

OIL FIELD SERVICE COMPANY

WELL DELIVERABILITY TEST REPORT FORM 100-1

Revised 1-1-68

POOL NAME Basin	POOL SLOPE n = .75	FORMATION Dakota	COUNTY San Juan
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75-922

COMPANY El Paso Natural Gas			WELL NAME AND NUMBER Howell "A" No. 4		
UNIT LETTER E	SECTION 4	TOWNSHIP 30	RANGE 8	PURCHASING PIPELINE El Paso Natural Gas	
CASING O.D. - INCHES 4.500	CASING I.D. - INCHES 4.012	SET AT DEPTH - FEET 7714	TUBING O.D. - INCHES 2.375	TUBING I.D. - INCHES 1.995	TOP - TUBING PERF. - FEET 7451
GAS PAY ZONE FROM 7474 TO 7681		WELL PRODUCING THRU CASING TUBING XX		GAS GRAVITY .608	GRAVITY X LENGTH 4530
DATE OF FLOW TEST FROM 1-13-69 TO 1-21-69			DATE SHUT-IN PRESSURE MEASURED 10-28-68		

PRESSURE DATA - ALL PRESSURES IN PSIA

(a) Flowing Casing Pressure (DWt) 483	(b) Flowing Tubing Pressure (DWt) 483	(c) Flowing Meter Pressure (DWt) 2378	(d) Flow Chart Static Reading 2387	(e) Meter Error (Item c - Item d) 2387	(f) Friction Loss (a-c) or (b-c) 0	(g) Average Meter Pressure (Integr.) 483
(h) Corrected Meter Pressure (g+e) 483	(i) Avg. Wellhead Press. $P_t = (h+f)$ 483	(j) Shut-in Casing Pressure (DWt) 2378	(k) Shut-in Tubing Pressure (DWt) 2387	(l) P_m higher value of (i) or (k) 2387	(m) Del. Pressure $P_d = \frac{50}{1194} \% P_c$ 50	(n) Separator or Dehydrator Pr. (DWt) for critical flow only

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D 879	Quotient of $\frac{\text{Item c}}{\text{Item d}}$ 1.0000	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$ 1.0000	Corrected Volume Q = 879 MCF/D
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WORKING PRESSURE CALCULATION

$(1-e^{-s})$.281	$(F_c Q_m)^2 (1000)$ 68294	$R^2 = (1-e^{-s}) (F_c Q_m)^2 (1000)$ 19191	P_t^2 233289	$P_w^2 = P_t^2 + R^2$ 252480	$P_w = \sqrt{P_w^2}$ 502
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DELIVERABILITY CALCULATION

$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n =$ 879	$\left(\frac{4272133}{5445289} \right)^n =$.733	$\frac{8334}{733} =$ 733 MCF/D
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REMARKS:

New well first delivered 12-20-68

SUMMARY

Item h	483	Psia
P_c	2387	Psia
Q	879	MCF/D
P_w	502	Psia
P_d	1194	Psia
D	733	MCF/D


 Company **EL PASO NATURAL GAS CO.**
 By **H. L. Kendrick**
 Title **Regional Well Test Engineer**
 Witnessed By _____
 Company _____