





## Laboratories

**Hair Mineral Analysis** 

Patient Information
Name:
Sex:
Age:
Hair Colour:

To:

Hair Location: Nape Lab No .: 861819026 Shampoo: Pears Bleach: Yes: No: Date In: 10/08/04 Cold Wave: Yes: No:  $\boxtimes$ 11/08/04 Date Out: Permanent: 2 Yes: No:

Toxic Elements	Results (ppm)	Acceptable Lev (ppm)	vel Acceptable	Above Acceptable Limits	
Aluminum	10.08	< 10		A	Al
Antimony	0.03	< 0.6		S	Sb
Arsenic	0.31	< 1	THE REAL PROPERTY.	A	As
Barium	1.38	< 1.5		8	Ba
Beryllium	0.01	< 0.05		8	Be
Bismuth	0.46	<1	DECEMBER OF THE PERSONS NAMED IN COLUMN TWO IS NOT THE PERSONS NAMED IN COLUMN TWO IS NAMED IN C	8	Bi
Cadmium	0.01	< 0.5		C	Cd
Lead	0.17	< 1.5	-	P	Рb
Mercury	0.41	<1	-	Harris de la companya del companya de la companya del companya de la companya de	Hg
Silver	0.08	<1	on .	A	Ag

Ollyon	0.00	-1							ng
Nutritional Minerals	Results* (ppm)	Normal Range (ppm)	Low	-2SD	-1SD	M e a n** +1SD	+2SD	High	
Boron	0.32	0.5-3.5	-	ACCORDING TO A STATE OF THE PARTY OF THE PAR	-				В
Calcium	1000	450-1105			TAN PROPERTY		CONTRACTOR OF THE PARTY OF THE		Ca
Chromium	0.11	0.2-1.2	BOROTON						Cr
Copper	15	18-50	Manager			800			Cu
Iron	4.68	8-18	OR OTHER DESIGNATION OF	NAME AND ADDRESS OF TAXABLE PARTY.					Fe
Magnesium	226	44-98				BENEFIT THE REAL PROPERTY OF THE PERSON NAMED IN	THE RESERVE OF THE PARTY OF THE	THE REAL PROPERTY.	Mg
Manganese	0.01	0.2-0.8	MATERIAL PROPERTY.			000			Mn
Molybdenum	0.05	0.04-0.15		Bearing Street	CONTRACTOR STATE				Mo
Phosphorus	117	145-250	-	-	ALTERNATION OF THE PERSON OF T				Р
Potassium	4.12	5-40	-						K
Sulfur	44883	30000-55000				OR SHAREST STREET			S
Selenium	0.85	0.5-2							Se
Silicon	395	5-28							Si
Sodium	14	18-85	20000						Na
Strontium	4.07	0.8-12							Sr
Zinc	141	150-250	Biologica (	COUNTRY STATE OF THE PARTY OF					Zn

Potentially				Other Elements	Results (ppm)	Normal (ppm)				
Toxic	Results	Acceptable Le	evel	Cobalt	0.03	0.03-0.05	Co	Signific	ant	
Elements	(ppm)	(ppm)		Germanium	↓ 0.03	0.04-0.1	Ge	Ratios	Results	Normal Range
Palladium	< DL *	<1	Pd	lodine	0.81	0.8-1.6	1	Ca: Mg	↓ 4.4:1	(4.6-25.1):1
Thallium	0.01	< 1.5	П	Lithium	0.01	0.01-0.2	Li	Fe : Cu	0.3:1	(0.2-1.):1
Tungsten	< DL *	< 2	W	Nickel	0.18	0.1-1	Ni	Na:K	3.4:1	(0.5-17):1
Uranium	< DL *		U	Tin	0.67	0.3-1.6	Sn	Zn : Cu	9.4:1	(313.9):1
Zirconium	↑ 1.48	< 0.5	Zr	Vanadium	0.04	0.02-0.1	٧	Zn : Mn	† 11733.3:	(187.5-1250):1

