TrichAnalytics™
LABORATORY

Hair Microchemistry Analysis Report

Client Project:	Healthcare Practitioners	**Requisition Date:**	01 Jun 2025
Client ID (Barcode):	12345678	**Date Received:**	15 Jun 2025
Client Initials:	AA	**Date of Analysis:**	30 Jun 2025
Country:	Canada	**Final Report Date:**	01 Jul 2025
Email:	email	**Project No.:**	2025-123
		Protocol No.:	2025-123-001
		Method No.:	MET-012.05

Analytical Request:

Hair Microchemistry (total metals).

Notes:

Analytical results are expressed in milligram per kilogram (mg/kg) dry weight.

TrichAnalytics' advanced laser ablation technology allows for precise and non-invasive measurements. The results from this report aim to provide unique insights that address the critical needs of:

Dietary Assessment: Monitor element composition with changes in diet to optimize nutritional health.

Toxic Exposure Screening: Identify chronic exposure to harmful contaminants, such as mercury.

Supplement Efficacy: Compare hair results before and after taking supplements to evaluate effectiveness of uptake.

Preventative Health: Monitor element composition for early signs of deficiencies or toxicities that could lead to long-term health issues.

This report is to be used for information only and not as a diagnostic tool.

Analytical Report Signed in PDF Copy — 01 Jul 2025

Reviewed and Approved by Jennie Christensen, PhD, RPBio — Date

TrichAnalytics Inc.
207-1753 Sean Heights
Saanichton, BC V8M 0B3
www.trichanalytics.com

CALA Testing Accreditation No. A4196

Healthcare Practitioners

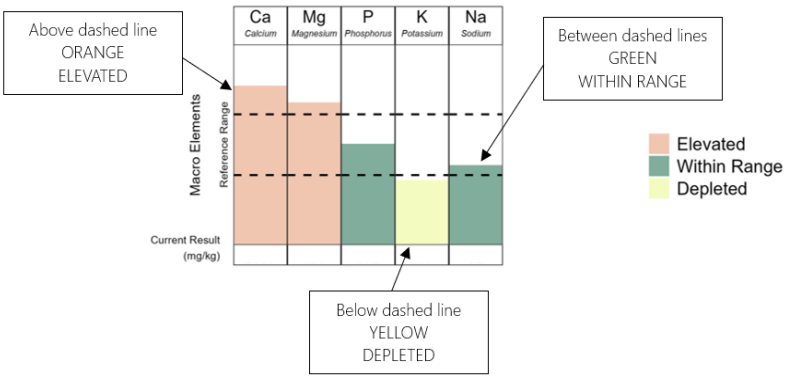
INSTRUCTIONS FOR REPORT INTERPRETATION

GRAPHS

Graphs are divided into Macro Elements, Trace Elements, and Toxic Elements.

To interpret the graphs:

- If an element shows ORANGE, it is elevated.
- If an element shows GREEN, it is within range.
- If an element shows YELLOW, it is depleted.



TABULAR HAIR RESULTS (TABLE 1)

The table is divided into Macro Elements, Trace Elements, and Toxic Elements.

The results are the same as provided in the graphs but in tabular form.

Results are colour-coded depending on the status of the concentration relative to the reference range:

White (no highlighting)	• Within Range
Yellow	• Depleted
Orange	• Elevated

DIETARY SUGGESTIONS

These tables summarize the Macro Elements, Trace Elements, and Toxic Elements reported in hair analysis.

For each element, the table includes:

