

<b>Laboratory No.:</b>	HM001	<b>Age:</b>	
<b>Client:</b>	SMITH, John	<b>Sex:</b>	M
<b>Material:</b>	hair		

## ELEMENT ANALYSIS

DATE: 04/02/22

Page 1 of 2

Element		Result	Reference range
<b>Nutritional</b>			
Calcium	Ca	28.0	22-104
Magnesium	Mg	4.5	1.3-9.4
Sodium	Na	↑ 70.0	3.0-34
Potassium	K	↑ 63.9	2.0-23
Copper	Cu	1.1	0.9-3.2
Zinc	Zn	11.1	9.0-22
Phosphorus	P	↑ 22.0	10.0-21
Iron	Fe	1.5	0.5-2
Manganese	Mn	0.031	0.012-0.112
Chromium	Cr	↑ 0.214	0.02-0.08
Selenium	Se	0.046	0.04-0.12
Boron	B	< LOD	0.001-0.083
Cobalt	Co	0.0013	0.0001-0.005
Molybdenum	Mo	↑ 0.015	0.001-0.009
Sulfur	S	↓ 3275	3915-5528
<b>Toxic</b>			
Antimony	Sb	↑ 0.0230	< 0.009
Uranium	U	< LOD	< 0.0123
Arsenic	As	0.0268	< 0.014
Beryllium	Be	< LOD	< 0.003
Mercury	Hg	< LOD	< 0.15
Cadmium	Cd	0.0000	< 0.008
Lead	Pb	↑ 0.3610	< 0.2
Aluminium	Al	0.4773	< 2
<b>Additional</b>			
Germanium	Ge	0.001	0.0001-0.04
Barium	Ba	0.047	0.001-0.27
Bismuth	Bi	↑ 0.074	0.00-0.035
Rubidium	Rb	↑ 0.043	0.0017-0.0244
Lithium	Li	0.002	0.0001-0.007
Nickel	Ni	↑ 0.085	0.001-0.08
Platinum	Pt	< LOD	0.000-0.003
Thalium	Tl	< LOD	0.000-0.0003
Vanadium	V	0.002	0.000-0.012
Strontium	Sr	0.040	0.001-0.58
Tin	Sn	0.038	0.001-0.07
Titanium	Ti	↑ 2.788	0.001-0.24
Zirconium	Zr	↑ 0.136	0.001-0.06

Ratios	Result	Reference range
<b>Nutritional Ratios</b>		
Ca/P	↓ 1.27	1.6-3.6
Na/K	↓ 1.1	1.4-3.4
Ca/K	↓ 0.4	2.2-6.2
Zn/Cu	9.6	4.0-12
Na/Mg	↑ 15.6	2.0-6
Ca/Mg	6.3	3.0-11
Fe/Cu	1.3	0.2-1.6

### LEVELS

All mineral levels are reported in milligram percent (milligram per one-hundred grams of the sample). One milligram percent (mg%) equals ten parts per million (ppm).

**Nutritional Elements** - elements with essential functions for many biochemical functions in the human body. They play vital roles in such metabolic processes as muscular activity, endocrine function, reproduction, skeletal integrity, and overall development.

**Toxic Elements** - these elements also called "heavy metals," are well-known for interfering with normal biochemical function. They are present in all biological systems; however, these metals pose a concern for

**Additional Elements** - these elements are considered as possibly essential by the human body. Additional studies are being conducted to define their requirements and the amounts needed.

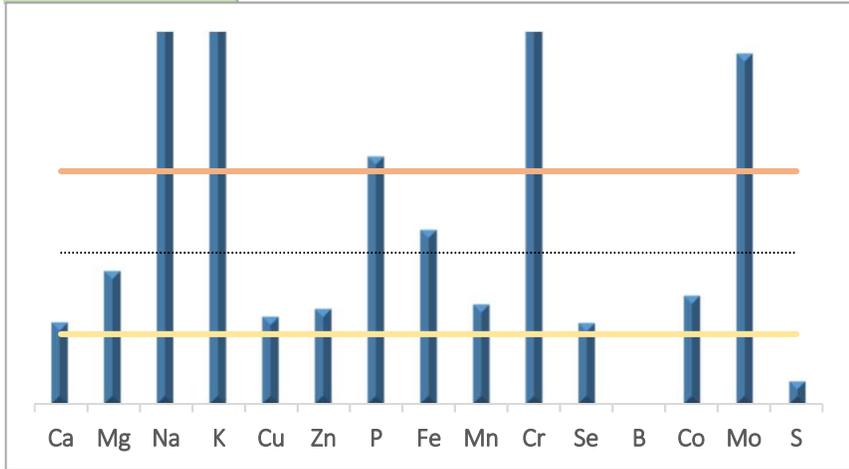
### REFERENCE RANGES

Reference ranges for all minerals in this report should be considered for information/guideline purposes only - i.e., only in support of officially approved blood test(s) performed/prescribed by a qualified healthcare professional. Please keep in mind that the levels/values of various minerals discussed in this report are controlled by a complex framework of metabolic, endocrine, environmental, dietary, etc., factors. Thus, in the absence of information to the contrary (except the opinion of a qualified medical professional), the levels/values of the minerals in this report should be viewed as a result of those factors and not necessarily as diagnostic biomarkers themselves. While the reported reference ranges have been statistically derived from a large population of healthy individuals, they should not be used by themselves to diagnose, monitor, and/or otherwise guide medical care decisions unless the medical professional in charge approves of such use. When in doubt regarding any aspect of this report, one should always defer to the decision/opinion/care of the qualified/licensed medical care professional.

