February 5, 1962

Mr. G. W. Strake
3300 Gulf Bldg.
Houston 2, Texas

Re: LeBow Federal No. 4 & 9,
Unit F, Section 25-19-30,
North Hackberry Yates
Pool.

Gentlemen:

A problem has developed concerning your wells in and around the North Hackberry Yates Pool. I shall outline, herein, the problem, the cause, what action had been taken, and what action remains to be taken.

On November 21, 1961 you completed your LeBow Federal No.4, 2310/N and 330/W of Section 25-19-30 as a wildcat well in Seven Rivers dolomite about one hundred and twenty feet below the North Hackberry Yates pay. Cores of this interval and electric logs indicated a typical Seven Rivers dolomite. Subsequently, your geologist came to this office to determine if a second well could be drilled on the same unit with well No. 4. The second well was to be drilled to the regular Yates pay zone. After going over what logs were available in the area and the core description it was determined that the LeBow No.4 was producing from the Seven Rivers and a second well to the Yates could be drilled. Well No. 4 was dry in the "Yates" sand. The LeBow Federal well No. 9, 2310/N, 330/W, was drilled to and completed in the Yates sand December 15, 1961.

The problem developed as follows. In preparing a crossection through 25-19-30, 26-E through 4-31-E, I saw that the formation identified as Seven Rivers in the No. 4 LeBow was correlative time wise to the lower part of the Yates formation, however,

rather than being the usual dirty shaley section as found in more typical Yates wells, this section, as was pointed out before, was dolomite. At first I presumed that the lower part of the Yates was locally missing. Later, however, after talking to local geologists I found a more logical explanation. The area in question is in the transition zone from the Capitan Reef facies to the south to the back reef facies of the north. The Capitan reef is correlative time wise to the Tansill, Yates, Seven Rivers, Queen and Grayburg formations. The reef front and back are not uniform, there being reef tongues which project into the surrounding formations. What has been called Seven Rivers in the No. 4 LeBow now appears to actually be a tongue of Capitan dolomite, therefore, it now seems that there are two wells producing from the Yates time interval in Unit H of Section 25-19-30.

After making these findings we made them known to the Santa Fe office for their directions. Today, their answer was received, I am sending you a copy of their letter herewith.

As a result of their reply, see enclosed copy, we must reduce the allowable of the wells on Unit H, Section 25-19-30 to a maximum of 36 barrels of oil per day. Further, if you wish to have separate pools established for the Seven Rivers and Capitan wells or two allowables it will be necessary to have a hearing before the Commission. I suggest you contact Mr.Daniel S.Nutter, Chief Engineer for the Commission, about such a hearing. Further, it may be possible to obtain a full allowable on each of the subject wells until the case should be heard. Such an allowable application might be granted with the provision that if the case were heard and the application denied that amount of oil produced in excess of the 36 bbl allowable should be applied to the wells future allowable.

The authority for such an allowable must necessarily come from the Santa Fe office, P. O. Box 871, Santa Fe, New Mexico.

If you have questions concerning this matter do not hesitate to call upon me.

Very truly yours,

M. L. Stamets
Geologist

RLS/hb