

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

5. File # 122
Revised 9-1-79

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 9-14-79	
Company J. C. BARNES OIL COMPANY		Connection El Paso Natural Gas Co.	
Well Wildcat <i>Atoka</i>		Formation Atoka	
Completion Date 8-19-79		Total Depth 11800 12730	
Pack Back To 11750/11780		Elevation	
Casing Size 4 1/2		Well No. 2	
Wt. 7.6		Set At 12730	
Perforations: From 11408 To 11696		Unit N 27 22S 28E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single - Gas		Packer Set At 11215	
Producing Thru Tbg.		State New Mexico	
Reservoir Temp. °F 2		Mean Annual Temp. °F 13.2	
Baro. Press. - P _a 13.2		County Eddy	
L 11514		H 11514	
G _g .587		% CO ₂ .43	
% N ₂ .45		% H ₂ S	
Prover		Meter Run 4"	
Flag			

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							5000		Pkr		48 hr.
1.	4	X	1.500	398	2.89	77	3822	67			1 hr.
2.	4	X	1.500	400	5.76	89	3219	68			1 hr.
3.	4	X	1.500	406	10.24	76	2654	70			1 hr.
4.	4	X	1.500	405	17.64	64	2017	70			1 hr.
5.											

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, Mscf/d
1	10.84	34.47	411.2	.9840	1.305	1.030	494
2	10.84	48.79	413.2	.9732	1.305	1.028	691
3	10.84	65.52	419.2	.9850	1.305	1.031	941
4	10.84	85.89	418.2	.9962	1.305	1.033	1250
5							

NO.	P _t	Temp. °R	T _t	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	.61	537	1.53	.942			.587	XXXXXX	672	350
2.	.62	549	1.57	.947				XXXXX		
3.	.62	536	1.53	.941						
4.	.62	524	1.50	.937						
5.										

NO.	P _t	P _w	P _w ²	P _t ² - P _w ²	(1) $\frac{P_t^2}{P_t^2 - P_w^2} =$	(2) $\left[\frac{P_t^2}{P_t^2 - P_w^2} \right]^n =$
1	5013.2	3836.8	14721.0	10411.2	1.199	1.199
2		3235.3	10467.2	14665.0		
3		2673.0	7144.9	17987.3		
4		2042.8	4173.0	20959.2		
5						

Absolute Open Flow 1,499 Mscf/d @ 15.025 Angle of Slope 45.0° Slope, n 1.000
 Remarks: Made 1 bbl. water, no condensate during test.

Approved by Commission:	Conducted By: T. R. Kiker	Calculated By: T. R. Kiker	Checked By:
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