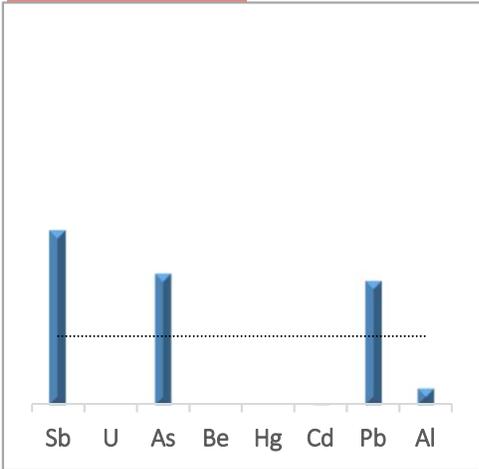
### LEGEND

"< LOD" - Below Limit of Detection ; ↑ / ↓ - above upper/below lower reference value

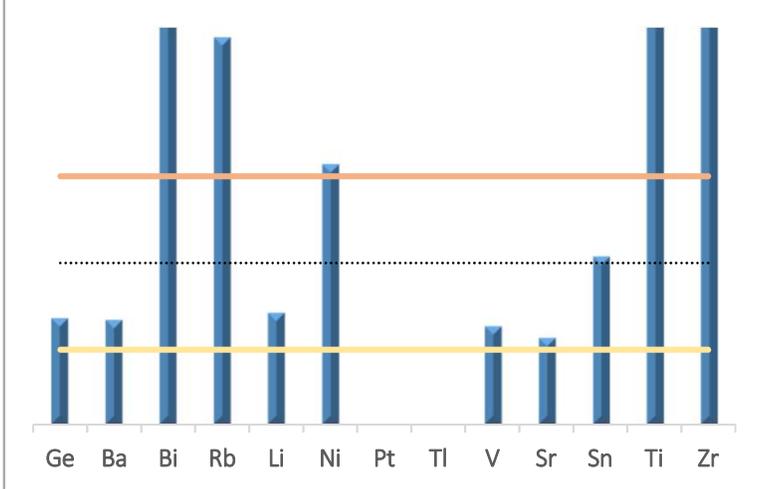
**Nutritional**



**Toxic**



**Additional**

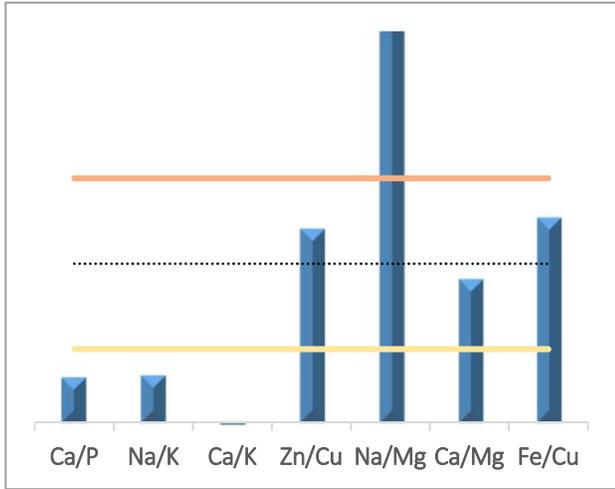


**GRAPHICAL REPRESENTATION**

For the sake of clarity regarding the distribution within the reference ranges and visualization of the ratios between interrelated elements, e.g., Na/K, Ca/Mg, Fe/Cu, etc., the numerical data is represented graphically. The data has been normalized for the MEAN of the minimum (MIN value) and maximum (MAX value) reference value. Thus, one can simultaneously assess the degree of deviation concerning the MEAN and whether a given element/ group of elements is below the lower or above the upper reference value.

The elements with no bars in the graphs show levels below the limit of detection of the analytical method (depicted as "< LOD" on page 1).

**Nutritional Ratios**



**LEGEND**

- result
- MIN reference
- MEAN
- MAX reference

**Legal Disclaimer**

This hair/nail mineral analysis tests not been authorized, cleared, or approved by the FDA for detecting, diagnosing, managing, treating, preventing, or influencing the course of any medical condition. The information provided in this analysis is strictly for informational purposes, and should not be used to make any qualified medical decision except under the explicit direction of a medical professional. Test values/results that fall within the normal ranges for one or more minerals do not imply absence of pathology or lack of health/medical concern. Conversely, test values/results that fall outside the normal ranges do not automatically imply the presence of a pathology and/or health/medical concern or any type. All test results should be reviewed AND validated by a qualified medical/health professional and all diagnosis, management, treatment, etc activities should be deferred to said professional.