Department of Earth, Ocean and Atmospheric Sciences
The University of British Columbia **Tel: 604-822-6355**
Room 2020, Earth Sciences Building **Fax: 604-822-6091**
2207 Main Mall,
Vancouver, British Columbia
Canada, V6T 1Z4.

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To Whom It May Concern:

This is a letter in support of Melanie Grenier's research proposal and application for a CNRS position. She joined my research group (geochemistry) and Susan Allen's (ocean circulation modeling) at the University of British Columbia for two years to participate in the Canadian Arctic GEOTRACES program. I was particularly keen to recruit her because of her expertise in combining geochemical data with physical models, to facilitate interactions between the physical and chemical branch of the program, and in measuring Nd isotopes in seawater, to help developing the methodology in my laboratory. She was in charge of all aspects (cruise preparation, sampling, analysis, data interpretation and publication) of the GEOTRACES program pertaining to the use of ^{230}Th, ^{231}Pa, rare earth concentration, and Nd isotopes to study deep water circulation, particle scavenging, and continental input. Her success in this project is already clearly reflected in her publication record, and several important publications are still forthcoming. Moreover, the samples of suspended particles collected with large volume pumps during the GEOTRACES program have not been analyzed, due to lack of time and resources, and are available for her to analyze at her discretion and totally independently of me. I have full confidence that these samples are in good hands to yield a wealth of scientific information.

I quickly read the research proposal that she just sent me and I am impressed by the systematic combination of geochemical tracers that she proposes to measure and incorporate into existing numerical models of Arctic circulation to assess continental and atmospheric sources of elements to the Arctic Ocean. She also proposes to develop new analytical techniques to facilitate and expedite

sample analysis, which often limit the reach of geochemical tracers. While she plans on working in the Arctic in the short to medium term, she will apply her approaches to other oceanic regions in the longer term. Melanie Grenier is clearly on a trajectory to become a preeminent member of the new generation of marine geochemists. I am very optimistic about her scientific career. I know her to have the drive, the intellect, the enthusiasm and the perseverance required to excel.

Yours Sincerely,

Roger François
FRSC, FAGU