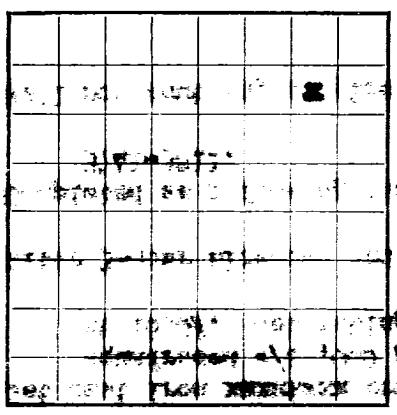
Form 9-330

Budget Bureau No. 42-R-355.3.
Approval expires 12-31-55.

U. S. LAND OFFICE Jicarilla
SERIAL NUMBER Contract #122
Co. LEASE OR PERMIT TO PROSPECT #196082



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RECEIVED
AUG 23 1957
U. S. GEOLOGICAL SURVEY
FARMINGTON, NEW MEXICO

LOCATE WELL CORRECTLY

LOG OF OIL OR GAS WELL

Company Humble Oil & Refining Company Address Box 2180, Houston 1, Texas; Box 1266, Farmington, New Mexico

Lessor or Tract Jicarilla Apache Tribe "G" Field Pictured Cliffs State New Mexico

Well No. 1 Sec. 10 T. 25N R. 4W Meridian - County Rio Arriba

Location 990 ft. [illegible] S. of [illegible] Line and 990 ft. [illegible] W. of [illegible] Line of Section 10 Elevation 7288 (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 Rhoball M. Lilly

Date August 22, 1957 Title District Superintendent

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

Commenced drilling April [illegible], 19[illegible] Finished drilling June 10, 19 57

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from [illegible] to [illegible] 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 From—	Perforated To—	Purpose
13-3/8	[illegible]	[illegible]	[illegible]	[illegible]	Mall.				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Mall.				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Mall.		[illegible]	[illegible]	Production

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
13-3/8	[illegible]	[illegible]	Pump		
[illegible]	[illegible]	[illegible]	Pump		
[illegible]	[illegible]	[illegible]	Pump		

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 [illegible] feet, and from ..... feet to ..... feet

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

DATES

August 11, 19 57 [illegible] August [illegible], 19 57

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 2,114,000 Gallons gasoline per 1,000 cu. ft. of gas .....

Rock pressure, lbs. per sq. in. 1023 SIYP

EMPLOYEES

T. M. Hairston, Driller F. H. Stallings, Driller

Aaron Holmes, Driller ....., Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	309	309	Clay and sand
309	5470	5161	Sand and shale
5470	5510	40	Sand and shale and coal
5510	5570	60	Sand and shale
5570	5710	140	Sand and shale and coal
5710	8367	2657	Sand and shale

Formation Tops

Pictured Cliffs	3746
Tanito Gallup	7477
Dakota	8076

[OVER]

16—43094-3

FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION

[OVER] 16—43094-2

CORE NO.	INTERVAL	RECOV.	DESCRIPTION OF CORE
1	3741-3774	33	Sandy shale with sandstone streaks, very slight bleed gas.
2	3774-3788	14	Gray shale and shaley sandstone, slightly bleeding gas.
3	3788-3798	[illegible]	Gray sandstone, bleeding gas
4	[illegible]-5418	45	Gray f.g. [illegible], very slightly bleeding gas
5	5418-5470	52	Coal, lt. gry, f.g. sandstone, slightly bleeding gas
6	5470-5520	50	Black shale, lt. gry, f.g. sandstone, bleeding gas
7	5851-5901	50	Shale and coal streaks
8	[illegible]	50	Lt. gry, f.g. sandstone, coal, slightly bleeding gas
9	6100-6125	25	Lt. gry, f.g. white sandstone, slightly bleeding oil
10	7344-7394	50	Black shale, lt. gry, f.g. sandstone, bleeding oil
11	7439-7489	50	Black sandy shale, gray sandy shale, bleeding oil
12	7489-7539	50	Black shale, no show
13	8051-8101	50	Dark grey, f.g. shaley sandstone, slight odor
14	8101-8149	48	Drk. gry, f.g. shaley sandstone, fair stain and odor
15	8149-8164	15	Grey, to dark grey shaley sandstone, no show
16	8164-8185	20	Blk, [illegible], shaley sandstone, no show
17	8198-8235	37	Black shale, green and white sandstone, conglomerate, NS
18	8235-8267	30	Wht and lt. grn coarse g. sandstone, grn shale, NS
19	8267-8317	49	White coarse grained sandstone, conglomerate, wet, NS

