



October 28, 1999

OCT 2 9 1999

Ms. Lori Wrotenbery New Mexico Oil Conservation Division 2040 South Pacheco Street Santa Fe, NM 87505 Mr. Lee Otteni Bureau of Land Management 1235 La Plata Highway Farmington, NM 87401 2500

Re:

Approval to downhole commingle
Blanco Mesaverde & Basin Dakota Gas Pools
Dugan Production Corp.'s El Niño No. 6E
API #30 045 29639, Unit J, Sec. 11, T-26N, R-9W

San Juan County, New Mexico

Dear Ms. Wrotenbery and Mr. Otteni,

Attached is NMCOD Form C-107A with which we are requesting approval to downhole commingle production from the Blanco Mesaverde and Basin Dakota gas pools in our recently drilled El Niño No. 6E. The 320 acre spacing unit for both pools is the south half of Section 11 (T-26N, R-9W) and all interest ownership is common.

The subject well was spudded on 7-28-99 and is currently waiting to be completed with 4½" casing cemented at 6736' on 8-10-99. We are planning to complete the Dakota and Mesaverde and propose to downhole commingle production during the initial completion operations. Based upon our wellbore assessment and a review of the wells completed in these two pools in the immediate area (see Attachment No. 2), we anticipate marginal production from the Dakota although the Mesaverde appears to be fairly productive, it has not been previously completed offsetting wells. The Dakota is the primary producing interval in this area and in the nine section area that includes Section No. 11 plus the eight adjacent sections, there are 24 Dakota completions. Production from these 24 wells currently ranges from 0 to 151 MCFD and averages 57 MCFD. Thirteen of the 18 Dakota spacing units in this nine section area have not been infill drilled.

The Mesaverde has been completed in only four wells, all of which are to the northeast. The nearest Mesaverde completion is in Burlington's Huerfanito Unit No. 87 which is approximately 1½ miles away and production currently averages 165 MCFD.

We have proposed a fixed allocation factor based upon current producing rates in existing wells. We are aware that it is likely both zones will exhibit higher initial producing rates, however both zones should exhibit similar declines in producing rates and since the early production data (prior to 1970) is not available on most of the wells, we believe using current production to determine allocation factors will provide an accurate allocation of production for a majority of the producing life of the El Niño No. 6E and will also provide a very close approximation of the early time production allocation. All interest ownership is common in both zones.

By copy of this application, we are providing notice to the offset operators.

Should you have questions or need additional information, please let me know.

Sincerely,

John B. Rose

John D. Roe

**Engineering Manager** 

JDR/tmf

xc:

NMOCD - Aztec

Burlington Resources Energen Resources

c:\en6edclt.wpd

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

Dugan Production Corp.

