



Anamol

Laboratories

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Proficiency Testing.

Anamol Laboratories
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Hair Mineral Analysis

To:

Linda JT

Patient Information

Name:

Sex:

Age:

Hair Colour:

Hair Location:

Shampoo:

Bleach:

Cold Wave:

Permanent:

Nape

Pears

Yes: No:

Yes: No:

Yes: No:

Lab No.:

861819026

Date In:

10/08/04

Date Out:

11/08/04

Toxic Elements

Results (ppm)

Acceptable Level (ppm)

Acceptable

Above Acceptable Limits

Element	Results (ppm)	Acceptable Level (ppm)	Acceptable	Above Acceptable Limits	Symbol
Aluminum	10.08	< 10	██████████	██████████	Al
Antimony	0.03	< 0.6	██████████	██████████	Sb
Arsenic	0.31	< 1	██████████	██████████	As
Barium	1.38	< 1.5	██████████	██████████	Ba
Beryllium	0.01	< 0.05	██████████	██████████	Be
Bismuth	0.46	< 1	██████████	██████████	Bi
Cadmium	0.01	< 0.5	██████████	██████████	Cd
Lead	0.17	< 1.5	██████████	██████████	Pb
Mercury	0.41	< 1	██████████	██████████	Hg
Silver	0.08	< 1	██████████	██████████	Ag

Nutritional Minerals

Results* (ppm)

Normal Range (ppm)

Low

-2SD

-1SD

Mean*

+1SD

+2SD

High

Element	Results* (ppm)	Normal Range (ppm)	Low	-2SD	-1SD	Mean*	+1SD	+2SD	High	Symbol
Boron	0.32	0.5-3.5	██████████	██████████	██████████	██████████	██████████	██████████	██████████	B
Calcium	1000	450-1105	██████████	██████████	██████████	██████████	██████████	██████████	██████████	Ca
Chromium	0.11	0.2-1.2	██████████	██████████	██████████	██████████	██████████	██████████	██████████	Cr
Copper	15	18-50	██████████	██████████	██████████	██████████	██████████	██████████	██████████	Cu
Iron	4.68	8-18	██████████	██████████	██████████	██████████	██████████	██████████	██████████	Fe
Magnesium	226	44-98	██████████	██████████	██████████	██████████	██████████	██████████	██████████	Mg
Manganese	0.01	0.2-0.8	██████████	██████████	██████████	██████████	██████████	██████████	██████████	Mn
Molybdenum	0.05	0.04-0.15	██████████	██████████	██████████	██████████	██████████	██████████	██████████	Mo
Phosphorus	117	145-250	██████████	██████████	██████████	██████████	██████████	██████████	██████████	P
Potassium	4.12	5-40	██████████	██████████	██████████	██████████	██████████	██████████	██████████	K
Sulfur	44883	30000-55000	██████████	██████████	██████████	██████████	██████████	██████████	██████████	S
Selenium	0.85	0.5-2	██████████	██████████	██████████	██████████	██████████	██████████	██████████	Se
Silicon	395	5-28	██████████	██████████	██████████	██████████	██████████	██████████	██████████	Si
Sodium	14	18-85	██████████	██████████	██████████	██████████	██████████	██████████	██████████	Na
Strontium	4.07	0.8-12	██████████	██████████	██████████	██████████	██████████	██████████	██████████	Sr
Zinc	141	150-250	██████████	██████████	██████████	██████████	██████████	██████████	██████████	Zn

* < DL = Less than Detection Limit ** x ± 2SD acceptable

Potentially Toxic Elements

Results (ppm)

Acceptable Level (ppm)

Pd

Tl

W

U

Zr

Other Elements

Results (ppm)

Normal (ppm)

Co

Ge

I

Li

Ni

Sn

V

Significant Ratios

Results

Normal Range

Ca : Mg ↓ 4.4:1 (4.6-25.1):1

Fe : Cu 0.3:1 (0.2-1.):1

Na : K 3.4:1 (0.5-17):1

Zn : Cu 9.4:1 (3.-13.9):1

Zn : Mn ↑ 11733.3 (187.5-1250):1

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HAIR TOXIC ELEMENT EXPOSURE PROFILE



Linda JT

POTENTIALLY TOXIC ELEMENTS

TOXIC ELEMENTS	RESULT µg/g	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Arsenic	0.045	< 0.14	██████████	
Lead	0.06	< 4.0	██████████	
Mercury	0.46	< 3.0	██████████	
Cadmium	< 0.009	< 0.50		
Chromium	0.35	< 0.70	██████████	
Beryllium	< 0.01	< 0.050		
Cobalt	0.030	< 0.15	██████████	
Nickel	0.23	< 1.0	██████████	
Zinc	160	< 300	██████████	
Copper	15	< 65	██████████	
Thorium	< 0.001	< 0.010		
Thallium	< 0.001	< 0.020		
Barium	1.3	< 8.0	██████████	
Cesium	< 0.002	< 0.010		
Manganese	0.12	< 1.5	██████████	
Selenium	0.96	< 2.7	██████████	
Bismuth	< 0.002	< 0.35		
Vanadium	0.036	< 0.20	██████████	
Silver	0.07	< 0.90	██████████	
Antimony	0.015	< 0.12	██████████	
Palladium	< 0.004	< 0.010		
Aluminum	9.2	< 19	██████████	
Platinum	< 0.003	< 0.010		
Tungsten	< 0.01	< 0.020		
Tin	0.04	< 0.80	██████████	
Uranium	0.11	< 0.20	██████████	
Gold	0.06	< 0.40	██████████	
Tellurium	< 0.05	< 0.050		
Germanium	0.047	< 0.085	██████████	
Titanium	0.40	< 2.0	██████████	
Gadolinium	< 0.001	< 0.008		

