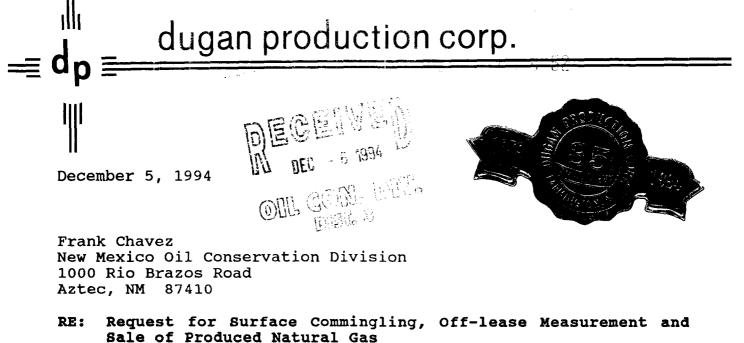
(75 467



Sale of Produced Natural Gas Dugan Production's Topaz Gas Gathering System Federal Leases #NM-76866, SF-078155, SF-078156, SF-078156A and NM-33027 Sections 3 & 4, T25N, R13W and Sections 34 & 35, T26N, R13W San Juan County, New Mexico

Dear Mr. Chavez:

Attached for your records and information is a copy of the BLM's approval for the use of a central gathering system which will require off-lease measurement and surface commingling for six wells operated by Dugan Production which are our Alamo Com No. 90, Cisco Com No. 90 and 91, Jeter No. 3, and Salge Federal A Com No. 90 and 91.

Please note that the initial application dated August 26, 1994 was supplemented on three occasions (September 19, 30 and October 19, 1994).

Should you have any questions or need additional information, please feel free to contact us.

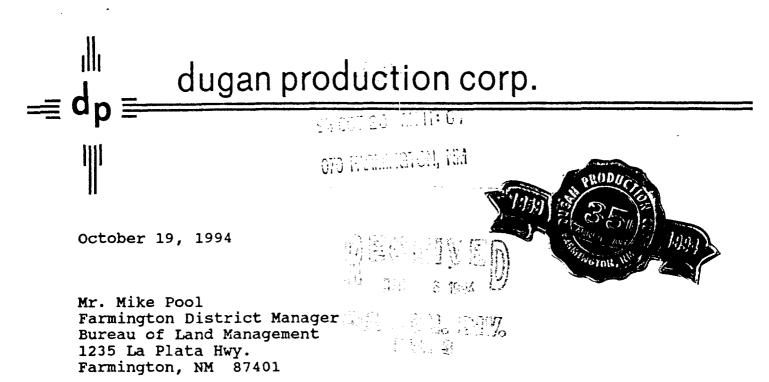
Sincerely,

Ja Can D Kor

John D. Roe Manager of Engineering

JDR/cg

encs.



Re: Dugan Production's Request for Surface Commingling, Off-lease Measurement and Sale of Produced Natural Gas Dated 8/26/94 Dugan Production's Topaz Gas Gathering System Federal Leases #NM-76866, SF-078155, SF-078156, SF-078156A, NM-33027 Sections 3 & 4, T25N, R13W and Sections 34 & 35, T26N, R13W San Juan County, New Mexico

Dear Mr. Pool:

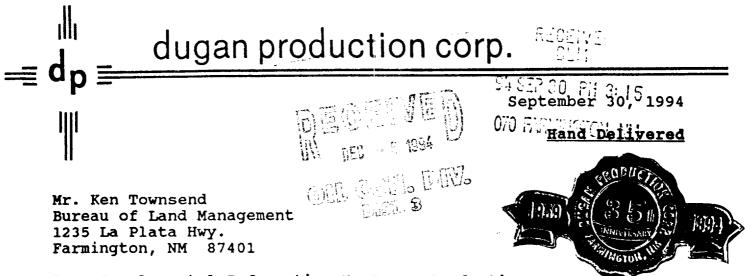
In the captioned application we identified the CDP as being located in the NE/4 SE/4 of Section 25, T26N, R13W. This location should have been the NW/4 SE/4 of Section 25, T26N, R13W. The map attached to this application (Attachment No. 1) is correct.

I hope this has not caused any problems in processing our application.

Should you have any questions, please feel free to call.

