TrichAnalytics™
LABORATORY

Horsehair Microchemistry Analysis Report

Client Project:	Example Report	**Date Received:**	01 Jan 2025
Email:	email	**Date of Analysis:**	02 Jan 2025
		Final Report Date:	03 Jan 2025
Analytical Request:		**Project No.:**	2025-123
Horse Hair Microchemistry (total metals) -	1 hairs.	**Protocol No.:**	2025-123-001
		Method No.:	MET-004.01

Notes:

TrichAnalytics measures a wide array of elements to assess nutritional status and detect toxic metal exposure in horses. Analytical results are expressed in milligram per kilogram (mg/kg) dry weight.

Applications of Hair Analysis in Horses:

Performance Monitoring: Detecting imbalances that could impact stamina, recovery, and muscle function.
Dietary Assessment: Ensuring optimal levels of elements for growth, health, and athletic performance.
Toxic Exposure Screening: Identifying inadvertant exposure to harmful contaminants in feed, water, or the environment.
Preventative Health: Monitoring for early signs of deficiencies or toxicities that could lead to long-term health issues.
Supplement Efficacy: Monitoring baseline chemistry and post-treatment chemistry for supplement efficacy.

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 horse owners, trainers, and veterinarians.

Note: Hair analysis should not be considered a diagnostic tool and should only be used for informative purposes towards a healthier diet and supplemental program for your horse(s), preferably in consultation with a horse nutritional consultant or veterinarian.

Analytical Report Signed in PDF Copy — 03 Jan 2025

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

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ISO 17025:2017 ACCREDITED LABORATORY

Example Report

INSTRUCTIONS FOR REPORT INTERPRETATION

TABULAR RESULTS

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

The results include ALL of your horsehair samples provided to the laboratory. Therefore, there may be more than one page of data, depending on how many horse samples you provided. For example, data for 6 horses would be presented on two pages.

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

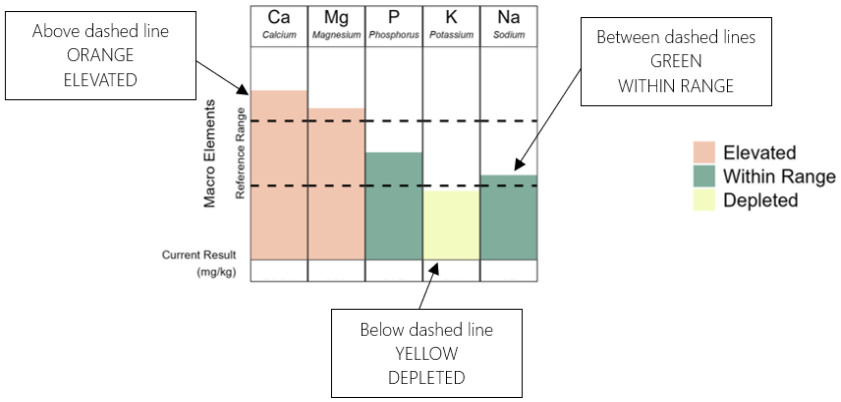
White (no highlighting)	• Within Range
Yellow	• Depleted
Orange	• Elevated

GRAPHS

There is a graph page for EACH horse sample you provided.

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.



DIETARY SUGGESTIONS

These tables summarize key **nutritional and toxic elements** commonly monitored in horses through hair analysis.

For each element, the table includes:

- **Main dietary sources** found in typical equine feeds, forage, or supplements
- **Biological importance**, highlighting the element's role in horse health and performance
- **Supplementation cautions**, outlining potentional risks of over-supplementation or imbalances
- **Suggested dietary strategies** if the element is found to be **deficient or elevated** in hair, with an emphasis on adjusting feed types or element supplementation to restore balance

The goal of these tables is to help owners, veterinarians, and equine nutritionists 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.

Example Report

HORSEHAIR - TABULAR RESULTS

			Horse Name	Horse1
			Barcode	12345678
			Sample ID	101
Parameter		Ref. Low	Ref. High	mg/kg
Macro Elements				
Calcium	Ca	525	2,200	1,862
Magnesium	Mg	55	500	402
Phosphorous	P	235	500	155
Potassium	K	15	100	52
Sodium	Na	30	165	170
Trace Elements				
Boron	B	0.200	4.0	2.5
Chromium	Cr	0.300	0.600	0.466
Cobalt	Co	0.005	0.050	0.008
Copper	Cu	4.5	8.0	6.5
Iron	Fe	10	35	40
Manganese	Mn	0.200	2.0	1.2
Molybdenum	Mo	0.100	1.0	0.561
Selenium	Se	0.400	1.2	0.978
Zinc	Zn	110	200	95
Toxic Elements				
Aluminum	Al	< 200		233
Antimony	Sb	< 0.050		0.006
Arsenic	As	< 0.200		**0.060**
Barium	Ba	< 2.0		0.632
Cadmium	Cd	< 0.010		0.003
Lead	Pb	< 0.200		0.006
Mercury	Hg	< 0.250		**0.100**
Nickel	Ni	< 0.500		0.035
Strontium	Sr	< 8.0		5.3
Tin	Sn	< 0.100		**0.015**
Titanium	Ti	< 50		5.5
Uranium	U	< 0.005		**0.001**
Vanadium	V	< 0.200		0.052

