ROBERT G. HANAGAN
PHONE 623-5053

J. P. WHITE BUILDING

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HUGH E. HANAGAN

P. O. BOX 1737 ROSWELL, NEW MEXICO

## Hanagan & Hanagan

June 19, 1964

Mr. James A. Knauf U. S. Geological Survey P. O. Drawer U Artesia, New Mexico

Re: Oil and Gas Lease LC 029020-G, Eddy County, New Mexico.

Dear Mr. Knauf:

We are in receipt of your letter dated June 17, 1964 requesting an explanation of our failure to file Form 9-331 asking approval of the remedial work done on the 1-J well located on the above captioned lease.

Upon checking our file, we find that we did not file this form on the 1-J, and also failed to file it on the 2-K, which we are now in the process of rigging up a pumping unit. The 2-K is also located in the same lease as the 1-J. Enclosed are the completed Forms 9-331 on both the 1-J and 2-K wells. Actually, the 9-331 form on the 2-K includes work done up to installing the pumping unit.

Since our organization consists of only Bob and myself, normally it is my chore to fill out these types of forms. It so happened that this time I was gone, and Bob was supposed to file the necessary forms for me. I just assumed that he had done so. We regret failing to file these forms, and will see that it does not happen in the future.

Most operators, as I am sure you are aware of, have more than their share of problems in producing these Abo wells in this area. This is true in the Jackson, Loco and Cedar Lake Abo fields. The wells are very tempermental. If you flow them on a small choke, they will load up and die. If you flow them on a large choke, some will make more than their allowable. In other words, it takes a period of time to regulate their flow. For the first few months to even a year, they produce fairly well - then trouble. Sypsum and associated mineral deposits collect around your perforations, reducing their size, collects at times even in the tubing, and also in your surface equipment. The wells reach a point that swabbing is necessary to make them flow after being shut in. The amount of time necessary to swab them in, and the number of times gradually increases to a

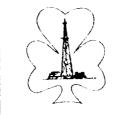
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Mr. James A. Knauf

point where it is not economically feasible to continue flowing them. In other words, they are sometimes capable of flowing their allowable, but the cost prohibits it. Of course, a point is eventually reached where they are no longer capable of top allowable production or even near allowable. The other major problem arises when plugging back to a higher position on the reef. Good squeeze jobs are hard to get, and communicating is quite common. Again, when you recomplete in another zone, you have no idea what size choke to use and how long it will hold up. Varying amounts of water can be expected at any position in the reef.

I can say that we have personally encountered all or nearly all of the above problems on the subject lease in this field. Even so, we do think that our wells are good, and even better than most of any in the field. We have and are flowing these wells as long as possible before going to the pumping method. It has been our idea to first attempt recompleting in all possible producing zones in the reef as flowing wells before placing them on the pump. During the producing history of both of these wells, they died or quit flowing several times or had to be swabbed off after being shut in, but we were able to swab them back in, making their allowable until recently. Much of this trouble, we believe, was the necessity of choking them down to stay within the allowable range.

The present status of the 1-J is a flowing top allowable well after the remedial work was performed, as noted on the enclosed Form 9-331. Pumping equipment is now being installed on the 2-K, after flowing for short periods of time after the remedial work was performed. We fully expect it to be a top allowable well on the pump. We hope to have the 2-K back on production about the middle of next week.

I see that I also got mixed up and filed on NMOCC Form C-103 instead of the Form 9-331. We will sincerely try and remedy these errors in our paper work.

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Very truly yours, HANAGAN & HANAGAN

Hugh C. Honagan

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