Sincerely,

John O. Roc. ADM 17 ACCEPTED FOR RECORD 13 E SPEC John D. Roe Manager of Engineering SOUDS \_\_\_\_ FLUIDS D 1P 2 OCT 24 1994 JR/cg RES, MONT. FARMINGTON DISTRICT OFFICE 21282930 FLUIDS LA E EPS\_\_\_\_\_ ALL SUPP. 71.58



Re: Supplemental Information To Dugan Production Corp's Request for Surface Commingling, Off-lease Measurement and Sale of Produced Natural Gas Dated 8/26/94 Topaz Gathering System San Juan County, New Mexico

Dear Mr. Townsend:

I am writing to provide supplemental information to the subject application. In our initial application dated August 26, 1994, we did not specifically address the issue of gas that may be lost from the wells and/or system as a result of purging or venting.

#### Well Purging:

Should it ever be necessary to vent or purge gas from an individual well for any reason, generally to unload accumulated wellbore fluids (principally water from these wells), Dugan Production currently routinely calculates the volume of gas vented utilizing volumetric methods and accounting for pressures within the individual wells' tubing and casing during the venting process. Any volumes vented in this manner will be added to the individual wells' produced volumes for monthly reporting purposes. Venting or purging of a well is only done when it becomes necessary to remove accumulated liquids and maintain the well's ability to produce. If purging is necessary, our pumper will note the date and time on his daily well report: which is then used to prepare monthly production reports.

### System Losses:

For any gas that might be lost from the system (either as a result of line leaks, venting to clear line freezes, or venting to perform repair or installation of equipment), the volumes will be volumetrically calculated utilizing the affected line capacity and accounting for the initial and final pressures within the system. Any gas volume computed in this manner will be allocated to the

Page 1 of 2

individual wells that contributed to the gas volume lost in proportion to the individual wells' produced volumes as they relate to the sum of the total volumes produced from all wells that are affected by the loss.

Thus, it is Dugan Production's intent to calculate the volumes of gas lost in each case taking into account the pressures of the system or well should it ever be necessary to vent or purge gas (either from the individual wells or from the system in order to maintain operations of the system, install additional equipment, or to work on the system for any reason). The volumes so calculated will be allocated back to the individual wells that are involved and added to the individual well production. Thus, production volumes for each well will be determined by adding to the allocated sales volume (determined as described in our initial application), each wells' share of the calculated lease fuel, system fuel, system shrinkage losses, plus each wells' share of calculated system venting and purging, plus each wells' individual calculated purging or venting. We do not anticipate venting or purging to routinely be necessary for the operation of this system or the wells connected to this system.

The procedures set forth in our initial application for purposes of computing royalties due will be unaffected by these calculations.

We are providing this supplemental information to assure the BLM that Dugan Production will make every effort to account for all produced volumes (primarily gas, but also including water and possibly liquid hydrocarbons) in a manner that accounts for all volumes leaving the well.

I hope this supplemental information will satisfy any deficiency in our initial application and allow your approval of the application.

Should you have questions or need additional information, please feel free to call.

Sincerely,

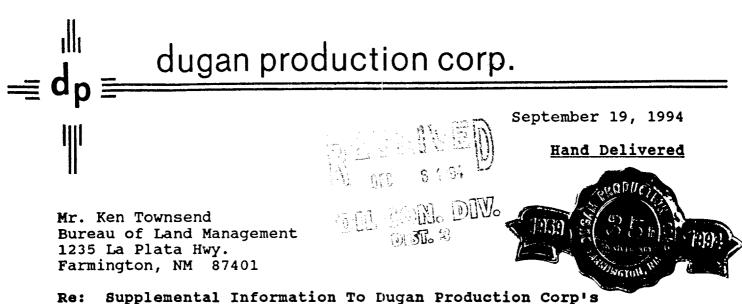
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John & Roe\_

John D. Roe Manager of Engineering

JDR/cg

A P P R O V E D MOV 01 1994 DISTRICT MANAGER



Re: Supplemental Information To Dugan Production Corp's Request for Surface Commingling, Off-lease Measurement and Sale of Produced Natural Gas Dated 8/26/94 Topaz Gathering System San Juan County, New Mexico

Dear Mr. Townsend:

I am writing to provide supplemental information to the subject request for surface commingling, off-lease measurement and the sale of produced natural gas which we discussed in our meeting earlier today.

Although not specifically stated in our initial application, Dugan Production intends to install and operate all of the proposed metering facilities in compliance with Onshore Order No. 5, or as approved by the BLM's authorized officer. This includes meter calibration requirements and BTU determinations.