Notes:

All results are presented in milligrams per kilogram (mg/kg); Ref. = Reference

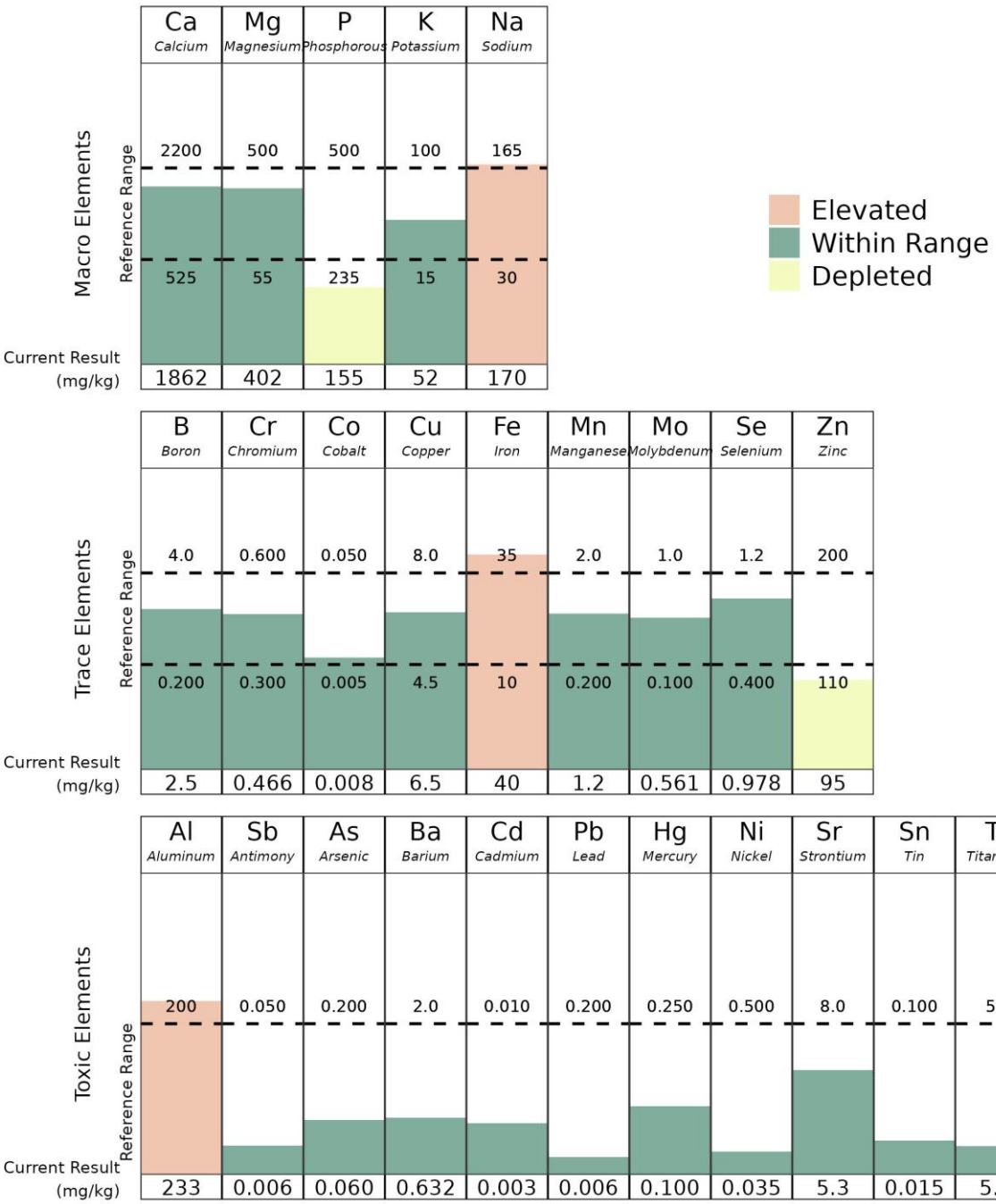
Bold = Analytical result below detection limit.

Elevated

Depleted

HORSEHAIR - GRAPHS

Horse Name: Horse1
Barcode: 12345678
Sample ID: 101



Note: Reference ranges were derived from statistical analysis of horsehairs analyzed. Each element has a unique reference range and these ranges are normalized for graphical representation.