NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
FEB 22 1972
O. C. C.
ARTESIA, OFFICE

Type Test: XX Initial ☐ Annual ☐ Special				Test Date: 2-8-72	
Company: Pennzoil United, Inc.		Connection: None			Unit: L
Pool: South Carlsbad (Strawn)		Formation: Strawn			
Completion Date: 2-4-72	Total Depth: 11,833		Plug Back TD: 11,762	Elevation: 3232 KB	Farm or Lease Name: Gulf-Federal
Csg. Size: 5 1/2	Wt.: 17# 20#	d: 4.892 4.778	Set At: 11,830	Perforations: From 10,375 To 10,392	Well No.: 2
Tbg. Size: 2 1/16	Wt.: 3.25	d: 1.750	Set At: 10,298	Perforations: From To	Unit: L Sec.: 6 Twp.: 23S Rge.: 27E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: G G Dual			Packer Set At: 10,290		County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: @	Mean Annual Temp. °F	Baro. Press. – P_a		State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
10,384	10,384	.644	.0033	.0074			X	

	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						3493	40	Packer		
1.	4.0	2.0	400	4	50	3260	58			1 Hr
2.	4.0	2.0	400	8	43	3140	58			1 Hr
3.	4.0	2.0	400	17	28	2940	60			1 Hr
4.	4.0	2.0	415	27	20	2747	65			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	19.81	40.65	413.2	1.010	1.246	1.049	1063
2.	19.81	57.49	413.2	1.017	1.246	1.052	1518
3.	19.81	83.81	413.2	1.032	1.246	1.057	2256
4.	19.81	107.52	428.2	1.033	1.246	1.062	2911
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	.616	510	1.35	.909
2.	.616	503	1.33	.904
3.	.616	488	1.29	.895
4.	.639	480	1.27	.887
5.				

Gas Liquid Hydrocarbon Ratio 22.15 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 61 Deg.
Specific Gravity Separator Gas .644 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 670 P.S.I.A. P.S.I.A.
Critical Temperature 378 R R

P_c 3424.2 P_c^2 11725

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		3336.2	11130	595
2		3284.2	10460	1265
3		3064.2	9389	2336
4		2607.2	8452	3273
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{11725}{3273}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.1284$

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 6157$

Absolute Open Flow 6157 Mcfd @ 15.025 Angle of Slope θ 59° 35' Slope, n .587

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	J N Casparis	H L Hagler	

WEST TEXAS ENGINEERING SERVICE, INC.