

[illegible]

U. S. LAND OFFICE Santa Fe
SERIAL NUMBER 078194
LEASE OR PERMIT TO PROSPECT _____


UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY

Company El Paso Natural Gas Company Address Box 997, Farmington, New Mexico
Lessor or Tract Ludwick Field Astec State New Mexico
Well No. 4 Sec. 31 T. 30N R. 10W Meridian NMPM County San Juan
Location 938 ~~xxxx~~ ft. S of N Line and 1038 ft. ~~xxx~~ W of E Line of Section 31 Elevation 6016'
(Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed 
Date March 10, 1955 Title Petroleum Engineer

The summary on this page is for the condition of the well at above date.

Commenced drilling February 2, 1955 Finished drilling February 12, 1955

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 2428 to 2485 (G) No. 4, from _____
 No. 2, from _____ to _____ No. 5, from _____
 No. 3, from _____ to _____ No. 6, from _____

IMPORTANT WATER SANDS

No. 1, from _____ to _____

No. 2, from _____ to _____

No. 3, from _____ to _____

No. 4, from _____ to _____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cased and pulled from	Perforated		Purpose
							From—	To—	
9 5/8	25.4	8. W.	Armco	120'	Howco	US			Surface
5 1/2	15.50	8 RD	I-55	2408'	Howco				Prod. log
1"	1.68#	8 RD	Std. Ind. OK	2045'	Oil OK	CV2 MEFF			Prod. log

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
9 5/8"	131'	125	Circulated		
5 1/2"	2418'	150	Single Stage		

PLUGS AND ADAPTERS

Heaving plug—Material ----- Length ----- Depth set -----
Adapters—Material ----- Size -----

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
See Well History.						

TOOLS USED

Rotary tools were used from 0 feet to 2418 feet, and from _____ feet to _____ feet
Cable tools were used from 2418 feet to 2485 feet, and from _____ feet to _____ feet

DATES

-----February 13-----, 1955----- Put to producing -----, 19-----

The production for the first 24 hours was ----- barrels of fluid of which -----% was oil; -----% emulsion; -----% water; and -----% sediment. Gravity, °Bé. -----

If gas well, cu. ft. per 24 hours 4,027,000 Gallons gasoline per 1,000 cu. ft. of gas -----

Rock pressure, lbs. per sq. in. ----- 506 -----

EMPLOYEES

_____, Driller _____, Driller
_____, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	457	457	Tan cr-grn ss w/thin sh breaks.
457	1230	773	Variegated sh w/thin ss breaks.
1230	1760	530	Tan to gry cr-grn ss interbedded w/gry sh.
1760	1855	95	Ojo Alamo ss. White cr-grn s.
1855	2077	222	Fruitland formation. Gry sh interbedded w/tight gry fine-grn ss.
2077	2428	351	Fruitland formation. Gry carb sh, scattered coals coals and gry, tight, fine-grn ss.
2428	2485	57	Pictured Cliffs formation. Gry, fine-grn, tight, varicolored soft ss.

NEW MEXICO OIL CONSERVATION COMMISSION
INITIAL POTENTIAL TEST-DATA SHEET

FORM C-122-B

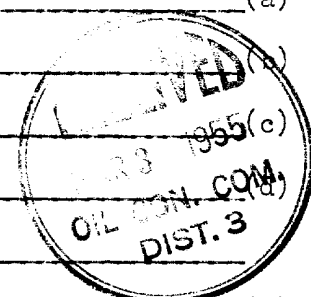
This form must be used for reporting all pitot tube tests made in the State. It is particularly important that it be used for reporting Initial Potential Tests in the San Juan Basin as prescribed by Order No. R-333 and by the New Mexico Oil Conservation Commission Manual of Tables and Procedure for Initial Potential (Pitot Tube) Tests.

POOL Astec FORMATION Pictured Cliff
COUNTY San Juan DATE WELL TESTED March 2, 1955

OPERATOR El Paso Natural Gas Co. LEASE Ludrick WELL NO. 4
1/4 SECTION: EB UNIT LETTER SEC. 31 TWP. 30N RGE. 10W
CASING: 5 1/2 " O.D. SET AT 2408 TUBING 1 " WT. SET AT 2465
PAY ZONE: FROM 2408 TO 2485 GAS GRAVITY: MEAS. EST.
TESTED THROUGH: CASING X TUBING
TEST NIPPLE 2" I.D. TYPE OF GAUGE USED ☒ (Spring) ☐ (Monometer)