#### HAIR ELEMENTS



TOXIC

COMMENTS:

Date Collected: 9/3/2004

Date Received: 9/10/2004

Date Completed: 9/15/2004

Methodology: ICP-MS

RESULT

Linda JT

REFERENCE

ELEMENTS	µg/g	RANGE		68	h	95 <sup>th</sup>	
Aluminum	6.3	< 12	-			1255 520 128	
Antimony	0.014	< 0.060	-				
Arsenic	0.064	< 0.090					
Beryllium	< 0.01	< 0.020					
Bismuth	0.017	< 0.13	-				
Cadmium	0.083	< 0.10					
Lead	0.28	< 1.0	_				
Mercury	0.48	< 1.1		•			
Platinum	< 0.003	< 0.005					
Thallium	< 0.001	< 0.010					
Thorium	< 0.001	< 0.005					
Uranium	0.056	< 0.060					
Nickel	0.44	< 0.40			)		
Silver	0.05	< 0.10					
Tin	0.29	< 0.30					
Titanium	0.93	< 1.0					
Total Toxic Represes							
Tom Toule Represe		ESSENTIA	LANDOTH	ER ELEMENT	c		
	RESULT	REFERENCE	LANDOIL	ILIT ELEMENT	PERCENTIL	E	
ELEMENTS	μg/g	RANGE	2.5 <sup>th</sup>	16 <sup>th</sup>	50 <sup>th</sup>	84 <sup>th</sup>	97.5
Calcium	1620	475- 1500					
Magnesium	300	45- 180					,
Sodium	79	24- 180			•		
Potassium	26	20- 80					
Copper	19	9.0- 24					
Zinc	130	130- 200					
Manganese	0.13	0.20- 0.65					
Chromium	0.46	0.20- 0.45	100		-		
Vanadium	0.092	0.018- 0.065					
Molybdenum	0.062	0.040- 0.10			•		
Boron	1.3	0.70-, 4.0	100				
Iodine	0.57	0.25- 1.3			•		
Lithium	0.059	0.008- 0.040					
Phosphorus	369	350- 600		_			
Selenium	1.2	0.95- 1.7			•		
Strontium	6.7	1.0- 8.0					
Sulfur	47900	43000- 50000					
Barium	3.0	0.50- 5.0				_	
Cobalt	0.080	0.013- 0.050					
	8.7	5.8- 14					
Iron	8.7	5.8- 14 0.045- 0.065					
Iron Germanium	0.045						
		0.045- 0.065					

V06.99

0.198 g

Pubic

Brown

Sample Size:

Sample Type:

Hair Color:

Treatment:

Shampoo:

ELEMENTS

Ca/Mg

Ca/P

Na/K

RATIOS

5.4 4.39

3.04

6.84

> 999

EXPECTED

RANGE

### HAIR TOXIC ELEMENT EXPOSURE PROFILE



Linda JT

		POTENTIAL	POTENTIALLY TOXIC ELEMENTS							
TOXIC ELEMENTS	RESULT μg/g	REFERENCE RANGE	68 <sup>th</sup>	PERCENTILE 95 <sup>th</sup>						
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								
Bervllium	< 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								

		SPE	CIMEN DATA			
Comments: Date Collected: Date Received: Date Completed:	11/24/2004	Methodology: μg/g = ppm Sample Size:	ICP-MS 0.198 g	Sample Type: Hair Color: Treatment:	Head Brown	
			a salidated to adjust t	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



Date Received: 1/24/2005

Date Completed: 1/27/2005

ICP-MS

Methodology:

