### 2003 DIAMOND DRILLING and GRID WORK

### on the

### **CANYON GOLD GREW CREEK PROJECT**

### Whitehorse Mining District

NTS: 105K/2

Latitude 62° 03′, Longitude 132° 50′

**CANYON CLAIMS** 

 $(May 29^{th} - July 15^{th}, 2003)$ 

By: A. Carlos (owner of claims) January 22, 2004

File Number: 03-050



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### **LIST of FIGURES**

- 1. ORTHOPHOTO: 2000 grid plus 2003 extension, structure & Enzyme Leach anomaly centres.
- 2. DATA COMPILATION: Various, including diamond drill locations at Enzyme Leach Anomaly E.
  - (2a.) As for fig. 2 Overlain by new Enzyme Leach interpretation, key conventional geo-chem peaks, and 2003 diamond drilling. Claim post location.
- 3. V.L.F. Fraser Filter and 2003 diamond drilling.

### **APPENDICES**

- 1. STATEMENT OF QUALIFICATIONS
- 2. DRILL HOLE CROSS SECTIONS
- 3. ANALYTICAL RESULTS
- 4. SUMMARY OF EXPENDITURES
- 5. DRILL HOLE DESCRIPTIVE LOGS

#### INTRODUCTION

History of the Grew Creek deposit area leading to the present is detailed further on in this report. The spring and early summer of 2003 was spent in drilling a further 3 holes on Enzyme Leach Anomaly E, together with establishing as extended grid at partially defined anomaly D.

Initial Enzyme Leach soil survey was performed in year 2000.

#### **PROGRAM 2002**

From May 29th to July 15th, 2003, the following work was performed:

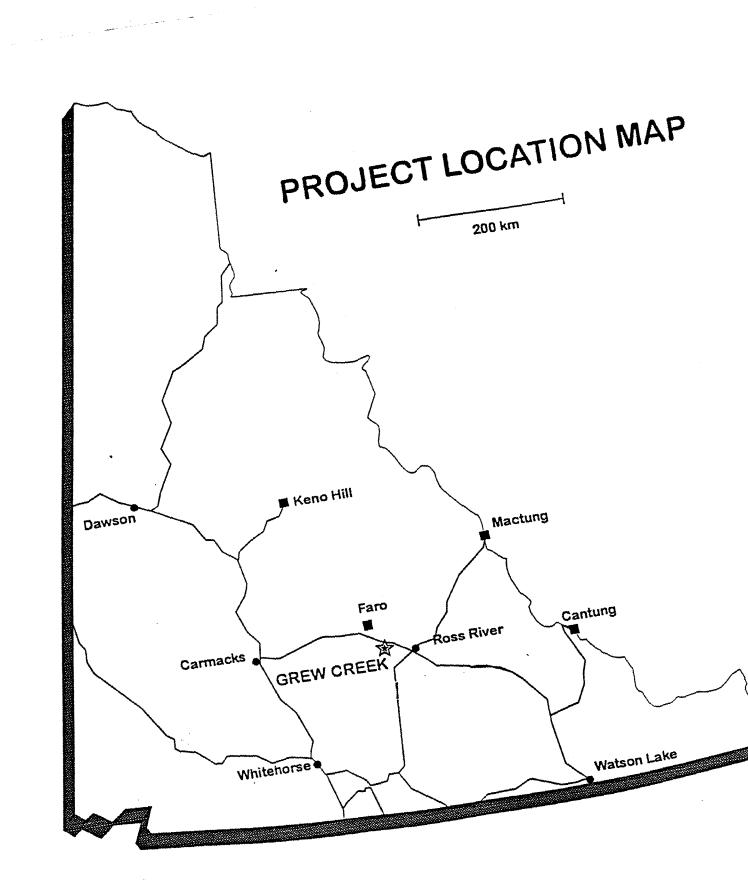
- a) Diamond drilling of 495' in 3 holes (Canyon 15).
- b) Establishing 4.2 km. of additional chainsaw grid.
- c) Augering of 137 soil samples (Enzyme Leach).

#### DISCUSSION OF DIAMOND DRILLING

CGGC -11 was to hopefully explain and test the following:

- a) Conventional multi-element geochemistry (fig.2, 2a).
- b) A coincident airborne E.M. expression.
- c) A marked resistivity decrease to the south.

It was not successful in this regard.



### **GREW CREEK PROJECT**

Owner: A. Carlos Whitehorse, Yukon

Phone

(867) 668-6309

### **PROJECT STATUS**

Available for option



### HISTORY

The original Grew Creek claims were staked by Whitehorse prospector A. Carlos in 1983 and optioned by the Mincan JV (Hudson Bay Mining and Minerals), which carried out an extensive exploration program from 1984 to 1986.

