (PSIA)	<u>526.8</u>	BOTTOMHOLE PRESSURE (PSIA)	<u>481.5</u>
<u>MV-Original</u>		<u>DK-Original</u>	
GAS GRAVITY	<u>0.727</u>	GAS GRAVITY	<u>0.727</u>
COND. OR MISC. (C/M)	<u>C</u>	COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0.35</u>	%N2	<u>0.40</u>
%CO2	<u>0.94</u>	%CO2	<u>0.98</u>
%H2S	<u>0</u>	%H2S	<u>0</u>
DIAMETER (IN)	<u>4.408</u>	DIAMETER (IN)	<u>4.408</u>
DEPTH (FT)	<u>4154</u>	DEPTH (FT)	<u>6593</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>	SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>124</u>	BOTTOMHOLE TEMPERATURE (DEG F)	<u>161</u>
FLOWRATE (MCFPD)	<u>0</u>	FLOWRATE (MCFPD)	<u>0</u>
SURFACE PRESSURE (PSIA)	<u>966</u>	SURFACE PRESSURE (PSIA)	<u>1965</u>
BOTTOMHOLE PRESSURE (PSIA)	<u>1090.4</u>	BOTTOMHOLE PRESSURE (PSIA)	<u>2404.7</u>

Page No.: 1
 Print Time: Tue Sep 15 16:49:33 1998
 Property ID: 363
 Property Name: LARGO FEDERAL | 1 | 15258A-1 *MESA VERDE*
 Table Name: S:\AF.IES\KLMWORK\TEST.DBF

<u>--DATE--</u>	<u>---CUM GAS---</u>	<u>M SIWHP</u>	
	Mcf	Psi	
05/31/65	0	954.0	<i>Original</i>
10/02/69	0	672.0	
05/11/72	285955	498.0	
09/09/74	380235	421.0	
05/25/76	432621	403.0	
03/29/78	480657	400.0	
05/21/80	535574	374.0	
05/24/82	576139	377.0	
06/08/84	613596	432.0	
04/08/86	641051	454.0	
07/08/91	692732	530.0	
09/17/91	704741	518.0	
<i>07/31/98</i>	<i>799863</i>	<i>460</i>	<i>Current Estimated from Pressure vs. Cumulative gas P</i>

Page No.: 1
 Print Time: Tue Sep 15 16:49:42 1998
 Property ID: 366
 Property Name: LARGO FEDERAL | 1 | 15259A-1
 Table Name: S:\ARIES\KLMWORK\TEST.DBF

--DATE--	---CUM GAS---	M SIWHP
	Mcf	Psi

05/31/65	0	1953.0	<i>Original</i>
10/05/70	497390	763.0	
09/25/71	553090	726.0	
05/11/72	599736	606.0	
06/07/73	660172	605.0	
05/07/75	749008	524.0	
06/21/77	817954	423.0	
09/24/79	890876	490.0	
05/16/81	944299	497.0	
02/08/84	1011859	517.0	
07/31/98	1224727	396	<i>Current Estimated from pressure vs. cumulative gas plot</i>

FARMINGTON

ANNUAL PRODUCTION FOR 15258A

PHS020M1

LARGO FEDERAL 1

BLANCO MESAVERDE (PRORATED GAS FIELD MESAVERDE ZONE

===== OIL CUM =====

===== GAS CUM =====

===== WATER CUM =====

PC DATE

BBLs

PC DATE

MCF

DATE

BBLs

02 6912

352

01 6912

185023

YEAR	OIL	OIL CUM	GAS	GAS CUM	WATER	WATER CUM
1990	115	4258	12517	685907		
1991	90	4348	19322	705229		
1992	44	4392	16257	721486		
1993	42	4434	13278	734764		
1994	49	4483	11819	746583		
1995	20	4503	9426	756009		
1996	46	4549	16246	772255		
1997	51	4600	12592	784847		
1998	87	4687	15016	799863		

POSITION CURSOR BY YEAR AND PRESS ENTER TO DISPLAY MONTHLY PRODUCTION

ENTER - CONTINUES ANNUAL DISPLAY

PF3 - TRANSFER TO UPDATE

PF6 - RETURN TO WELL-INFO DISPLAY

PF9 - ANNUAL INJECTION DISPLAY

PF10 - HELP INFORMATION

00/00/00 00:00:00:0 D03 01/16/91

FARMINGTON 1998 MONTHLY PRODUCTION FOR 15258A
 LARGO FEDERAL 1
 BLANCO MESAVERDE (PRORATED GAS FIELD MESAVERDE ZONE

PHS030M1

DAYS =====					OIL =====			=====			GAS =====				
MO	T	S	ON	PC	PROD	GRV	PC	PROD	ON	BTU	PRESS	WATER	PROD	C	
1	2	F	31	02	22	61.6	01	2030	31	1237	15.025				
2	2	F	28	02	4		01	2921	28	1237	15.025				
3	2	F	31	02	23		01	1916	31	1237	15.025				
4	2	F	30	02			01	1825	30	1237	15.025				
5	2	F	24	02	19		01	1730	24	1237	15.025				
6	2	F	30	02			01	2184	30	1237	15.025				
7	2	F	31	02	19		01	2410	31	1237	15.025				
8															
9															
10															
11															
12															