I have also attached a copy of Attachment No. 2 to our original application which has been revised to include communitization agreement numbers.

I hope this supplemental information will satisfy any deficiency in our initial application and allow your approval of the application.

Should you have questions or need additional information, please feel free to call.

Sincerely,

form Q. Roe

John D. Roe Manager of Engineering

JDR/cg

attachs.



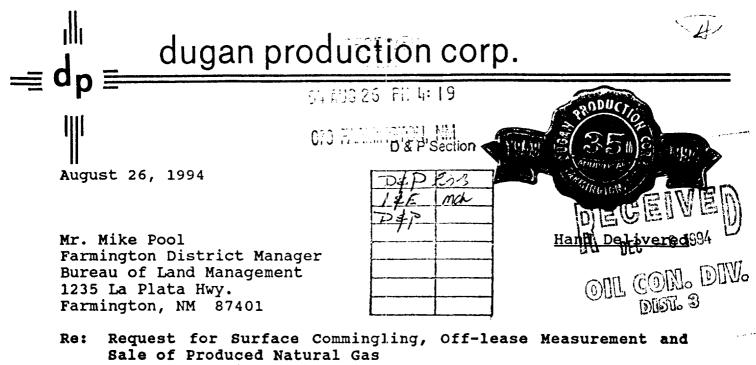
Operator

Attachment No. 2

Wells Connected to Dugan Production Corp's Topaz Gas Gathering System 8/26/94 San Juan County, New Mexico

Alamo Lease #NM-76866 Well Name & No.: Alamo Com Well No. 90 (CA NM NM 91217) Location: NE/SW Sec. 4, T25N, R13W Completion Date: 8-15-93 Initial Potential: 120 MCFD, 80 BWD (Frac) W/2 - 320 acres Spacing Unit: Cisco Lease #SF-078156-A Well Name & No: <u>Cisco Com No. 90</u> (CA NM NM 89398) Location: NW/SW Sec. 3, T25N, R13W Completion Date: 2-22-93 Initial Potential: 269 MCFD, Trace Water Spacing Unit: W/2 - 320 acres Well Name & No: Cisco Com No. 91 (C.A. NM NM 89374) SW/SW Sec. 34, T26N, R13W Location: SEP 19 Fil 3: Completion Date: 4-15-93 FARMINGTON, 277 MCFD, Trace Water Initial Potential: Spacing Unit: W/2 - 320 acres Jeter Lease #SF-078155 Well Name & No: Jeter No. 3 Location: SW/SW Sec. 35, T26N, R13W Completion Date: 04-12-93 Initial Potential: 413 MCFD, Trace Water Spacing Unit: S/2 - 320 acres Salge Federal A Lease #SF-078156 Well Name & No: Salge Federal A Com No. 90 (C.A. NM NM 88297) NW/NE Sec. 3, T25N, R13W Location: Completion Date: 2-12-92 Initial Potential: 172 MCFD, Trace Water Spacing Unit: E/2 - 320 acres Well Name & No: Salge Federal A Com No. 91 (C.A. NM NM 89362) Location: NE/NE Sec. 4, T25N, R13W Completion Date: 2-14-93 Initial Potential: 241 MCFD, Trace Water Spacing Unit: E/2 - 320 acres

Page 6 of 7



Dugan Production's Topaz Gas Gathering System Federal Leases #NM-76866, SF-078155, SF-078156, SF-078156A, NM-33027 Sections 3 & 4, T25N, R13W and Sections 34 & 35, T26N, R13W San Juan County, New Mexico

Dear Mr. Pool:

We are requesting approval for the surface commingling, plus off-lease measurement. and sale of gas produced from six natural gas wells connected to our Topaz Gas Gathering System.

As you are probably aware, El Paso Natural Gas (EPNG) no longer connects marginal or remote wells for gas sales. When we contacted EPNG concerning these wells, we were told that they would not install sales lines to each well but would accept gas from all six wells if Dugan would pay the cost of installing one central delivery point sales meter on their low pressure system and install the necessary gathering system. EPNG has installed a CDP sales meter on their low pressure line, located in NE/SE of Section 25,  $\star NwSE$ T26N, R13W and Dugan Production has installed the necessary gathering system (see Attachment No. 1).