In 1987, the claims were optioned by Noranda, who subsequently signed a joint-venture agreement with Golden Nevada Resources and Brenda Mines. Results of the 1987 program triggered a flurry of claimstaking and exploration activity in the area. A large-scale exploration program continued in 1988. In 1989, Golden Nevada changed its name to Goldnev Resources and renegotiated the joint venture agreement to give it a 100% interest in the property.

In 1992, Wheaton River Minerals took an option to conduct an underground development program, however, the option was dropped shortly after.

YGC Resources Ltd. optioned the property in 1993, and completed a \$150,000 drilling program at Grew Creek in 1995 and a 17 diamond-drill hole program in 1996. YGC terminated its option agreement with Carlos in January, 1997.

#### Location

35 km west of Ross River

#### **Ownership**

A. Carlos

#### Commodity

Gold, silver

#### Ore type

Oxide

#### Geological resource (drill-indicated)

773,012 tonnes

Silver: 33 grams/tonne

Gold: 8.9 grams/tonne

#### Proposed mining method

Open-pit, 365 days per year

#### **Processing method**

Conventional mill, dore bar, 365 days per year

#### **Power**

3 MW, on-site diesel generation

In 2000, a total of \$36,000 was spent by A. Carlos exploring a new area 1.8 km from the main zone. He returned in 2001 to drill an additional five holes totalling 262 m, and continued to drill six holes totalling 415 m in 2002.

### **PROJECT SUMMARY**

The Grew Creek deposit can be mined by open-pit methods with a stripping ratio of 9:1, waste to ore. Metallurgical testing by Noranda in 1988 indicated that recoveries of 92% to 94% are possible using simple cyanide processing.

The Grew Creek property is located approximately 35 km west of Ross River and one km from the Robert Campbell Highway and the Whitehorse power grid. The property consists of 192 claims and is owned by A. Carlos of Whitehorse.

# GEOLOGY, MINERALOGY AND ORE RESERVES

The Grew Creek epithermal gold deposit is hosted by Eocene volcanic and sedimentary rocks deposited in a pull-apart basin within the Tintina Fault zone. The gold

occurs in stockwork quartz veins and hydrothermal breccias cutting hydrothermally altered rhyolite.

In the main zone, rhyolitic tuffs are juxtaposed by an east-west fault against a cyclic sequence of fluvial sediments. The faulted contact is partly intruded by a quartz-feldspar porphyry dyke. The pyroclastic rocks, dyke, fault and sediments all dip steeply to the north. The volcanic rocks are hydrothermally altered to illite-quartz and illite-quartz-adularia assemblages, with an outer propylitic halo.

Mineralization consists of pyrite, marcasite, arsenopyrite, chalcopyrite, argentite, electrum, silver selenides, galena and sphalerite. Fluorite is also present in the Tarn zone. Gangue minerals include quartz, adularia, carbonates, and quartz pseudomorphs after calcite. In the main zone, gold and silver occur as micron-size grains in chalcedony stringer stockworks and adjacent silicified tuffs. There is a good correlation between gold and silver, with a gold:silver ratio of about 1:4 for ore-grade mineralization, which occurs in an elongated zone trending west northwest. The mineralization is strongly anomalous in arsenic and mercury, but mercury shows only a weak correlation with gold and silver. Most high mercury values lie along the fault, above the gold-silver zone.

Initial drilling on the main zone gave a best intersection of 11.7 grams/tonne Au and 150.9 grams/tonne Ag across 31.4 m while the best section exposed in a trench assayed 3.6 grams/tonne Au and 15.3 grams/tonne Ag across 13 m. The 1989 drilling focused on the main zone, with the best hole returning 10.5 grams/tonne Au over 13 m.

The Tarn zone, located 2 km to the east, consists of quartz-fluorite-chalcedony stockworks and localized silicification within a  $900 \times 100$  m zone of sericitized rhyolite dykes and tuff. The best assays were 150 ppb Au across 2.0 m in a trench and 520 ppb Au over 1.5 m in a drill hole.

Prospecting in the area is difficult due to a thick cover of glacial till. Plouffe (1989) showed that gold is concentrated in the silt- and clay-size fraction down ice from the Grew Creek deposit, but the common pathfinder elements

Ag, Sb, As and Hg show little correlation with the gold distribution.

In 1991, a trench in the K410 zone, 15 km northwest of the deposit, uncovered intensely iron-stained, highly fractured acid-leached volcanic rocks. Carlos excavated four hand pits to bedrock in 1992 and encountered intensely clay-altered Eocene sediments with hematite-rich bands. Samples from the pits returned anomalous values of mercury and barium, and a heavy mineral concentrate from 45 kg of glacial till in Pit #2 assayed 9,320 ppb Au.

The 1993 diamond drilling intersected strongly altered volcanic rocks beneath a zone of hydrothermal alteration exposed in a surface trench.

