Form 9-330

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

U. S. LAND OFFICE Navajo
SERIAL NUMBER 14-20-603-112
Gulf LEASE OR PERMIT TO PROSPECT 67,579

LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Humble Oil & Refining Company Address Box 2180, Houston 1, Texas
Box 1264, Farmington, N. M.
Lessor or Tract Navajo Tribe of Indians Field Beautiful Mt. W/C State New Mexico
Well No. 1 Sec. 30 T. 26N R. 19W Meridian ____ County San Juan
Location 790 ft. [N.] of N Line and 790 ft. [E.] of W Line of Section 30 Elevation 6470
(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 ____
Date January 15, 1957 Title Russell N. Lilly, District Superintendent

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

Commenced drilling October 17, 1956 Finished drilling January 4, 1957

OIL OR GAS SANDS OR ZONES

(*Denote gas by G*)

No. 1, from None to ____ 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 748 Dakota to ____ No. 3, from 2010 Entrada to ____
No. 2, from 910 Morrison to ____ No. 4, from ____ to ____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforations from—	Purpose
13-3/8"	48#	8R	STAR	391.36	Larkin			
9-5/8"	36#	8R	STAR	[illegible]	Larkin			

HISTORY OF OIL OR GAS WELL

It is to the greatest importance to have a complete history of the well. Please state in detail the work done in the order in which it was done, stating the reasons for the work and the results. If there was any change made in the casing, give the date, reason, and depth of the change, and if any other work was done in the hole, such as fishing, reaming, shooting, or acidizing, give the date and the depth at which it was done, and the results obtained.

RECEIVED JAN 17 1957 U.S. GEOLOGICAL SURVEY FARMINGTON, NEW MEXICO

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
13-3/8"	406'	500	Full	10.3#	
9-5/8"	2700	1000	Full	10.2#	

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
		None				

TOOLS USED

Rotary tools were used from 0 feet to 7136 feet, and from ____ feet to ____ feet
Cable tools were used from ____ feet to ____ feet, and from ____ feet to ____ feet

DATES

____, 19____ Put to producing Plugged & abandoned as dry hole 1-6-57, 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	110	110	Surface
110	870	760	Sand & shale — Dakota 748'
870	1029	159	Sandy shale & chert — Morrison 910'
1029	1700	671	Sand & shale
1700	2000	300	Sand, shale & chert — Todilto 1972'
2000	2047	47	Sand, shale & lime — Entrada 2010'
2047	2174	127	Sand, shale & limestone
2174	2347	173	Sand & shale
2347	2417	67	Shale
2417	2635	218	Sand & shale
2635	2700	65	Sand, shale & chert
2700	3330	630	Sand, shale — Chinle 2734'
3330	3590	260	Sandstone & shale
3590	3792	202	Shale — Cutler 3772'
3792	4237	445	Sand & shale
4237	4386	149	Sand
4386	4438	52	Sand & shale
4438	4470	32	Sand & lime
4470	4511	41	Sand, lime & shale
4511	4873	362	Sand & shale
4873	4945	72	Shale
4945	5110	165	Clay & shale
5110	5142	32	Sand & shale
5142	5162	20	Sandstone
5162	5219	57	Sand, lime & shale
5219	5397	178	Sand & shale

