

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,

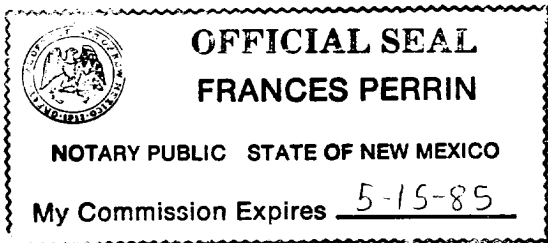
Jim L. Jacobs

RECEIVED
NOV 28 1983
OIL CON. DIV. I
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



OIL CONSERVATION DIVISION 3-NMOCD

Form C-122
Revised 10-1-78

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

1-Southland
1-LAE
1-Texaco

1-File
1-NMPL

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS RECEIVED

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special		Test Date 11-7-83	
Company Dugan Production Corp.		Connection	
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	
Tng. Size None	Wt.	d	Set At
Perforations: From To		Unit A	Sec. Twp. Rge. 29 27N 12W
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single Gas			Packer Set At
Producing Thru			County San Juan
Reservoir Temp. °F		Mean Annual Temp. °F	State New Mexico
L	H	Gg .62 est	% CO ₂ % N ₂ % H ₂ S

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
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 F _g	Super Compress. Factor, F _{pv}	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	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas _____ X X X X X X X X
3.					Specific Gravity Flowing Fluid _____ X X X X X
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ R _____ R

P _c 342	P _c ² 116,964				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.2318$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^{.75} = 1.1692$
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²		
1.						
2.						
3.		148	22,008	94,956	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1132$	
4.						
5.						

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

Remarks:

Approved By: _____ Conducted By: _____ Calculated By: _____ Checked By: _____