

U. S. LAND OFFICE New MexicoSERIAL NUMBER 00036

LEASE OR PERMIT TO PROSPECT

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY

Company San American Petroleum Corporation Address Box 487, Farmington, New Mexico
Lessor or Tract Northeast Hogback Unit Field Horseshoe Gallup State New Mexico
Well No. 2 Sec. 15 T. 30N R. 16E Meridian N.M.P.M. County San Juan
Location 825 ft. N of N Line and 875 ft. E of W Line of Section 15 Elevation 5425 (RDB)
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 R. M. Bauer, Jr. Title Area Engineer

Date May 24, 1960Title Area Engineer

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

Commenced drilling May 3, 1960 Finished drilling May 9, 1960

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 1832 to 1862 No. 4, from _____ to _____
No. 2, from 1892 to 1900 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>8-5/8"</u>	<u>22.7</u>	<u>5-11/16"</u>	<u>3-55</u>	<u>2092</u>	<u>Guide</u>				<u>Surface</u>
<u>5-1/2"</u>	<u>14</u>	<u>8-7</u>	<u>3-55</u>	<u>2092</u>	<u>Guide</u>				<u>Oil String</u>

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
<u>8-5/8"</u>	<u>217'</u>	<u>160 sacks of cement</u>	<u>Displacement</u>	<u>1.14g</u>	
<u>5-1/2"</u>	<u>2092'</u>	<u>130 sacks of cement</u>	<u>Displacement</u>	<u>1.14g</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 0 feet to 2623 feet, and from _____ feet to _____ feet
Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet
Completed as pumping oil well Horseshoe Gallup Date May 23, 1960 Put to producing May 21, 1960
Potential test pumped 201 barrels oil per day.
The production for the first 24 hours was 201 barrels of fluid of which 99.6% was oil; _____%
emulsion; _____% water; and 2% sediment. Gravity, °Bé. 42°
Gas oil ratio - not yet available.
If gas well, cu. ft. per 24 hours _____ Gallons gasoline per 1,000 cu. ft. of gas _____
Rock pressure, lbs. per sq. in. _____

EMPLOYEES

John Jones, Driller James Smith, Driller
Jackie White, Driller C. H. Isger, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
<u>0</u>	<u>217</u>	<u>217</u>	<u>Surface sand and shale.</u>
<u>217</u>	<u>464</u>	<u>247</u>	<u>Mesaverde sands, shales and coals.</u>
<u>464</u>	<u>1786</u>	<u>1322</u>	<u>Wancos shale and silt.</u>
<u>1786</u>	<u>1820</u>	<u>34</u>	<u>Gallup sand and shale.</u>
<u>1820</u>	<u>1956</u>	<u>136</u>	<u>Gallup pay sand and shale.</u>
<u>1956</u>	<u>2308</u>	<u>352</u>	<u>San Juan silt and shale.</u>
<u>2308</u>	<u>2374</u>	<u>66</u>	<u>Greenhorn shale.</u>
<u>2374</u>	<u>2442</u>	<u>68</u>	<u>Graneros shale.</u>
<u>2442</u>	<u>2604</u>	<u>162</u>	<u>Sakota sand, shales and coal.</u>
<u>2604</u>	<u>2623</u>	<u>19</u>	<u>Horison sand and shale.</u>
			(Top from C. Log.)

(OVER)

100-443887-100

CONFIDENTIAL - SECURITY INFORMATION
 10-16-80

122 back depth 2058' - perforated 100' casing 5 shots per foot 1882-1907. Hand oil
cracked with 10,000 gallons of oil and 10,000 pounds sand. Breakdown pressure 1200 psi,
average flowing pressure 1300 psi, average injection rate 55 barrels per minute. Oil
cracks fine at 1070' and coated with 1000 psi, which with no indication of pressure
drop. Estimated water injection with 2 shots per foot 1800-1821-1907. Sand oil cracked
with 37,000 gallons oil and 35,000 pounds sand. Breakdown pressure 2000 psi, flowing
pressure 1750 psi, average injection rate 54 barrels per minute. Cleaned out to bridge
line and redressed bridge line. See 2-3/8" tubing at 1912'. See 2058 and 2060.

reduced rate to 7-7/8 at 270' and resumed drilling operations. Well stop test no. 1
2625-2750' where - tool open 1 hour - recovered 150' drilling mud.
no show. 30 minute interval time 900, flow 20-45, 30 minute final time 900. Hydro-
static 1275 in and 1235 out. But 1160 ft.
Drill stem test no. 2 2596-2623' where - tool open 1 hour - no flow of oil. No show.
Recovered 150' drilling mud. 30 minute interval time 925. Flow 20-30. 30 minute final
time 900. Hydrostatic 1285 in and 1230 out. But 1200 ft.
Total depth 2623'. Logged 275 feet core with 10 percent sand and 10 percent clay
to 2698'. Log 5-1/2' casing at 2695' with 2 percent gel cement containing
oil/gel mud and fine perlite, followed by 60 sacks inert cement. Cemented 60' intervals
and 40 barrels oil bearing cement plug. Tested casing with 3000 psi water well with
no indication of leakage drop. Drilled the hole 11, 1960.

1. The above information was obtained from a confidential source who has provided reliable information in the past.

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 balling.

10-43094-2 U. S. GOVERNMENT PRINTING OFFICE

FORMATION RECORD—Continued