NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT BACK PRESSURE TEST FOR GAS WELL

St File c 122

Form C-122
Revised 9-1-65

RECEIVED
OCT 15 1979
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 10/06/79	
Company: Amoco Production Company		Connection: Gas Co. of New Mexico			
Pool: Shugart Penn		Formation: Penn		Unit:	
Completion Date: 02/05/79	Total Depth: 12220.	Plug Back TD: 11990.	Elevation: 3614.	Farm or Lease Name: Greenwood Unit	
Csg. Size: 5.500 / Wt.: 29.0 / d: 4.778 / Set At: 12220.		Perforations: From 11854. To 11860.		Well No.: 11	
Tbg. Size: 2.375 / Wt.: 4.7 / d: 1.995 / Set At: 11803.		Perforations: From 11898. To 11906.		Unit: L / Sec.: 34 / Twp.: 18S / Rge.: 31E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 11736		County: Eddy	
Producing Thru: Tubing	Reservoir Temp. °F: 197.@ 11880.	Mean Annual Temp. °F: 60.0	Baro. Press. – P_a: 13.2	State: New Mexico	

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
11880.	11880.	0.669	0.52	0.48	0.	0.	2.1	Flange

NO.	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					2112.	72.			47.0
1.	2.07 x 1.250	409.	2.2	73.	1772.	72.	0.	0.	1.0
2.	2.07 x 1.250	409.	4.0	74.	1510.	74.	0.	0.	1.0
3.	2.07 x 1.250	409.	5.8	74.	990.	74.	0.	0.	1.0
4.	2.07 x 1.250	410.	1.7	74.	415.	74.	0.	0.	1.0
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	8.12	30.82	422.2	0.9877	1.2226	1.0416	315.
2.	8.12	41.10	422.2	0.9868	1.2226	1.0414	419.
3.	8.12	49.31	422.2	0.9868	1.2226	1.0414	503.
4.	8.12	26.74	423.2	0.9868	1.2226	1.0415	273.
5.							

NO.	P_t	Temp. °R	T_t	Z
1.	0.63	533.	1.41	0.922
2.	0.63	534.	1.41	0.922
3.	0.63	534.	1.41	0.922
4.	0.63	534.	1.41	0.922
5.				

Gas Liquid Hydrocarbon Ratio 0. Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 0. Deg.

Specific Gravity Separator Gas	0.669	XXXXXXXXX
Specific Gravity Flowing Fluid	XXXXX	0.669
Critical Pressure	671. P.S.I.A.	671. P.S.I.A.
Critical Temperature	378. R	378. R

P_c 2110.9 P_c^2 4456.

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	3187.	1774.	3148.	1308.
2	2320.	1514.	2291.	2165.
3	1006.	1002.	1003.	3453.
4	183.	430.	185.	4271.
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.2906$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.1368$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 572.$

Absolute Open Flow 572. Mcfd @ 15.025 | Angle of Slope θ 63.3 | Slope, n 0.503

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	John West Engrg.	C.C. Weaver	W.D. Magness