

To R.J. McLeod  
From P. Slaterry  
Subject Arsenic Suppression - Interim Report

Date March 1, 1967

Ref. PS/dp

(a) Hot Cottrell Dust Treatment

10 Ton equivalents HCD were leached with 15 ton equivalents water and current reagents. Repulping the residue solids, after barren removal, with 300 ton equivalents water yielded assays of 162 and 268 ppm Arsenic. This is a reduction of between 60 - 75% but still leaves 100 - 160 lb. Arsenic in solution.

Treatment is now considered as part of the overall picture below.

(b) Overall Arsenic Reductions

Work to date indicates that the arsenic in:-

Dorrco Wash Thickener O'Flow - 44.5 lbs arsenic per day  
Mill Wash Thickener O'Flow - 27.5 lbs arsenic per day  
HCD Wash Thickener O'Flow - 313.1 lbs arsenic per day

can be partially removed by pulping and settling with:-

Calcine Residue - .6 lbs arsenic per day  
Final Barren - ~~81.9~~<sup>8.2</sup> lbs arsenic per day

without further additions ~~40%~~<sup>2%</sup> arsenic is removed leaving 291 lbs Arsenic in solution per day.

The addition of .1 lb per ton lime yields 65% arsenic removed leaving 162 lbs arsenic in solution per day.

The addition of 1.0 lb per ton lime yields 99% arsenic removed leaving 4 lb arsenic in solution per day.

These results look very promising and work continues to determine optimum lime consumption and the effects of residue dilution, etc.

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