

## Toxic & Essential Elements; Hair

TOXIC METALS				PERCENTILE		
		RESULT μg/g	REFERENCE INTERVAL	68 <sup>th</sup>	95 <sup>th</sup>	
Aluminum	(Al)	1.0	< 7.0			
Antimony	(Sb)	< 0.01	< 0.050			
Arsenic	(As)	< 0.01	< 0.060			
Barium	(Ba)	0.33	< 2.0			
Beryllium	(Be)	< 0.01	< 0.020			
Bismuth	(Bi)	< 0.002	< 2.0			
Cadmium	(Cd)	0.012	< 0.050			
Lead	(Pb)	1.5	< 0.60			
Mercury	(Hg)	0.25	< 0.80			
Platinum	(Pt)	< 0.003	< 0.005			
Thallium	(Tl)	0.001	< 0.002			
Thorium	(Th)	< 0.001	< 0.002			
Uranium	(U)	0.013	< 0.060			
Nickel	(Ni)	0.08	< 0.30			
Silver	(Ag)	0.17	< 0.15			
Tin	(Sn)	0.03	< 0.30			
Titanium	(Ti)	0.22	< 0.70			
Total Toxic Representation						

ESSENTIAL AND OTHER ELEMENTS								
		RESULT μg/g	REFERENCE INTERVAL	2.5 <sup>th</sup>	16 <sup>th</sup>	PERCENTILE 50 <sup>th</sup> 84 <sup>th</sup> 97.5 <sup>th</sup>		
Calcium	(Ca)	1310	300– 1200					
Magnesium	(Mg)	220	35– 120					
Sodium	(Na)	37	20– 250					
Potassium	(K)	21	8– 75					
Copper	(Cu)	66	11– 37					
Zinc	(Zn)	180	140– 220					
Manganese	(Mn)	0.10	0.08– 0.60					
Chromium	(Cr)	0.34	0.40– 0.65					
Vanadium	(V)	0.056	0.018– 0.065					
Molybdenum	(Mo)	0.031	0.020– 0.050					
Boron	(B)	0.55	0.25– 1.5					
Iodine	(I)	0.26	0.25– 1.8					
Lithium	(Li)	0.007	0.007– 0.020					
Phosphorus	(P)	158	150– 220					
Selenium	(Se)	0.52	0.55– 1.1					
Strontium	(Sr)	3.6	0.50– 7.6					
Sulfur	(S)	49100	44000– 50000					
Cobalt	(Co)	0.005	0.005– 0.040					
Iron	(Fe)	8.0	7.0– 16					
Germanium	(Ge)	0.038	0.030– 0.040					
Rubidium	(Rb)	0.021	0.007– 0.096					
Zirconium	(Zr)	< 0.007	0.020– 0.42					

SPECIMEN DATA		RATIOS		
		ELEMENTS	RATIOS	RANGE
		Ca/Mg	5.95	4– 30
		Ca/P	8.29	1– 12
		Na/K	1.76	0.5– 10
		Zn/Cu	2.73	4– 20
		Zn/Cd	> 999	> 800