

U. S. LAND OFFICE **Santa Fe**SERIAL NUMBER **SF-977968**LEASE OR PERMIT TO PROSPECT
C. J. HolderUNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY

Company **Pan American Petroleum Corporation** Address **Box 452, Farmington, New Mexico**Lessor or Tract **C. J. Holder** Field **San Juan** State **New Mexico**Well No. **20** Sec. **9** T. **28N** R. **13W** Meridian **N.M.P.M.** County **San Juan**Location **660** ft. [N.] of **S** Line and **1980** ft. [W.] of **E** Line of **Section 9** Elevation **5993**
(Derrick base 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 **R. M. Babcock** Title **Senior Petroleum Engineer**
Date **May 6, 1961**

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

Commenced drilling **May 12**, 19**61** Finished drilling **May 24**, 19**61**

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from **5645** to **5662** No. 4, from _____ to _____No. 2, from **5715** to **5726** 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 steel	Out and pulled from	Perforated		Purpose
							From	To	
8-5/8"	204	SRT	CP&I	1000	Galv	Galv			Surface
4-1/2"	9.5#	SRT	CP&I	5820	Galv	Galv			Oil String

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
8-5/8"	205	150	Halliburton	2 plug	
4-1/2"	5801	200	Halliburton	2 plug	

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 **0** feet to **5810** feet, and from _____ feet to _____ feet

DATES

_____, 19____ Put to producing _____, 19____

The production for the first 24 hours was _____ barrels of fluid of which _____% was oil; _____% emulsion; _____% water; and _____% sediment. **208** Gravity, °Bé. **99.8**If gas well, cu. ft. per 24 hours _____ Gallons gasoline per 1,000 cu. ft. of gas **41.6°**
Potential test 17 1/4 barrels in 20 hours on 30/64" choke.

Rock pressure, lbs. per sq. in. _____

EMPLOYEES

_____, Driller _____, Driller

Sam Kinney, Driller **Jim Speaker**, Driller**Earl Babcock**, Driller **Jim Babcock**, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	333	333	Surface sands and shales including Ojo Alamo sand.
333	1659	1326	Kirtland-Fruitland sands, shales and coals.
1659	1793	134	Pictured cliffs sand and shale.
1793	2555	762	Lewis shale.
2555	2610	55	Cliffhouse sand and shale.
2610	4391	1781	Menefee and Point lookout sands, shales, and coals.
4391	5302	911	Mancos shale.
5302	5650	348	Gallup sands and shales.
5650	5810	160	Gallup pay sands.

UNITED STATES
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Station and 15,000 pounds sand. Minimum 2600, average injection rate at various pressures. During 1961, as flowing the gas gained field development well. Completed June 1, 1961.

Location 60 ft 2' of 3 kind and Sect. II of section 3 Elevation 2891
Corrected lower depth 279-5726, at 4 fms bar look. Used these perforations
with 10,000 gallons oil containing 250 pounds of Adomite Mark II and 10,000 pounds
and estimated rate of production 3400-2000, and was \$400 per barrel.
Injection rate 26 barrels per minute. Set refractory bridge plug at 5685'. Per-
forated upper tubing 2835-3662' at 8 inches per foot. Tested these perforations
with 21,300 gallons oil containing 50 pounds Adomite Mark II, 8 gallons 7-105 per 1000

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with no indication of pressure drop. Released 18 May 26, 1961. Prepared for
Disposal with water. Tested 4-1/2" casing with 3000 psi water held
constant for 24 hours. Subsequent to 15 minutes
total depth 9700 feet. 4-1/2" casing at 5801' with 125 sacks

Cole No. 2 5658-5675' - Recovered 14-1/2' as follows: 3' sand with scattered shale
bedding; good porosity and permeability. 2-1/2' shaly sand, 9' shale, vertical
fractured 5658-5669'. Bleeding oil and gas 5658-5663'.
Core No. 3 5675-5735' - Recovered 60' as follows: 34' shale, 16' shaly sand with
occasional oil and gas bleed, average porosity 6% below fractional millidarcy
permeability. 10' shale, vertical fracture throughout.

tan core barrel and would not core with no footage in 40 minutes. Pulled core bit and found badly worn with chunking of cutting edge and stones pebbles in core barrel.

~~03~~ ~~SECRET~~

50 sacks containing 2 percent calcium chloride extracted. After waiting on cement

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 "snapped", 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.

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MSIAM 01107

Slab casting	Wholes and	Number sacks of cement	Method used	Wind velocity	Amount of mud used
15.5	100	100	normal	10	100
15.5	100	100	normal	10	100

Depth 241

SHOOTING RECORD		
Adapters--Material	Size	Length
Hearing plug--Material	Length	Depth see

[illegible][illegible]

test	of test	most has test	test	of test	test have been used from
test	of test	most has test	test	of test	test have been used from

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If gas well, cu. ft. per 24 hours	
_____	_____
The production for the first 24 hours was _____	
% water; and % sediment _____	

Gravity, °Bé. _____	
% of third of fluid of which _____% was oil;	

Driver	Driver	Driver
Driver	Driver	Driver

150000 15

FROM-	TO-	TOTAL FEET	FORMATION
0	397	397	Gravelly sand and shale including the base sand.
397	1039	1039	Thin-bedded sandstone, shale and coals.
1039	1193	1193	Alternating thin sand and shale.
1193	1245	1245	Thin shale.
1245	1413	1413	Thin-bedded sand and shale.
1413	1574	1574	Sandstone and joint blocky sandstone, shale, and coals.
1574	1630	1630	Thin bedded shale.
1630	1670	1670	Thin bedded sand and shale.
1670	1680	1680	Thin bedded sand.