SPECIMEN DATA

Comments:

Date Collected: **11/17/2004**

Date Received: **11/24/2004**

Date Completed: **11/29/2004**

Methodology: **ICP-MS**

µg/g = ppm

Sample Size: **0.198 g**

Sample Type: **Head**

Hair Color: **Brown**

Treatment:

Shampoo: **Pert Plus**

Metals are listed in descending priority order based upon data from the Agency for Toxic Substances and Disease Registry, which considers not only the relative toxicity per gram metal, but also the frequency for occurrence of exposure.

HAIR ELEMENTS



POTENTIALLY TOXIC ELEMENTS

TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	3.4	< 7.0		
Antimony	< 0.01	< 0.050		
Arsenic	0.020	< 0.060		
Beryllium	< 0.01	< 0.020		
Bismuth	0.041	< 0.10		
Cadmium	0.009	< 0.10		
Lead	0.04	< 1.0		
Mercury	0.33	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.20	< 0.060		
Nickel	0.10	< 0.40		
Silver	0.02	< 0.15		
Tin	0.04	< 0.30		
Titanium	0.32	< 1.0		
Total Toxic Representation				

ESSENTIAL AND OTHER ELEMENTS

ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE				
			2.5 th	16 th	50 th	84 th	97.5 th
Calcium	1040	300 - 1200					
Magnesium	270	35 - 120					
Sodium	42	12 - 90					
Potassium	13	8 - 38					
Copper	9.1	12 - 35					
Zinc	190	140 - 220					
Manganese	0.08	0.15 - 0.65					
Chromium	0.27	0.20 - 0.40					
Vanadium	0.020	0.018 - 0.065					
Molybdenum	0.040	0.028 - 0.056					
Boron	0.25	0.30 - 2.0					
Iodine	0.26	0.25 - 1.3					
Lithium	0.010	0.007 - 0.023					
Phosphorus	172	160 - 250					
Selenium	1.2	0.95 - 1.7					
Strontium	3.0	0.50 - 7.6					
Sulfur	48900	44500 - 52000					
Barium	0.99	0.26 - 3.0					
Cobalt	0.019	0.013 - 0.050					
Iron	3.9	5.4 - 14					
Germanium	0.029	0.045 - 0.065					
Rubidium	0.010	0.007 - 0.096					
Zirconium	0.48	0.020 - 0.42					

SPECIMEN DATA

COMMENTS:
 Date Collected: 12/10/2006 Sample Size: 0.196 g
 Date Received: 12/19/2006 Sample Type: Head
 Date Completed: 12/22/2006 Hair Color: Brown
 Treatment:
 Methodology: ICP-MS Shampoo: Tresemmé

RATIOS

ELEMENTS	RATIOS	EXPECTED RANGE
Cu/Mg	3.85	4 - 30
Cu/P	6.05	1 - 12
Na/K	3.23	0.5 - 1.0
Zn/Cu	20.9	4 - 20
Zn/Cd	> 999	> 800

V08.59

Health history for hair test 492

1. What are your current symptoms and health history?

14 years of pain and fatigue at the time of the test. Hypothyroid, adrenal insufficiency, brain fog, MS.

2. Dental history (Wisdom teeth removed and when? Any other extractions. First root canal placed? Braces? First amalgam etc...)

most of molars contained some amalgam

wisdom teeth removed about age 20

noticeable increase in fatigue after an amalgam packed root canal about 2002

3. What dental work do you currently have in place? What part of the dental clean-up have you completed?

all amalgam removed and replaced with composite, 2004-2005

still have 2 amalgam free root canals

4. What dentistry did your mother have at any time before or during pregnancy?

not sure, probably amalgam

5. What vaccinations have you had and when (including flu and especially travel shots)?

all usual for my age in Canada. A couple of flu shots, some extras (HepB, encephalitis, tetanus).

6. Supplements and medications (including dosages) taken at time of hair test, or for the 3-6 months before the sample was taken?

not sure. Had been on the BBD for MS and many supplements since about 2000

7. What is your age, height and weight?

8. Other information you feel may be relevant?

heavy exposures to mercury in chemistry classes and working in agriculture (accidentally aerial sprayed with fungicide containing mercury)

9. What is your location – city & country (so that we can learn where certain toxins are more prevalent).

Canada