

HAIR ELEMENTS



PATIENT: Number 62
SEX: Female
AGE: 43
Location: Cape Town, South Africa

POTENTIALLY TOXIC ELEMENTS					
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE		
			68 th	95 th	
Aluminum	23	< 7.0			
Antimony	0.053	< 0.050			
Arsenic	0.075	< 0.060			
Beryllium	< 0.01	< 0.020			
Bismuth	0.029	< 0.10			
Cadmium	0.94	< 0.10			
Lead	5.8	< 1.0			
Mercury	2.3	< 1.1			
Platinum	< 0.003	< 0.005			
Thallium	0.001	< 0.010			
Thorium	0.001	< 0.005			
Uranium	0.032	< 0.060			
Nickel	0.36	< 0.40			
Silver	59	< 0.15			
Tin	0.30	< 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	671	300- 1200					
Magnesium	29	35- 120					
Sodium	150	12- 90					
Potassium	130	8- 38					
Copper	74	12- 35					
Zinc	110	140- 220					
Manganese	0.37	0.15- 0.65					
Chromium	0.46	0.20- 0.40					
Vanadium	0.21	0.018- 0.065					
Molybdenum	0.061	0.028- 0.056					
Boron	1.3	0.30- 2.0					
Iodine	0.59	0.25- 1.3					
Lithium	0.012	0.007- 0.023					
Phosphorus	183	160- 250					
Selenium	0.78	0.95- 1.7					
Strontium	3.2	0.50- 7.6					
Sulfur	47600	44500- 52000					
Barium	0.57	0.26- 3.0					
Cobalt	0.019	0.013- 0.050					
Iron	16	5.4- 14					
Germanium	0.033	0.045- 0.065					
Rubidium	0.16	0.007- 0.096					
Zirconium	1.1	0.020- 0.42					

SPECIMEN DATA			RATIOS		
COMMENTS:			ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 1/30/2007	Sample Size: 0.203 g		Ca/Mg	23.1	4- 30
Date Received: 2/8/2007	Sample Type: Head		Ca/P	3.67	1- 12
Date Completed: 2/13/2007	Hair Color: Blond		Na/K	1.15	0.5- 10
	Treatment:		Zn/Cu	1.49	4- 20
Methodology: ICP-MS	Shampoo:		Zn/Cd	117	> 800
V06.99					