

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:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

Dugan Production Corp.  
Operator

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

Sherman Edward

2

M-3 -T29N-R5W

Rio Arriba

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 006515 Property Code 003836 API NO. 30-039-21246 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	Gobernador Pictured Cliffs 77440	<b>RECEIVED</b> MAY 21 1998 <b>OIL CON. DIV.</b> DIST. 3	Blanco Mesaverde 72319
2. Top and Bottom of Pay Section (Perforations)	3528'-3720'		5585'-6032'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing-logged off
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a. (Current) 443 PSIA @ 3624' (calculated)  (Original) b. 1310 PSIA @ 3624' (calculated)	a.   b.	a. 532 PSIA @ 3624' (calculated @ PC datum)  b. 1282 PSIA @ 3624' (calculated @ PC datum)
6. Oil Gravity (°API) or Gas BTU Content	1080 BTU/CF		1052 BTU/CF
7. Producing or Shut-In?	Producing		Shut in - logged off
Production Marginal? (yes or no)	Yes		Yes
* 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: Rates:	Date: Rates:	Date: 8/92 Rates: 60 MCFD + 15 BWPD
* If Producing, give date and oil/gas/ water rates of recent test (within 60 days)	Date: Average 3/98 Rates: 49 MCFD + 0 BWPD + 0 BCPD	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula -% for each zone	Oil: 100% Gas: 45%	Oil: % Gas: %	Oil: 0% Gas: 55%

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 ☐ No

11. 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 ☐ No

13. 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). R-10770, & R-10771

16. ATTACHMENTS:

- \* C-102 for each zone to be commingled showing its spacing unit and acreage dedication.-Attachments 1 & 2
- \* Production curve for each zone for at least one year. (If not available, attach explanation.)-Attachments 3 & 4
- \* For zones with no production history, estimated production rates and supporting data.
- \* Data to support allocation method or formula.-Attachment No. 5
- \* Notification list of all offset operators.-Attachments 6 & 7
- \* 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 John D. Roe TITLE Engineering Manager DATE May 20, 1998

TYPE OR PRINT NAME John Roe TELEPHONE NO. (505) 325-1821

District I  
PO Box 1980, Hobbs, NM 88241-1980  
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2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Attachment  
No. 1

Form C-102  
Revised October 18, 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

<sup>1</sup> API Number 30-039-21246	<sup>2</sup> Pool Code 77440	<sup>3</sup> Pool Name Gobernador Pictured Cliffs
<sup>4</sup> Property Code 003836	<sup>5</sup> Property Name Sherman Edward	<sup>6</sup> Well Number 2
<sup>7</sup> OGRID No. 006515	<sup>8</sup> Operator Name Dugan Production Corp.	<sup>9</sup> Elevation 6752'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	3	29N	5W		730	South	580	West	Rio Arriba

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres 160	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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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

		<p>RECEIVED MAY 21 1998 OIL CON. DIV. DIST. 3</p>		<p><sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p>Signature <u>John Roe</u></p> <p>John Roe Printed Name</p> <p>Engineering Manager</p> <p>Title</p> <p>May 19, 1998 Date</p>	
Section 3					
NM 23048				<p><sup>18</sup> 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.</p> <p>November 4, 1975 Date of Survey</p> <p>Signature and Seal of Professional Surveyer:</p> <p>Original signed by <u>E. V. Echohawk</u></p> <p>3602 Certificate Number</p>	
<p>580'</p> <p>730'</p>					

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Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Attachment  
No. 2

Form C-102  
Revised October 18, 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

<sup>1</sup> API Number 30-039-21246		<sup>2</sup> Pool Code 72319		<sup>3</sup> Pool Name Blanco Mesaverde	
<sup>4</sup> Property Code 003836		<sup>5</sup> Property Name Sherman Edward			<sup>6</sup> Well Number 2
<sup>7</sup> OGRID No. 006515		<sup>8</sup> Operator Name Dugan Production Corp.			<sup>9</sup> Elevation 6752'

