

## تحليل المعادن



• **HTMA هو اختبار متقدم** يقيس مستويات المعادن الخلية والمعادن الثقيلة المخزنة , وهو بمثابة مخطط للبرمجة الغذائية الذكية لموازنة المعادن وبروتوكولات إزالة السموم لمحو الأعراض المنهكة واستعادة الطاقة والعيش بشكل أفضل.



• **تحليل معادن الشعر يتم في ( مختبر Trace Elements )** , وهو ملف بصيغة PDF يتم إرساله من المختبر حسب نتيجة تحليل عينة, وسيسجل المختبر في ملف التحليل اسم العميل وعمره وجنسه الذي زدنا به العميل في ظرف العينة الخاص به , بالإضافة لرقم حساب موزونة الموثق لدى المختبر, ويتكون ملف التحليل من صفحتين لتحليل المعادن والسموم بدون التقرير المفصل, والمعادن التي يتم اختبارها هي ٣٥ معدن: الكالسيوم, المغنيسيوم, الصوديوم, البوتاسيوم, النحاس, الزنك, الفوسفور, الحديد, المنجنيز, الكروم, السيلينيوم, الكوبالت, الجرمانيوم, الموليبيدينوم, الكبريت, اليورانيوم, الزرنيخ, البريليوم, الزئبق, الكاديوم, الرصاص, الألومنيوم, الباريوم, البزموت, الروبيديوم, الليثيوم, النيكل, البلاتينيوم, الثاليوم, الفاناديوم, السترونتيوم, القصدير, التيتانيوم, التنغستن والزركونيوم.

الصفحات التالية هي نموذج حقيقي للتحليل





# TRACE ELEMENTS

4501 Sunbelt Drive · Addison, Tx · 75001 · U.S.A.

LABORATORY NO.:

PROFILE NO.: **1**

SAMPLE TYPE: **SCALP**

PATIENT:

AGE:

