

N. MEXICO OIL CONSERVATION COMMS. N
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 4-16-67	
Company LEN MAYER		Connection NC (TRANSWESTERN PENDING)	
Pool ATOKA PENN		Formation MORROW (PENN)	
Completion Date 4-7-67	Total Depth 9056	Plug Back TD 9028	Elevation 3438 GR.
Farm or Lease Name IRENE BRAINERD GAS CO.			Well No. 1
Csg. Size 4.500	Wt. 10.6-11.6	d 4.000	Set At 9056
Perforations: From 8900 To 8944			
Tub. Size 2.375	Wt. 4.7	d 1.995	Set At 8800
Perforations: From NONE To			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE		Packer Set At 8800	County EDDY
Producing Thru TUBING	Reservoir Temp. °F 146 @ 8900	Mean Annual Temp. °F 60	Baro. Press. - P _g 13.2
State NEW MEXICO			
L 8800	H 8800	G _g 0.628	% CO ₂ 0.54
% N ₂ 0.38	% H ₂ S Nil	Prover -	Meter Run 3068
Taps FLANGE			

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.	
Si	---	---	---	---	---	---	1402	---	PKR	---
1.	---	---	1.750	750	10.8	97	1533	73	---	---
2.	---	---	1.750	755	22.4	83	1767	73	---	---
3.	---	---	1.750	755	41.9	82.5	1820	73	---	---
4.	---	---	1.750	760	64.3	80.5	1861	73	---	---
5.	---	---	1.750	780	85.6	81	1836	73	---	---

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	15.61	90.789	763.2	0.9442	1.271	1.0552	1,836.1
2	15.61	131.178	763.2	0.9286	1.271	1.0647	2,762.3
3	15.61	179.409	763.2	0.9190	1.271	1.0647	3,697.3
4	15.61	222.973	773.2	0.9108	1.271	1.0647	4,607.9
5	15.61	260.572	793.2	0.8904	1.271	1.0647	5,392.9

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Meq/bbl.
1	1.134	557	1.533	0.899	43.8 calc. 300.0 meas.	50.8
2	1.142	543	1.495	0.888	A.P.I. Gravity of Liquid Hydrocarbons	50.8
3	1.142	542.5	1.493	0.888	Specific Gravity Separator Gas	0.619 meas.
4	1.14	540.5	1.488	0.886	Specific Gravity Flowing Fluid	XXXXXX
5	1.138	541	1.489	0.888	Critical Pressure	672.8 P.S.I.A.
					Critical Temperature	363.3 °R

* Calculated from Gas Analysis			
P _r 1915.2	P _w 3668.0		
NO.	P _r ²	P _w ²	P _r ² - P _w ²
1	3458.5	3493.2	174.5
2	3176.2	3366.1	207.9
3	2866.9	3212.9	455.1
4	2478.1	3077.9	650.1
5	2100.2	2846.4	821.6

(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 5.642$

AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 15,640$

(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 5,394$

Absolute Open Flow	15,800	Mcf @ 15.025	Angle of Slope	54° 46'	Slope, n	0.700
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Remarks: WELL TESTED THROUGH HEATER-SEPARATOR UNIT. 19 1/2" SITP 1701.
WELL CLEANED UP PRIOR TO TEST. 2 1/2" SITP 1702. GAS ANALYSES TAKEN BY
TRANSWESTERN PIPE LINE CO.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	C. R. APPLEDOORN	C. R. APPLEDOORN	