<sup>10</sup> Surface Location

U1, or lot no. M	Section 3	Township 29N	Range 5W	Lot Idn	Feet from the 730	North/South line South	Feet from the 580	East/West line West	County Rio Arriba
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<sup>11</sup> Bottom Hole Location If Different From Surface

U1, or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres 320		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> 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

<div style="text-align: center;"><b>RECEIVED</b> MAY 21 1998 <b>OIL CON. DIV.</b> DIST. 3</div>				<b><sup>17</sup> OPERATOR CERTIFICATION</b> <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i>	
				Signature <u>John Roe</u> Printed Name <u>John Roe</u> Engineering Manager Title May 19, 1998 Date	
<div style="text-align: center;">Section 3</div>				<b><sup>18</sup> SURVEYOR CERTIFICATION</b> <i>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.</i>	
				November 4, 1975 Date of Survey Signature and Seal of Professional Surveyor:  Original signed by E V Echohawk  3602 Certificate Number	
<div style="text-align: center;">NM 23048</div>					
<div style="text-align: center;">580'</div> <div style="text-align: center;">730'</div>					

Attachment No. 3

Oil
Gas
Water
Wells

Field: GOBERNADOR *Produced CHFs*

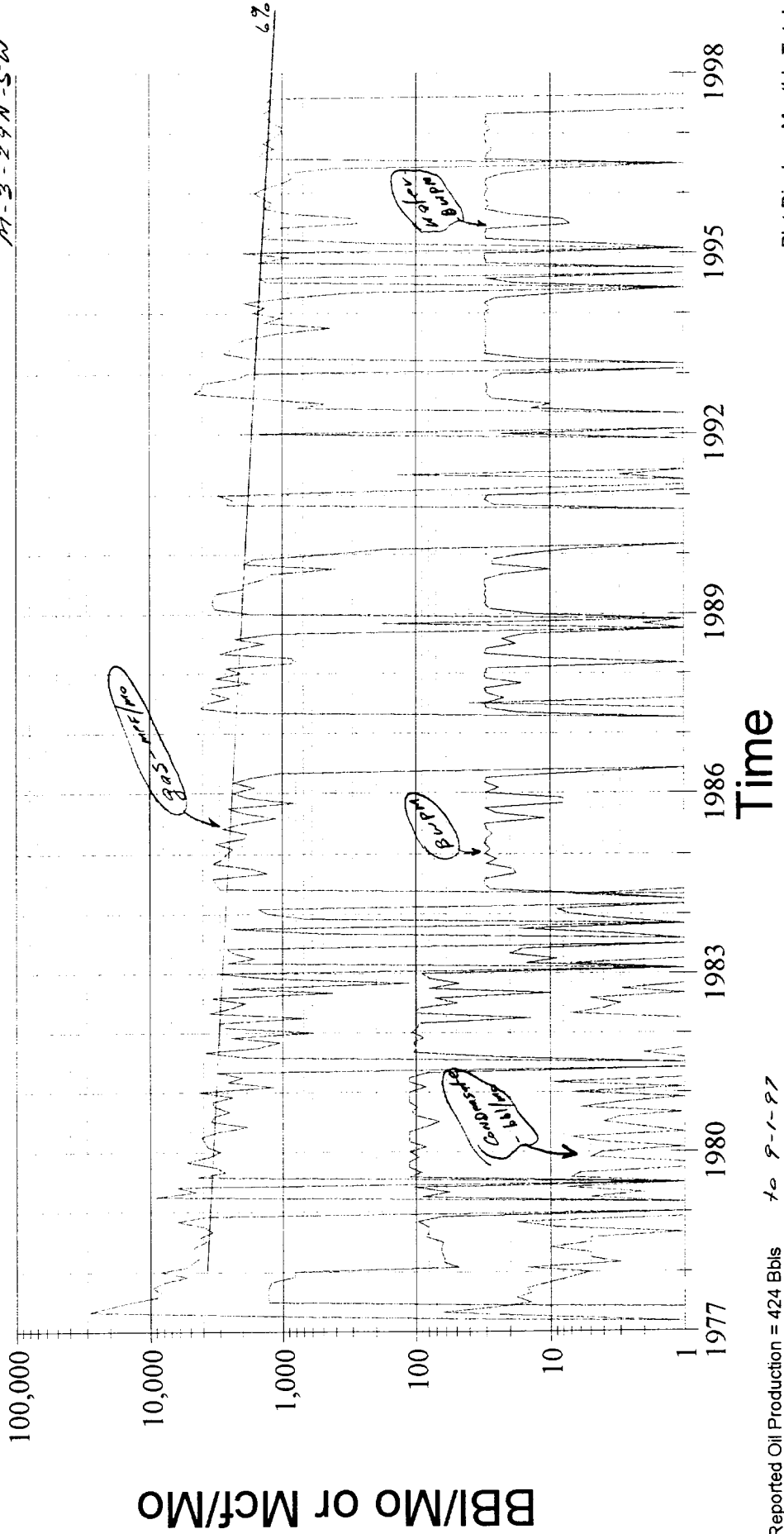
Lease: SHERMAN EDWARD | Well #2

Operator: DUGAN PRODUCTION CORPORATION

Production Rate vs Time

For the Period 01/1977 to 12/1997 | API: 30039212460000

M-3-29N-SW



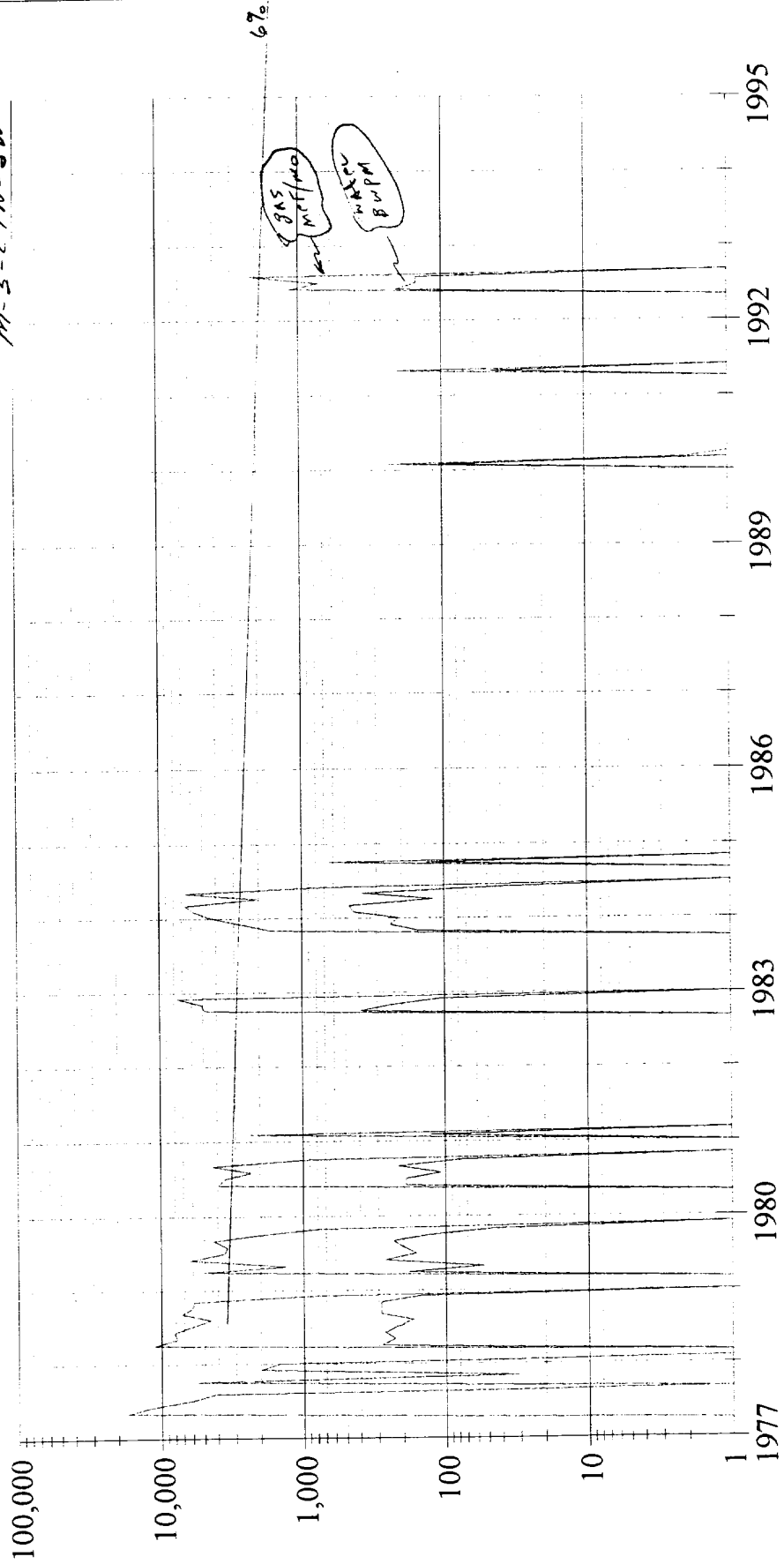
Reported Oil Production = 424 Bbls  
Reported Gas Production = 513,812 Mcf  
Reported Water Production = 15,538 Bbls

