

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

PO Box 4289, Farmington, NM 87499

Operator

Address

Cain

15

N Sec. 31, 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 18487 API NO. 30-045-0763200 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 - 72319		Basin Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	4206-4436		6435-6570
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. 611 psia @ 4321' (Original) b. 1047 psia @ 4321'	a. b.	a. 495 psia @ 6502' b. 2503 psia @ 6502'
6. Oil Gravity (API) or Gas BTU Content	1252 Btu		1203 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 * If Producing, give data and oil/gas/water water of recent test (within 60 days)	Date: Rates: Date: 11/30/98 Rates: 23 MCFD, 0 BOD	Date: Rates: Date: Rates:	Date: Rates: Date: 11/30/98 Rates: 87 MCFD, 0 BOD
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 from common 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 01-25-99TYPE OR PRINT NAME Kevin L. Midkiff TELEPHONE NO. (505) 326-9700

MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

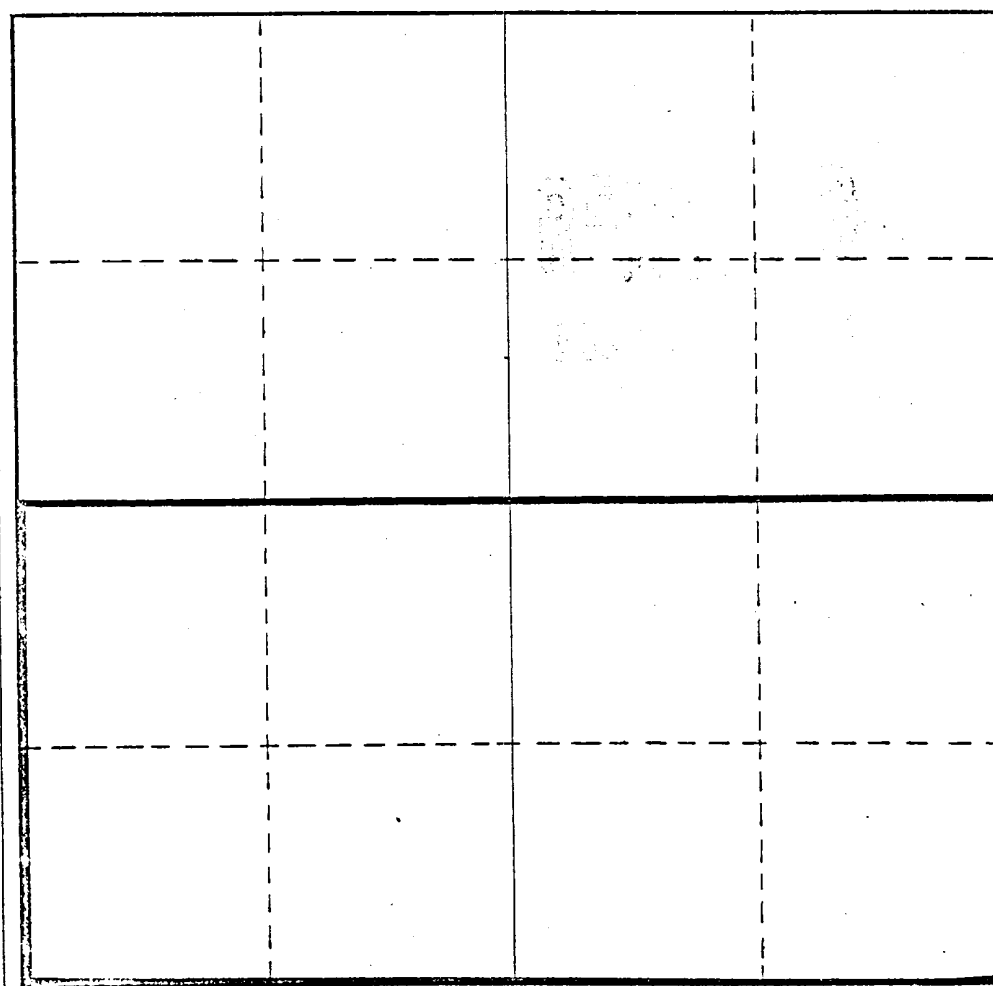
Operator Aztec Oil & Gas Company			Lease Cain		Well No. #15
Unit Letter M	Section 31	Township 29 North	Range 9 West	County San Juan	
Actual Footage Location of Well:					
950 feet from the South line and		960 feet from the West line			
Ground Level Elev: 5760 GR	Producing Formation Mesaverde	Pool Blanco	Dedicated Acreage: 251.01 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Joe C. Salmon
Name

