



SEX: Female  
AGE: 32

**Toxic & Essential Elements; Hair**

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 <sup>th</sup> 95 <sup>th</sup>
Aluminum (Al)	7.1	< 7.0	
Antimony (Sb)	< 0.01	< 0.050	
Arsenic (As)	0.038	< 0.060	
Barium (Ba)	0.22	< 2.0	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	6.1	< 2.0	
Cadmium (Cd)	< 0.009	< 0.050	
Lead (Pb)	0.09	< 0.60	
Mercury (Hg)	0.08	< 0.80	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	< 0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.003	< 0.060	
Nickel (Ni)	0.11	< 0.30	
Silver (Ag)	0.08	< 0.15	
Tin (Sn)	0.10	< 0.30	
Titanium (Ti)	0.40	< 0.70	
Total Toxic Representation			

ESSENTIAL AND OTHER ELEMENTS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 2.5 <sup>th</sup> 16 <sup>th</sup> 50 <sup>th</sup> 84 <sup>th</sup> 97.5 <sup>th</sup>
Calcium (Ca)	214	300- 1200	
Magnesium (Mg)	21	35- 120	
Sodium (Na)	28	20- 250	
Potassium (K)	6	8- 75	
Copper (Cu)	17	11- 37	
Zinc (Zn)	200	140- 220	
Manganese (Mn)	0.17	0.08- 0.60	
Chromium (Cr)	0.36	0.40- 0.65	
Vanadium (V)	0.024	0.018- 0.065	
Molybdenum (Mo)	0.075	0.020- 0.050	
Boron (B)	0.22	0.25- 1.5	
Iodine (I)	0.43	0.25- 1.8	
Lithium (Li)	< 0.004	0.007- 0.020	
Phosphorus (P)	143	150- 220	
Selenium (Se)	0.95	0.55- 1.1	
Strontium (Sr)	0.44	0.50- 7.6	
Sulfur (S)	45900	44000- 50000	
Cobalt (Co)	0.004	0.005- 0.040	
Iron (Fe)	6.5	7.0- 16	
Germanium (Ge)	0.031	0.030- 0.040	
Rubidium (Rb)	0.006	0.007- 0.096	
Zirconium (Zr)	0.25	0.020- 0.42	

SPECIMEN DATA		RATIOS	
<b>COMMENTS:</b>		ELEMENTS	RATIOS
Date Collected: 10/15/2015	Sample Size: 0.204 g	Ca/Mg	10.2
Date Received: 10/19/2015	Sample Type: Head	Ca/P	1.5
Date Completed: 10/21/2015	Hair Color: Brown	Na/K	4.67
Methodology: ICP/MS	Treatment:	Zn/Cu	11.8
	Shampoo: Tresemmé	Zn/Cd	> 999
		RANGE	
			4- 30
			1- 12
			0.5- 10
			4- 20
			> 800