

ETHYL CORPORATION

cc: Dr. S. Gross
Dr. G. A. Hughmark
Dr. G. Ter Haar

INTER-OFFICE

TO: Dr. M. R. Zavon

BRT

FROM: B. A. Sobel

BRP

SUBJECT: Processing of Kehoe Experimental Data DATE: May 22, 1975

There had been some problems with the programs available to Stanley Gross for computer processing the data since no adequate non-linear model fitting program was available. About 3/21 I received data from the Creech experiment. This data was so badly contaminated by noise as to make even smoothing programs (cubic on 5 points) useless. This data was so poor that it was decided to meet together and process some of the data during that meeting. This meeting was to be held at Baton Rouge because our computer service is very much better than that available to SG at UC.

Accordingly, on 4/8 & 9, Stanley Gross (and M. Schmidt) met with B. A. Sobel at Baton Rouge with about 8000 cards (of the data total of 24000). A plotting program had previously been written for Stanley Gross (all programs by B. A. Sobel) and plots of the daily data indicated two things very rapidly.

1. Daily data was too contaminated by noise as to be virtually useless for model fitting.
2. Better plots would be needed to more easily follow the variables.

An averaging program (to prepare either weekly or monthly averages) and a new plotting program were then prepared and tested on parts of the data. These definitely showed that models would be fit to at least some of the data. It was therefore decided (see letter of 4/14) that Stanley Gross and M. Schmidt would return and

1. Prepare cards containing monthly and weekly averages for all data.
2. Plot all data including averages.
3. Scan all plots and transmit those which appeared to be reasonable to B. A. Sobel for model fitting.
4. At G. A. Hughmark's suggestion, make a start at plotting balance data.
5. B. A. Sobel to fit models.

KE 0000443

Dr. M. R. Zayon

May 22, 1975

Page 2

Enough had been studied so that on 5/8 BAS met with Stanley Gross and M. Schmidt and we studied all the plots and models in great detail. It was felt that a good start had been made. We reached the following conclusions:

1. There was adequate data to support the model hypothesis in a large fraction of the data.

2. It was evident that dietary lead was a large factor and that Stanley Gross would try to find a way to eliminate or allow for this factor.

3. The balance plots definitely showed trends which should enable us to assess lead absorbed via inhalations.

It was decided that Stanley Gross would summarize at a meeting to be held 5/9. Gary Ter Haar has adequately reported this meeting (memo to Rifkin 5/12/75).



B. A. Sobel

BAS:jct

KE 0000444