Joe C. Salmon

Position

District Superintendent

Company

Aztec Oil & Gas Company

Date

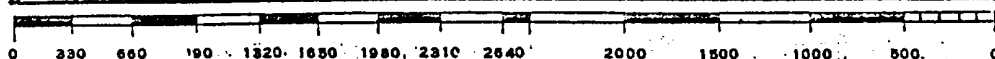
January 24, 1972

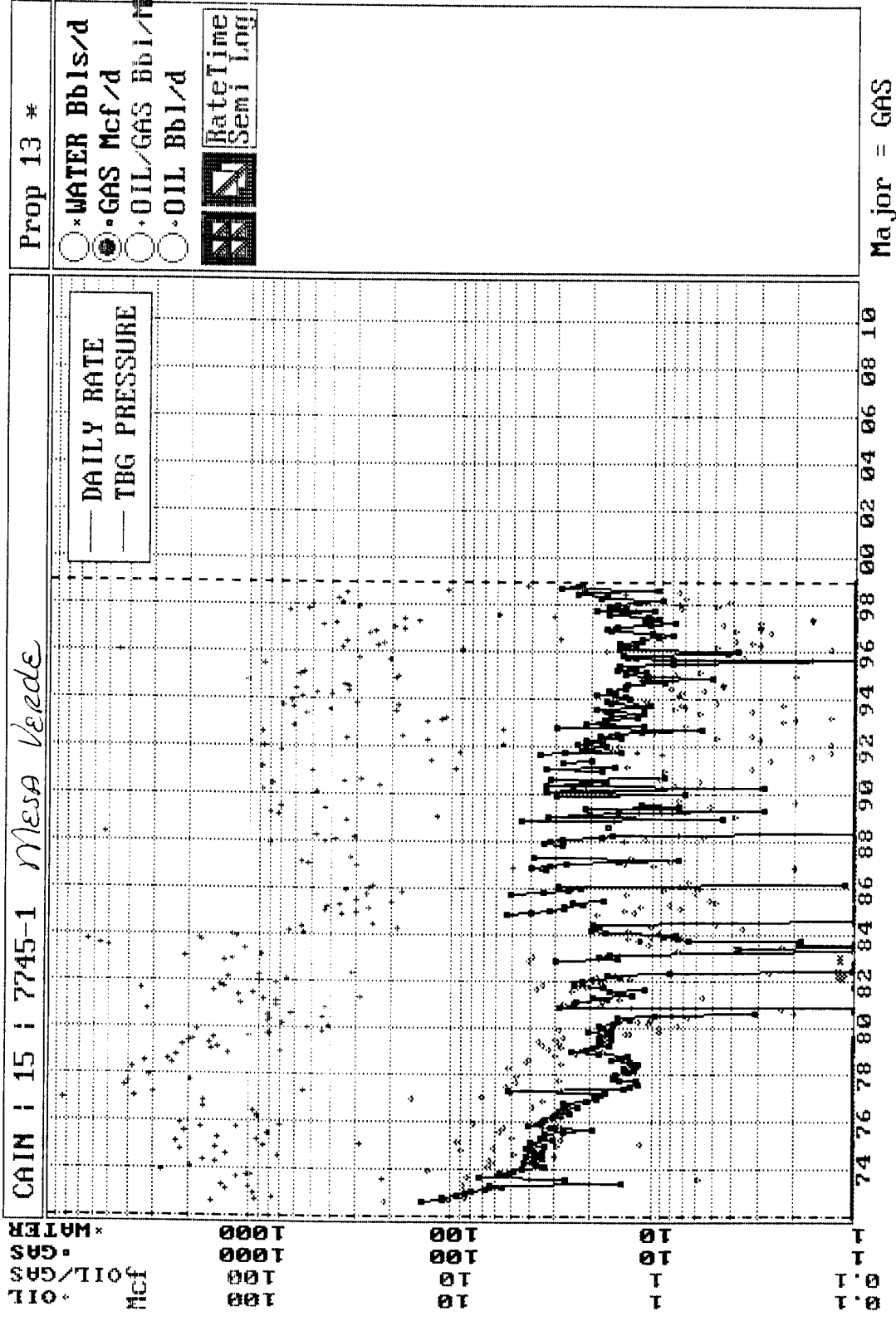
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

