

dugan production corp.

August 25, 2000



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

Re: Proposed Surface Commingling
Dugan Production Corp.'s Mucho Deal No. 1 (API No. 30-045-22570)
Dugan Production Corp.'s Mucho Deal No. 14 (API No. 30-045-30179)
Unit F, Section 14, T-30N, R-14W
Federal Leases NM-26052, NM-2555, NM-13213 & NM-15272
Basin Dakota & Harper Hill Fruitland Sand-Pictured Cliffs Gas Pools
San Juan County, NM

F-14-30N-14W

Dear Ms. Wrotenbery and Mr. Otteni,

We are writing to request your approvals to surface commingle natural gas produced from the captioned wells which will allow us to convert the existing natural gas sales meter for the Mucho Deal No. 1 (El Paso's meter no. 90019) to a central delivery sales meter (CDP) for the Mucho Deal No. 1 and No. 14 wells. The working and royalty interest in each well is common, however the overriding royalty interest is not. We plan to install continuous recording dry flow meters at each well site which will provide a continuous measurement of all natural gas production from each well. These meters will be maintained to regulatory standards (currently BLM's Onshore Order No. 5) by Dugan Production and will provide the basis for determining allocation factors for the CDP sales volumes. Considering that the working interest and royalty interest is common and represents 83.55% and 96.0% of the ownership in the No. 1 and 14 wells, respectively, plus considering that we do plan to continuously meter the gas production from each well with allocation meters, we respectfully request that the proposed surface commingling be considered administratively. Very little liquid hydrocarbon production is anticipated and any that does occur (along with any water production) will be separated, stored and either sold or disposed of at each well site. There will be no commingling of oil, condensate or water.

Attachment No. 1 was reproduced from the Youngs Lake USGS Quadrangle Topography map and presents the proposed Mucho Deal CDP along with the subject leases and wells. Attachment No. 2 presents information for each of the wells proposed for this CDP and Attachment No. 3 presents

C-102's for each well which also includes the dedicated spacing units. Dugan Production Corp. is the operator of both wells and holds 100% of the working interest. As stated above, the royalty interest is common for both wells, however the overriding royalty interest is not. The 320 acre west half spacing unit for the Mucho Deal No. 1 comprises four Federal leases (Communitization Agreement SMR1154 - NM-26052, NM-2555, NM-13213 and NM-15272) and the 160 acres NW/4 spacing unit for the Mucho Deal No 14 only includes Federal lease NM-26052. Each lease carries different overriding royalty interest ownership.

The Mucho Deal No. 1 was completed in the Basin Dakota gas pool on 8-2-77 and has produced 461.9 mmcf of gas plus 8531 bbl condensate as of 7-1-00. The well is currently averaging 28 mcf/d plus very little condensate. The production history is presented on Attachment No. 5. This well has produced fairly marginal rates since 1986 and is difficult to keep producing with the small volumes of liquids (water and condensate) which tend to accumulate in the wellbore and log the well off. El Paso's gathering system averages ± 275 psi with pressures periodically approaching 400 psi. We plan to install a compressor for the commingled gas stream from the No. 1 and 14 wells, which hopefully will allow a plunger to be installed in the Mucho Deal No. 1 and should help the well to produce more efficiently and at higher gas rates.

The Mucho Deal No. 14 was spudded on 6-28-00 and has been perforated and fracture stimulated in the Harper Hill Fruitland Sand-Pictured Cliffs gas pool. We are currently installing rod pump equipment and based upon swab testing following the stimulation we anticipate production to initially average between 100 and 200 mcf/d with 300 to 400 bwp/d. We do not anticipate that the Mucho Deal No. 14 will have sufficient wellhead pressure (perfs 1644'-1761') to produce into El Paso's pipeline which averages 275 to 400 psi and thus wellhead compression will be necessary for the Mucho Deal No. 14 to produce.

