dugan production corp.

June 22, 1998

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

Mr. Ray Powell, Commissioner
New Mexico State Land Office
P. O. Box 1148
Santa Fe, NM 87504-1148

Mr. Lee Otteni, District Manager
Bureau of Land Management
1235 La Plata Highway
Farmington, NM 87401

Re: Request for Surface Commingling, Off-lease Measurement, Storage, and Sale of Produced Natural Gas plus Gathering System Drip Accumulations
Dugan Production's Goodtimes Gas Gathering System
San Juan County, New Mexico

Dear Ms. Wrotenbery, Mr. Powell, and Mr. Otteni:

We are writing to request your approvals for the addition of 58 wells and/or meter sites to Dugan's Goodtimes Gas Gathering System (GGGS) which will require the surface commingling, plus off-lease measurement and sale of natural gas production along with a small amount of liquid hydrocarbons (drip) that may accumulate in the gathering system drip traps. In addition, we are also requesting approval for the off-lease storage of the drip collected at each drip trap. This application is the twelfth expansion to the GGGS which was initially approved by the BLM on 1-18-84. There currently are 121 wells (129 completions) that have previously been approved and with this application, the GGGS will have a total of 179 wells (187 completions). As of 6-1-98, there were 151 completions producing into the GGGS which includes 105 on Federal leases, 23 on State leases and 23 on Navajo Allotted leases. With the exception of four wells operated by Universal Resources (which deliver gas into the GGGS at a common meter site), all wells are operated by Dugan Production Corp. During 1997, the 151 completions connected to Dugan's GGGS produced a total of 142,614 bbl of oil and condensate plus 535,103 MCF of gas from nine pools (six oil and three gas), all located in Townships 23N & 24N, Ranges 8W thru 11W of San Juan County, New Mexico. In addition to adding 58 new wells to the GGGS, this application also serves to update the previously approved wells using the recently published Federal and Navajo Allotted guidelines for off-lease measurement and surface commingling.

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Attachment No. 1 presents a participation statement for Universal Resources Corporation as an operator of wells delivering gas into the GGGS operated by Dugan Production. Universal Resource's wells are all within 1½ miles of Dugan's GGGS, the closest being approximately ½ mile. Since El Paso's pipeline is approximately 8 miles away, Dugan's GGGS provides an important option for the sale of gas from Universal's wells, and without Dugan's GGGS, it is likely that gas from Universal's wells would not be sold.

Attachment No. 2 consists of three full scale maps which were produced using USGS 7½ minute Quadrangle topography maps and present the Goodtimes Gas Gathering System lines, lease descriptions plus well and system equipment locations. There are two CDP meter sites for the GGGS. CDP No. 1 was placed into service on 12-1-86 and is located in the SE/4 SE/4 of Section 22, T-24N, R-8W (Map No. 3). Gas deliveries at this CDP were initially to Mesa Petroleum and subsequently to Bannon Energy, Inc., Lomak Petroleum, Inc., and currently Elm Ridge Resources as ownership of the downstream system changed. During 1997, approximately 72% of the gas sold from the GGGS occurred at CDP No. 1. CDP No. 2 was initially placed into service on 6-10-81 delivering gas from Dugan's GGGS to El Paso Natural Gas Co. at their pipeline in the NE/4 NE/4 of Section 13, T-24N, R-10W (Drip Tank No. 5 location on Map No. 2). On 7-16-92, El Paso moved this CDP meter approximately 3/4 mile north to it's current location in the SE/4 NE/4 of Section 12, T-24N, R-10W (Map No. 2) and gas at this CDP is currently delivered to El Paso Field Services and during 1997 accounted for approximately 28% of the total GGGS sales.

Attachment No. 3 presents well and lease information pertinent to this application for the 58 completions or meter sites to be added plus the 129 completions (121 wells) that have previously been approved for the GGGS. In addition, the application and approval dates for the prior 11 expansions to the GGGS are also listed.

The 58 completions/meter sites to be added with this application include 34 completions and meter sites that are currently connected and producing into the GGGS, 11 wells that are completed and producing but not yet connected, four wells that have been drilled but have not been completed, one well that was connected but has subsequently been plugged plus eight locations of wells proposed to be drilled in the vicinity of our GGGS which will likely be connected to the GGGS upon completion.

The 34 completions/meter sites that are producing into the GGGS include 19 Dugan operated wells that are on leases not previously approved, 14 Dugan operated wells located on leases previously approved for the GGGS plus one meter site which receives gas delivered to the GGGS by Universal Resources. For the most part all wells that have been completed during the ± four year period that guidelines for surface commingling and off-lease measurement on Federal and Indian lands were being developed through a joint BLM and Industry committee effort of the San Juan Basin Working Committee. This committee was formed in March of 1994 and Dugan Production has actively participated in this committee effort from the beginning which also included representatives of the BLM's Farmington District, Albuquerque District, and State

Well Name	API # 30-045	Well Location ¼ ¼ Sec-Twn-Rng		Lease No.	Lease Type	Pool	Spacing Unit
WELLS TO BE ADDED TO SYSTEM							
Adobe A 1	21872	SE NW	29-24N-8W	SF078868	FED	CUERVO GALLUP	SE/4 NW/4
Angel's Gate 90	29394	SW NE	21-24N-8W	NM93774	FED	BASIN FR COAL	E/2
April Surprise 2 GA	23892	NW SW	30-24N-9W	NM4958	FED	BISTI LOWER GA	N/2 SW/4
April Surprise 7	29293	NW NE	31-24N-9W	NM4958	FED	BISTI LOWER GA	W/2 NE/4
April Surprise 8	29419	SE SE	30-24N-9W	NM4958	FED	BISTI LOWER GA	S/2 SE/4
April Surprise 9		NW SE	30-24N-9W	NM4958	FED	BISTI LOWER GA	N/2 SE/4
April Surprise 90	29188	NW SW	19-24N-9W	NM4958	FED	BASIN FR COAL	W/2
August 90	20184	NW SW	35-24N-10W	NM43443	FED	BASIN FR COAL	W/2
Blanco Wash 1 MV	22473	NW SE	2-24N-9W	142006031404	I	WHITE WASH MV	NW/4 SE/4
Bowers 90	29194	SW SE	17-24N-8W	NM26047	FED	BASIN FR COAL	S/2
Buddha Temple 90	29239	NE NE	30-24N-8W	NM54980	FED	BASIN FR COAL	N/2
Champ 8	28637	SW SW	5-23N-10W	NM42059	FED	BISTI GALLUP SO.	S/2 SW/4
Champ 9	29287	SW SE	1-23N-10W	NM42059	FED	BISTI GALLUP SO.	W/2 SE/4
Champ 10		NE SE	1-23N-10W	NM42059	FED	BISTI GALLUP SO.	E/2 SE/4
December Dream 2	29360	SW NW	7-23N-9W	NM19816	FED	BISTI GALLUP SO.	S/2 NW/4
December Dream 3	29408	NE SW	7-23N-9W	NM19816	FED	BISTI GALLUP SO.	N/2 SW/4
Elwood P. Dowd Com 90		SE SW	12-24N-9W	NM9520	FED	BASIN FR COAL	W/2
Flo-Jo 4	28645	NE SE	1-23N-11W	NM36952	FED	BISTI GALLUP SO.	E/2 SE/4
Flo-Jo 5	29133	SW SE	1-23N-11W	NM36952	FED	BISTI GALLUP SO.	W/2 SE/4
Flo-Jo 6	29288	NE SW	1-23N-11W	NM36952	FED	BISTI GALLUP SO.	E/2 SW/4
Flo-Jo 7	29368	SW SW	1-23N-11W	NM36952	FED	BISTI GALLUP SO.	W/2 SW/4
Harvey 2 GA	24420	SE NW	20-24N-9W	NM10755	FED	BISTI LOWER GA	S/2 NW/4
Hoss 1	29376	SE NE	11-23N-11W	NM96800	FED	BISTI GALLUP SO.	E/2 NE/4
Kaibab Trail 90	29393	SE SW	20-24N-8W	NOOC14204310	I	BASIN FR COAL	W/2
Largo Federal B 90	29428	NE NE	25-24N-9W	SF078860	FED	BASIN FR COAL	E/2
Lee's Ferry 90	29338	NW SE	19-24N-8W	NM41650	FED	BASIN FR COAL	E/2
Luna 3	29215	NE NW	16-23N-9W	LG9801	ST	BISTI GALLUP SO.	E/2 NW/4
Mary Anne 3	25050	NW SW	9-24N-9W	NM10089	FED	BISTI LOWER GA	S/2
McDougall 2	28619	NE SE	9-23N-10W	NM51005	FED	BISTI GALLUP SO.	E/2 SE/4
Merry Chase Com 90		SE SW	10-24N-9W	NM100302	FED	BASIN FR COAL	S/2
Mesa 1	22055	SW NE	16-24N-8W	LG1917	ST	POTWIN PC	NE/4
Mesa 90	29159	SW SW	16-24N-8W	LG1917	ST	BASIN FR COAL	W/2
Mo Valley 90	29549	SW SW	5-24N-9W	NM23742	FED	BASIN FR COAL	S/2
November 24 1	29295	NE SE	27-24N-9W	NM12374	FED	BISTI LOWER GA	N/2 SE/4
November 24 2	28961	NW SW	28-24N-9W	NM12374	FED	BISTI LOWER GA EXT.	N/2 SW/4
Ohwada 1	28981	SW SW	33-24N-9W	NM90843	FED	W/C BISTI CHACRA	sw/4
Ohwada 2	29112	NE NW	33-24N-9W	NM90843	FED	BISTI LOWER GA	N/2 NW/4
Okie 2	22304	SE NW	8-24N-8W	NM19567	FED	BASIN FR COAL	N/2
Par 1	28968	NE NE	11-23N-10W	NM86485	FED	BISTI GALLUP SO.	E/2 NE/4
Phillips 1	26803	SE NE	5-24N-9W	NM30854	FED	W/C FR & PC	NE/4

Well Name	*API # 30-045*	*Well Location ¼ ¼ Sec-Twn-Rng*		*Lease No.*	*Lease Type*	*Pool*	*Spacing Unit*
Pierre 1	29237	NW NW	12-23N-11W	NM80498	FED	BISTI GALLUP SO.	N/2 NW/4
Roadrunner 90	28027	NE SW	36-24N-11W	V2364	ST	BASIN FR COAL	S/2
Rodeo Rosie Com 90		SE NE	29-24N-10W	NM15654	FED	BASIN FR COAL	E/2
Sanchez O'Brien 90		SW SW	6-24N-9W	NM97108	FED	BASIN FR COAL	W/2
Sapp 1	05095	NE NE	28-24N-8W	SF078868	FED	CUERVO MV	NE/4 NE/4
Sapp 2	29243	SE NE	28-24N-8W	SF078868	FED	LYBROOK GALLUP	SE/4 NE/4
Sapp 90	29192	NW NE	29-24N-8W	SF078868	FED	BASIN FR COAL	N/2
Sapp 91	29238	NE SW	29-24N-8W	SF078868	FED	BASIN FR COAL	S/2
Sapp 92	29290	NE SW	28-24N-8W	SF078868	FED	BASIN FR COAL	S/2
Sapp 93	29289	SW NE	28-24N-8W	SF078868	FED	BASIN FR COAL	N/2
September 15 GA	26518	NE NE	24-24N-10W	NM54983	FED	BISTI LOWER GA	N/2 NE/4
Sheba Temple 1	26802	NE SW	30-24N-8W	NM54981	FED	UNDES FR PC	SW/4
Sixteen G's 4	29440	NE SW	7-24N-9W	NM25433	FED	BISTI LOWER GA	W/2
St. Moritz 1	28584	SW SW	26-24N-10W	NM78060	FED	BISTI GALLUP SO.	S/2 SW/4
Supai Point 1	28996	NE NE	20-24N-8W	NM83507	FED	BASIN FR COAL	E/2
Supai Point 91		NW NE	20-24N-8W	NM83507	FED	BASIN FR COAL	E/2
Target 90		NE SW	20-24N-10W	NM43442	FED	BASIN FR COAL	W/2
WELLS OPERATED BY OTHERS							
Universal Resources Federal 'D' CDP		NE NE	16-23N-9W	NM8005	FED	BISTI GALLUP SO.	
UR - Federal D 3	28455	SW SE	3-23N-9W	NM8005	FED	BISTI GALLUP SO.	W/2 SE/4
UR - Federal D 4	28376	NE NE	10-23N-9W	NM8005	FED	BISTI GALLUP SO.	E/2 NE/4
UR - Federal D 5	28456	SW NW	10-23N-9W	NM8005	FED	BISTI GALLUP SO.	W/2 NW/4
UR - Federal D 6	28377	SW SW	10-23N-9W	NM8005	FED	BISTI GALLUP SO.	S/2 SW/4
WELLS PREVIOUSLY APPROVED FOR SYSTEM							
April Surprise 2 DK	23892	NW SW	30-24N-9W	NM4958	FED	BASIN DAKOTA	W/2
April Surprise 3	25122	NW NW	19-24N-9W	NM4958	FED	BISTI LOWER GA	W/2
April Surprise 4 DK	25487	NW SW	19-24N-9W	NM4958	FED	BASIN DAKOTA	S/2
April Surprise 4 GA	25487	NW SW	19-24N-9W	NM4958	FED	BISTI LOWER GA	N/2 SW/4
April Surprise 5	25947	NW NE	7-23N-9W	NM4958	FED	BISTI GALLUP SO.	W/2 NE/4
April Surprise 6	26515	SE NE	7-23N-9W	NM4958	FED	BISTI GALLUP SO.	E/2 NE/4
August 1	26520	SW SW	35-24N-10W	NM43443	FED	BISTI GALLUP SO.	W/2 SW/4
Big Eight 1	21996	NW SW	8-24N-9W	NM25440	FED	BISTI LOWER GA	NW/4 SW/4
Big Eight 1E	25221	SW SE	8-24N-9W	NM25440	FED	BISTI LOWER GA	S/2 SE/4
Blanco Wash 1 MA/DK	22473	NW SE	2-24N-9W	142006031404	I	WHITE WASH MA/DK	NW/4 SE/4
Blanco Wash 2 FR	22482	SE NW	2-24N-9W	142006031403	I	BASIN FR COAL	N/2
Blanco Wash 2 PC	22482	SE NW	2-24N-9W	142006031403	I	POTWIN PC	NW/4
Blanco Wash 3	22939	NW SE	2-24N-9W	142006031406	I		S/2
Blanco Wash 4	22938	NE NE	2-24N-9W	142006031405	I	WHITE WASH MA/DK	NE/4 NE/4
Blanco Wash 5	22937	NW SW	1-24N-9W	142006031402	I	WHITE WASH MA/DK	NW/4 SW/4

Well Name	*API # 30-045*	*Well Location ¼ ¼ Sec-Twn-Rng*		*Lease No.*	*Lease Type*	*Pool*	*Spacing Unit*
Blanco Wash 7	22940	SW NW	11-24N-9W	142006031408	I		NW/4
Bowers 1	25486	NE NE	17-24N-8W	NM26047	FED	POTWIN PC	NE/4
Bright Angel 1	25035	NW SW	27-24N-8W	NOOC14204312	I	LYBROOK GALLUP	NW/4 SW/4
Bronze Medal 1	26435	NW NW	3-23N-10W	NOOC14207307	I	BISTI GALLUP SO.	N/2 NW/4
Bronze Medal 2	26925	SW NW	3-23N-10W	NOOC14207307	I	BISTI GALLUP SO.	S/2 NW/4
Buddha Temple 1	26752	NE SE	30-24N-8W	NM54980	FED	POTWIN PC	SE/4
Bumble 2	25163	NW NW	27-24N-8W	NOOC14204311	I	CUERVO MESAVERDE	NW/4 NW/4
Calgary 2	26821	SW NE	6-23N-10W	NM32124	FED	BISTI GALLUP SO.	W/2 NE/4
Calgary 3	27404	NE NW	6-23N-10W	NM32124	FED	BISTI GALLUP SO.	E/2 NW/4
Calgary 4	27418	SW NW	6-23N-10W	NM32124	FED	BISTI GALLUP SO.	W/2 NW/4
Calgary 5	27405	NE SE	6-23N-10W	NM32124	FED	BISTI GALLUP SO.	E/2 SE/4
Calgary 6	27822	NE SW	6-23N-10W	NM32124	FED	BISTI GALLUP SO.	E/2 SW/4
Calgary 7	28639	SW SE	6-23N-10W	NM32124	FED	BISTI GALLUP SO.	W/2 SE/4
Calgary 8	28638	SW SW	6-23N-10W	NM32124	FED	BISTI GALLUP SO.	W/2 SW/4
Calgary 88	26784	NE NE	6-23N-10W	NM32124	FED	BISTI GALLUP SO.	E/2 NE/4
Chaco 3	22472	SE NW	1-24N-9W	NM2337	FED	WHITE WASH MA/DK	W/2
Champ 1	26891	NE NW	5-23N-10W	NM42059	FED	BISTI GALLUP SO.	N/2 NW/4
Champ 2	26892	SW NW	5-23N-10W	NM42059	FED	BISTI GALLUP SO.	S/2 NW/4
Champ 3	26890	NE NE	5-23N-10W	NM42059	FED	BISTI GALLUP SO.	N/2 NE/4
Champ 4	26945	SW NE	5-23N-10W	NM42059	FED	BISTI GALLUP SO.	S/2 NE/4
Champ 5	27145	NE SE	5-23N-10W	NM42059	FED	BISTI GALLUP SO.	N/2 SE/4
Champ 6	27146	SW SE	5-23N-10W	NM42059	FED	BISTI GALLUP SO.	S/2 SE/4
Champ 7	28241	NE SW	5-23N-10W	NM42059	FED	BISTI GALLUP SO.	N/2 SW/4
December Dream 1	25862	NE NW	7-23N-9W	NM19816	FED	BISTI GALLUP SO.	N/2 NW/4
Elwood P. Dowd 1	23502	SE SE	10-24N-9W	NM9520	FED	BASIN FR COAL	SE/4
Elwood P. Dowd 2	24905	SE SE	10-24N-9W	NM9520	FED	WHITE WASH MA/DK	SE/4 SE/4
Fabulous Feb 1	25920	NW NW	31-24N-9W	NM51000	FED	BISTI LOWER GA	N/2
Fairway 1	26182	SW SW	1-23N-10W	NM23470	FED	BISTI GALLUP SO.	SW/4 SW/4
Flo-Jo 1	27463	NE NE	1-23N-11W	NM36952	FED	BISTI GALLUP SO.	E/2 NE/4
Flo-Jo 2	27441	NE NW	1-23N-11W	NM36952	FED	BISTI GALLUP SO.	E/2 NW/4
Gold Medal 1	26035	SE NE	34-24N-10W	NM22044	FED	BISTI GALLUP SO.	E/2 NE/4
Gold Medal 2	26519	NE SW	33-24N-10W	NM22044	FED	BISTI GALLUP SO.	N/2 SW/4
Gold Medal 3	26822	NE SE	31-24N-10W	NM22044	FED	BISTI GALLUP SO.	E/2 SE/4
Gold Medal 4	26779	SW SW	33-24N-10W	NM22044	FED	BISTI GALLUP SO.	S/2 SW/4
Gold Medal 5	26823	SW SE	31-24N-10W	NM22044	FED	BISTI GALLUP SO.	W/2 SE/4
Gold Medal 6	26852	NE SW	31-24N-10W	NM22044	FED	BISTI GALLUP SO.	E/2 SW/4
Gold Medal 7	27864	SW SW	31-24N-10W	NM22044	FED	BISTI GALLUP SO.	W/2 SW/4
Harvey 2 DK	24420	SE NW	20-24N-9W	NM10755	FED	BASIN DAKOTA	N/2
Helsinki 52	27392	NE SW	9-23N-10W	NM36951	FED	BISTI GALLUP SO.	E/2 SW/4
Holly 1 DK	25149	NW SW	16-24N-9W	LG1035	ST	BASIN DAKOTA	S/2

Well Name	*API # 30-045*	*Well Location ¼ ¼ Sec-Twn-Rng*		*Lease No.*	*Lease Type*	*Pool*	*Spacing Unit*
Holly 1 GA	25149	NW SW	16-24N-9W	LG1035	ST	BISTI LOWER GA	N/2 SW/4
Ivy League 1	26530	NE NE	17-24N-9W	NM45208	FED	BISTI LOWER GA	N/2 NE/4
Jim Thorpe 1	26587	SW NE	3-23N-10W	NOOC14205825	I	BISTI GALLUP SO.	W/2 NE/4
July Jubilee 1 DK	25051	SW NE	30-24N-9W	NM24661	FED	BASIN DAKOTA	E/2
July Jubilee 1 GA	25051	SW NE	30-24N-9W	NM24661	FED	BISTI LOWER GA	S/2 NE/4
July Jubilee 2	25123	NW NW	29-24N-9W	NM24661	FED	BISTI LOWER GA	N/2
July Jubilee 3	25904	NW SW	29-24N-9W	NM24661	FED	BISTI LOWER GA	S/2
June Joy 2 GA	23893	NW NE	25-24N-10W	NM5991	FED	BISTI LOWER GA	NW/4 NE/4
June Joy 2 DK	23893	NW NE	25-24N-10W	NM5991	FED	UNDES. DAKOTA	NW/4 NE/4
Kaibab Trail 1	25034	SW SW	20-24N-8W	NOOC14204310	I	CUERVO GALLUP	SW/4 SW/4
Lake Placid 1	26628	NE SE	4-23N-10W	NOOC14207311	I	BISTI GALLUP SO.	E/2 SE/4
Largo Federal B 1	05103	NE NE	22-24N-9W	SF078860	FED	BISTI LOWER GA	NE/4 NE/4
Lava Falls 1	25164	NW SE	27-24N-8W	NOOC14204313	I	LYBROOK GALLUP	NW/4 SE/4
Lee's Ferry 1	26408	NW SW	19-24N-8W	NM41650	FED	CUERVO GALLUP	NW/4 SW/4
Louie Louie 1	26769	NW SW	8-23N-9W	NOG85051062	I	BISTI GALLUP SO.	W/2 SW/4
Luna 2	28522	NE NE	16-23N-9W	LG9801	ST	BISTI GALLUP SO.	E/2 NE/4
Marathon 1	26436	NE NE	4-23N-10W	NOOC14207308	I	BISTI GALLUP SO.	E/2 NE/4
Marathon 2	26927	SW NE	4-23N-10W	NOOC14207308	I	BISTI GALLUP SO.	W/2 NE/4
March On 1	26997	SE NW	32-24N-9W	LG5685	ST	BISTI LOWER GA	E/2 NW/4
Mary Anne 1	05121	SW SW	9-24N-9W	NM10089	FED	BISTI LOWER GA	S/2 SW/4
Mary Lou 1	26460	NE NE	32-24N-10W	V1509	ST	BISTI GALLUP SO.	E/2 NE/4
Mary Lou 2	26497	SW NE	32-24N-10W	V1509	ST	BISTI GALLUP SO.	W/2 NE/4
Mary Lou 3	26775	NE SE	32-24N-10W	V1509	ST	BISTI GALLUP SO.	E/2 SE/4
Mary Lou 4	26776	SW SE	32-24N-10W	V1509	ST	BISTI GALLUP SO.	W/2 SE/4
Mary Lou 5	26813	NE SW	32-24N-10W	V1509	ST	BISTI GALLUP SO.	E/2 SW/4
Mary Lou 6	26814	SW SW	32-24N-10W	V1509	ST	BISTI GALLUP SO.	W/2 SW/4
Mary Lou 90	28026	SW SW	32-24N-10W	V1509	ST	BASIN FR COAL	S/2
Merry May 1 GA	24421	NE SE	24-24N-10W	NM25842	FED	BISTI LOWER GA	N/2 SE/4
Merry May 1 DK	24421	NE SE	24-24N-10W	NM25842	FED	BASIN DAKOTA	S/2
Mesa 2	22483	NE NW	16-24N-8W	LG1917	ST	POTWIN PC	NW/4
Mesa 3	22175	SW SE	16-24N-8W	LG1917	ST	POTWIN PC	SE/4
MF 1	24636	NW SW	18-24N-9W	NM16760	FED	BISTI LOWER GA	N/2 SW/4
MF 2	24995	SE SE	13-24N-10W	NM16760	FED	BASIN DAKOTA	S/2
MF 3 DK	25166	NE SE	14-24N-10W	NM16760	FED	BASIN DAKOTA	S/2
MF 3 GA	25166	NE SE	14-24N-10W	NM16760	FED	BISTI LOWER GA	S/2
MF 4	25165	SE NE	14-24N-10W	NM16760	FED	BISTI LOWER GA	N/2
Montreal 1	26627	NE NW	4-23N-10W	NOOC14207309	I	BISTI GALLUP SO.	E/2 NW/4
Montreal 2	26926	SW NW	4-23N-10W	NOOC14207309	I	BISTI GALLUP SO.	W/2 NW/4
Mountain 1	?	NW SE	15-24N-8W	NM16589	FED	POTWIN PC	SE/4
Muddy Mudda 1 DK	25919	NW NW	21-24N-9W	NM36474	FED	BASIN DAKOTA	N/2
Muddy Mudda 1 GA	25919	NW NW	21-24N-9W	NM36474	FED	BISTI LOWER GA	N/2 NW/4