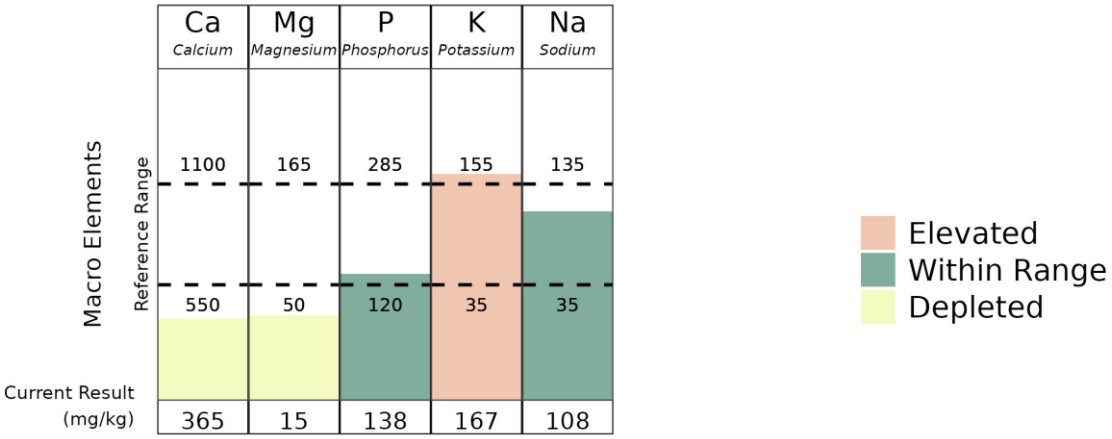
- **Main dietary sources** found in diets or supplements
- **Biological importance**, highlighting the element's role in human health and importance
- **Supplementation cautions**, outlining potential risks of over-supplementation or imbalances
- **Dietary suggestions** when the element is found to be **deficient or elevated** in hair, with an emphasis on adjusting diet, element supplementation or lifestyle changes to restore balance

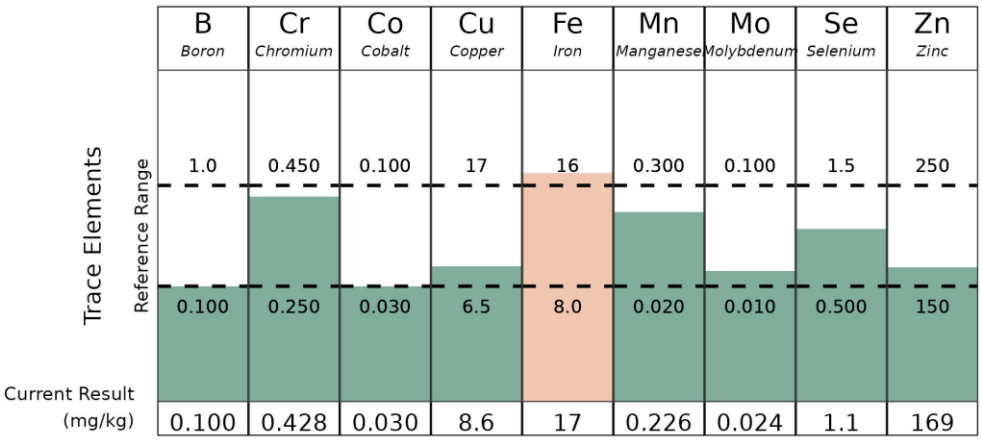
The goal of these tables is to help healthcare professionals, nutritionists, and individuals make informed decisions when interpreting results. It supports safe and effective nutritional planning by identifying practical changes in diet that may optimize balance or reduce toxic exposures.

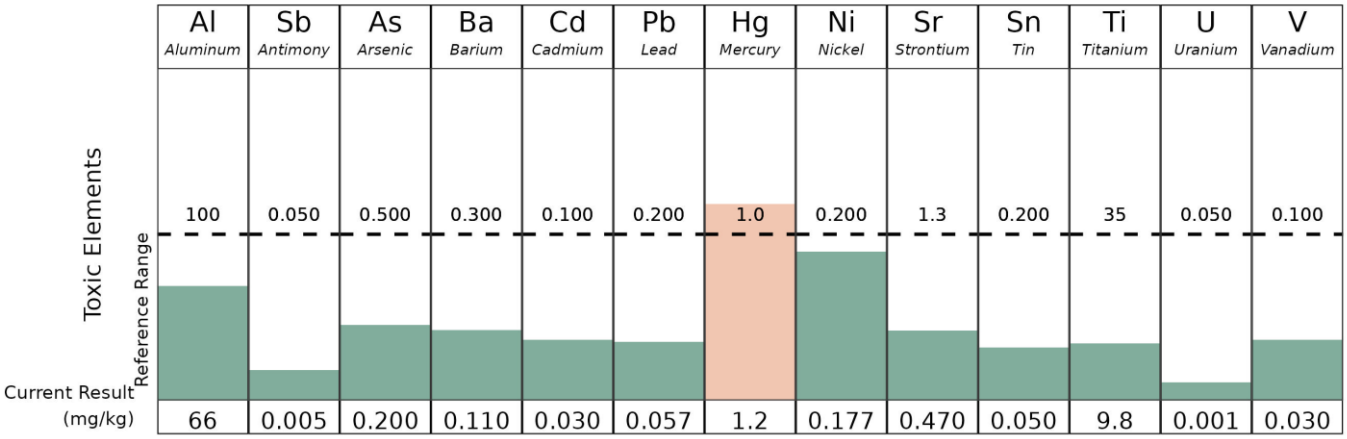
This report is to be used for information only and not as a diagnostic tool.

