

EL PASO NATURAL GAS COMPANY

P. O. Box 977
Farmington, New Mexico

August 5, 1958

Mr. E. C. Arnold
Oil Conservation Commission
1400 Rio Brazos Road
Aztec, New Mexico

Re: Packer Leakage Test on the El Paso Natural Gas
Company Well, Day 2-B, 890S, 1090W;
7-27-8, San Juan County, New Mexico
(Name - Location - Company)

Dear Mr. Arnold:

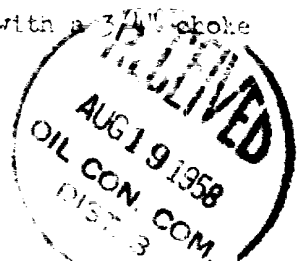
The subject well was dually completed in the Pictured Cliffs and Mesa Verde zones and a packer was set at 3041 feet. The Mesa Verde zone was tested through a $3/4$ " choke for three hours July 29, 1958 with the following data obtained:

PC SHC	<u>837</u>	psig; Shut-in	<u>7</u>	days
PC SHT	<u>784</u>	psig;		
MV SHC	<u>964</u>	psig; Shut-in	<u>7</u>	days
Time Minutes	MV Flowing Pressure Psig	(PC) SHC (C) psig	(MV) Working Pressure, psig	Temp ° F
15	520	839		63
30	444	840		64
45	412	840		64
60	393	840		65
180	346	840	Calc. 698	67

The choke volume for the Mesa Verde was 4125 MCF/D with an AOF of 7260 MCF/D.

The Pictured Cliffs zone was tested August 5, 1958 with a $3/4$ " choke for 3 hours with the following data obtained:

PC SHC	<u>832</u>	psig; Shut-in	<u>14</u>	days
PC SHT	<u>831</u>	psig;		
MV SHC	<u>987</u>	psig; Shut-in	<u>7</u>	days



Day 2-B

Page Two

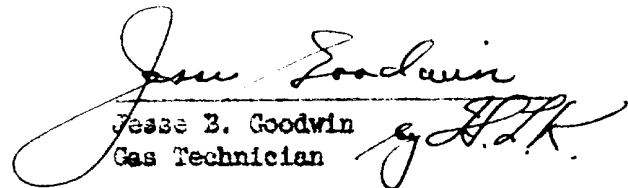
August 5, 1958

<u>Time</u> <u>Minutes</u>	<u>(PC) Flowing Pressure</u> <u>psig</u>	<u>(MV) (T) (T) psig</u>	<u>(PC) Working</u> <u>Pressure, psig</u>	<u>Temp ° F</u>
15	682	993	733	65
30	669	997	726	65
45	668	998	685	67
60	659	999	677	68
120	604	999	624	71
180	565	999	620	74

The above score for the Pictured Cliffs test was 7122 MCF/D with an AOF
of 14,322 MCF/D.

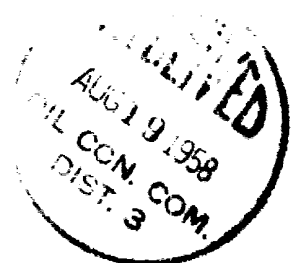
The results of the above tests indicate there is no packer leakage.

Very truly yours,


Jesse E. Goodwin
Gas Technician

JBG/nb

cc: Mr. J. Rodgers
Mr. J. J. J. J. J.
J. J. J.



OPEN FLOW TEST DATA

DUAL COMPLETION

July 29, 1958

El Paso Natural Gas		Day No. 2-B (M)	
890S, 1090W; 7-27-8		San Juan New Mexico	
Mesa Verde		Blanco	
5-1/2	5338	2"	5280
5152	5312	5344 c/o 5317	Shut-in 7/22/58
Sand Water Frac			X

.75	12.365	5-1/2 liner 2990 - 5338
837 (PC)	849	964 (MV)
346	358	Calc.
67	.75	1.049
		.752

Initial SIPT (PC) = 784 psig

Packer at 3041

Final SIPC (PC) = 840 psig

$$12.365 \times 358 \times .9933 \times .8944 \times 1.049$$

4125

MCF/D

952576
448476

$$2.1240^{.75} \times 4126 = 1.7600 \times 4125$$

7260

MCF

Frank M. Clark

Checked By H. L. Kendrick

Lewis D. Galloway
L. D. Galloway



EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DUAL COMPLETION

DATE August 5, 1958

Operator El Paso Natural Gas		Lease Day 2-B (P)	
Location 8908, 1090W; 7-27-8		County San Juan	State New Mexico
Formation Pictured Cliffs		Perm South Blanco	
Casing: Diameter 7-5/8	Set At: Feet 3041	Tubing: Diameter 1-1/4"	Set At: Feet 2884
Pay Zone: From 2846	To 2896	Total Depth: 5344 c/o 5317	Shut-in 7/22/58
Stimulation Method Sand Water Frac.		Flow Through Casing X	Flow Through Tubing

