

Initial
Deliverability Test

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

Form C122-A
Revised 1-1-68

POOL NAME BASIN	POOL SLOPE $n = .75$	FORMATION DAKOTA	COUNTY RA
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COMPANY EL PASO NATURAL GAS CO			WELL NAME AND NUMBER SJ 27-5 UNIT #40		
UNIT LETTER L	SECTION 16	TOWNSHIP 27	RANGE 5	PURCHASING PIPELINE EL PASO NATURAL GAS CO.	
CASING O.D. - INCHES 4.500	CASING I.D. - INCHES 4.052	SET AT DEPTH - FEET 7741	TUBING O.D. - INCHES 1.900	TUBING I.D. - INCHES 1.010	TOP - TUBING PERF. - FEET 7690
GAS PAY ZONE FROM 7464 TO 7699		WELL PRODUCING THRU CASING TUBING X		GAS GRAVITY 0.678	GRAVITY X LENGTH 5214
DATE OF FLOW TEST FROM 09/19/69 TO 09/27/69			DATE SHUT-IN PRESSURE MEASURED 07/31/69		

87-053

PRESSURE DATA - ALL PRESSURES IN PSIA

(a) Flowing Casing Pressure (DWt) 0	(b) Flowing Tubing Pressure (DWt) 0	(c) Flowing Meter Pressure (DWt) 0	(d) Flow Chart Static Reading 0	(e) Meter Error (Item c - Item d) 0	(f) Friction Loss (a-c) or (b-c) 0	(g) Average Meter Pressure (Integr.) 439
(h) Corrected Meter Pressure (g+e) 439	(i) Avg. Wellhead Press. $P_i = (h+f)$ 439	(j) Shut-in Casing Pressure (DWt) 2599	(k) Shut-in Tubing Pressure (DWt) 2624	(l) P_c = higher value of (i) or (k) 2624	(m) Del. Pressure $P_d = 50\% P_c$ 1312	(n) Separator or Dehydrator Pr. (DWt) for critical flow only

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D 1246	Quotient of $\frac{\text{Item c}}{\text{Item d}}$ 1.0000	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$ 1.0000	Corrected Volume $Q = 1246$ MCF/D
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WORKING PRESSURE CALCULATION

$(1-e^{-5})$.316	$(F_c Q_m)^2 (1000)$ 420,660	$R^2 = (1-e^{-5}) (F_c Q_m)^2 (1000)$ 132929	P_t^2 192721	$P_w^2 = P_t^2 + R^2$ 325650	$P_w = \sqrt{P_w^2}$ 571
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DELIVERABILITY CALCULATION

$$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \frac{1246}{\left(\frac{5164032}{6559726} \right)^{0.7872}} = \frac{0.8357}{1} = 1041 \text{ MCF/D}$$

REMARKS:

New Well 1st Delivery Sept. 9, 1969.

SUMMARY

Item h **439** Psia
 P_c **2624** Psia
 Q **1246** MCF/D
 P_w **571** Psia
 P_d **1312** Psia
 D **1041** MCF/D

Company **EL PASO NATURAL GAS CO**
 By *[Signature]*
 Title
 Witnessed By
 Company