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

P. O. Box 420, Farmington, NM 87499-0420

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

APPROVAL PROCESS:	
XAdministrativeHearing	
EXISTING WELLBORE	
X YES NO	

El Niño Lease			n Juan
OGRID NO Property	/ Code <u>023504</u> API NO. <u>30-045-</u> 2	Space	cing Unit Lease Types: (check 1 or more)
The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
Pool Name and Pool Code	Blanco Mesaverde 72319		Basin Dakota 71599
Top and Bottom of Pay Section (Perforations)	proposed ±4200'-4400'		proposed ±6336'-6567'
Type of production     (Oil or Gas)	Gas & Condensate		Gas & Condensate
Method of Production     (Flowing or Artificial Lift)	Flow		Flow
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current	a. (Current) ±1250 psi (est.)	a.	a. ±1930 psia @ 6450' ± 1812 psia @ 4300' datum
Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	(Original) b.1250 psia(est.) @ 4300' mid- perf datum	b.	b. ±2518 psia @ 6450' ±2368' psia @ 4300' datum
6. Oil Gravity (°API) or Gas BTU Content	±1200 BTU/SCF		±1300 BTU/CF
7. Producing or Shut-In?	Not completed		Not completed
Production Marginal? (yes or no)	Not completed		Anticipated yes - not completed
* If Shut-In, give date 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: Anticipate Rates: 165 MCFD + 1.1 BC/D See Attachment #2	Date: Rates:	Date: Anticipate Rates: 57 MCFD + 0.3 BC/D See Attachment #2
* If Producing, give date andoil/gas/ water rates of recent test (within 60 days)	Date: Rates	Date: Rates:	Date: Rates:
Fixed Percentage Allocation     Formula -% for each zone	Oil: Gas: 74%	Oil: Gas: %	Oil: Gas: 26%
<ol> <li>If allocation formula is based up attachments with supporting da</li> <li>Are all working, overriding, and If not, have all working, overriding Have all offset operators been given at the support of the support of</li></ol>	royalty interests identical in all cong, and royalty interests been nowen written notice of the proposed a No If yes, are fluids condition will the allocation formula be recommingled zones compatible will decreased by commingling?  Individual with, state or federal lands, eit anagement has been notified in very some constitution.	ommingled zones?  Intified by certified mail? Intified by certified mail? Intified by certified mail? Intified by certified mail?  Intified by certified mail.  I	Yes No Yes No Yes No Yes No be damaged, will any cross- attach explanation) No h explanation) ands or the Yes No
15. NMOCD Reference Cases for Re	ule 303(D) Exceptions: C	RDER NO(S).	
16. ATTACHMENTS:  * C-102 for each zone  * Production curve for  * For zones with no production list of all  * Notification list of wood and additional statements.	to be commingled showing its speach zone for at least one year. oduction history, estimated production method or formulaAttachmoffset operatorsAttachments 3 rking, overriding, and royalty intenents, data, or documents require	pacing unit and acreage dedication (If not available, attach explanat action rates and supporting datal ment No. 2 prests for uncommon interest cased to support commingling.	enAttachment 1 ion.) - Attachment 2 es.
I hereby certify that the information a	above is true and complete to the	e best of my knowledge and belie	rf.
SIGNATURE	TITLE E	ngineering Manager DA	TE_October 26, 1999
TYPE OR PRINT NAME John Roe	<del></del>	TELEPHONE NO. (505)3:	25-1821

District I PO Box 1980, Hobbs, NM 88241-1980 District II PO Drawer DD, Artesia, NAI 88211-0719 District III 1000 Rio Brazos Rd., Aztec, NM 87410 District IV PO Box 2088, Santa Fe, NM 87504-2088

API Number

State of New Mexico Energy, Minerals & Natural Resources Departs

PSIOFZ

Pool Name

Form C-102 Revised February 21, 1994 Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

OIL CONSERVATION DIVISION PO Box 2088 Santa Fe, NM 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 Pool Code

MENDED REPORT

#### 72319 Blanco Mesaverde 30 045 29639 <sup>4</sup> Property Code Well Number 1 Property Name El Nino 6F 023504 'OGRID No. 1 Operator Name ' Élevation 006515 6238' Estimated Dugan Production Corporation 10 Surface Location Range Feet from the North/South line UL or lot no. Section Township Lot Lin Feet from the East/West line County 9W 1850 South 1850 East San Juan 26N J 11 11 Bottom Hole Location If Different From Surface Feet from the North/South line Feet from the UL or lot no. Section Township Range East/West line County 12 Dedicated Acres " Joint or Infill 14 Consolidation Code 15 Order No. 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 OPERATOR CERTIFICATION 16 I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief - 0, Rose Signature John D. Roe Printed Name Engineering Manager October 26, 1999 Section 11 18SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me Dugan Production 1850' or under my supervision, and that the same is true and NM 012737 correct to the best of my belief. May 14, 1998 WHITH HILLIAM Date of Survey EDG. 1850'

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 Depart

Pg Z OF Z

Revised February 21, 1994 Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies Fee Lease - 3 Copies

Form C-102

AMENDED REPORT

### OIL CONSERVATION DIVISION PO Box 2088 Santa Fe, NM 87504-2088

# WELL LOCATION AND ACREAGE DEDICATION PLAT

	API Number 3 Pool Code . 3 Pool Name															
				71599	71599 Basin Dakota											
4 Property	Code	* Property Name * Well Number														
		l	E1 1	Vino		6E										
'OGRID	No.	-	Operator Name * Elevation													
00651	5		Dugan	Producti	on Corporatio	n			6238'	Estimated						
	<sup>10</sup> Surface Location															
UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	the North/South line Feet from the East/West line County										
	11	26N	9W	J	1850	South 1850 East San Juan										

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	p 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.							<del>• • • • • • • • • • • • • • • • • • • </del>	·	· <del>k</del>	
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				17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief
	Section	11		Signature Sherman E. Dugan Printed Name Vice-President Title June 18, 1998 Date
Dugan NM	Production 012737	<u></u>	1850'	18 SURVEYOR CERTIFICATION  I hereby certify that the well location shown on this plat was ploiled 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.  May 14, 1998  Date of Survey  CRISEAL ME
		1850'	. ·	Signature and Seal of Traces HISEArcs (1979)  Fig. 1979  Fig. 1979  Certificate Number 1978

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wa.	·	aurous					700.
				OR DIVISION USE ONL	<del> </del>		
				•			
		NEW MEX	CICO OIL CO - Enginee	ring Bureau -	ION DIV	ISION	
		ADMINISTRA	ATIVE APP	LICATIO	N COVE	ERSHEET	
	THIS COV	ERSHEET IS MANDATORY FOR A	LL ADMINISTRATIVE AF	PLICATIONS FOR I	EXCEPTIONS TO	DIVISION RULES AN	D REGULATIONS
Application Acr	onyms:	INSP-Non-Stand	tard Proration Ur	niti [NSL-No	n-Standard	Location)	
	(P	[DD-Direct Downhole Commingling] C-Pool Commingling] [WFX-Waterflood	tional Drilling) ( g) (CTB-Lease (OLS - Off-Leas Expansion) (PN ater Disposal) (	SD-Simultane Commingling e Storage]   IX-Pressure N IPI-Injection F	oous Dedica   [PLC-Poo  OLM-Off-Le  aintenance  Pressure Inc	ntion) ol/Lease Commase Measuren Expansion) crease)	nent)
[1] <b>TYPE</b>	OF A	PPLICATION - Ch	eck Those Whi	ch Apply fo	r [A]		
· -	[A]	Location - Spacing	g Unit - Direction	onal Drilling	;		
		ONSL ONS	P □ DD	Q SD			
	Check	One Only for [B] o	r [C]				
	[B]	Commingling - Sto		ement			
		☑ DHC ☐ CTI	B PLC	☐ PC	OLS	OLM	
	[C]	Injection - Disposa			anced Oil I DEOR	Recovery  PPR	
[2] <b>NOT</b> I	FICAT	ION REQUIRED	FO: - Check Ti	ose Which	Apply, or	☐ Does Not	Annly
	[A]	☐ Working, Royal					
	[B]	Offset Operator	s, Leaseholders	or Surface	Owner		
	[C]	☐ Application is C	ne Which Requ	uires Publish	ned Legal l	Notice	
	[D]	Notification and	Vor Concurrent ad Management - Comm				
	(E)	☐ For all of the ab	ove, Proof of N	lotification o	or Publicat	ion is Attach	ed, and/or,
	[F]	☐ Waivers are Atta	ached				
3] INFOR	RMATI	ON / DATA SUBM	AITTED IS CO	OMPLETE	- Statemer	nt of Underst	anding
Regulations of approval is acc U, ORRI) is co	the Oil urate ar ommon	or personnel under a Conservation Divis and complete to the be. I further verify the mation or notification	ion. Further, I est of my know it all applicable	assert that t ledge and w API Numbe	he attached here appliers are incl	d application cable, verify uded. I unde	for administrative that all interest (WI, erstand that any
		Note: Statemer	nt must be completed by	an individual with :	supervisory cape	acity.	

John D. Roe

Frint or Type Name

Signature

Figure D. Roe

Engineering Manager

Title

Date

ATTACHMENT NO. 2
OFFSET WELL DATA
DUGAN PRODUCTION'S EL NINO #6E
SECTION 11 & ADJACENT SECTIONS T-26N, R-9W
SAN JUAN COUNTY, NEW MEXICO

			-	-													, ,			_											$\neg$		1
	Avg. prod. 1/99-5/99	condensate	B/MMCF	14.5		6.4		4.1	0.0	6.5	0.0	7.8	2.5	0.0	2.5	0.0	6.5	4.4	1.71	3.1	7.3	9.2	9.0	23.1	8.9	8.5	0.3	9.9	5.2	145.0			9.0
akota	Avg. prod.	Gas	MCFD	93		74		78	0	20	0	68	151	0	71	0	64	42	12	11	39	48	123	72	34	63	79	81	42	1,374			57
Basin Dakota	1. 6-1-99		lqq	12,981		14,700		11,511	6,975	2,336	12,294	17,627	534	28,175	17,215	14,344	14,067	9,233	19,282	1,124	15,861	5,207	33,672	40,533	5,453	5,249	27,603	22,871	7,002	345,849			14,410
	Cum. prod	Gas	MMCF	1,253.2		1,740.8		1,666.6	6.786	8.069	1,205.1	1,687.7	83.2	1,996.6	1,948.9	1,112.7	1,177.9	825.1	1,037.3	79.0	899.1	429.9	2,376.8	1,610.8	448.0	440.0	1,376.7	1,547.7	369.3	26,991.1			1,125
	1/99-5/99	condensate	B/MMCF	6.1	4.0	10.9	9.9												in in											27.6		6.9	
saverde	Avg. prod. 1/99-5/99	Gas	MCFD	239	160	165	261																							825.0		206	
Blanco Mesaverde	6-1-9	Cond.	lqq	13,808	5,674	18,918	19,202																							57,602.0		14,400	
	Cum. Prod. 6-1-99	Gas	MMCF	3,221.7	1,572.8	3,832.7	3,805.4																							12,432.6		3,108	
			Well Name	Huerfanito Unit #90	Huerfanito Unit #87A	Huerfanito Unit #87	Huerfanito Unit #101	Huerfanito Unit #76	Huerfanito Unit #106	Huerfanito Unit #71	Huerfanito Unit #103	Huerfanito Unit #80	Huerfanito Unit #5E	Huerfanito Unit #5	Huerfanito Unit #81	Huerfanito #6	Huerfanito Unit #91	Huerfanito Unit #92	Tibbar Fed #1	Tibbar Fed #1E	Tibbar Fed #2	Ballard #13E	Ballard #13	Ballard #14	Ballard #14E	Ballard #12E	Ballard #11	Ballard #12	Ballard #11E	Totals		Mesaverde - 4 well avg.	well avg.
			Operator	Burlington Resources	Burlington Resources	Burlington Resources	•	Burlington Resources	Burlington Resources	Burlington Resources	Burlington Resources   F	Burlington Resources Huerfanito Unit #80	Dugan Production		Ses		Ses		Energen Exploration	Energen Exploration	Energen Exploration	S	_		Burlington Resources Ballard #14E	Energen Exploration	10		Burlington Resources		•		
		T-26N, R-9W	Unit-Section	B-1	F-1	K-1	A-2			A-3		B-10	J-10	N-10	A-11 *	N-11	B-12	L-12 *		M-13	P-13	*		L-14	D-14	B-15		J-15	L-15				

<sup>\* -</sup> Direct offset to El Niño #6E on 160 Acre locations. Production curves attached.

