



The University of Western Ontario, London, Canada

Faculty of Science
Department of Geophysics

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Dr. H.T. Hall
Distinguished Professor
Department of Chemistry
Brigham Young University
Provo, Utah

Dear Tracy:

The spalling fracture in the south anvil, which I mentioned to you some time ago, did propagate last week producing a fragment almost parallel to one of the cone surfaces. I had the broken insert removed this morning and replaced by one of the inserts taken from the spare binding rings. It took initially 60000 p.s.i. to dislodge the anvil (alone) in the spare binding ring, and it required 48000 p.s.i. to slowly move anvil and backing blocks together into their final positions on re-insertion. Please, let me know whether this is O.K. It would seem, that self-adjustment of small variations in insert height will be difficult to achieve, and that it is important, therefore, to have all the backing blocks exactly level and to use inserts and backing blocks of exactly the same height. Presumably this tight fit is good for lateral support of the inserts.

With regards to the re-alignment of the small press, would it be possible for you to test for parallelity of clearances between adjacent anvil facets by means of an x-ray beam? Alignment with respect to diffracted beam intensity has been most crucial in my specific applications of the little press.

With best wishes.

Yours sincerely,

H. H. Schloessin
Associate Professor

HHS/ch