DATE IN	128	199	SUSPENSE à	רו	199	ENGINEER	DC	LOGGED BY	M	TYPE DHC
	7		:							



### NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -



	IAN 28 1999	2040 South Pacheco, Santa Fe, NM 87505
Experience of the second		MINISTRATIVE APPLICATION COVERSHEET
_्भ	IS COVERSHEET IS M	ANDATORY FOR ALL ADMINISTRATIVE APPLICATION FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE
Appli	DHC-Downh PC-Pool M	s:  [NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]  [DD-Directional Drilling] [SD-Simultaneous Dedication]  ole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  [FX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
r.1		ed Enhanced Oil Recovery Certification] [PPR-Positive Production Response]
[1]	[A]	PLICATION - Check Those Which Apply for [A]  Location - Spacing Unit - Directional Drilling  NSL NSP DD SD
	Check [B]	One Only for [B] or [C] Commingling - Storage - Measurement DHC CTB PLC PC OLS OLM
	[C]	Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  WFX PMX SWD IPI EOR PPR
[2]	NOTIFICAT	ION 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]	INFORMAT	ION / 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.

Not	te: Statement must be completed by an inc	lividual with managerial and/or supervis	ory capacity.
	Dean Shad	0	
Print or Type Name	Signature	Title	Date

#### DISTRICT I

P.Q. Box 1980, Hobbs, NM 88241-1980

State of New Mexico Energy, Minerals and Natural Resources Department Form C-107-A New 3-12-96

### **OIL CONSERVATION DIVISION**

APPROVAL PROCESS :

DISTRICT II

2040 S. Pacheco Santa Fe, New Mexico 87505-6429 X Administrative Hearing

### DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410-1693

811 South First St., Artesia, NM 88210-2835

APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE
\_X\_YES \_\_\_NO

	45 N.C	24 T20N D00W	Can luan
inse	15 NS Well No. Unit	Sec. 31, T29N, R09W	San Juan County
		s	pacing Unit Lease Types: (check 1 or more)
RID NO. <u>14538</u> Property C	ode 18487 API NO. 30-0	<u> </u>	, State, (and/or) Fee
he following facts are submitted support of downhole ommingling:	Upper Zone	Intermediate Zone	Lower Zone
Pool Name and Pool Code	Blanco Mesa Verde - 72319	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Basin Dakota - 71599
Top and Bottom of Pay Section (Perforations)	4206-4436		6435-6570
Type of production (Oil or Gas)	Gas		Gas
. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
. Bottomhole Pressure Dil Zones - Artificial Lift:	(Current) a. 611 psia @ 4321'	a.	a. 495 psia @ 6502'
Estimated Current ias & Oil - Flowing: Measured urrent All Gas Zones: Estimated or Measured	(Original) b. 1047 psia @ 4321'	b.	b. 2503 psia @ 6502'
Oil Gravity (API) or Gas BTU Content	1252 Btu		1203 Btu
. Producing orShut-In?	Producing		Producing
Production Marginal? (yes or no)	Yes		Yes
If Shut-In and oil/gas/water rates of last production	Date: Rates:	Date: Rates:	Date: Rates:
ote: For new zones with no production history, plicant shall be required to attach production timates and supporting data			
If Producing, give data and il/gas/water water of recent test	Date: 11/30/98	Date:	Date: 11/30/98
within 60 days)	Rates: 23 MCFD, 0 BOD	Rates:	Rates: 87 MCFD, 0 BOD
Fixed Percentage Allocation	Oil: Gas:	Oil: Gas:	Oil: Gas:
Formula -% for each zone (total of %'s to equal 100%)	Will supply after commingling	1	Will supply after commingling
Are all working, overriding, and if not, have all working, overridaye all offset operators been Will cross-flow occur?	d royalty interests identical in ding, and royalty interestbeen given written notice of the pro	all commingled zones? notified by certified mail? oposed downhole commin	yes No gling? X Yes No normations not be damaged, will any c
flowed production be recovere Are all produced fluids from all			No (If No, attach explanation)
Will the value of production be			s, attach explanation)
	• • •		oner of Public Lands or the United S No
NMOCD Reference Cases for R			
* Production curve for * For zones with no pro * Data to support allow * Notification list of allow	to be commingled showing its reach zone for at least one ye oduction history, estimated p commented or formula. I offset operators. orking, overriding, and royalty ments, data, or documents red	ar. (If not available, attacl roduction rates and suppo	h explanation.) rting data.