Attachment No. 4

Field: BLANCO Mesa Verde  
 Lease: SHERMAN EDWARD | Well #2  
 Operator: DUGAN PRODUCTION CORPORATION  
 Production Rate vs Time  
 For the Period 01/1977 to 12/1994 | API: 30039212460000

M-3-27N-5W

Bbl/Mo or Mcf/Mo



Time

Reported Oil Production = 0 Bbls  
 Reported Gas Production = 203,031 Mcf  
 Reported Water Production = 7,931 Bbls  
 1-9-1-97  
 " "  
 " "

Attachment No. 5  
Proposed Allocation of Downhole Commingled Production  
Dugan Production's Sherman Edward No. 2 (M-3-29N-5W)  
Gobernador PC & Blanco MV  
API No. 30-039-21246

	<u>Gas-MCF</u>	<u>Condensate-bbl</u>	<u>Water-bbl</u>
<u>Cum. production 1-1-98 &amp; % of total</u>			
Gobernador PC	519,381 (71.9%)	424 (100%)	15,538 (66.2%)
Blanco MV (last production 8/92)	<u>203,191 (28.1%)</u>	<u>0 (0%)</u>	<u>7,931 (33.8%)</u>
Total	722,572	424	23,469
<u>Most Recent Annual Production (12 months) &amp; % of total</u>			
Gobernador PC (1997)	15,200 (36.5%)	0	151 (7.8%)
Blanco MV (1984)	<u>26,497 (63.5%)</u>	<u>0</u>	<u>1,785 (92.2%)</u>
Total	41,697	0	1,936
<u>Anticipated Commingled Production &amp; % of total</u>			
Gobernador PC (current average)	50 MCFD (45.5%)	0 (0%)	1 BWPD (16.7%)
Blanco MV (*)	<u>60 MCFD (54.5%)</u>	<u>0 (0%)</u>	<u>5 BWPD (83.3%)</u>
Total	110 MCFD	0	6 BWPD

