

U. S. LAND OFFICE **Navajo Tribal**SERIAL NUMBER **LA-20-603-2198**LEASE OR PERMIT TO PROSPECT
Navajo TribalUNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY

Company **Pan American Petroleum Corporation** Address **Box 480, Farmington, New Mexico**
Lessor or Tract **Navajo Tribal** Field **Cha Cha Gallup** State **New Mexico**
Well No. **2** Sec. **23** T. **29N** R. **14W** Meridian **N.M.P.M.** County **Santa Fe**
Location **700** ft. **N** of **S** Line and **500** ft. **E** of **V** Line of **Section 23** Elevation **5567** (AMSL)
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 **T. M. Doster**
Date **April 7, 1961** Title **Senior Petroleum Engineer**

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

Commenced drilling **March 13**, 19**61** Finished drilling **March 27**, 19**61**

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from **5177** to **5184** 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		Purpose
							From—	To—	
8-5/8"	20	8VT	1-52	200	Guide				Surface
4-1/2"	9.9	8RT	1-55	5274	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"	212	180 sacks of cement	Halliburton	1 plug	
4-1/2"	5258	20 sacks of cement	B. J. Service	3 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 **5260** feet, and from _____ feet to _____ feet
Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet

Completed **March 31, 1961 as flowing oil** DATES Date first new oil produced.
well **Cha Cha Gallup Field**, 19____ Put to producing **March 29**, 19**61**

The production for the first 24 hours was **210** barrels of fluid of which **99.8**% was oil; _____%
emulsion; _____% water; and **.2**% sediment. Gravity, °Bé **42.6° API**

If gas well, cu. ft. per 24 hours _____ Gallons gasoline per 1,000 cu. ft. of gas _____

Rock pressure, lbs. per sq. in. _____

EMPLOYEES

Jackie White, Driller **James Smith**, Driller
Pete Zstep, Driller **Bert W. Farris**, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	213	213	Surface sand and shale.
213	770	557	Kirtland-Farmington sand and shale.
770	1070	300	Fruitland sand, shale, and coal.
1070	1225	155	Pictured Cliffs sand and shale.
1225	2225	1000	Lewis shale.
2225	3885	1660	Mesaverde sand, shale and coal.
3885	4810	925	Mancos shale.
4810	5175	365	Gallup sand and shale.
5175	5260	85	Gallup pay sand and shale.

(Data from 2 log)

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED
DATE 07-11-2011 BY 60322 UCBAW

U.S. Department of Justice
Federal Bureau of Investigation
Washington, D.C. 20535

UNITED STATES
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LOC 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 testing.

Spudded 12-1/4" hole on March 13, 1961. 8-5/8" casing was set at 213' with 175 sacks of cement with 2 percent Calcium Chloride. Completed 60 sacks. Wait on cement 12 hours. Test casing with 500 psi. Test ok. Reduced hole at 214' to 7-7/8". Resumed drilling operations.

Core No. 1 5150-5210' - Recovered 60' as follows: 1' shale to silty sandy shale, 1' light shaly sand, 17' silty sandy shale, 3' light sand with occasional shale partings and nodules, 9' sand with fair porosity and permeability with good odor and bleed, with vertically fractured shaly sand 5177-5178' with occasional shale laminations throughout, 2' light shaly sand, 21' shale to occasional sandy shale. Total depth 5260' set 4-1/2" casing at 5185' - 125 sacks 6 percent net cement with 1-1/2 pounds medium cut silty sand cement added to 75 sacks neat cement. Displaced with 300 gallons BDA and 78 barrels oil. After waiting on cement tested casing with 5000 psi, which held with no indication of pressure drop. Released the March 25, 1961. This page is for the condition of the well at above date.

Run Cement Plug Correlation Log and perforated with 6 shots per foot 5117-5121'. Sand oil streaked with 16,200 gallons oil containing 1/20 pounds per gallon additive mixed with 9 gallons per 1000 gallons Halliburton FR-1 additive and 20,000 pounds water. Breakdown pressure 2100 psi, maximum fracturing pressure 2790 psi, minimum fracturing pressure 1300 psi. AWC fracturing pressure 2430 psi. Injection rate 29 barrels per minute. Landed 2-1/8" tubing at 5209'. Completed March 31, 1961, at 1961. As flowing well one day on 18/64" choke. Fracturing pressure 1961, flowing pressure 575 psi. ORINARY 42.00 API.

HISTORY OF OIL OR GAS WELL

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