



SEX: Female
DOB: 01/18/1961

AGE: 58

Toxic & Essential Elements; Hair

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 th 95 th
Aluminum (Al)	2.4	< 7.0	
Antimony (Sb)	< 0.01	< 0.050	
Arsenic (As)	0.094	< 0.060	
Barium (Ba)	0.11	< 2.0	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.038	< 2.0	
Cadmium (Cd)	< 0.009	< 0.050	
Lead (Pb)	0.06	< 0.60	
Mercury (Hg)	0.76	< 0.80	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	< 0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.005	< 0.060	
Nickel (Ni)	0.02	< 0.30	
Silver (Ag)	0.27	< 0.15	
Tin (Sn)	1.6	< 0.30	
Titanium (Ti)	0.18	< 0.70	
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)	236	300- 1200			
Magnesium (Mg)	42	35- 120			
Sodium (Na)	100	20- 250			
Potassium (K)	19	8- 75			
Copper (Cu)	12	11- 37			
Zinc (Zn)	180	140- 220			
Manganese (Mn)	0.83	0.08- 0.60			
Chromium (Cr)	0.48	0.40- 0.65			
Vanadium (V)	0.047	0.018- 0.065			
Molybdenum (Mo)	0.020	0.020- 0.050			
Boron (B)	0.21	0.25- 1.5			
Iodine (I)	0.18	0.25- 1.8			
Lithium (Li)	< 0.004	0.007- 0.020			
Phosphorus (P)	149	150- 220			
Selenium (Se)	0.59	0.55- 1.1			
Strontium (Sr)	0.56	0.50- 7.6			
Sulfur (S)	49300	44000- 50000			
Cobalt (Co)	0.007	0.005- 0.040			
Iron (Fe)	6.8	7.0- 16			
Germanium (Ge)	0.040	0.030- 0.040			
Rubidium (Rb)	0.022	0.007- 0.096			
Zirconium (Zr)	0.079	0.020- 0.42			

SPECIMEN DATA		RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE
Date Collected: 09/03/2019	Sample Size: 0.197 g	Ca/Mg	5.62	4- 30
Date Received: 09/09/2019	Sample Type: Head	Ca/P	1.58	1- 12
Date Reported: 09/11/2019	Hair Color:	Na/K	5.26	0.5- 10
Methodology: ICP/MS	Treatment:	Zn/Cu	15	4- 20
	Shampoo:	Zn/Cd	> 999	> 800