Well Name	*API # 30-045*	*Well Location ¼ ¼ Sec-Twn-Rng*		*Lease No.*	*Lease Type*	*Pool*	*Spacing Unit*
Okie 1	22307	SE SE	8-24N-8W	NM19567	FED	BASIN FR COAL	S/2
Oktoberfest 1	26498	NE NE	36-24N-10W	LG9804	ST	BISTI GALLUP SO.	E/2 NE/4
Oktoberfest Com 2	27343	NW SW	36-24N-10W	LG9804	ST	BISTI GALLUP SO.	N/2 SW/4
Olson 1	26516	NE SE	11-23N-10W	NM42740	FED	BISTI GALLUP SO.	E/2 SE/4
Olympic 1	26007	NE SE	3-23N-10W	NM23744	FED	BISTI GALLUP SO.	E/2 SE/4
Olympic 2	26778	SW SE	3-23N-10W	NM23744	FED	BISTI GALLUP SO.	W/2 SE/4
Olympic 3	26811	NE SW	3-23N-10W	NM23744	FED	BISTI GALLUP SO.	E/2 SW/4
Olympic 4	26812	SW SW	3-23N-10W	NM23744	FED	BISTI GALLUP SO.	W/2 SW/4
Pac Ten 1	25917	SE SE	7-24N-9W	NM45207	FED	BISTI LOWER GA	SE/4 SE/4
Phantom Ranch 1	26409	SE NW	21-24N-8W	NM40643	FED	LYBROOK GALLUP	SE/4 NW/4
Road Runner 1	27693	SW SE	36-24N-11W	V2364	ST	BISTI GALLUP SO.	W/2 SE/4
Road Runner 2	27694	NE SW	36-24N-11W	V2364	ST	BISTI GALLUP SO.	E/2 SW/4
Road Runner 3	27695	SW SW	36-24N-11W	V2364	ST	BISTI GALLUP SO.	W/2 SW/4
Seoul 88	26630	NE NE	9-23N-10W	NOOC14207312	I	BISTI GALLUP SO.	E/2 NE/4
September 15 DK	26518	NE NE	24-24N-10W	NM54983	FED	BASIN DAKOTA	N/2 NE/4
Silver Medal 1	26034	SW SW	27-24N-10W	NM21741	FED	BISTI GALLUP SO.	W/2 SW/4
Sixteen G's 1	21995	SW NW	7-24N-9W	NM25433	FED	BISTI LOWER GA	S/2 NW/4
Sixteen G's 3	24560	NE NW	7-24N-9W	NM25433	FED	BISTI LOWER GA	N/2 NW/4
So Huerfano Federal 1X	05107	SW SW	15-24N-9W	SF078859	FED	BISTI LOWER GA	S/2 SW/4
Squaw Valley 1	26629	NE SW	4-23N-10W	NOOC14207310	I	BISTI GALLUP SO.	E/2 SW/4
Squaw Valley 2	26928	SW SW	4-23N-10W	NOOC14207310	I	BISTI GALLUP SO.	W/2 SW/4
St. Louis 12	26631	NE NW	9-23N-10W	NOOC14207313	I	BISTI GALLUP SO.	E/2 NW/4
Wac 1	25918	NW NW	17-24N-9W	NM36473	FED	BISTI LOWER GA	W/2
Witty 1	25677	SW SW	12-23N-10W	NM16762	FED	UNDESIGNATED PC	SW/4
Witty 2	25981	SW NE	12-23N-10W	NM16762	FED	BISTI GALLUP SO.	S/2 NE/4
Witty 3	26043	SW NW	12-23N-10W	NM16762	FED	BISTI GALLUP SO.	S/2 NW/4
Witty 4	26042	NE NW	12-23N-10W	NM16762	FED	BISTI GALLUP SO.	N/2 NW/4
Witty 5	26545	NE NE	12-23N-10W	NM16762	FED	BISTI GALLUP SO.	N/2 NE/4
Witty 6	26767	NE SW	12-23N-10W	NM16762	FED	BISTI GALLUP SO.	E/2 SW/4
Wit's End 1	25677	SW SE	2-23N-10W	LH1896	ST	BISTI GALLUP SO.	S/2 SE/4
Wit's End 2	25981	NE SE	2-23N-10W	LH1896	ST	BISTI GALLUP SO.	N/2 SE/4
Wit's End 3	26043	NE SW	2-23N-10W	LH1896	ST	BISTI GALLUP SO.	N/2 SW/4
Wit's End 4	26042	SW SW	2-23N-10W	LH1896	ST	BISTI GALLUP SO.	S/2 SW/4

N/A = Not Applicable

NR = None Reported

1 - Status of completed interval 4-1-98

LOC = proposed location

NC = not connected to gathering system

P = producing, includes

Well Name	*API # 30-045*	*Well Location ¼ ¼ Sec-Twn-Rng*	*Lease No.*	*Lease Type*	*Pool*	*Spacing Unit*

wells temporarily shut in

P-DHC = producing downhole commingled

PA = plugged & abandoned

TA = temporarily abandoned

2 - Average production during 1997. BPD = bbl of condensate or oil produced per day, MCFD = MCF of gas produced per day, * = well not producing 12-31-97. Rates are from completion testing or production and/or testing subsequent to 12-31-97.

3 - Dates of application and BLM approval for permission to use Dugan's Goodtimes Gas Gathering System to facilitate gas sales and requiring the surface commingling plus off-lease measurement and sales of produced natural gas.

ATTACHMENT NO. 3
WELLS CONNECTED OR TO BE CONNECTED
DUGAN PRODUCTION CORP'S GOOD TIMES GAS GATHERING SYSTEM (6-1-98)

Well Name	API #	Well Location		Lease No.	Lease	Communitization Agreement No.	Pool	Compl.	Current	Current Average Production (2)		Spacing	Dates for SC, OLM & S (3)	
														APPROVAL
	30-045	¼ ¼	Sec-Twn-Rng	For Well Loc.	Type	(If Established)		Date	Status (1)	BPD	MCFD	Unit	Application	BLM
WELLS TO BE ADDED TO SYSTEM														
Adobe A 1	21872	SE NW	29-24N-8W	SF078868	FED		CUERVO GALLUP	11-3-75	P	4.1	9.5	SE/4 NW/4		
Angel's Gate 90	29394	SW NE	21-24N-8W	NM93774	FED		BASIN FR COAL	9-11-96	P	0.0	13.3	E/2		
April Surprise 2 GA	23892	NW SW	30-24N-9W	NM4958	FED		BISTI LOWER GA	5-23-96	P	4.3	20.3	N/2 SW/4	See Dakota	
April Surprise 7	29293	NW NE	31-24N-9W	NM4958	FED		BISTI LOWER GA	4-18-96	P	6.5	19.0	W/2 NE/4		
April Surprise 8	29419	SE SE	30-24N-9W	NM4958	FED		BISTI LOWER GA	3-4-97	P	12.6	44.8	S/2 SE/4		
April Surprise 9		NW SE	30-24N-9W	NM4958	FED		BISTI LOWER GA		LOC			N/2 SE/4		
April Surprise 90	29188	NW SW	19-24N-9W	NM4958	FED		BASIN FR COAL	6-19-95	P	0.0	6.8	W/2		
August 90	20184	NW SW	35-24N-10W	NM43443	FED		BASIN FR COAL	11-28-94	NC	0.0	6.4*	W/2		
Blanco Wash 1 MV	22473	NW SE	2-24N-9W	142006031404	I		WHITE WASH MV	5-3-96	P-DHC	0.9	0.0	NW/4 SE/4	See MA/DK	
Bowers 90	29194	SW SE	17-24N-8W	NM26047	FED		BASIN FR COAL	4-10-95	NC	0.0	10.0*	S/2		
Buddha Temple 90	29239	NE NE	30-24N-8W	NM54980	FED	NMNM94042	BASIN FR COAL	5-31-95	P	0.0	144.7	N/2		
Champ 8	28637	SW SW	5-23N-10W	NM42059	FED		BISTI GALLUP SO.	9-19-94	P	10.4	12.8	S/2 SW/4		
Champ 9	29287	SW SE	1-23N-10W	NM42059	FED		BISTI GALLUP SO.	4-3-96	P	8.0	17.6	W/2 SE/4		
Champ 10		NE SE	1-23N-10W	NM42059	FED		BISTI GALLUP SO.		LOC			E/2 SE/4		
December Dream 2	29360	SW NW	7-23N-9W	NM19816	FED		BISTI GALLUP SO.	8-15-96	P	8.9	17.2	S/2 NW/4		
December Dream 3	29408	NE SW	7-23N-9W	NM19816	FED		BISTI GALLUP SO.	3-11-97	P	8.7	12.3	N/2 SW/4		
Elwood P. Dowd Com 90		SE SW	12-24N-9W	NM9520	FED	COM W/NM-100303	BASIN FR COAL		LOC			W/2		
Flo-Jo 4	28645	NE SE	1-23N-11W	NM36952	FED		BISTI GALLUP SO.	12-8-93	P	7.6	8.2	E/2 SE/4		
Flo-Jo 5	29133	SW SE	1-23N-11W	NM36952	FED		BISTI GALLUP SO.	11-1-94	P	7.3	6.0	W/2 SE/4		
Flo-Jo 6	29288	NE SW	1-23N-11W	NM36952	FED		BISTI GALLUP SO.	5-23-97	P	24.2	11.0	E/2 SW/4		
Flo-Jo 7	29368	SW SW	1-23N-11W	NM36952	FED		BISTI GALLUP SO.	5-30-97	P	12.7	6.8	W/2 SW/4		
Harvey 2 GA	24420	SE NW	20-24N-9W	NM10755	FED		BISTI LOWER GA	11-8-96	P-DHC	5.8	19.1	S/2 NW/4	See Dakota	
Hoss 1	29376	SE NE	11-23N-11W	NM96800	FED		BISTI GALLUP SO.	8-12-96	P	2.3	7.7	E/2 NE/4		
Kaibab Trail 90	29393	SE SW	20-24N-8W	NOOC14204310	I		BASIN FR COAL	9-5-96	P	0.0	33.9	W/2		
Largo Federal B 90	29428	NE NE	25-24N-9W	SF078860	FED		BASIN FR COAL		TA	0	0	E/2		
Lee's Ferry 90	29338	NW SE	19-24N-8W	NM41650	FED		BASIN FR COAL	4-30-96	NC	0.0	1.5*	E/2		
Luna 3	29215	NE NW	16-23N-9W	LG9801	ST		BISTI GALLUP SO.	4-1-96	P	8.5	11.4	E/2 NW/4		
Mary Anne 3	25050	NW SW	9-24N-9W	NM10089	FED		BISTI LOWER GA	8-24-83	NC	0.7	7.6	S/2		
McDougall 2	28619	NE SE	9-23N-10W	NM51005	FED		BISTI GALLUP SO.	6-12-92	NC	1.5	6.8	E/2 SE/4		
Merry Chase Com 90		SE SW	10-24N-9W	NM100302	FED	COM W/NM-9520	BASIN FR COAL		LOC			S/2		
Mesa 1	22055	SW NE	16-24N-8W	LG1917	ST		POTWIN PC	7-26-76	PA 9/97	0.0	0.0	NE/4		
Mesa 90	29159	SW SW	16-24N-8W	LG1917	ST		BASIN FR COAL	3-17-95	P	0.0	44.0	W/2		
Mo Valley 90	29549	SW SW	5-24N-9W	NM23742	FED	COM W/NM-16759	BASIN FR COAL	4-15-98	NC	0.0	25*	S/2		
November 24 1	29295	NE SE	27-24N-9W	NM12374	FED		BISTI LOWER GA	4-1-82	NC	0.1	6.0*	N/2 SE/4		
November 24 2	28961	NW SW	28-24N-9W	NM12374	FED		BISTI LOWER GA EXT.	12-22-93	P	3.2	24.2	N/2 SW/4		

ATTACHMENT NO. 3
WELLS CONNECTED OR TO BE CONNECTED
DUGAN PRODUCTION CORP'S GOOD TIMES GAS GATHERING SYSTEM (6-1-98)

Well Name	API #	Well Location		Lease No.	Lease	Communitization Agreement No.	Pool	Compl.	Current	Current Average Production (2)		Spacing	Dates for SC, OLM & S (3)	
														APPROVAL
	30-045	¼ ¼	Sec-Twn-Rng	For Well Loc.	Type	(If Established)		Date	Status (1)	BPD	MCFD	Unit	Application	BLM
Ohwada 1	28981	SW SW	33-24N-9W	NM90843	FED	COM W/SF078862A	W/C BISTI CHACRA	6-22-94	NC	0	15*	sw/4		
Ohwada 2	29112	NE NW	33-24N-9W	NM90843	FED		BISTI LOWER GA	9-14-94	P	3.2	10.1	N/2 NW/4		
Okie 2	22304	SE NW	8-24N-8W	NM19567	FED		BASIN FR COAL	10-28-96	P	0.0	58.1	N/2		
Par 1	28968	NE NE	11-23N-10W	NM86485	FED		BISTI GALLUP SO.	12-20-93	P	3.3	12.5	E/2 NE/4		
Phillips 1	26803	SE NE	5-24N-9W	NM30854	FED	COM W/NM63319	W/C FR & PC	10-7-87	NC	0	30*	NE/4		
Pierre 1	29237	NW NW	12-23N-11W	NM80498	FED		BISTI GALLUP SO.	9-22-95	P	11.6	7.5	N/2 NW/4		
Roadrunner 90	28027	NE SW	36-24N-11W	V2364	ST		BASIN FR COAL	7-30-97	TA	0	0	S/2		
Rodeo Rosie Com 90		SE NE	29-24N-10W	NM15654	FED	COM W/NM-21741	BASIN FR COAL		LOC			E/2		
Sanchez O'Brien 90		SW SW	6-24N-9W	NM97108	FED		BASIN FR COAL		LOC			W/2		
Sapp 1	05095	NE NE	28-24N-8W	SF078868	FED		CUERVO MV	11-17-56	NC	1.4	3.0	NE/4 NE/4		
Sapp 2	29243	SE NE	28-24N-8W	SF078868	FED		LYBROOK GALLUP	9-15-95	P	7.2	12.6	SE/4 NE/4		
Sapp 90	29192	NW NE	29-24N-8W	SF078868	FED		BASIN FR COAL	11-3-94	P	0.0	13.9	N/2		
Sapp 91	29238	NE SW	29-24N-8W	SF078868	FED		BASIN FR COAL	5-31-95	P	0.0	0.8	S/2		
Sapp 92	29290	NE SW	28-24N-8W	SF078868	FED		BASIN FR COAL		TA	0	0	S/2		
Sapp 93	29289	SW NE	28-24N-8W	SF078868	FED		BASIN FR COAL		TA	0	0	N/2		
September 15 GA	26518	NE NE	24-24N-10W	NM54983	FED		BISTI LOWER GA	7-1-97	P-DHC	5.4	5.0	N/2 NE/4	See Dakota	
Sheba Temple 1	26802	NE SW	30-24N-8W	NM54981	FED		UNDES FR PC	10-21-87	NC	0	50*	SW/4		
Sixteen G's 4	29440	NE SW	7-24N-9W	NM25433	FED		BISTI LOWER GA	6-20-97	P	1.9	9.5	W/2		
St. Moritz 1	28584	SW SW	26-24N-10W	NM78060	FED		BISTI GALLUP SO.	4-21-92	P	1.8	14.0	S/2 SW/4		
Supai Point 1	28996	NE NE	20-24N-8W	NM83507	FED		BASIN FR COAL	1-7-94	P	0.0	1.2	E/2		
Supai Point 91		NW NE	20-24N-8W	NM83507	FED		BASIN FR COAL		LOC			E/2		
Target 90		NE SW	20-24N-10W	NM43442	FED		BASIN FR COAL		LOC			W/2		
WELLS OPERATED BY OTHERS														
Universal Res. Fed. D CDP (4 wells)		NE NE	16-23N-9W	NM8005	FED		BISTI GALLUP SO.	6-16-92					4-15-92	
UR - Federal D 3	28455	SW SE	3-23N-9W	NM8005	FED		BISTI GALLUP SO.	7-22-91	P	1.1	20.5	W/2 SE/4	4-15-92	
UR - Federal D 4	28376	NE NE	10-23N-9W	NM8005	FED		BISTI GALLUP SO.	7-11-91	P	2.4	1.7	E/2 NE/4	4-15-92	
UR - Federal D 5	28456	SW NW	10-23N-9W	NM8005	FED		BISTI GALLUP SO.	5-1-91	P	4.2	3.4	W/2 NW/4	4-15-92	
UR - Federal D 6	28377	SW SW	10-23N-9W	NM8005	FED		BISTI GALLUP SO.	6-25-91	P	4.8	3.4	S/2 SW/4	4-15-92	
WELLS PREVIOUSLY APPROVED FOR SYSTEM														
April Surprise 2 DK	23892	NW SW	30-24N-9W	NM4958	FED		BASIN DAKOTA	3-27-80	TA 5/96	0.0	0.0	W/2	1-16-84	1-18-84
April Surprise 3	25122	NW NW	19-24N-9W	NM4958	FED		BISTI LOWER GA	8-19-82	P	1.2	7.4	W/2	1-16-84	1-18-84
April Surprise 4 DK	25487	NW SW	19-24N-9W	NM4958	FED	NMA0006	BASIN DAKOTA	12-16-82	P-DHC	0.2	7.1	S/2	1-16-84	1-18-84
April Surprise 4 GA	25487	NW SW	19-24N-9W	NM4958	FED		BISTI LOWER GA	12-16-82	P-DHC	1.0	1.2	N/2 SW/4	1-16-84	1-18-84
April Surprise 5	25947	NW NE	7-23N-9W	NM4958	FED		BISTI GALLUP SO.	7-9-84	P	3.1	6.9	W/2 NE/4	7-1-85	7-11-85

ATTACHMENT NO. 3
WELLS CONNECTED OR TO BE CONNECTED
DUGAN PRODUCTION CORP'S GOOD TIMES GAS GATHERING SYSTEM (6-1-98)

Well Name	API #	Well Location		Lease No.	Lease	Communitization Agreement No.	Pool	Compl.	Current	Current Average Production (2)		Spacing	Dates for SC, OLM & S (3)	
														APPROVAL
	30-045	¼ ¼	Sec-Twn-Rng	For Well Loc.	Type	(If Established)		Date	Status (1)	BPD	MCFD	Unit	Application	BLM
April Surprise 6	26515	SE NE	7-23N-9W	NM4958	FED		BISTI GALLUP SO.	11-13-85	P	2.8	5.2	E/2 NE/4	11-12-85	11-21-85
August 1	26520	SW SW	35-24N-10W	NM43443	FED		BISTI GALLUP SO.	10-22-85	P	0.9	7.0	W/2 SW/4	11-12-85	11-21-85
Big Eight 1	21996	NW SW	8-24N-9W	NM25440	FED		BISTI LOWER GA	5-14-76	P	3.5	15.8	NW/4 SW/4	12-5-86	12-6-86
Big Eight 1E	25221	SW SE	8-24N-9W	NM25440	FED		BISTI LOWER GA	7-20-82	P	1.4	7.1	S/2 SE/4	12-5-86	12-5-86
Blanco Wash 1 MA/DK	22473	NW SE	2-24N-9W	142006031404	I		WHITE WASH MA/DK	3-25-78	P-DHC	0.2	6.9	NW/4 SE/4	12-5-86	12-5-86
Blanco Wash 2 FR	22482	SE NW	2-24N-9W	142006031403	I		BASIN FR COAL	9-20-87	PA 11/96	0.0	0.0	N/2	12-5-86	12-5-86
Blanco Wash 2 PC	22482	SE NW	2-24N-9W	142006031403	I		POTWIN PC	9-20-87	PA 11/96	0.0	0.0	NW/4	12-5-86	12-5-86
Blanco Wash 3	22939	NW SE	2-24N-9W	142006031406	I			9-18-87	PA 3/20/92	0.0	0.0	S/2	12-5-86	12-5-86
Blanco Wash 4	22938	NE NE	2-24N-9W	142006031405	I		WHITE WASH MA/DK	4-20-78	P	1.3	8.2	NE/4 NE/4	12-5-86	12-5-86
Blanco Wash 5	22937	NW SW	1-24N-9W	142006031402	I		WHITE WASH MA/DK	5-22-78	P	1.5	7.3	NW/4 SW/4	12-5-86	12-5-86
Blanco Wash 7	22940	SW NW	11-24N-9W	142006031408	I			10-20-78	PA 4/28/89	0.0	0.0	NW/4	12-5-86	12-5-86
Bowers 1	25486	NE NE	17-24N-8W	NM26047	FED		POTWIN PC	6-12-85	P	0.0	18.4	NE/4	12-5-86	12-5-86
Bright Angel 1	25035	NW SW	27-24N-8W	NOOC14204312	I		LYBROOK GALLUP	7-25-81	P	3.2	14.0	NW/4 SW/4	12-5-86	12-5-86
Bronze Medal 1	26435	NW NW	3-23N-10W	NOOC14207307	I		BISTI GALLUP SO.	10-3-85	P	1.5	9.5	N/2 NW/4	7-1-85	7-11-85
Bronze Medal 2	26925	SW NW	3-23N-10W	NOOC14207307	I		BISTI GALLUP SO.	1-13-89	P	2.9	7.7	S/2 NW/4	9-6-88	9-27-88
Buddha Temple 1	26752	NE SE	30-24N-8W	NM54980	FED		POTWIN PC	6-10-87	P	0.0	0.7	SE/4	12-5-86	12-5-86
Bumble 2	25163	NW NW	27-24N-8W	NOOC14204311	I		CUERVO MESAVERDE	11-12-81	PA 5/14/90	0.0	0.0	NW/4 NW/4	12-5-86	12-5-86
Calgary 2	26821	SW NE	6-23N-10W	NM32124	FED		BISTI GALLUP SO.	2-5-88	P	2.3	5.5	W/2 NE/4	2-5-88	2-19-88
Calgary 3	27404	NE NW	6-23N-10W	NM32124	FED		BISTI GALLUP SO.	8-17-89	P	3.0	5.8	E/2 NW/4	1-17-90	2-12-90
Calgary 4	27418	SW NW	6-23N-10W	NM32124	FED		BISTI GALLUP SO.	11-28-89	P	3.5	10.1	W/2 NW/4	1-17-90	2-12-90
Calgary 5	27405	NE SE	6-23N-10W	NM32124	FED		BISTI GALLUP SO.	8-8-89	P	7.1	10.8	E/2 SE/4	1-17-90	2-12-90
Calgary 6	27822	NE SW	6-23N-10W	NM32124	FED		BISTI GALLUP SO.	11-2-90	P	5.3	6.6	E/2 SW/4	6-15-90	6-27-90
Calgary 7	28639	SW SE	6-23N-10W	NM32124	FED		BISTI GALLUP SO.	1-24-92	P	6.0	6.5	W/2 SE/4	1-23-92	1-31-92
Calgary 8	28638	SW SW	6-23N-10W	NM32124	FED		BISTI GALLUP SO.	1-21-92	P	7.4	9.4	W/2 SW/4	1-23-92	1-31-92
Calgary 88	26784	NE NE	6-23N-10W	NM32124	FED		BISTI GALLUP SO.	7-9-87	P	2.4	6.7	E/2 NE/4	6-11-87	6-16-87
Chaco 3	22472	SE NW	1-24N-9W	NM2337	FED		WHITE WASH MA/DK	4-4-78	P	0.9	5.5	W/2	12-5-86	12-5-86
Champ 1	26891	NE NW	5-23N-10W	NM42059	FED		BISTI GALLUP SO.	6-24-88	P	3.6	8.3	N/2 NW/4	9-6-88	9-27-88
Champ 2	26892	SW NW	5-23N-10W	NM42059	FED		BISTI GALLUP SO.	9-24-88	P	5.2	8.3	S/2 NW/4	9-6-88	9-27-88
Champ 3	26890	NE NE	5-23N-10W	NM42059	FED		BISTI GALLUP SO.	9-29-88	P	2.8	6.5	N/2 NE/4	9-6-88	9-27-88
Champ 4	26945	SW NE	5-23N-10W	NM42059	FED		BISTI GALLUP SO.	10-3-88	P	4.8	7.0	S/2 NE/4	9-6-88	9-27-88
Champ 5	27145	NE SE	5-23N-10W	NM42059	FED		BISTI GALLUP SO.	12-27-88	P	6.3	9.4	N/2 SE/4	5-30-89	7-31-89
Champ 6	27146	SW SE	5-23N-10W	NM42059	FED		BISTI GALLUP SO.	4-25-89	P	3.2	8.2	S/2 SE/4	5-30-89	7-31-89
Champ 7	28241	NE SW	5-23N-10W	NM42059	FED		BISTI GALLUP SO.	5-8-91	P	6.0	7.3	N/2 SW/4	1-23-92	1-31-92
December Dream 1	25862	NE NW	7-23N-9W	NM19816	FED		BISTI GALLUP SO.	1-19-84	P	2.7	11.4	N/2 NW/4	7-1-85	7-11-85
Elwood P. Dowd 1	23502	SE SE	10-24N-9W	NM9520	FED		BASIN FR COAL	4-23-83	P	0.0	0.1	SE/4	12-5-86	12-5-86

ATTACHMENT NO. 3
WELLS CONNECTED OR TO BE CONNECTED
DUGAN PRODUCTION CORP'S GOOD TIMES GAS GATHERING SYSTEM (6-1-98)