DRILL STEM TEST RECORD

TEST	INTERVAL	[illegible]	TOOL OPEN	RECOVERY	REMARKS
1	[illegible]-6125	1" 1"	1-1/2 hrs.	190' Oil & gas cut mud	Good blow 1 hour
2	7036-7394	1" 3/4"	2 hours	20' drilling mud	Gas to surf 10 min.
3	7428-7539	1" 1"	45 mins.	110' drilling mud	Weak blow 30 min.
4	[illegible]-8149	1" 1"	2 hours	[illegible]	Good blow thruout test
5	[illegible]-8149	1" 1"	2 hours	[illegible]	Good blow thruout test
6	[illegible]	1" 1"	1-1/2 hrs.	[illegible]	Good to weak blow
7	[illegible]-8317	1" 1"	1-1/2 hrs.	711' Gas cut mud	Good blow [illegible] 30 mins.

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.

The well was drilled to a total depth of 8367' w/a completion depth of 3840'.

Set 294' of 13-3/8" csg. at 309' w/[illegible] sax of calcium chloride cement.

Set 3919' of 9-5/8" csg. at 3930' w/2 stage tool set at 2524'. 1st stage 325 sax neat cement, 2nd stage 200 sax neat cement.

Set 8350' of 5-1/2" csg at 8362' w/2 stage tool set at 6282'. 1st stage cemented w/ 495 sax of neat cement, 2nd stage cemented w/790 sax neat cement.

Perf'd from 8114-8148' w/6 bullet shots/foot. Ran 3" tubing to 8155, washed perfs from 8114-8148 w/500 gallons of mud acid, injectionrate 1.3 bbls/min at 1250#. Swabbed well dry, no show of oil or gas. Aquafraced thru perfs w/30,000 [illegible] gallons of water and 15,000# sand. injectionrate 13 bbls/min at 3800#. Used 130 perf ball sealers, swabbed well, making small amount of gas. Set 3" tubing at 8136 w/packer set at [illegible]. Swabbed well, made small amount of gas and skim of oil and frac water. Pulled tubing and packer. Set Cast Iron retainer at 8090, ran tubing and squeezed perfs w/100 sax neat cement.

Perf'd from 7962-7986 w/4 bullet shots per foot. Set 3" tubing at 7990 w/packer set at 79[illegible]. Swabbed well dry, treated perfs w/500 gallons of mud acid at 2700#. Aquafrac w/26,000 gallons of water and 26,000# sand. Avg. inj. rate 28.[illegible] bbls/min at [illegible]#. Used 15 perf ball sealers, swabbed well w/strong show of gas, show of oil and salt water. Squeezed perfs w/150 sax neat cement. Pulled tubing and packer. 7988

Perf'd from 5[illegible], 5[illegible]-57[illegible], 5774-5[illegible], and 6046-6108 w/4 bullet shots/foot. Aquafrac w/[illegible] gallons of water and [illegible]# sand. Avg. inj. [illegible] bbls/min at 2800#. Set [illegible] tubing at 5[illegible], swabbed well, frac water and small amount of gas. Set Cast Iron retainer at 5809, squeezed perfs w/2[illegible] sax neat cement.

Set cast iron [illegible] bridge plug [illegible] perf'd from 37[illegible] w/4 [illegible] shots/foot. Aquafraced w/41,000 gallons of water and 50,000# sand. Avg. [illegible] bbls/min at 1600#. Set tubing at 3733', swabbed well in.

After 3-hour blowdown and after 7-day shut in, well produced at rate of [illegible] MCF/day

Completed as a flowing gas in Pictured Cliffs formation through perfs in [illegible] from 3741-3811.

Well now shut in, no pipe line connection.

Form 9-330