

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE July 17, 1957

Operator El Paso Natural Gas Company		Lease Lindrith Unit No. 20	
Location 800'S, 990'W, Sec. 9-24-3		County Rio Arriba	State New Mexico
Formation Pictured Cliffs		Pool Undesignated	
Casing: Diameter 5 1/2	Set At: Feet 3149	Tubing: Diameter 2"	Set At: Feet 3023
Pay Zone: From 3040	To 3088	Total Depth 3160 c/o - 3100	
Stimulation Method Sand Water Frac.		Flow Through Casing	Flow Through Tubing X

Casing Size, inches 0.750		Choke Constant, C 12.365	
Shut-In Pressure, Casing, PSIG 944	PSIA 956	Days Shut-In 12	Shut-In Pressure, Tubing, PSIG 944
Flowing Pressure, Casing, PSIG 441	PSIA 453		Working Pressure, P _w , PSIG 815
Temperature, T, F 60	n 0.85		Fpv (From Tables) 1.062
			Gravity 0.721

CHOKE VOLUME = $Q_c \times P_c \times F_c \times F_g \times F_{pv}$

$$Q_c = 12.365 \times 453 \times 1.00 \times .9129 \times 1.062$$

5431 MCF D

$$\text{OPEN FLOW } Aof = Q_c \left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$$

$$Aof = \left(\frac{913,936}{230,007} \right)^{.85} \times 5430 = 3.230 \times 5431$$

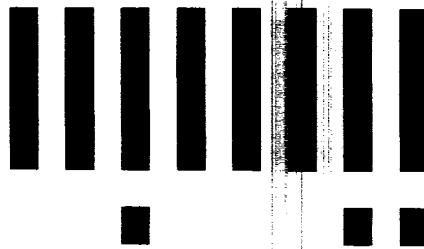
Aof 17,542 MCF DTESTED BY S. V. Roberts

WITNESSED BY _____



L. D. Galloway
L. D. Galloway

OIL CONSERVATION COMMISSION		
AZTEC DISTRICT OFFICE		
No. Copies Received <u>3</u>		
DISTRIBUTION		
	NO. FURNISHED	
Operator		
Santa Fe	<u>1</u>	
Proration Office		
State Land Office		
U. S. G. S.	<u>1</u>	
Transporter		
File	<u>1</u>	<input checked="" type="checkbox"/>



LTR



Job separation sheet

NEW MEXICO OIL CONSERVATION COMMISSION
MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1106)

COMPANY El Paso Natural Gas Company, Box 997, Farmington, New Mexico
(Address)

LEASE Lindrith Unit WELL NO. 20 UNIT M S 9 T 24N R 3W
DATE WORK PERFORMED 4-11-57 POOL Wildcat

This is a Report of: (Check appropriate block) ☒ Results of Test of Casing Shut-off
☐ Beginning Drilling Operations ☐ Remedial Work
☐ Plugging ☐ Other _____

Detailed account of work done, nature and quantity of materials used and results obtained.

Total Depth 3160'
Ran 95 jts. 5 1/2", 15.50#, J-55 Csg. (3150') Set at 3160' w/50 sacks regular cement,
50 sacks pozzmix, 4% Gel followed w/50 sacks regular cement.
Held 1000#/30 Min.
Top of cement by temp. survey at 2280'.

FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

Original Well Data:

DF Elev. _____ TD _____ PBD _____ Prod. Int. _____ Compl Date _____
Tbng. Dia _____ Tbng Depth _____ Oil String Dia _____ Oil String Depth _____
Perf Interval (s) _____
Open Hole Interval _____ Producing Formation (s) _____

RESULTS OF WORKOVER:

BEFORE AFTER

Date of Test _____

Oil Production, bbls. per day _____

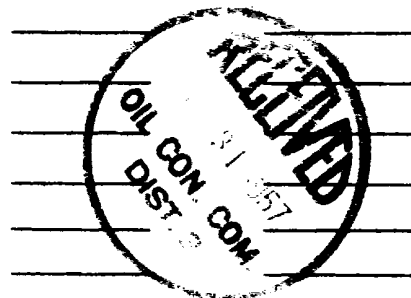
Gas Production, Mcf per day _____

Water Production, bbls. per day _____

Gas-Oil Ratio, cu. ft. per bbl. _____

Gas Well Potential, Mcf per day _____

Witnessed by _____



(Company)

OIL CONSERVATION COMMISSION

Name Original Signed Emery C. Arnold
Title Supervisor Dist. # 3
Date JUL 8 1 1957

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

Name _____
Position Petroleum Engineer
Company El Paso Natural Gas Company

OIL CONSERVATION COMMISSION		
AZTEC DISTRICT OFFICE		
No. Copies Received <u>3</u>		
DISTRIBUTION		
	NO. FURNISHED	
Operator	<u>1</u>	
Santa Fe	<u>1</u>	
Proration Office		



LTR



Job separation sheet

Santa Fe, New Mexico

Mail to District Office, Oil Conservation Commission, to which Form C-101 was sent not later than twenty days after completion of well. Follow instructions in Rules and Regulations of the Commission. Submit in QUINTUPLICATE. If State Land submit 6 Copies

El Paso Natural Gas Company
(Company or Operator)

Lindrith Unit
.....
(Lose)

Well No. 20 in SW 1/4 of SW 1/4 of Sec. 9 T. 24N R. 3W NMPM.

