

HAIR ELEMENTS



PATIENT: No 29
SEX: Male
AGE: 37
Location: Cape Town, South Africa

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	4.1	< 7.0		
Antimony	0.035	< 0.066		
Arsenic	0.037	< 0.080		
Beryllium	< 0.01	< 0.020		
Bismuth	< 0.002	< 0.060		
Cadmium	0.039	< 0.15		
Lead	0.46	< 2.0		
Mercury	1.5	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.011	< 0.060		
Nickel	0.09	< 0.40		
Silver	0.26	< 0.12		
Tin	0.04	< 0.30		
Titanium	0.25	< 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	656	200- 750					
Magnesium	30	25- 75					
Sodium	10	12- 90					
Potassium	7	9- 40					
Copper	19	10- 28					
Zinc	190	130- 200					
Manganese	0.07	0.15- 0.65					
Chromium	0.29	0.20- 0.40					
Vanadium	0.021	0.018- 0.065					
Molybdenum	0.043	0.025- 0.064					
Boron	0.50	0.40- 3.0					
Iodine	0.24	0.25- 1.3					
Lithium	0.013	0.007- 0.023					
Phosphorus	144	160- 250					
Selenium	0.64	0.95- 1.7					
Strontium	1.2	0.30- 3.5					
Sulfur	45600	44500- 52000					
Barium	0.29	0.16- 1.6					
Cobalt	0.029	0.013- 0.035					
Iron	4.4	5.4- 13					
Germanium	0.031	0.045- 0.065					
Rubidium	0.010	0.011- 0.12					
Zirconium	0.024	0.020- 0.44					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 11/2/2006	Sample Size: 0.199 g			Ca/Mg	21.9	4- 30
Date Received: 11/6/2006	Sample Type: Head			Ca/P	4.56	0.8- 8
Date Completed: 11/10/2006	Hair Color: Brown			Na/K	1.43	0.5- 10
	Treatment:			Zn/Cu	10	4- 20
Methodology: ICP-MS	Shampoo: Pantene			Zn/Cd	> 999	> 800

V06.99