Well Name	API #	Well Location		Lease No.	Lease	Communitization Agreement No.	Pool	Compl.	Current	Current Average Production (2)		Spacing	Dates for SC, OLM & S (3)	
														APPROVAL
	30-045	¼ ¼	Sec-Twn-Rng	For Well Loc.	Type	(If Established)		Date	Status (1)	BPD	MCFD	Unit	Application	BLM
Elwood P. Dowd 2	24905	SE SE	10-24N-9W	NM9520	FED		WHITE WASH MA/DK	5-5-81	P	1.4	7.6	SE/4 SE/4	12-5-86	12-5-86
Fabulous Feb 1	25920	NW NW	31-24N-9W	NM51000	FED		BISTI LOWER GA	7-10-84	P	2.9	10.6	N/2	7-1-85	7-11-85
Fairway 1	26182	SW SW	1-23N-10W	NM23470	FED		BISTI GALLUP SO.	2-1-85	P	0.4	4.0	SW/4 SW/4	7-1-85	7-11-85
Flo-Jo 1	27463	NE NE	1-23N-11W	NM36952	FED		BISTI GALLUP SO.	11-22-89	P	1.0	7.4	E/2 NE/4	1-17-90	2-12-90
Flo-Jo 2	27441	NE NW	1-23N-11W	NM36952	FED		BISTI GALLUP SO.	4-23-90	P	0.7	8.4	E/2 NW/4	1-17-90	2-12-90
Gold Medal 1	26035	SE NE	34-24N-10W	NM22044	FED		BISTI GALLUP SO.	8-29-84	P	1.1	10.3	E/2 NE/4	7-1-85	7-11-85
Gold Medal 2	26519	NE SW	33-24N-10W	NM22044	FED		BISTI GALLUP SO.	12-18-85	P	3.8	8.5	N/2 SW/4	11-12-85	11-21-85
Gold Medal 3	26822	NE SE	31-24N-10W	NM22044	FED		BISTI GALLUP SO.	1-16-88	P	1.4	5.7	E/2 SE/4	2-5-88	2-19-88
Gold Medal 4	26779	SW SW	33-24N-10W	NM22044	FED		BISTI GALLUP SO.	7-25-87	P	5.2	9.0	S/2 SW/4	6-11-87	6-16-87
Gold Medal 5	26823	SW SE	31-24N-10W	NM22044	FED		BISTI GALLUP SO.	12-20-87	P	2.7	6.1	W/2 SE/4	2-5-88	2-19-88
Gold Medal 6	26852	NE SW	31-24N-10W	NM22044	FED		BISTI GALLUP SO.	1-12-88	P	1.0	4.9	E/2 SW/4	2-5-88	2-19-88
Gold Medal 7	27864	SW SW	31-24N-10W	NM22044	FED		BISTI GALLUP SO.		LOC			W/2 SW/4	6-15-90	6-27-90
Harvey 2 DK	24420	SE NW	20-24N-9W	NM10755	FED		BASIN DAKOTA	6-6-81	P-DHC	0.0	6.4	N/2	12-5-86	12-5-86
Helsinki 52	27392	NE SW	9-23N-10W	NM36951	FED		BISTI GALLUP SO.	8-5-89	P	1.8	7.4	E/2 SW/4	1-17-90	2-12-90
Holly 1 DK	25149	NW SW	16-24N-9W	LG1035	ST		BASIN DAKOTA	11-20-81	P-DHC	0.1	5.2	S/2	12-5-86	12-5-86
Holly 1 GA	25149	NW SW	16-24N-9W	LG1035	ST		BISTI LOWER GA	8-5-82	P-DHC	1.5	20.6	N/2 SW/4	12-5-86	12-5-86
Ivy League 1	26530	NE NE	17-24N-9W	NM45208	FED		BISTI LOWER GA	7-4-86	P	3.4	16.6	N/2 NE/4	12-5-86	12-5-86
Jim Thorpe 1	26587	SW NE	3-23N-10W	NOOC14205825	I		BISTI GALLUP SO.	12-21-85	P	2.7	8.0	W/2 NE/4	11-12-85	11-21-85
July Jubilee 1 DK	25051	SW NE	30-24N-9W	NM24661	FED	SCR-161	BASIN DAKOTA	8-31-81	P-DHC	0.9	18.4	E/2	1-16-84	1-18-84
July Jubilee 1 GA	25051	SW NE	30-24N-9W	NM24661	FED		BISTI LOWER GA	8-31-81	P-DHC	7.9	2.0	S/2 NE/4	1-16-84	1-18-84
July Jubilee 2	25123	NW NW	29-24N-9W	NM24661	FED		BISTI LOWER GA	8-25-82	P	1.3	5.6	N/2	1-16-84	1-18-84
July Jubilee 3	25904	NW SW	29-24N-9W	NM24661	FED		BISTI LOWER GA	7-19-84	P	2.3	9.3	S/2	4-25-86	4-30-86
June Joy 2 GA	23893	NW NE	25-24N-10W	NM5991	FED		BISTI LOWER GA	4-21-80	P	0.0	5.5	NW/4 NE/4	1-16-84	1-18-84
June Joy 2 DK	23893	NW NE	25-24N-10W	NM5991	FED		UNDES. DAKOTA	4-21-80	PA 5/86	0	0	NW/4 NE/4	1-16-84	1-18-84
Kaibab Trail 1	25034	SW SW	20-24N-8W	NOOC14204310	I		CUERVO GALLUP	7-25-81	P	1.5	13.1	SW/4 SW/4	12-5-86	12-5-86
Lake Placid 1	26628	NE SE	4-23N-10W	NOOC14207311	I		BISTI GALLUP SO.	1-20-86	P	1.3	4.7	E/2 SE/4	11-12-85	11-21-85
Largo Federal B 1	05103	NE NE	22-24N-9W	SF078860	FED		BISTI LOWER GA	3-23-58	P	0.6	10.0	NE/4 NE/4	12-5-86	12-5-86
Lava Falls 1	25164	NW SE	27-24N-8W	NOOC14204313	I		LYBROOK GALLUP	11-2-81	P	2.6	15.6	NW/4 SE/4	12-5-86	12-5-86
Lee's Ferry 1	26408	NW SW	19-24N-8W	NM41650	FED		CUERVO GALLUP	12-6-85	P	2.8	11.4	NW/4 SW/4	12-5-86	12-5-86
Louie Louie 1	26769	NW SW	8-23N-9W	NOG85051062	I		BISTI GALLUP SO.	6-26-87	P	2.5	7.4	W/2 SW/4	6-11-87	6-16-87
Luna 2	28522	NE NE	16-23N-9W	LG9801	ST		BISTI GALLUP SO.	5-22-91	P	5.6	11.3	E/2 NE/4	1-23-92	1-31-92
Marathon 1	26436	NE NE	4-23N-10W	NOOC14207308	I		BISTI GALLUP SO.	10-19-85	P	3.3	11.6	E/2 NE/4	7-1-85	7-11-85
Marathon 2	26927	SW NE	4-23N-10W	NOOC14207308	I		BISTI GALLUP SO.	7-6-88	P	3.5	15.0	W/2 NE/4	9-6-88	9-27-88
March On 1	26997	SE NW	32-24N-9W	LG5685	ST		BISTI LOWER GA	9-13-88	P	3.0	7.9	E/2 NW/4	9-6-88	9-27-88
Mary Anne 1	05121	SW SW	9-24N-9W	NM10089	FED		BISTI LOWER GA	10-10-57	P	0.1	3.3	S/2 SW/4	12-5-86	12-5-86

ATTACHMENT NO. 3
WELLS CONNECTED OR TO BE CONNECTED
DUGAN PRODUCTION CORP'S GOOD TIMES GAS GATHERING SYSTEM (6-1-98)

Well Name	API #	Well Location		Lease No.	Lease	Communitization Agreement No.	Pool	Compl.	Current	Current Average Production (2)		Spacing	Dates for SC, OLM & S (3)	
														APPROVAL
	30-045	¼ ¼	Sec-Twn-Rng	For Well Loc.	Type	(If Established)		Date	Status (1)	BPD	MCFD	Unit	Application	BLM
Mary Lou 1	26460	NE NE	32-24N-10W	V1509	ST		BISTI GALLUP SO.	10-9-85	P	0.8	4.5	E/2 NE/4	11-12-85	11-21-85
Mary Lou 2	26497	SW NE	32-24N-10W	V1509	ST		BISTI GALLUP SO.	10-14-85	P	1.7	5.7	W/2 NE/4	11-12-85	11-21-85
Mary Lou 3	26775	NE SE	32-24N-10W	V1509	ST		BISTI GALLUP SO.	7-25-87	P	3.5	6.9	E/2 SE/4	6-11-87	6-16-87
Mary Lou 4	26776	SW SE	32-24N-10W	V1509	ST		BISTI GALLUP SO.	7-13-87	P	2.3	6.0	W/2 SE/4	6-11-87	6-16-87
Mary Lou 5	26813	NE SW	32-24N-10W	V1509	ST		BISTI GALLUP SO.	3-15-88	P	4.5	6.7	E/2 SW/4	2-5-88	2-19-88
Mary Lou 6	26814	SW SW	32-24N-10W	V1509	ST		BISTI GALLUP SO.	3-14-88	P	2.5	6.8	W/2 SW/4	2-5-88	2-19-88
Mary Lou 90	28026	SW SW	32-24N-10W	V1509	ST		BASIN FR COAL	9-15-90	P	0.0	4.9	S/2	1-23-92	1-31-92
Merry May 1 GA	24421	NE SE	24-24N-10W	NM25842	FED		BISTI LOWER GA	12-6-80	P	1.6	10.3	N/2 SE/4	1-16-84	1-18-84
Merry May 1 DK	24421	NE SE	24-24N-10W	NM25842	FED		BASIN DAKOTA	12-6-80	PA 9/86	0	0	S/2	1-16-84	1-18-84
Mesa 2	22483	NE NW	16-24N-8W	LG1917	ST		POTWIN PC	7-13-77	P	0.0	11.2	NW/4	12-5-86	12-5-86
Mesa 3	22175	SW SE	16-24N-8W	LG1917	ST		POTWIN PC	12-7-76	P	0.0	0.0	SE/4	12-5-86	12-5-86
MF 1	24636	NW SW	18-24N-9W	NM16760	FED		BISTI LOWER GA	8-7-85	P	2.3	6.8	N/2 SW/4	1-16-84	1-18-84
MF 2	24995	SE SE	13-24N-10W	NM16760	FED		BASIN DAKOTA	6-11-81	P	0.0	3.3	S/2	1-16-84	1-18-84
MF 3 DK	25166	NE SE	14-24N-10W	NM16760	FED		BASIN DAKOTA	3-23-84	PA 9/92	0.0	0.0	S/2	1-16-84	1-18-84
MF 3 GA	25166	NE SE	14-24N-10W	NM16760	FED		BISTI LOWER GA	3-23-84	PA 9/92	0.0	0.0	S/2	1-16-84	1-18-84
MF 4	25165	SE NE	14-24N-10W	NM16760	FED		BISTI LOWER GA	5-1-82	P	2.8	7.3	N/2	1-16-84	1-18-84
Montreal 1	26627	NE NW	4-23N-10W	NOOC14207309	I		BISTI GALLUP SO.	1-28-86	P	2.6	8.4	E/2 NW/4	11-12-85	11-21-85
Montreal 2	26926	SW NW	4-23N-10W	NOOC14207309	I		BISTI GALLUP SO.	7-5-88	P	3.6	10.8	W/2 NW/4	9-6-88	9-27-88
Mountain 1	?	NW SE	15-24N-8W	NM16589	FED		POTWIN PC	5-7-76	PA 3/30/90	0.0	0.0	SE/4	12-5-86	12-5-86
Muddy Mudda 1 DK	25919	NW NW	21-24N-9W	NM36474	FED		BASIN DAKOTA	5-24-84	P-DHC	0.1	8.2	N/2	12-5-86	12-5-86
Muddy Mudda 1 GA	25919	NW NW	21-24N-9W	NM36474	FED		BISTI LOWER GA	5-24-84	P-DHC	0.4	1.2	N/2 NW/4	12-5-86	12-5-86
Okie 1	22307	SE SE	8-24N-8W	NM19567	FED		BASIN FR COAL	2-10-94	P	0.0	16.5	S/2	12-5-86	12-5-86
Oktoberfest 1	26498	NE NE	36-24N-10W	LG9804	ST		BISTI GALLUP SO.	12-6-85	P	2.4	9.3	E/2 NE/4	11-12-85	11-21-85
Oktoberfest Com 2	27343	NW SW	36-24N-10W	LG5689	ST	STATE CA	BISTI GALLUP SO.	5-10-89	P	1.6	6.4	N/2 SW/4	5-30-89	7-31-89
Olson 1	26516	NE SE	11-23N-10W	NM42740	FED		BISTI GALLUP SO.	11-1-85	P	1.4	6.2	E/2 SE/4	11-12-85	11-21-85
Olympic 1	26007	NE SE	3-23N-10W	NM23744	FED		BISTI GALLUP SO.	2-14-85	P	1.9	6.8	E/2 SE/4	7-1-85	7-11-85
Olympic 2	26778	SW SE	3-23N-10W	NM23744	FED		BISTI GALLUP SO.	8-12-87	P	2.0	5.5	W/2 SE/4	6-11-87	6-16-87
Olympic 3	26811	NE SW	3-23N-10W	NM23744	FED		BISTI GALLUP SO.	2-13-88	P	2.4	5.2	E/2 SW/4	2-5-88	2-19-88
Olympic 4	26812	SW SW	3-23N-10W	NM23744	FED		BISTI GALLUP SO.	2-20-88	P	3.7	4.5	W/2 SW/4	2-5-88	2-19-88
Pac Ten 1	25917	SE SE	7-24N-9W	NM45207	FED		BISTI LOWER GA	6-30-84	P	4.6	25.5	SE/4 SE/4	12-5-86	12-5-86
Phantom Ranch 1	26409	SE NW	21-24N-8W	NM40643	FED		LYBROOK GALLUP	7-26-85	P	3.2	9.7	SE/4 NW/4	12-5-86	12-5-86
Road Runner 1	27693	SW SE	36-24N-11W	V2364	ST		BISTI GALLUP SO.	6-3-91	P	4.8	52.7	W/2 SE/4	6-15-90	6-27-90
Road Runner 2	27694	NE SW	36-24N-11W	V2364	ST		BISTI GALLUP SO.		LOC			E/2 SW/4	6-15-90	6-27-90
Road Runner 3	27695	SW SW	36-24N-11W	V2364	ST		BISTI GALLUP SO.		LOC			W/2 SW/4	6-15-90	6-27-90
Seoul 88	26630	NE NE	9-23N-10W	NOOC14207312	I		BISTI GALLUP SO.	2-10-86	P	1.6	5.2	E/2 NE/4	11-12-85	11-21-85

ATTACHMENT NO. 3
WELLS CONNECTED OR TO BE CONNECTED
DUGAN PRODUCTION CORP'S GOOD TIMES GAS GATHERING SYSTEM (6-1-98)

Well Name	API #	Well Location		Lease No.	Lease	Communitization Agreement No.	Pool	Compl.	Current	Current Average Production (2)		Spacing	Dates for SC, OLM & S (3)	
														APPROVAL
	30-045	¼ ¼	Sec-Twn-Rng	For Well Loc.	Type	(If Established)		Date	Status (1)	BPD	MCFD	Unit	Application	BLM
September 15 DK	26518	NE NE	24-24N-10W	NM54983	FED	NMO15P3586C51	BASIN DAKOTA	3-8-86	P-DHC	0.1	9.9	N/2 NE/4	4-25-86	4-30-86
Silver Medal 1	26034	SW SW	27-24N-10W	NM21741	FED		BISTI GALLUP SO.	9-1-84	P	1.7	7.9	W/2 SW/4	7-1-85	7-11-85
Sixteen G's 1	21995	SW NW	7-24N-9W	NM25433	FED		BISTI LOWER GA	8-7-76	P	7.1	22.3	S/2 NW/4	12-5-86	12-5-86
Sixteen G's 3	24560	NE NW	7-24N-9W	NM25433	FED		BISTI LOWER GA	8-6-81	P	1.5	11.1	N/2 NW/4	12-5-86	12-5-86
So Huerfano Federal 1X	05107	SW SW	15-24N-9W	SF078859	FED		BISTI LOWER GA	09/57	PA 12/96	0.0	0.0	S/2 SW/4	12-5-86	12-5-86
Squaw Valley 1	26629	NE SW	4-23N-10W	NOOC14207310	I		BISTI GALLUP SO.	2-6-86	P	2.9	10.1	E/2 SW/4	11-12-85	11-21-85
Squaw Valley 2	26928	SW SW	4-23N-10W	NOOC14207310	I		BISTI GALLUP SO.	3-31-90	P	2.8	15.0	W/2 SW/4	6-15-90	6-27-90
St. Louis 12	26631	NE NW	9-23N-10W	NOOC14207313	I		BISTI GALLUP SO.	2-20-86	P	2.0	5.4	E/2 NW/4	11-12-85	11-21-85
Wac 1	25918	NW NW	17-24N-9W	NM36473	FED		BISTI LOWER GA	7-23-84	P	1.1	9.7	W/2	12-5-86	12-5-86
Witty 1	25677	SW SW	12-23N-10W	NM16762	FED		UNDESIGNATED PC	8-19-83	NC	0.0	38*	SW/4	7-1-85	7-11-85
Witty 2	25981	SW NE	12-23N-10W	NM16762	FED		BISTI GALLUP SO.	7-11-84	P	2.7	6.7	S/2 NE/4	7-1-85	7-11-85
Witty 3	26043	SW NW	12-23N-10W	NM16762	FED		BISTI GALLUP SO.	7-2-85	P	2.4	6.2	S/2 NW/4	7-1-85	7-11-85
Witty 4	26042	NE NW	12-23N-10W	NM16762	FED		BISTI GALLUP SO.	9-10-84	P	0.2	7.7	N/2 NW/4	7-1-85	7-11-85
Witty 5	26545	NE NE	12-23N-10W	NM16762	FED		BISTI GALLUP SO.	11-5-85	P	1.5	5.2	N/2 NE/4	11-12-85	11-21-85
Witty 6	26767	NE SW	12-23N-10W	NM16762	FED		BISTI GALLUP SO.	8-25-87	P	2.3	4.6	E/2 SW/4	11-12-85	11-21-85
Wit's End 1	25677	SW SE	2-23N-10W	LH1896	ST		BISTI GALLUP SO.	6-22-85	P	2.0	6.8	S/2 SE/4	7-1-85	7-11-85
Wit's End 2	25981	NE SE	2-23N-10W	LH1896	ST		BISTI GALLUP SO.	6-28-85	P	2.4	6.8	N/2 SE/4	7-1-85	7-11-85
Wit's End 3	26043	NE SW	2-23N-10W	LH1896	ST		BISTI GALLUP SO.	6-18-85	P	2.4	10.2	N/2 SW/4	7-1-85	7-11-85
Wit's End 4	26042	SW SW	2-23N-10W	LH1896	ST		BISTI GALLUP SO.	6-13-85	P	0.9	6.4	S/2 SW/4	7-1-85	7-11-85

N/A = Not Applicable
NR = None Reported

1 - Status of completed interval 4-1-98
LOC = proposed location
NC = not connected to gathering system
P = producing, includes wells temporarily shut in
P-DHC = producing downhole commingled
PA = plugged & abandoned
TA = temporarily abandoned

2 - Average production during 1997. BPD = bbl of condensate or oil produced per day, MCFD = MCF of gas produced per day,
* = well not producing 12-31-97. Rates are from completion testing or production and/or testing subsequent to 12-31-97.

3 - Dates of application and BLM approval for permission to use Dugan's Goodtimes Gas Gathering System to facilitate gas sales and requiring the surface commingling plus off-lease measurement and sales of produced natural gas.

ATTACHMENT NO. 7
1997 PRODUCTION SUMMARY
WELLS CONNECTED TO DUGAN PRODUCTION CORP'S GOOD TIMES GATHERING SYSTEM (4-1-98)
142 Wells, 151 Completions (9 dual completions)

WELL NAME	POOL	LEASE TYPE	LEASE NO. For Well Locatio	CA# (If Established)	12 Months - 1997 OIL/CND BBL	GAS MCF	PROD. DAYS	AVG BPD	AVG MCFD
April Surprise 2 DK	BASIN DAKOTA (TA 5/9/96)	FED	NM4958		0	0	0	0.0	0.0
April Surprise 4 DK	BASIN DAKOTA	FED	NM4958	NMA0006	64	2586	365	0.2	7.1
Harvey 2 DK	BASIN DAKOTA	FED	NM10755		0	2325	363	0.0	6.4
Holly 1 DK	BASIN DAKOTA	ST	LG1035		27	1890	365	0.1	5.2
July Jubilee 1 DK	BASIN DAKOTA	FED	NM24661	SCR-161	318	6693	364	0.9	18.4
MF 2	BASIN DAKOTA	FED	NM16760		0	1196	359	0.0	3.3
Muddy Mudda 1 DK	BASIN DAKOTA	FED	NM36474		36	2979	365	0.1	8.2
September 15 DK	BASIN DAKOTA	FED	NM54983	NMO15P3586C51	20	2,159	219	0.1	9.9
POOL TOTAL (8 Completions) & AVERAGE					**465**	**19,828**	**2,400**	**0.2**	**8.3**
Angel's Gate 90	BASIN FR COAL	FED	NM93774		0	1934	145	0.0	13.3
April Surprise 90	BASIN FR COAL	FED	NM4958		0	890	131	0.0	6.8
Blanco Wash 2 FR	BASIN FR COAL (P&A 11/15/96)	I	142006031403		0	0	0	0.0	0.0
Buddha Temple 90	BASIN FR COAL	FED	NM54980	NMNM94042	0	52828	365	0.0	144.7
Elwood P. Dowd 1	BASIN FR COAL	FED	NM9520		0	10	72	0.0	0.1
Kaibab Trail 90	BASIN FR COAL	I	NOOC14204310	NMNM97673	0	12372	365	0.0	33.9
Mary Lou 90	BASIN FR COAL	ST	V1509		0	59	12	0.0	4.9
Mesa 90	BASIN FR COAL	ST	LG1917		0	15712	357	0.0	44.0
Okie 1	BASIN FR COAL	FED	NM19567		0	33	2	0.0	16.5
Okie 2	BASIN FR COAL	FED	NM19567		0	20859	359	0.0	58.1
Sapp 90	BASIN FR COAL	FED	SF078868		0	5064	365	0.0	13.9
Sapp 91	BASIN FR COAL	FED	SF078868		0	16	19	0.0	0.8
Supai Point #1	BASIN FR COAL	FED	NM83507		0	186	153	0.0	1.2
POOL TOTAL (13 Completions) & AVERAGE					**0**	**109,963**	**2,345**	**0.0**	**46.9**
April Surprise 5	BISTI GALLUP SO.	FED	NM4958		1119	2491	361	3.1	6.9
April Surprise 6	BISTI GALLUP SO.	FED	NM4958		933	1753	334	2.8	5.2
August 1	BISTI GALLUP SO.	FED	NM43443		327	2546	365	0.9	7.0
Bronze Medal 1	BISTI GALLUP SO.	I	NOOC14207307		565	3477	365	1.5	9.5
Bronze Medal 2	BISTI GALLUP SO.	I	NOOC14207307		1068	2808	365	2.9	7.7
Calgary 2	BISTI GALLUP SO.	FED	NM32124		803	1965	356	2.3	5.5

** = Connected in 1997

ATTACHMENT NO. 7
1997 PRODUCTION SUMMARY
WELLS CONNECTED TO DUGAN PRODUCTION CORP'S GOOD TIMES GATHERING SYSTEM (4-1-98)
142 Wells, 151 Completions (9 dual completions)

WELL NAME	POOL	LEASE TYPE	LEASE NO. For Well Locatio	CA# (If Established)	12 Months - 1997				
					OIL/CND BBL	GAS MCF	PROD. DAYS	AVG BPD	AVG MCFD
Calgary 3	BISTI GALLUP SO.	FED	NM32124		996	1883	327	3.0	5.8
Calgary 4	BISTI GALLUP SO.	FED	NM32124		1275	3682	365	3.5	10.1
Calgary 5	BISTI GALLUP SO.	FED	NM32124		2464	3773	349	7.1	10.8
Calgary 6	BISTI GALLUP SO.	FED	NM32124		1769	2195	334	5.3	6.6
Calgary 7	BISTI GALLUP SO.	FED	NM32124		2079	2230	345	6.0	6.5
Calgary 8	BISTI GALLUP SO.	FED	NM32124		2374	3002	321	7.4	9.4
Calgary 88	BISTI GALLUP SO.	FED	NM32124		890	2428	365	2.4	6.7
Champ 1	BISTI GALLUP SO.	FED	NM42059		1257	2925	353	3.6	8.3
Champ 2	BISTI GALLUP SO.	FED	NM42059		1700	2724	330	5.2	8.3
Champ 3	BISTI GALLUP SO.	FED	NM42059		999	2345	360	2.8	6.5
Champ 4	BISTI GALLUP SO.	FED	NM42059		1751	2540	365	4.8	7.0
Champ 5	BISTI GALLUP SO.	FED	NM42059		2225	3283	351	6.3	9.4
Champ 6	BISTI GALLUP SO.	FED	NM42059		977	2457	301	3.2	8.2
Champ 7	BISTI GALLUP SO.	FED	NM42059		2073	2550	348	6.0	7.3
Champ 8	BISTI GALLUP SO.	FED	NM42059		3672	4530	353	10.4	12.8
Champ 9	BISTI GALLUP SO.	FED	NM42059		2922	6434	365	8.0	17.6
December Dream 1	BISTI GALLUP SO.	FED	NM19816		960	4143	362	2.7	11.4
December Dream 2	BISTI GALLUP SO.	FED	NM19816		3066	5915	344	8.9	17.2
December Dream 3**	BISTI GALLUP SO.	FED	NM19816		2349	3337	271	8.7	12.3
Fairway 1	BISTI GALLUP SO.	FED	NM23470		159	1464	365	0.4	4.0
Flo-Jo 1	BISTI GALLUP SO.	FED	NM36952		315	2243	303	1.0	7.4
Flo-Jo 2	BISTI GALLUP SO.	FED	NM36952		56	680	81	0.7	8.4
Flo-Jo 4	BISTI GALLUP SO.	FED	NM36952		2649	2848	349	7.6	8.2
Flo-Jo 5	BISTI GALLUP SO.	FED	NM36952		2561	2103	353	7.3	6.0
Flo-Jo 6**	BISTI GALLUP SO.	FED	NM36952		4921	2233	203	24.2	11.0
Flo-Jo 7**	BISTI GALLUP SO.	FED	NM36952		2394	1279	188	12.7	6.8
Gold Medal 1	BISTI GALLUP SO.	FED	NM22044		402	3744	365	1.1	10.3
Gold Medal 2	BISTI GALLUP SO.	FED	NM22044		1398	3112	365	3.8	8.5
Gold Medal 3	BISTI GALLUP SO.	FED	NM22044		492	1989	350	1.4	5.7

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ATTACHMENT NO. 7
1997 PRODUCTION SUMMARY
WELLS CONNECTED TO DUGAN PRODUCTION CORP'S GOOD TIMES GATHERING SYSTEM (4-1-98)
142 Wells, 151 Completions (9 dual completions)