PF6 - RETURNS TO ANNUAL DISPLAY
 PF10 - HELP INFORMATION

PF3 - TRANSFER TO UPDATE
 PF9 - DISPLAY MONTHLY INJECTION
 PRS 09/03/98

00/00/00 00:00:00:0

FARMINGTON ANNUAL PRODUCTION FOR 15259A PHS000M1
 LARGO FEDERAL 1
 BASIN DAKOTA (PRORATED GAS) FIELD DAKOTA ZONE
 ===== OIL CUM ===== ===== GAS CUM =====
 PC DATE BBLs PC DATE MCF DATE BBLs
 02 6912 6093 01 6912 441337

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=====
YEAR      OIL      OIL CUM      GAS      GAS CUM      WATER      WATER CUM
1990              10764      16648      1110475
1991      247      11011      14610      1125085
1992      161      11172      20798      1145883
1993      380      11552      20675      1166558
1994      141      11693      17679      1184237
1995       75      11768       8452      1192689
1996       35      11803      13767      1206456
1997        7      11810      12639      1219095
1998        2      11812       5632      1224727
  
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POSITION CURSOR BY YEAR AND PRESS ENTER TO DISPLAY MONTHLY PRODUCTION
 ENTER - CONTINUES ANNUAL DISPLAY PF3 - TRANSFER TO UPDATE
 PF6 - RETURN TO WELL-INFO DISPLAY PF9 - ANNUAL INJECTION DISPLAY
 PF10 - HELP INFORMATION
 00/00/00 00:00:00:0 D03 01/16/91

FARMINGTON
LARGO FEDERAL

1

1998 MONTHLY PRODUCTION FOR 15259A

PHS030M1

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		53.9	01	677	31	1280	15.025				
2	2	F	28	02			01	431	28	1280	15.025				
3	2	F	31	02			01	1305	31	1280	15.025				
4	2	F	30	02	2		01	817	30	1280	15.025				
5	2	F	22	02			01	861	22	1280	15.025				
6	2	F	30	02			01	453	30	1280	15.025				
7	2	F	31	02			01	1088	31	1280	15.025				
8															
9															
10															
11															
12															

PF6 - RETURNS TO ANNUAL DISPLAY
PF10 - HELP INFORMATION

PF3 - TRANSFER TO UPDATE
PF9 - DISPLAY MONTHLY INJECTION
PRS 09/03/98

00/00/00 00:00:00:0

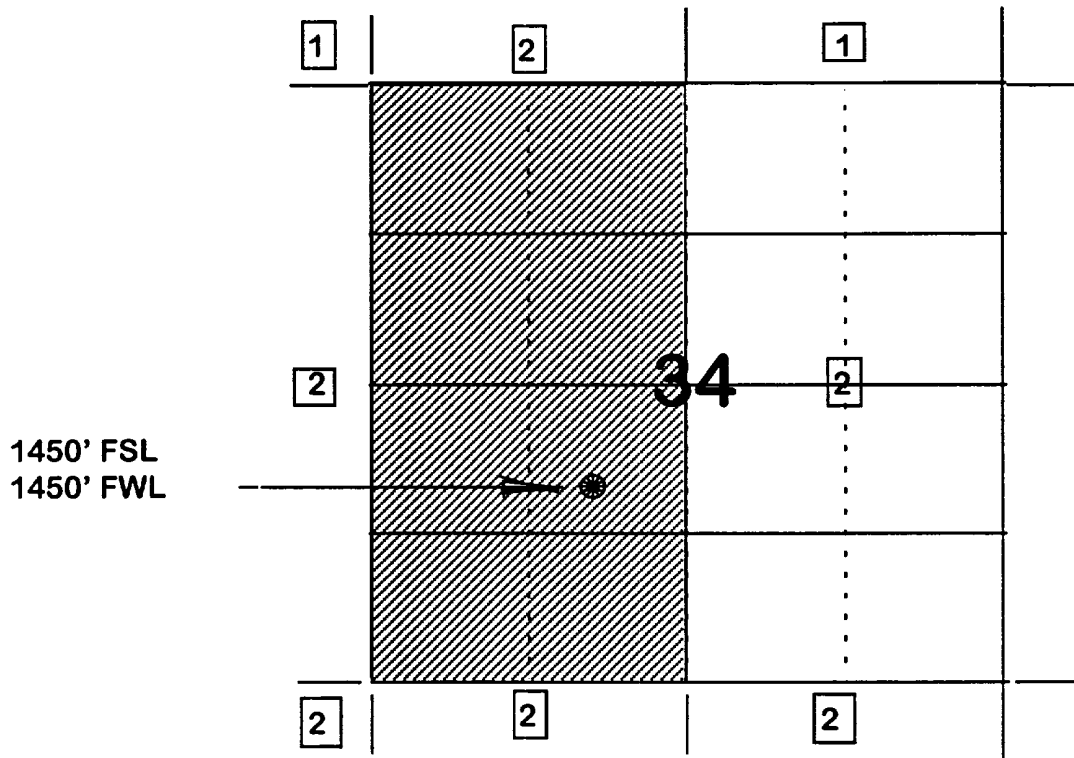
BURLINGTON RESOURCES OIL AND GAS COMPANY