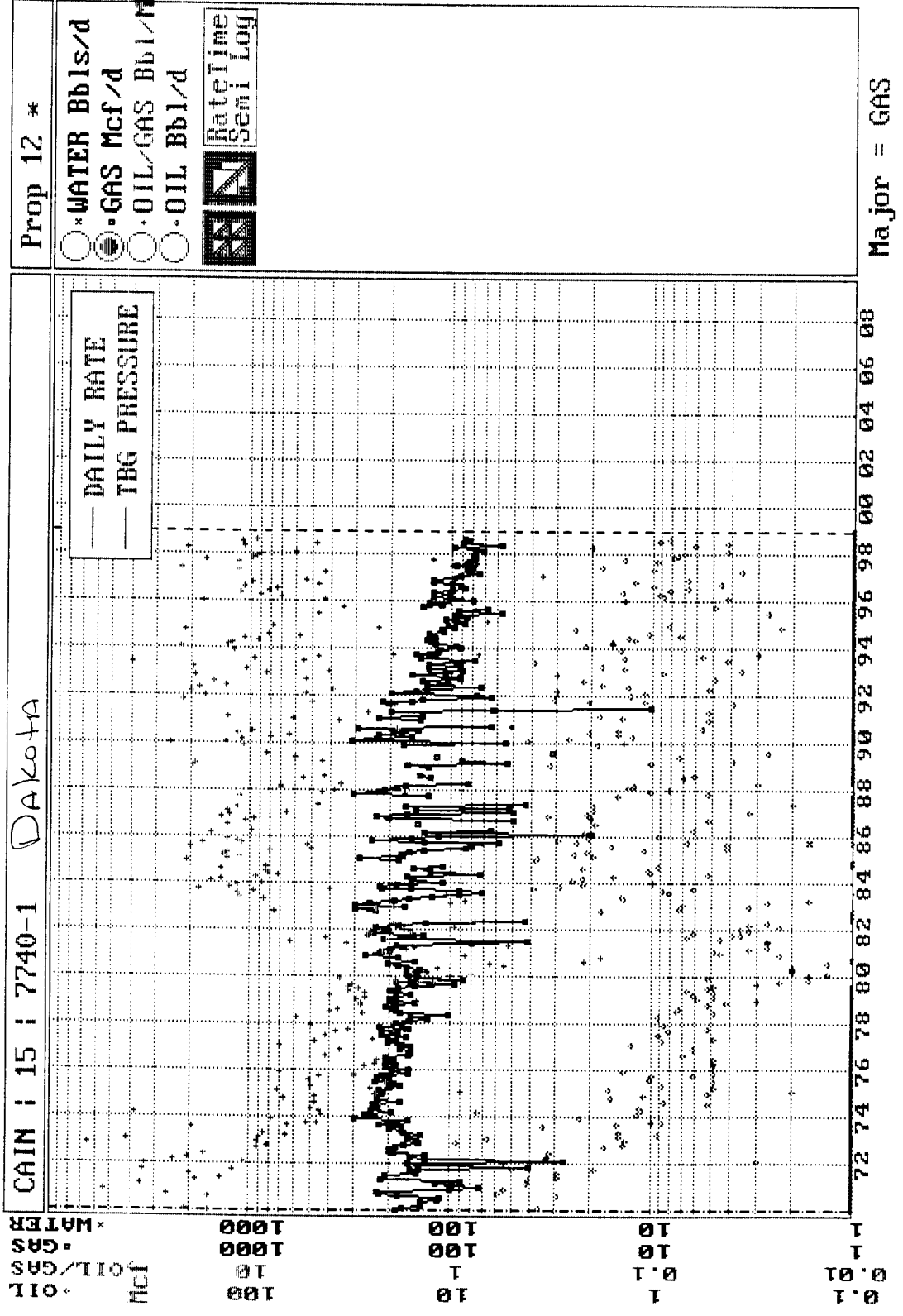
Date Surveyed

Registered Professional Engineer
and/or Land Surveyor

Certificate No.







Page No.: 2

Print Time: Tue Jan 19 13:18:19 1999

Property ID: 13

Property Name: CAIN | 15 | 7745-1 MESA VERDE

Table Name: S:\JSMITH\ARIES\99WORK\TEST.DBF

--DATE--	---CUM_GAS-- Mcf	M SIWHP Psi
----------	---------------------	----------------

02/13/72	0	0.0
09/09/72	7634	902.0 - Initial
09/01/73	29622	777.0
08/01/74	43941	627.0
08/01/76	67902	652.0
07/16/78	80060	652.0
12/23/82	104286	609.0
05/01/84	108835	600.0
01/14/86	121025	602.0
06/08/89	137779	612.0
05/14/91	148182	610.0
09/10/91	150125	622.0
11/30/98	187602	528

CURRENT
Based on Pressure vs. Cum Gas Curve

Page No.: 1

Print Time: Thu Jan 21 10:55:26 1999

Property ID: 12

Property Name: CAIN | 15 | 7740-1 *Dakota*

Table Name: S:\JSMITH\ARIES\99WORK\TEST.DBF

--DATE--	---CUM_GAS--	M SIWHP
	Mcf	Psi

08/04/61	0	2019.0 - <i>Initial</i>
07/17/70	623450	717.0
11/01/71	697042	552.0
02/13/72	707180	0.0
11/01/72	753587	552.0
07/02/73	794163	618.0
08/17/74	882920	444.0
04/17/75	935946	447.0
05/16/77	1081429	481.0
08/15/79	1226554	474.0
09/23/81	1348438	561.0
12/23/82	1413129	558.0
07/24/83	1449732	612.0
08/13/85	1554305	562.0
