

CONTACT REPORT

Date: December 19, 1958 - Via Telephone

In Conference: Mr. J. L. Cooley, California Research Corporation
Mr. J. R. MacGregor, California Research Corporation
Harold J. Gibson, Ethyl Corporation

SUBJECT: Mixed Lead Alkyls

The call to California Research was made to transmit to them the price estimates for alkyl mixtures which had been agreed upon as a result of discussion in New York on December 11. For the record, the prices quoted were as indicated below. All of these are on the basis of weight of contained lead and blended as 1-T Fluid.

MA-250	20% more than TEL
MA-500	25% " " "
MA-750	30% " " "
Tetramethyl	35% more if we can develop a practical process to use existing equipment

The difficulties in developing a process for tetramethyl were pointed out to the gentlemen from California Research. Hence it was strongly emphasized that this was an "if" proposition and should not be considered too seriously. It was emphasized also that the absolute level of the quotes might move up or down somewhat, but that the differential between the several mixes should remain substantially constant. I pointed out that it was conceivable that the prices might be more favorable if we got the breaks in process development, but we would prefer that they consider the figures above. I told them that pilot plant work was continuing and engineering design for the necessary modifications to an existing building were under way with the idea that commercial production could be reached within ten to twelve months if that proved necessary. I also told them that we were not going to commit for capital expenditures until we were further along in the program with them. I told them that tetramethyl lead from us would require a minimum of eighteen months, even if existing equipment should prove to be usable, while the former estimate of 24 to 30 months would be in order if new equipment had to be used.

I emphasized to the California Research people that we had had a large group of men working in the area of economic analysis in on the pilot plant study for the last several weeks, and that these estimates were the very

best we could give them at the present time. The only comment relative to the prices quoted was Mr. MacGregor's that "we came pretty close in our previous quote." I do not think that the prices quoted are likely to be a serious detriment to consideration of the mixtures by California Research.

Considerable time was spent in discussing the toxicity aspects of the mixed alkyls. I pointed out that we had obtained data showing that the use of tetramethyl lead would result in lead concentrations up to 40 times as great as would obtain with tetraethyl under the same conditions. Mr. Cooley said this fitted in with data which they had obtained. He said that they had found that when spatter, or what he described as "misting" of gasoline during tank filling was a factor, there was no significant difference between tetramethyl and tetraethyl. However, when misting was not a factor, tetramethyl resulted in far more lead-in-air. I pointed out that while Dr. Kehoe had said there were minor differences among the alkyls insofar as skin absorption and absorption in the lungs were concerned, the overriding factor would be the level of the lead-in-air. Therefore, Dr. Kehoe said that he would have to have data on lead-in-air under typical handling situations if he was to be able to form a satisfactory judgment as to the feasibility of use of more volatile lead compounds.

I described to the gentlemen from California our ideas as to the type of brief marketing program that might provide such information and, after considerable discussion, Messrs. Cooley and MacGregor agreed that it would be a good idea. Mr. Cooley said he felt that they could provide enough data on vapor losses under various handling conditions to indicate beyond doubt the areas in which such investigations should be conducted. I told him that we would like to have them think about this as a definite possibility and be prepared to discuss it with us at a meeting which we would like to have in San Francisco around January 15. I told them that Dr. Kehoe would be available at such a meeting to answer any questions they might have, and that it would be desirable for California to have one of their medical people attend the same meeting. After some discussion it was agreed that January 19 might be a reasonable target date for such a meeting. I told them we would discuss this with Dr. Kehoe and let them know whether this was satisfactory shortly after the first of the year. They in turn will let us know whether this date is satisfactory to the other people they would like to have involved in such a meeting.

Altogether it seemed to me that Messrs. MacGregor and Cooley showed considerable interest in our proposal, that they probably felt we had been making a real effort to determine whether we could meet their requirements, and that they had a high interest in the alkyl mixture which we designate as 750. Mr. Cooley said in the course of the conversation that

they were finding that the differences between 750, 900, and tetramethyl were very small. Nothing was said during the conversation which would indicate in any way what progress they were making with competition in this same general area.

Harold J. Gibson

HJG/dl

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