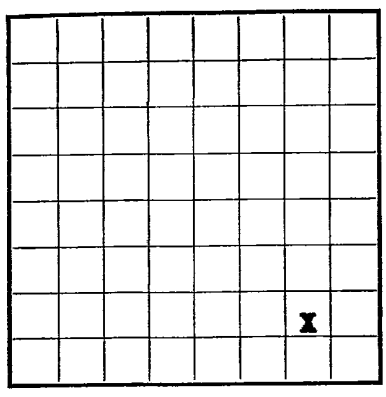
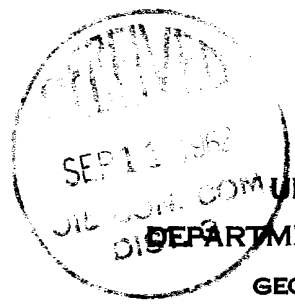
Form 9-330

Form approved.
Budget Bureau No. 42-R355.4.

U. S. LAND OFFICE New Mexico
SERIAL NUMBER 03999
LEASE OR PERMIT TO PROSPECT



LOCATE WELL CORRECTLY



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company El Paso Natural Gas Company Address Box 990, Farmington, New Mexico

Lessor or Tract Grambling Field Aztec P. C. State New Mexico

Well No. 5 Sec. 27 T. 29N R. 9W Meridian N.M.P.M. County San Juan

Location 790 ft. {N.} of S Line and 990 ft. {W.} of E Line of Section 27 Elevation 5631
(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 ORIGINAL SIGNED H.E. McNALLY

Date September 6, 1962 Title Petroleum Engineer

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

Commenced drilling 7-23-, 1962 Finished drilling 7-26-, 1962

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 2044 to 2183 (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 From—	Perforated To—	Purpose
8 5/8"	24#	8 rd	J-55	299	Baker				Surface
2 7/8"	6.4#	8 rd	J-55	2162	Baker				Prod. casing

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
8 5/8"	311	160	circulated		
2 7/8"	2174	195	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
Perf 2048-54; 2064-70 (2 SPF) Frac w/30,324 gallons water, 30,000# sand. Flush w/2100 gallons water. I.R. 25 BPM. Max pr 2800#, MDP 2300#, tr pr 2300-2800#. 1 drop of 12 balls.						

TOOLS USED

Rotary tools were used from 0 feet to 2183 feet, and from ---- feet to ---- feet

Cable tools were used from ---- feet to ---- feet, and from ---- feet to ---- feet

DATES

S.I. 8-7-, 1962 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 2,622,000 Gallons gasoline per 1,000 cu. ft. of gas ----

Rock pressure, lbs. per sq. in. C - 936 A.O.F. 2806 MCF/D

EMPLOYEES

----, Driller ----, Driller

----, Driller ----, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	2044	2044	Not logged
2044	2183	139	Pictured Cliffs formn. Gry, fine-grn, tight, varicolored soft ss.

(OVER)

16—48094-5

FOLD | MARK

Form 9-330

Form approved.
Budget Bureau No. 42-R356.4.

U. S. Land Office New Mexico
Serial Number 07... [illegible]
Lease or Permit to Prospect ....

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOCATE WELL CORRECTLY

LOG OF OIL OR GAS WELL

Company El Paso Natural Gas Company Address Box [illegible], Farmington, New Mexico

Lessor or Tract Grambling Field Aztec P. C. State New Mexico

Well No. 5 Sec. 27 T. 29N R. [illegible] Meridian N.M.P.M. County San Juan

Location [illegible] ft. S. of S. Line and [illegible] ft. W. of E. Line of Section 27 Elevation 5[illegible]31

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 ORIGINAL SIGNED [illegible]

Date September [illegible] Title Petroleum Engineer

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

Commenced drilling [illegible]-22, 19 [illegible] Finished drilling 2-25, 19 52

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 20[illegible] to 21[illegible] (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 From—	Perforated To—	Purpose

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 plugs or bridges were put in to test for water, state kind of material used, position, and results of pumping or bailing.

HISTORY OF OIL OR GAS WELL

16—43094-2 U. S. GOVERNMENT PRINTING OFFICE

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
[illegible]	[illegible]	[illegible]	circulated		
[illegible]	21[illegible]	[illegible]5	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

[illegible] 20[illegible] 20[illegible]70 ([illegible]) frac w/70,[illegible] gallons water, 37,000# sand. [illegible] w/2[illegible] gallons water. [illegible] 25 BPM. Max p 2500#, [illegible] 2300#, [illegible] 2[illegible] [illegible] 12 balls.

TOOLS USED

Rotary tools were used from 0 feet to 2195 feet, and from .... feet to .... feet

Cable tools were used from .... feet to .... feet, and from .... feet to .... feet

DATES

[illegible] 19 52 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 2,[illegible] Gallons gasoline per 1,000 cu. ft. of gas ....

Rock pressure, lbs. per sq. in. [illegible] A.O.F. 2[illegible]

EMPLOYEES

........, Driller ...., Driller

........, Driller ...., Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	20[illegible]	20[illegible]	Not logged
20[illegible]	[illegible]	[illegible]	Pictured Cliffs Form. [illegible] fine-g[illegible] interbedded [illegible] soft [illegible].

FOLD MARK

(OVER)

FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION

Deliver-

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
Aztec	n = .85	Pictured Cliffs	San Juan

COMPANY			WELL NAME AND NUMBER		
El Paso Natural Gas			Grambling No. 5		
UNIT LETTER	SECTION	TOWNSHIP	RANGE	PURCHASING PIPELINE	
P	27	29	9	El Paso Natural Gas	
CASING O.D. - INCHES	CASING I.D. - INCHES	SET AT DEPTH - FEET	TUBING O.D. - INCHES	TUBING I.D. - INCHES	TOP - TUBING PERF. - FEET
2.875	2.441	2174	No tubing		
GAS PAY ZONE		WELL PRODUCING THRU		GAS GRAVITY	GRAVITY X LENGTH
FROM 2048 TO 2070		CASING XX TUBING		.646	1323
DATE OF FLOW TEST			DATE SHUT-IN PRESSURE MEASURED		
FROM 3-17-69 TO 3-25-69			2-2-68		

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	235
(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**	**(n) Separator or Dehydrator Pr. (DWt) for critical flow only**
235	235	551		551	P_d = 80 = 441 (80% P_c)	

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
294	1.0000	1.0000	Q = 294 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	$P_w^2 = P_t^2 + R^2$	$P_w = \sqrt{P_w^2}$
0.092	2663	245	55225	55470	236

DELIVERABILITY CALCULATION

$$D = Q\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}\right]^n = 294 \left[\left(\frac{109120}{248131}\right)^n = (0.4397)^n = 0.4969\right] = 146 \text{ MCF/D}$$

REMARKS: Installed stop cock 2-25-69

SUMMARY

Item h	235	Psia
P_c	551	Psia
Q	294	MCF/D
P_w	236	Psia
P_d	441	Psia
D	146	MCF/D

Company EL PASO NATURAL GAS COMPANY
By H. E. McAnally H. E. McAnally
Title Well Test Engineer
Witnessed By
Company

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DIST. 3