Wildcat

Pool **No Arriba**

County.

Well is 800 feet from South line and 990 feet from West line

of Section 9 If State Land the Oil and Gas Lease No. is Free

Drilling Commenced 4-7 19 57 Drilling was Completed 4-10 19 57

Name of Drilling Contractor Co. Tools, Cox Drilling Co., California Production Service

Address

Elevation above sea level at Top of Tubing Head.....6876'..... The information given is to be kept confidential until
..... 19.....

No. 1, from 3030 to 3127 (G) No. 4, from _____ to _____

No. 2, from to No. 5, from to

No. 3, from to No. 6, from to

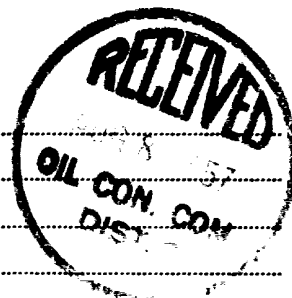
Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from to feet.

No. 2, from to feet.

No. 3, from to feet.

No. 4, from _____ to _____ feet.



SIZE	WEIGHT PER FOOT	NEW OR USED	AMOUNT	KIND OF SHOE	CUT AND PULLED FROM	PERFORATIONS	PURPOSE
9 5/8"	25.4	New	121'	Novco			Surface
5 1/2"	15.5	New	3150'	Baker			Prod. Csg.
2"	4.7	New	3023'				Prod. Tbg.

SIZE OF HOLE	SIZE OF CASING	WHERE SET	NO. BAGS OF CEMENT	METHOD USED	MUD GRAVITY	AMOUNT OF MUD USED
13 3/4"	9 5/8"	132'	100	Circulated		
8 3/4"	5 1/2"	3160'	150	Single Stage		

(Record the Process used, No. of Qts. or Gals. used, interval treated or shot.)

4-30-57 T. B. 3160 C. O. to 3100. Perf. 3040-52; 3058-64; 3068-74; 3078-88. Frac.

2/ 54,600 gal. I. R. = 65 bbl./min. RD = 1200'; sty. ± 1500'.

5-1-57 Refrac. P. C. w/40,000 gal. water and 40,000# sand. Finish w/4500 gal. Avg. pr.

1500#.

Result of Production Stimulation..... **A. O. F. = 17.542 MCF/D; Ch. Volume = 5431 MCF/D**

Depth Cleaned Out.....**3100'**.

RECORD OF DRILL-STEM AND SPECIAL TESTS

If drill-stem or other special tests or deviation surveys were made, submit report on separate sheet and attach hereto

TOOLS USED

Rotary tools were used from 0 feet to 3160 feet, and from feet to feet.
Cable tools were used from feet to feet, and from feet to feet.

PRODUCTION

Completed 7-4-57, 19

OIL WELL: The production during the first 24 hours was barrels of liquid of which % was
was oil; % was emulsion; % water; and % was sediment. A.P.I.
Gravity.

GAS WELL: The production during the first 24 hours was 17,542 M.C.F. plus barrels of
liquid Hydrocarbon. Shut in Pressure 944 lbs. Gh. Volume = 5431 MCF/D

Length of Time Shut in 12 Days

PLEASE INDICATE BELOW FORMATION TOPS (IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE):

Southeastern New Mexico			Northwestern New Mexico		
T. Anhy.			T. Devonian		T. Ojo Alamo 2564
T. Salt			T. Silurian		T. Kirtland-Fruit 2755
B. Salt			T. Montoya		T. Fruit 3005
T. Yates			T. Simpson		T. Pictured Cliffs 3030
T. 7 Rivers			T. McKee		T. Lewis 3127
T. Queen			T. Ellenburger		T. Point Lookout
T. Grayburg			T. Gr. Wash.		T. Mancos
T. San Andres			T. Granite		T. Dakota
T. Glorieta			T.		T. Morrison
T. Drinkard			T.		T. Penn.
T. Tubbs			T.		T.
T. Abo			T.		T.
T. Penn.			T.		T.
T. Miss.			T.		T.

