

HAIR ELEMENTS



PATIENT: Number 129
SEX: Female
AGE: 47
Location: Cape Town, RSA

POTENTIALLY TOXIC ELEMENTS

TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	4.0	< 7.0		
Antimony	0.027	< 0.050		
Arsenic	0.029	< 0.060		
Beryllium	< 0.01	< 0.020		
Bismuth	0.030	< 2.0		
Cadmium	0.089	< 0.10		
Lead	0.13	< 1.0		
Mercury	0.59	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.018	< 0.060		
Nickel	0.17	< 0.40		
Silver	0.24	< 0.15		
Tin	0.50	< 0.30		
Titanium	0.44	< 1.0		
Total Toxic Representation				

ESSENTIAL AND OTHER ELEMENTS

ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE				
			2.5 th	16 th	50 th	84 th	97.5 th
Calcium	2050	300- 1200					
Magnesium	120	35- 120					
Sodium	12	12- 90					
Potassium	7	8- 38					
Copper	10	12- 35					
Zinc	210	140- 220					
Manganese	0.19	0.15- 0.65					
Chromium	0.36	0.20- 0.40					
Vanadium	0.040	0.018- 0.065					
Molybdenum	0.026	0.028- 0.056					
Boron	0.35	0.30- 2.0					
Iodine	0.39	0.25- 1.3					
Lithium	0.020	0.007- 0.023					
Phosphorus	147	160- 250					
Selenium	0.64	0.95- 1.7					
Strontium	4.7	0.50- 7.6					
Sulfur	44500	44500- 52000					
Barium	9.2	0.26- 3.0					
Cobalt	0.041	0.013- 0.050					
Iron	13	5.4- 14					
Germanium	0.029	0.045- 0.065					
Rubidium	0.006	0.007- 0.096					
Zirconium	0.084	0.020- 0.42					

SPECIMEN DATA

COMMENTS:
 Date Collected: 9/10/2007 Sample Size: 0.201 g
 Date Received: 10/30/2007 Sample Type: Head
 Date Completed: 11/1/2007 Hair Color: Brown
 Treatment:
 Methodology: ICP-MS Shampoo: Kerastase

RATIOS

ELEMENTS	RATIOS	EXPECTED RANGE
Ca/Mg	17.1	4- 30
Ca/P	13.9	1- 12
Na/K	1.71	0.5- 10
Zn/Cu	21	4- 20
Zn/Cd	> 999	> 800

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