NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122 Revised 9-1

DF File

122 file

Type Test: [X] Initial	[ ] Annual	[ ] Special	Test Date: 9-22-77
Company: C.E. LaRue and B.N. Muncy, JR.	Connection: None	RECEIVED OCT 25 1977 O.C.C. ARTESIA, OFFICE	SPUD DATE: 7-8-77
Pool: Sams Ranch Grbg (~~Undesignated~~)	Formation: Grayburg		Unit: A
Completion Date: 9-22-77	Total Depth: 1597	Plug Back TD	Elevation: 3557.7 gr.
Farm or Lease Name: Nola Federal			
Csg. Size: 5½	Wt.: 15.5	d	Set At: 1560
Perforations: From open To hole			Well No.: 4
Tbg. Size: 2 3/8	Wt.: 4.7	d	Set At: 1597
Perforations: From open To end			Unit: H Sec.: 8 Twp.: 14 Rge.: 28
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single	Packer Set At: None		County: Chaves
Producing Thru: Tbg.	Reservoir Temp. °F	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2
State: New Mexico			
L: 1597	H: 1597	Gg: .723 (Assumed)	% CO_2 / % N_2 / % H_2S
Prover: 6" Positive choke	Meter Run	Taps	

FLOW 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							1060		1060	shut-in	72 hr.
1.			3/16	1051		70	1051		1052		1 hr.
2.			7/32	1045		71	1045		1048		30 Min
3.			1/4	1040		72	1040		1044		30 Min
4.			5/16	1020		72	1020		1029		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	.6201		1064.2	.9905	1.176	1.159	877
2	.8419		1058.2	.9896	1.176	1.159	1,202
3	1.112		1053.2	.9887	1.176	1.159	1,578
4	1.771		1033.2	.9887	1.176	1.155	2,457
5							

NO.	P_r	Temp. °R	T_r	Z
1	1.59	530	1.33	.744
2	1.58	531	1.33	.745
3	1.58	532	1.34	.745
4	1.55	532	1.34	.750
5				

Gas Liquid Hydrocarbon Ratio ______ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons ______ Deg.
Specific Gravity Separator Gas .723 (Assumed) XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 668 P.S.I.A. ______ P.S.I.A.
Critical Temperature 398 R ______ R

P_c 1073.2 P_c^2 1151.8

NO	P_t	P_w	P_w^2	$P_c^2 - P_w^2$
1		1065.2	1134.7	17.1
2		1061.2	1126.1	25.7
3		1057.2	1117.7	34.1
4		1042.2	1086.2	65.6
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2}$ = 33.777

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 18.052

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 28,486

Posted ID-2 + Dook 12-08 ?? 12/PP

Absolute Open Flow 28,486 Mcfd @ 15.025 | Angle of Slope θ 50.5 | Slope, n .822

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Marshall Morris	J. B. Murray	

Nola Federal No. 4
M-8-14-28 Chaves County, New Mexico
September 22, 1977