TOTAL FEET

OVER

FORMATION RECORD—Continued

16—43094-3

FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION
[illegible]	3450	53	Shale
3450	3491	41	Anhydrite & shale
3491	3593	102	Shale — Hermosa 5560'
3593	3678	85	Lime & shale
3678	3776	98	Shale
3776	3811	35	Lime & Chert
3811	3834	23	Sand, shale, lime & chert
3834	3951	117	Lime, chert & shale
3951	3974	23	Lime & shale
3974	3985	11	Lime & chert
3985	4004	19	Lime, shale & chert
4004	4145	141	Lime & shale
4145	4182	37	Sand & lime
4182	4212	30	Core 2 & 3
4212	4221	9	Sand & lime
4221	4227	6	Core 4
4227	4500	273	Lime & shale
4500	4548	48	Lime, shale & chert — Molas 4409' (?)
4548	4604	56	Lime & shale — Leadville 4463'
4604	4714	110	Core 5
4714	4727	13	Lime & chert
4727	4793	66	Lime & shale
4793	4893	100	Core 6,7 & 8
4893	4898	5	Lime & shale
4898	4935	37	Lime, shale & chert
4935	4970	35	Lime — Ouray 4962'
4970	4992	22	Lime & shale
4992	5026	34	Lime & Sand
5026	5201	175	Sand & shale — Aneth 5050' (?)
5201	5226 5221	20	Lime & shale — Ophir 5202' (?)
5221	5245	24	Lime, shale & dolomite & chert
5245	5254	9	Dolomite — Timble 5242'
5254	5283	29	Chert & Dolomite
5283	5357	74	Sand & lime — Mississippian 5324'
5357	5390	33	Sand & dolomite
5390	5416	26	Sand & lime
5416	5436	20	Core 9

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 drilling, together with the reasons for the work and its results. If there were any changes made in the casing, state why, 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.

CASING RECORD

Size	Weight per foot	Amount	Make	Amount	Kind of shoe	Cement used (sacks)	Perforations	Purpose

INCOMPLETE WATER SANDS

No. 1, from ____ to ____ No. 2, from ____ to ____

No. 3, from ____ to ____ No. 4, from ____ to ____

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from ____ to ____ No. 2, from ____ to ____

No. 3, from ____ to ____ No. 4, from ____ to ____

Commenced drilling ____ 19__ Finished drilling ____ 19__

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 ____

Date ____ Title ____

LOCATE WELL CORRECTLY

LOG OF OIL OR GAS WELL

Company ____ Address ____

Lessor or Tract ____ Field ____ State ____

Well No. ____ Sec. ____ T. ____ R. ____ Meridian ____ County ____

Location ____ ft. ____ of ____ Line and ____ ft. ____ of ____ Line of ____ Elevation ____

GEOLOGICAL SURVEY

DEPARTMENT OF THE INTERIOR

UNITED STATES

U. S. LAND OFFICE ____

SERIAL NUMBER ____

LEASE OR PERMIT TO PROSPECT ____

FORM 9-330

16—43094-2 U. S. GOVERNMENT PRINTING OFFICE

Budget Bureau No. 42-R355.5.
Approval expires 12-31-55.

Mable Oil & Refining Company
Navajo Tribe of Indians "D" No. 1

WELL HISTORY

This well was drilled to a total depth of 7136' and plugged and abandoned as a dry hole on January 6, 1957.

Set 13-3/8" casing at 406' w/500 sacks neat cement. Cement circulated.

Core No. 1 from 2000 to 2016 - recovered 16' - 3' gray sandy crystalline limestone, tight, NS; 1' light green sandy limestone, tight NS; 14' maroon, green, and red fine grained sandstone, fair porosity, looks wet, no taste, odor or show.

Set 9-5/8" casing at 2700' w/900 sacks 8% gel and 100 sacks neat cement. Cement circulated. Drilled to 6182' and started testing.

Core No. 2 from 6182 to 6194.5 - recovered 12.5' white, fine grained hard calcareous sandstone. No visible porosity. Scattered pinpoints of bleeding oil. Thin zones of stain, odor and fluorescence along fractures and bedding planes between 6184 - 6186. Good odor, stain and fluorescence in bottom 1-1/2'. Very slightly bleeding oil & gas along fractures. Gas may be inert.

