

The liberation of tin minerals in the heavy products is summarised in Tables B7 and B8 for cassiterite and stannite respectively. The data for stannite, in particular, are on a relatively small proportion of grains and should be considered a guide rather than a very accurate determination of the stannite liberation characteristics.

The results of acid digestion of two sized heavy products (>4.0 sp.gr.) are summarised below:

Sample	Size Fraction (μm)	Weight (g)		% Residue
		Original	Residue	
PC1	-500 +300	2.273	0.292	12.8
PC1	-210 +105	2.237	0.210	9.4
PC2	-500 +300	4.712	0.498	10.6
PC2	-210 +105	4.554	0.406	8.9
SC1	-500 +300	18.657	1.339	7.2
SC1	-210 +105	23.46	1.682	7.2
SC2	-500 +300	15.774	0.793	5.0
SC2	-210 +105	13.653	0.740	5.4

The residues of both the porphyry composite and sulphide composite samples contain only a small proportion of cassiterite which forms brownish coloured grains. The residues of the porphyry composite samples consist mainly of topaz, while the residues of the sulphide composite samples consist mainly of sellaite. All residues also contain a small amount of white precipitate.

The tin distribution results are given in Table B9 and show that most of the tin in the residues reports in the original size range of the unleached fractions, except for SC1 sample where a considerable proportion of the tin reports in the finer fractions.

Liberation of cassiterite in the various size fractions of the residues is approximately as follows: