NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
JAN 25 1974
O. C. C.
ARTESIA, OFFICE

Type Test: ☐ Initial ☐ Annual ☒ Special				Test Date: 1/8/74	
Company: Exxon Company, U.S.A.		Connection: El Paso Natural Gas			Unit: --
Pool: South Carlsbad		Formation: Morrow Gas			
Completion Date: 6/18/73	Total Depth: 11,991'	Plug Back TD: 11,847'	Elevation: 3,285 KB		Farm or Lease Name: So. Carlsbad Gas Com. No. 1
Csg. Size: 3½" / Wt.: 9.2 lb. / d: 2.992 / Set At: 11,990'		Perforations: From 11,433' To 11,797'			Well No.: 1
Tbg. Size: -- / Wt.: -- / d: -- / Set At: --		Perforations: From w/65 holes To			Unit: N / Sec.: 23 / Twp.: 235 / Rge.: 26E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single, Tubingless Completion		Packer Set At: None			County: Eddy
Producing Thru: Casing	Reservoir Temp. °F: 202 @ 11,615'	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
11,615'	--	.58	1.4	0.15	0.00	--		F

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	3238 BHP										24 hrs.
1.	4	x	2.75	365	4.6	68	2481				4 "
2.	4	x	2.75	365	10.2	64	2233				4 "
3.	4	x	2.75	378	26.0	60	1956				4 "
4.	4	x	2.75	396	62.4	66	1262				4 "
5.	4	x	2.75	403	73.1	66	947				4 "

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	46.54	42	378	.9924	1.311	1.029	2617
2.	46.54	62.2	378	.9962	1.311	1.030	3894
3.	46.54	101	391	1.000	1.311	1.032	6359
4.	46.54	159	410	.9943	1.311	1.033	9984
5.	46.54	174	416	.9943	1.311	1.033	10,904

NO.	P_t	Temp. °R	T_r	Z
1.	.56	528	1.55	.950
2.	.56	524	1.54	.950
3.	.58	520	1.53	.949
4.	.60	526	1.55	.948
5.	.61	526	1.55	.9475

Gas Liquid Hydrocarbon Ratio: Dry Gas Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: -- Deg.
Specific Gravity Separator Gas: .58 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 679 P.S.I.A. -- P.S.I.A.
Critical Temperature: 340 R -- R

P_c 3238 P_c^2 10,485

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	--	3054	9326.9	1,159.7
2	--	2943	8661.2	1,825.3
3	--	2624	6885.4	3,601.2
4	--	1865	3478.2	7,008.4
5	--	1574	2477.5	8,009.1

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.309$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.216$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 13,263$

Absolute Open Flow: 13,263 Mcfd @ 15.025 Angle of Slope θ: 54° Slope, n: .727

Remarks: Flowing pressures used for calculations were measured with a bomb @ 11,800'.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Exxon Company, U.S.A.	S.E.Palko	A.M.Jack