WELL NAME	POOL	LEASE TYPE	LEASE NO. For Well Locatio	CA# (If Established)	12 Months - 1997				
					OIL/CND BBL	GAS MCF	PROD. DAYS	AVG BPD	AVG MCFD
Gold Medal 4	BISTI GALLUP SO.	FED	NM22044		1887	3299	365	5.2	9.0
Gold Medal 5	BISTI GALLUP SO.	FED	NM22044		891	2025	331	2.7	6.1
Gold Medal 6	BISTI GALLUP SO.	FED	NM22044		352	1716	348	1.0	4.9
Helsinki 52	BISTI GALLUP SO.	FED	NM36951		636	2656	360	1.8	7.4
Hoss 1	BISTI GALLUP SO.	FED	NM96800		799	2691	349	2.3	7.7
Jim Thorpe 1	BISTI GALLUP SO.	I	NOOC14205825		976	2912	365	2.7	8.0
Lake Placid 1	BISTI GALLUP SO.	I	NOOC14207311		476	1726	365	1.3	4.7
Louie Louie 1	BISTI GALLUP SO.	I	NOG85051062		918	2702	364	2.5	7.4
Luna 2	BISTI GALLUP SO.	ST	LG9801		1891	3833	339	5.6	11.3
Luna 3	BISTI GALLUP SO.	ST	LG9801		2985	4018	352	8.5	11.4
Marathon 1	BISTI GALLUP SO.	I	NOOC14207308		1202	4238	365	3.3	11.6
Marathon 2	BISTI GALLUP SO.	I	NOOC14207308		1271	5466	365	3.5	15.0
Mary Lou 1	BISTI GALLUP SO.	ST	V1509		272	1491	333	0.8	4.5
Mary Lou 2	BISTI GALLUP SO.	ST	V1509		616	2075	365	1.7	5.7
Mary Lou 3	BISTI GALLUP SO.	ST	V1509		1279	2508	365	3.5	6.9
Mary Lou 4	BISTI GALLUP SO.	ST	V1509		836	2135	358	2.3	6.0
Mary Lou 5	BISTI GALLUP SO.	ST	V1509		1599	2391	355	4.5	6.7
Mary Lou 6	BISTI GALLUP SO.	ST	V1509		874	2403	353	2.5	6.8
Montreal 1	BISTI GALLUP SO.	I	NOOC14207309		932	3052	365	2.6	8.4
Montreal 2	BISTI GALLUP SO.	I	NOOC14207309		1316	3953	365	3.6	10.8
Oktoberfest 1	BISTI GALLUP SO.	ST	LG9804		891	3396	365	2.4	9.3
Oktoberfest Com 2	BISTI GALLUP SO.	ST	LG5689	STATE CA	569	2326	362	1.6	6.4
Olson 1	BISTI GALLUP SO.	FED	NM42740		513	2274	364	1.4	6.2
Olympic 1	BISTI GALLUP SO.	FED	NM23744		695	2471	362	1.9	6.8
Olympic 2	BISTI GALLUP SO.	FED	NM23744		707	1982	362	2.0	5.5
Olympic 3	BISTI GALLUP SO.	FED	NM23744		860	1877	362	2.4	5.2
Olympic 4	BISTI GALLUP SO.	FED	NM23744		1330	1634	362	3.7	4.5
Par 1	BISTI GALLUP SO.	FED	NM86485		1219	4547	365	3.3	12.5
Pierre 1	BISTI GALLUP SO.	FED	NM80498		3631	2361	314	11.6	7.5

** = Connected in 1997

ATTACHMENT NO. 7
1997 PRODUCTION SUMMARY
WELLS CONNECTED TO DUGAN PRODUCTION CORP'S GOOD TIMES GATHERING SYSTEM (4-1-98)
142 Wells, 151 Completions (9 dual completions)

WELL NAME	POOL	LEASE TYPE	LEASE NO. For Well Locatio	CA# (If Established)	12 Months - 1997 OIL/CND BBL	GAS MCF	PROD. DAYS	AVG BPD	AVG MCFD
Road Runner 1	BISTI GALLUP SO.	ST	V2364		130	1423	270	0.5	5.3
Seoul 88	BISTI GALLUP SO.	I	NOOC14207312		590	1906	365	1.6	5.2
Silver Medal 1	BISTI GALLUP SO.	FED	NM21741		613	2896	365	1.7	7.9
Squaw Valley 1	BISTI GALLUP SO.	I	NOOC14207310		1049	3679	365	2.9	10.1
Squaw Valley 2	BISTI GALLUP SO.	I	NOOC14207310		1020	5476	365	2.8	15.0
St. Louis 12	BISTI GALLUP SO.	I	NOOC14207313		736	1971	365	2.0	5.4
St. Moritz 1	BISTI GALLUP SO.	FED	NM78060		640	5094	365	1.8	14.0
Witty 2	BISTI GALLUP SO.	FED	NM16762		892	2240	336	2.7	6.7
Witty 3	BISTI GALLUP SO.	FED	NM16762		893	2271	365	2.4	6.2
Witty 4	BISTI GALLUP SO.	FED	NM16762		88	2822	365	0.2	7.7
Witty 5	BISTI GALLUP SO.	FED	NM16762		561	1911	365	1.5	5.2
Witty 6	BISTI GALLUP SO.	FED	NM16762		794	1596	347	2.3	4.6
Wit's End 1	BISTI GALLUP SO.	ST	LH1896		743	2478	365	2.0	6.8
Wit's End 2	BISTI GALLUP SO.	ST	LH1896		877	2495	365	2.4	6.8
Wit's End 3	BISTI GALLUP SO.	ST	LH1896		868	3740	365	2.4	10.2
Wit's End 4	BISTI GALLUP SO.	ST	LH1896		339	2325	365	0.9	6.4
POOL TOTAL (80 Completions) & AVERAGE					**99,216**	**223,592**	**27,620**	**3.6**	**8.1**
April Surprise 2 GA	BISTI LOWER GA	FED	NM4958		1584	7393	365	4.3	20.3
April Surprise 3	BISTI LOWER GA	FED	NM4958		454	2704	365	1.2	7.4
April Surprise 4 GA	BISTI LOWER GA	FED	NM4958		362	455	365	1.0	1.2
April Surprise 7	BISTI LOWER GA	FED	NM4958		2375	6935	365	6.5	19.0
April Surprise 8**	BISTI LOWER GA	FED	NM4958		3539	12552	280	12.6	44.8
Big Eight 1	BISTI LOWER GA	FED	NM25440		1269	5750	365	3.5	15.8
Big Eight 1E	BISTI LOWER GA	FED	NM25440		495	2577	365	1.4	7.1
Fabulous Feb 1	BISTI LOWER GA	FED	NM51000		1054	3859	365	2.9	10.6
Harvey 2 GA	BISTI LOWER GA	FED	NM10755		2095	6943	364	5.8	19.1
Holly 1 GA	BISTI LOWER GA	ST	LG1035		537	7514	365	1.5	20.6
Ivy League 1	BISTI LOWER GA	FED	NM45208		1256	6056	365	3.4	16.6
July Jubilee 1 GA	BISTI LOWER GA	FED	NM24661		2869	741	364	7.9	2.0

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1997 PRODUCTION SUMMARY
WELLS CONNECTED TO DUGAN PRODUCTION CORP'S GOOD TIMES GATHERING SYSTEM (4-1-98)
142 Wells, 151 Completions (9 dual completions)

WELL NAME	POOL	LEASE TYPE	LEASE NO. For Well Locatio	CA# (If Established)	12 Months - 1997 OIL/CND BBL	GAS MCF	PROD. DAYS	AVG BPD	AVG MCFD
July Jubilee 2	BISTI LOWER GA	FED	NM24661		492	2056	365	1.3	5.6
July Jubilee 3	BISTI LOWER GA	FED	NM24661		843	3400	365	2.3	9.3
June Joy 2	BISTI LOWER GA	FED	NM5991		1	1394	252	0.0	5.5
Largo Federal B 1	BISTI LOWER GA	FED	SF078860		200	3558	355	0.6	10.0
March On 1	BISTI LOWER GA	ST	LG5685		1083	2891	365	3.0	7.9
Mary Anne 1	BISTI LOWER GA	FED	NM10089		38	1203	365	0.1	3.3
Merry May 1	BISTI LOWER GA	FED	NM25842		583	3770	365	1.6	10.3
MF 1	BISTI LOWER GA	FED	NM16760		826	2475	365	2.3	6.8
MF 4	BISTI LOWER GA	FED	NM16760		1009	2616	360	2.8	7.3
Muddy Mudda 1 GA	BISTI LOWER GA	FED	NM36474		153	450	365	0.4	1.2
November 24 #2	BISTI LOWER GA	FED	NM12374		1145	8545	353	3.2	24.2
Ohwada 2	BISTI LOWER GA	FED	NM90843		1150	3638	359	3.2	10.1
Pac Ten 1	BISTI LOWER GA	FED	NM45207		1667	9319	365	4.6	25.5
September 15 GA	BISTI LOWER GA	FED	NM54983	NM015P3586C513	828	770	154	5.4	5
Sixteen G's 1	BISTI LOWER GA	FED	NM25433		2584	8109	364	7.1	22.3
Sixteen G's 3	BISTI LOWER GA	FED	NM25433		555	4067	365	1.5	11.1
Sixteen G's 4	BISTI LOWER GA	FED	NM25433		314	1604	168	1.9	9.5
So Huerfano Federal 1X	BISTI LOWER GA (P&A 12/13/96)	FED	SF078859		0	0	0	0.0	0.0
Wac 1	BISTI LOWER GA	FED	NM36473		412	3524	365	1.1	9.7
POOL TOTAL (31 Completions) & AVERAGE					**31,772**	**126,868**	**10,308**	**3.1**	**12.3**
Adobe A 1	CUERVO GALLUP	FED	SF078868		1480	3473	365	4.1	9.5
Kaibab Trail 1	CUERVO GALLUP	I	NOOC14204310		557	4794	365	1.5	13.1
Lee's Ferry 1	CUERVO GALLUP	FED	NM41650		1020	4156	365	2.8	11.4
POOL TOTAL (3 Completions) & AVERAGE					**3,057**	**12,423**	**1,095**	**2.8**	**11.3**
Bright Angel 1	LYBROOK GALLUP	I	NOOC14204312		1170	5114	365	3.2	14.0
Lava Falls 1	LYBROOK GALLUP	I	NOOC14204313		952	5687	365	2.6	15.6
Phantom Ranch 1	LYBROOK GALLUP	FED	NM40643		1090	3313	340	3.2	9.7
Sapp 2	LYBROOK GALLUP	FED	SF078868		2622	4590	365	7.2	12.6
POOL TOTAL (4 Completions) & AVERAGE					**5,834**	**18,704**	**1,435**	**4.1**	**13.0**

** = Connected in 1997

ATTACHMENT NO. 7
1997 PRODUCTION SUMMARY
WELLS CONNECTED TO DUGAN PRODUCTION CORP'S GOOD TIMES GATHERING SYSTEM (4-1-98)
142 Wells, 151 Completions (9 dual completions)

WELL NAME	POOL	LEASE TYPE	LEASE NO. For Well Locatio	CA# (If Established)	12 Months - 1997 OIL/CND BBL	GAS MCF	PROD. DAYS	AVG BPD	AVG MCFD
Blanco Wash 2 PC	POTWIN PC (P&A 11/15/96)	I	142006031403		0	0	0	0.0	0.0
Bowers 1	POTWIN PC	FED	NM26047		0	6615	359	0.0	18.4
Buddha Temple 1	POTWIN PC	FED	NM54980		0	2	3	0.0	0.7
Mesa 1	POTWIN PC (P&A 9/18/97)	ST	LG1917		0	0	0	0.0	0.0
Mesa 2	POTWIN PC	ST	LG1917		0	4103	365	0.0	11.2
Mesa 3	POTWIN PC	ST	LG1917		0	0	0	0.0	0.0
POOL TOTAL (6 Completions) & AVERAGE					**0**	**10,720**	**727**	**0.0**	**14.7**
Blanco Wash 1 MA/DK	WHITE WASH MA/DK	I	142006031404		61	2528	365	0.2	6.9
Blanco Wash 4	WHITE WASH MA/DK	I	142006031405		482	2983	365	1.3	8.2
Blanco Wash 5	WHITE WASH MA/DK	I	142006031402		533	2682	365	1.5	7.3
Chaco 3	WHITE WASH MA/DK	FED	NM2337		334	2023	365	0.9	5.5
Elwood P. Dowd 2	WHITE WASH MA/DK	FED	NM9520		516	2789	365	1.4	7.6
POOL TOTAL (5 Completions) & AVERAGE					**1,926**	**13,005**	**1,825**	**1.1**	**7.1**
Blanco Wash 1 MV	WHITE WASH MV	I	142006031404		344	0	365	0.9	0.0
POOL TOTAL (1 Completion)					**344**	**0**	**365**	**0.9**	**0.0**
GRAND TOTAL (142 Wells - 151 Completions) & AVERAGE					**142,614**	**535,103**	**48,120**	**3.0**	**11.1**

WELLS/COMPLETIONS	1997 Total (% of total) Oil/Cond. - bbl	Gas - MCF	Prod. - Days	DAILY AVERAGE BPD	MCFD
105 on Federal Leases (69.6%)	109,980 (77.1%)	384,371 (71.8%)	33,350 (69.3%)	3.3	11.5
23 on State Leases (15.2%)	16,416 (11.5%)	71,206 (13.3%)	7,106 (14.8%)	2.3	10.0
23 on Navajo Allotted Leases (15.2%)	16,218 (11.4%)	79,526 (14.9%)	7,664 (15.9%)	2.1	10.4
151 Total Completions	142,614 (100%)	535,103 (100%)	48,120 (100%)	3.0	11.1

** = Connected in 1997

ATTACHMENT NO. 4

DUGAN PRODUCTION CORP. - GOOD TIMES GAS GATHERING SYSTEM LEASE FUEL & SYSTEM ALLOCATION INFORMATION AS OF 6-1-98

WELL NAME	Lease Equipment (1)				Purged Gas MCF (2)	Alt. Meas. Date (3)	Current Gas Analysis (4)		Drip Allocation (5)					System Compressor Fuel Allocation (6)		
	Separator Burner BTU/hr	Engine HP	Lease Fuel MCFD Summer Months	Lease Fuel MCFD Winter Months			BTU/CF	GPM	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4	Tank No. 5	Goodtimes South	Goodtimes	Mountain Spur
WELLS OPERATED BY DUGAN																
Adobe A 1	350M	18	6.40	6.40			1616	3.448								X
Angel's Gate 90	---	---	---	---	0.12		978	0.2475								X
April Surprise 2 GA/DK (7)	350M	22	7.40	7.40			1422	2.6233			X	X	X		X	X
April Surprise 3	350M	15	5.70	5.70			1481	3.0769			X	X	X		X	X
April Surprise 4 GA/DK (7)	350M	20	6.91	6.91		11/21/95	1563	3.8588			X	X	X		X	X
April Surprise 5	350M	15	4.75	4.75			1544	3.594			X	X	X		X	X
April Surprise 6	---	12	3.95	3.95			1544	3.594			X	X	X		X	X
April Surprise 7	325M	15	5.54	5.54			1466	2.5623			X	X	X		X	X
April Surprise 8	250M	22	6.89	6.89			1528	3.4192			X	X	X		X	X
April Surprise 9																
April Surprise 90	---	---	0	0	Note 8		1009	0.006								
August 1	377M	12	5.00	5.00		11/21/95	1370	2.2887			X	X	X		X	X
August 90	---	7	1.76	1.76	Note 8											
Big Eight 1	377M	22	7.50	7.50			1594	3.5387			X	X			X	X
Big Eight 1E	377M	14	5.50	5.50			1610	4.5119			X	X			X	X
Blanco Wash 1 MA-DK/MV (7)	350M	18	6.40	6.40			1153	1.2365								X
Blanco Wash 2 FR/PC (7)	---	---	0.00	0.00			---	---				X				X
Blanco Wash 4	350M	18	6.40	6.40			1377	2.6882								X
Blanco Wash 5	350M	14	5.40	5.40			1259	1.2125								X
Bowers 1	---	---	0.00	0.00	0.09		1027	0.0669								X
Bowers 90	---	---	0.00	0.00	Note 8											
Bright Angel 1	350M	15	5.70	5.70			1197	1.3942								X
Bronze Medal 1	350M	12	3.95	3.95			1286	1.6881	X	X	X	X	X	X	X	X
Bronze Medal 2	---	12	3.95	3.95			1286	1.6881	X	X	X	X	X	X	X	X
Buddha Temple 1	---	---	0.00	0.00	0.23		1020	0.0432								X
Buddha Temple 90	---	---	0.00	0.00			1146	0.942								X
Calgary 2	+	14	3.73	3.73			1455	2.6382	X	X	X	X	X	X	X	X
Calgary 3	+	14	3.73	3.73			1455	2.6382	X	X	X	X	X	X	X	X
Calgary 4	+	30	7.83	7.83			1455	2.6382	X	X	X	X	X	X	X	X
Calgary 5	+	30	7.83	7.83			1455	2.6382	X	X	X	X	X	X	X	X
Calgary 6	+	14	3.73	3.73			1455	2.6382	X	X	X	X	X	X	X	X
Calgary 7	+	15	4.03	4.03			1455	2.6382	X	X	X	X	X	X	X	X
Calgary 8	+	30	7.83	7.83			1455	2.6382	X	X	X	X	X	X	X	X

ATTACHMENT NO. 4

DUGAN PRODUCTION CORP. - GOOD TIMES GAS GATHERING SYSTEM LEASE FUEL & SYSTEM ALLOCATION INFORMATION AS OF 6-1-98

WELL NAME	Lease Equipment (1)				Purged Gas MCF (2)	Alt. Meas. Date (3)	Current Gas Analysis (4)		Drip Allocation (5)					System Compressor Fuel Allocation (6)		
	Separator Burner BTU/hr	Engine HP	Lease Fuel MCFD Summer Months	Lease Fuel MCFD Winter Months			BTU/CF	GPM	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4	Tank No. 5	Goodtimes South	Goodtimes	Mountain Spur
Calgary 88	325M+	15	4.25	4.25			1455	2.6382	X	X	X	X	X	X	X	X
Chaco 3	350M	12	4.90	4.90			1361	1.8607								X
Champ 1	325M+	12	3.45	3.45			1592	4.163	X	X	X	X	X	X	X	X
Champ 2	+	12	3.45	3.45			1592	4.163	X	X	X	X	X	X	X	X
Champ 3	+	12	3.45	3.45			1592	4.163	X	X	X	X	X	X	X	X
Champ 4	+	12	3.45	3.45			1592	4.163	X	X	X	X	X	X	X	X
Champ 5	+	12	3.50	3.50			1594	4.0624	X	X	X	X	X	X	X	X
Champ 6	+	12	3.50	3.50			1594	4.0624	X	X	X	X	X	X	X	X
Champ 7	377M+	14	4.00	4.00			1594	4.0624	X	X	X	X	X	X	X	X
Champ 8	+	15	4.30	4.30			1594	4.0624	X	X	X	X	X	X	X	X
Champ 9	250M	12	4.40	4.40			1446	2.6149			X	X	X		X	X
Champ 10																
December Dream 1	350M+	15	4.21	4.21			1513	3.2463			X	X	X		X	X
December Dream 2	+	15	4.21	4.21			1513	3.2463			X	X	X		X	X
December Dream 3	+	12	3.45	3.45			1513	3.2463			X	X	X		X	X
Elwood P. Dowd 1	---	---	0.00	0.00			1354	2.2892				X				X
Elwood P. Dowd 2	350M	14	5.40	5.40			1464	3.123				X				X
Elwood P. Dowd Com 90																
Fabulous Feb 1	350M	15	5.70	5.70			1454	2.7071			X	X	X		X	X
Fairway 1	250M	7	3.20	3.20			1514	3.7089			X	X	X		X	X
Flo-Jo 1	350M	20	6.90	6.90			1589	3.9844	X	X	X	X	X	X	X	X
Flo-Jo 2	325M+	30	8.17	8.17			1606	3.2548	X	X	X	X	X	X	X	X
Flo-Jo 4	300M+	15	4.60	4.60			1606	3.2548	X	X	X	X	X	X	X	X
Flo-Jo 5	+	14	4.30	4.30			1606	3.2548	X	X	X	X	X	X	X	X
Flo-Jo 6	+	22	6.13	6.13					X	X	X	X	X	X	X	X
Flo-Jo 7	+	15	4.37	4.37					X	X	X	X	X	X	X	X
Gold Medal 1	350M	10	4.40	4.40			1426	2.7582			X	X	X		X	X
Gold Medal 2	325M+	12	4.80	4.80			1622	4.9202	X	X	X	X	X	X	X	X
Gold Medal 3	+	15	4.47	4.47			1584	3.694	X	X	X	X	X	X	X	X
Gold Medal 4	+	14	5.50	5.50			1622	4.9202	X	X	X	X	X	X	X	X
Gold Medal 5	377M+	20	5.67	5.67			1584	3.694	X	X	X	X	X	X	X	X
Gold Medal 6	+	15	4.47	4.47			1584	3.694	X	X	X	X	X	X	X	X
Gold Medal 7	---	---	---	---	Note 8											
Harvey 2 GA/DK (7)	325M	20	6.80	6.89	0.71		1260	1.5912			X	X			X	X

ATTACHMENT NO. 4

DUGAN PRODUCTION CORP. - GOOD TIMES GAS GATHERING SYSTEM LEASE FUEL & SYSTEM ALLOCATION INFORMATION AS OF 6-1-98

	Lease Equipment (1)						Current Gas Analysis (4)		Drip Allocation (5)					System Compressor Fuel Allocation (6)		
WELL NAME	Separator Burner BTU/hr	Engine HP	Lease Fuel MCFD Summer Months	Lease Fuel MCFD Winter Months	Purged Gas MCF (2)	Alt. Meas. Date (3)	BTU/CF	GPM	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4	Tank No. 5	Goodtimes South	Goodtimes	Mountain Spur
Helsinki 52	325M	14	5.30	5.30		11/22/95	1563	4.0657	X	X	X	X	X	X	X	X
Holly 1 GA/DK (7)	350M	18	6.40	6.40			1368	2.115			X	X			X	X
Hoss 1	350M	15	5.67	5.67			1631	4.561	X	X	X	X	X	X	X	X
Ivy League 1	350M	22	7.40	7.40			1536	3.4468			X	X			X	X
Jim Thorpe 1	250M	12	4.40	4.40			1508	3.9477			X	X	X		X	X
July Jubilee 1 GA/DK (7)	350M	16	5.90	5.90			1535	3.7198			X	X	X		X	X
July Jubilee 2	350M	14	5.40	5.40			1465	2.7061			X	X	X		X	X
July Jubilee 3	350M	15	5.20	5.20			1574	3.9459			X	X	X		X	X
June Joy 2	350M	14	5.40	5.40			1477	3.173			X	X	X		X	X
Kaibab Trail 1	350M	14	5.40	5.40		1/8/96	1178	1.2509								X
Kaibab Trail 90	---	6	1.50	1.50			1034	0.1126								X
Lake Placid 1	250M	12	4.40	4.40		1/19/96	1357	2.5669	X	X	X	X	X	X	X	X
Largo Federal B 1	350M	10	1.90	1.90			1429	2.624			X	X			X	X
Largo Federal B 90					Note 8											
Lava Falls 1	350M	15	5.70	5.70			1270	1.9661								X
Lee's Ferry 1	250M	15	5.20	5.20			1417	2.3789								X
Lee's Ferry 90	---	---	0	0	Note 8											
Louie Louie 1	350M	15	5.70	5.70		1/23/96	1381	2.2294			X	X	X		X	X
Luna 2	350M	42	12.50	12.50			1392	2.4125			X	X	X		X	X
Luna 3	350M	12	4.90	4.90			1539	3.0181			X	X	X		X	X
Marathon 1	350M+	12	3.95	3.95			1312	1.9001	X	X	X	X	X	X	X	X
Marathon 2	+	12	3.95	3.95			1312	1.9001	X	X	X	X	X	X	X	X
March On 1	250M	12	4.40	4.40			1494	2.8236			X	X	X		X	X
Mary Anne 1	---	12	3.00	3.00			1599	5.2073			X	X			X	X
Mary Anne 3	---	15	5.70	5.70	Note 8											
Mary Lou 1	+	12	3.90	3.90			1464	2.6104	X	X	X	X	X	X	X	X
Mary Lou 2	325M+	12	3.90	3.90			1464	2.6104	X	X	X	X	X	X	X	X
Mary Lou 3	+	15	4.25	4.25			1464	2.6104	X	X	X	X	X	X	X	X
Mary Lou 4	+	14	3.95	3.95			1464	2.6104	X	X	X	X	X	X	X	X
Mary Lou 5	+	15	4.25	4.25			1464	2.6104	X	X	X	X	X	X	X	X
Mary Lou 6	+	15	4.25	4.25			1464	2.6104	X	X	X	X	X	X	X	X
Mary Lou 90	---	7	1.73	1.73			1484	2.9127	X	X	X	X	X	X	X	X
McDougall 2					Note 8											
Merry Chase Com 90																
Merry May 1	350M	14	5.40	5.40			1439	2.719			X	X	X		X	X