All wells are completed in the Basin Fruitland Coal and tested similar initial potentials during completion ranging from 120 to 413 MCFD. As of 8/1/94, only the Cisco Com #91 was producing with the other 5 wells shut-in, waiting on a pipeline connection. The Cisco Com #91 first produced gas during 12/93, and as of 7/1/94, had produced 14,980 MCF (@14.73 psia), averaging 111 MCFD during the first 6 months of 1994. Production from the Cisco Com #91 currently is sold to the West Bisti Unit fuel gas supply system using the Barton Dry Flow Meter installed at the well. This well is also connected to the Topaz Gas Gathering System and we plan to

See fotto. of 10-19-9 switch sales from the Cisco Com #91 into the Topaz Gas Gathering System in the near future.

The Topaz Gas Gathering System was placed into service on 8/19/94 with 5 wells, the Alamo Com #90, Cisco Com #90, Jeter #3 and Salge Federal A Com Wells #90 & #91 producing into the system. The Cisco Com #91 continues to produce into the West Bisti Unit fuel gas supply system. Gas production and sales volumes will be determined using the standard Barton Dry Flow meters at each of the 6 wells, until the necessary approvals are secured for operation of the Topaz Gas Gathering System using the CDP on EPNG's pipeline.

Dugan Production Corp. is the operator of all 6 wells and all leasehold interest is Federal acreage. There is no Indian, State or Fee acreage within any of the 6 spacing units.

Attachment No. 2 lists each of the 6 wells and their respective lease numbers, locations, completion dates, initial potentials and designated spacing units.

Based upon our experience with similar wells, we anticipate production from each of the wells to average 50 to 120 MCFD after the wells have stabilized. It should be noted that with the exception of the Cisco Com #91, none of the wells have produced subsequent to completion testing and may still have stimulation fluids to be recovered. Currently the 5 wells are producing a total of 120 MCFD.

Based upon our testing to date, we do not anticipate that any of the 6 wells will produce liquid hydrocarbons. All 6 wells will produce dry natural gas and possibly small amounts of water, which is typical to the Fruitland Coal in this area. A gas analysis from the Cisco Com #91 is presented on Attachment No. 3 and is believed to be representative of production to be obtained from the 5 other wells.

Attachment No. 1 is a portion of the Moncisco Mesa, NM topographic quadrangle and depicts the Topaz Gas Gathering System along with lease boundaries and well locations. Many of the wells indicated on this map are part of Dugan Production's West Bisti Unit which produces from the Gallup formation and has very little casinghead gas production. These wells will <u>not</u> be connected to the Topaz Gas Gathering System. For clarification, the 6 wells connected to the Topaz Gas Gathering System have been highlighted in blue.

The commingling of the natural gas production from each lease is the result of using a common system to gather and transport the produced gas to the CDP meter. All gas volumes will be continuously measured with a standard meter run using a Barton Dry Flow Meter installed by Dugan Production on each well or lease. The measurements made with the well or lease meters will be used to determine allocation factors which will then be used to allocate

gas sales volumes recorded at the CDP meter back to the individual The gas charts from each well or lease allocation meter will be integrated monthly to determine the gas volumes recorded. The allocation factors will be calculated by dividing the individual chart volumes by the total of all volumes recorded by the allocation meters.

For royalty purposes, the total BTU's sold at the CDP meter will be allocated to the individual wells or leases using an allocation factor determined by dividing the individual well or lease BTU quantity (individual well BTU x Allocated Sales Volume) by the total of all individual well or lease BTUs similarly determined. This procedure should insure that revenues resulting from gas sales are allocated to each well and lease in a fair and equitable manner and will insure a proper distribution of royalty proceeds.

\* Production volumes for each well or lease will then be determined by adding to the allocated sales volume, each well's share of the calculated lease fuel, system fuel and system shrinkage losses. 9-30-94

see

Currently, there is no well or system equipment that requires fuel and since the Topaz Gas Gathering System is connected to EPNG's low pressure pipeline (100 psi or less) we do not anticipate the installation of any equipment which would require fuel in the near Should lease or system equipment ever be needed, the future. required fuel usage would be determined from manufacturer's design specifications and allocated to the individual wells served by the equipment in a proportion determined from the individual sales totals.

Currently, we anticipate little or no system loss and/or shrinkage since liquid hydrocarbon production is not anticipated. There may be minor amounts of water condensation that occurs, and if so, the volumes of water will be included in the reported volumes of water production. Each well is equipped with a drip trap and there is also a drip trap located ahead of the CDP meter.

Prior to placing the Topaz Gas Gathering System into service, the initial line integrity was verified by pressure testing to 300 psi using air. Since this system is producing into EPNG's gathering system which has a maximum pressure of 100 psi, the pressures within the Topaz Gas Gathering System should never exceed 100 psi To further insure the gathering system line integrity, we also. will periodically survey the entire line between the wells and the CDP sales meter using our Flame Pack Model 400 gas leak detector.

In summary, Dugan Production Corp. is requesting approval to operate the Topaz Gas Gathering System which will require offlease measurement and sale of produced gas. In addition, we are requesting approval for the surface commingling of production from the wells summarized on Attachment No. 2. Dugan Production Corp. has incurred a substantial investment in installing this gathering

Page 3 of 7

; .

system, following extensive negotiations with EPNG which refused to make wellhead connections for these wells. The only way EPNG would consider accepting the gas produced from the subject wells was if we gathered and delivered the gas to a central point on their existing system, which necessitates operation of the Topaz Gas Gathering System as described herein.

Should you need additional information or have questions regarding any of this information, please feel free to contact me or Barbara Williams at the letterhead address.

Sincerely,

John O. Roe

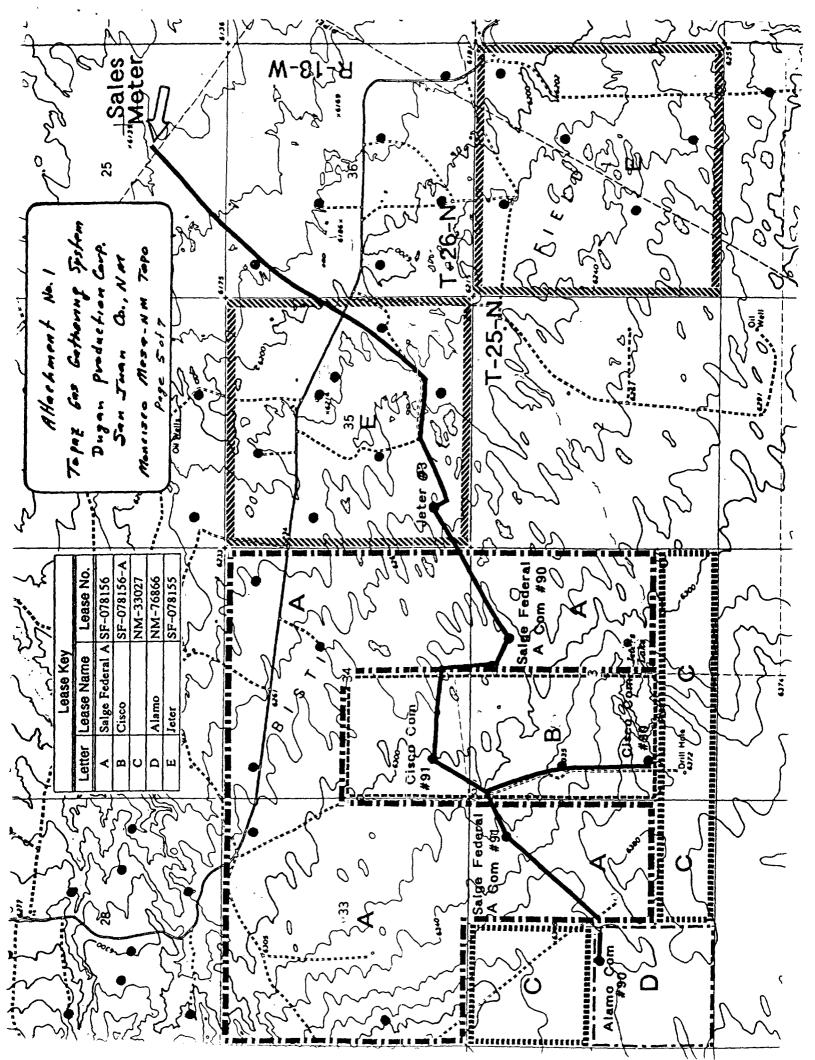
John D. Roe Manager of Engineering

BW/JR/cg

attachs.



