Initial Deliverability Test

NEW MEXICO OIL CONSERVATION COMMISSION

WELL DELIVERABILITY TEST REPORT FOR 1971

Form C122-A
Revised 1-1-68

POOL NAME	POOL SLOPE	FORMATION	COUNTY
SOUTH BLANCO	n = .85	PC	SAN JUAN

87-324

COMPANY			WELL NAME AND NUMBER	
EL PASO NATURAL GAS COMPANY			HANCOCK "A" No. 5	
UNIT LETTER	SECTION	TOWNSHIP	RANGE	PURCHASING PIPELINE
H	35	28	9	EL PASO NATURAL GAS CO;
CASING O.D. - INCHES	CASING I.D. - INCHES	SET AT DEPTH - FEET	TUBING O.D. - INCHES	TUBING I.D. - INCHES / TOP - TUBING PERF. - FEET
2.875	2.441	2413	No Tbg	
GAS PAY ZONE		WELL PRODUCING THRU	GAS GRAVITY	GRAVITY X LENGTH
FROM 2306 TO 2344		CASING XX TUBING	.642	1480
DATE OF FLOW TEST			DATE SHUT-IN PRESSURE MEASURED	
FROM 12-6-71 TO 12-14-71			8-19 71	

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.)
--	--	--	--	0	0	150
(h) Corrected Meter Pressure (g+e)	**(i) Avg. Wellhead Press. P_t = (h+f)**	**(j) Shut-in Casing Pressure (DWt)**	**(k) Shut-in Tubing Pressure (DWt)**	**(l) P_c = higher value of (j) or (k)**	**(m) Del. Pressure**	**(n) Separator or Dehydrator Pr. (DWt) for critical flow only**
150	150	657	-	657	P_d = 80 %P_c = 526	

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume – MCF/D	Quotient of $\frac{\text{Item c}}{\text{Item d}}$	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$	Corrected Volume
673	1.0000	1.0000	Q = 673 MCF/D

WORKING PRESSURE CALCULATION

$(1-e^{-s})$	$(F_c Q_m)^2$ (1000)	$R^2 = (1-e^{-s})(F_c Q_m)^2(1000)$	P_t^2	$P_w^2 = P_t^2 + R^2$	$P_w = \sqrt{P_w^2}$
0.102	13956	1424	22500	23924	155

DELIVERABILITY CALCULATION

$$D = Q\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}\right]^n = 673 \left[\left(\frac{154973}{407725}\right)^n = (0.3801)^n = 0.4395\right] = 296 \text{ MCF/D}$$

REMARKS: CORRECTED COPY
New Well 1st Del 11-18-71

SUMMARY

Item h	150	Psia
P_c	657	Psia
Q	673	MCF/D
P_w	155	Psia
P_d	526	Psia
D	296	MCF/D

RECEIVED
DEC 28 1971
OIL CON. COM.
DIST. 3

Company: EL PASO NATURAL GAS COMPANY
By: H. E. McGrath
Title:
Witnessed By:
Company: