

CELANESE ENGINEERING RESINS
Chemcel Plant
Bishop, Texas

To: Mr. G. Ille

July 17, 1986

From: M. L. Davis

MLD-48-86

EVALUATION OF ASBESTOS EXPOSURE DATA FROM THE CELANEX® AREA USING
STATISTICAL PROCESS CONTROL TECHNIQUES

As of the end of July, a new OSHA standard for asbestos exposure will become effective. The current exposure limit is 2 fibers/cc for an 8-hour TWA, with a ceiling of 10 fibers/cc for 15 minutes. The new standard will lower the TWA exposure limit to 0.2 fibers/cc with no ceiling limit, and will set an action limit at 0.1 fibers/cc for TWA exposures.

In order to evaluate our exposure data with respect to the new standard, SPC charts were constructed for job descriptions in the Celanex® Area (Phase I and Filled Resins). Figures 1 and 2 show TWA exposure data for personnel in Filled Resins and Phase I, respectively. Almost all TWA exposures in these areas are well below the new limit of 0.2 fibers/cc. Only one TWA sample out of the 42 exceeds the action limit of 0.1 fibers/cc. (A 1984 sample had a TWA of 0.12 fibers/cc.)

Figures 3-5 show short-term exposures for personnel in the Celanex® Area. Short-term-exposure (STEL) samples are collected while the worker is physically handling asbestos (loading bags of asbestos into the dump chamber, dumping bags, and removing empty bags from the chamber). The highest exposure potential is encountered when removing empty bags from the dump chamber. Unit SOP's require protective gear (dust mask, disposable coveralls, disposable gloves, and shoe covers) to be worn whenever in the dump chamber area. Short-term samples are typically 30 to 40 minutes in duration. All short-term exposures have been measured to be below the current ceiling of 10 fibers/cc. However, the new standard specifies no ceiling limit.

The sampling frequency for TWA asbestos exposures will be increased in the future to verify continued compliance with the new standard.

MLD/erg

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Unitersms:

Asbestos
Bishop
Celanex®
Control
Exposure
OSHA
Personal
SPC
Standard
Statistical
STEL
TWA

Distribution:

R. G. Brandt
W. H. Hill
D. W. Steele
G. D. Boyd
R. G. Hilbrich
C. B. Halmess
L. M. Harvey
E. A. Thomas

CCTC:

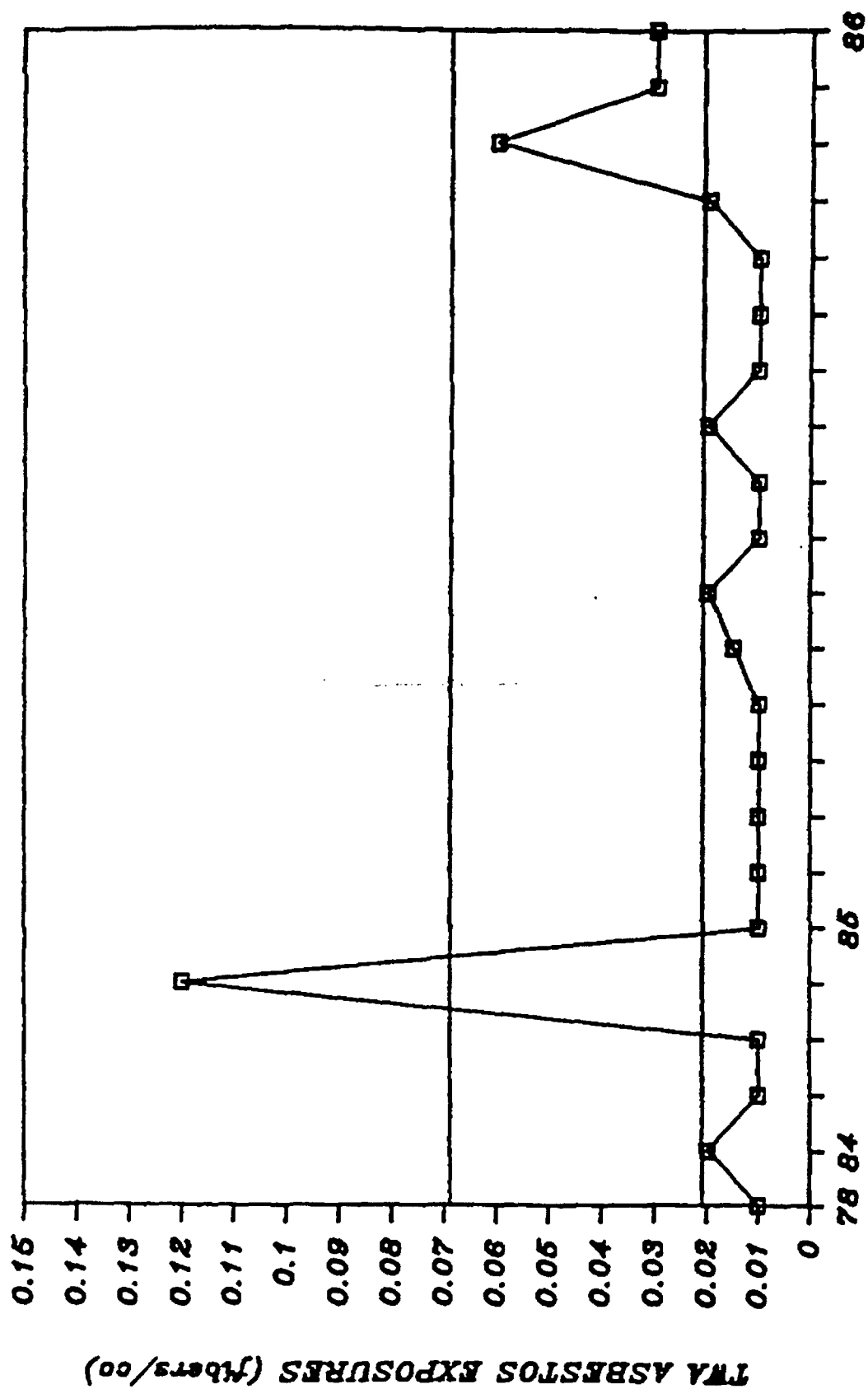
Central Files (2)

