

OPEN FLOW TEST DATA

Date: June 11, 1956

Operator: El Paso Natural Gas Company

Lease: Jicarilla # 1-D

Location: 1550'N, 1500'E, Sec. 30-25-4

County: Rio Arriba State: N.M.

Formation: Pictured Cliff

Pool: Wildcat

Casing: 5 1/2 " Set @ 3340

Tubing: 2 " Set to 3198

Pay Zone: 3217 To: 3242

Total Depth: 3340 - c/o - 3260

Choke Size: 3/4

Choke Constant = C = 14.1605

Stimulation Method: Sand Water Frac.

Flow Through: Casing _____ Tubing X

Shut-In Pressure Casing: 1024 psig / 12 = 1036 psia (Shut-in 18 days;

Shut-In Pressure Tubing: 1025 psig / 12 = 1037 psia

Flowing Pressure: P : 320 psig / 12 = 332 psia

Working Pressure: P_w : 734 psig $\div 12 =$ 746 psia

Temperature: T : 69 °F / 460 = 529 ° Absolute

F_{pv} (from tables) : 1.034 Gravity .665 n .85

$$\text{Choke Volume} = Q = C \times P_t \times F_t \times F_g \times F_{pv}$$

$$= \frac{14.1605 \times 332 \times .9915 \times .9498 \times 1.034}{4,578} \text{ MCF/D}$$

$$\text{Open Flow} = A_{of} = Q$$

$$\left[\begin{array}{c} P_c^2 \\ P_c^2 - P_w^2 \end{array} \right] n$$

Aof = 4578

$$\left[\frac{1,075,369}{518,855} \right]^n = (2.0726)^{.85} = x 4578 = 1.86 \times Q$$

hof =

8,515

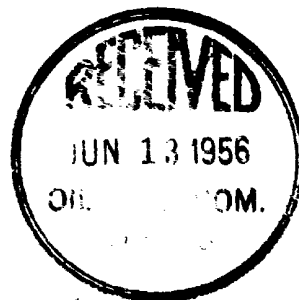
MCF/D

Tested By: K. C. McBride and R. A. Ullrich

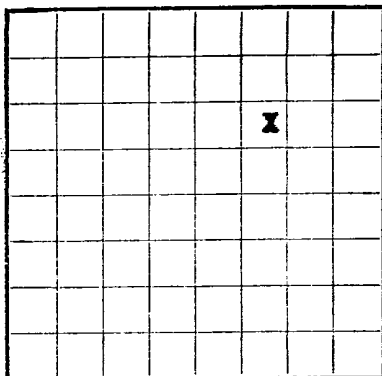
Witnessed By: _____

By:

L. D. Galloway



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LOCATE WELL CORRECTLY

U. S. LAND OFFICE Jicarilla Tribal
SERIAL NUMBER Con. 31, Tract
LEASE OR PERMIT TO PROSPECT 486UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company El Paso Natural Gas Company Address Box 997, Farmington, New Mexico
Lessor or Tract Jicarilla Field Wildcat State New Mexico
Well No. 1-D Sec. 30 T. 25 R. 4W Meridian NMPN County Rio Arriba
Location 1550 ft. SW of N Line and 1550 ft. SW of E Line of Section 30 Elevation 7070'
(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 W. F. DavisDate June 14, 1956Title Petroleum Engineer

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

Commenced drilling May 15, 19 56 Finished drilling May 21, 19 56

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 3217 to 3292 (G) No. 4, from _____ to _____
No. 2, from _____ to _____ No. 5, from _____ to _____
No. 3, from _____ to _____ No. 6, from _____ to _____

IMPORTANT WATER SANDS

No. 1, from _____ to _____ No. 3, from _____ to _____
No. 2, from _____ to _____ No. 4, from _____ to _____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
<u>9 5/8"</u>	<u>25.44</u>	<u>P.E.</u>	<u>S.W.</u>	<u>121'</u>	<u>Howco</u>				<u>Surface</u>
<u>5 1/2"</u>	<u>18.32</u>	<u>8</u>	<u>S.W.</u>	<u>3292'</u>	<u>Howco</u>				<u>Production</u>
<u>3 1/2"</u>	<u>10.88</u>	<u>8</u>	<u>S.W.</u>	<u>3292'</u>	<u>Howco</u>				<u>Production</u>
THE LOG OF OIL OR GAS WELL									

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
<u>9 5/8"</u>	<u>133'</u>	<u>100</u>	<u>Circulated</u>		
<u>5 1/2"</u>	<u>3340'</u>	<u>150</u>	<u>Single Stage</u>		

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

TOOLS USED

Rotary tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet
Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet

DATES

_____ 5-24-56, 19 _____ 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 8,515,000 A.O.F. Ch. Volume 4578 MCF/D. Gallons gasoline per 1,000 cu. ft. of gas _____Rock pressure, lbs. per sq. in. 1025

EMPLOYEES

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

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	2700	2700	Tan to gry cr-grn ss interbedded w/gry sh.
2700	2865	165	Ojo Alamo ss. White cr-grn s.
2865	3060	195	Kirtland form. Gry sh interbedded w/tight gry fine-grn ss.
3060	3217	157	Fruitland form. Gry carb sh, scattered coals coals and gry, tight, fine-grn ss.
3217	3291	75	Pictured Cliffs form. Gry, fine-grn, tight, varicolored soft ss.
3292	3340 T.D.	48	Lewis formation. Gry to white dense sh w/silty to shaly ss breaks.

LOG

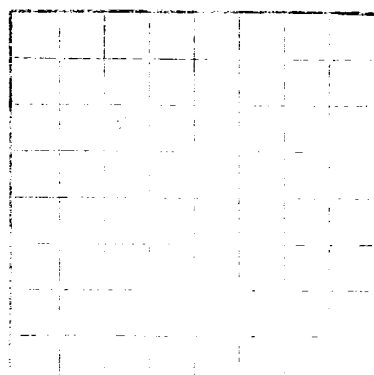
TO

SOLVING (OVER)

FORMATION

16-43004-8

FORMATION RECORD—Continued



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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

UNITED STATES

DEPARTMENT OF THE INTERIOR

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LOG OF OIL OR GAS WELL

(The summary for this page is for the condition of the well at bore 644.)

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

ON OF CAS BANDS OF ZONES

(Dessins des p. 6)

No. 1, from	to	No. 4, from	to
No. 2, from	to	No. 5, from	to
No. 3, from	to	No. 6, from	to

IMPORTANT WATER BATH

Part. with 4 large well jet shots/12. 241-242. Water fractured with 46,550 gallons water and 60,000 sand. Plugged with 3250 gallons. Maximum pressure 1800'. HDP 1500'. Average treating pressure 1750'. Injection rate 59.3 bbls./min.

Casing	Diameter per foot	Length	Weight	Material	Kind of joint	From	To	Purposes

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results; if there were any changes made in the casing, state fully, and if any casing was "sidetracked," or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If plungers or bridges were put in to test for water, state kind of material used, position, and results of pumping or burning.

HISTORY OF OIL OR GAS WELL

U. S. GOVERNMENT PRINTING OFFICE

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FORMATION RECORD—Continued