NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT BACK PRESSURE TEST FOR GAS WELL

Form C-122 Revised 9-1-65

D-122 file

RECEIVED
JAN 12 1973
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 12-27-72	
Company: Great Western Drilling Co.	Connection: To air			
Pool: ~~Pecky Arroyo Morrow~~ Wildcat	Formation: Morrow		Unit:	
Completion Date: 11-6-72	Total Depth: 9472'	Plug Back TD: 9432'	Elevation: 4357 Gr.	Farm or Lease Name: Reese-Cleveland Fed.
Csg. Size: 5½ / Wt.: 15.5 / d: 4.950	Set At: 9456'	Perforations: From 9126 To 9134		Well No.: 1-Y
Tbg. Size: 2 3/8 / Wt.: 4.7 / d: 1.995	Set At: 9100'	Perforations: From 9130 To 9136		Unit: N / Sec.: 33 / Twp.: 21S / Rge.: 22E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 9100'		County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 141 @ 9100'	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
9100	9100	.6036	0.66	0.5	-----		4"	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							2740	60	Packer		91.5
1.	4"	X	1.50"	530.0	12.0	69	2462	62	12/64	Choke	1.0
2.	4"	X	1.50"	520.0	45.0	64	2080	64	16/64		1.25
3.	4"	X	1.50"	550.0	71.0	63	1759	65	20/64		1.0
4.	4"	X	1.50"	665.0	84.0	66	1433	66	24/64		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.	10.84	80.73	543.2	.9915	1.287	1.045	1167
2.	10.84	154.90	533.2	.9962	1.287	1.047	2254
3.	10.84	199.97	563.2	.9971	1.287	1.049	2918
4.	10.84	238.68	678.2	.9943	1.287	1.058	3503
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	0.81	529	1.48	.915
2.	0.79	524	1.46	.913
3.	0.84	523	1.46	.908
4.	1.01	526	1.47	.893
5.				

Gas Liquid Hydrocarbon Ratio 205,042 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 56.1 Deg.
Specific Gravity Separator Gas 0.6036 XXXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 671 P.S.I.A. P.S.I.A.
Critical Temperature 358 R R

P_c 3559.2 P_c^2 12668

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		3240.2	10499	2169
2		2817.2	7937	4731
3		2481.2	6156	6512
4		2174.2	4727	7941
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.5952$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.4831$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 5195$

Absolute Open Flow 5195 Mcfd @ 15.025 Angle of Slope θ 49.8° Slope, n 0.844

Remarks: Bottom hole pressures recorded with Amerada bomb @ 9100'

pooled 1-12-73

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	M.C.T.	R.L.W.	J.W.W.