Lab File No.: 265.0

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FILLED RESINS OPERATORS AND HELPERS

Figure 1



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Figure 2

PHASE I OPERATORS AND HELPERS

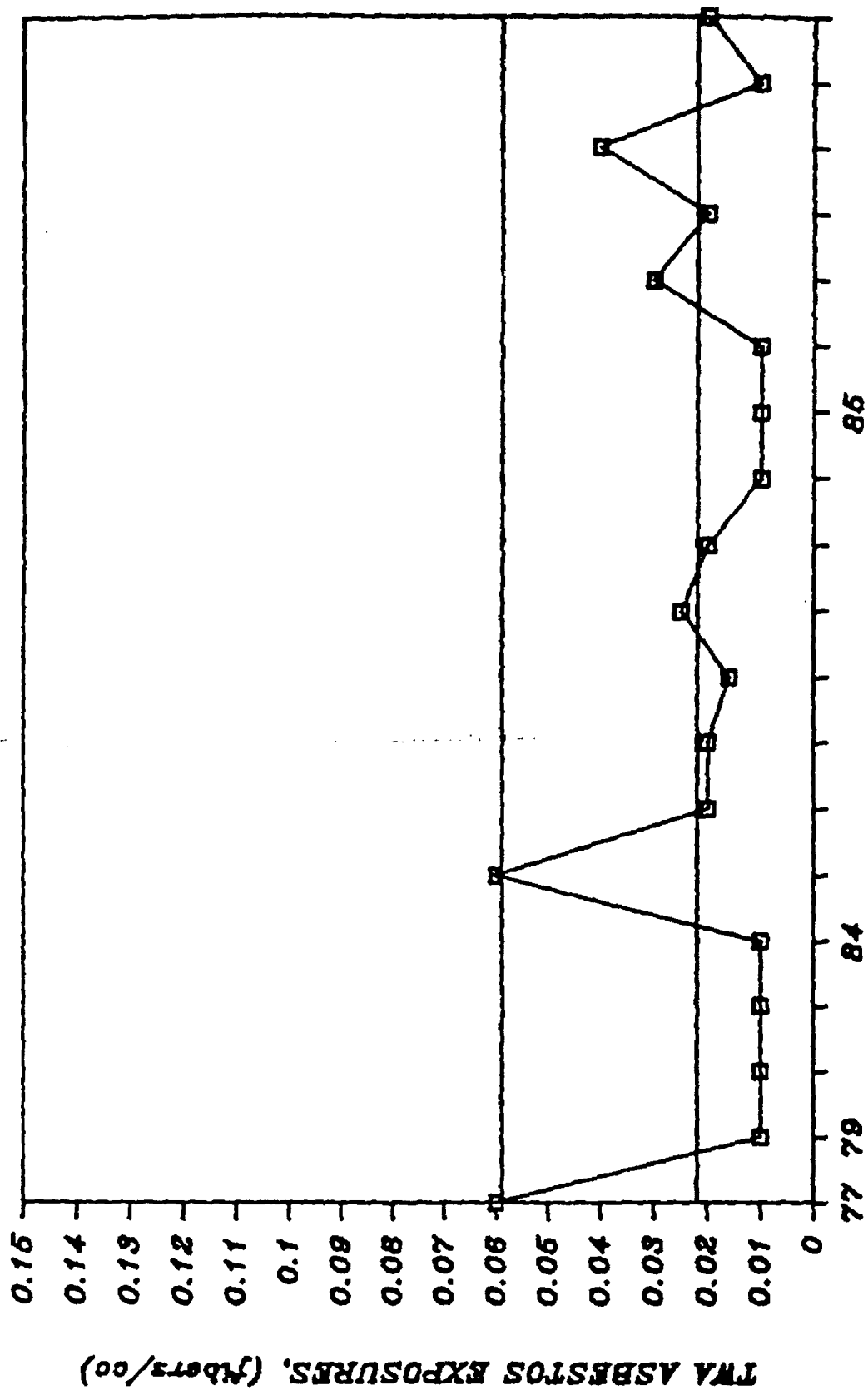


Figure 3

FILLED RESINS BLENDER OPERATORS