OCT 11 1994 DISTRICT MANAGER



## RECEIVED

Attachment No. 2

AUG 2 6 1994

Wells Connected to Dugan Production Corp'SURFAU OF LAND MANAGEMENT FARMINGTON DISTRICT OFFICE Topaz Gas Gathering System 8/26/94 San Juan County, New Mexico

Lease No. NM-33027)

Lease No. SF-078156)

W/2 - 320 acres

W/2 - 320 acres

NW/SW Sec. 3, T25N, R13W

SW/SW Sec. 34, T26N, R13W

Cisco Com No. 90 (Communitized with

Cisco Com No. 91 (Communitized with

Alamo Lease #NM-76866 Well Name & No.: Alamo Com Well No. 90 (Communitized with Lease No. NM-33027) Location: NE/SW Sec. 4, T25N, R13W Completion Date: 8-15-93 Initial Potential: 120 MCFD, 80 BWD (Frac) Spacing Unit: W/2 - 320 acres

2-22-93

4-15-93

Cisco Lease #SF-078156-A Well Name & No:

· · · ·

Location: Completion Date: Initial Potential: 269 MCFD, Trace Water Spacing Unit:

Well Name & No:

Location: Completion Date: Initial Potential: 277 MCFD, Trace Water Spacing Unit:

Jeter Lease #SF-078155 Well Name & No:

Jeter No. 3 Location: SW/SW Sec. 35, T26N, R13W Completion Date: 04-12-93 Initial Potential: 413 MCFD, Trace Water Spacing Unit: S/2 - 320 acres

Salge Federal A Lease #SF-078156

<u>Salge Federal A Com No. 90</u>
(Communitized with Lease #NM-33027)
NW/NE Sec. 3, T25N, R13W
2-12-92
172 MCFD, Trace Water
E/2 - 320 acres
<u>Salge Federal A Com No. 91</u>
(Communitized with Lease #NM-33027)
NE/NE Sec. 4, T25N, R13W
2-14-93
241 MCFD, Trace Water
E/2 - 320 acres



- 5 FARMINGTON AVENUE - FAR GTON, NM 87401

(505) 325-6622

ANALYSIS NO. DUG30112

WELL/LEASE INFORMATION

COMP	ANY :	DUGAN	PRODUCTION CORPORATION	
WELL	NAME :	CISCO	COM #91 /	

LOCATION:

- COUNTY: SAN JUAN
- FORMATION: FRUITLAND
- METER NO .:

REMARKS: TUBING 198 PSI CASING 198 PSI

LINE	PRESSURE:	198 PSIG

SAMPLE TEMP.: DEG.F

WELL FLOWING: NO

DATE SAMPLED: 5/7/93

SAMPLED BY: CHARLES HALL

Alforhmen No.3 Poge 7 of 7

ANALYSIS

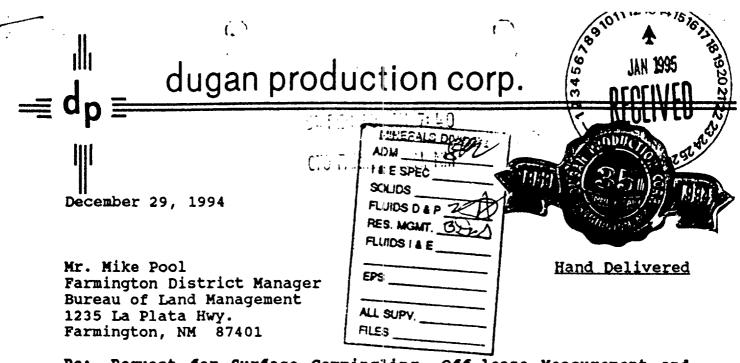
	MOLES	GPM
NITROGEN	7.855	0.0000
~ ~ ~		0.0000
METHANE	0.627 89.477	0.0000
ETHANE	2.030	0.5430
PROPANE	0.002	0.0006
I-BUTANE	0.002 0.000 0.000	0.0000
		0.0000
I-PENTANE	0.000	0.0000
N-PENTANE		0.0000
HEXANE+	0.009	0.0039
TOTAL	100.000	0.5475
COMPRESSIBILITY	FACTOR (1/Z)	1.0019
BTU/CU.FT. (DRY	) CORRECTED FOR (1/Z)	944.1
BTU/CU.FT. (WET	) CORRECTED FOR (1/Z)	927.7
REAL SPECIFIC G	RAVITY	0.6034

ANALYSIS RUN AT 14.73 PSIA & 60 DEGREES F

CYLINDER PRESSURE: 191 PSIG

DATE RUN: 5/10/93

ANALYSIS RUN BY: CHELLE DURBIN



Re: Request for Surface Commingling, Off-lease Measurement and Sale of Produced Natural Gas - One Additional Well Dugan Production's Topaz Gas Gathering System Federal Lease SF-078155 Section 1, T25N, R13W San Juan County, New Mexico

Dear Mr. Pool:

We are writing to request approval for the surface commingling, plus off-lease measurement and sale of gas produced from one additional natural gas well connected to our Topaz Gas Gathering System.

