

HAIR ELEMENTS



PATIENT: Number 300
SEX: Female
AGE: 32
LOCATION: Cape Town, RSA

POTENTIALLY TOXIC ELEMENTS

TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	5.0	< 12		
Antimony	0.020	< 0.060		
Arsenic	0.048	< 0.090		
Barium	0.32	< 2.0		
Beryllium	< 0.01	< 0.020		
Bismuth	0.87	< 2.0		
Cadmium	0.014	< 0.050		
Lead	0.27	< 1.0		
Mercury	0.96	< 0.80		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.002		
Thorium	< 0.001	< 0.002		
Uranium	0.003	< 0.060		
Nickel	0.41	< 0.40		
Silver	0.02	< 0.10		
Tin	0.12	< 0.30		
Titanium	1.6	< 1.3		
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	381	475- 1500					
Magnesium	38	45- 180					
Sodium	28	80- 450					
Potassium	16	28- 160					
Copper	12	11- 30					
Zinc	140	130- 200					
Manganese	0.09	0.15- 0.65					
Chromium	0.35	0.40- 0.65					
Vanadium	0.024	0.018- 0.065					
Molybdenum	0.060	0.040- 0.10					
Boron	0.79	0.40- 4.0					
Iodine	0.30	0.25- 1.8					
Lithium	< 0.004	0.008- 0.030					
Phosphorus	235	250- 500					
Selenium	0.77	0.80- 1.3					
Strontium	1.0	1.0- 8.0					
Sulfur	45900	42000- 48000					
Cobalt	0.008	0.006- 0.035					
Iron	11	7.0- 16					
Germanium	0.025	0.030- 0.040					
Rubidium	0.019	0.030- 0.25					
Zirconium	0.074	0.040- 1.0					

SPECIMEN DATA

COMMENTS:
 Date Collected: 7/8/2009 Sample Size: 0.197 g
 Date Received: 7/20/2009 Sample Type: Pubic
 Date Completed: 7/24/2009 Hair Color:
 Client Reference: Treatment:
 Methodology: ICP-MS Shampoo:

RATIOS

ELEMENTS	RATIOS	EXPECTED RANGE
Ca/Mg	10	4- 30
Ca/P	1.62	1- 12
Na/K	1.75	0.5- 10
Zn/Cu	11.7	4- 20
Zn/Cd	> 999	> 800

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