

HAIR ELEMENTS



NUMBER: 65

SEX: Male

AGE: 67

LOCATION: UK (9 months) and Cape Town, South Africa (3 months)

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	5.2	< 7.0		
Antimony	0.074	< 0.066		
Arsenic	0.064	< 0.080		
Beryllium	< 0.01	< 0.020		
Bismuth	0.065	< 0.060		
Cadmium	0.049	< 0.15		
Lead	0.11	< 2.0		
Mercury	2.0	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.001	< 0.060		
Nickel	0.08	< 0.40		
Silver	0.04	< 0.12		
Tin	0.05	< 0.30		
Titanium	0.56	< 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	374	200- 750					
Magnesium	26	25- 75					
Sodium	31	12- 90					
Potassium	12	9- 40					
Copper	9.1	10- 28					
Zinc	200	130- 200					
Manganese	0.05	0.15- 0.65					
Chromium	0.36	0.20- 0.40					
Vanadium	0.028	0.018- 0.065					
Molybdenum	0.027	0.025- 0.064					
Boron	3.3	0.40- 3.0					
Iodine	0.34	0.25- 1.3					
Lithium	0.020	0.007- 0.023					
Phosphorus	203	160- 250					
Selenium	12	0.95- 1.7					
Strontium	0.63	0.30- 3.5					
Sulfur	49300	44500- 52000					
Barium	0.64	0.16- 1.6					
Cobalt	0.018	0.013- 0.035					
Iron	8.1	5.4- 13					
Germanium	0.033	0.045- 0.065					
Rubidium	0.011	0.011- 0.12					
Zirconium	0.060	0.020- 0.44					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 2/12/2007	Sample Size: 0.203 g			Ca/Mg	14.4	4- 30
Date Received: 3/2/2007	Sample Type: Head			Ca/P	1.84	0.8- 8
Date Completed: 3/7/2007	Hair Color: Brown			Na/K	2.58	0.5- 10
	Treatment:			Zn/Cu	22	4- 20
Methodology: ICP-MS	Shampoo:			Zn/Cd	> 999	> 800

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