Client ID (Barcode): 12345678
Laboratory ID: 001
Reporting Date: 01 Jul 2025

TrichAnalytics™ LABORATORY







Note: Each element has a unique reference range and these ranges are normalized for graphical representation.

TrichAnalytics™ LABORATORY

Client ID (Barcode): 12345678
Laboratory ID: 001
Reporting Date: 01 Jul 2025

Table 1. Reportable Results (all values in units mg/kg)

Parameter	Ref. Low	Ref. High	Results
Macro Elements			
Calcium	550	1,100	365
Magnesium	50	165	15
Phosphorous	120	285	138
Potassium	35	155	167
Sodium	35	135	108
Trace Elements			
Boron	0.100	1.0	**0.100**
Chromium	0.250	0.450	0.428
Cobalt	0.030	0.100	**0.030**
Copper	6.5	17	8.6
Iron	8.0	16	17
Manganese	0.020	0.300	0.226
Molybdenum	0.010	0.100	0.024
Selenium	0.500	1.5	1.1
Zinc	150	250	169
Toxic Elements			
Aluminum	< 100		66
Antimony	< 0.050		**0.005**
Arsenic	< 0.500		**0.200**
Barium	< 0.300		0.110
Cadmium	< 0.100		**0.030**
Lead	< 0.200		0.057
Mercury	< 1.0		1.2
Nickel	< 0.200		0.177
Strontium	< 1.3		0.470
Tin	< 0.200		**0.050**
Titanium	< 35		9.8
Uranium	< 0.050		**0.001**
Vanadium	< 0.100		**0.030**

Notes:
mg/kg = milligrams per kilogram; µm = micrometer; % = percent; Ref. = Reference
Bold = Estimate below detection limit
Elevated
Depleted

Hair Physiology and Health

If you want to improve the quality of your hair, it must start from within. Your diet directly affects your hair's health, and imbalances or deficiencies in essential elements may be at the root of hair challenges. Key elements for healthy hair include magnesium, calcium, iron, zinc, and selenium. Vital supporting vitamins are A, D, E, and B-complex (such as biotin). In addition to your nutritional element and metal levels, your personalized report includes important physiological insights, such as hair diameter and follicular potential (see your results below).

Diameter: Healthy hair typically ranges from 0.07 to 0.12 mm in diameter. While genetics and ethnicity play a role, your hair thickness can also be related to your nutritional health and health of your hair follicles.

Follicular Potential: This value reflects how close your current follicle health status is to its full potential. Reported as a percentage, values above 80% suggest you're near your maximum follicle health. Values below 80% indicate room for improvement. A value under 50% may reflect significant hair thinning, miniaturization, or active hair loss. Low follicular potential can be influenced by age, hormones, poor circulation, nutrient deficiency, toxic metal exposure, or chronic stress.

By addressing these factors through better nutrition and lifestyle, you can support both optimal health and stronger, healthier hair.

Follicular Potential (%):	**75**
Ideal Follicular Potential (%):	> 75%
Diameter (µm):	**70**
Normal Range (µm):	70 - 100

A Cross Section of the Skin