TITLE Operations Engineer DATE 01-25-99

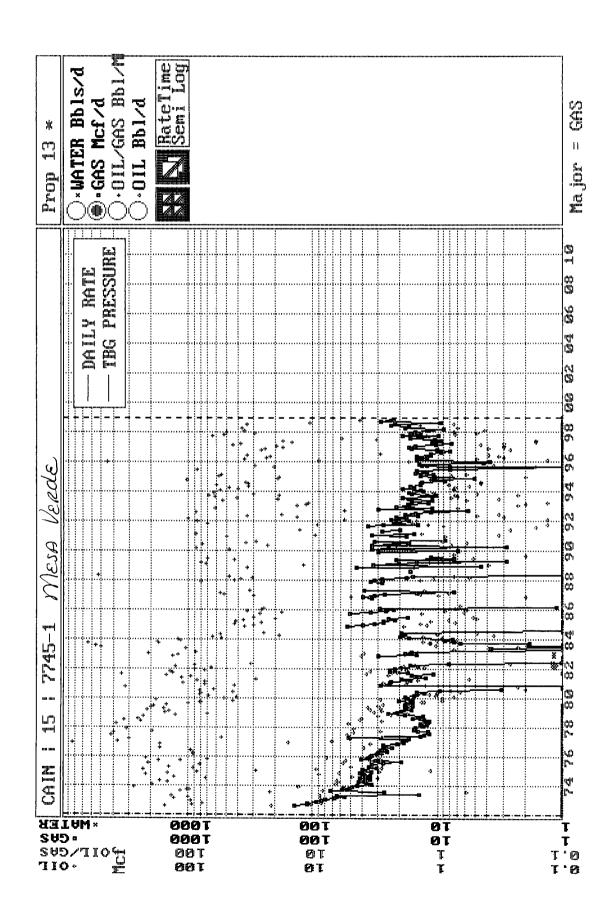
TYPE OR PRINT NAME Kevin L. Midkiff TELEPHONE NO. (505) 326-9700

