Initial Deliverability

NEW MEXICO OIL CONSERVATION COMMISSION

WELL DELIVERABILITY TEST REPORT FOR 19 69

Form C122-A
Revised 1-1-68

POOL NAME	POOL SLOPE	FORMATION	COUNTY
BASIN	.75 n =	DAKOTA	RA

86-609

COMPANY	WELL NAME AND NUMBER
EL PASO NATURAL GAS CO	SJ 27-5 UNIT #111

UNIT LETTER	SECTION	TOWNSHIP	RANGE	PURCHASING PIPELINE
L	2	27	5	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
4.500	4.052	8084	2.375	1.995	7767

GAS PAY ZONE FROM	TO	PRODUCING THRU CASING	TUBING	GAS GRAVITY	GRAVITY X LENGTH
7730	7926		X	0.678	5259

DATE OF FLOW TEST FROM	TO	DATE SHUT-IN PRESSURE MEASURED
08/03/69	08/11/69	07/02/69

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	0	0	0	0	436
(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 P_d= 50 %P_c**	**(n) Separator or Dehydrator Pr. (DWt) for critical flow only**
436	436	2601	2634	2634	1317	

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
463	1.0000	1.0000	Q = 463 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	$P_w^2 = P_t^2 + R^2$	$P_w = \sqrt{P_w^2}$
.1318	18,949	6026	190096	196122	443

DELIVERABILITY CALCULATION

$$D = Q\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}\right]^n = 463\left[\left(\frac{6203667}{6741834}\right)^n = (0.7718)^n = 0.8234\right] = 381 \text{ MCF/D}$$

REMARKS:

New Well 1st Del. Aug. 4, 1969

SUMMARY

Item h	436	Psia
P_c	2634	Psia
Q	463	MCF/D
P_w	443	Psia
P_d	1317	Psia
D	381	MCF/D

Company EL PASO NATURAL GAS CO

By

Title Original Signed H. E. McAnally

Witnessed By

Company

RECEIVED
OCT 22 1969
OIL CON. COM.
DIST. 3

69/10/16

2009 8

OCT 28 1994
OIL CON. COM.
DIST. 3