Operator:

Miami Oil Producers, Inc.

Well:

Mavajo 3538 E-1

Location:

990' PML x 1980' FWL 13-32N-17W,NMPM

Elevation:

6844' Kb. - 6837' G.L.

Total Depth:

3616' Driller; 3604' Schlumberger

Commenced:

September 15, 1964

Completed:

October 6, 1964

Production:

Plugged and abandoned

Casing:

8-5/8" - 168' - 70 sacks

Cores:

None

Drill Stem Tests:

None

Surveys:

Schlumberger

Induction-Electrical log - 168' - 3603' Detail - 2490' - 3603' Gamma Ray-Density w/cal. - 2490' - 3603'

Deviation

1½° @1975'; 1° @ 2495'; 1½° @ 3144'; 2½° @ 3438'

Contractor:

Miami Oil Producers, Inc.

Rig #1

Earl Allen - Tool Pusher

Distribution of Data:

Logs have been sent to Humble, U.S.G.S., State of New Mexico. Samples were sent to Four Corners Sample Cut in Farmington, New Mexico. Notice of Intention to Drill and Designation of Operator filed with

U.S.G.S.

Daily Driller's Log

September 24, 1964:

Building road and location

September 25, 1964:

Moving in and rigging up. Spudded 7:30P.M.

September 26, 1964:

Drilled 11" hole to 187'. Ran 5 joints of 8-5/8" J-55 (24#) casing set at 168' with 70 sacks 2% gel, 2% Cacl. Plug down at

4:00 A.M. 9-27-64.

September 27, 1964: W.O.C.

September 28, 1964: Drilling @ 215'. Lost circulation.

September 29, 1964: Drilling @ 910'

September 30, 1964: Drilling @ 1790'

October 1, 1964: Drilling @ 2195'

October 2, 1964: Drilling @ 2605'

October 3, 1964: Tripping @ 3144'

October 4, 1964: Drilling @ 3508'

October 5, 1964: Running logs. Total Depth.

October 6, 1964: Plugged from 3200' - 3400' w/60 sacks

2750' - 2850' w/30 sacks 130' - 230' w/30 sacks

0' - 30' w/10 sacks

Plugging approval received from Mr. Ted Fautin, Humble & U.S.G.S. Installed

abandonment marker.

Bit Record

BIT #	SIZE	MAKE	TYPE	DEPTH	TUO	HOURS	RUN
Surf.	11"	Reed	YT3	186'		6	
1	7-7/8	C.P.	ESZG	832 '		13½	
2	7-7/8	C.P.	ESZG	1368'		11¼	
3	7-7/8	C.P.	ES1CAJ	1975'		18½	
4	7-7/8	ATCo.	OSClGJ	2495 '		24	
5	7-7/8	C.P.	ESZGJ	31441		24¾	
6	7-7/8	C.P.	ESZGJ	3438!		11%	
7	7-7/8	C.P.	EM1V-J	35921		10%	
8	7-7/8	C.P.	EMIV	3614'		1¼	

E-Log Formation Tops

Cliff House - Surface	Sanastee - 2880'(+3964)
Menefee - 287'(+6557)	Greenhorn- 3230'(3614)
Point Lookout - 1097'(+5747)	Dakota - 3330'(+3514)
Mancos - 1442'(+5402)	Morrison - 3590'(+3254)
Lower Gallup - 2760'(+4084)	Total Depth - 3616'

Discussion

The Miami Oil Producers, Inc. Navajo 3538 E-1 found no sand in the Lower Gallup interval. Sandy shale was present in

the interval 2770' to 2825'. No clean sand was present in this interval and the density log showed no porosity. No show was apparent in the samples from the Lower Gallup interval.

The Dakota sand had three well developed benches in this well. The first bench from 3360' to 3410' had 40' of sand with a total of 12' of porosity ranging from 8 to 13%. No flourescence, stain, cut or odor was present in the samples and log analysis indicated 80-85% water saturation. The second bench from 3463' to 3490' had 27' of sand with 21' of porosity from 14-17%. No show was present in this interval in the samples and logs indicated 50-60% water saturation. The third bench from 3540' to 3590' had 50' of sand with 38' of porosity from 18-20%. No show was present and water saturation averaged 55%.

Structural closure is considered necessary for Dakota production. Structural comparison with surrounding wells indicates this well to be structurally low and there is no indication of local closure.

Due to lack of porous sand in the Gallup and the lack of shows in the Dakota combined with the low structural position and high water saturations, it was recommended that the Navajo 3538 E-1 be plugged and abandoned. No additional drilling in this area is recommended.

Howard L. Kennedy

Geologist

November 23, 1964