ATTACHMENT NO. 4

DUGAN PRODUCTION CORP. - GOOD TIMES GAS GATHERING SYSTEM LEASE FUEL & SYSTEM ALLOCATION INFORMATION AS OF 6-1-98

WELL NAME	Lease Equipment (1)				Purged Gas MCF (2)	Alt. Meas. Date (3)	Current Gas Analysis (4)		Drip Allocation (5)					System Compressor Fuel Allocation (6)		
	Separator Burner BTU/hr	Engine HP	Lease Fuel MCFD Summer Months	Lease Fuel MCFD Winter Months			BTU/CF	GPM	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4	Tank No. 5	Goodtimes South	Goodtimes	Mountain Spur
Mesa 1	---	---	---	---	Note 8											
Mesa 2	---	---	0.00	0.00	0.09		1134	0.8508								X
Mesa 3	---	---	0.00	0.00	Note 8											X
Mesa 90	---	---	0.00	0.00	0.06		1019	0.0109								X
MF 1	350M	10	4.40	4.40			1537	3.627			X	X	X		X	X
MF 2	250M	---	0.00	1.40			1466	2.939			X	X	X		X	X
MF 4	350M	14	5.40	5.40			1607	4.6785			X	X	X		X	X
Mo Valley 90																
Montreal 1	350M+	12	3.95	3.95			1347	2.2579	X	X	X	X	X	X	X	X
Montreal 2	+	12	3.95	3.95			1347	2.2579	X	X	X	X	X	X	X	X
Muddy Mudda 1 GA/DK (7)	350M	14	5.40	5.40			1357	1.9612			X	X			X	X
November 24 #1	350M	15	5.68	5.68	Note 8											
November 24 #2	250M	22	7.20	7.20			1378	1.8808			X	X	X		X	X
Ohwada 1					Note 8											
Ohwada 2	350M	15	5.70	5.70			1525	3.6813			X	X	X		X	X
Okie 1	---	---	0.00	0.00	0.17											X
Okie 2	---	---	0.00	0.00	0.11		1128	0.8193								X
Oktoberfest 1	250M	12	4.40	4.40		11/21/95	1464	2.9736			X	X	X		X	X
Oktoberfest Com 2	250M	12	4.40	4.40			1384	2.6128			X	X	X		X	X
Olson 1	250M	12	4.40	4.40		1/23/96	1576	4.0502			X	X	X		X	X
Olympic 1	250M	12	4.40	4.40			1533	3.8321			X	X	X		X	X
Olympic 2	350M+	14	4.13	4.13			1533	3.8321			X	X	X		X	X
Olympic 3	+	12	3.63	3.63			1533	3.8321			X	X	X		X	X
Olympic 4	+	10	3.13	3.13			1533	3.8321			X	X	X		X	X
Pac Ten 1	325M	15	5.60	5.60			1665	4.013			X	X			X	X
Par 1	250M	30	9.20	9.20			1383	1.9596			X	X	X		X	X
Phantom Ranch 1	350M	12	4.90	4.90			1466	3.1137								X
Phillips 1					Note 8											
Pierre 1	250M	14	4.90	4.90			1624	4.1232	X	X	X	X	X	X	X	X
Road Runner 1	325M	14	5.30	5.30			1550	3.3983	X	X	X	X	X	X	X	X
Road Runner 90					Note 8											
Rodeo Rosie Com 90																
Sanchez O'Brien 90																
Sapp 1					Note 8											

ATTACHMENT NO. 4

DUGAN PRODUCTION CORP. - GOOD TIMES GAS GATHERING SYSTEM LEASE FUEL & SYSTEM ALLOCATION INFORMATION AS OF 6-1-98

WELL NAME	Lease Equipment (1)				Purged Gas MCF (2)	Alt. Meas. Date (3)	Current Gas Analysis (4)		Drip Allocation (5)					System Compressor Fuel Allocation (6)		
	Separator Burner BTU/hr	Engine HP	Lease Fuel MCFD Summer Months	Lease Fuel MCFD Winter Months			BTU/CF	GPM	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4	Tank No. 5	Goodtimes South	Goodtimes	Mountain Spur
Sapp 2	350M	22	7.40	7.40			1453	2.5657								X
Sapp 90	---	---	0.00	0.00	0.10		1141	0.9121								X
Sapp 91	---	---	0.00	0.00	0.10		959	0.0053								X
Sapp 92					Note 8											
Sapp 93					Note 8											
Seoul 88	325M	12	4.80	4.80		1/19/96	1397	2.6711	X	X	X	X	X	X	X	X
September 15 GA/DK (7)	325M	20	6.84	6.84			1172	0.9338			X	X	X		X	X
Sheba Temple 1					Note 8											
Silver Medal 1	325M	15	5.60	5.60		11/22/95	1423	2.7463			X	X	X		X	X
Sixteen G's 1	350M+	30	8.55	8.55			1557	3.2936			X	X			X	X
Sixteen G's 3	+	14	4.45	4.45			1557	3.2936			X	X			X	X
Sixteen G's 4	+	22	7.56	7.56			1557	3.2936			X	X			X	X
So Huerfano Federal 1X	---	---	---	---			---	---								
Squaw Valley 1	377M+	12	4.00	4.00			1360	2.3374	X	X	X	X	X	X	X	X
Squaw Valley 2	+	30	8.60	8.60			1360	2.3374	X	X	X	X	X	X	X	X
St. Louis 12	325M	12	4.80	4.80		1/19/96	1390	2.8483	X	X	X	X	X	X	X	X
St. Moritz 1	250M	20	6.40	6.40		1/31/96	1332	1.8464			X	X	X		X	X
Supai Point 1	---	---	0.00	0.00	0.12		1210	1.2297								X
Supai Point 91																
Target 90																
Wac 1	325M	15	5.60	5.60			1442	2.8268			X	X			X	X
Witty 2	+	15	4.16	4.16			1499	3.2609			X	X	X		X	X
Witty 3	+	15	4.16	4.16			1499	3.2609			X	X	X		X	X
Witty 4	325M+	15	4.16	4.16			1499	3.2609			X	X	X		X	X
Witty 5	+	12	3.36	3.36			1499	3.2609			X	X	X		X	X
Witty 6	+	12	3.36	3.36			1499	3.2609			X	X	X		X	X
Wit's End 1	---	12	3.35	3.35			1427	2.6552			X	X	X		X	X
Wit's End 2	---	12	3.35	3.35			1427	2.6552			X	X	X		X	X
Wit's End 3	250M	12	3.35	3.35			1427	2.6552			X	X	X		X	X
Wit's End 4	250M	12	3.35	3.35			1427	2.6552			X	X	X		X	X
WELLS OPERATED BY OTHERS																
Universal Res. - Federal D CDP	---	---	0.00	0.00			1386	2.46			*	*	X		X	
UR - Federal D3	+	---	0.00	0.00												
UR - Federal D4	250M+	14	2.2	2.2												
UR - Federal D5	+	30	5.9	5.9												

ATTACHMENT NO. 4

DUGAN PRODUCTION CORP. - GOOD TIMES GAS GATHERING SYSTEM LEASE FUEL & SYSTEM ALLOCATION INFORMATION AS OF 6-1-98

WELL NAME	Lease Equipment (1) Separator Burner BTU/hr	Engine HP	Lease Fuel MCFD Summer Months	Lease Fuel MCFD Winter Months	Purged Gas MCF (2)	Alt. Meas. Date (3)	Current Gas Analysis (4) BTU/CF	Current Gas Analysis (4) GPM	Drip Allocation (5) Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4	Tank No. 5	System Compressor Fuel Allocation (6) Goodtimes South	Goodtimes	Mountain Spur
UR - Federal D6	250M+	14	3.9	3.9												
GATHERING SYSTEM EQUIPMENT																
Goodtimes South Compressor	---	60	15.12	15.12												
Goodtimes Compressor	---	134	33.77	33.77												
Mountain Spur Compressor	---	225	56.70	56.70												

Notes

1. Gas used on lease as of 6-1-98. As conditions and/or equipment change, fuel uses will also change. Fuel requirements are calculated from burner and horsepower sizes.
   Summer months = May thru October; Winter months = November thru April.
   + = Central Tank Battery and/or shared equipment with other wells on the same lease.
2. Gas purged to unload accumulated liquids - calculated using individual well equipment and average wellbore pressures. MCF vented/purge cycle.
3. Date Alternative Measurement was initiated.
4. Dry BTU/CF @ 14.73 PSIA. GPM represents liquids from isobutane and heavier - gallons/MCF.
5. X reflects that gas produced from the subject well flows through the subject drip trap and all liquids recovered from the drip trap will be allocated to the wells producing the gas. * = only if gas flows to Lomak CDP.
6. X reflects that produced gas from the subject well is influenced by or flows through the system at this compressor location and the fuel consumed by this compressor will be allocated to each well being influenced.
7. Well is downhole commingled:

		Allocation Factors			
	Commingling	Gas %		Oil %	
Well No.	Order	Upper	Lower	Upper	Lower
April Surprise #2	DK TA 5/96	100	0	100	0
April Surprise #4	R-7210	15	85	85	15
Blanco Wash #1	DHC-1309	100	0	85	15
Blanco Wash #2	DHC-676	90	10	50	50
Harvey #2	DHC-1366	75	25	100	0
Holly #1	R-7143	80	20	95	5
July Jubilee #1	R-6826	10	90	90	10
Muddy Mudda #1	DHC-528	13	87	81	19
September #15	DHC-1535	34	66	98	2

8. Well not completed or connected to gathering system.

Attachment No. 8
Reasons, Justification and Benefits for
Off-Lease Measurement & Surface Commingling
Dugan Production Corp.'s Goodtimes Gas Gathering System
San Juan County, New Mexico

Reasons:

1. For many years (at lease since the early 1980's) pipeline companies in the San Juan Basin have been reluctant to make wellhead pipeline connections for low volume wells especially low volume oil wells. Dugan Production (DPC) started development of the South Bisti Gallup oil pool in the early 1980's and was unable to obtain a wellhead pipeline connection for the wells which were typically low volume, long life oil wells. As an alternative to venting the natural gas associated with these low volume oil wells DPC installed the Goodtimes Gas Gathering System to collect produced natural gas & deliver this gas to El Paso Natural Gas at their CDP meter which necessitates the surface commingling plus off-lease measurement and sale of produced natural gas.

2. Federal Energy Regulatory Commission (FERC) Order 636 shifted the focus of natural gas pipeline companies from purchasing to the transportation of natural gas. This shift in business focus by the pipeline companies has resulted in even fewer wells (especially the lower volume wells) being connected directly to pipelines and has basically required producers to build and operate their own gathering systems in order to gather and deliver natural gas to the pipeline company at a central delivery site.

Justification:

1. Dugan Production had substantial undeveloped acreage in the area and intended to drill upwards of 100 wells in the South Bisti Gallup oil pool. Following unsuccessful efforts to obtain wellhead connections for the early wells, DPC initiated planning and construction of the Goodtimes Gathering System to gather gas from typically low volume casinghead gas wells and deliver the commingled gas stream to El Paso Field Services (then El Paso Natural Gas) at a central delivery meter in Section 13, T24N, R10W on El Paso's existing pipeline. This provided a gas market for low volume wells that was not otherwise available and eliminated the potential venting of a substantial volume of natural gas. On January 16, 1984, DPC requested and received BLM approval for operation of this system which initially included 11 wells (16 completions). The system currently has 151 completions connected and the current application to add wells will be the twelfth expansion.

2. Currently the Goodtimes Gas Gathering System consists of ±377,000' (71.5 miles) of line and at an average installed cost of $9.50/ft, represents an investment of ±$3.6 million. During 1997 DPC produced 142,614 bbl of oil and condensate, plus 535,103 MCF of gas from the 151 completions connected to the Goodtimes Gas Gathering System. This allowed the sale of 312,024 MCF of gas which would not have been possible without the operation of the Goodtimes Gas Gathering System. As a total, this is a substantial volume of oil and gas, however on an individual well basis, the daily average production during 1997 was only 3.0

bbl of oil/condensate plus 11.1 MCF of which only 58.3% (6.5 MCFD) was actually sold with the balance being used for fuel.

3. Of the 142 wells (151 completions) currently connected to the Goodtimes Gas Gathering System, none qualify for wellhead connections. During 1997 only 20 wells averaged gas rates greater than 15 MCFD, and of these 20, only 5 averaged rates greater than 25 MCFD (reference Attachment No. 7). None of these wells produce sufficient rates to directly connect to the pipeline and thus the only options available for disposing of the produced natural gas are:

    A. To vent the casinghead gas associated with oil production and to shut in the gas well completions since venting of gas well gas is prohibited and would serve no purpose or,
    B. To utilize the Goodtimes Gas Gathering System to deliver gas to a CDP for sale.

4. The marginal nature of wells producing gas volumes less than 15 MCFD is well documented for the San Juan Basin. In the late 1980's, as natural gas prices were declining and pipeline companies looking for ways to reduce operating costs, the New Mexico Oil Conservation Division (NMOCD) organized a committee comprised of representatives from the NMOCD, the Bureau of Land Management (BLM), the New Mexico State Land Office (NMSLO) and the natural gas industry (both producers and pipeline companies) to review the issues and recommend changes in regulations that would help to prevent premature abandonment of low volume wells. This committee concluded that "current metering costs exceed revenues for wells producing at rates of 15 MCFD per day or less". In case No. 10398 held on 10-10-91, the New Mexico Oil Conservation Commission, acting upon the recommendations of this committee issued Order No. R-9617 (copy attached) which amended NMOCD rules to provide special operating procedures for low capacity wells especially wells producing 15 MCFD or less. In addition, the BLM issued NTL 92-5 New Mexico (copy attached) which also recognizes the marginal nature of wells producing 15 MCFD or less.

Benefits:

1. All wells delivering gas into the Goodtimes Gas Gathering System will receive revenue resulting from gas sales which is better than venting the gas with no revenues being produced. For 1997, this economic benefit from gas sales in dollars for any individual well can be approximated by using the production data presented in Attachment No. 7 and multiplying the produced gas volumes by 1.09. This factor is based upon the following assumptions:

    Average gas sold during 1997 = 58.3% of produced volumes (ranges from 0 to 100%).
    Actual lease fuel requirements are presented in Attachment No. 4.

    Average gas price during 1997 = $1.94/MMBTU (ranged from $1.33 to $3.33)

    Average gas heating value = 1250 BTU/CF (ranges from 959 to 1665)

    Average transportation and compression charges = 32¢/MCF

Attachment #8
Pg 2 of 11

For the average well connected to the Goodtimes Gas Gathering System the economic benefit from gas sales during the past four years was:

Year	Annual Average Production BPD + MCFD	Average Gas Price $/MMBTU	Gas Price Range-$/MMBTU	Average Well Economic Benefit * $/Day	$/Year
1994	3.6 + 11.3	1.40	(1.15 - 1.63)	9.42	3,438
1995	3.1 + 11.9	1.01	(0.85 - 1.20)	6.54	2,387
1996	3.3 + 11.1	1.58	(1.12 - 3.09)	10.71	3,909
1997	3.0 + 11.1	1.94	(1.33 - 3.33)	13.62	4,972

* - 8/8 interest before production tax - includes gas revenues from working, royalty and overriding royalty interests.

2. During 1997, the economic benefit of natural gas sales for the various royalty interests in wells connected to the Goodtimes Gas Gathering System can be approximated as follows:

Type Lease	# of Completions	1997 Annual Production Total All Wells bbl	MCF	Average Per Well BPD	MCFD
Federal	105	109,980	384,371	3.3	11.5
State	23	16,416	71,206	2.3	10.0
Navajo Allotted	23	16,218	79,526	2.1	10.4
Total	151	142,614	535,103	3.0	11.1

Annual $ - All Wells	Federal	State	Navajo
Oil Royalty Revenue - $/yr (1)	$264,089	$39,419	$51,935
Gas Royalty Revenue - $/yr (2)	58,963	10,923	16,269
Total Royalty Revenue - $/year	323,052	50,342	68,204
Average per well - $/day			
Oil Royalty Revenue - $/day (1)	7.92	5.52	6.72
Gas Royalty Revenue - $/day (2)	1.76	1.53	2.13
Total Royalty Revenue - $/day	9.69	7.06	8.85

(1)- Oil valued @ 1997 average field price of $19.21/bbl and assumes royalty rates as follows: 12½% Federal, 12½% State, 16-2/3% Navajo Allotted.

(2)- Gas valued @ 1997 average field price of $1.94/MMBTU and adjusted for an average BTU content of 1250, 32¢/MCF transportation and compression and an average of 58.3% of production sold. Royalty rates assumed: Federal = 12.5%, State = 12.5%, Navajo Allotted = 16-2/3%.

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STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION TO CONSIDER THE APPLICATION OF:

CASE NO. 10398
ORDER NO. R-9617

THE NEW MEXICO OIL CONSERVATION DIVISION TO AMEND RULES 403 AND 1110 OF THE GENERAL RULES AND REGULATIONS OF THE DIVISION TO PROVIDE FOR ALTERNATE METHODS OF MEASURING AND REPORTING GAS PRODUCTION FROM LOW CAPACITY WELLS.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 a.m. on October 10, 1991, at Santa Fe, New Mexico before the Oil Conservation Commission of the State of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 23rd day of December, 1991, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and further considering comments submitted pursuant to request of the Commission, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) The New Mexico Oil Conservation Division has filed this application to amend rules 403 and 1110 of the General Rules and Regulations of the Division to provide for alternate methods of measuring and reporting under Rule 403 gas produced from low volume capacity gas wells, and that a new Rule 1110 be adopted to provide for request and approval of such alternate methods on proposed form C-110.

(3) At the time of the hearing the Division advised the Commission that there had previously been in use a form C-110 used as a completion report under an old Rule 1110. Because many well files still have the old form C-110 and the adoption of a new C-110 might lead to confusion, the Division requested that the application for a change to rule 1110 be amended and be a request for the adoption of a new rule 1136 providing for a new form C-136.

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(4) Witnesses from the Division, the U.S. Department of the Interior, Bureau of Land Management, pipelines and producer segments of the industry all commented in favor of the proposed rules with some minor corrections. No one appeared in opposition to the proposals.

(5) The proposed changes are recommended because there are several thousand gas wells in the state which produce less than 100 MCF per day ("MCFD") which have significant reserves behind them. These wells can continue to produce for several years if the costs of operation can be reduced.

(6) The costs of maintaining orifice meters for each well are substantial in relation to the volume and value of the gas which is produced, and continuing to require such meters on small volume wells could result in premature abandonment.

(7) There are alternative measurement methods which can be used and which will provide adequate accuracy of measurement of the volume of gas produced by such wells. Some methods are based upon establishing a reasonable periodic, hourly or daily, flow rates for such wells and applying such rates to the period of time the wells are flowing. Another alternative is to permit the surface commingling of gas which is produced from wells on common leases.

(8) The District Supervisor should be able to permit commingling of production from gas wells with a producing capacity of less than 100 MCFD to a central delivery point if those wells are on a single lease with entirely common ownership.

(9) If a well is not capable of producing in excess of 15 MCFD, the operator and transporter should be permitted to establish by annual test the periodic producing rate for such well under normal operating conditions and apply that rate to the time a well is producing. If such well is capable of producing more than 5 MCFD, a device should be attached to the line which will determine the actual period of time the well is flowing. Such measurement method should be approved by the District Supervisor prior to implementation.

(10) Production from wells measured in accordance with the alternate methods provided for in this order should be reported to the Division on forms C-111 and C-115 pursuant to the approval, including the method of allocation in the case of commingling.

(11) If there is any significant change in operating conditions such as line pressure, either party should be able to request a retest, the cost of which should be borne by the party requesting the test unless otherwise agreed between them.

(12) A new Rule 1136 authorizing form C-136 should be adopted for the purpose of obtaining District Supervisor approval of alternate measurement methods authorized by this order.

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IT IS THEREFORE ORDERED THAT:

(1) Rule 403 of the Rules and Regulations of the Oil Conservation Division is amended to provide for alternate methods of measuring gas from low capacity wells, and the entire rule as amended is shown in Exhibit A attached hereto and is adopted as new Rule 403.

(2) Rule 1136, as contained in Exhibit B hereto, is hereby adopted as a rule of the Division and shall become part of the Rules and Regulations of the Oil Conservation Division.

(3) Jurisdiction of this cause is retained for entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JAMI BAILEY,
Member

WILLIAM W. WEISS,
Member

WILLIAM J. LEMAY,
Chairman

SEAL

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RULE 403. - NATURAL GAS FROM GAS WELLS TO BE MEASURED

A. All natural gas produced shall be accounted for by metering or other method approved by the Division and reported to the Division by the transporter of the gas. Gas produced from a gas well and delivered to a gas transportation facility shall be reported by the owner or operator of the gas transportation facility. Gas produced from a gas well and required to be reported under this rule, which is not delivered to and reported by a gas transportation facility shall be reported by the operator of the well.

B. An operator may apply to the OCD District Supervisor, using form C-136, for approval of one of the following procedures for measuring gas:

(1) In the event a well is not capable of producing more than 15 MCFD, a measurement method agreed upon by the operator and transporter whereby the parties establish by annual test the producing rate of said well under normal operating conditions and apply that rate to the period of time the well is in a producing status. If such well is capable of producing greater than 5 MCFD, a device shall be attached to the line which will determine the actual time period that the well is flowing.

(2) Any well which has a producing capacity of 100 MCFD or less and which is on a multi-well lease may be produced without being separately metered when the gas is measured using a lease meter at a Central Point Delivery (CPD). The ownership of the lease must be common throughout including working interest, royalty and overriding royalty ownership.

(3) If normal operating conditions change, either party may request a new well test, the cost of which will be borne by the party so requesting unless otherwise agreed upon.

C. Operators and transporters shall report the well volumes on Forms C-115 and C-111 based upon the approved method of measurement and, in the case of a CPD, upon the method of allocation of production to individual wells approved by the District Supervisor.

Exhibit "A"
Order No. R-9617
Case No. 10398

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Rule 1136 - APPLICATION FOR APPROVAL TO USE AN ALTERNATE GAS MEASUREMENT METHOD (FORM C-136)

A. Form C-136 shall be used to request and approve use of an alternate procedure for measuring gas production from a well which is not capable of producing more than 15 MCFD (Rule 403.B.(1)) or for any well which has a producing capacity of 100 MCFD or less and is on a multi-well lease (Rule 403.B.(2)).

B. All applicable information required on Form C-136 shall be filled out with the required supplemental information attached, and shall be submitted in QUADRUPLICATE to the appropriate district office of the Division.

Exhibit "B"
Order No. R-9617
Case No. 10398

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Notice to Lessees and Operators of Federal and Indian Oil and Gas Leases within the Jurisdiction of the New Mexico State Office
(NTL 92-5 New Mexico)

Standards for Meters Measuring Low Gas Volumes

I. Background:

Throughout 1990, members of the New Mexico BLM met with the New Mexico Oil Conservation Division, gas producers, transporters, and purchasers in Santa Fe, NM to address issues concerning the measurement of low volume gas wells. The purpose of these meetings was to develop standards that will ensure satisfactory measurement while preventing premature abandonment of low volume wells due to excessive operating costs. In the San Juan Basin of New Mexico there are approximately 1850 Federal and Indian wells that produce 15 MCF/D or less, accounting for approximately 4.7 BCF of gas production per year. Industry estimates approximately $1,000,000 in annual savings by reducing operating costs.

Options discussed include: Central point delivery meters, allocation of low volume wells based on annual well testing, single gas meter lease measurement, flow-no-flow timers (very low volume meters), commingling, and several alternate methods of measurement.

Gas measurement components covered by this notice include the following:

A. Reduction of calibration frequency from quarterly to semiannually for meters measuring 100 MCF/D or less on a monthly basis.

B. Standardize the requirement of the static pressure recording pen to match the requirement of the differential pressure recording pen

C. Alternate methods of measurement for marginal producing gas wells.

II. Purpose:

The purpose of this NTL is to establish standards for variances to Onshore Order Number 5 which establishes minimum standards for gas measurement. This NTL is an effort to extend the life of marginal gas wells, by reducing operating costs, thereby conserving resources that otherwise would be lost.

III. Definitions:

Low Volume Gas Well Meter. A meter that measures an average of 100 MCF/D or less on a monthly basis.

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Marginal Gas Well Meter A meter that measures an average of 15 MCF/D or less on a monthly basis.

IV. Calibration Frequency:

Calibration Frequency shall be the same as outlined in Onshore Order Number 5 except for low volume gas well meters. If the operator and purchaser mutually agree, low volume gas well meters may be calibrated semiannually rather than quarterly.

V. Static Pen Requirement:

The static element shall be sized so that the static pressure pen records in the outer 2/3 of the chart range for the majority of the flow period. All meters must meet this standard when originally installed. However, a low volume gas well meter is exempt from this requirement if, after installation, decreasing reservoir/line pressure causes the static pressure to drop below this requirement, if reasonable measurement accuracy is obtained.

VI. Marginal Producing Gas Wells:

The authorized officer may approve alternate methods of measurement if the operator can demonstrate that the allocation method is equatable to all parties and will not result in a loss of royalty. As an example, large uncertainty limits can be created when measuring small volumes (an average of 15 mcf/d or less on a monthly basis). This makes allocation of production an alternative to individual well measurement.

Approval requests must be submitted on a lease basis, but may include multiple leases and should include the following:

A. The reason for the proposal, i.e., economics, environmental, or conservation.

B. Appropriate explanations and diagrams describing the proposed operation in detail:

1. A map showing all lease numbers and location of all leases and wells that will be connected to the proposed off-lease metering facility. All unitized or communitized areas, producing zones, pools, etc. must be clearly illustrated.

2. A schematic diagram or map which clearly locates and identifies all alternative measurement equipment used.

3. Explanation of the proposed allocation method of production to contributing leases/wells.

4. Estimated amounts of gas production from each lease involved.

Any well(s) or lease(s) subsequently added to an approved alternate method of measurement system/facility, must be approved by the Authorized Officer prior to being included in that facility.

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The operator is advised that an approval for commingling of production, off-lease measurement, or alternate methods of measurement does not relieve the lessee or operator from legal obligations he/she may have regarding consent from other interest holders or State regulatory agencies.

APPROVED:

1-1-92
Date

Larry T. Woodard
Larry T. Woodard
New Mexico State Director

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MEMORANDUM

Attachment No. 9 Pg 1 of 2

May 31, 1994

To: San Juan Basin Working Committee

From: Jeffrey R. Vaughan

RE: Draft of Subcommittee Recommendations

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More and more operators are finding themselves in the position of having to build their own gathering systems to get their gas to a point where major pipeline company's will accept delivery. In these systems, gas is measured on lease, and commingled with other gas prior to the Central Point of Delivery (CPD). Along the system there may be losses due to: 1) purging of liquids from the pipelines, 2) fuel gas for separators and dehydrators, 3) fuel gas for compressors, and 4) shrinkage due to dehydration. Thus, the volume sold at the CPD will be less than the sum of the volumes measured at the individual wells.