c:\excel\en6eofst.xls

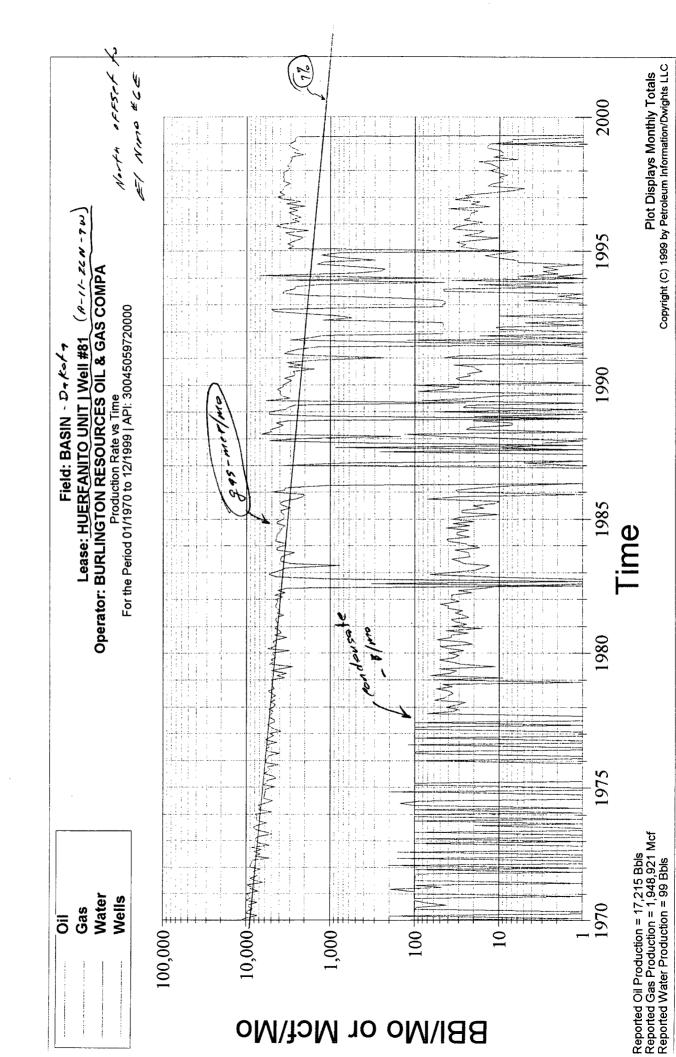
### ATTACHMENT NO. 2 ANTICIPATED PRODUCTION EL NIÑO NO. 6E DUGAN PRODUCTION CORP.

	Gas - MCFD	Condensate - BPD
Blanco Mesaverde (1)	165 (74%)	1.1 (79%)
Basin Dakota (2)	57 (26%)	0.3 (21%)
Total	222	1.4

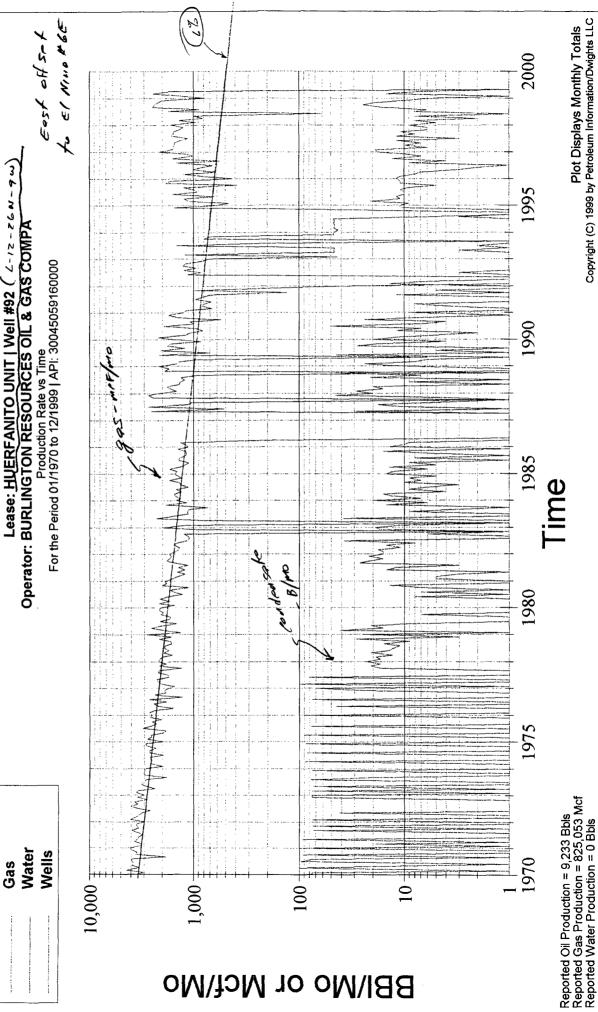
#### Notes:

- ① Mesaverde Production Nearest completion is the Huerfanito Unit No. 87 which is ±1.5 miles to the NE. Anticipated gas production represents current average for Huerfanito Unit No. 87. Anticipated condensate production represents the average condensate yield of 6.9 bbl/mmcf for all four Mesaverde wells in the 9 section area of interest. Production curve presented on Page No. 7.
- ② Dakota Production Within the 9 section area of interest, 24 Dakota completions exist and averaged 57 MCFD plus a condensate yield of 6.0 bbl/mmcf during the first five months of 1999. Production curves for the four wells directly offsetting El Niño No. 6 to the North, East, South and West are presented on Pages No. 3 through 6.
- 3 Nine section area of interest Section No. 11 plus eight adjacent sections (Sections No. 1, 2, 3, 10, 12, 13, 14, 15) all in T-26N, R-9W of San Juan County, New Mexico.