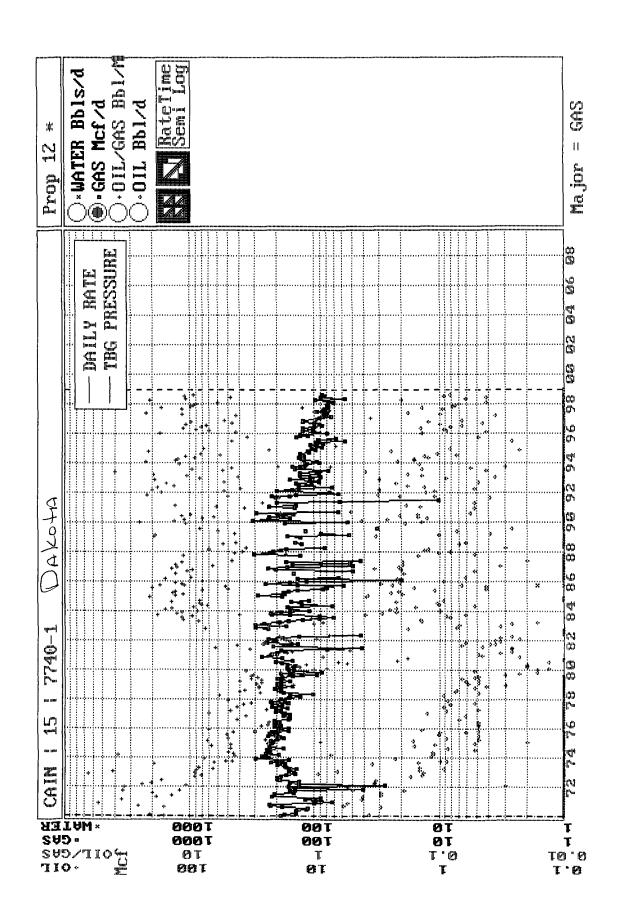


### NEXICO OIL CONSERVATION COMMISS WELL LOCATION AND ACREAGE DEDICATION PLAT

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

		All distanc	es must be from	the outer	boundaries of t	the Section.		
Operator Aztec O	it i c Cas Ca		Le	ease			•	Well No.
Unit Letter	il & Gas Co	mpany Township		<del></del>	Cain	r		#15
M //	31	29 No	n+h	Rounge	4	County	*	
Actual Footage Loc		23 110	/I UII	9 W	est	San	Juan	
950	feet from the	South	line and	. 9	60 feet	from the	West	line
Ground Level Elev:			Po		00 reer	nom me		Dedicated Acreage:
5760 GR		Mesaverde		В	lanco	•		251.01 Acres
1 Outline th	ne acreage ded	licated to the	subject well			r hachure	marks on the	
2. If more the interest a	han one lease and royalty).	is dedicated	to the well, o	outline e	each and ide	ntify the c	ownership the	ereof (both as to working all owners been consoli-
dated by o	communitization	n, unitization, i	force-pooling	etc?	ation			ted. (Use reverse side of
No allowa	ble will be ass	_					-	nunitization, unitization, approved by the Commis-
	 			1	,	.		CERTIFICATION
	i I		-			ŀ	l	and the state of t
	i İ		-			1	1	ertify that the information con-
1	1	ļ		į,	٠.	- 1		ein is true and complete to the knowledge and belief.
}	i			i			besi or,	knowledge und Denti.
	! ! -			- I		1	2 las	16 Mayer
	'. 1	L	·	· i	·		June	
	<del></del> <del>-</del>				<del></del>			Salmon
	· 1			. !	•	1	Position	
		j		Į 1			1	ct Superintendent
							Company	
	· • •			i	1	.		Oil & Gas Company
. [	· i		* .	1	•		Date	24
	1			1			Januar	ry 24, 1972
	i				and a ser problem of book results		1	•
A				İ		W.C.		atte di e di e melli le codice
	1	1		, ,	**	7.00	1	certify that the well location
	•	:		1			1	this plat was plotted from field
	· i	-		- 1		F	1	actual surveys made by me or
	i	1		1	•	1	1	supervision, and that the same nd correct to the best of my
	l			ŀ			ì	nd correct to the best of my and belief.
					• = -		Knowledge	, and belief.
	<u> </u>			i				•
	1			· I		. 22	Date Surveye	
	1				•		Dute sure,	3 <b>a</b> ·
	i						Registered F	Professional Engineer
	i			- 1		13 13 13	and/or Land	•
	1	7		I.				· ·
			<u> </u>	1	*		1.	
	Tan Bulliana			est to the	A		Certificate N	10.
0 330 5 660	. 90 1820 1650	1980, 2810 264	0 2000	1800		**************************************		





Page No.: 2
Print Time: Tue Jan 19 13:18:19 1999
Property ID: 13
Property Name: CAIN | 15 | 7745-1 YOUR A VERDE
Table Name: S:\JSMITH\ARIES\99WORK\TEST.DBF

DATE	CUM GAS	M_SIWHP			
	Mcf	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	CILRRENT	Λ - <del>-</del> -	VS Com Cas Curais
11/30/98	187602	528	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

<u>DATE</u>	CUM_GAS		
	Mcf	Psi	
00/04/61	0	2010 0	- InitiAl
08/04/61	0		- Thitte.
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	
فمليا	_		
11/30/98	2053388	407	Current
			^

Based on Pressure US Cum GAS Curue

# Cain #15 Bottom Hole Pressures Flowing and Static BHP Cullender and Smith Method

Version 1.0 3/13/94

Mesaverde	Dakota
MV-Current	DK-Current
GAS GRAVITY 0.746  COND. OR MISC. (C/M) M  %N2 1.59  %CO2 0.5  %H2S 0  DIAMETER (IN) 4.09  DEPTH (FT) 4321  SURFACE TEMPERATURE (DEG F) 60  BOTTOMHOLE TEMPERATURE (DEG F) 121  FLOWRATE (MCFPD) 0  SURFACE PRESSURE (PSIA) 540  BOTTOMHOLE PRESSURE (PSIA) 611.3	GAS GRAVITY COND. OR MISC. (C/M)  %N2 0.58  %CO2 1.33  %H2S 0 DIAMETER (IN) DEPTH (FT) SURFACE TEMPERATURE (DEG F) BOTTOMHOLE TEMPERATURE (DEG F) FLOWRATE (MCFPD) SURFACE PRESSURE (PSIA)  BOTTOMHOLE PRESSURE (PSIA)  495.4
MV-Original	DK-Original
GAS GRAVITY COND. OR MISC. (C/M)  %N2  1.59  %CO2  0.5  %H2S  DIAMETER (IN)  DEPTH (FT)  SURFACE TEMPERATURE (DEG F)  BOTTOMHOLE TEMPERATURE (DEG F)  FLOWRATE (MCFPD)  SURFACE PRESSURE (PSIA)  BOTTOMHOLE PRESSURE (PSIA)  1046.8	GAS GRAVITY COND. OR MISC. (C/M)  %N2 0.58 %CO2 1.33 %H2S 0 DIAMETER (IN) DEPTH (FT) SURFACE TEMPERATURE (DEG F) BOTTOMHOLE TEMPERATURE (DEG F) FLOWRATE (MCFPD) SURFACE PRESSURE (PSIA)  BOTTOMHOLE PRESSURE (PSIA)  2031

FARMINGTON

ANNUAL PRODUCTION FOR 7745

PHS020M1

CAIN 15

	BLANCO MESA	AVERDE (PROF	RATED GAS F	TELD [	MESAVERDE ZON	E	
:	===== OIL	CUM =====	===	=== GAS CUM	======	==== WATER	CUM ====
	PC DATE	BBLS	S 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

