

HAIR ELEMENTS



PATIENT: Number 125
SEX: Male
AGE: 30
Location: Auckland New Zealand

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	5.0	< 12		
Antimony	0.015	< 0.080		
Arsenic	0.060	< 0.12		
Beryllium	< 0.01	< 0.020		
Bismuth	0.010	< 2.0		
Cadmium	0.011	< 0.15		
Lead	0.10	< 2.0		
Mercury	0.25	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.001	< 0.060		
Nickel	0.13	< 0.40		
Silver	0.01	< 0.10		
Tin	0.10	< 0.30		
Titanium	0.64	< 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	434	375- 1100					
Magnesium	45	40- 140					
Sodium	66	24- 180					
Potassium	42	20- 80					
Copper	8.6	9.0- 26					
Zinc	170	120- 200					
Manganese	0.14	0.20- 0.65					
Chromium	0.53	0.20- 0.45					
Vanadium	0.040	0.018- 0.065					
Molybdenum	0.10	0.040- 0.10					
Boron	0.83	0.70- 4.0					
Iodine	1.0	0.25- 1.3					
Lithium	0.019	0.008- 0.040					
Phosphorus	245	250- 400					
Selenium	1.3	0.95- 1.7					
Strontium	0.94	1.0- 6.0					
Sulfur	47800	42000- 49000					
Barium	0.40	0.50- 3.0					
Cobalt	0.004	0.013- 0.050					
Iron	12	5.8- 14					
Germanium	0.033	0.045- 0.065					
Rubidium	0.056	0.030- 0.25					
Zirconium	0.46	0.040- 1.0					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected:	10/4/2007	Sample Size:	0.205 g	Ca/Mg	9.64	4- 30
Date Received:	10/9/2007	Sample Type:	Pubic	Ca/P	1.77	0.8- 8
Date Completed:	10/13/2007	Hair Color:	Brown	Na/K	1.57	0.5- 10
Methodology:	ICP-MS	Treatment:		Zn/Cu	19.8	4- 20
		Shampoo:		Zn/Cd	> 999	> 800

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