

To H.E.P., R.J.T.
From C.Q.O.
Subject ARSENIC SUPPRESSION.

Date JUNE 25, 1976
Ref. _____

ABSTRACT: To establish if it is possible to polish the existing pond overflow of arsenic with the use of FeCl_3 and NH_4OH .

PROCEDURE: Tailings Pond overflow was collected at the south decant and subjected to varying amounts of FeCl_3 and a constant amount of NH_4OH .

DATA:

FeCl_3 lb/ton	NH_4OH lb/ton	pH	p.p.m. As	p.p.m. Fe
0	0	8.7	28.0	ND
1	0	3.0	4.41	22.1
.75	0	3.4	4.07	14.3
.50	0	4.1	4.63	6.0
.25	0	5.9	8.87	2.0
1	.36	3.5	2.09	7.2
.75	.36	4.2	3.22	5.6
.50	.36	5.7	2.71	3.8
.25	.36	8.5	7.45	1.1

CONCLUSIONS: Polishing the overflow stream from the tailings pond with this method does not seem to be very effective in suppressing the arsenic. Whereas, treating arsenic bearing streams within the mill would tend to use less chemicals and produce the same concentration of arsenic. There would also be a dilution factor involved if this method was used in the mill.