

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 2-26-79		FEB 28 1979	
Company Atlantic Richfield Company				Connection El Paso Natural Gas Company				O. C. C. ARTESIA, OFFICE	
Pool Undesignated				Formation Devonian				Unit	
Completion Date 2-20-79		Total Depth 15,500		Plug Back TD 15,415		Elevation 3525 GR		Farm or Lease Name Langley Getty Com	
Cas. Size 7	Wt. 29#	d 6.184	Set At 15500	Perforations: From 12532 To 12617		Well No. 1			
Tbg. Size 2.375	Wt. 4.7	d 1.945	Set At 12179	Perforations: From Open To Ended		Unit N	Sec. 21	Twp. 22S	Rge. 36E
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Dual -- G.G.				Packer Set At 12179		County Lea			
Producing Thru Tbg		Reservoir Temp. °F 188 @ 12575		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State New Mexico	
L 12575	H 12575	G _g 0.757	% CO ₂ 1.91	% N ₂ 2.82	% H ₂ S 0.77	Prover ---	Meter Run 4"	Taps 2.750	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							3031		Pkr		66 Hrs
1.	4	x	2.750	540	1.0	76	2850	81			1 Hr
2.	4	x	2.750	549	4.0	78	2459	84			1 Hr
3.	4	x	2.750	548	10.24	77	2433	90			1 Hr
4.	4	x	2.750	558	18.49	76	2262	92			1 Hr
5.	4	x	2.750	567	25.0	75	2084	93			0.75 Hr

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	41.10	23.52	553.2	0.9850	1.149	1.067	1167
2	41.10	47.42	562.2	0.9831	1.149	1.066	2347
3	41.10	75.81	561.2	0.9840	1.149	1.066	3755
4	41.10	102.77	571.2	0.9850	1.149	1.068	5105
5	41.10	120.44	580.2	0.9859	1.149	1.070	6000

NO.	P _t	Temp. °F	T _r	Z	Gas Liquid Hydrocarbon Ratio 5.4503 Mcf/bbl.
1	0.83	536	1.35	0.879	A.P.I. Gravity of Liquid Hydrocarbons 54.0 Deg.
2	0.84	538	1.36	0.880	Specific Gravity Separator Gas 0.757 XXXXXXXXXX
3	0.84	537	1.36	0.880	Specific Gravity Flowing Fluid XXXXXX 1.2296
4	0.85	536	1.35	0.876	Critical Pressure 670 P.S.I.A. 642 P.S.I.A.
5	0.87	535	1.35	0.874	Critical Temperature 396 R 567 R

NO.	P _t ²	P _w	P _w ²	P _t ² - P _w ²	(1) $\frac{P_t^2}{P_t^2 - P_w^2} = 6.1868$	(2) $\left[\frac{P_t^2}{P_t^2 - P_w^2} \right]^n = 5.1280$
1	5201.2	27052.4	512.2		ACF = Q $\left[\frac{P_t^2}{P_t^2 - P_w^2} \right]^n = 30768$	
2	5094.2	25950.9	1613.7			
3	4992.2	24922.1	2642.5			
4	4880.2	23816.4	3748.2			
5	4807.2	23109.2	4455.4			

Absolute Open Flow 30768 Mcfd @ 15.025		Angle of Slope @ 48.1	Slope, n 0.697
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Remarks: Devonian Gas & Ellenburger Gas Dual Completion. Two Strings of Tubing. Lower pkr @ 14925. Upper pkr @ 12179. Produced 129 bbls of oil of 54° gravity during test. BHP and temperature @ mid point of perforations @ 12575.

Approved By Commission:	Conducted By: El Paso Natural Gas Co	Calculated By: J. Cogburn	Checked By: L. C. Hudry
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