Attochmont #2

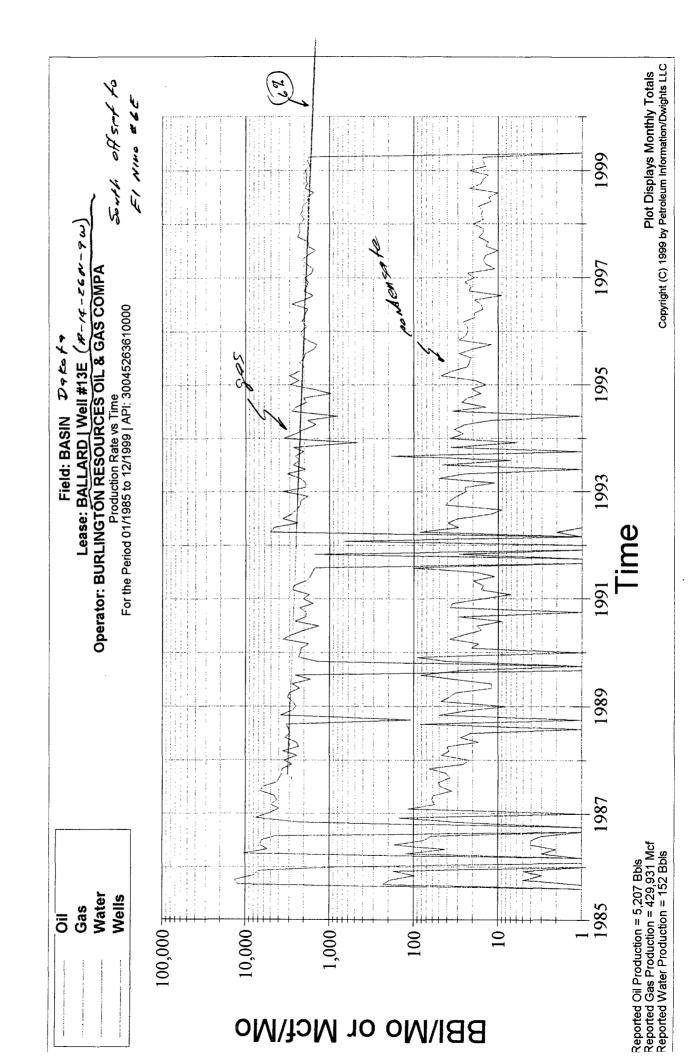


Affactorent 140. Z to El Muo # 6E Eost off sof Lease: <u>HUERFANITO UNIT | Well #92 ( 2-12-76 M-7 W)</u>
Operator: BURLINGTON RESOURCES OIL & GAS COMPA Production Rate vs Time For the Period 01/1970 to 12/1999 | API: 30045059160000 Dateta Field: BASIN

