

HAIR ELEMENTS



PATIENT: Number 57
 SEX: Female
 AGE: 40
 Location: Cape Town, South Africa

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	7.9	< 7.0		
Antimony	0.043	< 0.050		
Arsenic	0.032	< 0.060		
Beryllium	< 0.01	< 0.020		
Bismuth	0.012	< 0.10		
Cadmium	0.016	< 0.10		
Lead	2.2	< 1.0		
Mercury	2.3	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.010	< 0.060		
Nickel	0.20	< 0.40		
Silver	0.13	< 0.15		
Tin	0.72	< 0.30		
Titanium	0.49	< 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	1290	300- 1200					
Magnesium	74	35- 120					
Sodium	75	12- 90					
Potassium	55	8- 38					
Copper	13	12- 35					
Zinc	200	140- 220					
Manganese	0.45	0.15- 0.65					
Chromium	0.38	0.20- 0.40					
Vanadium	0.041	0.018- 0.065					
Molybdenum	0.027	0.028- 0.056					
Boron	1.0	0.30- 2.0					
Iodine	0.29	0.25- 1.3					
Lithium	0.010	0.007- 0.023					
Phosphorus	224	160- 250					
Selenium	0.95	0.95- 1.7					
Strontium	4.2	0.50- 7.6					
Sulfur	49100	44500- 52000					
Barium	1.5	0.26- 3.0					
Cobalt	0.077	0.013- 0.050					
Iron	9.7	5.4- 14					
Germanium	0.028	0.045- 0.065					
Rubidium	0.082	0.007- 0.096					
Zirconium	0.14	0.020- 0.42					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 1/14/2007	Sample Size: 0.199 g			Ca/Mg	17.4	4- 30
Date Received: 1/29/2007	Sample Type: Head			Ca/P	5.76	1- 12
Date Completed: 2/2/2007	Hair Color: Black			Na/K	1.36	0.5- 10
	Treatment: Dye			Zn/Cu	15.4	4- 20
Methodology: ICP-MS	Shampoo: Curly Sexy Hair			Zn/Cd	> 999	> 800
	V06.99					