Form 9-331a
(Feb. 1951)

	X		

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Budget Bureau No. 42-R358.4.
Approval expires 12-31-60.

Land Office Santa Fe
Lease No. SF-077968
Unit C. J. Holder

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	X
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY (core & frac)	X
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

C. J. Holder — Farmington, New Mexico — June 20, 1961

Well No. 14 is located 810 ft. from {S} line and 2130 ft. from {W} line of sec. 16

SE/4 SW/4 of Section 16 (¼ Sec. and Sec. No.) — T-28-N (Twp.) — R-13-W (Range) — N.M.P.M. (Meridian)

Cha Cha Gallup (Field) — San Juan (County or Subdivision) — New Mexico (State or Territory)

The elevation of the derrick floor above sea level is ..... ft. **(To be reported later.)**

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Core No. 1. 5672-5685' Gallup. Recovered 13' as follows: 2' sandy shale, 5' shale, 1' sandy shale, 1' Bentonite, 5' shale, 1' sandy shale. Highly fractured and broken throughout.

Core No. 2. 5685-5705' Gallup. Recovered 20' as follows: 1/2' black shale, 10-1/2' sand good porosity and permeability 5687-5691'. Vertically fractured throughout, 9' black sand, bentonite shale at 5701'.

Core No. 3. 5705-5745'. Recovered 40' as follows: 28' shale with occasional scattered sandy shale particles, 12' shaly sand with oil and gas bleed throughout with vertical fractures.

4-1/2" casing set at 5833' with 125 sacks 6 percent gel cement containing 3-1/4 pounds

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

(see reverse side)

Company **Pan American Petroleum Corporation**

Address **Box 480**

Farmington, New Mexico

Attn: L. O. Speer, Jr.

By .....

Title **Senior Petroleum Engineer**

RECEIVED
JUN 22 1961
OIL CON. COM.
DIST. 3

GPO 862040

tuf plug per sack followed by 75 sacks neat. Tested 4-1/2" casing to 3000 psi. Test ok.

Perforated Lower Gallup with 4 shots per foot 5735-5749'. Fracked these perforations with 10,100 gallons oil containing 25 pounds Adomite Mark II with 8 gallons J-105 per 1000 gallons and 10,000 pounds sand. Pressures were: Breakdown 1800 psi, maximum treating 2800 psi, minimum treating 2500 psi. Average injection rate 30 barrels per minute.

Set retreivable bridge plug at 5720'.

Perforated Upper Gallup with 6 shots per foot 5686-5692'. Fracked these perforations with 20,000 gallons oil containing 50 pounds Adomite Mark II and 8 gallons J-105 per 1,000 gallons and 20,000 pounds sand. Pressures were: Breakdown 2600 psi, maximum treating 3200 psi, minimum treating 2700 psi. Average injection rate 26 barrels per minute. Retreived bridge plug. Tubing landed at 5801'. Tested well. Producing rate would not stabilise.

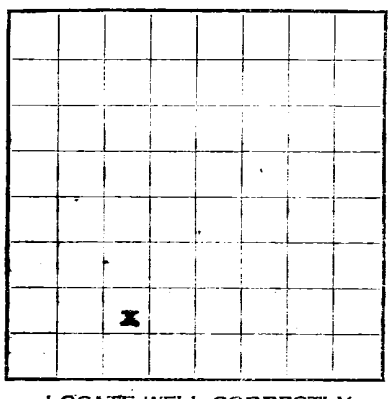
Set Retreivable Bridge Plug at 5725'.

Perforated with McCullough Triple Notch at 5689'. Fracked these perforations with 15,200 gallons oil containing 50 pounds Adomite Mark II and 8 gallons J-105 per 1000 gallons and 15,000 pounds sand. Pressures were: Breakdown 3300 psi, maximum treating 3400 psi, minimum treating 2950 psi. Average injection rate 24 barrels per minute. Landed tubing at 5707'. Currently testing well.

Form 9-330

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

U. S. LAND OFFICE Santa Fe
SERIAL NUMBER SF-077968
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 487, Farmington, New Mexico
Lessor or Tract C. J. Holder Field Cha Cha Gallup State New Mexico
Well No. 14 Sec. 16 T. 28N R. 13W Meridian N.M.P.M. County San Juan
Location 810 ft. {N.} of S Line and 2130 ft. {E.} of W Line of Section 16 Elevation 6074'
(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. Bayer, Jr.

Date July 13, 1961 Title Senior Petroleum Engineer

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

Commenced drilling May 25, 19 61 Finished drilling June 5, 19 61

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 5735 to 5749 No. 4, from ..... to .....
No. 2, from 5689 to 5692 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	157	Guide				Surface
4-1/2"	9.5#	8RT	CF&I	5852	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"	208	175	Halliburton	2 plug	
4-1/2"	5833	200	Halliburton	2 plug	

MARK FOLD

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 5840 feet, and from ..... feet to ..... feet

DATES

Completed as pumping Cha Cha Gallup well July 8, 1961 Put to producing First new oil produced July 6, 1961

The production for the first 24 hours was 120 barrels of fluid of which 99.8% was oil; .....% emulsion; .....% water; and .....% sediment. Gravity, °Bé. 40.6°

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

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

EMPLOYEES

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

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	264	264	Surface sands and shales.
264	358	94	Ojo Alamo sand.
358	1618	1260	Undifferentiated Kirtland-Fruitland sands, shales, and coals.
1618	1800	182	Pictured cliffs sand and shale.
1800	2586	786	Lewis shale.
2586	2634	48	Cliffhouse sand and shale.
2634	4143	1509	Menefee sands and shales, and coals.
4143	4433	290	Point lookout sands and shales.
4433	5330	897	Mancos shale.
5330	5662	332	Gallup sands and shales.
5662	5840	178	Gallup pay sands and shales.

(Tops from "E" log)

16—43094-4

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 on May 25, 1961, and drilled to 209'. Set 8-5/8" casing at 207' with 140 sacks cement containing 2 percent Calcium Chloride. Circulated 15 sacks of cement. After waiting on cement, tested 8-5/8" casing with 750 psi for 30 minutes, which held with no indication of pressure drop. Resumed drilling operations.

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4-1/2" casing set at 5833' with 125 sacks 6 percent gel cement containing 1-1/2 pounds tuf plug per sack followed by 75 sacks neat. Tested 4-1/2" casing to 3000 psi. Test ok. Perforated Lower Gallup with 4 shots per foot 5735-5749'. Fracked these perforations with 10,100 gallons oil containing 25 pounds Adomite Mark II with 8 gallons J-105 per 1000 gallons and 10,000 pounds sand. Pressures were: Breakdown 1800 psi, maximum treating 2800 psi, minimum treating 2500 psi. Average injection rate 30 barrels per minute. Set retreivable bridge plug at 5720'.
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Perforated with McCullough Triple Notch at 5689'. Fracked these perforations with 15,200 gallons oil containing 50 pounds Adomite Mark II and 8 gallons J-105 per 1000 gallons and 15,000 pounds sand. Pressures were: Breakdown 3300 psi, maximum treating 3400 psi, minimum treating 2950 psi. Average injection rate 24 barrels per minute. Landed tubing at 5707'. Completed July 8, 1961 as pumping oil well Cha Cha Gallup field. Potential test July 8, 1961, 14-3/4" stroke per minute and 1-1/2" pump. Pumped 120 barrels of oil in 24 hours with tubing pressure 0 psi and casing pressure 220 psi. Top pay Gallup 5685'. Anticipated allowable 120 barrels of oil per day effective July 6, 1961.