All fluid production (water and condensate) will be separated from the gas, and will be stored, sold or disposed of at each well site. Only natural gas will be surface commingled. Each well will be equipped with continuous recording dry flow gas metering equipment and the volumes recorded at each well will be used to determine allocation factors for allocating the volumes recorded at the CDP sales meter to the individual wells. Each allocation meter will be installed and maintained by DPC and the charts from each meter will be integrated monthly by a commercial chart service. The proposed allocation procedures are presented on Attachment No. 6.

Gas production from both wells is believed to be compatible and mixing should not create any operational problems. Attachment No. 7 presents copies of representative gas analyses from both pools to be commingled.

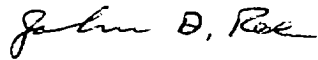
We are sending copies of this application to all interest owners. DPC is the only working interest owner and all royalty is Federal. Attachment No. 8 presents a copy of the letter sent to the overriding royalty interest owners.

In summary, we are proposing to convert the existing gas sales meter for Dugan's Mucho Deal No. 1 to a central delivery sales meter for two wells, Dugan's Mucho Deal No. 1 and No. 14. This will require the surface commingling of natural gas production from both wells. The proposed surface

commingling will allow us to install a compressor at the No. 1 well which will be shared by both wells, and will hopefully provide an increase in production for the No. 1 well and will allow the No. 14 well to produce into the pipeline which otherwise will likely not be possible without compression.

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

Sincerely,

A handwritten signature in cursive script that reads "John D. Roe".

John D. Roe
Engineering Manager

JDR/tmf

cc: NMOCD- Aztec
ORRI owners

Attachment No. 1

Dugan production Corp's

Proposed Mucho Deal COP

El Paso Mtn #70017 - F. 14-30N-14W

Dugan's Mucho Deal #1 - F. 14-30N-13W

Dugan's Mucho Deal #14 - F. 14-30N-14W

T-30N

Radio
Tower
5788

Coolidge

Mucho
Deal
No. 14

Mucho
Deal
No. 1

Mucho
Deal
COP

Legend

..... - Dugan's Fed. Lse #26052

■■■■■ - Dugan's Fed. Lse #2555

■■■■■■■■ - Dugan's Fed. Lse #13213

----- - Dugan's Fed. Lse #15272

Map from Young's Lake Topo

R-14W

ATTACHMENT NO. 2
DUGAN PRODUCTION CORP.
PROPOSED MUCHO DEAL CDP (F-14-30N-14W)
SAN JUAN COUNTY, NEW MEXICO

Well Name	API Number	Well Location			CA Number	Pool	Completion Date	Current Prod.		Spacing Unit
		Unit	Sec-Twn-Rng	Lease No.				Lease Type	MCFD	
WELLS PROPOSED FOR CDP										
Mucho Deal #1	30-045-22570	F	14-30N-14W	NM-26052	SRM1154	Basin Dakota	8/02/77	28 (2)	0.03 (2)	W/2-320A
Mucho Deal #14	30-045-30179	F	14-30N-14W	NM-26052	N/A	Harper Hill FR Sand PC	Note (1)	Note (3)	Note (3)	NW/4-160A

Notes:

N/A - Not needed.

Note (1) - Not completed. Well spudded 6/28/00.

Note (2) - Average during first six months of 2000. Cumulative production 7-1-2000 = 461,921 mcf + 8,531 bbl condensate + 256 bbl water.

Note (3) - Well is shut in waiting on pumping unit installation. Well was foam fractured on 7-26-00 and downhole rod pump equipment installed 8-9-00. Based upon testing to date, we anticipate production to be 100 to 200 mcf plus 300 to 400 bwpd.

