

HAIR ELEMENTS



PATIENT: Number 192
SEX: Female
AGE: 43

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	4.0	< 7.0		
Antimony	0.012	< 0.050		
Arsenic	0.038	< 0.060		
Beryllium	< 0.01	< 0.020		
Bismuth	0.010	< 2.0		
Cadmium	0.021	< 0.10		
Lead	0.15	< 1.0		
Mercury	0.10	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	0.001	< 0.005		
Uranium	0.015	< 0.060		
Nickel	0.08	< 0.40		
Silver	0.07	< 0.15		
Tin	0.77	< 0.30		
Titanium	0.58	< 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	444	300- 1200					
Magnesium	91	35- 120					
Sodium	130	12- 90					
Potassium	160	8- 38					
Copper	7.7	12- 35					
Zinc	160	140- 220					
Manganese	0.60	0.15- 0.65					
Chromium	0.40	0.20- 0.40					
Vanadium	0.030	0.018- 0.065					
Molybdenum	0.035	0.028- 0.056					
Boron	7.2	0.30- 2.0					
Iodine	1.8	0.25- 1.3					
Lithium	0.019	0.007- 0.023					
Phosphorus	162	160- 250					
Selenium	0.85	0.95- 1.7					
Strontium	1.7	0.50- 7.6					
Sulfur	44000	44500- 52000					
Barium	0.25	0.26- 3.0					
Cobalt	0.004	0.013- 0.050					
Iron	14	5.4- 14					
Germanium	0.033	0.045- 0.065					
Rubidium	0.16	0.007- 0.096					
Zirconium	0.58	0.020- 0.42					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 7/12/2008	Sample Size: 0.199 g			Ca/Mg	4.88	4- 30
Date Received: 7/15/2008	Sample Type: Head			Ca/P	2.74	1- 12
Date Completed: 7/17/2008	Hair Color: Brown			Na/K	0.813	0.5- 10
	Treatment:			Zn/Cu	20.8	4- 20
Methodology: ICP-MS	Shampoo: Herbal Ess			Zn/Cd	> 999	> 800