Form 9-330

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

U. S. LAND OFFICE Santa Fe
SERIAL NUMBER 078931-B
LEASE OR PERMIT TO PROSPECT

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OIL CON. COM.
DIST. 3

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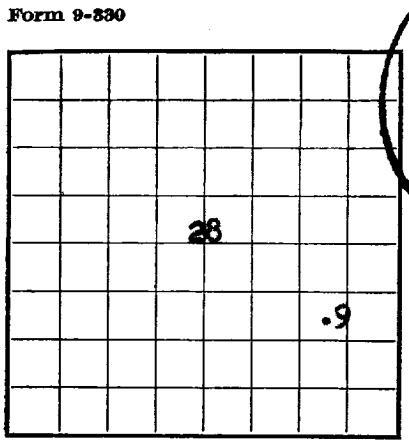
U. S. GEOLOGICAL SURVEY
FARMINGTON, NEW MEXICO



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Tennessee Gas Transmission Company Address P. O. Box 1714, Durango, Colorado
Lessor or Tract USA Glenn H. Callow Field Undesignated Gallup ~~Undesignated Dakota~~ State New Mexico
Well No. 9 Sec. 28 T. 29N R. 13W Meridian NMPM County San Juan
Location 1600 ft. {N./S.} of S Line and 1000 ft. {E./W.} of E Line of Section 28 Elevation 5802 (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 R. N. Walker
Date November 27, 1959 Title District Production Supt.

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

Commenced drilling September 24, 1959 Finished drilling October 20, 1959

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 5510' to 5608' No. 4, from to
No. 2, from 6145' to 6312' G No. 5, from to
No. 3, from to No. 6, from to

IMPORTANT WATER SANDS

No. 1, from None 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"	32.3	8 RD	CPAI	154	Guide	-	-	-	Surface
7"	20 & 23	8 RD	CPAI	6367	Float	-	6145	6282	Production
							5508	5608	Production

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
9-5/8"	167	75	Two Plug		
7"	6380	375	Two 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 6382 feet, and from - feet to - feet
Cable tools were used from - feet to - feet, and from - feet to - feet

DATES

Dakota Potential November 6, 1959
Flw 5265 MCFPD--3/4" ch. 3 hrs.
ACF 6818 MCFPD
Gas Cond. Ratio 17 MCF/bbl.

Gallup Potential November 23, 1959
Flw 78 BO in 24 hrs. 14/64" ch.
GOR 150 cu. ft./bbl.

Put to pumping 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.

EMPLOYEES

, Driller , Driller
, Driller , Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	12	12	KB to Ground Level
12	900	888	Shale and sand stringers
900	1570	670	Brown Shale
1570	1720	150	Sandstones
1720	3120	1400	Black Shale w/occasional sand stringer
3120	4310	1190	Sandstone and shale
4310	5510	1200	Black shale
5510	5630	120	Shaley and silty sands w/shale
5630	6140	510	Shale
6140	6382	242	Sandstones and shale

ELECTRIC LOG TOPS

Farmington Sand	490
Fruitland Shale	900
Pictured Cliffs	1570
Lewis Shale	1725
Mesa Verde	2530
Mancus Shale	4350
Gallup	5246
Lower Gallup	5570
Greenhorn	6045
DAKOTA	6140
Morrison	6310

FOLD MARK

16—48094-4

FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION
CORES:			
No. 1 5450	5466	Rec. 16'	Black Shale
No. 2 5466	5505	Rec. 39'	Black Shale; highly fractured.
No. 3 5551	5565	Rec. 14'	Black Shale Mud; Thin sand laminations bleeding oil and gas; fractured
No. 4 5590	5613	Rec. 23'	Black shale w/sand laminations; slight fluor and cut.
No. 5 6150	6190	Rec. 40'	Shale & Sand; Bleeding gas; fractured
No. 6 6230	6245	Rec. 14'	Shaley sand; fractured; w/show of gas
No. 7 6245	6258 1/2	Rec. 12 1/2'	Fine grain sand w/slight odor and fluor.

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.

Spud 12 1/4" hole September 23, 1959 and drill to 170'. Drill 8 3/4" hole to 688. Ran 9 5/8" OD, 32.3#, H-40, Casing. Set at 167'. Cemented w/75 sx cement and circulated to surface. WOC 24 hrs. and pressure tested casing at 600 psi for 30 min. Drill and core 8 3/4" hole from 688 to 6382. Run and cement 7"OD 20# and 23#, J-55, Casing. Set at 6380', w/cement stage collar at 2124. Cement bottom stage w/300 sx cement. WOC 4 hrs. Cement top stage at 2124 with 75 sx. WOC 24 hrs. Drill out stage collar. Perforate Dakota 6282-6277, 6271-6239, 6188-6143 w/4 shots per ft. Sand water frac Dakota with 80,000 gals. and 160,000 pounds down casing. Clean up and took MMOCC test 11/6/59. Flw rate5265 MCFPD. AOF 6818 MCFPD, 3 hr test. 3/4" choke. Kill well and set HOWCO "CL" production packer at 6100' with plug. Perforate Gallup 5562-5628 w/4 shots per foot. Sand oil frac Gallup w/50,000 gals and 80,000 lbs down casing. Kill well. Run Dakota tubing thru production packer and set at 6151. Run Gallup tubing and set at 5575. Recovered load oil. Took potential test 11/23/59. Flw 78 BO in 24 hrs, 14/64" choke. GOR 191 cu. ft./bbl. FTP 277