

Test PC2/F12 - Stage grind to 100% -75  $\mu$ m at 60% solids (7 $\frac{1}{2}$  min., 500 g charge); deslime at 7  $\mu$ m; sulphide pre-float; stage tin rougher floats with PTAA as collector.

(a) Flotation Conditions and Reagents

Stage	Conditions			Reagent Addition kg/t			
	Time (min.)		pH	SSBX	PTAA	H <sub>2</sub> SO <sub>4</sub>	MIBC
	Conditioning	Flotation					
Sulphide Ro Float 1	2	5	6.8	0.01	-	-	0.04
Sulphide Ro Float 2	2	5	6.8	0.01	-	-	0.02
Tin Ro Float 1	5	5	5.0	-	0.30	0.146	0.02
Tin Ro Float 2	5	5	5.0	-	0.30	0.042	0.01
Tin Ro Float 3	5	5	5.0	-	0.25	0.028	0.01
Tin Ro Float 4	5	5	5.0	-	0.25	0.024	0.01
Tin Ro Float 5	5	5	5.0	-	0.25	0.022	0.01
Tin Ro Float 6	5	5	5.0	-	0.25	0.020	0.01

(b) Results

Test Product	Weight %	Assay %		Distribution %	
		Sn	Total S	Sn	Total S
Sulphide Ro Conc	10.42	0.30	41.2	9.07	55.68
Tin Ro Conc 1	0.89	1.50	3.06	6.10	13.32
Tin Ro Conc 2	0.61				
Tin Ro Conc 3	0.42	0.80	12.1	5.25	28.10
Tin Ro Conc 4	0.38				
Tin Ro Conc 5	0.66	1.22	11.3	6.20	40.01
Tin Ro Conc 6	0.56				
(Tin Ro Conc 1 to 6)	(3.52)	(7.97)	(5.94)	(81.43)	(2.71)
Tin Ro Tail	80.30	0.03	3.40	6.99	35.41
Slime -7 $\mu$ m	5.76	0.15	8.30	2.51	6.20
Calc Head	100.00	0.34	7.71	100.00	100.00
Assay Head		0.29	7.85		

(c) Comments

- (i) Tin losses in -7  $\mu$ m slime material of a grind size 100% -75  $\mu$ m were small.
- (ii) Two stages of sulphide rougher float using SSBX as collector at natural pH removed about 56% of the sulphide materials in Composite PC2; remaining sulphide did not appear to interfere with tin flotation and nearly all were reported in the tin rougher tail product.