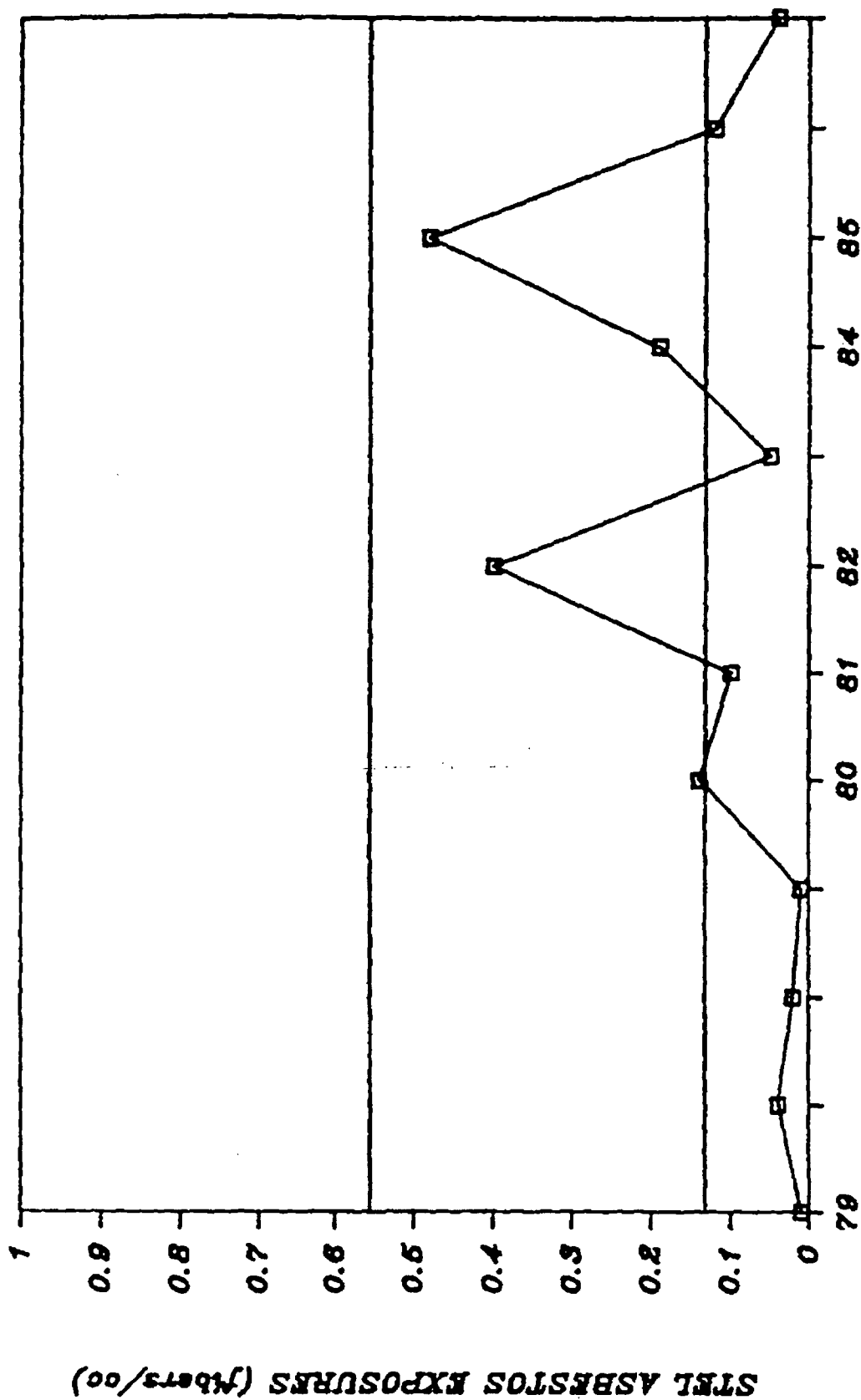


Figure 4

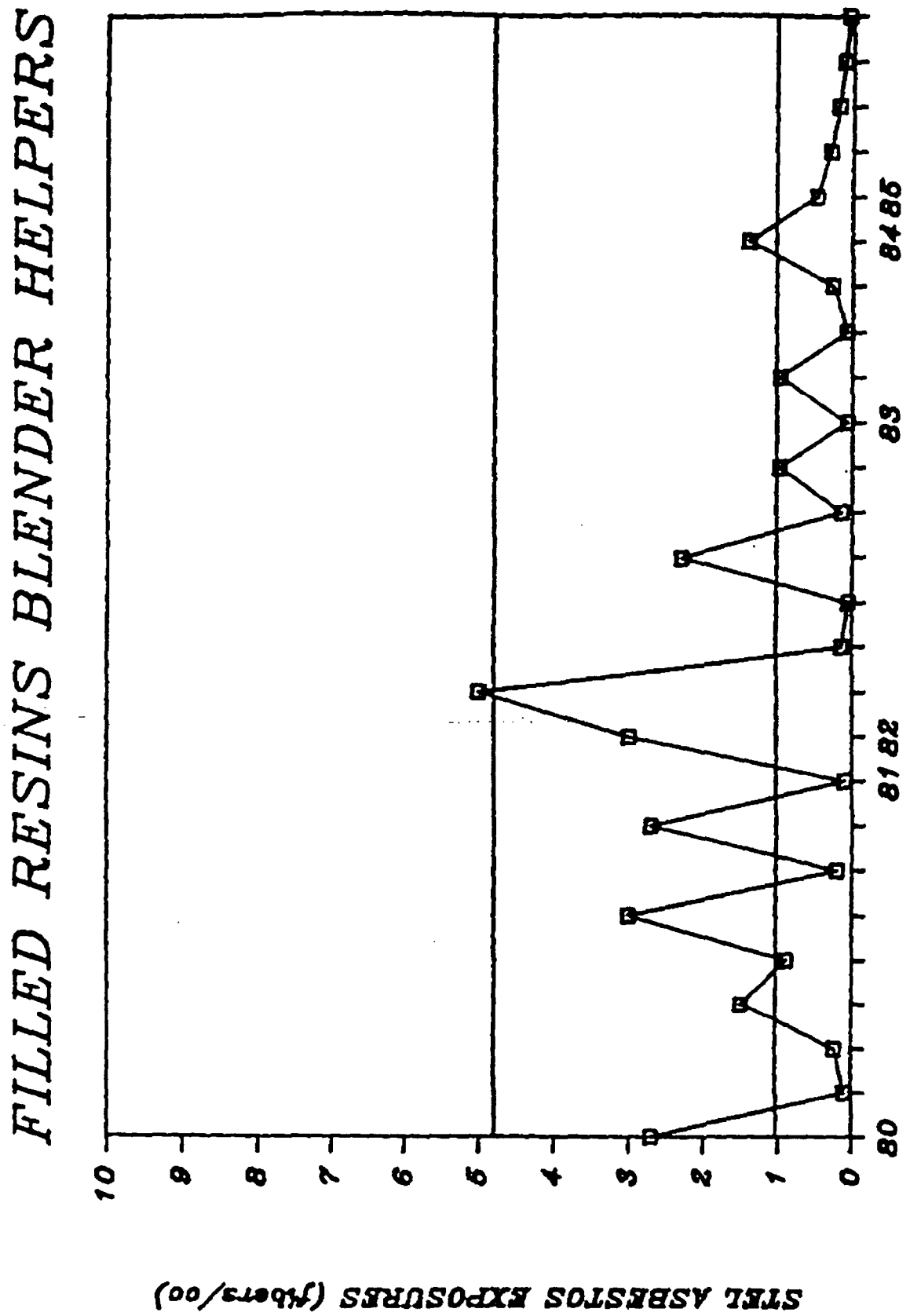


Figure 5

PHASE I BLENDER HELPERS