Many operators allocate the sales volumes back to the individual wells based on their relative percentage of the sum of the individual allocation meters. However, the BLM enforcement division has taken the position that the volume measured at the individual wellsite allocation meters is the official production from which royalties must be paid, unless approval is obtained for off-lease usage and measurement. Since this issue impacts many operators in the San Juan Basin, it was recommended at the March 1, 1994 San Juan Basin Working Committee that a Sub-committee be formed to address the issue.

The main objective of the Sub-committee was to work with the BLM to develop general guidelines for the industry to use in obtaining approval for off-lease sales, usage and measurement. These guidelines are presented in **Section I** of this report, and are based on IM NM-94-117 and Com 644.3.3.F of the Conservation Divisions Manual. It is recommended that the Farmington BLM circulate the guidelines submitting herein for comments. Once comments are reviewed and addressed, it is further recommended that the guidelines be published, with a time frame of one year in which to bring all off-lease measurement systems into compliance.

Much of the Sub-committees time was devoted to discussion of measurement irregularities, and supporting the principle of using CPD volumes as the point from which to allocate production back to individual wells. **Section II** reviews the irregularities and inaccuracies inherent in gas measurement and provides numerous references to support

Attachment No. 4 Pg 2 of 2

this case. **Section III** is an excerpt from one operator's application for off-lease measurement. This paper was included because 1) gives some good examples of measurement errors that exist in typical systems, 2) contains a good discussion and explanation of "line losses", and 3) re-enforces the case for using the CPD as the settlement point for sales and measurement.

Section IV contains: 1) a reference relevant to the guidelines (IM-IJM-94-117), 2) relevant citations from 30 CFR 202.150 and 3) relevant MMS regulations regarding allocation and reporting of production for royalty purposes.

Minutes from the Sub-committee meetings are included in **Section V**. Comments from the Sub-committee regarding the proposed changes to "Onshore Order No. 5, Measurement of Gas" are included in Section VI.

Respectfully submitted,

Jeffrey R. Vaughan
Chairman
Off-lease Sales, Usage and
Measurement Sub-committee

Sub-committee Members:

BLM
Benson Martin Greer, Drilling Corp.
Dugan Production Company
Giant Exploration & Production Co.
KM Production Co.
Meridian Oil Inc.
Phillips Petroleum Co.
Texaco Exploration and Production Co.

offices. This committee worked very diligently and on 5-31-94 produced draft guidelines for surface commingling and off-lease measurement issues involving Federal and Indian oil and gas leases. Attachment No. 9 is a copy of the cover letter dated 5-31-94 transmitting the subcommittee report and draft guidelines to the full San Juan Basin Working Committee. These guidelines had the support of both BLM and Industry committee members as they pertained to Federal lands, however for Indian lands, there were unresolved issues that resulted in guidelines being published initially on 6-30-95 for Federal leases only. Efforts of the subcommittee to address surface commingling and off-lease measurement issues on Indian lands continued and on 2-7-96 guidelines for Navajo Tribal oil and gas leases were published and finally on February 2, 1998 (approximately 2½ years after the Federal guidelines) guidelines for Navajo Allotted leases were produced.

Since there are 23 completions involving Navajo Allotted lands on the GGGS (21 of these were previously approved), Dugan Production Corp. was reluctant to submit any application addressing surface commingling and off-lease measurement issues at our GGGS until guidelines addressing the off-lease measurement and surface commingling involving Navajo Allotted leases were issued. Considering that off-lease measurement issues have been the focus of the San Juan Basin Working Committee since March 1994 and guidelines for Navajo Allotted leases were not issued until February 1998, several wells have been completed and the GGGS being expanded to include them during this period of time. Of the 33 wells/completions operated by Dugan Production Corp., all are being treated in the same manner as are the wells previously approved, however for royalty purposes on wells located on leases not previously included in prior approvals, we have been paying royalty based upon the volumes recorded at the wellsite allocation meters. For 19 of the 33 wells we are paying royalty based upon allocation meter volumes. We do not like doing this, but believe this is better than venting the gas production, and/or shutting in wells completed during the past ± four years while the various off-lease measurement issues were being resolved.

In addition to the 19 wells on which royalty is currently being paid based upon allocation meter volumes, 14 new wells/completions located on leases previously approved for the GGGS are being handled the same as are the other wells on those leases previously approved. Included in this group are four wells that have previously been approved in one zone and subsequently were completed in another zone (i.e. - our April Surprise No. 2 GA, Blanco Wash No. 1 MV, Harvey #2 GA and September #15 GA).

Also included in this application is the gas received into the GGGS at one meter site from four wells operated by Universal Resources, their Federal D wells No. 3, 4, 5 and 6. Natural gas from these four wells is gathered by Universal Resources and the combined production stream is delivered to a single meter on Dugan's GGGS located in the NE/4 NE/4 of Section 16, T-23N, R-9W (Map No. 1). Prior to this application, our agreement with BCO (Universal's predecessor) allowed a volume of gas determined at the allocation meter to be transferred to El Paso Natural Gas at their CDP in Section 12, T-24N, R-10W. It is our understanding that BCO had received BLM approval for this operation. For GGGS allocation purposes we are currently treating the Universal Resources meter the same as all other allocation meters and any differences in gas

volumes between what Universal Resources delivers to El Paso and the volume we allocate back to their allocation meter is being absorbed by Dugan Production. We have discussed this with Universal Resources and they are in agreement that Dugan's meter receiving gas from their wells will become an allocation meter for them and their sales volume will become the sales volume allocated to their meter as described in Attachment No. 6.

In addition to these 34 completions/meter sites, included in this application are 11 wells drilled and completed by Dugan Production which are currently producing, however are not connected to the GGGS. We also have four wells that have been drilled but not yet completed, eight proposed wells and one well, the Mesa No. 1, that was connected to the GGGS, however was plugged and abandoned in 9-97.

In addition to the 58 wells to be added with this application, Attachment No. 3 also presents well and lease information for the 129 completions (121 wells) that have previously been approved for the GGGS. It should be noted that of these previously approved wells, 11 completions (nine wells) have recently been plugged and abandoned, one well temporarily abandoned, and three locations remain to be drilled.

Attachment No. 4 presents the lease and system equipment plus fuel requirements for each well connected or anticipated to be connected. In addition, we have included other pertinent information such as volumes of gas that are periodically purged when attempting to keep low volume wells producing and from logging off. Also presented is the date that 11 wells began using alternative measurement which was approved by both NMOCD and BLM. Most wells on the GGGS produce at volumes which qualify for alternative measurement and we may convert other wells to alternative measurement in the future. We will obtain NMOCD and BLM approvals for each well prior to converting to alternative measurement methods. Also presented on Attachment No. 4 is a summary of the gas heating value and liquids content for all wells delivering gas into the GGGS. This information is intended to supplement the gas analysis information presented on Attachment No. 5. Also presented on Attachment No. 4 is a listing of the wells that share in the allocation of system drip accumulations and system compressor fuel use. Only those wells that produce gas through any one of the five system drip traps or benefit from the operation of any of the three system compressors will participate in the allocation procedures that are presented in Attachment No. 6.

Attachment No. 5 presents a summary of the gas analyses for each pool and a copy of the complete analysis for 34 different wells/meter sites (57 completions) which includes all Navajo Allotted wells plus a sufficient number of State and Federal wells to represent a significant percentage of the total production from each pool. Complete analyses are available for all wells on the GGGS, however we believe that there are sufficient similarities in the gas compositions for wells within the same pools that providing an analysis for all 151 wells serves no purpose and certainly adds bulk to this application. The analyses presented on Attachment No. 5 are believed to sufficiently represent each pool and if needed, the gas heating value (BTU/CF) and liquids content (GPM) for all 151 wells are presented in Attachment No. 4. Based upon these analyses

and our experience in the field, all gas streams are believed to be compatible and there appears to be no problems resulting from the surface commingling of gas from these nine pools. In addition, since revenues from gas and drip are allocated back to individual wells using individual well BTU and GPM's there will be no loss of value to any one well.

Attachment No. 6 presents the allocation procedures for all wells connected to the GGGS. The factors for individual well allocations are presented on Attachment No. 4. To date we have had very few problems with line leaks or line freezes which could cause losses of gas from the gathering system. In the event that we have a system gas loss (either as a result of line leaks, venting to clear line freezes, or venting to perform repair or installation of equipment), the gas 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 individual wells that contributed to the gas volume lost as shown in Attachment No. 6. The integrity of our gas gathering system is confirmed by periodic surveys of the line utilizing a Flame Pack Model 400 Gas Leak Detector which is owned by Dugan Production Corp. Initially, when the lines were installed they were pressure tested prior to being placed into service. 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 meters. All gas volumes will be continuously measured at each well using conventional metering equipment or an approved alternate measurement method installed and maintained by Dugan Production. The gas charts recorded at each well will be integrated for volumes to be used in determining allocation factors.

Attachment No. 7 presents 1997 production information and the current producing status for all 151 completions (142 wells) connected to the GGGS on 4-1-98. The total production from all wells during 1997 was 142,614 bbl of oil and condensate plus 535,103 MCF of gas, of which 312,024 MCF were sold with the balance being used for fuel. The average production for all wells during 1997 was 3.0 bbl/day plus 11.1 MCFD of which 6.5 MCFD was sold and 4.6 MCFD used for fuel. The average oil production of 3.0 BPD reflects a range of 0 to 24.2 BPD while the average gas production of 11.1 MCFD reflects a range of 0 to 144.7 MCFD. The higher average production rates typically come from new or recently completed wells which generally decline fairly steeply in production rates (45-75 %/year) during the first two to three years, prior to stabilizing at a decline rate of 5 to 6% per year. Although one well did average 24.2 BOPD and 144.7 MCFD (not the same well), only 25 wells averaged more than 5 BPD and of these 25, only five averaged more than 10 BPD. For gas production, only 20 wells produced an average gas rate greater than 15 MCFD and of these 20, only five averaged more than 25 MCFD.

Production comes from nine pools with the South Bisti Gallup oil pool accounting for 53.0% of the wells, 69.6% of the oil/condensate production and 41.8% of the gas production. The average individual well production in the South Bisti pool was 3.6 BOPD plus 8.1 MCFD. Of the nine pools, six are oil pools and account for 82.7% of the wells connected to the GGGS. During 1997, 99.7% of the oil/condensate plus 73.7% of the gas production from all wells connected to the GGGS came from 124 wells completed in oil pools averaging 3.3 BOPD plus 9.3 MCFD per well.

Production data for 1997 is fairly representative of production performance for wells connected to the GGGS from year to year since most wells exhibit low capacity and long life production performance, and after the first two to three years, production rates are fairly stable. During the past four years, production from wells connected to the GGGS is as follows:

		Annual Production			
	# of	Oil/Cond.	Gas MCF	Average per well	
Year	Completions	bbl	MCF	BPD	MCFD
1994	125	145,722	458,937	3.6	11.3
1995	133	132,597	508,313	3.1	11.9
1996	149	149,666	507,474	3.3	11.1
1997	151	142,614	535,103	3.0	11.1

Although the individual well average production is marginal and not too significant, total production for all wells connected to the GGGS is fairly significant. During the past four years summarized above, wells connected to the GGGS have produced just over ½ million bbl of oil and condensate plus 2.0 billion cubic feet of gas and as of 1-1-98, had produced approximately 2.5 million bbl of oil and condensate plus approximately 8.9 BCF.

Attachment No. 7 also summarizes the 1997 production by the type of lease from which it occurred. Of the 151 completions connected to Dugan's GGGS, 105 (69.6%) are on Federal lands, 23 (15.2%) on State of New Mexico leases and 23 (15.2%) on Navajo Allotted leases. For oil production; 77.1% occurred from wells on Federal leases, 11.5% from wells on State leases and 11.4% from wells on Navajo Allotted leases. For gas production; 71.8% occurred from Federal leases, 13.3% from State leases and 14.9% from Navajo Allotted leases.

Based upon the individual well average production presented on page six of Attachment No. 7, it appears that wells on Federal leases are slightly better, however it should be noted that a majority of our recent drilling activity has been on Federal leases and the early time production from the newer wells makes the Federal well averages slightly higher. For the most part, all wells exhibit very similar production performances and typically the Federal, State and Navajo Allotted wells all exhibit comparable production performances.

Attachment No. 8 presents the "Reasons, Justification and Benefits" for the off-lease measurement and surface commingling of gas production (plus a very small amount of condensed liquid hydrocarbons) in the operation of Dugan's GGGS. The primary reason and justification that surface commingling and off-lease measurement and sale of natural gas and drip is necessary for wells on the GGGS is the fact that wellhead pipeline connections are not available and if gas sales are to occur, the gas must be gathered and delivered to a central sales meter on the pipeline. The well operator has two options: A) build and operate a gas gathering system, delivering a commingled gas stream to a central delivery sales meter at some point very likely removed from the lease, or B) vent the casinghead gas on oil wells and shut in gas wells which cannot be vented. Having invested substantial monies in the acquisition of leasehold acreage, plus the drilling,

completion and equipping of wells, operators really have only one realistic option; to install and operate a gas gathering system such as the GGGS!

In the early field development of the South Bisti Gallup oil pool, Dugan Production recognized that the GGGS would be necessary to facilitate gas sales. We had a substantial undeveloped acreage holding and anticipated a majority of the development drilling would produce low volume oil wells. Individually, the gas volumes were not enough to justify much of an effort to sell the gas, however considering that we envisioned 100+ development wells, we set about to install and operate the GGGS initially for 11 wells. This system has grown with development to it's current 142 wells. None of the wells are very good but all of the wells together produce a significant amount of gas averaging ±1470 MCFD during 1997.

The economic benefit for approving individual wells for operation on the GGGS is also presented on Attachment No. 8 using actual production information. During 1997, the average well connected to the GGGS had an annual gas revenue of approximately $4,972 and in the previous three years, the estimated annual average gas revenue per well was $3438 during 1994, $2387 during 1995 and $3,909 during 1996. The variations in annual gas revenues is primarily a factor of gas price variations and not production rate variations. The annual average gas prices and ranges in gas prices during the year are also presented in Attachment No. 8. These gas revenues represent the value of all gas sales and should be divided amongst the royalty, overriding royalty and working interest owners based upon their respective interest ownerships. For example, during 1997, an average total gas revenue of $4,972 would produce $829 in revenue to the Navajo Allottee owning 16⅔% royalty or $622 to the MMS or State owning 12½% royalty. The balance of $4,143 to $4,350 would go to the working interest owners (assuming no overriding royalty owners) to pay ± $331in State production taxes, ± $4,200 in direct operating expenses and ± $5,400 in administrative overhead costs. Hopefully the revenue from oil sales will help cover these costs, and if not, the working interest owners will lose approximately $5,788 to $5,581 in the operation of an average well on the GGGS. Since gas revenues represent approximately 20% of the average oil well revenue, chances are good that the working interest owners will be able to cover the well operating costs, although these are all fairly marginal wells.

The economic benefit to the various types of leases is also presented on Attachment No. 8 using actual information from 1997. During 1997 production from Federal leases totaled 109,980 bbls of oil and condensate plus 384,371 MCF of gas which produced a total royalty revenue (assuming a 12½% royalty rate) of $264,089 from oil and $58,963 from gas for a total Federal royalty revenue of $323,052 from all 105 completions on Federal leases connected to the GGGS. Looking at the individual well average data for the 105 completions on Federal leases, the average production of 3.3 B/D plus 11.5 MCFD produced an average 12½% Federal royalty revenue of $7.92/day from oil and $1.76/day from gas production for a total of $9.69/day. Similar economic data is presented for the 23 completions on State leases and also the 23 completions on Navajo Allotted leases.

It should be noted that of the 124 oil wells connected to the GGGS, 86 wells on Federal and State leases currently qualify for and are receiving "stripper" incentives in terms of reduced oil royalty rates. Of these 86 wells, 80 are located on Federal leases with an average stripper oil royalty rate of 2.5% (ranging from 0.5 to 5.3%) and six wells are on State leases receiving a stripper oil royalty rate of 5.0%. The State and Federal reduced oil royalty incentive programs for low volume oil wells are a very important factor in the operating economics of marginal oil wells connected to the GGGS, and are a recognition by both the State Land Office and the BLM that when dealing with low volume wells such as exist at our GGGS, a reduced royalty rate will help to ensure that marginal wells are not prematurely abandoned. The reduced royalty rates only apply to oil revenues and do not change the base lease royalty rates for gas revenues. In contrast, all 23 oil completions on Navajo Allotted lands have royalty rates ranging from 16⅔% to 20.0% and there is no apparent effort on the part of the Navajo Allotted lands to allow any reduced royalty incentives for oil wells on Navajo Allotted leases that are all equally marginal to those wells receiving reduced royalty rates on State and Federal leases.

Thus the economics presented on Attachment No. 8 for individual leasehold interests are representative for all Navajo Allotted leases plus State and Federal leases which have not previously been developed or qualified for the reduced oil royalty rates. For Federal and State leases currently qualified for the stripper oil royalty incentives, the indicated gas royalty revenues will be representative, however the oil royalty revenues may be higher than actually exists.

The important issue here is that most oil wells connected to the GGGS (including those oil wells on Indian leases) produce at rates that qualify them for existing State and Federal stripper oil royalty production incentives in an effort to help extend the economic producing lives of marginally economic oil wells. This is especially important during times of low oil prices, such as currently exist.

In addition to the stripper royalty incentives available for State and Federal leases, Attachment No. 8 also includes copies of NMOCD order R-9617 and BLM NTL 92-5 New Mexico which both reflect a recognition that wells producing less than 100 MCFD are considered to be low capacity wells and warrant special considerations pertaining to gas measurement in order to avoid premature abandonment and subsequent loss of hydrocarbon reserves. Both documents also recognize wells producing 15 MCFD or less as not even requiring continuous flow measurement, but some alternate method of determining gas production that is mutually agreeable and equatable to all parties. During 1997, of the 151 wells producing into the GGGS, only one well exceeded the 100 MCFD rate and only 20 wells produced rates greater than 15 MCFD.

Attachment No. 9 is a copy of a letter dated 5-31-94 from the Off-lease Sales, Usage and Measurement Sub-Committee which transmits to the Joint BLM/Industry San Juan Basin Working Committee a report summarizing the sub-committee findings and recommends guidelines for authorizing the off-lease sale, use and measurement of natural gas produced from Federal and Indian leases. This sub-committee, which included representatives from the BLM and Industry (including Dugan Production Corp.) addressed many issues related to off-lease measurement. A

great deal of time was spent discussing the inherent problems common to low rate, irregular flow wells and the difficulties in obtaining gas volume measurements using conventional flow measurement equipment. The sub-committee documented these problems to be common to all low capacity, irregular flow wells and that the use of a gas gathering system and the allocation of gas sales from a central delivery meter using wellsite meters to determine allocation factors as being an acceptable method to deal with these type of wells and marketing gas when wellhead pipeline connections were not possible.

In summary, Dugan Production Corp. respectfully requests approval to add 58 wells/completions/meter sites to our Goodtimes Gas Gathering System which will require the surface commingling plus off-lease measurement and sale of produced natural gas and a small amount of liquid hydrocarbons (drip) that may condense within the system drip traps from time to time. In addition, we are requesting approvals for the off-lease storage of drip that may be recovered at the systems drip traps. All 58 wells/completions/meter sites along with the 129 completions currently approved for the GGGS are considered to be low capacity wells and do not qualify for wellhead gas sales. Dugan Production Corp. has incurred a substantial investment (approximately $3.6 million) in the construction of the GGGS which currently consists of approximately 71.2 miles of gathering system lines in order to deliver natural gas to central delivery sales meters or pipelines currently operated by El Paso Field Services and Elm Ridge Resources. With the exception of four wells operated by Universal Resources, all wells are operated by Dugan Production Corp. Dugan Production has expended a tremendous amount of time, effort and money to provide a means of delivering low volumes of gas produced from marginal oil and gas wells to a pipeline up to 22 miles away from some wells. Since 1981, we have attempted to operate this gathering system in a manner that ensures a fair and equitable allocation of natural gas and drip revenues to each individual well and interest owner. Without the GGGS and Dugan Production's efforts to operate this system, an average of approximately 855 MCFD of natural gas produced from 151 wells/completions would be vented rather than sold.

Should there be questions or if additional information is needed, please let us know.

Sincerely,

John D. Roe

John D. Roe
Engineering Manager

JDR/tmf

cc: NMOCD - Aztec
Universal Resources

ATTACHMENT NO. 1

Participation Statement of Universal Resources Corporation
Dugan Production's Goodtimes Gas Gathering System
San Juan County, New Mexico

Universal Resources Corporation is the operator of four wells in the vicinity of Dugan Production's Goodtimes Gas Gathering System and desires to use this gas gathering system to transport natural gas produced from our four wells to a central delivery sales meter located on El Paso Field Service's line in the NE/4 of Section 12, T-24N, R-10W.

We have reviewed Dugan's current application, which includes our four wells, along with the proposed allocation procedures and believe the described operation and allocation procedures are consistent with standard industry practices and are acceptable to Universal Resources Corporation.

We request that approval of Dugan's application for surface commingling and the off-lease measurement and sale of produced natural gas also be an approval for the following four wells operated by Universal Resources Corporation:

Well	Location	API No.	Federal Lease No.
Federal D No. 3	SW SE 3, T23N, R9W	30-045-28455	NM8005
Federal D No. 4	NE NE 10, T23N, R9W	30-045-28376	NM8005
Federal D No. 5	SW NW 10, T23N, R9W	30-045-28456	NM8005
Federal D No. 6	SW SW 10, T23N, R9W	30-045-28377	NM8005

Signed by: D R Bezeue
Dennis R. Bezeue

Title: District Production Superintendent
For Universal Resources Corporation

Date: 6-19-98

ATTACHMENT NO. 5
GAS ANALYSIS SUMMARY
DUGAN PRODUCTION'S GOODTIMES GAS GATHERING SYSTEM

POOL	WELL/PROPERTY	# OF WELLS	TYPE LEASE (1)	1997 PRODUCTION (2)		CURRENT GAS ANALYSIS (3)		
				MCF	% OF POOL	BTU/CF	GPM	GPM-IC5+
Basin Dakota	July Jubilee #1 GA/DK	1	F	6,693	33.8	1,535	9.60	3.72
Basin Dakota	Muddy Mudda #1 GA/DK	1	F	2,979	15.0	1,357	7.20	1.96
	TOTAL	***2***			***48.8***			
Basin FR Coal	Buddha Temple #90	1	F	52,828	48.0	1,146	2.93	0.94
Basin FR Coal	Kaibab Trail #90	1	I	12,372	11.3	1,034	1.03	0.11
Basin FR Coal	Mesa #90	1	S	15,712	14.3	1,019	0.72	0.01
	TOTAL	***3***			***73.6***			
S. Bisti GA	Bronze Medal #1 & 2	2	I	6,285	2.8	1,286	5.75	1.69
S. Bisti GA	Calgary #2 - 88	8	F	21,158	9.5	1,455	9.09	2.64
S. Bisti GA	Champ 5 - 8	4	F	12,820	5.7	1,594	10.82	4.06
S. Bisti GA	Jim Thorpe #1	1	I	2,912	1.3	1,508	8.57	3.95
S. Bisti GA	Lake Placid #1	1	I	1,726	0.8	1,357	6.99	2.57
S. Bisti GA	Louie Louie #1	1	I	2,702	1.2	1,381	7.77	2.23
S. Bisti GA	Marathon #1 & 2	2	I	9,704	4.3	1,312	6.12	1.90
S. Bisti GA	Mary Lou #1 - 6	6	S	16,569	7.4	1,464	9.24	2.61
S. Bisti GA	Montreal #1 & 2	2	I	7,005	3.1	1,347	6.65	2.26
S. Bisti GA	Seoul #88	1	I	1,906	0.9	1,397	7.64	2.67
S. Bisti GA	Squaw Valley #1 & 2	2	I	9,155	4.1	1,360	6.77	2.34
S. Bisti GA	St. Louis #1	1	I	1,971	0.9	1,390	7.53	2.85
S. Bisti GA	Wit's End #1 - 4	4	S	9,244	4.1	1,427	8.11	2.66
	TOTAL	***35***			***46.1***			
Bisti GA	Big Eight #1	1	F	5,750	4.5	1,594	11.13	3.54
Bisti GA	Ivy League #1	1	F	6,056	4.8	1,536	9.73	3.45
Bisti GA	March On #1	1	S	2,891	2.3	1,494	9.54	2.82
Bisti GA	Pac Ten #1	1	F	9,319	7.3	1,665	12.23	4.01
Bisti GA	Sixteen G's #1 & 3	2	F	12,176	9.6	1,557	10.48	3.29
	TOTAL	***6***			***28.3***			
Cuervo GA	Kaibab Trail #1	1	I	4,794	38.6	1,178	3.37	1.25
Cuervo GA	Lee's Ferry #1	1	F	4,156	33.5	1,417	8.12	2.38
	TOTAL	***2***			***72.1***			

POOL	WELL/PROPERTY	# OF WELLS	TYPE LEASE (1)	1997 PRODUCTION (2)		CURRENT GAS ANALYSIS (3)		
				MCF	% OF POOL	BTU/CF	GPM	GPM-IC5+
Lybrook GA	Bright Angel #1	1	I	5,114	27.3	1,197	3.73	1.39
Lybrook GA	Lava Falls #1	1	I	5,687	30.4	1,270	4.78	1.97
Lybrook GA	Sapp #2	1	F	4,590	24.5	1,453	8.75	2.57
	TOTAL	***3***			***82.2***			
Potwin PC	Bowers #1	1	F	6,615	61.7	1,027	0.83	0.07
Potwin PC	Mesa #2	1	S	4,103	38.3	1,134	2.71	0.85
	TOTAL	***2***			***100.0***			
White Wash MA/DK	Blanco Wash #1 MA/DK-MV	1	I	2,528	19.4	1,153	2.71	1.24
White Wash MA/DK	Blanco Wash #4	1	I	2,983	22.9	1,377	7.03	2.69
White Wash MA/DK	Blanco Wash #5	1	I	2,682	20.6	1,259	5.63	1.21
White Wash MA/DK	Elwood P. Dowd #2	1	F	2,789	21.4	1,464	8.65	3.12
	TOTAL	***4***			***84.3***			

Notes:

1 - F = Federal Lease, I = Navajo Allotted Lease, S = State Lease

2 - 1997 production and the % of the total pool production from all wells connected to the Goodtimes Gas Gathering System & producing from that pool.

