Well File
Copy to S.F.

NEW MEXICO OIL CONSERVATION COMMSSION

Form C-122
Revised 9-1-65

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS

RECEIVED
DEC 10 1970
O. C. C.
ARTESIA, OFFICE

Type Test: [x] Initial [ ] Annual [ ] Special				Test Date: 12-3-70	
Company: Monsanto Company		Connection: Transwestern			
Pool: Lower Morrow		Formation: Lower Morrow			Unit: J
Completion Date: 11-20-70	Total Depth: 10,525		Plug Back TD: 10,365	Elevation: 4013 Gr	Farm or Lease Name: Rock Tank Unit
Csg. Size: 5 1/2 / Wt.: 17 / d: 4.892 / Set At: 10,405			Perforations: From 10,200 To 10,244		Well No.: 4
Tbg. Size: 2 3/8 / Wt.: 4.70 / d: 1.995 / Set At: 10,091			Perforations: From Open Ended To		Unit: J / Sec.: 1 / Twp.: 23-S / Rge.: 24-E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 10,089		County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 160 @ 10,000'	Mean Annual Temp. °F:	Baro. Press. – P_a: 13.2		State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
10,222	10,222	.617					x	F

	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						2906	66			
1.	4.029	1.75	740	84	80	1771	72			85 Min
2.	4.029	1.75	740	72	80	1962	72			60 Min
3.	4.029	1.75	730	52	79	2218	74			35 Min
4.	4.029	1.75	720	26	80	2540	74			35 Min
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	251.5	753.2	.9813	1.274	1.061	4981
2.	14.93	232.8	753.2	.9813	1.274	1.063	4619
3.	14.93	196.6	743.2	.9822	1.274	1.062	3901
4.	14.93	138.0	733.2	.9813	1.274	1.061	2733
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	1.12	540	1.48	.885
2.	1.12	540	1.48	.885
3.	1.11	539	1.47	.887
4.	1.09	540	1.48	.888
5.				

Gas Liquid Hydrocarbon Ratio: 5702 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: 53.4 Deg.
Specific Gravity Separator Gas: .616 / XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX / .617
Critical Pressure: 671 P.S.I.A. / ____ P.S.I.A.
Critical Temperature: 365 R / ____ R

P_c 2921 P_c^2 8532

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	3183	1912	3655	4877
2	3901	2064	4609	3923
3	4978	2300	5290	3242
4	6519	2586	6687	1845
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{8532}{4877}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.4269$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 7107$

Absolute Open Flow: 7107 Mcfd @ 15.025 | Angle of Slope θ: 57.5 | Slope, n: .636

Remarks: Started on High Rate - Anticipating Load Water Build-Up.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
noted HLS 12-18-70	[signature]	[signature]	

WEST TEXAS ENGINEERING SERVICE, INC.
Box 4456 Midland, Texas 79701