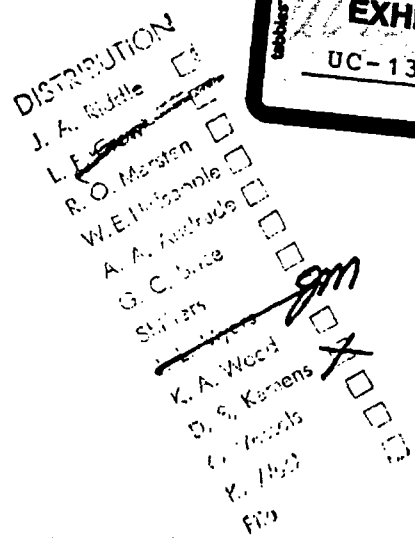
Research & Development Department
P. O. Box 579, Niagara Falls, N.Y.
June 19, 1968



M E M O R A N D U M



TO: Mr. R. G. Woolery

COPIES: Messrs. R. E. Byrne
W. L. Carrick
S. Chwastiak
E. J. Markiewicz
J. A. Riddle
J. E. Skvarla
W. S. Young

RECEIVED
JUN 24 1968
U.C.C. CHEM. & PLASTICS

FROM: K. Park

SUBJECT: Super Visbestos (Letter by Mr. H. M. Wyatt of Montello Inc. to Mr. J. E. Skvarla, dated May 27, 1968)

I would like to make some comments on Mr. Wyatt's questions concerning the following:

(1) Reliable and consistent procedure for testing the flow properties of asbestos suspensions

(2) Addition of Unical (lignosulfonate) resulted in too low viscosity in a Super Visbestos included suspension

There seems to be no satisfactory method of measuring flow properties of a pure asbestos suspension when it is in a flocculated state. The API method of flow measurement (for drilling fluid) is not suitable at all for the asbestos system, where the floccules separate extensively from the water phase. Furthermore, such a separation may cause slippage on the wall of the viscometer bobbin; therefore, obtaining meaningful flow data is extremely difficult.

The API method is designed primarily for clay systems which behave more like Bingham (or plastic) flows. As discussed elsewhere (K. Park, et al., Progress Report, Mining and Metals Division, November 1966), a flocculated asbestos suspension behaves more like pseudoplastic.

It has been found that the API method can be utilized without major difficulty for the composite systems containing asbestos and some clay minerals such as bentonite and attapulgite. However, in order to obtain reproducible data for such systems, care must be taken so that the procedures (preparation of suspension and measuring method) are maintained constant throughout the test.