08/16/88	1670886	572.0
04/24/90	1717464	530.0
03/29/92	1806691	450.0
03/05/93	1852426	418.0

11/30/98	2053388	407	<i>Current</i>
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Based on Pressure vs Cum GAS Curve

Cain #15
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	0.746	GAS GRAVITY	0.717
COND. OR MISC. (C/M)	M	COND. OR MISC. (C/M)	M
%N2	1.59	%N2	0.58
%CO2	0.5	%CO2	1.33
%H2S	0	%H2S	0
DIAMETER (IN)	4.09	DIAMETER (IN)	4.09
DEPTH (FT)	4321	DEPTH (FT)	6502
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	121	BOTTOMHOLE TEMPERATURE (DEG F)	152
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	540	SURFACE PRESSURE (PSIA)	419
BOTTOMHOLE PRESSURE (PSIA)	611.3	BOTTOMHOLE PRESSURE (PSIA)	495.4
<u>MV-Original</u>		<u>DK-Original</u>	
GAS GRAVITY	0.746	GAS GRAVITY	0.717
COND. OR MISC. (C/M)	M	COND. OR MISC. (C/M)	M
%N2	1.59	%N2	0.58
%CO2	0.5	%CO2	1.33
%H2S	0	%H2S	0
DIAMETER (IN)	4.09	DIAMETER (IN)	4.09
DEPTH (FT)	4321	DEPTH (FT)	6502
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	121	BOTTOMHOLE TEMPERATURE (DEG F)	152
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	914	SURFACE PRESSURE (PSIA)	2031
BOTTOMHOLE PRESSURE (PSIA)	1046.8	BOTTOMHOLE PRESSURE (PSIA)	2502.8