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Attachment
No. 3
Pg 1 of 2

Form C-100
Supersedes C-128
Effective 1-1-65

AP# 30-045-22570

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

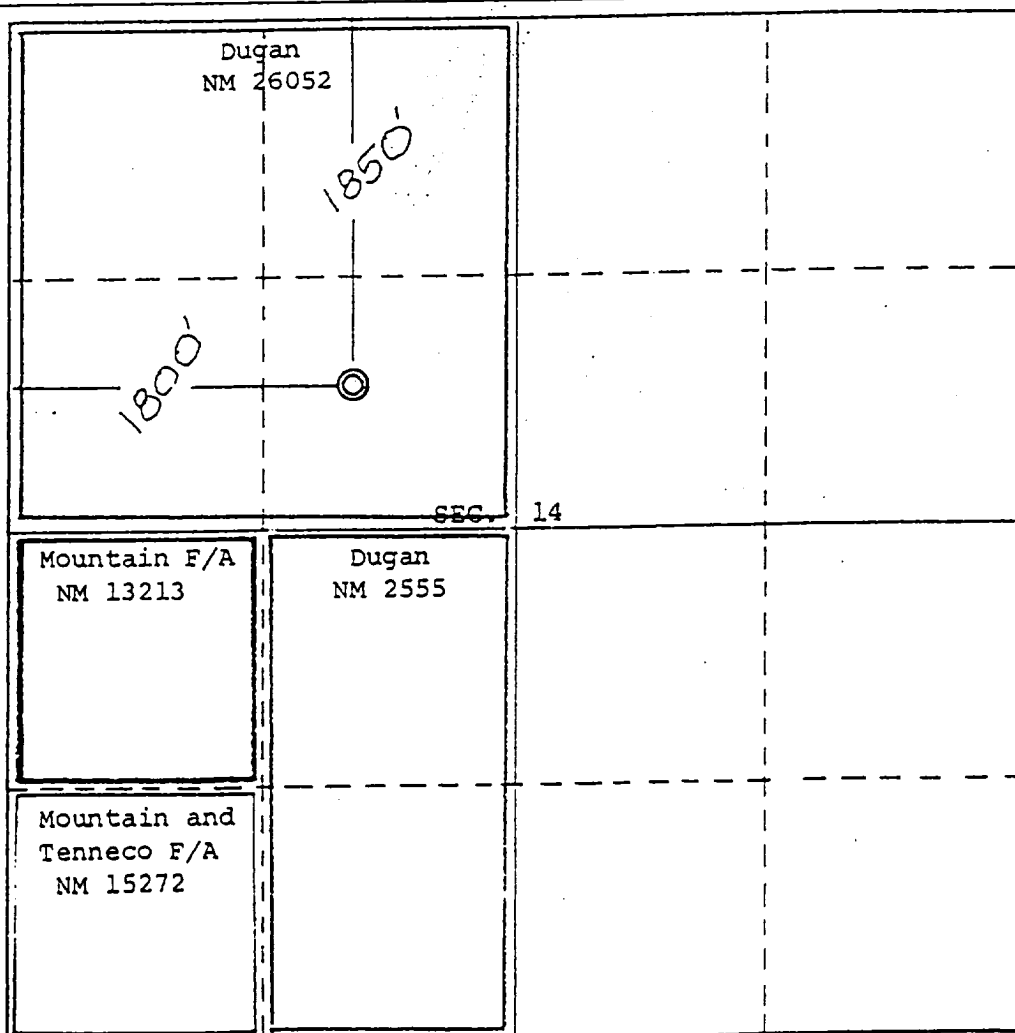
Operator Dugan Production Corporation			Lease Mucho Deal			Well No. 1		
Unit Letter F	Section 14	Township 30 North	Range 14 West	County San Juan				
Actual Footage Location of Well:								
1850.		feet from the North		line and 1800		feet from the West		line
Ground Level Elev. 6040	Producing Formation Dakota		Pool Basin			Dedicated Acreage: 320 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 Communitized - SRM 1154

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.

Thomas A. Dugan

Name

Thomas A. Dugan

Position

Petroleum Engineer

Company

Dugan Production Corp.

