

HAIR ELEMENTS



PATIENT: Number 426
SEX: Male
AGE: 60
LOCATION: Arlington Va., USA

POTENTIALLY TOXIC ELEMENTS

TOXIC ELEMENTS	RESULT µg/g	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	7.6	< 7.0		
Antimony	0.22	< 0.066		
Arsenic	0.077	< 0.080		
Barium	0.88	< 1.0		
Beryllium	< 0.01	< 0.020		
Bismuth	0.028	< 2.0		
Cadmium	0.62	< 0.065		
Lead	9.7	< 0.80		
Mercury	3.1	< 0.80		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.002		
Thorium	< 0.001	< 0.002		
Uranium	0.009	< 0.060		
Nickel	0.67	< 0.20		
Silver	0.23	< 0.08		
Tin	1.2	< 0.30		
Titanium	0.45	< 0.60		
Total Toxic Representation				

ESSENTIAL AND OTHER ELEMENTS

ELEMENTS	RESULT µg/g	REFERENCE RANGE	PERCENTILE				
			2.5 th	16 th	50 th	84 th	97.5 th
Calcium	923	200- 750					
Magnesium	38	25- 75					
Sodium	4	20- 180					
Potassium	< 3	9- 80					
Copper	45	11- 30					
Zinc	160	130- 200					
Manganese	0.30	0.08- 0.50					
Chromium	0.50	0.40- 0.70					
Vanadium	0.042	0.018- 0.065					
Molybdenum	0.077	0.025- 0.060					
Boron	0.78	0.40- 3.0					
Iodine	3.3	0.25- 1.8					
Lithium	< 0.004	0.007- 0.020					
Phosphorus	177	150- 220					
Selenium	1.0	0.70- 1.2					
Strontium	2.0	0.30- 3.5					
Sulfur	52800	44000- 50000					
Cobalt	0.021	0.004- 0.020					
Iron	22	7.0- 16					
Germanium	0.029	0.030- 0.040					
Rubidium	0.007	0.011- 0.12					
Zirconium	0.046	0.020- 0.44					

SPECIMEN DATA

COMMENTS:
 Date Collected: Sample Size: **0.198 g**
 Date Received: **11/9/2010** Sample Type: **Head**
 Date Completed: **11/14/2010** Hair Color:
 Client Reference: Treatment:
 Methodology: **ICP-MS** Shampoo:

RATIOS

ELEMENTS	RATIOS	EXPECTED RANGE
Ca/Mg	24.3	4- 30
Ca/P	5.21	0.8- 8
Na/K	1.33	0.5- 10
Zn/Cu	3.56	4- 20
Zn/Cd	258	> 800

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