

To H.E. Pawson

Date March 25, 1975

From R.J. Tucker

Ref.

Subject Lime Treatment of Filtered Mill Waste Solutions

Various levels of lime were added to 200 ml portions of the 24 hour mill waste solution sample for March 8, 1975 (27.5 p.p.m. As.)

<u>Lime added</u> <u>(lb/ton soln)</u>	<u>pH</u>	<u>Assay</u> <u>(p.p.m. As.)</u>	<u>As. Removed</u> <u>(%)</u>
1	11.2	24.2	12.0
5	11.6	8.3	69.8
10	11.6	4.2	84.7
15	11.7	2.2	92.0
20	11.7	1.1	96.0

As previously noted in the case of carbon plant waste, lime treatment of a filtered solution effectively removes soluble arsenic. However, 10 lb CaO/ton of solution represents 15 tons of lime per day and produces unacceptably high pH's.



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Mill Metallurgist

Again we see that lime treatment alone or in concert with iron salts will co-precipitate arsenic from solutions be they high arsenic carbon wastes (small volume) or low arsenic wastes. (large volumes.) The problem is maintaining the precipitate in a stable form so there is no reversal which always happens or so tests here indicate. Thus, we can get the soluble arsenic out of sol'n but are unable to keep it out.