Date

7-19-77

I hereby certify that the well location shown on this plat was plotted from field notes of a registered survey 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

May 9, 1977

Registered Professional Engineer and/or Land Surveyor

E.V. Echchawk

Certificate No. 3602

E.V. Echchawk LS



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 Department

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

Amendment
No. 3
Pg 2 of 2

Form C-102
Revised February 21, 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

API Number 30-045-30179		Pool Code 78160	Pool Name Harper Hill Fruitland Sand/PC
Property Code 003776	Property Name Mucho Deal		Well Number 14
OGRID No. 006515	Operator Name Dugan Production Corporation		Elevation 6062'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
F	14	30N	14W	F	1450	North	1550	West	San Juan

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres 160	13 Joint or Infill	14 Consolidation Code	15 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>16</p>	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Sherman E. Dugan</i> Signature Sherman E. Dugan Printed Name Vice-President Title March 1, 2000 Date</p>
	<p>18 SURVEYOR CERTIFICATION</p> <p>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>February 8, 2000 Date of Survey Signature of Professional Surveyor Edgar L. Risenhoover Edgar L. Risenhoover Professional Surveyor Certificate Number 45979</p>

ATTACHMENT NO. 4

Mucho Deal #1
 Basin Dakota Gas Pool
 Well Location: SENW (Unit F) 14, T-30N, R-14W
 Spacing Unit: W/2 Section 14, T-30N, R-14W (320A)
 San Juan County, New Mexico

Mucho Deal #14
 Harper Hill Fruitland Sand PC Gas Pool
 Well Location: SENW (Unit F) 14, T-30N, R-14W
 Spacing Unit: NW/4 Section 14, T-30N, R-14W (160A)
 San Juan County, New Mexico

