Form 9-330

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

RECEIVED JAN 26 1960 OIL CON. COM. DIST. 3

U. S. Land Office Santa Fe
Serial Number SF-079596
Lease or Permit to Prospect C. H. Morris Gas Unit

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOCATE WELL CORRECTLY

LOG OF OIL OR GAS WELL

Company Pan American Petroleum Corporation Address Box 487, Farmington, New Mexico
Lessor or Tract C. H. Morris Gas Unit Field Dakota State New Mexico
Well No. 1 Sec. 10 T. 27N R. 10W Meridian N.M.P.M. County San Juan
Location 1190 ft. {N./S.} of N Line and 1190 ft. {E./W.} of W Line of Section 10 Elevation 6178 (RDB) (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.

ORIGINAL SIGNED BY
Signed R. M. Bauer, Jr.

Date January 20, 1960 Title Area Engineer

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

Commenced drilling December 14, 1959 Finished drilling December 27, 1959.

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 6566 to 6572 No. 4, from ______ to ______
No. 2, from 6584 to 6588 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
9-5/8"	[illegible]	[illegible]	J-55	[illegible]	[illegible]				Surface
4-1/2"	9.5	8RT	J-55	[illegible]	Guide				Oil String
4-1/2"	11.6	8RT	J-55	188	Guide				Oil String

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
9-5/8"	236	120 sacks of cement	Halliburton - 1 plug		
4-1/2"	6677	750 sacks of cement	Halliburton - 2 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

TOOLS USED

Rotary tools were used from 0 feet to 6680 feet, and from ______ feet to ______ feet
Cable tools were used from ______ feet to ______ feet, and from ______ feet to ______ feet

DATES

Completed as shut in gas well, Basin Dakota Field January 13, 1960, 19____ Put to producing Shut in for pipeline connection January 13, 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 ______ Gallons gasoline per 1,000 cu. ft. of gas ______

Rock pressure, lbs. per sq. in. 1902 test on casing pressure 5 days.

EMPLOYEES

______, Driller ______, Driller
Charles Lockhart, Driller John J. Poe, Driller
R. C. Gary O. Brinkley

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	1065	1065	Surface sands and shales, including Nimas sand and shale.
1065	1210	145	jo Alamo sand
1210	1885	675	Kirtland shales and sands, including Farmington sand
1885	2075	190	Fruitland sands shales and coals
2075	2110	35	Pictured Cliffs sands and shales
2110	3615	1505	ewis shale
3615	472	1107	Mesaverde sands and shales
4722	5595	873	Mancos shale
5595	6392	797	Gallup sands and shales
6392	6470	78	Greenhorn sandy shale
6470	6502	32	Graneros sands and shales
6502	6562	60	Dakota sands and shales
6562	[illegible]	118	Dakota pay sand (Top from E. Log)

Potential test [illegible] flowed [illegible] through 3/4" choke after 3 hrs.
Absolute open flow potential [illegible] MCFD.

[OVER] 16—43094-4

HISTORY OF OIL OR GAS WELL

16—43094-3 U. S. GOVERNMENT PRINTING OFFICE

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 on December 14, 1959, and drilled to [illegible]. 9-5/8" casing was set at 236' with 150 sacks of cement containing two percent calcium chloride. Cement circulated. After waiting on cement, tested casing and water shutoff with 800 psi for 30 minutes which held with no indication of pressure drop. Reduced hole to 7-7/8" at 236' and resumed drilling.

Total Depth 6680'. 4-1/2" casing was set at 6678'. Cemented first stage with 400 sacks six percent gel cement with 1-1/2 pounds medium Tuf Plug per sack, followed by 100 sacks Neat cement. Cemented second stage with 250 sacks four percent gel cement. Tested both plugs with 1000 psi for 15 minutes, which held with no indication of pressure drop. Received full returns on both stages.

Drilled two stage tool and cleaned out to plug back depth of 6635'. Set packer at 2435'. Pumped into formation above packer. Reset packer at 2357' and pumped into formation below packer. Reset packer at 2386' and pumped into formation above packer. Attempted to pull tubing and packer and stuck packer at 2371'. Pulled packer loose. Pulled tubing and packer. Ran tubing with 3-7/8" tapered mill to 2462'. Casing clear to 2462'. Pulled tubing and mill. Ran collar locator and found DV tool at 2371' with leak in DV tool. Ran tubing with packer and set at 2327'. Squeezed DV tool with 75 sacks of cement. Resqueezed with 75 sacks of cement which held OK. Circulated. Pulled tubing and packer. Cleaned out to 6590'. Spotted 1000 gallons mud clean out agent. Perforated Dakota with six shots per foot [illegible]. Sand water fractured with 50,000 gallons water and 50,000 lbs. sand. Maximum pressure 3000 psi. Minimum pressure 2900 psi. Average injection rate 32 barrels per minute. Landed 2" tubing at 6549'. Completed as [illegible] gas well [illegible] January 13, 1960. Preliminary test January 13, 1960, 1902 MCF per day.

FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION

LOG OF OIL OR GAS WELL

GEOLOGICAL SURVEY
DEPARTMENT OF THE INTERIOR
UNITED STATES

RECEIVED
JAN 26 1960

Form 9-330