DST #1 from 6172 to 6195 w/1" TC & 3/4" BC. TO 36 minutes. Opened w/weak blow - died in 7 minutes. By-passed tool - reopened tool - few bubbles and died. Recovered 10' very slight oil cut mud. IH & FH 3480#. Min. & Max. FP 30#. BUP after 30 minutes - 30#. Test satisfactor

Core No. 3 from 6195 to 6222 - recovered 10' - 3' white dolomitic fine grained sandstone w/slight stain, odor and fluorescence; 7' gray fine crystalline hard dolomite, no shows.

Core No. 4 from 6221 to 6227 - recovered 6' - 1' gray, hard, finely crystalline dolomite; 2' dark gray soft shale; 3' hard green shale w/patches of tan limestone.

DST #2 from 6192 to 6227 w/Johnston tool & 1" TC & 3/4" BC. TO 30 min. Very weak blwo for 8 minutes & died. IH 3495#, FH 3500#, min. & max. FP 70#. BUP 70# after 30 min. Recovered 10' very slightly oil & gas cut drlg. mud. Test satisfactory.

DST #3 6215 to 6329 w/Johnston tool & 1" TC & 3/4" BC. TO 30 min. Very weak blow, then died in 23 min. IH 3500#, FH 3500#, min. & max FP 210#. BUP 210# after 30 min. Recovered 32' very slightly oil & gas cut mud. Bottom hole temp. 172°. Test satisfactory.

Core No. 5 from 6504 to 6514 - recovered 10' - 4' gray medium crystalline limestone w/numerous fractures filled w/red shale, scattered patches of red shale; 6' gray medium crystalline limestone and red shale, about 50% red shale in patches, looks brecciated, but all fractures filled w/red shale. One large calcite lined vug.

DST # 4 from 6484 to 6514 w/1" TC & 3/4" BC. TO 55 min. Weak blow for 45 min. & died. IH 3480#, FH 3470#, min. FP 50#, max FP 70#. BU after 30 min. 70#. Test satisfactory.

Core No. 6 from 6593 to 6614 - recovered 21' - 17' maroon and green waxy shale; 4' gray-green medium crystalline dolomite w/a few small patches of black and green shale.

Core No. 7 from 6614 to 6644 - recovered 29' - 3' gray-green medium to coarsely crystalline dolomite; 6' light gray, very finely crystalline dolomite, few tight fractures; 4' light gray coarsely crystalline dolomite, few tight fractures; 6' gray, finely crystalline, sandy dolomite; 2' gray dense dolomite; 6' green and maroon dolomitic shale; 2' gray-green dense dolomite.

Core No. 8 from 6644 to 6693 - recovered 38'. - 13' maroon shale w/streaks of gray-green shaley dolomite, few fractures 20 to 30 degree dips; 4' gray-green brecciated sandy dolomite red shale in fractures; 17' gray-green sandy finely crystalline dolomite, locally brecciated. One vug and numerous fractures in lower part, few gas bubbles; 3' red shale and very sandy dolomite - 20 to 30 degree dips; 1' white chalky sandy limestone badly ground up by core bbl.

DST #5 from 6658 to 6693 w/Johnston tool, 1" TC & 3/4" BC. TO 30 min. Opened w/very weak blow for 6 min. & died. IH & FH 3640#. Min. & Max FP 0#. BUP 0# after 30 min. Rec. 7' drlg. mud. Test satisfactory.

Ran dipmeter survey and velocity survey at 7032'.

Core #9 from 7116 to 7136 - recovered 20' - dark green chlorite gneiss (metamorphic rock). Numerous tight fractures filled w/calcite.

Ran DS, Gamma Ray, Neutron & Microlog surveys.

Received verbal approval to plug and abandon 1-4-57. Set plugs as follows:
From 6820 to 6720 w/75 sks. neat cmt., from 6520 to 6350 w/100 sks cmt., from 5650 to 5550 w/75 sks cmt., from 3800 to 3700 w/75 sks. cmt., from 2800 to 2650 w/100 sks. cmt.

Set top plug at 25' to surface w/10 sacks neat cement.

Well plugged and abandoned.