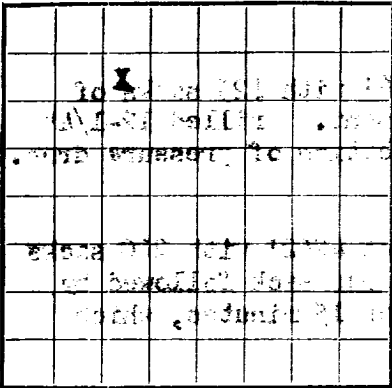


U. S. LAND OFFICE **Jicarilla Tribal**

SERIAL NUMBER

LEASE OR PERMIT TO PROSPECT



UNITED STATES

DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY

Company **Free American Petroleum Corporation** Address **Box 180, Huntington, New Mexico**

Lessor or Tract **Jicarilla Contract 718** Field **Otero Chacra** State **New Mexico**

Well No. **11** Sec. **15** T. **23N** R. **5E** Meridian **N.M.P.M.** County **San Juan**

Location **1050** ft. **N** of **N** Line and **1690** ft. **E** of **N** Line of **Section 15** Elevation **7020'**

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

L. O. Spear, Jr.

Date **August 22, 1961**

Title **Area Superintendent**

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

Commenced drilling **July 11, 1961** Finished drilling **July 17, 1961**

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from **4084** to **4129** 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"	255	8	Halliburton	125	Plug	Surface			Surface
4-1/2"	4202	300	Halliburton	300	Plug	Surface			Surface

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
8-5/8"	176	125	Halliburton Plug		
4-1/2"	4202	300	Halliburton 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 4202 feet, and from feet to feet

Cable tools were used from feet to feet, and from feet to feet

Completed or Shut-in **Otero Chacra** well **DATES** Waiting on Pipe line connection

July 26, 1961 Put to producing **July 26, 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, **1520** ft. per 24 hours Gallons gasoline per 1,000 cu. ft. of gas

Rock pressure, lbs. per sq. in. **900**

EMPLOYEES

T. S. Friddy, Driller **Leon Vestal**, Driller

Jerry Dooley, Driller **D. D. Davis**, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	3180	3180	Undifferentiated sands and shales
3180	3280	100	Pictured Cliffs sands and shales
3280	4084		Lewis shale
4084	4129		Chacra sand
			(Tops from "E" log)

2001/02

Total depth 4202' plug back depth 4185'. Set 4-1/2" casing at 4202' with 200 sacks 6 percent gel cement containing 1-1/2 pounds medium tuf plug per sack followed by 100 sacks neat cement. Tested 4-1/2" casing with 3000 psi for 15 minutes, which held with no indication of pressure drop.

Perforated with 6 shots per foot 4092-4096' and 4106-4110'. Sandwater fractured with 33,000 gallons of water containing 5 pounds J-98 per 1000 gallons and 1 percent Calmagite. Minimum treating 30,000 gal. of sand. Pressure water breakdown 1900 psi, maximum treating 2300 psi, minimum treating 1800 psi. Average injection rate 34 barrels per minute. Instant shut in pressure 650, 10 minute shut in pressure 350. Circulated sand 4092-4165'. Landed 12,400 lbs. of sand.

Total depth 4202' plug back depth 4165'. Completed July 26, 1961 as shut in Chacra field development well. Flow test July 26, 1961 for 20 1/2 hours. Flowed 3 hours with tubing pressure flowing 60 psi and casing pressure flowing 275 psi. Flow rate 1520 MCF per day. Top pay Chacra 4090'. Elevation ground level 7008'.

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

Continued from page 10

(i) remote (v) (2)

No. 1, from	to	No. 4, from	to
No. 2, from	to	No. 5, from	to
No. 3, from	to	No. 6, from	to

No. 1, from of
 No. 2, from of
 No. 3, from of
 No. 4, from of

Size inches	Weight per foot	Threads per inch	Material	Amount	Kind of steel	One end rolled from	From - To -	Perforated	Purpose
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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 change was made in the pump, state the kind of material used, position, and results of pumping or balling of shot. If pigs or bridges were put in to test for water, state kind of material used, position, and results of pumping or balling of shot. If pigs or bridges were put in to test for water, state kind of material used, position, and results of pumping or balling of shot. If pigs or bridges were put in to test for water, state kind of material used, position, and results of pumping or balling of shot.

U. S. GOVERNMENT PRINTING OFFICE

Case No.	Case Name	Case Type	Case Status	Case Date	Case Location
1	Case 1	Case 1 Type	Case 1 Status	Case 1 Date	Case 1 Location
2	Case 2	Case 2 Type	Case 2 Status	Case 2 Date	Case 2 Location

Adapters—Z-lateral	Length	Depth
Hearing plug—Z-lateral		

[illegible]

Rotary tools were used from	feet to	feet	and from	feet to
Udable tools were used from	feet to	feet	and from	feet to

The production for the first 24 hours was	_____	_____	_____
barrels of fluid of which _____% was oil;	_____	_____	_____
	Put to producing	_____	_____
	DATES	_____	_____

If gas well, output per 24 hours emulsion; % water; and % sediment	The production for the first 24 hours was barrels of fluid of which % was oil; %
Gallons gasoline per 1,000 cu. ft. of gas Gravity, ° Bé.	

Diller			
Diller			

FROM -	TO -	TOTAL FEET	FORMATION
1000	1000		Shale and sand
2000	1000		Shale and sand
3000	1000		Shale and sand
4000	1000		Shale and sand
5000	1000		Shale and sand
6000	1000		Shale and sand
7000	1000		Shale and sand
8000	1000		Shale and sand
9000	1000		Shale and sand
10000	1000		Shale and sand

FORMATION

FORMATION RECORD—Continued

1935-02