

FALCONBRIDGE NICKEL MINES LIMITED

INTER OFFICE MEMORANDUM

(97) (D/S) 6/1/79

MEMO TO: P.J. Raleigh/L.S. Price
FROM: R.A. Bergman
DATE: January 29, 1979
SUBJECT: Purification of Arsenious Oxide from
Giant Yellowknife
COPIES TO: HTB/PGT, HTE, WRH/MC, RAB, file

PROJECT No. 201-JO#2484
B29-79

A research proposal was made on October 26, 1978 covering the purification of arsenious oxide tailings from the Con tailings pond and subsequently the recovery of gold from the gangue portion of the tailings.

The objective of the first stage of the programme which was to establish a preliminary flowsheet for the recovery of As_2O_3 with a purity of at least 95 percent from the tailings and a residue containing no more than 5 percent free As_2O_3 was met.

A report by Hatch et al covering the experimental work is attached. Most of the work covers the chemistry of the process. As agreed, little effort was directed towards developing engineering data.

A preliminary look was taken at the second stage of the program which involves the recovery of gold from the leach residue. It was established by Lakefield that approximately 60 percent of the gold can be leached directly in a cyanide solution. It appears that the leach residue will have to be roasted to obtain full gold recovery. If Giant Yellowknife is interested in pursuing the gold recovery from the leach residues, FML personnel are capable of handling the programme.

If an agreement can be reached that it is desirable to carry out the roasting-cyanide leaching work for the recovery of gold, we will prepare and submit a research proposal for Giant Yellowknife's consideration and approval.

In addition to your copy, I have also attached copies of the W.R. Hatch report for the Giant Yellowknife personnel, DE, WAM, KM. Will you please distribute them. The other copies have been sent out directly.

R.A. Bergman

RAB/ah
Attach.

R.A. Bergman