

NEW MEXICO OIL CONSERVATION COMMISSION

WELL DELIVERABILITY TEST REPORT FOR 1977

Form C122-A
Revised 1-1-68

WELL NAME AND NUMBER Johnston Federal #1-A		COUNTY San Juan	
METER NO. 89638-01			
WELL OWNER Union Texas Petroleum			
LETTER 1	SECTION 12	TOWNSHIP 30N	RANGE 9W
PURCHASING PIPELINE El Paso			
WELL O.D. - INCHES 4.800	CASING I.D. - INCHES 4.032	SET AT DEPTH - FEET 2908 5215	TUBING O.D. - INCHES 2.375
GAS PAY ZONE		WELL PRODUCING THRU	GAS GRAVITY
FROM 4383 TO 5155		CASING	TUBING X
DATE OF FLOW TEST FROM 6-4-77 TO 6-12-77		DATE SHUT-IN PRESSURE MEASURED 5-2-77	
TUBING I.D. - INCHES 1.995		TOP - TUBING PERF. - FEET 5156	
GRAVITY X LENGTH 3408			

PRESSURE DATA - ALL PRESSURES IN PSIA

(a) Flowing Casing Pressure (DWt)	(b) Flowing Tubing Pressure (DWt)	(c) Flowing Meter Pressure (DWt)	(d) Flow Chart Static Reading	(e) Meter Error (Item c - Item d)	(f) Friction Loss (a-c) or (b-c)	(g) Average Meter Pressure (Integr.) 238
(h) Corrected Meter Pressure (g+e) 238	(i) Avg. Wellhead Press. $P_f = (h+f)$ 238	(j) Shut-in Casing Pressure (DWt) 499	(k) Shut-in Tubing Pressure (DWt) 499	(l) P_c = higher value of (j) or (k) 499	(m) Del. Pressure $P_d = 80\% P_c$ 399	(n) Separator or Dehydrator Pr. (DWt) for critical flow only

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D 1525	Quotient of $\frac{\text{Item c}}{\text{Item d}}$ -----	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$ -----	Corrected Volume $Q = 1525$ MCF/D
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WORKING PRESSURE CALCULATION

$(1-e^{-s})$ 0.220	$(F_c Q_m)^2 (1000)$ 205,580	$R^2 = (1-e^{-s}) (F_c Q_m)^2 (1000)$ 45,228	P_i^2 56,644	$P_w^2 = P_i^2 + R^2$ 101,872	$P_w = \sqrt{P_w^2}$ 319
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DELIVERABILITY CALCULATION

$$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \frac{1525}{\left(\frac{89,800}{147,129} \right)^n} = \frac{.6103}{.6905} = 1053 \text{ MCF/D}$$

REMARKS: Initial test only.
4.500 10.5 # liner set from 2684 to 5215

SUMMARY

Item h	238	Psia
P _c	499	Psia
Q	1525	MCF/D
P _w	319	Psia
P _d	399	Psia
D	1053	MCF/D

Company **Union Texas Petroleum**
By **Elledge Consulting & Prod. Co.**
Title _____
Witnessed By _____
Company _____



