

Property File
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BC RESEARCH

September 18, 1987
File No. 407-419
Snake Bay Project

3650 Wesbrook Mall,
Vancouver, B.C.,
Canada V6S 2L2
Phone (604) 224-4331
Cable RESEARCHBC
Telex 04-507748

Mr. E. Benson
Ore Sorters (North America) Inc.
Ste. 200, Irongate 1
777 South Wadsworth Blvd.
Lakewood, Colorado
U.S.A. 80226

Dear Mr. Benson:

Re: CANAMIN Wollastonite Test Program

Confirming our telephone conversation of August 25, 1987, I have shipped the following samples to your attention:

4 x 8 mesh,	5 Kg	.... representing	16.7%	of crushed ore
8 x 18 mesh,	5 Kg	.... representing	23.6%	of crushed ore
18 x 30 mesh,	5 Kg	.... representing	14.1%	of crushed ore
30 x 48 mesh,	5 Kg	.... representing	11.2%	of crushed ore
48 x 0 mesh,	5 Kg	.... representing	34.4%	of crushed ore
	<u>25 Kg</u>		<u>100 %</u>	

The material was prepared by fine crushing and dry screening of a bulk sample assembled by the project geologist from zones of the deposit which could be selectively surface mined.

To date I only have analytical data on hand-picked high grade material; x-ray diffraction and whole rock analysis (47.2% CaO, 49.8% SiO₂) confirm the mineral to be wollastonite.

I was initially advised by the project geologist that the deposit contains garnet, diopside, calcite and quartz as well as wollastonite. The first set of hand samples definitely contained appreciable carbonate and some silica.

The bulk sample, however, does not contain much carbonate. Some of the small amount present - especially in the coarser fractions, is closely associated with amber and green gangue components (garnet and diopside respectively). Thus it is possible to speculate that magnetic separation of the coarser material could reduce carbonate content. Apart from this possibility, there does not appear to be good liberation for material coarser than (about) 18 mesh.

For the 48 x 0 fraction, coloured gangue is readily removable with a hand magnet and needle, which suggests that adequately liberated material may respond well to magnetic separation.

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I have sent samples of rock size fractions for whole rock analysis (see attached data sheet); carbonate content (at your suggestion) will be done by CO₂ evolution. Notes of the project geologist's assessment of the samples are enclosed. Please let me know what other information could be useful to you prior to running the magnetic separation tests.

With regard to magnetic separation testwork, I unfortunately advised the client (on the basis of our first telephone conversation) that no costs apart from shipping could be incurred for an initial program. The project budget was approved on this basis. There is an additional complicating factor, since the client has obtained government assistance for testwork contingent on use of local laboratories and consultants.

If you can send me a brief outline and cost breakdown of services you would prefer to have associated with testwork of this type, I will attempt to manipulate the budget accordingly. Also, please let me know whether you consider it acceptable (and if so advisable) for a client's representative to be present during the magnetic separation testwork.

Subject to your input, I had planned to have products from magnetic separation inspected by a mineralogist and - depending on results - to have whole rock analysis done on some or all of the products.

With these results in hand, I planned to run flotation tests to investigate calcite-wollastonite-quartz separation, followed by dry grinding, acicularity and brightness (reflectance) measurement on optimum products.

Obviously this plan is provisional, based on the very limited amount of data available, but I would appreciate any suggestions you might have.

The samples have been forwarded via UPS to your attention. Our shipper expects no problem in returning the products collect. Routing instructions and the address of our customs broker are enclosed.

I certainly appreciate your cooperation in testing of these sample.

Yours very truly,

B.C. RESEARCH



R.O. McElroy
Industrial Chemistry Division

ROM:drw

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