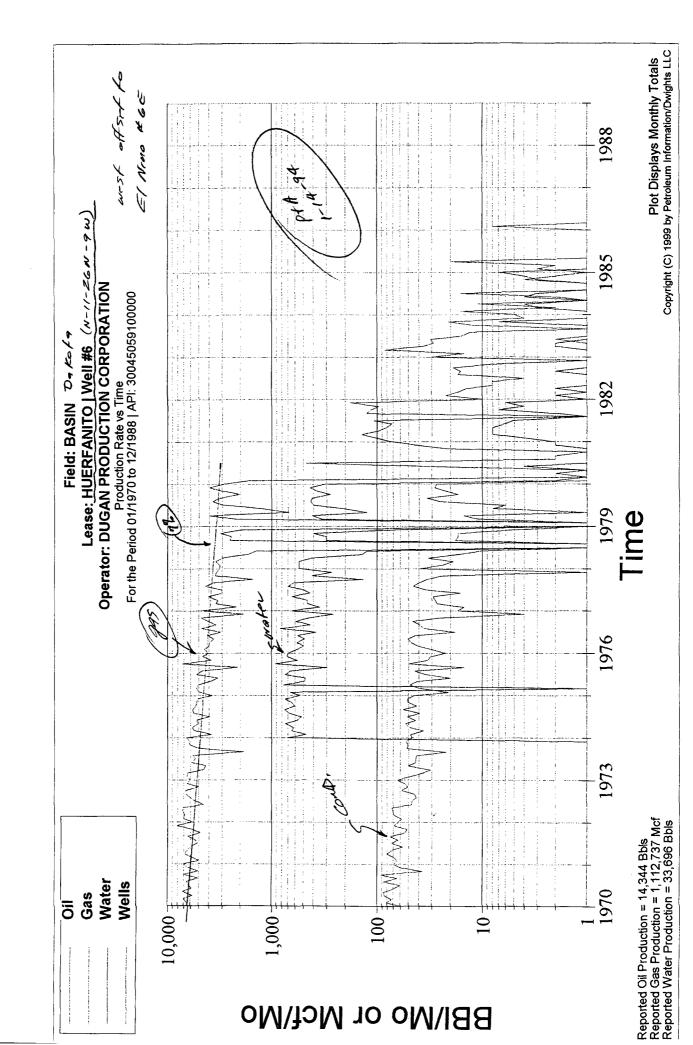


Plot Displays Monthly Totals Copyright (C) 1999 by Petroleum Information/Dwights LLC

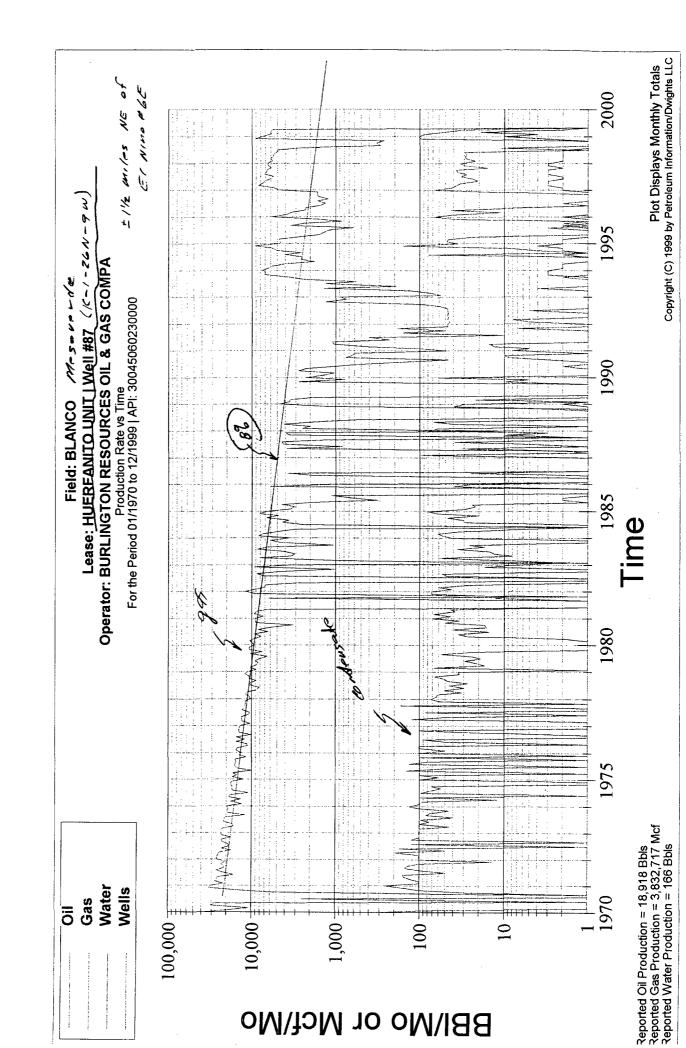
AHachmond #2



Attachment & Z



Afordand AZ



# offset operators

Dugan Production's El Nino = 6E

1850'F5L + 1850'FEL (unitJ), Sec. 11, T-26N, R-9W

Blonco Mesaverde + Basin Dakota Cas Pools.