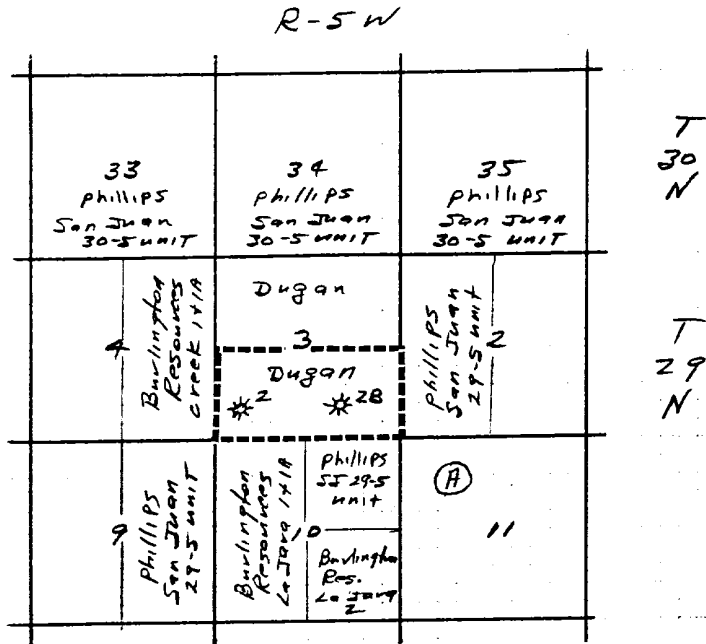
\*-East offset = Dugan's Sherman Edward No. 2B (O-3-29N-5W) averaged 61 MCFD during 1997  
North offset = Dugan's Sherman No 2 (E-3-29N-5W) averaged 84 MCFD during 1997  
South offset = Burlington's La Jara Canyon No. 1A (D-10-29N-5W) averaged 58 MCFD during 1997  
West offset = Burlington's Creek No. 1A (P-4-29N-5W) last produced in 1989

Proposed Commingled Production Allocation

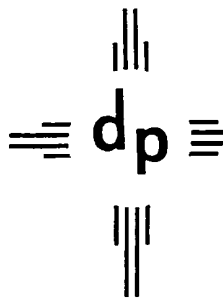
Gobernador PC	45%	100%	17%
Blanco MV	55%	0%	83%

# Attachment No. 6

Operators Offsetting Dugan Production's  
 Sherman Edward No. 2 (M-3-29N-5W)  
 SW/4 + S/2 Spacing units - Gobernador PC & Blanco MV



- ① All of Section 11, T-29N, R-5W is undeveloped in the Gobernador PC & Blanco MV pools. Federal Lease SF-078736 comprises the whole section & according to BLM Records, operating rights are held by Phillips petroleum.



dugan production corp.

Attachment  
No. 7  
Pg 1 of 3

May 20, 1998

**CERTIFIED RETURN RECEIPT**

To: Operators and owners of undeveloped leases (address list attached)  
Offsetting Dugan Production's  
Sherman Edward No. 2  
Unit M, Section 3, Township 29N, Range 5W  
Gobernador Pictured Cliffs and Blanco Mesaverde Gas Pools  
Rio Arriba Co., New Mexico

Dear Offset Operator or Lease Owner:

Attached is a copy of our application to the NMOCD and BLM requesting administrative approval to downhole commingle the existing Gobernador Pictured Cliffs and Blanco Mesaverde completions in the captioned dually completed well.

Notice is being sent to you as an offsetting operator or holder of undeveloped offset leasehold interest. If you have objections to this proposal, you should notify the NMOCD at 2040 South Pacheco, Santa Fe, NM 87505 with a copy to Dugan at our letterhead address within 20 days of this letter date. If you have no objections to this proposal, we would appreciate your signing the waiver below on the duplicate copy of this letter and return to us in the enclosed postage paid envelope.

