dugan production corp.

November 23, 1983

New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

Re: DUGAN PRODUCTION CORP.
Hugh Lake #2
1120' FNL - 790' FEL
Sec. 29 T27N R12W
San Juan County, NM

Gentlemen:

This is to certify that deviation tests were run on the captioned well and the following is a true report of those tests:

1/2° at 440'
1/2° at 880'
1/2° at 1250'

Sincerely,

Jim L. Jacobs

RECEIVED
NOV 28 1983
OIL CON. DIV.
DIST. 3

State of New Mexico)
County of San Juan) ss

Subscribed and sworn to before me this 23 day of November 1983.

Frances Perrin

OFFICIAL SEAL
FRANCES PERRIN
NOTARY PUBLIC STATE OF NEW MEXICO
My Commission Expires 5-15-85

709 BLOOMFIELD RD. • P. O. BOX 208 • FARMINGTON, NEW MEXICO 87401 • PHONE: 505-325-0233

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

3-NMOCD
1-Southland
1-LAE
1-Texaco 1-File 1-NWPL

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED
DEC 28 1983
OIL CON. DIV.

Type Test: XX Initial ☐ Annual ☐ Special				Test Date: 11-7-83	
Company: Dugan Production Corp.		Connection:			Unit: B
Pool: Undesignated P.C.		Formation: Pictured Cliffs			
Completion Date: 10-31-83	Total Depth: 1360	Plug Back TD: 1333	Elevation: 5835 G.L.		Farm or Lease Name: Hugh Lake
Csg. Size: 2-7/8" / Wt.: 6.40# / d: 2.441 / Set At: 1362		Perforations: From 1233 To 1260			Well No.: 2
Tbg. Size: None / Wt. / d / Set At		Perforations: From To			Unit: A / Sec.: 29 / Twp.: 27N / Rge.: 12W
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single Gas		Packer Set At			County: San Juan
Producing Thru	Reservoir Temp. °F	Mean Annual Temp. °F	Baro. Press. – P_a		State: New Mexico
L	H	Gg: .62 est	% CO_2	% N_2	% H_2S / Prover / Meter Run / Taps

FLOW DATA / TUBING DATA / CASING DATA

NO.	Prover Line Size	X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Tubing Press. p.s.i.g.	Tubing Temp. °F	Casing Press. p.s.i.g.	Casing Temp. °F	Duration of Flow
SI								330		7 days
1.										
2.										
3.	9/16"	pos. ck.	131		66°					3 hours
4.										
5.										

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1							
2.							
3.	6.8294		143	.9943	.9837	1.013	968
4.							
5.							

NO.	P_t	Temp. °R	T_t	Z
1				
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

P_c 342 P_c^2 116,964

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1				
2				
3		148	22,008	94,956
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.2318$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^{n} = 1.1692$ n = .75

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^{n} = 1132$

Absolute Open Flow 1132 Mcfd @ 15.025 Angle of Slope θ _____ Slope, n .75

Remarks: _____

Approved by Division | Conducted By: | Calculated By: | Checked By: