

HAIR ELEMENTS



PATIENT: No 5
SEX: Female
AGE: 51
Location: Cape Town, South Africa

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	8.8	< 7.0		
Antimony	0.030	< 0.050		
Arsenic	< 0.01	< 0.060		
Beryllium	< 0.01	< 0.020		
Bismuth	0.077	< 0.10		
Cadmium	0.068	< 0.10		
Lead	0.28	< 1.0		
Mercury	0.06	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.001	< 0.060		
Nickel	0.77	< 0.40		
Silver	0.06	< 0.15		
Tin	0.18	< 0.30		
Titanium	1.7	< 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	3200	300- 1200					
Magnesium	110	35- 120					
Sodium	23	12- 90					
Potassium	3	8- 38					
Copper	27	12- 35					
Zinc	260	140- 220					
Manganese	0.60	0.15- 0.65					
Chromium	0.37	0.20- 0.40					
Vanadium	0.017	0.018- 0.065					
Molybdenum	0.018	0.028- 0.056					
Boron	0.35	0.30- 2.0					
Iodine	1.2	0.25- 1.3					
Lithium	0.020	0.007- 0.023					
Phosphorus	205	160- 250					
Selenium	0.70	0.95- 1.7					
Strontium	8.4	0.50- 7.6					
Sulfur	46200	44500- 52000					
Barium	0.83	0.26- 3.0					
Cobalt	0.026	0.013- 0.050					
Iron	12	5.4- 14					
Germanium	0.043	0.045- 0.065					
Rubidium	0.011	0.007- 0.096					
Zirconium	0.047	0.020- 0.42					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 8/18/2006	Sample Size: 0.198 g			Ca/Mg	29.1	4- 30
Date Received: 8/31/2006	Sample Type: Head			Ca/P	15.6	1- 12
Date Completed: 9/5/2006	Hair Color: Brown			Na/K	7.67	0.5- 10
	Treatment: Dye			Zn/Cu	9.63	4- 20
Methodology: ICP-MS	Shampoo: Kerastase			Zn/Cd	> 999	> 800

V06.99