FARMINGTON

ANNUAL PRODUCTION FOR 7745

PHS020M1

CAIN 15

BLANCO MESAVERDE (PRORATED GAS FIELD MESAVERDE ZONE)

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

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

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

PC DATE

BBLs

PC DATE

MCF

DATE

BBLs

```

=====
YEAR      OIL      OIL CUM      GAS      GAS CUM      WATER  WATER CUM
1992      190      13100      6361      158285      554
1993      167      13267      5411      163696      554
1994      182      13449      4731      168427      554
1995       79      13528      3912      172339      554
1996      132      13660      4369      176708      554
1997      120      13780      4710      181418      554
1998       89      13869      6184      187602      554
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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

FARMINGTON
CAIN 15

1998 MONTHLY PRODUCTION FOR 7745

PHS030M1

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	23		01	467	31	1243	15.025			
2	2	F	28	02	13		01	368	28	1251	15.025			
3	2	F	28	02			01	278	28	1251	15.025			
4	2	F	23	02	21	46.4	01	566	23	1251	15.025			
5	2	F	31	02			01	524	31	1251	15.025			
6	2	F	30	02	1		01	727	30	1251	15.025			
7	2	F	31	02	23		01	673	31	1251	15.025			
8	2	F	31	02	3		01	285	31	1251	15.025			
9	2	F	30	02	2		01	883	30	1251	15.025			
10	2	F	31	02	3		01	719	31	1251	15.025			
11	2	F					01	694		1251	15.025			
12														

PF6 - RETURNS TO ANNUAL DISPLAY
PF10 - HELP INFORMATION

PF3 - TRANSFER TO UPDATE
PF9 - DISPLAY MONTHLY INJECTION
PRS 01/06/99

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

FARMINGTON

ANNUAL PRODUCTION FOR 7740

PHS020M1

CAIN 15

BASIN DAKOTA (PRORATED GAS) FIELD

DAKOTA ZONE

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

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

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

PC DATE BBLS

PC DATE MCF

DATE BBLS

02 6912 10267

01 6912 592589

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=====
