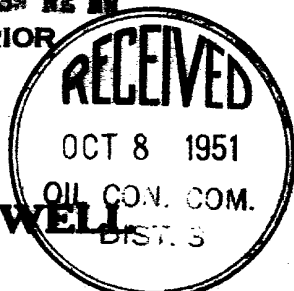


LOCATE WELL CORRECTLY

U. S. LAND OFFICE SANTA FE
SERIAL NUMBER 080382 - A
LEASE OR PERMIT TO PROSPECT

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



LOG OF OIL OR GAS WELL

Company THE FRONTIER PETROLEUM COMPANY Address 410 BOSTON BUILDING, DENVER, COLO.
 Lessor or Trustee SOUTHERN OIL COMPANY Field W. K. RICE CANYON State NEW MEXICO
 Well No. 30 Sec. 16 T. 27 N. R. 11 W. Meridian N.M.P.N. County SAN JUAN 6297 KB
 Location 800 ft. 100 yds. Line and 2650 ft. of W. 1/4 of Section 16 Elevation 6297 ft. Ord.
 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.

Date October 4, 1953 Signed Denman S. Galbraith
 Title Denman S. Galbraith, Geologist

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

Commenced drilling on _____ 8/1 1952 Finished drilling on _____ 8/1 1952

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 1873 to 1892 G. 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 1/2	54	5	WELLS	100	WELLS	100	100	100	100
5 1/2	54	5	WELLS	100	WELLS	100	100	100	100
1 1/2	54	5	WELLS	100	WELLS	100	100	100	100

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
8-5/8"	83' KB	75 sacks	plug	-	-
5-1/2"	1942' KB	128 sacks	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
4x20	4	Liquid Nitro	80 gals.	5/21/51	1955-1988' 10	1988' 10

TOOLS USED

Rotary tools were used from 0 feet to 1998 feet, and from _____ feet to _____ feet.

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

1 DATES

Completed 8/23, 19 51 Put to producing Sept. 14, 19 51

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 2,480,000 Gallons gasoline per 1,000 cu. ft. of gas

Rock pressure, lbs. per sq. in. 460

EMPLOYEES

Camden Drilling Company _____, Driller	_____, Driller
English Drilling Company _____, Driller	_____, Driller

FORMATION RECORD

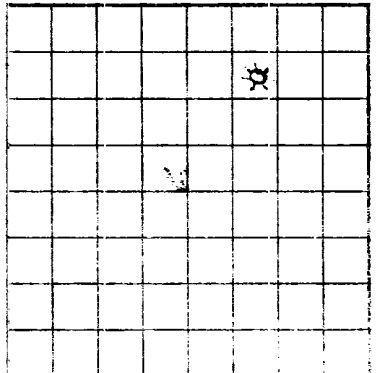
FROM—	TO—	TOTAL FEET	FORMATION
0	822	822	Sand and shale. Top Ojo Alamo at 822'. Torrejon-Puercio (?) at surface.
822	935	113	Sand with shale breaks. Top Kirtland shale at 935'.
935	1873	938	Sand and shale with some coal. Top Pictured Cliffs at 1873' (?).
1873	1998	125	Sand with shale stringers.
	1998' KB	TD	

(OVER)

18-A2004-8

NOVATION RECORD-CASES

LEASE OR PERMIT TO PROSPECT
SERIAL NUMBER
U. S. LAND OFFICE



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



LOG OF OIL OR GAS

[illegible]

HISTORY OF OIL OR GAS WELL

[illegible]

FORMATION RECORD—Continued

F. Loc. 990/N; 1650/W Elev. 6228 GL Spd. 8/1/51 Comp. 9/15/51 RD 1998 PB

Casing 8-5/8 @ 83 W 75 Sx. Int. @ W Sx. Pr. 5 1/2 @ 1942 W 128 Sx. T. 1 @ 1973
Csg. Perf. Prod. Stim.

Shot 80 qts 1955-1988

I.P. 2300 ~~2475~~ MCF/D After 23/4 Hrs. Sic. P. 460 PSI After 3 Days GOR Grav. 1st Del. 1/4/53 T r a n s E²NG

TOPS		NITD	X	Well Log	X	TEST DATA					
Kirtland		C-102		Piat	X	Schd.	PC	Q	PW	PD	D AIL
Fruitland		C-103		Electric Log	X						349
Pictured Cliffs	1926	C-104	✓	C-110	X	54	281	133	212	141	212
Cliff House		Remarks				9/15/55	264	104	193	132	157
Menefee						5/2/56	203	29	200	31	151
Point Lookout											
Mancos											
Tocito											
Dakota											
Morrison											
Entrada											
PCD	431 ✓										

P Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.

2/6/00
F.Loc. 990/N; 1650/W Elev. 6228 GL Spd. 8/1/51 Comp. 9/15/51 TD. 1998 ^{CO} 1988
Casing 8-5/8 @ 83 W 75 Sx. Int. @ W Sx. Pr. 5 1/2 @ 1942 W 128 Sx. T. 1 @ 1973
Csg.Perf. Prod. Stim. Shot 80 qts 1955-1988 1 T 1953

I.P. 2300 ~~1878~~ MCF/D After 2 3/4 Hrs. SICP 460 PSI After 3 Days GOR _____ Grav. _____ Ist Del. 1/4/53 EPN G

TOPS		NITD	X	Well Log	X	TEST				DATA		
Kirtland		C-102		Plot	X	Schd.	PC	Q	PW	PD	D	Ref. No.
Fruitland		C-103		Electric Log	X						349	
Pictured Cliffs	1926	C-104	X X ✓	C-110	X ✓	54	281	133	212	141	212	
Cliff House					9/	15/55	264	104	193	132	157	
Menefee		Ditr 4/9/60		Dfa	8/	7/56	263	39	242	131	151	
Point Lookout		Datr 7/15/60		Dac 2/1/60		7/55	255	35	217	130	153	
Mancos		Remarks 8/1/60				7/55	255	35	217	130	153	
Tocito						9/6/59	245	57	200	122	132	
Dakota						2/7/60						
Morrison						4/6/59	245	110	124	123	132	#543/
Entrada						6/6/60	235	48	191	118	94	#559/
						4/5/61	235	25	209	118	112	
						2/2/62	232	25	192	112	43	XM
						3/2/62	235	10	217	120	19	
PCD	4312	Formerly Frontier Ref.				160						

P

①

OL K-117-2 DC

Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec.