

HAIR ELEMENTS



PATIENT: Number 134
SEX: Male
AGE: 18
Location: Hout Bay, RSA

POTENTIALLY TOXIC ELEMENTS

TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	6.4	< 7.0		
Antimony	0.041	< 0.066		
Arsenic	0.067	< 0.080		
Beryllium	< 0.01	< 0.020		
Bismuth	0.090	< 2.0		
Cadmium	0.020	< 0.15		
Lead	0.30	< 2.0		
Mercury	< 0.03	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.018	< 0.060		
Nickel	0.12	< 0.40		
Silver	0.08	< 0.12		
Tin	0.07	< 0.30		
Titanium	0.48	< 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	770	200- 750					
Magnesium	92	25- 75					
Sodium	380	12- 90					
Potassium	26	9- 40					
Copper	11	10- 28					
Zinc	210	130- 200					
Manganese	0.24	0.15- 0.65					
Chromium	0.44	0.20- 0.40					
Vanadium	0.046	0.018- 0.065					
Molybdenum	0.030	0.025- 0.064					
Boron	2.7	0.40- 3.0					
Iodine	0.25	0.25- 1.3					
Lithium	0.021	0.007- 0.023					
Phosphorus	191	160- 250					
Selenium	0.90	0.95- 1.7					
Strontium	2.6	0.30- 3.5					
Sulfur	46700	44500- 52000					
Barium	0.28	0.16- 1.6					
Cobalt	0.006	0.013- 0.035					
Iron	9.0	5.4- 13					
Germanium	0.030	0.045- 0.065					
Rubidium	0.017	0.011- 0.12					
Zirconium	0.062	0.020- 0.44					

SPECIMEN DATA

COMMENTS:

Date Collected: 11/1/2007
 Date Received: 12/3/2007
 Date Completed: 12/6/2007

Sample Size: 0.196 g
 Sample Type: Head
 Hair Color:
 Treatment:
 Shampoo:

Methodology: ICP-MS

V06.99

RATIOS

ELEMENTS	RATIOS	EXPECTED RANGE
Ca/Mg	8.37	4- 30
Ca/P	4.03	0.8- 8
Na/K	14.6	0.5- 10
Zn/Cu	19.1	4- 20
Zn/Cd	> 999	> 800