



SEX: Male
AGE: 40

Toxic & Essential Elements; Hair

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 th 95 th
Aluminum (Al)	3.1	< 7.0	
Antimony (Sb)	< 0.01	< 0.066	
Arsenic (As)	0.023	< 0.080	
Barium (Ba)	0.37	< 1.0	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.017	< 2.0	
Cadmium (Cd)	0.022	< 0.065	
Lead (Pb)	0.88	< 0.80	
Mercury (Hg)	0.10	< 0.80	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	< 0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.007	< 0.060	
Nickel (Ni)	0.06	< 0.20	
Silver (Ag)	0.02	< 0.08	
Tin (Sn)	0.06	< 0.30	
Titanium (Ti)	0.41	< 0.60	
Total Toxic Representation			

ESSENTIAL AND OTHER ELEMENTS					
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 2.5 th 16 th 50 th 84 th 97.5 th		
Calcium (Ca)	641	200- 750			
Magnesium (Mg)	46	25- 75			
Sodium (Na)	51	20- 180			
Potassium (K)	37	9- 80			
Copper (Cu)	16	11- 30			
Zinc (Zn)	180	130- 200			
Manganese (Mn)	0.14	0.08- 0.50			
Chromium (Cr)	0.34	0.40- 0.70			
Vanadium (V)	0.015	0.018- 0.065			
Molybdenum (Mo)	0.028	0.025- 0.060			
Boron (B)	1.2	0.40- 3.0			
Iodine (I)	0.13	0.25- 1.8			
Lithium (Li)	0.11	0.007- 0.020			
Phosphorus (P)	170	150- 220			
Selenium (Se)	0.76	0.70- 1.2			
Strontium (Sr)	0.80	0.30- 3.5			
Sulfur (S)	46300	44000- 50000			
Cobalt (Co)	0.007	0.004- 0.020			
Iron (Fe)	6.7	7.0- 16			
Germanium (Ge)	0.025	0.030- 0.040			
Rubidium (Rb)	0.041	0.011- 0.12			
Zirconium (Zr)	0.018	0.020- 0.44			

SPECIMEN DATA		RATIOS	
COMMENTS:		ELEMENTS	RATIOS
Date Collected: 08/18/2014	Sample Size: 0.2 g	Ca/Mg	13.9
Date Received: 09/02/2014	Sample Type: Head	Ca/P	3.77
Date Completed: 09/04/2014	Hair Color: Brown	Na/K	1.38
Methodology: ICP/MS	Treatment:	Zn/Cu	11.3
	Shampoo: L'oreal	Zn/Cd	> 999
		RANGE	
			4- 30
			0.8- 8
			0.5- 10
			4- 20
			> 800