NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
AUG 4 1970
O. C. C.
ARTESIA, OFFICE

Type Test: ☒ Initial ☐ Annual ☐ Special — Test Date: 4-17-70

Company: READ & STEVENS — Connection: PHILLIPS — Unit:

Pool: BUFFALO VALLEY PENN GAS — Formation: PENN

Completion Date: 3-18-70 — Total Depth: 8590 — Plug Back TD: 8543 — Elevation: 3529 — Farm or Lease Name: TROBAUGH

Csg. Size	Wt.	d	Set At	Perforations:
4.500	11.6	4.000	8575	From 8443 To 8468

Well No.: 1

Tbg. Size	Wt.	d	Set At	Perforations:
2.375	4.7	1.995	8228	From OPEN To

Unit: J — Sec.: 1 — Twp.: 15S — Rge.: 27E

Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE — Packer Set At: 8228 — County: CHAVES

Producing Thru: TUBING — Reservoir Temp. °F: 128 • 8500 — 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
8443	8443	0.68	0.4	0.6	NIL	—	3.068	FLGE

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	—		—	—	—	—	3140 BHP	60	PKR	—	24 hr
1.	3.068		1.500	570	28	66	2918	"	"	-	70 m
2.	"		"	"	43	70	2847	"	"	—	"
3.	"		"	"	83	72	2635	"	"	—	"
4.	"		2.000	545	49	70	2507	"	"	—	"
5.	"		"	540	65.5	70	2282	"	"	—	"

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	11.13	127.79	583.2	0.9943	1.213	1.065	1826.9
2.	"	158.36	"	0.9905	"	1.064	2253.2
3.	"	220.01	"	0.9887	"	1.061	3115.7
4.	21.32	165.38	558.2	0.9905	"	1.061	4494.7
5.	"	190.35	553.2	0.9905	"	1.060	5168.5

NO.	P_t	Temp. °R	T_r	Z
1.	0.87	526	1.37	0.881
2.	"	530	1.38	0.884
3.	"	532	1.39	0.888
4.	0.83	530	1.38	0.889
5.	0.82	530	1.38	0.890

Gas Liquid Hydrocarbon Ratio 90.033 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 61.0 Deg.
Specific Gravity Separator Gas 0.68 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX 0.711
Critical Pressure 670 P.S.I.A. ____ P.S.I.A.
Critical Temperature 383 R ____ R

P_c 3153.2 P_c^2 9942.7

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	-	2931.2	8591.9	1350.8
2	-	2860.2	8180.7	1762.0
3	-	2648.2	7013.0	2929.7
4	-	2520.2	6351.4	3591.3
5	-	2295.2	5267.9	4674.8

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.1269$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.885$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 9743$

Absolute Open Flow 9,900 Mcfd @ 15.025 — Angle of Slope θ ____ — Slope, n 0.84

Remarks: * BHP INSTRUMENT SET AT 8340 Ft. IN CASING

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
1/5/70 RLS	C.R. APPLEDORN	CRA	—