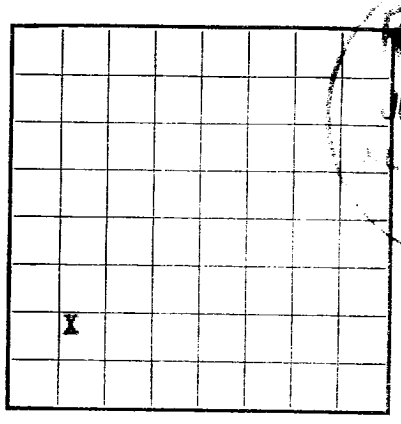
Form 9-330

Budget Bureau No. 42-R355.4.
Approval expires 12-31-60.

U. S. LAND OFFICE Santa Fe
SERIAL NUMBER SF 077967
LEASE OR PERMIT TO PROSPECT



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Pan American Petroleum Corporation Address Box 480, Farmington, New Mexico
Lessor or Tract Gallegos Canyon Unit Field Basin Dakota State New Mexico
Well No. 90 Sec. 35 T. 28N R. 13W Meridian N.M.P.M. County San Juan
Location 1190 ft. [N.] of S Line and 790 ft. [E.] of W Line of Section 35 Elevation 6079
(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 BY R. M. Bauer, Jr.

Date June 9, 1961 Title Senior Petroleum Engineer

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

Commenced drilling May 11, 1961 Finished drilling May 24, 1961

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 6280 to 6295 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"	20#	8RT	CF&I	337	Guide				Surface
4-1/2"	9.5#	8RT	CF&I	6450	Guide				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"	337	200 sacks of cement	Halliburton	2 Plug	
4-1/2"	6450	375 sacks of cement	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 0 feet to 6450 feet, and from ____ feet to ____ feet
Cable tools were used from ____ feet to ____ feet, and from ____ feet to ____ feet

DATES

Completed as Basin Dakota Field Well June 5, 1961 Completed as shut in well
Put to producing June 5 1961

The production for the first 24 hours was ____ barrels of fluid of which ____% was oil; ____% emulsion; ____% water; and ____% sediment.

Gravity, °Bé. ____

If gas well, MCF per 24 hours 2561 Gallons gasoline per 1,000 cu. ft. of gas ____

Rock pressure, lbs. per sq. in. 2025 SITP

EMPLOYEES

C. K. Reid, Driller L. B. Wells, Driller
Lester Baugh, Driller H. J. McGeath, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	1581	1581	Surface sands and shales including Farmington and Fruitland zones.
1581	1750	169	Pictured Cliffs sands, shales, and coals.
1750	2498	748	Lewis shale.
2498	4412	1914	Mesaverde sands, shales, and coals.
4412	5256	844	Mancos shale.
5256	5745	489	Gallup sands and shales.
5745	6090	345	Sanastee sands and shales.
6090	6204	114	Greenhorn sands and shales.
6204	6288	84	Graneros and upper Dakota sands and shales.
6288	6450	162	Dakota pay sands and shales.

(Tops from "E" Log)

[OVER]

FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION

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

HISTORY OF OIL OR GAS WELL

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.

Spudded 12-1/4" hole May 11, 1961. 8-5/8" casing was set at 338' and cemented with 200 sacks containing two percent Calcium Chloride circulated. After waiting on cement to set, tested water shut off with 600 pounds for 30 minutes with no pressure drop. Reduced hole to 7-7/8" at 338' and resumed drilling operations.

Total depth 6450' ran electric and Sonic logs. Set 4-1/2" casing at 6450' with 275 sacks 6 percent gel cement containing 1-1/2 pounds Tuf Plug per sack, followed by 100 sacks neat cement. After waiting on cement, tested 4-1/2" casing with 3000 psi, which held with no indication of pressure drop. Preparing for completion operations.

Perforate Dakota 6283-6293', 6296-6300' with 4 shots per foot. Fractured these perforations with 20,000 gallons water containing 34 pounds J-101 per 1000 gallons, 1 percent CACL 2, 20,000 pounds sand. Pressures were: Breakdown 3000-1800, average treating 2700. Average injection rate 36 barrels per minute. 2" tubing landed at 6305'. Completed as shut in Basin Dakota Field well June 5, 1961. Potential test 2461 MCF per day.