SEX: **F**

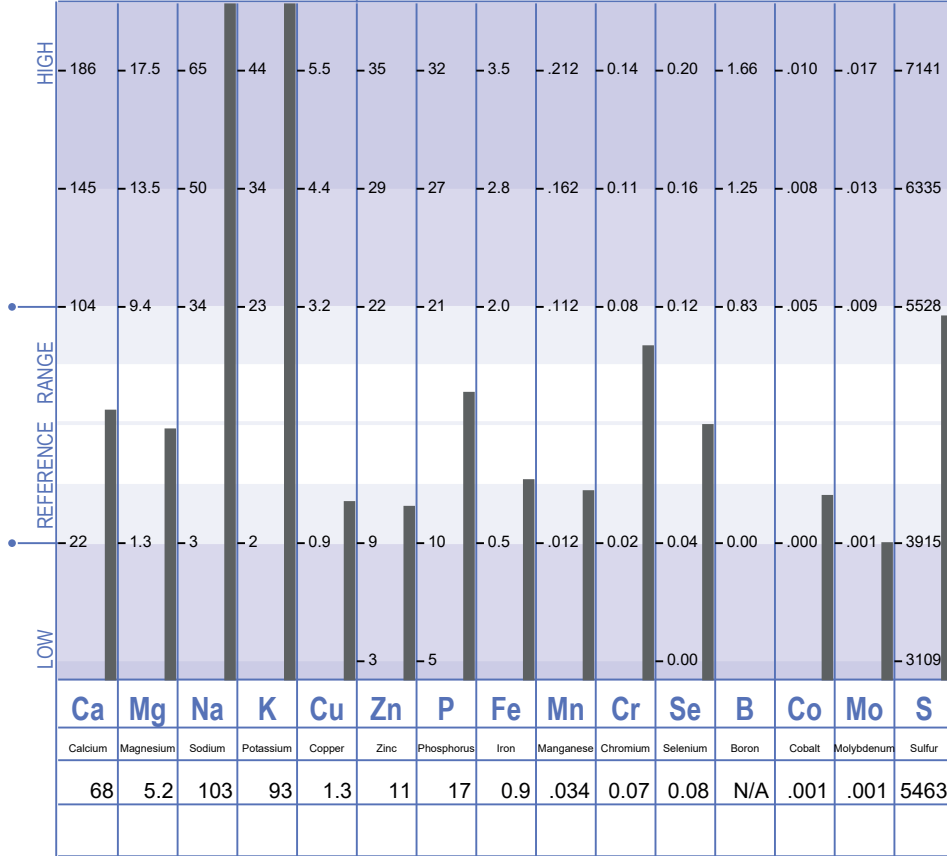
METABOLIC TYPE: **SLOW 4**

REQUESTED BY: **Mawozona.com.sa**

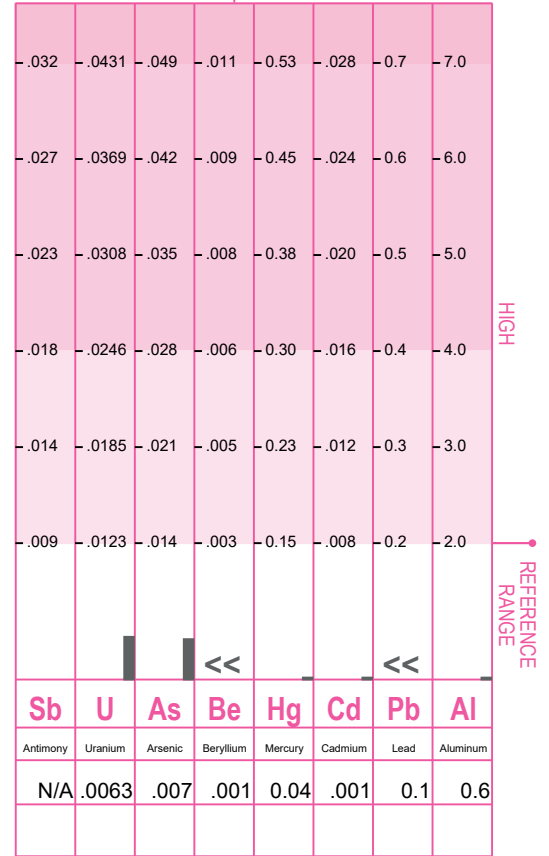
ACCOUNT NO.:

DATE:

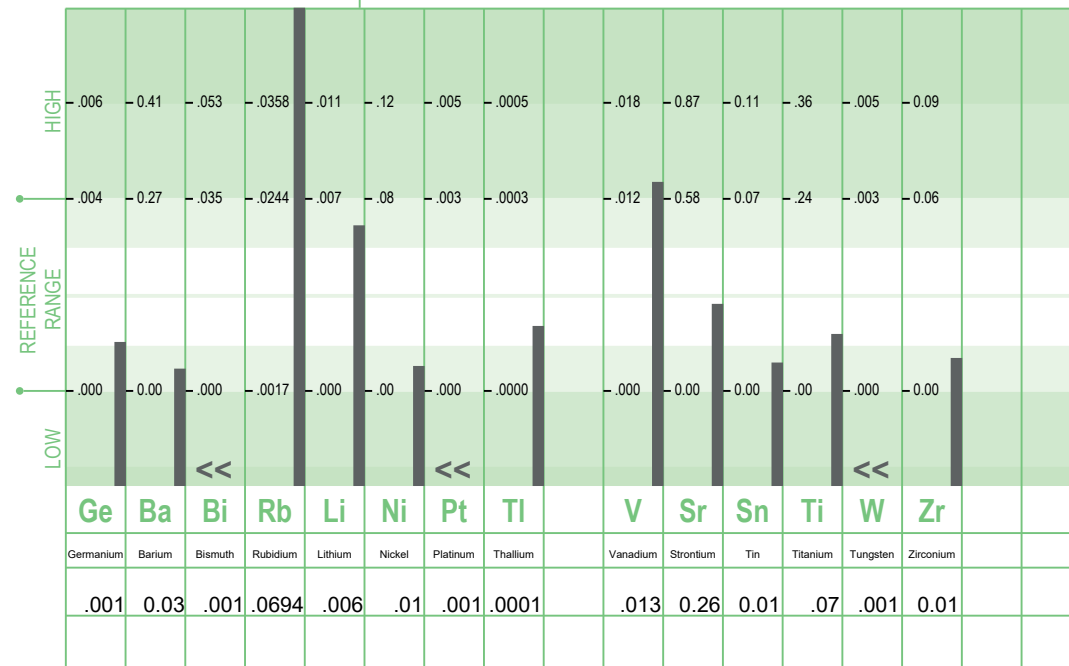
## NUTRITIONAL ELEMENTS



## TOXIC ELEMENTS



## ADDITIONAL ELEMENTS



"<<": Below Calibration Limit; Value Given Is Calibration Limit

"QNS": Sample Size Was Inadequate For Analysis.

"N/A": Currently Not Available

Ideal Levels And Interpretation Have Been Based On Hair Samples Obtained From The Mid-Parietal To The Occipital Region Of The Scalp.

