Copy of C-122

NEW MEXICO OIL CONSERVATION COMMSSION

Form C-122
Revised 9-1-65

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED
NOV 1 - 1974
O. C. C.
ARTESIA, OFFICE

Type Test: [x] Initial [ ] Annual [ ] Special — Test Date: 10-31-74

Company: Exxon Corporation	Connection: Llano, Inc.	Unit: ---	
Pool: South Carlsbad	Formation: Morrow Gas		
Completion Date: 5-17-74	Total Depth: 11,866'	Plug Back TD: 11,777'	Elevation: 3302' KB
Farm or Lease Name: South Carlsbad Gas Com. No. 4			
Well No.: 1			
Unit: G	Sec.: 27	Twp.: 23-S	Rge.: 26-E
County: Eddy			
State: New Mexico			

Csg. Size	Wt.	d	Set At	Perforations
4-1/2"	15.1#	3.826"	11,861'	From 11,504' To 11,732
Tbg. Size	Wt.	d	Set At	Perforations
2-7/8"	6.5#	2.441"	9,700'	From --- To ---
2-3/8"	4.6#	1.995"	11,260'	

Type Well – Single – Bradenhead – G.C. or G.O. Multiple: Single
Packer Set At: 11,260'

Producing Thru	Reservoir Temp. °F	Mean Annual Temp. °F	Baro. Press. – P_a
Tubing	201 @ 11,602'	60	13.2

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
11,504'	11,504'	0.589	1.13	0.20	---	---	4.026" ID	Flange

FLOW DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA Press. p.s.i.g.	TUBING DATA Temp. °F	CASING DATA Press. p.s.i.g.	CASING DATA Temp. °F	Duration of Flow
SI							3172 SI				66 Hrs.
1.	4"		1.25	910	10.0	84	3033				2 Hrs.
2.	4"		1.25	905	27.5	85	2874				2 Hrs.
3.	4"		1.25	905	68.0	84	2573				2 Hrs.
4.	4"		1.25	900	89.0	84	2326				2 Hrs.
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	7.469	96.08	923.2	0.9777	1.303	1.064	973
2	7.469	158.90	918.2	0.9768	1.303	1.064	1607
3	7.469	249.88	918.2	0.9777	1.303	1.064	2530
4.	7.469	285.09	913.2	0.9777	1.303	1.063	2884
5.							

NO.	P_t	Temp. °R	T_r	Z
1	1.37	544	1.55	0.883
2.	1.36	545	1.55	0.884
3.	1.36	544	1.55	0.884
4.	1.35	544	1.55	0.885
5				

Gas Liquid Hydrocarbon Ratio ___ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons ___ Deg.
Specific Gravity Separator Gas 0.589 XXXXXXXXXX
Specific Gravity Flowing Fluid XXXXX ---
Critical Pressure 676 P.S.I.A. --- P.S.I.A.
Critical Temperature 352 R --- R

P_c 4193 P_c^2 17,581.2

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		3893	15155.4	2425.8
2		3660	13395.6	4185.6
3		3315	10989.2	6592.0
4		3027	9162.7	8418.5
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.442$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.417$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2833$

Absolute Open Flow 2833 Mcfd @ 15.025 — Angle of Slope θ 46° 27' — Slope, n 0.951

Remarks: Static and flowing bottomhole pressures measured with a bomb at 11,200'. A constant time multipoint test was conducted due to long stabilization times.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Exxon Corporation	R.T. Hornsby RTH	M.J. Hemmen