YEAR      OIL      OIL CUM      GAS      GAS CUM      WATER      WATER CUM
1990      476      17777      55535      1749758      1058
1991      256      18033      43845      1793603      1058
1992      476      18509      44739      1838342      1058
1993      355      18864      42784      1881126      1058
1994      400      19264      42050      1923176      1058
1995      25      19289      32984      1956160      1058
1996      302      19591      38368      1994528      1058
1997      223      19814      30483      2025011      1058
1998      225      20039      28377      2053388      1058

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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

TRF FVD4 06/29/90 09:35:58:8 D03 11/19/87

FARMINGTON
CAIN 15

1998 MONTHLY PRODUCTION FOR 7740

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	21		01	2351	31	1220	15.025				
2	2	F	28	02	13		01	2152	28	1202	15.025				
3	2	F	25	02			01	2378	25	1202	15.025				
4	2	F	26	02	62	61.3	01	2973	26	1202	15.025				
5	2	F	31	02	19		01	1754	31	1202	15.025				
6	2	F	30	02	13		01	2733	30	1202	15.025				
7	2	F	31	02	28		01	2536	31	1202	15.025				
8	2	F	31	02	25		01	2693	31	1202	15.025				
9	2	F	30	02	44		01	3374	30	1202	15.025				
10	2	F	31	02			01	2816	31	1202	15.025				
11	2	F					01	2617		1202	15.025				
12															

PF6 - RETURNS TO ANNUAL DISPLAY
PF10 - HELP INFORMATION

PF3 - TRANSFER TO UPDATE
PF9 - DISPLAY MONTHLY INJECTION
PRS 01/06/99

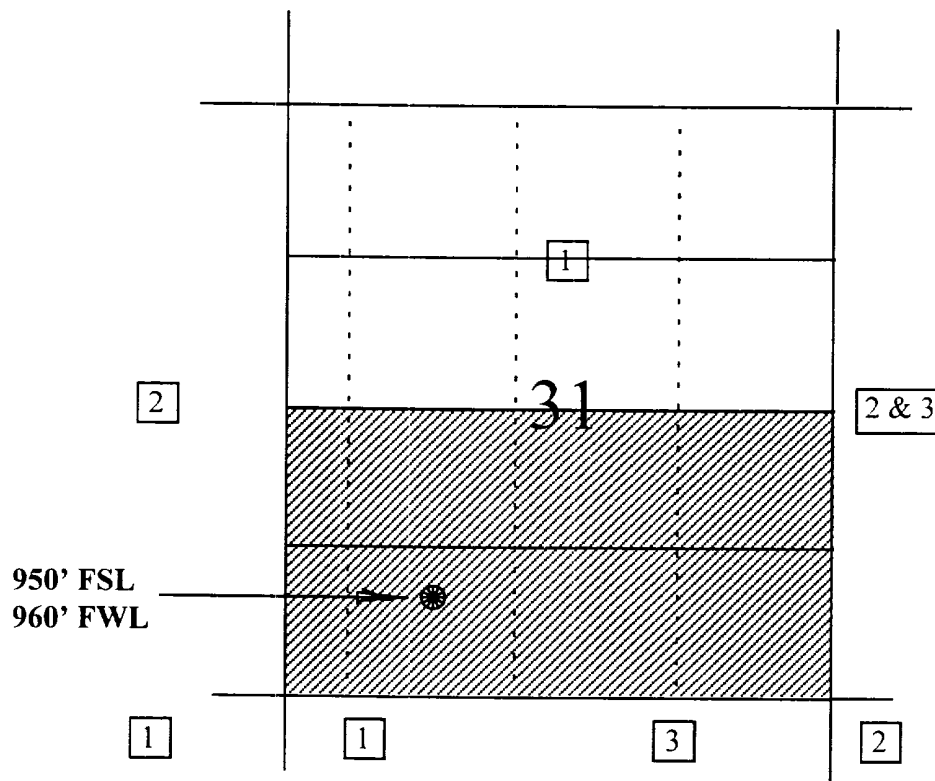
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BURLINGTON RESOURCES OIL AND GAS COMPANY

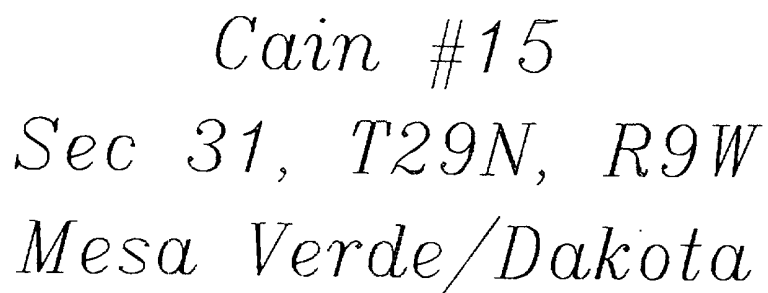
**Cain #15
OFFSET OPERATOR \ OWNER PLAT
Downhole Commingle**

Mesaverde / Dakota Formations Well

Township 29 North, Range 9 West



- 1) Burlington Resources
- 2) Conoco Inc.
Attn: Lori Thorpe
10 Desta Drive, Suite 100W
Midland, TX 79705
- 3) Amoco Production Company
San Juan Operation Center
200 Amoco Court
Farmington, NM 87401



Mesa Verde/Dakota