Largo Federal #1

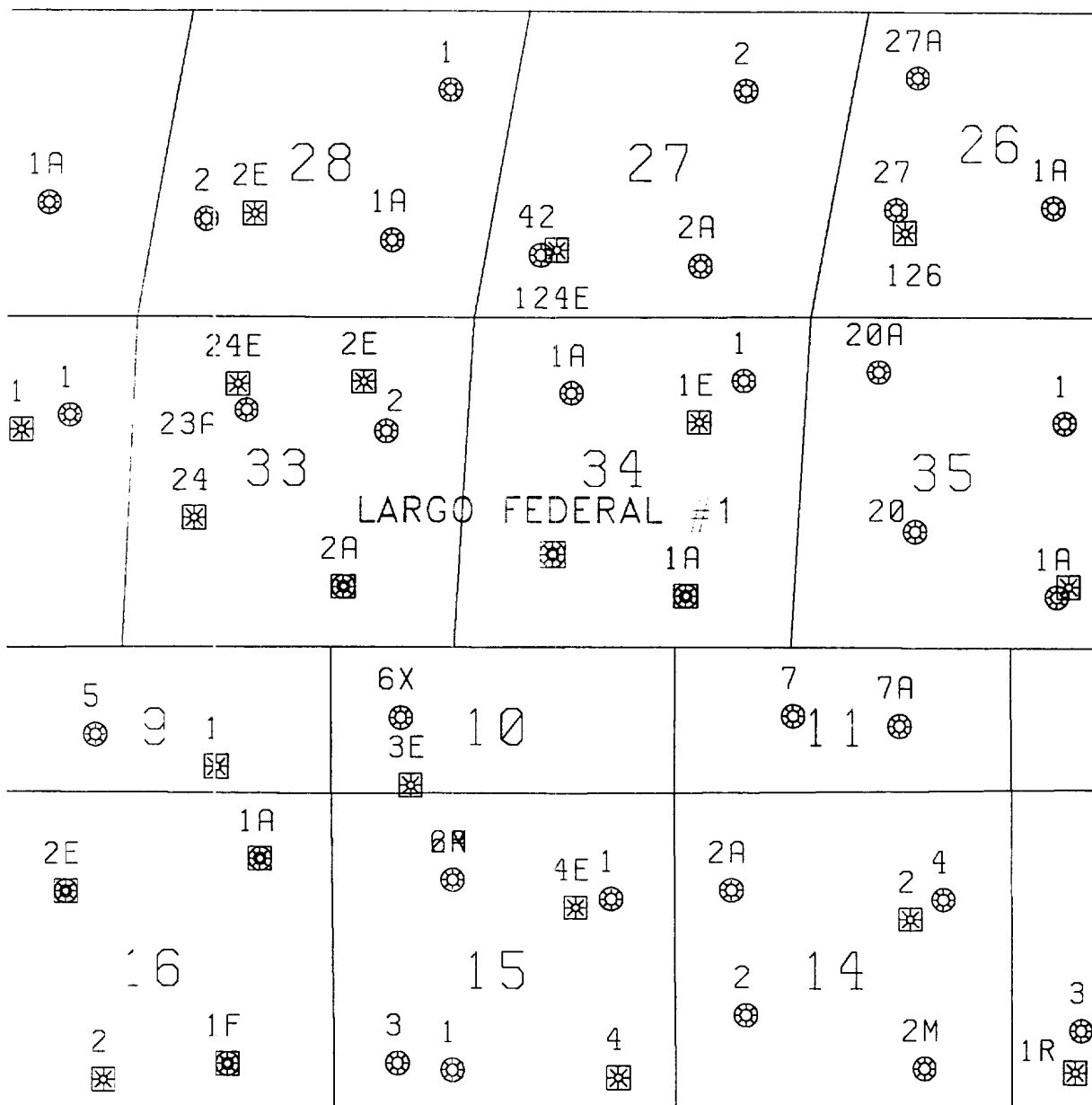
OFFSET OPERATOR \ OWNER PLAT

Mesaverde / Dakota Formations Commingle Well

Township 29 North, Range 9 West



- 1) Burlington Resources
- 2) Amoco Production Company
c/o Bruce Zimney
P.O. Box 800
Denver, CO 80201



PLH 1/9/98

LARGO FEDERAL #1
SEC. 34, T29N, R9W
MESAVERDE/DAKOTA