

NEW MEXICO OIL CONSERVATION COMMISSION
INITIAL WELL DELIVERABILITY TEST REPORT FOR 19 70

Form C122-A
 Revised 1-1-66

POOL NAME <u>El Estero</u>	POOL SLOPE n= <u>.75</u>	FORMATION <u>Pictured Cliffs</u>	COUNTY <u>San Juan</u>
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COMPANY <u>Texaco</u>			WELL NAME AND NUMBER <u>Harwood #1</u>		
UNIT LETTER <u>1</u>	SECTION <u>15</u>	TOWNSHIP <u>37N</u>	RANGE <u>9W</u>	PURCHASING PIPELINE <u>El Estero</u>	
CASING O.D. - INCHES <u>4.500</u>	CASING I.D. - INCHES <u>4.000</u>	SET AT DEPTH - FEET <u>3815'</u>	TUBING O.D. - INCHES <u>1.625</u>	TUBING I.D. - INCHES <u>1.315</u>	TOP - TUBING PERF. - FEET <u>700</u>
GAS PAY ZONE FROM <u>2310</u> TO <u>2308</u>		WELL PRODUCING THRU CASING _____ TUBING <u>X</u>		GAS GRAVITY <u>1.65</u>	GRAVITY X LENGTH <u>1426</u>
DATE OF FLOW TEST FROM <u>12-24-70</u> TO <u>1-1-71</u>			DATE SHUT-IN PRESSURE MEASURED <u>7-2-70</u>		

PRESSURE DATA - ALL PRESSURES IN PSIA

(a) Flowing Casing Pressure (DWt) <u>140</u>	(b) Flowing Tubing Pressure (DWt) <u>150</u>	(c) Flowing Meter Pressure (DWt) <u>150</u>	(d) Flow Chart Static Reading <u>74</u> <u>137</u>	(e) Meter Error (Item c - Item d) <u>4</u>	(f) Friction Loss (a - c) or (b - c) <u>0</u>	(g) Average Meter Pressure (Integr.) <u>131</u>
(h) Corrected Meter Pressure (g + e) <u>184</u>	(i) Avg. Wellhead Press. $P_t = (h + f)$ <u>124</u>	(j) Shut-in Casing Pressure (DWt) <u>414</u>	(k) Shut-in Tubing Pressure (DWt) <u>494</u>	(l) $P_c =$ higher value of (j) or (k) <u>494</u>	(m) Del. Pressure $P_d =$ _____ % P_c <u>395</u>	(n) Separator or Dehydrator Pr. (DWt) for critical flow only

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D <u>161</u>	Quotient of $\frac{\text{Item c}}{\text{Item d}}$ <u>.9741</u>	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$ <u>.9741</u>	Corrected Volume Q = <u>156</u> MCF/D
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WORKING PRESSURE CALCULATION

$(1 - e^{-S})$ <u>.102</u>	$(F_c Q_m)^2 (1000)$ <u>14771</u>	$R^2 = (1 - e^{-S}) (F_c Q_m)^2 (1000)$ <u>1505</u>	P_t^2 <u>15376</u> <u>18496</u>	$P_w^2 = P_t^2 + R^2$ <u>16881</u> <u>29971</u>	$P_w = \sqrt{P_w^2}$ <u>141</u> <u>173</u>
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DELIVERABILITY CALCULATION

$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n =$	<u>156</u>	$\left[\frac{22.71}{22.71} \right]^n =$	<u>.392</u>	$\frac{4517}{4466} =$	<u>70</u> MCF/D
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REMARKS: First Delivered 12-8-70

ILLEGIBLE

SUMMARY

Item h 124 Psia
 P_c 494 Psia
 Q 156 MCF/D
 P_w 141 Psia
 P_d 395 Psia
 D 70 MCF/D

Company Texaco
 By [Signature]
 Title [Signature]
 Witnessed By _____
 Company _____