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

1998 MONTHLY PRODUCTION FOR 7745

FARMINGTON

12

CAIN 15

BLANCO MESAVERDE (PRORATED GAS FIELD MESAVERDE ZONE MO T S ON PROD GRV PC ON BTU PRESS WATER PROD PC PROD C 1 2 F 31 02 23 01 467 31 1243 15.025 2 2 F 02 13 28 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 02 524 1251 15.025 5 2 F 31 01 31 6 2 F 30 02 1 01 727 30 1251 15.025 7 2 F 02 673 31 1251 15.025 31 23 01 8 2 F 02 285 31 3 01 31 1251 15.025 9 2 F 30 02 2 01 883 30 1251 15.025 3 1251 15.025 10 2 F 31 02 01 719 31 11 2 F 01 694 1251 15.025

PF6 - RETURNS TO ANNUAL DISPLAY

PF10 - HELP INFORMATION

00/00/00 00:00:00:0 PRS 01/06/99

PF3 - TRANSFER TO UPDATE

PF9 - DISPLAY MONTHLY INJECTION

PHS030M1

FARMINGTON ANNUAL PRODUCTION FOR 7740 PHS	PRODUCTION FOR 7740 PHS020M1
---	------------------------------

CAIN 15 BASIN DAKOT ===== OIL PC DATE 02 6912		=== PC	D <u>]</u> ==== GAS CUM DATE 6912	DAKOTA ZONE ====== MCF 592589	==== WATER DATE	CUM ===== BBLS
=========	========	==== <b>==</b> ==	=======================================			========
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

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

1998 MONTHLY PRODUCTION FOR 7740

FARMINGTON

CAIN 15

BASIN DAKOTA (PRORATED GAS) FIELD DAKOTA ZONE

														•
			DAYS	=====	OIL ===	====	=======	=====	GAS	=====	==== <b>=</b>			
MO	T	S	ON	PC	PROD	GRV	PC	PROD	ON	BTU	PRESS	WATER	PROD	С
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

PF3 - TRANSFER TO UPDATE

PF10 - HFLD INFORMATION

PF9 - DISPLAY MONTHLY INTO

PF10 - HELP INFORMATION

00/00/00 00:00:00:0 PRS 01/06/99

PF9 - DISPLAY MONTHLY INJECTION

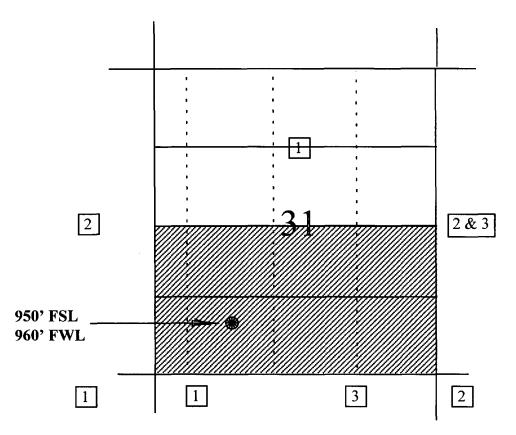
PHS030M1

### 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 Thorpe10 Desta Drive, Suite 100WMidland, TX 79705
- Amoco Production Company San Juan Operation Center 200 Amoco Court Farmington, NM 87401

ABRAMSGC MABRAMS L ABRAMSGC A	LEFKOVITZGC B CAIN 1E 1E 16 16 ARRE 4	CAIN HAMNER 29  CAIN B 16EO HAMNER HAMNER O CAIN 1  CAIN A  B 16EO HAMNER O CAIN21 A  CAIN21 A
NEUDECKER ST COM F	SI COM HH	CAIN ST COM C  N O  N O  ST COM C  S
ZACHRY FC ST 28 17 17E ZHCHRY 52 243 3 ST ZACHRY 38	COM AG 20 CAIN  COM AG 20  CAIN  15	TCRIN ST COM 32 2 TGC BP  1 6 0  CRIN ST COM C  7 6
ZACHRY ZACHRY 19E 54 1 26 1 2 ACHRY 19E 76 1 2 76CHRY 41	REID REID  REID REID  3 22 O  REIDO TREIDO  26 14	REID O REID 11 O
MCCLANAHAN A A A A A A A A A A A A A A A A A	IAHAN REID 15 REID REID 19 0 4 00	FED  1  REID DONNSTON A ST  6 JOHNSTON LS IE  O  8 O  10  12  2E
MCCLANAHAN MCCLANA 12 O MCCLANAHAN 2 MCCLANAHAN 20	REID] 8 REID 18 13 \$ O	REID 1 7 JOHNSTON LS  10 O  STREID JOHNSTON R ST  23 1  O  O  O  O  O  O  O  O  O  O  O  O  O

Cain #15
Sec 31, T29N, R9W
Mesa Verde/Dakota