Dugan Production's Topaz Gas Gathering Systems currently receives gas from six Basin Fruitland Coal wells and during November, production totalled 11,641 MCF (@ 14.73 psi) for an average of 388 MCFD. The operation of the gas gathering system which delivers gas to a CDP sales meter in the NW/4 SE/4 of Section 25, T26N, R13W and located on El Paso Natural Gas Company's low pressure system was authorized by the BLM on October 11, 1994. Our application for the operation of this gathering system was dated August 26, 1994 with supplemental information being submitted on September 19th, September 30th and October 19th, 1994.

Attachment No. 1 presents the Topaz Gas Gathering System with the addition of Dugan Production's Jeter No. 4 which is the well to be added and is the subject of this request. Dugan Production drilled and completed the Jeter No. 4 during the latter part of 1992 in the Basin Fruitland Coal Pool with an initial potential of 404 MCFD. Subsequent to completion, the well has been shut-in awaiting a pipeline connection. Upon installation and approval of the Topaz Gas Gathering System, Dugan Production has proceeded to connect the Jeter No. 4 to this system using an idle line previously utilized within the West Bisti Unit (also operated by Dugan

Page 1 of 5

APPROVEN

AN 08 1995

NOT QUET MONIAL SEP 3

709 E. MURRAY DR. • P. O. BOX 420 • FARMINGTON, N.M. 87499-0420 • PHONE: (505) 325-185

CPEF/ICH

connected to the Topaz Gas Gathering System. For Clarification, the 7 wells connected to the Topaz Gas Gathering System have been highlighted in blue.

Attachment No. 2 lists pertinent data for the Jeter No. 4 well along with information for the six previously approved wells.

The commingling of the natural gas production from each lease is the result of using a common system to gather and transport the produced gas to the CDP sales meter. All gas volumes will be continuously measured at each well using a standard meter run and conventional orifice metering equipment installed by Dugan Production.

Currently, the Jeter No. 4 has no well or system equipment that

requires fuel, and since the Topaz Gas Gathering System is connected to EPNG's low pressure pipeline (100 psi or less), we do not anticipate the installation of any equipment which would require fuel in the near future.

In summary, Dugan Production Corp. is requesting approval to add one well, our Jeter No. 4, to the Topaz Gas Gathering System which will require surface commingling, plus off-lease measurement and sale of produced gas. This well will be operated in the same manner as has been approved by the BLM for the other 6 wells currently delivering gas into the system. Dugan Production Corp. has incurred a substantial investment in installing this gathering system, following extensive negotiations with EPNG upon their refusal to make wellhead connections for these wells. The only way EPNG would consider accepting the gas produced from the subject wells was if we gathered and delivered the gas to a central point on their existing system, which has necessitated the installation and operation of the Topaz Gas Gathering System.

Should you need additional information or have questions regarding any of this information, please feel free to contact me or Barbara Williams at the letterhead address.

