

(b) Results

Test Product	Weight %	Assay % Sn	Distribution % Sn
Sulphide Cl Conc	10.97	0.33	13.12
+38 μ m Superpanner Tin Conc	0.12	70.5	30.21
+38 μ m Superpanner Tin Tail	0.13	19.5	8.78
(+38 μ m Tin Ro Conc 1 to 6)	(0.25)	(43.1)	(38.99)
-38 μ m Superpanner Tin Conc	0.24	29.2	25.87
-38 μ m Superpanner Tin Tail	6.95	0.64	16.11
(-38 μ m Tin Ro Conc 1 to 6)	(7.19)	(1.61)	(41.98)
(Tin Ro Conc 1 to 6)	(7.44)	(3.01)	(80.97)
Tin Rougher Tail	81.59	0.02	5.91
Calc Head	100.00	0.28	100.00
Assay Head		0.29	
+38 μ m and -38 μ m Superpanner Tin Conc	(0.36)	(43.0)	(56.08)
+38 μ m Tin Ro Conc and -38 μ m Superpanner Tin Conc	(0.49)	(36.5)	(64.86)

(c) Comments

- (i) Sulphide flotation cleaning did not improve rejection of cassiterite and consequently tin losses in sulphide concentrate product.
- (ii) For a grind size of 100% -75 μ m, tin recovery in tin rougher concentrate appeared satisfactory with 30 min. of flotation time (5 stages) and 1.60 kg/t of collector PTAA.
- (iii) A very high grade tin product of 43.1% Sn was obtained in the +38 μ m fraction of the tin flotation rougher concentrate (total concentrate assayed 3.01% Sn) and this material represented nearly half of the total tin recovered in the same overall concentrate. The same material also responded well to superpanning treatment giving rise a superpanner tin concentrate graded 70.5% Sn at 77.5% recovery within the size fraction.
- (iv) On the other hand, the remaining half of the tin recovered in the -38 μ m fraction of the tin flotation rougher concentrate was up-graded by superpanning from 1.61 to 29.2% Sn at 61.6% recovery within the size fraction.