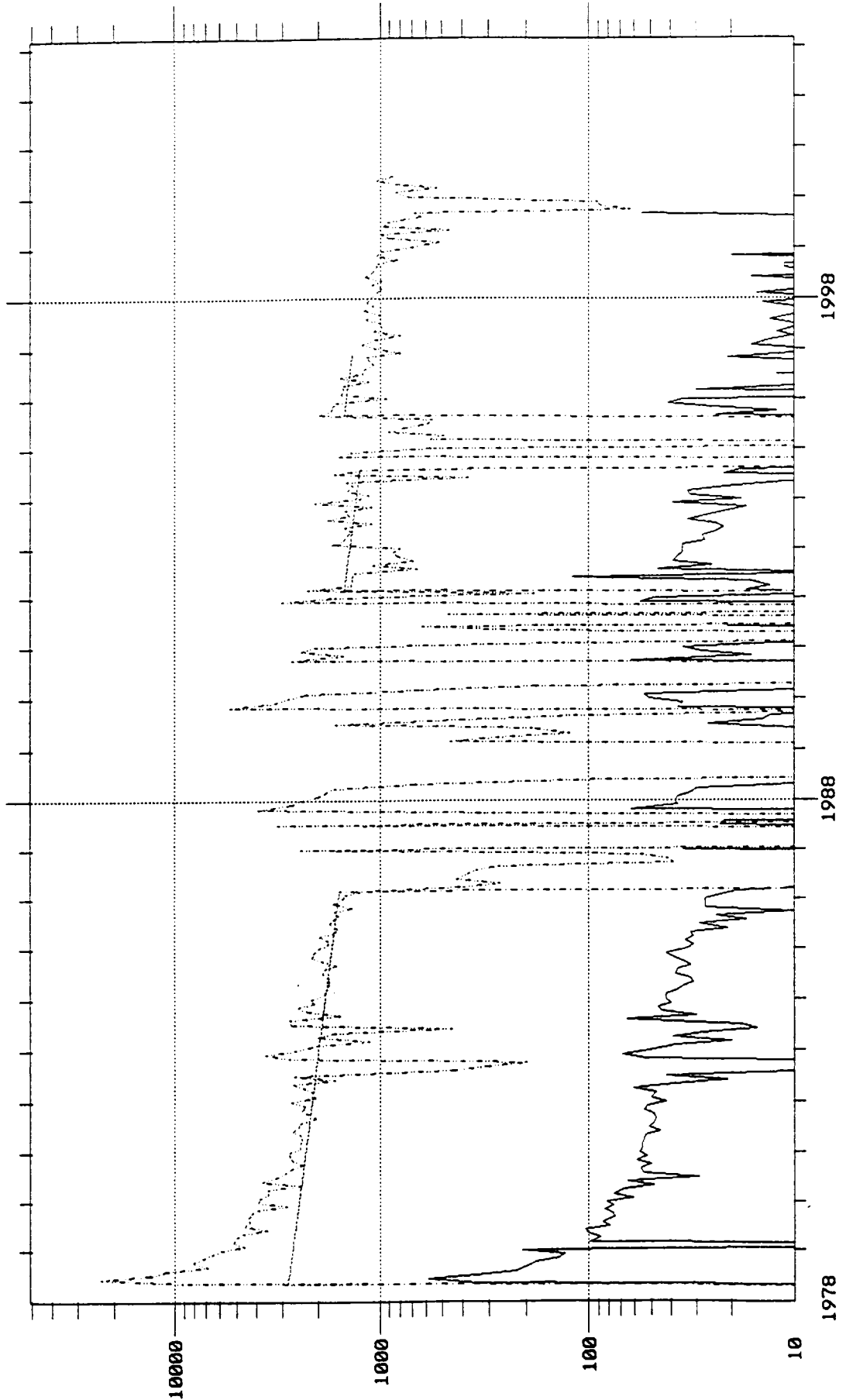
<u>INTEREST OWNER</u>	<u>INTEREST% (Mucho Deal #1)</u>		<u>INTEREST% (Mucho Deal #14)</u>	
	<u>Net</u>	<u>Gross</u>	<u>Net</u>	<u>Gross</u>
<u>Working Interest Owners</u>				
Dugan Production Corp.	71.0531	100.0000	83.5000	100.0000
<u>Royalty Interest Owners</u>				
USA - Bureau of Land Management 1235 La Plata Highway Farmington, NM 87401	12.5000	-0-	12.5000	-0-
<u>Overriding Royalty Interest Owners</u>				
Amoco Production Co. P. O. Box 277897 Atlanta, GA 30384-7897	.7812	-0-		
Diana H. Cook 1740 S. Schooner Creek Rd. Lincoln City, OR 97367	.1250	-0-		
Feil Living Trust, Marie A. Feil Successor Trustee 6096 Upland Terrace S Seattle WA 98118	.2500	-0-		
Celeste C. Grynberg 5000 S. Quebec St., Suite 500 Denver, CO 80237	.7812	-0-		
Ruth P. Jeffers Trust #00611360 Nations Bank TX, NA, Trustee P. O. Box 840738 Dallas, TX 75284-0738	.1250	-0-		
William E. Jeffers, Sr. P. O. Box 65 Artesia, NM 88210-0065	.1250	-0-		
Chester L. Pringle 1991 Trust Chester L. Pringle, Trustee P. O. Box 848 Marble Falls, TX 78654	2.0000	-0-	4.0000	-0-
Questar Exploration & Production Co. P. O. Box 45601 Salt Lake City, OK 84145-0601	9.3843	-0-		
Billie Robinson P. O. Box 1281 Santa Fe, NM 87504-1281	2.8750	-0-		
TOTAL	<u>100.0000</u>	<u>100.0000</u>	<u>100.0000</u>	<u>100.0000</u>

Calculated
Oil
Gas
Water

DUGAN PRODUCTION CORP.
Production Rate vs Time
B81/Mo or Mcf/Mo vs Months
MUCHO DEAL NO.1 (F-14-30N-14W)
BASIN DAKOTA GAS POOL

Production
Oil
Gas
Water

Attachment
No. 5
Pg 1 of 1



Attachment No. 6
Proposed Allocation Procedures
Dugan Production Corp.'s
Mucho Deal CDP
SE NW 14, T-30N, R-14W
San Juan County, New Mexico

Base Data for Gas Production, BTU & Revenue Allocations:

W=Volume (MCF) from Well Allocation Meter

X=Volume (MCF) from CDP Sales Meter

Y=BTU's from CDP Sales Meter

Z=Gas Revenue (\$) from CDP Sales Meter

1. Allocated Individual Well Production = A+B+C+D+E

A = Allocated Sales Volume, MCF
= (W/SUM W) x X

B = Fuel used on lease, MCF. Determined from equipment specifications and operating conditions.