Linda JT

TOXIC	RESULT	REFERENCE			PERCENTI		
ELEMENTS	μg/g	RANGE		6	8 <sup>th</sup>	95 <sup>th</sup>	
Aluminum	6.6	< 7.0					
Antimony	0.011	< 0.050	•				
Arsenic	0.043	< 0.060					
Beryllium	< 0.01	< 0.020					
Bismuth	0.002	< 0.10	•				
Cadmium	0.038	< 0.10					
Lead	0.06	< 1.0	-				
Mercury	0.36	< 1.1					
Platinum	< 0.003	< 0.005					
Thallium	< 0.001	< 0.010					
Thorium	< 0.001	< 0.005					
Uranium	0.086	< 0.060					
Nickel	0.15	< 0.40		•			
Silver	0.03	< 0.15					
Tin	0.10	< 0.30					
Titanium	0.80	< 1.0					
Total Toxic Represer							
Total Control		ECCENT	AL AND OT	HER ELEMEN	TC	Charles and the same of the sa	
	RESULT	REFERENCE	AL AND OT	HER ELEMEN	PERCENTI	L.E.	
ELEMENTS	μg/g	RANGE	2.5 <sup>th</sup>	16 <sup>th</sup>	50 <sup>th</sup>		14 <sup>th</sup> 97.
Calcium	1350	300- 1200					•
Magnesium	370	35- 120					
Sodium	20	12- 90		•			
Potassium	10	8- 38					
Copper	12	12- 35					
Zinc	170	140- 220			-		
Manganese	0.11	0.15- 0.65					
Chromium	0.29	0.20- 0.40			-		
Vanadium	0.015	0.018- 0.065					
Molybdenum	0.027	0.028- 0.056					
Boron	0.09	0.30- 2.0					
Iodine ,	0.16	0.25- 1.3					
Lithium	0.011	0.007- 0.023					
Phosphorus	132	160- 250					
Selenium	1.0	0.95- 1.7					
Strontium	4.6	0.50- 7.6					
Sulfur	47900	44500- 52000			•		
Barium	1.5	0.26- 3.0					
Cobalt	0.021	0.013- 0.050					
Iron	5.0	5.4- 14					
Germanium	0.035	0.045- 0.065					
Rubidium	0.004	0.007- 0.096					
Zirconium	1.6	0.020- 0.42					
Circontuni		PECIMEN DATA				DATION	
	5	PECIMEN DATA				RATIOS	
Date Collected: 1		Sample Size	0.202		ELEMENTS	RATIOS	EXPECTE

V06.99

Head

Brown

Ca/Mg

Ca/P

Na/K

3.65

10.2

14.2

> 999

2

0.5- 10

4- 20

> 800

Sample Type:

Hair Color:

Treatment:

Shampoo:

#### HAIR ELEMENTS



		POTENTI	IALLY TOXIC E	LEMENTS			
TOXIC ELEMENTS	RESULT μg/g	REFERENCE RANGE		68 <sup>th</sup>	PERCENTILE 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 Represes	ntation						
		ESSENTIA	L AND OTHER	RELEMENTS			
ELEMENTS	RESULT ug/g	REFERENCE	2.5 <sup>th</sup>		PERCENTILE 50 <sup>th</sup>	84 <sup>th</sup>	97.5 <sup>th</sup>
Calcium	1040	300- 1200					
Maonesium	270	35- 120					

	RESULT	REFERENCE		PERCENTILE					
ELEMENTS	дд/д	RANGE	2.5 <sup>th</sup>	16 <sup>th</sup>	50 <sup>th</sup>	84 <sup>th</sup>	97.5 <sup>th</sup>		
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	District Control						
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							

	SPE		RATIOS				
COMMENTS: Date Collected:	12/10/2006	Sample Size:	0.196 q		ELEMENTS	RATIOS	EXPECTED RANGE
Date Received:		Sample Type:	Head		Ca/Mg	3.85	4- 30
Date Completed:		Hair Color:	Brown		Ca/P	6.05	1- 12
Date completed		Treatment:			Na/K	3.23	0.5- 10
Methodology:	ICP-MS	Shampoo:	Tresemme		Zn/Cu	20.9	4- 20
				Vine go	Zn/Cd	~ 000	> 800

### 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 cleanup 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