## STANOLIND OIL AND GAS COMPANY HOUSTON, TEXAS

July 21, 1941

Mrs. Helen Jeanne Plumer 3109 Walling Austin. Texas

Dear Mrs. Plummer:

FORM 509-0-20

Classification of the Wilcox as "Middle Eccene" was my own idea, and had a reason behind it. For several years I have been interested in Wilcox faunas and have been seeking reliable criteria for determining the top of the Wilcox in the subsurface.

I began by making a fairly detailed study, paleontologic and lithologic, of the Wilcox and lower Claiborne section as exposed in Alabama and Mississippi. This study was carried into the subsurface of south Alabama and south Mississippi. then pursued westward across Louisiana and Texas.

All this work indicated that, so far as microfossils are concerned, the basal Claiborne (Reklaw or beds of equivalent age) is very closely related to the upper Wilcox (Hatchetigbee - Bashi). In the surface and subsurface section of Alabama and Mississippi the lithologic change from Wilcox to lower Claiborne often is very marked. In the subsurface of parts of Louisiana and much of Texas the change is very slight. The questionable age of the Carrizo is a fair illustration of the surface problem in the Texas region.

My opinion is that the Hatchetigbee - Bashi fauna is somewhat closer to the basal Claiborne fauna than to the Tuscahoma - Nanafalia. While I have had difficulty in determining the change from basal Claiborne to uppermost Wilcox faunas, I have seldom had any trouble in deciding when the Tuscahoma - Nanafalia fauna appeared. I have found this so from Alabama to the Rio Grande.

It is true, as you say, that there was little if any break in sedimentation from Midway to Wilcox. I believe it is also true that there was likewise hardly any break in sedimentation from Wilcox to Claiborne. It must be admitted that



the Tuscahoma-Nanafalia microfauna is very similar to that of the Midway. However, the Tuscahoma-Nanafalia contains certain very characteristic species, ostracods and forams, which serve to identify it.

As I see it, the difference between the Hatchetighee-Bashi microfauna and the Tuscahoma-Nanafalia microfauna is more important than the difference between the basal Claiborne microfauna and the Hatchetighee-Bashi microfauna. Since I did not feel bold enough to place an important paleontologic break in the middle of the Wilcox lithologic unit, I did what I considered next best, and placed the whole Wilcox in "Middle Eccene".

Of course, if the Midway is considered as Paleocene rather than lower Eccene, the Wilcox very properly falls into lower Eccene.

I think I must have missed out on your last mailing list.

Hoping to see you when you are next in Houston,

Very truly yours.

J. B. Garrett

JBG: pm

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