C = Purged and/or vented gas from well and/or lease equipment, MCF. Calculated using equipment specifications and pressures.

D = Allocated fuel from gathering system equipment, MCF. The total fuel required to operate gathering system equipment will be allocated to the individual wells benefitting from the equipment using allocation factors determined by W / Sum W for the wells involved.

E = Allocated volume of gas lost and/or vented from the gathering system and/or gathering system equipment, MCF. The total volume will be determined using industry accepted procedures for the conditions existing at the time of the loss. All volumes corresponding to liquid condensation within the gathering system will also be determined. The total volume lost and/or vented will be allocated to the individual wells affected using factors determined by W / Sum W.

2. Allocated Individual Well BTU's = ((W x Individual well BTU) / Sum (W x individual well BTU)) x Y.

Individual well gas heating values to be determined in accordance with BLM regulations (currently Onshore Order No. 5).

3. Allocated Individual Well Gas Revenues = (Allocated Individual wells BTU's / Sum Allocated individual well BTU's) x Z

CQ.CD 23 EL PASO NATURAL GAS
CUSTOMER ACCOUNTING SERVICES DEPARTMENT
VOLUME CALCULATION DIVISION
POST OFFICE BOX 1492
EL PASO, TEXAS 79978

CONTACTS:
EL PASO FIELD SERVICES
(713) 757-5953
EL PASO MAINLINE
(915) 496-2595

DATE 2/04/99

CHROMATOGRAPHIC GAS ANALYSIS REPORT

AHarkness
No.7
P510FL

MAILEE
26730

DUGAN PRODUCTION CORPORATION
P O BOX 420
FARMINGTON, NM 87499-0420

METER NUMBER 90019 - MUCHO DEAL #1
OPERATOR 1862 - DUGAN PRODUCTION CORP

ANALYSIS DATE 12/15/98
SAMPLE DATE 12/11/98
EFFECTIVE DATE 1/01/99
EFFECTIVE FOR 6 MONTHS

TYPE CODE 2 - ACTUAL
H2S GRAINS 0
LOCATION F - FARM BECK

COMPONENTS	NORMALIZED MOL %	GPM
CO2	.94	.000
H2S	.00	.000
N2	.69	.000
METHANE	83.66	.000
ETHANE	8.58	2.295
PROPANE	3.75	1.034
ISO-BUTANE	.60	.196
NORM-BUTANE	1.02	.322
ISO-PENTANE	.31	.113
NORM-PENTANE	.23	.083
HEXANE PLUS	<u>.22</u>	<u>.096</u>
	100.00	4.139

SPECIFIC GRAVITY .686
MIXTURE HEATING VALUE
(BTU @ 14.73 DRY) 1183
RATIO OF SPECIFIC HEATS .000
NO TEST SECURED FOR H2S CONTENT

EL PASO NATURAL GAS COMPANY
VOLUME ACCOUNTING DEPARTMENT
MEASUREMENT DIVISION
POST OFFICE BOX 1492
EL PASO, TEXAS 79978
PHONE: (915) 541-5267
CHROMATOGRAPHIC GAS ANALYSIS REPORT

DATE 11/13/89

MAILEE
26730

DUGAN PRODUCTION CORPORATION
P. O. BOX 208
FARMINGTON, NEW MEXICO 87401

Aftermarket
No. 7
Pg 2 of 2

METER NUMBER 90541 - COM 3 - Harper Hill Fruitland Sand - DC (J-2-29A-14W)
OPERATOR 1862 - DUGAN PRODUCTION CORP

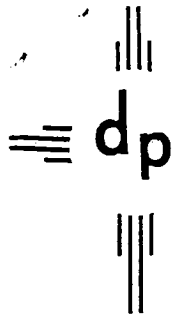
ANALYSIS DATE 0/00/00
SAMPLE DATE 10/20/89
EFFECTIVE DATE 11/01/89
EFFECTIVE FOR 6 MONTHS

