EW MEXICO OIL CONSERVATION CC SSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 12/20/90	
Company: BTA Oil Producers		Connection: Llano, Inc.			
Pool: Gem, East Morrow		Formation: Morrow		Unit:	
Completion Date: 12-02-90	Total Depth: 13,700	Plug Back TD: 13,627	Elevation: 3593 RKB	Farm or Lease Name: Gem, 8705 JV-P	
Csg. Size: 5-1/2 / Wt.: 20 & 23 / d: 4.778 & 4.670 / Set At: 13,700	Perforations: From 13,534 To 13,588			Well No.: 3	
Tbg. Size: 2-7/8 / Wt.: 6.5 / d: 2.441 / Set At: 13,350	Perforations: From To			Unit: O / Sec.: 2 / Twp.: 20S / Rge.: 33E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 13,322		County: Lea	
Producing Thru: Tubing	Reservoir Temp. °F: 198 @ 13,561	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: NM	

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
13350	13350	0.675	0.58	0.48	0		4.026	Flange

	FLOW DATA				TUBING DATA		CASING DATA		
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	Duration of Flow
SI	4.026 x 1.375				4032	65	Pkr	65	SI 423 hrs
1.	4.026 x 1.375	715	6.0	75	3428	65	Pkr		1 hr
2.	4.026 x 1.375	735	9.0	72	3148	69	Pkr		1 hr
3.	4.026 x 1.375	755	35.0	81	2553	71	Pkr		1 hr
4.	4.026 x 1.375	775	50.0	75	2137	71	Pkr		1 hr
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	9.071	66.10	728.2	.9859	1.217	1.076	774
2.	9.071	82.06	748.2	.9887	1.217	1.078	966
3.	9.071	163.97	768.2	.9804	1.217	1.081	1918
4.	9.071	198.52	788.2	.9859	1.217	1.083	2340
5.							

NO.	P_t	Temp. °R	T_f	Z
1.	1.09	535	1.39	.863
2.	1.12	532	1.39	.860
3.	1.15	541	1.41	.856
4.	1.18	535	1.39	.852
5.				

Gas Liquid Hydrocarbon Ratio 15927 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 52 @ 60° F Deg.
Specific Gravity Separator Gas .675 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 669 P.S.I.A. P.S.I.A.
Critical Temperature 384 R R

P_c 6269.2 P_c^2 39303

NO	P_t^2	P_w	P_w^2	$P_f^2 - P_w^2$
1		5775.2	33353	5950
2		5477.2	29997	9306
3		4950.2	24504	14799
4		4393.2	19300	20003
5				

(1) $\frac{P_f^2}{P_f^2 - P_w^2} = 1.96$ (2) $\left[\frac{P_f^2}{P_f^2 - P_w^2}\right]^n = 1.83$

AOF = Q $\left[\frac{P_f^2}{P_f^2 - P_w^2}\right]^n = 4283$

Absolute Open Flow 4283 Mcfd @ 15.025 Angle of Slope θ 48.07 Slope, n .8983

Remarks: BHP measured by Jarrel Services, Inc.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	BTA Oil Producers	T. J. Williams	