APPENDIX 3

Representative electron microprobe data (wt.%, number of ions) for chlorites from the quartz-calcite-chlorite vein in the Dewon phyllite Quarry

Compound	1	2	3	4	5	6	7	8	9	10
SiO_2	24.58	24.94	24.74	24.51	25.11	24.90	24.74	25.24	24.82	25.12
TiO_2	0.05	b.d.l.	0.04	0.05	0.05	0.04	b.d.l.	b.d.l.	0.06	0.04
Al_2O_3	21.33	21.24	20.93	20.97	16.73	20.83	21.54	21.90	21.15	21.63
$Fe_2O_3^*$	0.85	0.56	0.32	0.40	0.13	0.37	0.15	0.90	0.72	0.00
FeO	26.99	28.02	28.88	28.08	28.40	28.16	28.20	27.13	27.76	28.03
MnO	0.27	0.29	0.37	0.25	0.24	0.25	0.39	0.42	0.23	0.24
MgO	11.66	11.84	11.86	11.62	11.96	12.10	12.10	12.18	11.84	12.22
NiO	0.13	b.d.l.	b.d.l.	b.d.l.	b.d.l.	b.d.l.	0.07	0.07	b.d.l.	0.02
CaO	b.d.l.	b.d.l.	0.10	0.60	0.40	0.44	0.54	b.d.l.	b.d.l.	b.d.l.
Na_2O	b.d.l.	0.09	b.d.l.	b.d.l.	b.d.l.	b.d.l.	0.09	b.d.l.	b.d.l.	0.02
H_2O**	10.96	11.08	11.05	10.97	10.47	11.07	11.17	11.24	11.03	11.17
Total	96.83	98.06	98.30	97.43	93.47	98.16	98.98	99.06	97.61	98.49
No. of ions calculated based on 28 atoms of oxygen										
Si	5.37	5.39	5.36	5.35	5.75	5.39	5.31	5.37	5.39	5.39
Al^{IV}	2.63	2.61	2.64	2.65	2.25	2.61	2.69	2.63	2.61	2.61
Al^{VI}	2.87	2.80	2.72	2.75	2.27	2.71	2.76	2.88	2.81	2.86
Ti	0.01	-	0.01	0.01	0.01	0.01	-	-	0.01	0.01
Fe^{3+}	0.14	0.09	0.05	0.07	0.02	0.06	0.02	0.14	0.12	0.00
Fe^{2+}	4.93	5.06	5.23	5.13	5.44	5.10	5.06	4.83	5.04	5.03
Mn	0.05	0.05	0.07	0.05	0.05	0.05	0.07	0.07	0.04	0.04
Mg	3.80	3.81	3.83	3.78	4.09	3,90	3.87	3.86	3.83	3.91
Ni	0.02	-	-	-	-	-	0.01	0.01	-	0.00
Ca	-	-	0.02	0.14	0.10	0.10	0.12	0.01	0.01	0.00
Na	-	0.07	-	-	-	-	0.07	-	-	0.00
Σcations	19.83	19.89	19.93	19.93	19.98	19.93	19.98	19.80	19.86	19.85
OH*	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
Fe/Fe+Mg	0.57	0.57	0.58	0.58	0.57	0.57	0.57	0.56	0.57	0.56

$Fe_2O_3^*$ and Fe^{3+} from charge balance calculations; H_2O** - calculated from the stoichiometry; b.d.l. – below detection limit by WDS