

NEW MEXICO OIL CONSERVATION COMMISSION WELL DELIVERABILITY TEST REPORT FOR 19 69

Form OWS-1
Revised 11-1-68

POOL NAME Blanco	POOL SLOPE 1.75	FORMATION Mesa Verde	COUNTY San Juan
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70-296

COMPANY El Paso Natural Gas			WELL NAME AND NUMBER Hardie No. 2 (OWWO)		
UNIT LETTER M	SECTION 25	TOWNSHIP 29	RANGE 8	PURCHASING PIPELINE El Paso Natural Gas	
CASING O.D. - INCHES 4.500	CASING I.D. - INCHES 4.052	SET AT DEPTH - FEET 5423	TUBING O.D. - INCHES 1.660	TUBING I.D. - INCHES 1.380	TOP - TUBING PERF. - FEET 5262
GAS PAY ZONE FROM 5290 TO 4588		WELL PRODUCER THRU CASING TUBING XX		GAS GRAVITY .680	GRAVITY & LENGTH 3578
DATE OF FLOW TEST FROM 2-12-69 TO 2-20-69			DATE SHUT-IN PRESSURE MEASURED 1-07-69		

PRESSURE DATA - ALL PRESSURES IN PSIA

(a) Flowing Casing Pressure (DWh) 456	(b) Flowing Tubing Pressure (DWh) 456	(c) Flowing Meter Pressure (DWh) 786	(d) Flow Chart Static Reading 147	(e) Meter Error (Item c - Item d) 786	(f) Friction Loss (a-c) or (b-c) 0	(g) Average Meter Pressure (Integr.) 456
(h) Corrected Meter Pressure (g-e) 456	(i) Avg. Wellhead Press. P_w (b+f) 456	(j) Shut-in Casing Pressure (DWh) 786	(k) Shut-in Tubing Pressure (DWh) 147	(l) P_c - higher value of (i) or (k) 786	(m) Del. Pressure $P_d = \frac{80}{629}$	(n) Separator or Dehydrator P_s (DWh) for critical flow only

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D 404	Quotient of $\frac{\text{Item c}}{\text{Item d}}$ 1.0000	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$ 1.0000	Corrected Volume 404 MCF/D
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WORKING PRESSURE CALCULATION

$(1-e^{-x})$ 0.229	$(F_c Q_m)^2 (1000)$ 98931	$R^2 = (1-e^{-x}) (F_c Q_m)^2 (1000)$ 22655	P_t^2 207936	$P_w^2 = P_t^2 + R^2$ 230591	$P_w = \sqrt{P_w^2}$ 480
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DELIVERABILITY CALCULATION

$$Q = C \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \frac{404}{\left(\frac{222155}{387205} \right)^{0.5737}} = \frac{0.6591}{1} = 266 \text{ MCF/D}$$

REMARKS:

First delivered after OWWO - 1-14-69

SUMMARY

Item k	456	Psia
P_c	786	Psia
P_d	404	MCF/D
P_w	480	Psia
P_c	629	Psia
Q	266	MCF/D

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