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

Sincerely,

John D. Roe  
Engineering Manager

The undersigned offset operator/undeveloped lease holder has no objection to Dugan Production's proposed downhole commingling of Gobernador Pictured Cliffs and Blanco Mesaverde production in their Sherman Edward No. 2

\_\_\_\_\_  
Signed  
\_\_\_\_\_  
Company  
\_\_\_\_\_  
Date

JDR/tmf

cc: NMOCD - Santa Fe

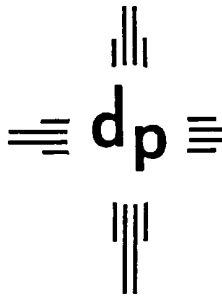


**OFFSET OPERATOR NOTIFICATION  
DUGAN PRODUCTION CORP.'S SHERMAN EDWARD NO. 2  
GOVERNADOR PICTURED CLIFFS & BLANCO MESAVERDE GAS POOLS  
SW/4 & S/2 SPACING UNITS, SECTION 3, T-29N, R-5W  
RIO ARriba COUNTY, NEW MEXICO**

Burlington Resources  
P. O. Box 4289  
Farmington, NM 87499-4289

Phillips Petroleum Co.  
5525 US Highway 64  
Farmington, NM 87401

Dugan Production Corp.  
P. O. Box 420  
Farmington, NM 87499-0420



dugan production corp.

SIGN & RETURN  
THIS COPY

Attachment  
No. 7  
Pg 3 of 3

May 20, 1998

**CERTIFIED RETURN RECEIPT**

To: Operators and owners of undeveloped leases (address list attached)  
Offsetting Dugan Production's  
Sherman Edward No. 2  
Unit M, Section 3, Township 29N, Range 5W  
Gobernador Pictured Cliffs and Blanco Mesaverde Gas Pools  
Rio Arriba Co., New Mexico

Dear Offset Operator or Lease Owner:

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

Sincerely,

*John D. Roe*

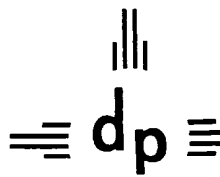
John D. Roe  
Engineering Manager

The undersigned offset operator/undeveloped lease holder has no objection to Dugan Production's proposed downhole commingling of Gobernador Pictured Cliffs and Blanco Mesaverde production in their Sherman Edward No. 2

\_\_\_\_\_  
Signed  
\_\_\_\_\_  
Company  
\_\_\_\_\_  
Date

JDR/tmf

cc: NMOCD - Santa Fe



dugan production corp.



May 20, 1998

RECEIVED  
MAY 21 1998

Ms. Lori Wrotenbery, Director  
New Mexico Oil Conservation Division  
2040 South Pacheco  
Santa Fe, NM 87505

Mr. Duane Spencer  
Bureau of Land Management  
1235 La Plata Highway  
Farmington, NM 87401

OIL CON. DIV.  
DIST. 3

Re: Application for Administrative Approval to Downhole Commingle  
Dugan Production's Sherman Edward No. 2  
API No. 30-039-21246 (M-3-29N-5W)  
Gobernador Pictured Cliffs & Blanco Mesaverde Gas Pools  
Rio Arriba County, NM

Dear Ms. Wrotenbery & Mr. Spencer:

Attached is NMOCD Form C-107A and it's associated attachments where in we are requesting your approvals to downhole commingle natural gas and possibly some condensate production from the Gobernador Pictured Cliffs and Blanco Mesaverde gas pools in the currently dually completed Sherman Edward No. 2 well operated by Dugan Production Corp. Dugan Production holds 100% of the working interest and all interest in each spacing unit is common. Only one Federal lease (NM-23048) is involved and there are no overriding royalty owners.

This well is currently dually equipped with two strings of 1-1/4" tubing. The Mesaverde completion is currently logged off and will not produce without some form of artificial lift. The proposed downhole commingling will allow the installation of larger tubing and both completions to be produced with a plunger if needed. In addition we plan to install wellhead compression for the commingled production. If all goes well, we hopefully will have a much more efficient operation and possibly some increased gas production.

Offset operators/owners of undeveloped leases have been provided a copy of this application and have been asked to waive objection. Should they elect to do so, we will forward their waivers to each of you.

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

Sincerely,

John D. Roe  
Engineering Manager

JDR/tmf

cc: NMOCD - Aztec