Laboratory Analysis Provided by Trace Elements, Inc. an H. H. S. Licensed Clinical Laboratory. No. 45 D0481787

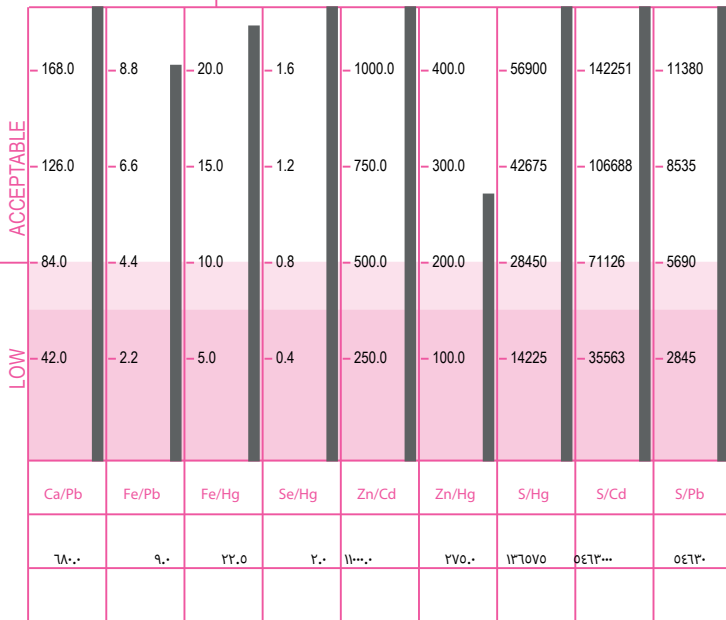
CURRENT TEST RESULTS

PREVIOUS TEST RESULTS

**SIGNIFICANT RATIOS**



**TOXIC RATIOS**



**ADDITIONAL RATIOS**

RATIO	CALCULATED VALUE		EXPECTED
	Current	Previous	
Ca/Sr	211.04		263/1
Cr/V	0.28		8/1
Cu/Mo	130.00		356/1
Fe/Co	90.00		615/1
K/Co	93000.00		6350/1
K/Li	100000.00		6350/1
Mg/B	N/A		21/1
S/Cu	422.21		2668/1
Se/Tl	80.00		370/1
Se/Sn	8.00		3.2/1
Zn/Sn	1100.00		624/1

**LEVELS**

All mineral levels are reported in milligrams percent (milligrams per one-hundred grams of hair). One milligram percent (mg%) is equal to ten parts per million (ppm).

**NUTRITIONAL ELEMENTS**

Extensively studied, the nutrient elements have been well defined and are considered essential for many biological functions in the human body. They play key roles in such metabolic processes as muscular activity, endocrine function, reproduction, skeletal integrity and overall development.

**TOXIC ELEMENTS**

The toxic elements or "heavy metals" are well-known for their interference upon normal biochemical function. They are commonly found in the environment and therefore are present to some degree, in all biological systems. However, these metals clearly pose a concern for toxicity when accumulation occurs to excess.

**ADDITIONAL ELEMENTS**

These elements are considered as possibly essential by the human body. Additional studies are being conducted to better define their requirements and amounts needed.

**RATIOS**

A calculated comparison of two elements to each other is called a ratio. To calculate a ratio value, the first mineral level is divided by the second mineral level.  
 EXAMPLE: A sodium (Na) test level of 24 mg% divided by a potassium (K) level of 10 mg% equals a Na/K ratio of 2.4 to 1.

**SIGNIFICANT RATIOS**

If the synergistic relationship (or ratio) between certain minerals in the body is disturbed, studies show that normal biological functions and metabolic activity can be adversely affected. Even at extremely low concentrations, the synergistic and/or antagonistic relationships between minerals still exist, which can indirectly affect metabolism.

**TOXIC RATIOS**

It is important to note that individuals with elevated toxic levels may not always exhibit clinical symptoms associated with those particular toxic minerals. However, research has shown that toxic minerals can also produce an antagonistic effect on various essential minerals eventually leading to disturbances in their metabolic utilization.

**ADDITIONAL RATIOS**

These ratios are being reported solely for the purpose of gathering research data. This information will then be used to help the attending health-care professional in evaluating their impact upon health.

**REFERENCE INTERVALS**

Generally, reference intervals should be considered as guidelines for comparison with the reported test values. These reference intervals have been statistically established from studying an international population of "healthy" individuals.  
 Important Note: The reference intervals should not be considered as absolute limits for determining deficiency, toxicity or acceptance.