

HAIR ELEMENTS



PATIENT: No 41
SEX: Male
AGE: 9

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	11	< 8.0		
Antimony	0.021	< 0.066		
Arsenic	0.051	< 0.080		
Beryllium	< 0.01	< 0.020		
Bismuth	0.017	< 0.12		
Cadmium	0.038	< 0.15		
Lead	0.79	< 1.0		
Mercury	2.4	< 0.40		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.018	< 0.060		
Nickel	0.05	< 0.40		
Silver	0.08	< 0.13		
Tin	0.09	< 0.30		
Titanium	0.50	< 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	288	160- 500					
Magnesium	57	12- 50					
Sodium	25	12- 90					
Potassium	< 3	10- 40					
Copper	240	9.0- 30					
Zinc	220	110- 190					
Manganese	0.11	0.18- 0.60					
Chromium	0.43	0.23- 0.50					
Vanadium	0.038	0.025- 0.10					
Molybdenum	0.019	0.040- 0.089					
Boron	0.35	0.50- 3.5					
Iodine	0.29	0.25- 1.3					
Lithium	< 0.004	0.007- 0.023					
Phosphorus	239	160- 250					
Selenium	0.66	0.95- 1.7					
Strontium	0.70	0.21- 2.1					
Sulfur	50400	45500- 53000					
Barium	0.15	0.19- 1.6					
Cobalt	0.005	0.013- 0.035					
Iron	5.0	6.0- 17					
Germanium	0.037	0.045- 0.065					
Rubidium	0.004	0.008- 0.080					
Zirconium	0.094	0.060- 0.70					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected:	12/8/2006	Sample Size:	0.203 g	Ca/Mg	5.05	4- 30
Date Received:	12/13/2006	Sample Type:	Head	Ca/P	1.21	0.8- 8
Date Completed:	12/16/2006	Hair Color:	Brown	Na/K	8.33	0.5- 10
		Treatment:		Zn/Cu	0.917	4- 20
Methodology:	ICP-MS	Shampoo:	Kair	Zn/Cd	> 999	> 800

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