

## APPENDIX 4

Atomic proportion of Bi-sulphosalt minerals based on electron microprobe analysis from Table 3

No (apfu)	S(+Se)	Pb	Cu	Bi(+Sb)	Fe	n <sub>aikinite</sub>	Cu:Pb
1	11.49	3.34	3.60	4.46	0.15	88.58	1.08
2	11.29	3.17	3.65	4.46	0.28	88.61	1.15
3	11.38	3.11	3.60	4.51	0.26	87.21	1.16
4	11.59	2.79	2.89	5.14	0.04	71.56	1.04
5	11.65	2.65	2.96	5.18	0.03	70.46	1.12
6	11.68	2.71	2.88	5.18	0.05	70.60	1.06
7	11.47	2.42	2.74	5.34	0.15	66.45	1.13
8	11.53	2.57	2.82	5.25	0.12	68.86	1.10
9	11.53	3.25	3.57	4.51	0.16	87.33	1.10
10	11.77	3.27	3.52	4.58	0.06	85.62	1.08
11	11.51	2.81	2.89	5.13	0.04	71.80	1.03
12	11.73	2.79	2.87	5.16	0.01	70.93	1.03
13	11.26	2.83	3.21	4.81	0.34	79.76	1.13
14	11.53	2.76	3.15	4.97	0.16	75.84	1.14
15	11.63	2.75	2.91	5.17	0.00	70.75	1.06
16	11.55	2.74	2.94	5.15	0.01	71.22	1.07
17	11.67	2.84	3.06	5.03	0.04	74.21	1.08
18	11.68	2.70	2.95	5.17	0.01	70.70	1.09
19	11.44	2.70	2.90	5.19	0.02	70.28	1.07
20	11.57	3.07	3.34	4.75	0.09	81.17	1.09
21	11.56	2.94	3.16	4.91	0.09	77.36	1.07
22	11.51	3.00	3.21	4.75	0.29	81.21	1.07
23	11.49	2.95	3.12	4.93	0.07	76.78	1.06
24	11.54	3.04	3.23	4.84	0.03	78.89	1.06
25	11.50	2.98	3.25	4.79	0.18	80.19	1.09
26	11.50	3.18	3.37	4.64	0.17	84.06	1.06

Chemical formula calculated on the basis of  $(\text{Cu} + \text{Fe} + \text{Pb})/2 + (\text{Bi} + \text{Sb}) = 8$  atoms  
 $n_{\text{aikinite}}$  value is calculated as  $12.5 \times (\text{Fe} + \text{Cu} + \text{Pb}) \%$