

HAIR ELEMENTS



PATIENT: Number 47
SEX: Male
AGE: 33
Location: Australia

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	14	< 7.0		
Antimony	0.045	< 0.066		
Arsenic	0.090	< 0.080		
Beryllium	< 0.01	< 0.020		
Bismuth	0.012	< 0.060		
Cadmium	0.33	< 0.15		
Lead	6.4	< 2.0		
Mercury	1.8	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.004	< 0.060		
Nickel	0.21	< 0.40		
Silver	1.8	< 0.12		
Tin	0.51	< 0.30		
Titanium	0.54	< 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	232	200- 750					
Magnesium	12	25- 75					
Sodium	110	12- 90					
Potassium	88	9- 40					
Copper	15	10- 28					
Zinc	150	130- 200					
Manganese	0.67	0.15- 0.65					
Chromium	0.55	0.20- 0.40					
Vanadium	0.062	0.018- 0.065					
Molybdenum	0.036	0.025- 0.064					
Boron	0.98	0.40- 3.0					
Iodine	0.26	0.25- 1.3					
Lithium	< 0.004	0.007- 0.023					
Phosphorus	176	160- 250					
Selenium	0.83	0.95- 1.7					
Strontium	0.20	0.30- 3.5					
Sulfur	49000	44500- 52000					
Barium	0.29	0.16- 1.6					
Cobalt	0.018	0.013- 0.035					
Iron	25	5.4- 13					
Germanium	0.032	0.045- 0.065					
Rubidium	0.12	0.011- 0.12					
Zirconium	0.038	0.020- 0.44					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 3/30/2006	Sample Size: 0.198 g			Ca/Mg	19.3	4- 30
Date Received: 4/8/2006	Sample Type: Head			Ca/P	1.32	0.8- 8
Date Completed: 4/12/2006	Hair Color: Brown			Na/K	1.25	0.5- 10
	Treatment:			Zn/Cu	10	4- 20
Methodology: ICP-MS	Shampoo: Simple Soap			Zn/Cd	455	> 800