

Distribution of Elements in the Earth's Crust							
		Average Crustal Abundance <sup>a</sup>	Basaltic Rocks <sup>b</sup>	Granitic Rocks <sup>b</sup>	Shales <sup>b</sup>	Sandstones <sup>b</sup>	Carbonates <sup>b</sup>
(ppm or %)							
Silver	Ag	0.07	0.11	0.037 - 0.051	0.07	0.0X	0.0X
Aluminum	Al	8.20%	7.80%	7.% - 8.8%	8.00%	2.50%	0.42%
Arsenic	As	1.5	2	1.4 - 1.9	13	1	1
Boron	B	10	5	9 - 10	100	35	20
Barium	Ba	500	330	420 - 1600	580	X0	10
Bismuth	Bi	0.048	0.007	0.01			
Calcium	Ca	4.10%	7.60%	0.5% - 2.5%	2.20%	3.90%	30.20%
Cadmium	Cd	0.11	0.2	0.13	0.3	0.0X	0.035
Cobalt	Co	20	48	1 - 7	19	0.3	0.1
Chromium	Cr	100	170	2 - 22	90	35	11
Copper	Cu	50	87	5 - 30	45	X	4
Fluorine	F	950	400	520 - 1200	740	270	330
Iron	Fe	4.10%	8.65%	1.4% - 3.7%	4.72%	0.98%	0.38%
Mercury	Hg	0.05	0.09	0.0X - 0.08	0.4	0.03	0.04
Potassium	K	2.10%	0.83%	2.5% - 4.8%	2.66%	1.07%	0.27%
Magnesium	Mg	2.30%	4.60%	0.16% - 0.94%	1.50%	0.70%	4.70%
Manganese	Mn	950	1500	390 - 850	850	X0	1100
Molybdenum	Mo	1.5	1.5	0.6 - 1.3	2.6	0.2	0.4
Sodium	Na	2.30%	1.80%	2.6% - 4.0%	0.96%	0.33%	0.04%
Nickel	Ni	80	130	4 - 15	68	2	20
Phosphorus	P	1000	1100	600 - 920	700	170	400
Lead	Pb	14	6	12 - 19	20	7	9
Antimony	Sb	0.2	0.2	0.2 - 0.X	1.5	0.0X	0.2
Selenium	Se	0.05	0.05	0.05	0.6	0.06	0.08
Tin	Sn	2.2	0.5	1.5 - X	6	0.X	0.X
Strontium	Sr	370	465	100 - 440	300	20	610
Thorium	Th	12	4	8.5 - 17	12	1.7	1.7
Thallium	Tl	0.6	0.21	0.72 - 2.3	1.4	0.82	0.0X
Uranium	U	2.4	1	3	3.7	0.45	2.2
Vanadium	V	160	250	30 - 88	130	20	20
Zinc	Zn	75	105	39 - 130	95	16	20

References

<sup>a</sup>Bowen H.J.M. (1979). Environmental Chemistry of the Elements, Academic Press, New York.

<sup>b</sup>Price, W.A. and Errington, J.C. (1997). Draft Metal Leaching and Acid Rock Drainage Policy and Guidelines for Mines in British Columbia, April 1997.