Choke Size, Inches .75		Choke Constant: C 12,365		2" at 5280	
Shut-In Pressure, Casing, PSIG 832	- 12 = PSIA 844	Days Shut-In 14	Shut-In Pressure, Tubing, PSIG 831	- 12 = PSIA 843	
Flowing Pressure: P, PSIG 565	- 12 = PSIA 577		Working Pressure: P _w , PSIG 620	- 12 = PSIA 632	
Temperature: T 74	n = .85		Fpv (From Tables) 1.057	Gravity .655	

Initial SIPT (MV) 993 psig

Packer at 3041

Final SIPT (MV) 999 psig

CHOKE VOLUME = Q = C × P_i × F_i × F_g × F_{pv}

$$Q = 12.365 \times 577 \times .9868 \times .9571 \times 1.057 = 7122 \text{ MCF/D}$$

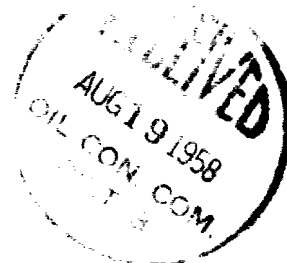
$$\text{OPEN FLOW } A_{of} = Q \left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$$

$$A_{of} = \left(\frac{712336}{312912} \right)^n \quad (2.2764)^{.85} \times 9122 = 2.0110 \times 7122$$

$$A_{of} = 14,322 \text{ MCF/D}$$

TESTED BY Jesse B. GoodwinWITNESSED BY Fred CookChecked By M. W. Rischard

Lewis D. Galloway
L. D. Galloway



NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

(Form C-104)
Revised 7/1/57

REQUEST FOR (OIL) - (GAS) ALLOWABLE

New Well
~~Recompletion~~

This form shall be submitted by the operator before an initial allowable will be assigned to any completed Oil or Gas well. Form C-104 is to be submitted in QUADRUPLICATE to the same District Office to which Form C-101 was sent. The allowable will be assigned effective 7:00 A.M. on date of completion or recompletion, provided this form is filed during calendar month of completion or recompletion. The completion date shall be that date in the case of an oil well when new oil is delivered into the stock tanks. Gas must be reported on 15.025 psia at 60° Fahrenheit.

Farmington, New Mexico

September 5, 1958

(Place)

(Date)

WE ARE HEREBY REQUESTING AN ALLOWABLE FOR A WELL KNOWN AS:

El Paso Natural Gas Company
(Company or Operator)

Day

(Lease)

Well No. 2-B(PM), in SW $\frac{1}{4}$ SW $\frac{1}{4}$,

M
Unit Letter

Sec. 7

T. 27N

R. 8W

NMPM,

Blanco

Pool

San Juan

County. Date Spudded 2-25-58

Date Drilling Completed 4-28-58

Please indicate location:

Elevation 6979' Total Depth 5344' ~~SSC.O.~~ 5320'

Top Oil/Gas Pay 5152' (Perf.) Name of Prod. Form. Mesa Verde

PRODUCING INTERVAL -
5152-5170; 5192-5200; 5208-5230;
Perforations 5258-5266; 5274-5284; 5304-5312

Open Hole None Depth 5338' Depth 5280'
Casing Shoe Tubing

OIL WELL TEST -

Natural Prod. Test: _____ bbls. oil, _____ bbls water in _____ hrs, _____ min. Size _____ Choke

Test After Acid or Fracture Treatment (after recovery of volume of oil equal to volume of Choke
load oil used): _____ bbls. oil, _____ bbls water in _____ hrs, _____ min. Size _____

GAS WELL TEST -

Natural Prod. Test: _____ MCF/Day; Hours flowed _____ Choke Size _____

Tubing, Casing and Cementing Record

Method of Testing (pitot, back pressure, etc.): _____

Size Feet Sax

Test After Acid or Fracture Treatment: 7260 MCF/Day; Hours flowed 3

Choke Size 3/4" Method of Testing: Calculated A.O.F.

Acid or Fracture Treatment (Give amounts of materials used, such as acid, water, oil, and sand): 68,880 gal. water, 60,000# sand.

Casing 849 Tubing 976 Date first new
Press. oil run to tanks

Oil Transporter El Paso Natural Gas Products Company

Gas Transporter El Paso Natural Gas Company

Remarks: Baker "H3J" pr. @ 3041'

I hereby certify that the information given above is true and complete to the best of my knowledge.

Approved SEP 10 1958 September 5, 19 58

El Paso Natural Gas Company
(Company or Operator)

By: Original Signed D. C. Johnston
(Signature)

Title Petroleum Engineer

Send Communications regarding well to:

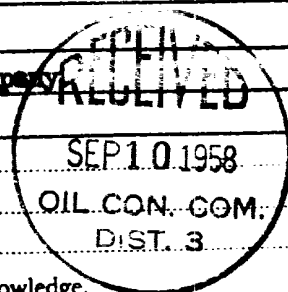
Name E. S. Oberly

Address Box 997, Farmington, New Mexico

OIL CONSERVATION COMMISSION
Original Signed Emery C. Arnold

By: _____

Title Supervisor Dist. # 3



OIL CONSERVATION COMMISSION
AZTEC DISTRICT OFFICE

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