R-9W

	<i>κ</i> - / ω	
B Huerfanito Unit Wells #71+103	Z D Huerfanito Unit Walls 76,101,106	P Hurrfanito Unit Wells 87, 874,90
A Huerfanito unit  Well # 80  B  Huerfanito 5+5E	Aucufanito unit well #81  B Hueufanito 6+ El Nino #6E	12  B  Ifuctorifo buit  wells # 81+92
Ballard : Ballard : E114 15 #124	Ballard #13+13E  Ballard #13+13E  Ballard #14+14E	Tibber Tibber Fed 13 FeL #1+1E #2

- A. Burlington Resources RO. Box 4289 , Farmington , NM 87499
- B Dugan production Corp. po Box 420, Farmington, Nm 87499
- ( Energen Resources Corp 2198 Blownfield Huy, Farmington, Non 87401

/ 26 N



NOV - 8 1999

- OF BERNAMON PROBY

November 5, 1999

Ms. Lori Wrotenbery New Mexico Oil Conservation Division 2040 South Pacheco Santa Fe, NM 87505 Mr. Lee Otteni Bureau of Land Management 1235 La Plata Highway Farmington, NM 87401

Re: Dugan's 10/28/99 application to downhole commingle Blanco Mesaverde & Basin Dakota gas pools Dugan Production Corp.'s El Niño No. 6E API #30 045 29639, Unit J, Sec. 11, T-26N, R-9W

San Juan County, New Mexico

Dear Ms. Wrotenbery and Mr. Otteni,

Attached for your review and use in processing the subject application are signed statements from the two offset operators wherein each offset operator states they have no objection to our proposed downhole commingling of production from the Blanco Mesaverde and Basin Dakota gas pools in our El Niño No. 6E. The originals are being sent to the NMOCD and copies to the BLM.

Sincerely,

Jalin O Rose

John D. Roe Engineering Manager

JDR/tmf

attachments





October 28, 1999



Burlington Resources P. O. Box 4289 Farmington, NM 87499-4289 Energen Resources Corp. 2198 Bloomfield Highway Farmington, NM 87401

Re:

Proposed downhole commingling

Blanco Mesaverde and Basin Dakota Gas Pools

Dugan Production's El Niño No. 6E Unit J, Section 11, T-26N, R-9W

San Juan County, NM

Dear Offset Operator,

Our records indicate that you are an offset operator to the captioned well. Attached for your review and file is a copy of our application to the NMOCD and BLM requesting administrative approval for our proposed downhole commingling of production from the Blanco Mesaverde and Basin Dakota gas pools. If you have no objection to this application, we would appreciate your signing the statement below on the attached copy of this letter and returning to Dugan Production in the enclosed envelope.

Should you have questions or need additional information, please let me know.

Sincerely,
John & Roe
John D. Roe Engineering Manager
JDR/tmf
STATEMENT
BURLINGTON RELIDERS OIL & has no objection to Dugan Production's proposed downhole commingling of Company
production from the Blanco Mesaverde and Basin Dakota gas pools in their El Niño No. 6E well.
By: Dean Fina - Senior Staff Landmon Date: 11/2/99 Signature & Title
Signature & Title *





October 28, 1999



**Burlington Resources** P. O. Box 4289 Farmington, NM 87499-4289 Energen Resources Corp. 2198 Bloomfield Highway Farmington, NM 87401

Re:

Proposed downhole commingling Blanco Mesaverde and Basin Dakota Gas Pools Dugan Production's El Niño No. 6E Unit J, Section 11, T-26N, R-9W San Juan County, NM

Dear Offset Operator,

Our records indicate that you are an offset operator to the captioned well. Attached for your review and file is a copy of our application to the NMOCD and BLM requesting administrative approval for our proposed downhole commingling of production from the Blanco Mesaverde and Basin Dakota gas pools. If you have no objection to this application, we would appreciate your signing the statement below on the attached copy of this letter and returning to Dugan Production in the enclosed envelope.

Should you have questions or need additional information, please let me know.

Sincerely,

John D Roe

John D. Roe **Engineering Manager** 

JDR/tmf

### **STATEMENT**

has no objection to Dugan Production's proposed downhole commingling of

District Lawren Date: 11-2-99

production from the Blanco-Mesaverde and Basin, Dakota gas pools in their El Niño No. 6E well.