OBSERVED DATA

SHUT IN PRESSURE: CASING 596 psig TUBING: 596 psig S. I. PERIOD 17 days
TIME WELL OPENED: 9:25 A.M. TIME WELL GAUGED: 12:25 P.M.
IMPACT PRESSURE: 13 psig
VOLUME (Table I) (a)
MULTIPLIER FOR PIPE OR CASING (Table II) (b)
MULTIPLIER FOR FLOWING TEMP. (Table III) (c)
MULTIPLIER FOR SP. GRAVITY (Table IV) (d)
AVE. BAROMETER PRESSURE AT WELLHEAD (Table V)
MULTIPLIER FOR BAROMETRIC PRESSURE (Table VI) (e)
INITIAL POTENTIAL, MCF/24 Hrs. (a) x (b) x (c) x (d) x (e) = 4,027 MCF



WITNESSED BY: C. E. Powell
COMPANY: El Paso Natural Gas Company
TITLE: Gas Engineer

TESTED BY: T. B. Grant
COMPANY: El Paso Natural Gas Company
TITLE: Gas Engineer

OIL CONSERVATION COMMISSION		
AZTEC DISTRICT OFFICE		
No. Copies Received	3	
DISTRIBUTION		
	NO. FURNISHED	
Operator		
Santa Fe	1	
District Office		
State Land Office		
U. S. G. S.	1	
Transporter		
File	1	✓

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

It is necessary that Form C-104 be approved before this form can be approved and an initial allowable be assigned to any completed Oil or Gas well. Submit this form in QUADRUPLICATE.

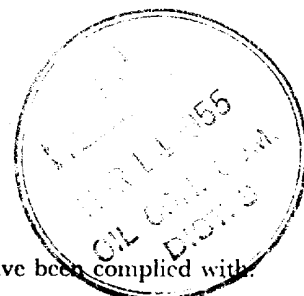
CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL AND NATURAL GAS

Company or Operator El Paso Natural Gas Company Lease Ladwick
Address Box 997, Farmington, New Mexico El Paso, Texas
(Local or Field Office) (Principal Place of Business)
Unit A, Well(s) No. 4, Sec. 31, T. 30N, R. 10W, Pool Astec
County San Juan Kind of Lease: Federal
If Oil well Location of Tanks None
Authorized Transporter El Paso Natural Gas Company Address of Transporter
Farmington, New Mexico El Paso, Texas
(Local or Field Office) (Principal Place of Business)
Per cent of Oil or Natural Gas to be Transported 100 Other Transporters authorized to transport Oil or ~~Natural Gas~~
from this unit are Malco Products Inc.

REASON FOR FILING: (Please check proper box)

NEW WELL ☒ CHANGE IN OWNERSHIP ☐
CHANGE IN TRANSPORTER ☐ OTHER (Explain under Remarks) ☐

REMARKS:



The undersigned certifies that the Rules and Regulations of the Oil Conservation Commission have been complied with.

Executed this the 10 day of March, 1955

Approved MAR 14 1955, 1955

OIL CONSERVATION COMMISSION

ORIGINAL SIGNED BY

El Paso Natural Gas Company
By [Signature]
Title Petroleum Engineer

By PETROLEUM ENGINEER DIST. NO. 3

Title S. V. Roberts

(See Instructions on Reverse Side)

INSTRUCTIONS

This form shall be executed and filed in QUADRUPLICATE with the District Office of the Oil Conservation Commission, covering each unit from which oil or gas is produced. A separate certificate shall be filed for each transporter authorized to transport oil or gas from a unit. After said certificate has been approved by the Oil Conservation Commission, one copy shall be forwarded to the transporter, one copy returned to the producer, and two copies retained by the Oil Conservation Commission.

A new certificate shall be filed to cover each change in operating ownership and each change in the transporter, except that in the case of a temporary change in the transporter involving less than the allowable production for one proration period, the operator shall in lieu of filing a new certificate notify the Oil Conservation Commission District Office, and the transporter authorized by certificate on file with the Commission, by letter of the estimated amount of oil or gas to be moved by the transporter temporarily moving oil or gas from the unit and the name of such temporary transporter and a copy of such notice shall also be furnished such temporary transporter. Such temporary transporter shall not move any more oil or gas than the estimated amount shown in said notice.

This certificate when properly executed and approved by the Oil Conservation Commission shall constitute a permit for pipe line connection and authorization to transport oil and gas from the property named therein and shall remain in full force and effect until

- (a) Operating ownership changes
- (a) The transporter is changed or
- (c) The permit is cancelled by the Commission.

If any of the rules and regulations of the Oil Conservation Commission have not been complied with at the same time this report is filed, explain fully under the heading "REMARKS."

In all cases where this certificate is filed to cover a change in operating ownership or a change in the transporter designated to move oil or gas, show under "REMARKS" the previous owner or operator and the transporter previously authorized to transport oil or gas.

A separate report shall be filed to cover each producing unit as designated by the Oil Conservation Commission.

OIL CONSERVATION COMMISSION		
AZTEC DISTRICT OFFICE		
No. Copies Produced	5	
DISTRIBUTION		
	No.	
Operator	1	
Santa Fe	1	
Proration Office		
State Land Office		
U. S. G. S.		
Transporter	2	✓
File	1	