3 - BTU/CF is dry @ 14.73 psi. The total GPM and GPM of isobutane and heavier are presented. Condensate recovered from system drip traps is not likely to include liquids from ethane & propane fractions of the gas stream.

2030 Afton Place
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG70261
Cust. No. 23000-10390

Attachment #5
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WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: JULY JUBILEE 1	Pressure	: 45 PSIG
County	: SAN JUAN	Sample Temp.	: N/A DEG.F
State	: NM	Well Flowing	: YES
Location	: 30-24N-09W	Date Sampled	: 04/18/97
Fld/Formation	: GL/DK - Basin Dk + Blsh Ca	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 202A243175	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NM-24661

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	0.843	0.0000		0.00	0.0082
CO2	0.413	0.0000		0.00	0.0063
METHANE	66.367	0.0000		671.83	0.3676
ETHANE	11.993	3.2081		212.72	0.1245
PROPANE	9.681	2.6681		244.15	0.1474
I-BUTANE	2.811	0.9195		91.62	0.0564
N-BUTANE	3.741	1.1795		122.32	0.0751
I-PENTANE	1.578	0.5774	3.72	63.28	0.0393
N-PENTANE	1.067	0.3865		42.87	0.0266
HEXANES	1.506	0.6569		77.43	0.0485
TOTAL	100.000	9.5960		1526.22	0.8999

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0059
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1535.2
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1508.5
REAL SPECIFIC GRAVITY	0.9048

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: AZT016
CYLINDER PRESSURE	: 44 PSIG
DATE RUN	: 04/21/97
ANALYSIS RUN BY	: DAVE MARTIN

GAS ANALYSIS SERVICE

2030 Afton Place
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG70268
Cust. No. 23000-10475

Attachment #5
pg # 4 of 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: MUDDY MUDDA 1	Pressure	: 36 PSIG
County	: SAN JUAN	Sample Temp.	: 95 DEG.F
State	: NM	Well Flowing	: YES
Location	: 21-24N-09W	Date Sampled	: 04/21/97
Fld/Formation	: LWR GL/BSN DK - Basin DK + Blst. Ga	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 5107981	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NM-36474

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	1.374	0.0000		0.00	0.0133
CO2	0.490	0.0000		0.00	0.0074
METHANE	73.194	0.0000		740.94	0.4054
ETHANE	11.962	3.1998		212.17	0.1242
PROPANE	7.394	2.0378		186.47	0.1126
I-BUTANE	0.897	0.2934		29.24	0.0180
N-BUTANE	2.362	0.7447	1.96	77.23	0.0474
I-PENTANE	0.620	0.2269		24.86	0.0154
N-PENTANE	0.654	0.2369		26.28	0.0163
HEXANES	1.053	0.4593		54.14	0.0339
TOTAL	100.000	7.1988		1351.33	0.7938

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0044
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1357.3
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1333.7
REAL SPECIFIC GRAVITY	0.7970

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: AZT034
CYLINDER PRESSURE	: 34 PSIG
DATE RUN	: 04/22/97
ANALYSIS RUN BY	: CHELLE DURBIN

GAS ANALYSIS SERVICE

2030 Afton Place
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG70271
Cust. No. 23000-10370

ATTACHMENT #5
PG #5 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: BUDDHA TEMPLE 90	Pressure	: 53 PSIG
County	: SAN JUAN	Sample Temp.	: N/A DEG.F
State	: NM	Well Flowing	: YES
Location	: 30-24N-08W	Date Sampled	: 04/28/97
Fld/Formation	: FRUITLAND COAL - Basin	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 202A145038	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NM-54980

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	1.852	0.0000		0.00	0.0179
CO2	0.117	0.0000		0.00	0.0018
METHANE	87.998	0.0000		890.80	0.4874
ETHANE	4.603	1.2313		81.64	0.0478
PROPANE	2.754	0.7590		69.45	0.0419
I-BUTANE	0.812	0.2656		26.47	0.0163
N-BUTANE	0.778	0.2453		25.44	0.0156
I-PENTANE	0.377	0.1379	.942	15.12	0.0094
N-PENTANE	0.217	0.0786		8.72	0.0054
HEXANES	0.492	0.2146		25.30	0.0158
TOTAL	100.000	2.9323		1142.94	0.6593

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR	(1/Z)	1.0028
BTU/CU.FT. (DRY) CORRECTED FOR	(1/Z)	1146.1
BTU/CU.FT. (WET) CORRECTED FOR	(1/Z)	1126.2
REAL SPECIFIC GRAVITY		0.6609

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: KFL102
CYLINDER PRESSURE	: 49 PSIG
DATE RUN	: 04/29/97
ANALYSIS RUN BY	: DAVE MARTIN

GAS ANALYSIS SERVICE

2030 Afton Place
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG80429
Cust. No. 23000-10975

ATTACHMENT #5
Pg. #6 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: KAIBAB TRAIL 90	Pressure	: 51 PSIG
County	: SAN JUAN	Sample Temp.	: N/A DEG.F
State	: NM	Well Flowing	: YES
Location	: N20-24N-08W	Date Sampled	: 04/08/98
Fld/Formation	: BASIN FC-Fruitland Coal	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 202E328719	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NOO-C-14-20-4310

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	0.825	0.0000		0.00	0.0080
CO2	0.935	0.0000		0.00	0.0142
METHANE	94.493	0.0000		956.55	0.5234
ETHANE	3.114	0.8330		55.23	0.0323
PROPANE	0.319	0.0879		8.05	0.0049
I-BUTANE	0.090	0.0294		2.93	0.0018
N-BUTANE	0.083	0.0262	0.1141	2.71	0.0017
I-PENTANE	0.041	0.0150		1.64	0.0010
N-PENTANE	0.022	0.0080		0.88	0.0005
HEXANES	0.078	0.0340		4.01	0.0025
TOTAL	100.000	1.0335		1032.02	0.5902

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0022
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1034.3
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1016.3
REAL SPECIFIC GRAVITY	0.5913

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: 026
CYLINDER PRESSURE	: 52 PSIG
DATE RUN	: 04/09/98
ANALYSIS RUN BY	: CHELLE DURBIN

GAS ANALYSIS SERVICE

2030 A .on Place
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG70283
Cust. No. 23000-10065

ATTACHMENT #5
PG #7 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: MESA 90	Pressure	: 48 PSIG
County	: SAN JUAN	Sample Temp.	: N/A DEG.F
State	: NM	Well Flowing	: YES
Location	: 16-24N-08W	Date Sampled	: 05/07/97
Fld/Formation	: FRUITLAND COAL - Basin	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 202A261874	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: LG-1917

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	1.117	0.0000		0.00	0.0108
CO2	0.521	0.0000		0.00	0.0079
METHANE	95.680	0.0000		968.57	0.5300
ETHANE	2.603	0.6963		46.17	0.0270
PROPANE	0.049	0.0135		1.24	0.0007
I-BUTANE	0.013	0.0043		0.42	0.0003
N-BUTANE	0.005	0.0016	- 0.0109	0.16	0.0001
I-PENTANE	0.003	0.0011		0.12	0.0001
N-PENTANE	0.000	0.0000		0.00	0.0000
HEXANES	0.009	0.0039		0.46	0.0003
TOTAL	100.000	0.7207		1017.14	0.5771

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0021
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1019.3
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1001.5
REAL SPECIFIC GRAVITY	0.5781

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: A038
CYLINDER PRESSURE	: 41 PSIG
DATE RUN	: 05/08/97
ANALYSIS RUN BY	: DAVE MARTIN

GAS ANALYSIS SERVICE

2030 Afton Place
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG80427
Cust. No. 23000-10255

ATTACHMENT #5
PG #8 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: BRONZE MEDAL 1 & 2 (2 wells)	Pressure	: 39 PSIG
County	: SAN JUAN	Sample Temp.	: 47 DEG.F
State	: NM	Well Flowing	: YES
Location	: D E 03-23N-10W	Date Sampled	: 04/08/98
Fld/Formation	: SO BISTI GALLUP	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 202E354377	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NOO-C-14-20-7307

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	2.701	0.0000		0.00	0.0261
CO2	0.264	0.0000		0.00	0.0040
METHANE	77.220	0.0000		781.70	0.4277
ETHANE	8.115	2.1708		143.94	0.0842
PROPANE	6.873	1.8942		173.33	0.1046
I-BUTANE	0.746	0.2440		24.32	0.0150
N-BUTANE	2.159	0.6807	1.6881	70.60	0.0433
I-PENTANE	0.484	0.1771		19.41	0.0121
N-PENTANE	0.553	0.2003		22.22	0.0138
HEXANES	0.885	0.3860		45.50	0.0285
TOTAL	100.000	5.7531		1281.00	0.7592

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0039
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1286.0
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1263.6
REAL SPECIFIC GRAVITY	0.7618

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: A008
CYLINDER PRESSURE	: 42 PSIG
DATE RUN	: 04/09/98
ANALYSIS RUN BY	: CHELLE DURBIN

1115 F--mington Avenue
Farm: ton, N.M. 87401
(505) 325-6622

Analysis No. DUG70217
Cust. No. 23000-10210

ATTACHMENT #5
PG #9 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: CALGARY 2-88 (8 wells - #2,3,4,5,6,7,8,88)	Pressure	: 26 PSIG
County	: SAN JUAN	Sample Temp.	: N/A DEG.F
State	: NM	Well Flowing	: YES
Location	: 06-23N-10W	Date Sampled	: 03/04/97
Fld/Formation	: SO BISTI GALLUP	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 202E365977	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NM-32124

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	3.647	0.0000		0.00	0.0353
CO2	0.578	0.0000		0.00	0.0088
METHANE	64.270	0.0000		650.60	0.3560
ETHANE	10.918	2.9206		193.65	0.1134
PROPANE	12.795	3.5263		322.68	0.1948
I-BUTANE	1.417	0.4635		46.19	0.0284
N-BUTANE	4.086	1.2883	2.6382	133.60	0.0820
I-PENTANE	0.787	0.2880		31.56	0.0196
N-PENTANE	0.766	0.2774		30.78	0.0191
HEXANES	0.736	0.3210		37.84	0.0237
TOTAL	100.000	9.0851		1446.90	0.8811

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0053
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1454.6
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1429.3
REAL SPECIFIC GRAVITY	0.8854

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: A089
CYLINDER PRESSURE	: 29 PSIG
DATE RUN	: 03/05/97
ANALYSIS RUN BY	: CHELLE DURBIN

1115 Farmington Avenue
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG70212
Cust. No. 23000-10855

ATTACHMENT #5
PG #10 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: CHAMP 7 CPD - (4 wells - #5,6,7,8)	Pressure	: 24 PSIG
County	: SAN JUAN	Sample Temp.	: 54 DEG.F
State	: NM	Well Flowing	: YES
Location	:	Date Sampled	: 02/26/97
Fld/Formation	: South Blanco	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 202E314720	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NM-42059

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	3.501	0.0000		0.00	0.0339
CO2	0.494	0.0000		0.00	0.0075
METHANE	59.423	0.0000		601.54	0.3291
ETHANE	10.817	2.8935		191.86	0.1123
PROPANE	14.021	3.8642		353.60	0.2135
I-BUTANE	1.625	0.5315		52.97	0.0326
N-BUTANE	5.527	1.7427	4.0679	180.72	0.1109
I-PENTANE	1.401	0.5126		56.18	0.0349
N-PENTANE	1.572	0.5694		63.17	0.0392
HEXANES	1.619	0.7062		83.24	0.0521
TOTAL	100.000	10.8201		1583.27	0.9659

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0066
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1593.7
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1566.0
REAL SPECIFIC GRAVITY	0.9719

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: A089
CYLINDER PRESSURE	: 22 PSIG
DATE RUN	: 02/27/97
ANALYSIS RUN BY	: DAVE MARTIN

GAS ANALYSIS SERVICE

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Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG80416
Cust. No. 23000-10335

ATTACHMENT #5
PG #11 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: JIM THORPE 1	Pressure	: 32 PSIG
County	: SAN JUAN	Sample Temp.	: 63 DEG.F
State	: NM	Well Flowing	: YES
Location	: G03-23N-10W	Date Sampled	: 04/03/98
Fld/Formation	: SO BISTI GALLUP	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 202E352438	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NOO-C-14-20-5825

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	3.195	0.0000		0.00	0.0309
CO2	0.303	0.0000		0.00	0.0046
METHANE	68.828	0.0000		696.75	0.3812
ETHANE	8.671	2.3195		153.80	0.0900
PROPANE	8.372	2.3073		211.13	0.1275
I-BUTANE	1.108	0.3624		36.11	0.0222
N-BUTANE	3.302	1.0411	3.9477	107.97	0.0663
I-PENTANE	1.084	0.3966		43.47	0.0270
N-PENTANE	1.259	0.4560		50.59	0.0314
HEXANES	3.878	1.6916		199.38	0.1248
TOTAL	100.000	8.5745		1499.20	0.9058

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0059
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1508.0
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1481.8
REAL SPECIFIC GRAVITY	0.9108

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: K023
CYLINDER PRESSURE	: 35 PSIG
DATE RUN	: 04/08/98
ANALYSIS RUN BY	: DAVE MARTIN

GAS ANALYSIS SERVICE

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Analysis No. DUG80417
Cust. No. 23000-10265

ATTACHMENT #5
PG #12 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: LAKE PLACID 1	Pressure	: 43 PSIG
County	: SAN JUAN	Sample Temp.	: N/A DEG.F
State	: NM	Well Flowing	: YES
Location	: I04-23N-10W	Date Sampled	: 04/03/98
Fld/Formation	: SO BISTI GALLUP	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	:	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NOO-C-14-20-7311

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	4.507	0.0000		0.00	0.0436
CO2	0.307	0.0000		0.00	0.0047
METHANE	71.539	0.0000		724.19	0.3963
ETHANE	8.039	2.1504		142.59	0.0835
PROPANE	8.239	2.2707		207.78	0.1254
I-BUTANE	1.104	0.3611		35.98	0.0222
N-BUTANE	3.425	1.0799	2.5LLT	111.99	0.0687
I-PENTANE	0.742	0.2715		29.76	0.0185
N-PENTANE	0.821	0.2974		32.99	0.0205
HEXANES	1.277	0.5570		65.65	0.0411
TOTAL	100.000	6.9880		1350.93	0.8245

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR	(1/Z)	1.0045
BTU/CU.FT. (DRY) CORRECTED FOR	(1/Z)	1357.0
BTU/CU.FT. (WET) CORRECTED FOR	(1/Z)	1333.4
REAL SPECIFIC GRAVITY		0.8279

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: A002
CYLINDER PRESSURE	: 45 PSIG
DATE RUN	: 04/08/98
ANALYSIS RUN BY	: DAVE MARTIN

GAS ANALYSIS SERVICE

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(505) 325-6622

Analysis No. DUG80418
Cust. No. 23000-10310

ATTACHMENT #5
PG #13 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: LOUIE LOUIE 1	Pressure	: 62 PSIG
County	: SAN JUAN	Sample Temp.	: N/A DEG.F
State	: NM	Well Flowing	: YES
Location	: L08-23N-09W	Date Sampled	: 04/03/98
Fld/Formation	: SO BISTI GALLUP	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	:	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NOG-8505-1062

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	3.425	0.0000		0.00	0.0331
CO2	0.380	0.0000		0.00	0.0058
METHANE	69.313	0.0000		701.66	0.3839
ETHANE	10.702	2.8628		189.82	0.1111
PROPANE	9.698	2.6728		244.57	0.1477
I-BUTANE	1.001	0.3274	2.2294	32.63	0.0201
N-BUTANE	2.745	0.8655		89.76	0.0551
I-PENTANE	0.991	0.3626		39.74	0.0247
N-PENTANE	1.179	0.4270		47.38	0.0294
HEXANES	0.566	0.2469		29.10	0.0182
TOTAL	100.000	7.7650		1374.65	0.8291

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR	(1/Z)	1.0047
BTU/CU.FT. (DRY) CORRECTED FOR	(1/Z)	1381.1
BTU/CU.FT. (WET) CORRECTED FOR	(1/Z)	1357.1
REAL SPECIFIC GRAVITY		0.8327

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: K084
CYLINDER PRESSURE	: 68 PSIG
DATE RUN	: 04/08/98
ANALYSIS RUN BY	: DAVE MARTIN

GAS ANALYSIS SERVICE

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Analysis No. DUG80431
Cust. No. 23000-10270

ATTACHMENT #5
PG #14 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: MARATHON 1 & 2 (2 wells)	Pressure	: 38 PSIG
County	: SAN JUAN	Sample Temp.	: 47 DEG.F
State	: NM	Well Flowing	: YES
Location	: A G 04-23N-10W	Date Sampled	: 04/08/98
Fld/Formation	: SO BISTI GALLUP	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 202E353891	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NOO-C-14-20-7308

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	2.593	0.0000		0.00	0.0251
CO2	0.265	0.0000		0.00	0.0040
METHANE	76.207	0.0000		771.44	0.4221
ETHANE	8.295	2.2189		147.13	0.0861
PROPANE	7.244	1.9964		182.69	0.1103
I-BUTANE	0.758	0.2479		24.71	0.0152
N-BUTANE	2.351	0.7413		76.87	0.0472
I-PENTANE	0.567	0.2075	1.9001	22.74	0.0141
N-PENTANE	0.633	0.2293		25.43	0.0158
HEXANES	1.087	0.4741		55.88	0.0350
TOTAL	100.000	6.1154		1306.89	0.7749

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR	(1/Z)	1.0041
BTU/CU.FT. (DRY) CORRECTED FOR	(1/Z)	1312.3
BTU/CU.FT. (WET) CORRECTED FOR	(1/Z)	1289.4
REAL SPECIFIC GRAVITY		0.7778

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: 049
CYLINDER PRESSURE	: 42 PSIG
DATE RUN	: 04/09/98
ANALYSIS RUN BY	: CHELLE DURBIN

GAS ANALYSIS SERVICE

1115 Farmington Avenue
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG70210
Cust. No. 23000-10990

ATTACHMENT #5
PG #15 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: MARY LOU 1 - 6 (6 wells)	Pressure	: 19 PSIG
County	: SAN JUAN (#1, 2, 3, 4, 5, 6)	Sample Temp.	: 38 DEG.F
State	: NM	Well Flowing	: YES
Location	:	Date Sampled	: 02/25/97
Fld/Formation	: South Bisti Ga	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 202E353900	Foreman/Engr	: TOM BLAIR

Remarks: STATE LEASE: V-1509

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	2.996	0.0000		0.00	0.0290
CO2	0.528	0.0000		0.00	0.0080
METHANE	64.378	0.0000		651.70	0.3566
ETHANE	11.666	3.1207		206.92	0.1211
PROPANE	12.722	3.5062		320.84	0.1937
I-BUTANE	1.432	0.4684		46.67	0.0287
N-BUTANE	4.027	1.2697	2.410	131.68	0.0808
I-PENTANE	0.775	0.2836		31.08	0.0193
N-PENTANE	0.745	0.2698		29.94	0.0186
HEXANES	0.731	0.3189		37.58	0.0235
TOTAL	100.000	9.2373		1456.40	0.8793

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR	(1/Z)	1.0054
BTU/CU.FT. (DRY) CORRECTED FOR	(1/Z)	1464.3
BTU/CU.FT. (WET) CORRECTED FOR	(1/Z)	1438.8
REAL SPECIFIC GRAVITY		0.8837

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: K059
CYLINDER PRESSURE	: 19 PSIG
DATE RUN	: 02/27/97
ANALYSIS RUN BY	: DAVE MARTIN

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Analysis No. DUG80432
Cust. No. 23000-10275

ATTACHMENT #5
PG #16 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: MONTREAL 1 & 2 (2 wells)	Pressure	: 38 PSIG
County	: SAN JUAN	Sample Temp.	: 45 DEG.F
State	: NM	Well Flowing	: YES
Location	: C E 04-23N-10W	Date Sampled	: 04/08/98
Fld/Formation	: SO BISTI GALLUP	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 202E354385	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NOO-C-14-20-7309

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	2.842	0.0000		0.00	0.0275
CO2	0.288	0.0000		0.00	0.0044
METHANE	74.199	0.0000		751.12	0.4110
ETHANE	8.258	2.2090		146.47	0.0857
PROPANE	7.934	2.1866		200.09	0.1208
I-BUTANE	0.920	0.3009	2.2579	29.99	0.0185
N-BUTANE	2.933	0.9248		95.90	0.0589
I-PENTANE	0.751	0.2748		30.12	0.0187
N-PENTANE	0.818	0.2963		32.87	0.0204
HEXANES	1.057	0.4611		54.34	0.0340
TOTAL	100.000	6.6535		1340.89	0.7998

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR	(1/Z)	1.0044
BTU/CU.FT. (DRY) CORRECTED FOR	(1/Z)	1346.8
BTU/CU.FT. (WET) CORRECTED FOR	(1/Z)	1323.4
REAL SPECIFIC GRAVITY		0.8030

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: 036
CYLINDER PRESSURE	: 40 PSIG
DATE RUN	: 04/09/98
ANALYSIS RUN BY	: CHELLE DURBIN

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(505) 325-6622

Analysis No. DUG80419
Cust. No. 23000-10280

ATTACHMENT #5
PG #17 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: SEOUL 88	Pressure	: 40 PSIG
County	: SAN JUAN	Sample Temp.	: N/A DEG.F
State	: NM	Well Flowing	: YES
Location	: A09-23N-10W	Date Sampled	: 04/03/98
Fld/Formation	: SO BISTI GALLUP	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	:	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NOO-C-140-20-7312

ANALYSIS

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR.*
NITROGEN	3.622	0.0000	0.00	0.0350
CO2	0.330	0.0000	0.00	0.0050
METHANE	70.011	0.0000	708.72	0.3878
ETHANE	8.745	2.3393	155.11	0.0908
PROPANE	9.535	2.6278	240.46	0.1452
I-BUTANE	1.257	0.4112	40.97	0.0252
N-BUTANE	3.671	1.1575	120.03	0.0737
I-PENTANE	0.903	0.3304	36.21	0.0225
N-PENTANE	0.921	0.3336	37.01	0.0229
HEXANES	1.005	0.4384	51.67	0.0323
TOTAL	100.000	7.6382	1390.19	0.8404

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR	(1/Z)	1.0048
BTU/CU.FT. (DRY) CORRECTED FOR	(1/Z)	1396.9
BTU/CU.FT. (WET) CORRECTED FOR	(1/Z)	1372.6
REAL SPECIFIC GRAVITY		0.8441

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: 029
CYLINDER PRESSURE	: 45 PSIG
DATE RUN	: 04/08/98
ANALYSIS RUN BY	: DAVE MARTIN

GAS ANALYSIS SERVICE

2030 Afton Place
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG80420
Cust. No. 23000-10285

ATTACHMENT #5
PG #18 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: SQUAW VALLEY 1 & 2 (2 wells)	Pressure	: 45 PSIG
County	: SAN JUAN	Sample Temp.	: 63 DEG.F
State	: NM	Well Flowing	: YES
Location	: K04-23N-10W	Date Sampled	: 04/03/98
Fld/Formation	: SO BISTI GALLUP	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 202E353896	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NOO-C-14-20-7310

ANALYSIS

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR.*
NITROGEN	2.776	0.0000	0.00	0.0268
CO2	0.293	0.0000	0.00	0.0045
METHANE	74.009	0.0000	749.19	0.4099
ETHANE	8.231	2.2018	145.99	0.0855
PROPANE	8.104	2.2335	204.38	0.1234
I-BUTANE	0.864	0.2826	28.16	0.0173
N-BUTANE	2.783	0.8775	91.00	0.0558
I-PENTANE	0.676	0.2473	27.11	0.0168
N-PENTANE	0.777	0.2814	31.22	0.0194
HEXANES	1.487	0.6486	76.45	0.0478
TOTAL	100.000	6.7727	1353.50	0.8072

23374

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR	(1/Z)	1.0045
BTU/CU.FT. (DRY) CORRECTED FOR	(1/Z)	1359.6
BTU/CU.FT. (WET) CORRECTED FOR	(1/Z)	1335.9
REAL SPECIFIC GRAVITY		0.8105

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: K098
CYLINDER PRESSURE	: 45 PSIG
DATE RUN	: 04/08/98
ANALYSIS RUN BY	: DAVE MARTIN

GAS ANALYSIS SERVICE

2030 [illegible]ton Place
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Analysis No. DUG80421
Cust. No. 23000-10290

ATTACHMENT #5
PG #19 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: ST. LOUIS 12	Pressure	: 41 PSIG
County	: SAN JUAN	Sample Temp.	: N/A DEG.F
State	: NM	Well Flowing	: YES
Location	: C09-23N-10W	Date Sampled	: 04/03/98
Fld/Formation	: SO BISTI GALLUP	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	:	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NOO-C-14-20-7313

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	4.878	0.0000		0.00	0.0472
CO2	0.294	0.0000		0.00	0.0045
METHANE	69.351	0.0000		702.04	0.3841
ETHANE	7.773	2.0793		137.87	0.0807
PROPANE	9.454	2.6055		238.42	0.1439
I-BUTANE	1.236	0.4043		40.29	0.0248
N-BUTANE	3.869	1.2199	2.5485	126.51	0.0776
I-PENTANE	0.996	0.3644		39.94	0.0248
N-PENTANE	1.049	0.3799		42.15	0.0261
HEXANES	1.100	0.4798		56.55	0.0354
TOTAL	100.000	7.5331		1383.77	0.8491