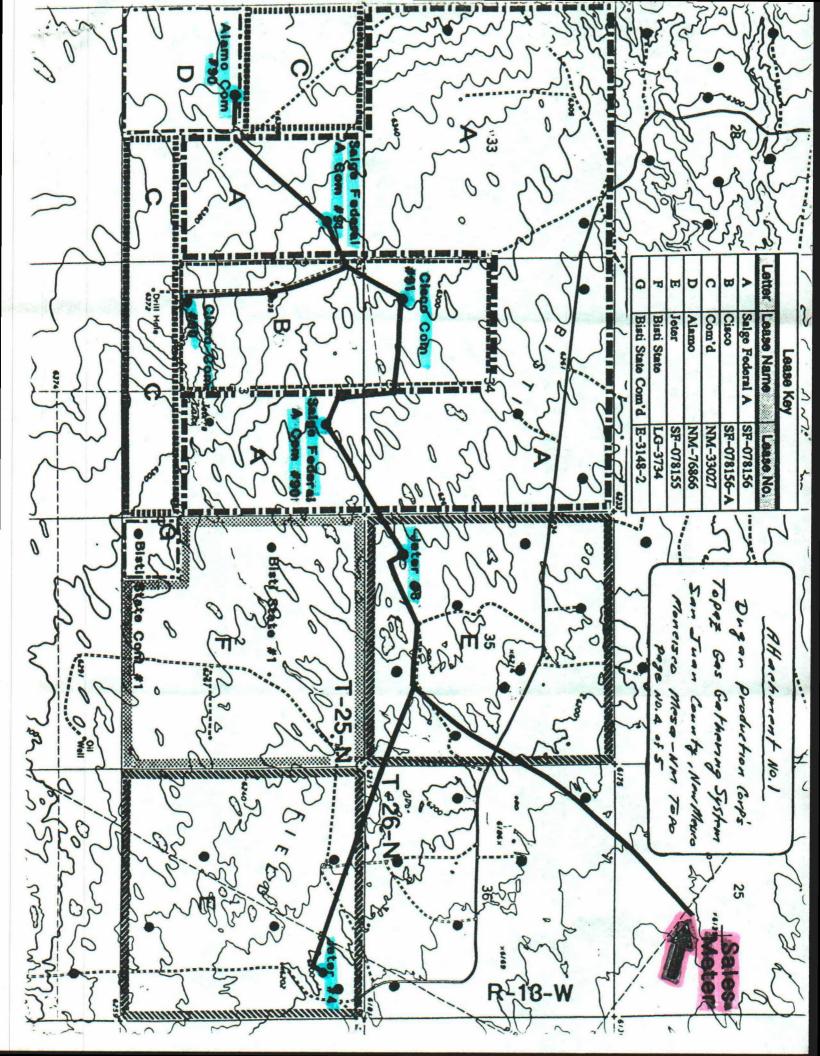
Sincerely,

John O Roe\_

John D. Roe Manager of Engineering

JDR/cg

attachs - 2



# SAN JUAN COUNTY, NEW MEXICO TOPAZ GAS GATHERING SYSTEM 12-29-94 DUGAN PRODUCTION CORP. **ATTACHMENT NO. 2**

					Communitization						Dates for	, द Э
	Ę			ł		Denotioning	Constants					
						Runnan .				Currendo		
Name	* *	Sec-Twn-Rng	Number	Lease	Number	Interval	Date	MCFD	BWPD	Unit	Application	Approval
WELLS TO BE ADDED TO SYSTEM	NSTEM											
Jeter #4	NENE	01-25N-13W SF-078155	SF-078155	Fød.	NA	Basin Fruitland Coal	12-21-92	404 NR	A	N/2-320A	N/2-320A 12-29-94 Pending	Pending
WELLS PREVIOUSLY APPROVED FOR SYSTEM	OVED FO	REVEN						8 1	a marta da an			
Alamo Com #90	NESW	04-25N-13W NM 76866		Fed.	NM NM 81217	Basin Fruitland Coal	08-15-93	120	120 80 (Frac)	W/2-320A	W/2-320A 08-26-942 10-11-94	10-11-94
Claco Com #90	NWSW	NWSW 03-25N-13W SF 078156-A Fed.	SF 078156-A	Fed	NM NM 89398	<b>Basin Fruitland Coal</b>	02-22-93	269 Trace	[race	W/2-320A	W/2-320A 08-26-94 10-11-94	10-11-94
Cisco Com #91	WSWS	34-26N-13W SF 078156-A Fed.	SF 078156-A	Fed.	NM NM 89374	<b>Basin Fruitland Coal</b>	04-15-93	277 Trace	[1309	W/2-320A	W/2-320A 08-26-942 10-11-94	10-11-94
Joter #3	SWSW	35-26N-13W SF 078155	· ·	Fed.	N/A	<b>Basin Fruitland Coal</b>	04-12-93	413 Trace	[INCO	S/2-320A	S/2-320A 08-26-942 10-11-94	10-11-94
Salge Federal A Com #90	NWNE	NWNE 03-25N-13W SF 078156		Fed.	NM NM 88297	<b>Basin Fruitland Coal</b>	02-12-92	172 Trace	[race	E/2-320A	E/2-320A 08-26-942 10-11-94	10-11-94

# N/A - Not Applicable

Salge Federal A Com #91

NENE 04-25N-13W SF 078156

Fed. NM NM 89362

**Basin Fruitiand Coal** 

02-14-93

241 Trace

E/2-320A 08-26-942 10-11-94

Page 5 of 5

- None Reported

 $(\_$  - Applications for Surface Commingling, Off-lease Measurement & Sale () - Application Supplemented 9/19/94, 9/30/94 and 10/19/94

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