

NEW MEXICO OIL CONSERVATION COMMISSION
WELL DELIVERABILITY TEST REPORT FOR 19 83

Form C122-A
Revised 8-77

POOL NAME UND FRUITLAND	POOL SLOPE n = .85	FORMATION FRUITLAND	COUNTY SAN JUAN
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COMPANY SOUTHLAND ROYALTY			WELL NAME AND NUMBER CHILDERS 2		
UNIT LETTER M	SECTION 1	TOWNSHIP 31N	RANGE 11W	PURCHASING PIPELINE SOUTHERN UNION GATHERING	
CASING O.D. - INCHES 5.5000	CASING I.D. - INCHES 4.9500	SET AT DEPTH - FEET 3052	TUBING O.D. - INCHES 1.6600	TUBING I.D. - INCHES 1.3800	TOP TUBING PERF. - FEET 2773
GAS PAY ZONE FROM 2535 TO 2749		WELL PRODUCING THRU CASING TUBING X		GAS GRAVITY .640	GRAVITY X LENGTH 1775
DATE OF FLOW TEST FROM 05/09/83 TO 05/17/83			DATE SHUT-IN PRESSURE MEASURED 05/24/83		

PRESSURE DATA - ALL PRESSURES IN PSIA

(a) Flowing Casing Pressure (DWT) 487	(b) Flowing Tubing Pressure (DWT) 463	(c) Flowing Meter Pressure (DWT) 462	(d) Flow Chart Static Reading 456	(e) Meter Error (Item c - Item d) 6+	(f) Friction Loss (a-c) or (b-c) 1+	(g) Average Meter Pressure (Integr.) 452
(h) Corrected Meter Pressure (g+e) 458	(i) Avg. Wellhead Press. $P_1 = (h+t)$ 459	(j) Shut-in Casing Pressure (DWT) 538	(k) Shut-in Tubing Pressure (DWT) 538	(l) P_c = higher value of (i) or (k) 538	(m) Del. Pressure $P_d = \frac{80}{x} P_c$ 430	(n) Separator or Dehydrator Pr. (DWT) for critical flow only ---

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D 17	Quotient of $\frac{\text{Item c}}{\text{Item d}}$ 1.0131	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$ 1.0065	Corrected Volume Q = 17 MCF/D
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WORKING PRESSURE CALCULATION

$(1-e^{-s})$.121	$(F_c Q_m)^2 (1000)$ 175	$R^2 = \frac{(1-e^{-s}) (F_c Q_m)^2 (1000)}{P_i^2}$ 21	P_i^2 210,681	$P_w^2 = P_i^2 + R^2$ USE PT2	$P_w = \sqrt{P_w^2}$ 459
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DELIVERABILITY CALCULATION

$$Q = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \frac{17}{\left(\frac{104,544}{78,763} \right)^n} = \frac{1.3273}{1.2721} = 22 \text{ MCF/D}$$

REMARKS:

SUMMARY

Item h 458 Psia
 P_c 538 Psia
 Q 17 MCF/D
 P_w 459 Psia
 P_d 430 Psia
 Q 22 MCF/D

Company SOUTHLAND ROYALTY
 By C. C. [Signature]
 Title DISTRICT PRODUCTION MANAGER
 Witnessed By _____
 Company _____

JUL 13 1983

MAR 14 1984

OIL CON. DIV.
DIST. 3