

Test SC2/F3 - Stage grind to 100% -150 μ m at 60% solids (4 min., 500 g charge); deslime at 7 μ m; talc and sulphide pre-floats; stage tin rougher floats with SPA as collector.

(a) Flotation Conditions and Reagents

Stage	Conditions		Reagent Addition kg/t				
	Time (min.)		pH	SSBX	SPA	H ₂ SO ₄	MIBC
	Conditioning	Flotation					
Talc Pre-float	2	5	7.3	-	-	-	0.04
Sulphide Ro Float 1	2	5	7.6	0.01	-	-	0.02
Sulphide Ro Float 2	2	5	7.7	0.01	-	-	0.02
Tin Ro Float 1	5	5	4.5	-	0.25	0.70	0.02
Tin Ro Float 2	5	5	4.5	-	0.25	0.50	0.01
Tin Ro Float 3	5	5	4.5	-	0.20	0.30	0.01

(b) Results

Test Product	Weight %	Assay % Sn	Distribution % Sn
Talc Ro Conc	16.47	0.93	11.32
Sulphide Ro Conc	27.10	0.30	6.00
Tin Ro Conc 1	3.47	11.96	30.68
Tin Ro Conc 2	7.81	5.46	31.47
Tin Ro Conc 3	5.45	2.84	11.43
(Tin Ro Conc 1 to 3)	(16.73)	(5.95)	(73.58)
Tin Ro Tail	37.75	0.31	8.64
Slime -7 μ m	1.95	0.32	0.46
Calc Head	100.00	1.35	100.00
Assay Head		1.20	

(c) Comments

- (i) Similar flotation response was observed in this test using SPA in place of PTAA as tin collector as in the previous test. However, the overall tin rougher concentrate grade was considerably lower in this test reflecting that SPA was somewhat less selective than PTAA under the present flotation conditions used.