

HAIR ELEMENTS



PATIENT: Number 89
SEX: Female
AGE: 40
Location: Belgium

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	2.7	< 7.0		
Antimony	0.064	< 0.050		
Arsenic	0.021	< 0.060		
Beryllium	< 0.01	< 0.020		
Bismuth	0.007	< 2.0		
Cadmium	< 0.009	< 0.10		
Lead	0.86	< 1.0		
Mercury	0.15	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.028	< 0.060		
Nickel	0.22	< 0.40		
Silver	0.02	< 0.15		
Tin	0.09	< 0.30		
Titanium	0.43	< 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	1380	300- 1200					
Magnesium	30	35- 120					
Sodium	20	12- 90					
Potassium	18	8- 38					
Copper	15	12- 35					
Zinc	180	140- 220					
Manganese	0.05	0.15- 0.65					
Chromium	0.24	0.20- 0.40					
Vanadium	0.023	0.018- 0.065					
Molybdenum	0.040	0.028- 0.056					
Boron	0.35	0.30- 2.0					
Iodine	0.10	0.25- 1.3					
Lithium	< 0.004	0.007- 0.023					
Phosphorus	219	160- 250					
Selenium	0.94	0.95- 1.7					
Strontium	0.88	0.50- 7.6					
Sulfur	50100	44500- 52000					
Barium	0.28	0.26- 3.0					
Cobalt	0.036	0.013- 0.050					
Iron	6.9	5.4- 14					
Germanium	0.028	0.045- 0.065					
Rubidium	0.020	0.007- 0.096					
Zirconium	0.014	0.020- 0.42					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 5/28/2007	Sample Size: 0.204 g			Ca/Mg	46	4- 30
Date Received: 6/4/2007	Sample Type: Head			Ca/P	6.3	1- 12
Date Completed: 6/9/2007	Hair Color: Brown			Na/K	1.11	0.5- 10
	Treatment:			Zn/Cu	12	4- 20
Methodology: ICP-MS	Shampoo: Herbal Essences			Zn/Cd	> 999	> 800
	V06.99					