CONFIDENTIAL

CONTACT REPORT

Location: Detroit

Date: December 11, 1959

In Conference -
Mr. D. Steinke, California Research, San Francisco
F. D. Buerstetta and H. E. Hesselberg, Ethyl Corporation

Jack MacGregor, in a telephone conversation with Harold Gibson earlier in the week, suggested that Dick Steinke stop by Detroit on his return from the East to discuss the X105-A program. Steinke is a project engineer in Hugh Macpherson's Fuel Section with responsibility for Cal's road evaluation program on X105-A. Although we were hopeful that Steinke might be able to give us some of the results of their more recent road evaluation programs, this did not prove to be the case since Steinke had been specifically directed by MacGregor not to bring any of their actual data along. As far as Ethyl's contribution was concerned, it consisted mostly of a detailed review of our road evaluation of the six Cal fuels. All of these data had been previously transmitted to MacGregor.

In the course of discussion, several general items of interest concerning their large scale evaluation program were obtained from Steinke. While it appears that the evaluation of their refinery stocks has confirmed the variability in advantage for X105-A shown in their initial program, it seemed that there were several areas in which they had been disappointed. In the case of one of their refineries, no advantage for X105-A was found on the road in any of the possible premium- or regular-grade fuel compositions. It also appeared that, as might be expected, no advantage for X105-A was being found in a high percentage of their possible regular-grade compositions.

They have been attempting regression-type correlations between fuel variables and X105-A advantage, but apparently with little success. The advantage still appears greatest in the higher aromatic content fuels and is markedly reduced as olefinic or naphthenic content increases. We raised the question of the possible influence of a wide spread between vehicle requirement and fuel level. They have done more looking at this factor and Steinke was firmly convinced that the benefit of X105-A is not magnified when high antiknock level fuels are rated in low requirement vehicles at markedly advanced ignition timing. He did say that they had obtained apparent contradictions when low octane level fuels were rated

in high requirement vehicles at drastically retarded timing. These data were somewhat questionable, however, since under the retarded conditions their run to run reproducibility was extremely poor.

Steinke questioned us as to any data that we might have on X105-A as regards durability, spark plug fouling, stabilized requirement or rumble. We told him that we had none and this is apparently also the case at Cal Research. The people there seem to be in agreement with our thinking that little benefit for X105-A should be expected in this area. From what he said it appears that their heavy-duty fleet test of X105-A has not yet been started.

Steinke spent considerable time in probing what we thought the long term price of X105-A might be. We avoided any speculation on the grounds that this was an area in which we were not qualified to even venture an opinion. It was apparent that there has been a lot of discussion at Cal regarding what the eventual cost premium might be relative to TEL.

H. E. Hesselberg

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