TYPE CODE 2 - ACTUAL
H2S GRAINS 0
LOCATION F - FARMINGTON

COMPONENTS	NORMALIZED MOL %	GPM
CO2	.56	.000
H2S	.00	.000
N2	.37	.000
METHANE	95.82	.000
ETHANE	1.71	.457
PROPANE	.78	.215
ISO-BUTANE	.06	.020
NORM-BUTANE	.30	.095
ISO-PENTANE	.08	.029
NORM-PENTANE	.06	.022
HEXANE PLUS	<u>.26</u>	<u>.113</u>
	100.00	0.951

SPECIFIC GRAVITY .593
MIXTURE HEATING VALUE
(BTU @ 14.73 DRY) 1053
RATIO OF SPECIFIC HEATS 1.302
NO TEST SECURED FOR H2S CONTENT

*Since Dugan's
Murch Deal No. 14 is
currently being completed
& a representative gas
sample has not been
obtained, it is believed
this gas sample will be
representative of gas to be*



dugan production corp.

Attachment
No. 8
Pg 1 of 2

August 25, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

To: Overriding Royalty Interest Owners (Address list attached)

Re: Dugan Production Corp.'s
Mucho Deal No. 1 (F-14-30N-14W)
Mucho Deal No. 14 (F-14-30N-14W)
San Juan County, New Mexico

Dear Overriding Royalty Interest Owner,

Attached for your information, review and file is a copy of our application to the New Mexico Oil Conservation Division and the Bureau of Land Management to surface commingle natural gas produced from the captioned wells in which you have an overriding royalty interest ownership in one or both. The proposed surface commingling will allow us to place the recently completed Mucho Deal No. 14 on production and will allow both wells to share the cost of operating a central compressor.

This proposal should not affect your interest in these wells and should allow your revenues to increase since both wells will share a central compressor which will hopefully increase production from the Mucho Deal No. 1 and will allow the Mucho Deal No. 14 to deliver gas into El Paso's pipeline which will likely not occur without the aid of a compressor.

Should you have any questions, need additional information or have any concern as to our proposal, please let me know. Should you have an objection, please let me know, or you can contact the New Mexico Oil Conservation Division directly at 2040 South Pacheco Street in Santa Fe, New Mexico 87505. Any objection should be filed within 20 days of receiving this letter, and we would appreciate receiving a copy of your objection.

Sincerely,

John D. Roe
Engineering Manager

JDR/tmf

Interest Owner List
(a = Mucho Deal #1, b = Mucho Deal #14)

Working Interest Owners

Dugan Production Corp. (a, b)
P. O. Box 420
Farmington, NM 87499-0420

Royalty Interest Owners

USA - Bureau of Land Management (a, b)
1235 La Plata Highway
Farmington, NM 87401

Overriding Royalty Interest Owners

Amoco Production Co. (a)
P. O. Box 277897
Atlanta, GA 30384-7897

Diana H. Cook (a)
1740 S. Schooner Creek Rd.
Lincoln City, OR 97367

Feil Living Trust, Marie A. Feil (a)
Successor Trustee
6096 Upland Terrace S
Seattle WA 98118

Celeste C. Grynberg (a)
5000 S. Quebec St., Suite 500
Denver, CO 80237

Ruth P. Jeffers Trust #00611360 (a)
Nations Bank TX, NA, Trustee
P. O. Box 840738
Dallas, TX 75284-0738

William E. Jeffers, Sr. (a)
P. O. Box 65
Artesia, NM 88210-0065

Chester L. Pringle 1991 Trust (a, b)
Chester L. Pringle, Trustee
P. O. Box 848
Marble Falls, TX 78654

Questar Exploration & Production Co. (a)
P. O. Box 45601
Salt Lake City, UT 84145-0601

Billie Robinson (a)
P. O. Box 1281
Santa Fe, NM 87504-1281