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0048
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1390.4
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1366.2
REAL SPECIFIC GRAVITY	0.8528

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: KFL140
CYLINDER PRESSURE	: 45 PSIG
DATE RUN	: 04/08/98
ANALYSIS RUN BY	: DAVE MARTIN

GAS ANALYSIS SERVICE

111 Farmington Avenue
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(505) 325-6622

Analysis No. DUG70236
Cust. No. 23000-10365

ATTACHMENT #5
PG #20 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: WITTS END BATTERY (4 wells)	Pressure	: 65 PSIG
County	: SAN JUAN (#1, 2, 3, 4)	Sample Temp.	: 79 DEG.F
State	: NM	Well Flowing	: YES
Location	: 02-23N-10W	Date Sampled	: 03/19/97
Fld/Formation	: GALLUP — South Bisti	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 202E340060	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: LH-1896

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	2.074	0.0000		0.00	0.0201
CO2	0.366	0.0000		0.00	0.0056
METHANE	69.781	0.0000		706.39	0.3865
ETHANE	10.314	2.7590		182.94	0.1071
PROPANE	9.776	2.6943		246.54	0.1488
I-BUTANE	1.291	0.4223		42.08	0.0259
N-BUTANE	3.625	1.1430		118.53	0.0727
I-PENTANE	0.833	0.3048	2.655	33.40	0.0208
N-PENTANE	0.826	0.2992		33.19	0.0206
HEXANES	1.114	0.4859		57.27	0.0358
TOTAL	100.000	8.1085		1420.35	0.8438

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR	(1/Z)	1.0050
BTU/CU.FT. (DRY) CORRECTED FOR	(1/Z)	1427.5
BTU/CU.FT. (WET) CORRECTED FOR	(1/Z)	1402.6
REAL SPECIFIC GRAVITY		0.8477

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: K048
CYLINDER PRESSURE	: 60 PSIG
DATE RUN	: 03/20/97
ANALYSIS RUN BY	: CHELLE DURBIN

GAS ANALYSIS SERVICE

1115 Farmington Avenue
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG60076
Cust. No. 23000-10440

ATTACHMENT #5
PG #21 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: BIG EIGHT 1	Pressure	: 30 PSIG
County	: SAN JUAN	Sample Temp.	: 84 DEG.F
State	: NM	Well Flowing	: YES
Location	: 08-24N-09W	Date Sampled	: 04/11/96
Fld/Formation	: LOWER GALLUP - B/S/L	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 149043	Foreman/Engr	: TOM BLAIR

Remarks: FEDERAL LEASE: NM-25440

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	0.813	0.0000		0.00	0.0079
CO2	0.772	0.0000		0.00	0.0117
METHANE	60.190	0.0000		609.30	0.3334
ETHANE	14.828	3.9665		263.00	0.1539
PROPANE	13.154	3.6252		331.73	0.2003
I-BUTANE	1.594	0.5214		51.96	0.0320
N-BUTANE	4.798	1.5128	3.5387	156.88	0.0963
I-PENTANE	1.134	0.4149		45.48	0.0283
N-PENTANE	1.292	0.4680		51.92	0.0322
HEXANES	1.425	0.6216		73.26	0.0458
TOTAL	100.000	11.1304		1583.53	0.9418

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0065
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1593.8
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1566.1
REAL SPECIFIC GRAVITY	0.9475

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: KFL140
CYLINDER PRESSURE	: 30 PSIG
DATE RUN	: 04/13/96
ANALYSIS RUN BY	: BOB DURBIN

2030 Afton Place
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG70270
Cust. No. 23000-10460

ATTACHMENT #5
PG # 22 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: IVY LEAGUE 1	Pressure	: 30 PSIG
County	: SAN JUAN	Sample Temp.	: 50 DEG.F
State	: NM	Well Flowing	: YES
Location	: 17-24N-09W	Date Sampled	: 04/24/97
Fld/Formation	: LOWER GALLUP - Bisti	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 5154078	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NM-45208

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	1.128	0.0000		0.00	0.0109
CO2	0.616	0.0000		0.00	0.0094
METHANE	65.426	0.0000		662.31	0.3624
ETHANE	12.686	3.3935		225.01	0.1317
PROPANE	10.487	2.8902		264.47	0.1597
I-BUTANE	1.242	0.4063		40.48	0.0249
N-BUTANE	3.874	1.2215	3.0448	126.67	0.0777
I-PENTANE	1.027	0.3758		41.19	0.0256
N-PENTANE	1.211	0.4386		48.66	0.0302
HEXANES	2.303	1.0046		118.40	0.0741
TOTAL	100.000	9.7305		1527.19	0.9065

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0060
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1536.4
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1509.6
REAL SPECIFIC GRAVITY	0.9116

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: AZT016
CYLINDER PRESSURE	: 30 PSIG
DATE RUN	: 04/25/97
ANALYSIS RUN BY	: DAVE MARTIN

GAS ANALYSIS SERVICE

2030 [illegible]ton Place
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG70256
Cust. No. 23000-10425

ATTACHMENT #5
PG # 23 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: MARCH ON 1	Pressure	: 50 PSIG
County	: SAN JUAN	Sample Temp.	: 79 DEG.F
State	: NM	Well Flowing	: YES
Location	: 32-24N-09W	Date Sampled	: 04/14/97
Fld/Formation	: GALLUP - Bisti	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 171875	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: LG-5685

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	1.248	0.0000		0.00	0.0121
CO2	0.345	0.0000		0.00	0.0052
METHANE	65.345	0.0000		661.49	0.3619
ETHANE	13.441	3.5955		238.40	0.1395
PROPANE	11.326	3.1214		285.63	0.1724
I-BUTANE	1.438	0.4704		46.87	0.0289
N-BUTANE	4.164	1.3129	2.8236	136.15	0.0836
I-PENTANE	0.937	0.3428		37.58	0.0233
N-PENTANE	0.925	0.3350		37.17	0.0230
HEXANES	0.831	0.3625		42.72	0.0267
TOTAL	100.000	9.5405		1486.01	0.8766

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0055
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1494.2
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1468.2
REAL SPECIFIC GRAVITY	0.8811

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: K048
CYLINDER PRESSURE	: 48 PSIG
DATE RUN	: 04/15/97
ANALYSIS RUN BY	: CHELLE DURBIN

GAS ANALYSIS SERVICE

2030 Afton Place
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG70262
Cust. No. 23000-10480

ATTACHMENT #5
PG #24 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: PAC TEN 1	Pressure	: 29 PSIG
County	: SAN JUAN	Sample Temp.	: 76 DEG.F
State	: NM	Well Flowing	: YES
Location	: 07-24N-09W	Date Sampled	: 04/18/97
Fld/Formation	: LOWER GALLUP - Bisti	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 202E340248	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NM-45207

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	1.004	0.0000		0.00	0.0097
CO2	0.699	0.0000		0.00	0.0106
METHANE	56.461	0.0000		571.55	0.3127
ETHANE	14.962	4.0023		265.38	0.1553
PROPANE	15.281	4.2114		385.37	0.2327
I-BUTANE	1.790	0.5855		58.34	0.0359
N-BUTANE	5.451	1.7187	4.0130	178.24	0.1094
I-PENTANE	1.243	0.4548		49.85	0.0310
N-PENTANE	1.381	0.5002		55.49	0.0344
HEXANES	1.728	0.7538		88.84	0.0556
TOTAL	100.000	12.2267		1653.07	0.9872

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR	(1/Z)	1.0072
BTU/CU.FT. (DRY) CORRECTED FOR	(1/Z)	1665.0
BTU/CU.FT. (WET) CORRECTED FOR	(1/Z)	1636.0
REAL SPECIFIC GRAVITY		0.9939

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: A002
CYLINDER PRESSURE	: 26 PSIG
DATE RUN	: 04/21/97
ANALYSIS RUN BY	: DAVE MARTIN

GAS ANALYSIS SERVICE

2030 Afton Place
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG70263
Cust. No. 23000-10485

ATTACHMENT #5
PG # 25 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: SIXTEEN G'S 1 & 3 (2 wells)	Pressure	: 29 PSIG
County	: SAN JUAN	Sample Temp.	: 82 DEG.F
State	: NM	Well Flowing	: YES
Location	: 07-24N-09W	Date Sampled	: 04/18/97
Fld/Formation	: LOWER GALLUP - Bisti	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 149037	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NM-25433

ANALYSIS

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR.*
NITROGEN	0.778	0.0000	0.00	0.0075
CO2	0.806	0.0000	0.00	0.0122
METHANE	62.407	0.0000	631.75	0.3457
ETHANE	13.994	3.7434	248.21	0.1453
PROPANE	12.476	3.4384	314.63	0.1900
I-BUTANE	1.518	0.4965	49.48	0.0305
N-BUTANE	4.499	1.4185	147.11	0.0903
I-PENTANE	1.033	0.3780	41.42	0.0257
N-PENTANE	1.150	0.4165	46.21	0.0286
HEXANES	1.339	0.5841	68.84	0.0431
TOTAL	100.000	10.4754	1547.65	0.9188

3.7936

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0062
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1557.2
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1530.2
REAL SPECIFIC GRAVITY	0.9241

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: AZT019
CYLINDER PRESSURE	: 28 PSIG
DATE RUN	: 04/21/97
ANALYSIS RUN BY	: DAVE MARTIN

GAS ANALYSIS SERVICE

2030 Afton Place
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG80428
Cust. No. 23000-10540

ATTACHMENT #5
PG #26 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: KAIBAB TRAIL 1	Pressure	: 55 PSIG
County	: SAN JUAN	Sample Temp.	: N/A DEG.F
State	: NM	Well Flowing	: YES
Location	: M20-24N-08W	Date Sampled	: 04/08/98
Fld/Formation	: CUERVO GALLUP	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	:	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NOO-C-14-20-4310

ANALYSIS

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR.*
NITROGEN	1.871	0.0000	0.00	0.0181
CO2	0.133	0.0000	0.00	0.0020
METHANE	86.650	0.0000	877.16	0.4800
ETHANE	4.682	1.2524	83.04	0.0486
PROPANE	3.137	0.8646	79.11	0.0478
I-BUTANE	0.783	0.2561	25.52	0.0157
N-BUTANE	1.191	0.3755	38.94	0.0239
I-PENTANE	0.452	0.1654	18.13	0.0113
N-PENTANE	0.356	0.1289	14.31	0.0089
HEXANES	0.745	0.3250	38.30	0.0240
TOTAL	100.000	3.3679	1174.51	0.6802

1.2471

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0031
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1178.2
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1157.7
REAL SPECIFIC GRAVITY	0.6820

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: AZT049
CYLINDER PRESSURE	: 55 PSIG
DATE RUN	: 04/09/98
ANALYSIS RUN BY	: CHELLE DURBIN

GAS ANALYSIS SERVICE

2030 A n Place
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG70282
Cust. No. 23000-10525

ATTACHMENT #5
PG #27 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: LEE'S FERRY 1	Pressure	: 50 PSIG
County	: SAN JUAN	Sample Temp.	: N/A DEG.F
State	: NM	Well Flowing	: YES
Location	: 19-24N-08W	Date Sampled	: 05/07/97
Fld/Formation	: ~~UNDES GL~~ Cuervo Gallup	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 202A202349	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NM-41650

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	1.348	0.0000		0.00	0.0130
CO2	0.409	0.0000		0.00	0.0062
METHANE	70.344	0.0000		712.09	0.3896
ETHANE	12.680	3.3919		224.90	0.1316
PROPANE	8.510	2.3454		214.61	0.1296
I-BUTANE	0.977	0.3196		31.84	0.0196
N-BUTANE	2.777	0.8756	2.3789	90.80	0.0557
I-PENTANE	0.692	0.2532		27.75	0.0172
N-PENTANE	0.765	0.2771		30.74	0.0191
HEXANES	1.498	0.6534		77.01	0.0482
TOTAL	100.000	8.1162		1409.76	0.8298

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0049
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1416.7
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1392.0
REAL SPECIFIC GRAVITY	0.8335

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: AZT039
CYLINDER PRESSURE	: 45 PSIG
DATE RUN	: 05/08/97
ANALYSIS RUN BY	: DAVE MARTIN

GAS ANALYSIS SERVICE

2030 Afton Place
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG80426
Cust. No. 23000-10530

ATTACHMENT #5
PG #28 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: BRIGHT ANGEL 1	Pressure	: 48 PSIG
County	: SAN JUAN	Sample Temp.	: 54 DEG.F
State	: NM	Well Flowing	: YES
Location	: L27-24N-08W	Date Sampled	: 04/08/98
Fld/Formation	: ~~UNDES GL~~ → Lybrook Gallup	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 202A-21039	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NOO-C-14-20-4312

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	1.817	0.0000		0.00	0.0176
CO2	0.278	0.0000		0.00	0.0042
METHANE	85.479	0.0000		865.30	0.4735
ETHANE	5.986	1.6013		106.17	0.0621
PROPANE	2.671	0.7361		67.36	0.0407
I-BUTANE	0.387	0.1266		12.61	0.0078
N-BUTANE	1.036	0.3267	1.3942	33.88	0.0208
I-PENTANE	0.499	0.1826		20.01	0.0124
N-PENTANE	0.639	0.2314		25.68	0.0159
HEXANES	1.208	0.5269		62.11	0.0389
TOTAL	100.000	3.7316		1193.12	0.6938

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0032
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1196.9
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1176.1
REAL SPECIFIC GRAVITY	0.6957

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: A004
CYLINDER PRESSURE	: 49 PSIG
DATE RUN	: 04/09/98
ANALYSIS RUN BY	: CHELLE DURBIN

2030 Afton Place
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG80430
Cust. No. 23000-10545

ATTACHMENT #5
PG #29 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: LAVA FALLS 1	Pressure	: 46 PSIG
County	: SAN JUAN	Sample Temp.	: 60 DEG.F
State	: NM	Well Flowing	: YES
Location	: J27-24N-08W	Date Sampled	: 04/08/98
Fld/Formation	: LYBROOK GALLUP	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 202E422694	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NOO-C-14-20-4313

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	1.749	0.0000		0.00	0.0169
CO2	0.290	0.0000		0.00	0.0044
METHANE	82.287	0.0000		832.99	0.4558
ETHANE	6.517	1.7433		115.59	0.0677
PROPANE	3.892	1.0726		98.15	0.0593
I-BUTANE	0.530	0.1734		17.27	0.0106
N-BUTANE	1.621	0.5111		53.00	0.0325
I-PENTANE	0.495	0.1811	1.9661	19.85	0.0123
N-PENTANE	0.567	0.2054		22.78	0.0141
HEXANES	2.052	0.8951		105.50	0.0660
TOTAL	100.000	4.7820		1265.14	0.7396

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR	(1/Z)	1.0038
BTU/CU.FT. (DRY) CORRECTED FOR	(1/Z)	1270.0
BTU/CU.FT. (WET) CORRECTED FOR	(1/Z)	1247.9
REAL SPECIFIC GRAVITY		0.7421

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: A085
CYLINDER PRESSURE	: 48 PSIG
DATE RUN	: 04/09/98
ANALYSIS RUN BY	: CHELLE DURBIN

GAS ANALYSIS SERVICE

2030 Afton Place
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG70284
Cust. No. 23000-10730

ATTACHMENT #5
PG #30 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: SAPP 2	Pressure	: 46 PSIG
County	: SAN JUAN	Sample Temp.	: N/A DEG.F
State	: NM	Well Flowing	: YES
Location	: 28-24N-08W	Date Sampled	: 05/07/97
Fld/Formation	: Lybrook Gallup	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 202A199421	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: SF-078868

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	1.194	0.0000		0.00	0.0115
CO2	0.437	0.0000		0.00	0.0066
METHANE	68.046	0.0000		688.83	0.3769
ETHANE	12.038	3.2202		213.52	0.1250
PROPANE	10.746	2.9616		271.00	0.1636
I-BUTANE	1.487	0.4864	2.5657	48.47	0.0298
N-BUTANE	3.703	1.1676		121.08	0.0743
I-PENTANE	0.824	0.3015		33.04	0.0205
N-PENTANE	0.744	0.2695		29.90	0.0185
HEXANES	0.781	0.3407		40.15	0.0251
TOTAL	100.000	8.7475		1445.99	0.8518

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR	(1/Z)	1.0052
BTU/CU.FT. (DRY) CORRECTED FOR	(1/Z)	1453.5
BTU/CU.FT. (WET) CORRECTED FOR	(1/Z)	1428.2
REAL SPECIFIC GRAVITY		0.8559

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: K037
CYLINDER PRESSURE	: 40 PSIG
DATE RUN	: 05/08/97
ANALYSIS RUN BY	: DAVE MARTIN

GAS ANALYSIS SERVICE

1115 [illegible]mington Avenue
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG60106
Cust. No. 23000-10535

ATTACHMENT #5
PG #31 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: DUGAN PRODUCTION CPD 1	Pressure	: 57 PSIG
County	: SAN JUAN	Sample Temp.	: 78 DEG.F
State	: NM	Well Flowing	: YES
Location	: 08-24N-08W	Date Sampled	: 09/30/96
Fld/Formation	: POTWIN PC	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 171844	Foreman/Engr	: TOM BLAIR

Bowers #1

Remarks: NM LEASE: 19567

ANALYSIS

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR.*
NITROGEN	1.161	0.0000	0.00	0.0112
CO2	0.420	0.0000	0.00	0.0064
METHANE	95.366	0.0000	965.39	0.5282
ETHANE	2.648	0.7083	46.97	0.0275
PROPANE	0.215	0.0593	5.42	0.0033
I-BUTANE	0.065	0.0213	2.12	0.0013
N-BUTANE	0.051	0.0161	1.67	0.0010
I-PENTANE	0.026	0.0095	1.04	0.0006
N-PENTANE	0.013	0.0047	0.52	0.0003
HEXANES	0.035	0.0153	1.80	0.0011
TOTAL	100.000	0.8345	1024.93	0.5809

.0669

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR	(1/Z)	1.0021
BTU/CU.FT. (DRY) CORRECTED FOR	(1/Z)	1027.1
BTU/CU.FT. (WET) CORRECTED FOR	(1/Z)	1009.2
REAL SPECIFIC GRAVITY		0.5819

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: A012
CYLINDER PRESSURE	: 56 PSIG
DATE RUN	: 10/01/96
ANALYSIS RUN BY	: CHELLE DURBIN

GAS ANALYSIS SERVICE

2030 Afton Place
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG70278
Cust. No. 23000-10550

ATTACHMENT #5
PG #32 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: MESA 2	Pressure	: 40 PSIG
County	: SAN JUAN	Sample Temp.	: 88 DEG.F
State	: NM	Well Flowing	: YES
Location	: 16-24N-08W	Date Sampled	: 05/06/97
Fld/Formation	: POTWIN PC	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 171847	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: LG-1917

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	1.797	0.0000		0.00	0.0174
CO2	0.163	0.0000		0.00	0.0025
METHANE	88.758	0.0000		898.50	0.4916
ETHANE	4.197	1.1227		74.44	0.0436
PROPANE	2.656	0.7320		66.98	0.0404
I-BUTANE	0.754	0.2466		24.58	0.0151
N-BUTANE	0.730	0.2302		23.87	0.0146
I-PENTANE	0.338	0.1237	0.8508	13.55	0.0084
N-PENTANE	0.195	0.0706		7.84	0.0049
HEXANES	0.412	0.1797		21.18	0.0133
TOTAL	100.000	2.7055		1130.94	0.6518

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0028
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1134.1
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1114.4
REAL SPECIFIC GRAVITY	0.6534

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: AZT014
CYLINDER PRESSURE	: 35 PSIG
DATE RUN	: 05/07/97
ANALYSIS RUN BY	: DAVE MARTIN

2030 A ton Place
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(505) 325-6622

Analysis No. DUG80423
Cust. No. 23000-10495

ATTACHMENT #5
PG # 33 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: BLANCO WASH 1	Pressure	: 75 PSIG
County	: SAN JUAN	Sample Temp.	: 53 DEG.F
State	: NM	Well Flowing	: YES
Location	: J02-24N-09W	Date Sampled	: 04/08/98
Fld/Formation	: WHT WSH MAN/DK	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 171145	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: 14-20-0603-1404

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	1.531	0.0000		0.00	0.0148
CO2	0.273	0.0000		0.00	0.0041
METHANE	89.346	0.0000		904.45	0.4949
ETHANE	3.709	0.9922		65.79	0.0385
PROPANE	1.744	0.4806		43.98	0.0266
I-BUTANE	0.488	0.1596		15.91	0.0098
N-BUTANE	0.968	0.3052	1.2365	31.65	0.0194
I-PENTANE	0.495	0.1811		19.85	0.0123
N-PENTANE	0.542	0.1963		21.78	0.0135
HEXANES	0.904	0.3943		46.48	0.0291
TOTAL	100.000	2.7093		1149.88	0.6629

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0029
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1153.2
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1133.2
REAL SPECIFIC GRAVITY	0.6645

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: KFL176
CYLINDER PRESSURE	: 74 PSIG
DATE RUN	: 04/09/98
ANALYSIS RUN BY	: CHELLE DURBIN

GAS ANALYSIS SERVICE

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(505) 325-6622

Analysis No. DUG80424
Cust. No. 23000-10500

ATTACHMENT #5
PG #34 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: BLANCO WASH 4	Pressure	: 73 PSIG
County	: SAN JUAN	Sample Temp.	: 51 DEG.F
State	: NM	Well Flowing	: YES
Location	: A02-24N-09W	Date Sampled	: 04/08/98
Fld/Formation	: WHT WSH MAN/DK	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 171146	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: 14-20-0603-1405

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	1.684	0.0000		0.00	0.0163
CO2	0.395	0.0000		0.00	0.0060
METHANE	74.054	0.0000		749.65	0.4102
ETHANE	9.490	2.5386		168.32	0.0985
PROPANE	6.554	1.8063		165.29	0.0998
I-BUTANE	1.118	0.3657		36.44	0.0224
N-BUTANE	3.541	1.1165	2.6862	115.78	0.0711
I-PENTANE	1.217	0.4453		48.80	0.0303
N-PENTANE	1.224	0.4433		49.18	0.0305
HEXANES	0.723	0.3154		37.17	0.0233
TOTAL	100.000	7.0311		1370.64	0.8084

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0046
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1376.9
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1353.0
REAL SPECIFIC GRAVITY	0.8118

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: 050
CYLINDER PRESSURE	: 73 PSIG
DATE RUN	: 04/09/98
ANALYSIS RUN BY	: CHELLE DURBIN

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(505) 325-6622

Analysis No. DUG80425
Cust. No. 23000-10505

ATTACHMENT #5
PG #35 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: BLANCO WASH 5	Pressure	: 75 PSIG
County	: SAN JUAN	Sample Temp.	: 52 DEG.F
State	: NM	Well Flowing	: YES
Location	: L01-24N-09W	Date Sampled	: 04/08/98
Fld/Formation	: WHT WSH MAN/DK	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 171681	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: 14-20-0603-1402

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	1.854	0.0000		0.00	0.0179
CO2	0.429	0.0000		0.00	0.0065
METHANE	77.939	0.0000		788.98	0.4317
ETHANE	10.230	2.7365		181.45	0.1062
PROPANE	6.090	1.6784		153.58	0.0927
I-BUTANE	0.560	0.1832	1.2125	18.25	0.0112
N-BUTANE	1.541	0.4859		50.39	0.0309
I-PENTANE	0.314	0.1149		12.59	0.0078
N-PENTANE	0.357	0.1293		14.35	0.0089
HEXANES	0.686	0.2992		35.27	0.0221
TOTAL	100.000	5.6274		1254.86	0.7358

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0037
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1259.5
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1237.6
REAL SPECIFIC GRAVITY	0.7382

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: K048
CYLINDER PRESSURE	: 75 PSIG
DATE RUN	: 04/09/98
ANALYSIS RUN BY	: CHELLE DURBIN

GAS ANALYSIS SERVICE

2030 Afton Place
Farmington, N.M. 87401
(505) 325-6622

Analysis No. DUG70276
Cust. No. 23000-10520

ATTACHMENT #5
pg # 36 OF 36

WELL/LEASE INFORMATION

Company	: DUGAN PRODUCTION CORP.	Source	: METER RUN
Well Name	: ELWOOD P. DOWD 2	Pressure	: 43 PSIG
County	: SAN JUAN	Sample Temp.	: 65 DEG.F
State	: NM	Well Flowing	: YES
Location	: 10-24N-09W	Date Sampled	: 04/30/97
Fld/Formation	: WHT WSH MAN/DK	Sampled By	: BILLIE WRIGHT
Cust.Stn.No.	: 172214	Foreman/Engr	: TOM BLAIR

Remarks: LEASE: NM-9520

ANALYSIS

COMPONENT	MOLE %	GPM**		B.T.U.*	SP.GR.*
NITROGEN	2.024	0.0000		0.00	0.0196
CO2	0.557	0.0000		0.00	0.0085
METHANE	67.910	0.0000		687.45	0.3762
ETHANE	10.305	2.7566		182.78	0.1070
PROPANE	10.047	2.7690		253.38	0.1530
I-BUTANE	1.501	0.4910	3.1230	48.92	0.0301
N-BUTANE	4.410	1.3905		144.20	0.0885
I-PENTANE	1.222	0.4471		49.01	0.0304
N-PENTANE	1.195	0.4328		48.02	0.0298
HEXANES	0.829	0.3616		42.62	0.0267
TOTAL	100.000	8.6486		1456.37	0.8698

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z)	1.0053
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)	1464.1
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)	1438.6
REAL SPECIFIC GRAVITY	0.8741

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

CYLINDER #	: KFL148
CYLINDER PRESSURE	: 45 PSIG
DATE RUN	: 05/04/97
ANALYSIS RUN BY	: CHELLE DURBIN