FORMATION RECORD

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
-0-	2564	2564	Ten to gry cr-gra as interbedded w/gry sh.				
2564	2755	191	Ojo Alamo ss. White cr-gra s.				
2755	3005	250	Kirtland form. Gry sh interbedded w/tight gry fine-gra ss.				
3005	3030	25	Fruitland form. Gry carb sh, scattered coals, coals & gry, tight fine-gra ss.				
3030	3127	97	Pictured Cliffs form. Gry, fine-gra, tight, varicolored soft ss.				
3127	3160	33	Lewis formation. Gry to white dense sh w/silty to shaly ss breaks.				

OIL CONSERVATION COMMISSION		
AZTEC DISTRICT OFFICE		
No. Copies Received 6		
DISTRIBUTION		
	NO. FURNISHED	
Operator	2	
Santa Fe	1	
Proration Office		
State Land Office		
U S G S	2	
Transport		
File	1	

ATTACH SEPARATE SHEET IF ADDITIONAL SPACE IS NEEDED

I hereby swear or affirm that the information given herewith is a complete and correct record of the well and all work done on it so far as can be determined from available records.

August 5, 1957

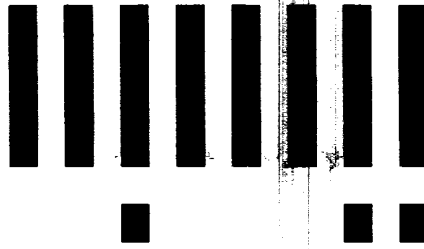
(Date)

Company or Operator El Paso Natural Gas Company

Address Box 997, Farmington, New Mexico

Original Signed D. C. Johnson

Position or Title Petroleum Engineer



LTR



Job separation sheet

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 August 7, 1957
(Place) (Date)

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

El Paso Natural Gas Co. Lindrith Unit, Well No. 20, in SW $\frac{1}{4}$ SW $\frac{1}{4}$,
(Company or Operator) (Lease)
M, Sec. 9, T. 24N, R. 3W, NMPM., Wildcat Pool
Unit Letter

Rio Arriba County. Date Spudded 4-7-57 Date Drilling Completed 4-10-57
Please indicate location: Elevation 6876' Total Depth 3160' ~~per~~ C.O. 3100'

D	C	B	A
E	F	G	H
L	K	J	I
M	N	O	P
X			

Top Oil/Gas Pay 3040' (Perf) Name of Prod. Form. P.C.

PRODUCING INTERVAL -

Perforations 3040-3052; 3058-3064; 3068-3074; 3078-3088
Open Hole None Depth 3160' Depth Casing Shoe 3023
Tubing

OIL WELL TEST -

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

Size	Feet	Sax
<u>9 5/8"</u>	<u>121'</u>	<u>100</u>
<u>5 1/2"</u>	<u>3150'</u>	<u>150</u>
<u>2"</u>	<u>3023'</u>	

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

Test After Acid or Fracture Treatment: 17.542 MCF/Day; Hours flowed 3

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

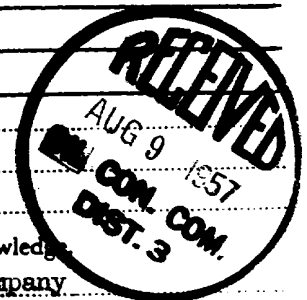
Acid or Fracture Treatment (Give amounts of materials used, such as acid, water, oil, and sand): 54,600 gal. water and 40,000 gal. water & 40,000# Sand

Casing 944 Tubing 944 Date first new
Press. 944 Press. 944 oil run to tanks

Oil Transporter _____

Gas Transporter El Paso Natural Gas Company

Remarks: _____



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

Approved AUG 9 1957, 19____

El Paso Natural Gas Company

(Company or Operator)

Original Signed D. C. Johnson

By: _____
(Signature)

OIL CONSERVATION COMMISSION

By: Original Signed Emery C. Arnold

Title Petroleum Engineer
Send Communications regarding well to:

Title Supervisor Dist. # 3

Name E. J. Coel

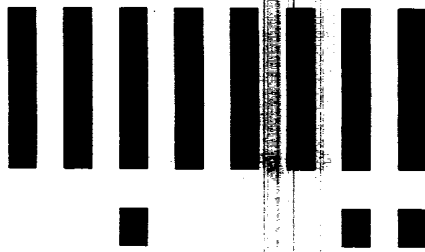
Address Box 997, Farmington, New Mexico

OIL CONSERVATION COMMISSION
AZTEC DISTRICT OFFICE

No. Copies Received 5

DISTRIBUTION

	NO. FURNISHED	
Operator	<u>2</u>	
Santa Fe	<u>1</u>	
Operation Office	<u>1</u>	
State Land Office		
Planning		
Transporter		
File	<u>1</u>	<input checked="" type="checkbox"/>



LTR



Job separation sheet

