Copy to SF - C-122

N MEXICO OIL CONSERVATION COMMS N
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

R E D

Type Test: [x] Initial [ ] Annual [ ] Special			Test Date: 11-30-73	1973
Company: Cities Service Oil	Connection: Waiting for connection			O. C. C.
Pool: Undesignated ~~LaHuerta~~	Formation: Morrow			Unit
Completion Date: 12-1-73	Total Depth: 11673'	Plug Back TD: 11638'	Elevation: 3218 KB	Farm or Lease Name: Elizando-Federal "A"
Csg. Size: 5-1/2" / Wt.: 17 & 20# / d: / Set At: 11673'		Perforations: From 11271' To 11471'		Well No.: 1
Tbg. Size: 2-7/8" / Wt.: 6.5# / d: / Set At: 11026'		Perforations: From To		Unit: C / Sec.: 28 / Twp.: 21S / Rge.: 27E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 11026'		County: Eddy County
Producing Thru: Tubing	Reservoir Temp. °F: 191 @ 11371	Mean Annual Temp. °F:	Baro. Press. – P_a: 13.2	State: New Mexico
L: 11026 / H:	Gg: .5935	% CO_2: .99	% N_2: .40	% H_2S: – / Prover: 4" / Meter Run: / Taps: Flange

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							3592.0				
1.	4		1.75	550	6.0	116	3286	70	Pkr.	7/64	1 Hr.
2.	4		1.75	555	13.0	77	3100	70	"	9/64	1 Hr.
3.	4		1.75	565	24.0	84	2464	72	"	11/64	1 Hr.
4.	4		1.75	565	38.0	84	2626	72	"	13/64	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	14.93	58.13	563.2	.9501	1.298	1.031	1103
2.	14.93	85.95	568.2	.9840	1.298	1.043	1709
3.	14.93	117.80	578.2	.9777	1.298	1.041	2323
4.	14.93	148.23	578.2	.9777	1.298	1.041	2924
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	0.84	576	1.63	.940
2.	0.85	537	1.52	.920
3.	0.86	544	1.54	.923
4.	0.86	544	1.54	.923
5.				

Gas Liquid Hydrocarbon Ratio 104948 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons – Deg.
Specific Gravity Separator Gas 0.5935 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 672 P.S.I.A. P.S.I.A.
Critical Temperature 354 R R

P_c 4696.2 P_c^2 22054

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		4353.2	18950	3104
2		4144.2	17174	4880
3		3876.2	15025	7029
4		3606.2	13005	9049
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.4372$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.2255$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 6507$

Absolute Open Flow 6507 Mcfd @ 15.025 Angle of Slope θ 48.1 Slope, n .898

Remarks: Bottom hole pressures measured with BHP bomb.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	West Engineering	West Engineering	