The 1994 drilling showed that mineralization in the South Zone consists of an extensive quartz-adularia stringer stockwork of low-grade Au-Ag values. The best intersections were 2.33 grams/tonne Au and 4.1 grams/tonne Ag over 10.4 m. The South Zone mineralization appears to be connected with the Main Zone mineralization, but further drilling between the two zones needs to be carried out to confirm this theory. Drilling in the Main Zone confirmed earlier reported grades. The best intersection was 1.69 grams/tonne Au and 3.0 grams/tonne Ag over 24 m.

In 2000, a total of 450 soil samples were grid-collected over a 2 km area and analyzed by the enzyme leach method. Three new geochemical targets were delineated in a favourable structural area north of the Tarn zone, adjacent to the Robert Campbell Highway.

In 2001, five holes were drilled and a hydrothermal breccia was intersected. Additional drilling was conducted in 2002.

#### **PRODUCTION PLANS**

In 1989, Orcan Mineral Associates estimated geological reserves of 773,012 tonnes grading 8.9 grams/tonne Au and 33.6 grams/tonne Ag at a cut-off grade of 0.2 grams/tonne and containing a higher grade reserve of 184,947 tonnes grading 12.1 grams/tonne Au.

At 233 ft. we had a machine breakdown. Rather than sit idly by waiting for repairs – we decided to spend the time moving to a new set-up, as the hole wasn't looking very interesting. This was perhaps a wrong decision. At some point, further drilling to the south is required.

Hole 12 and 13 cut a very silicified and clay-fracture zone – interesting, but with no Au values. It was successful however, in explaining the V.L.F. feature.

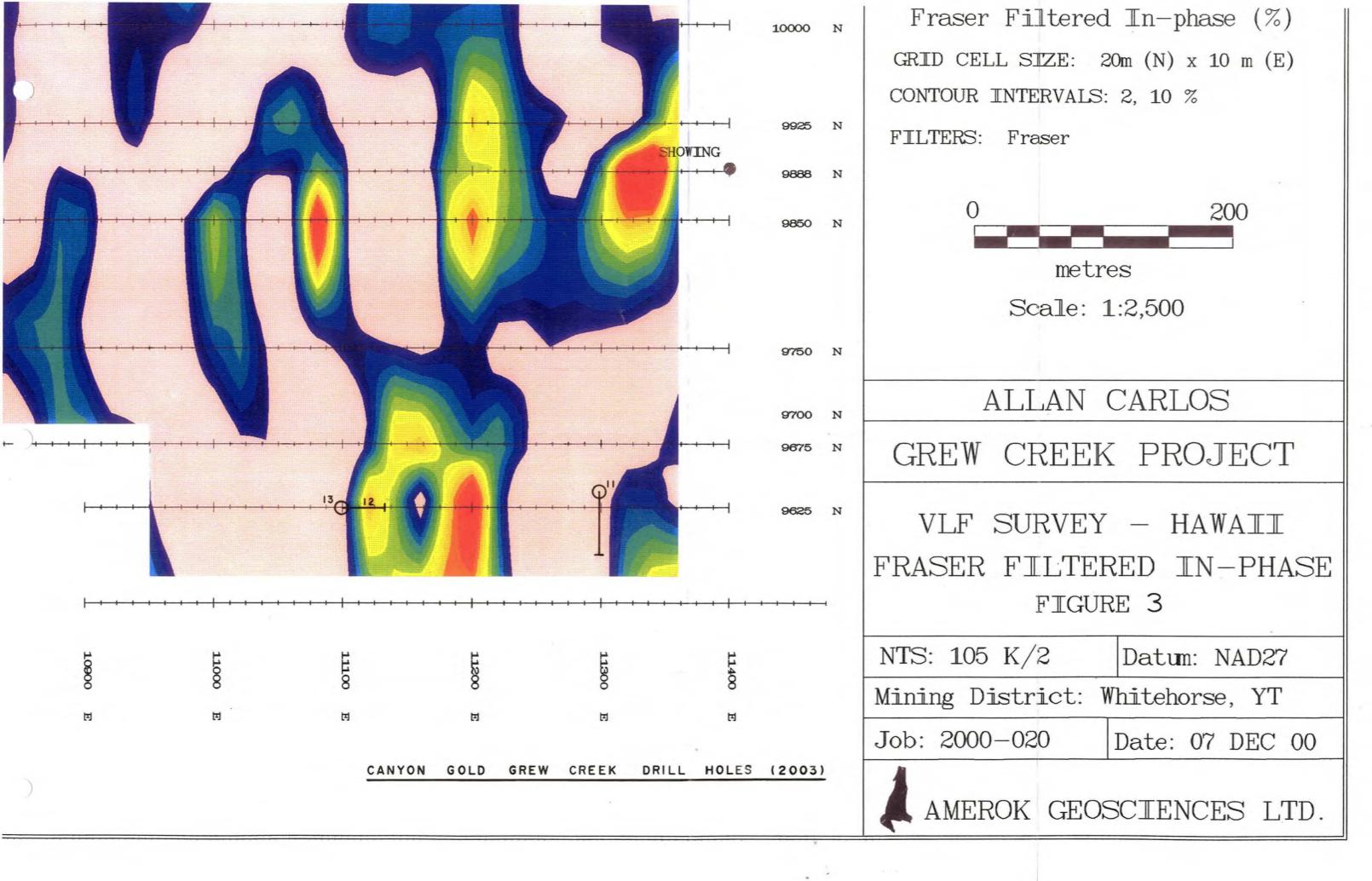
#### **CONCLUSIONS**

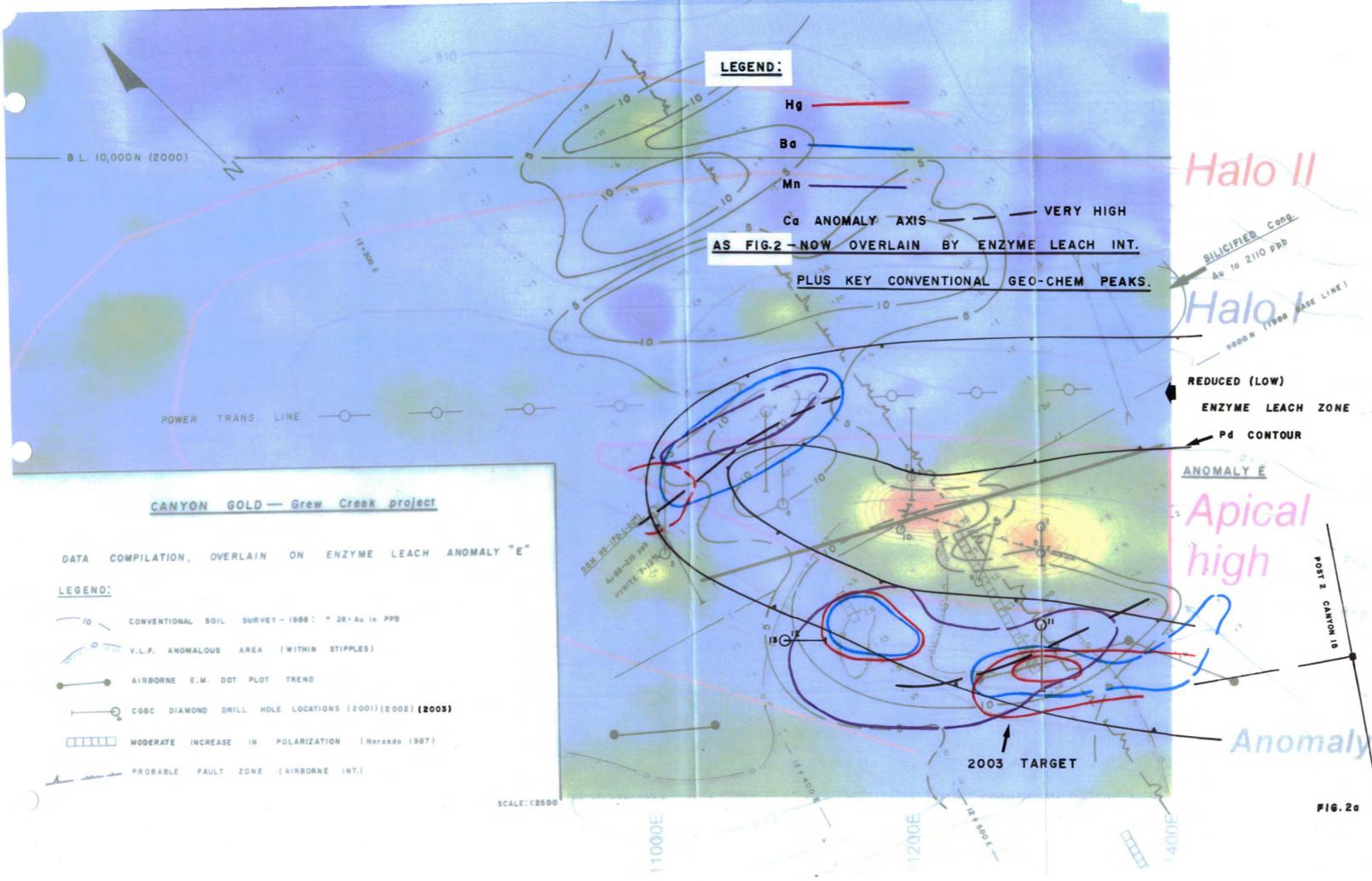
Further diamond drilling is required on Anomaly E, particularly at least one deep test.

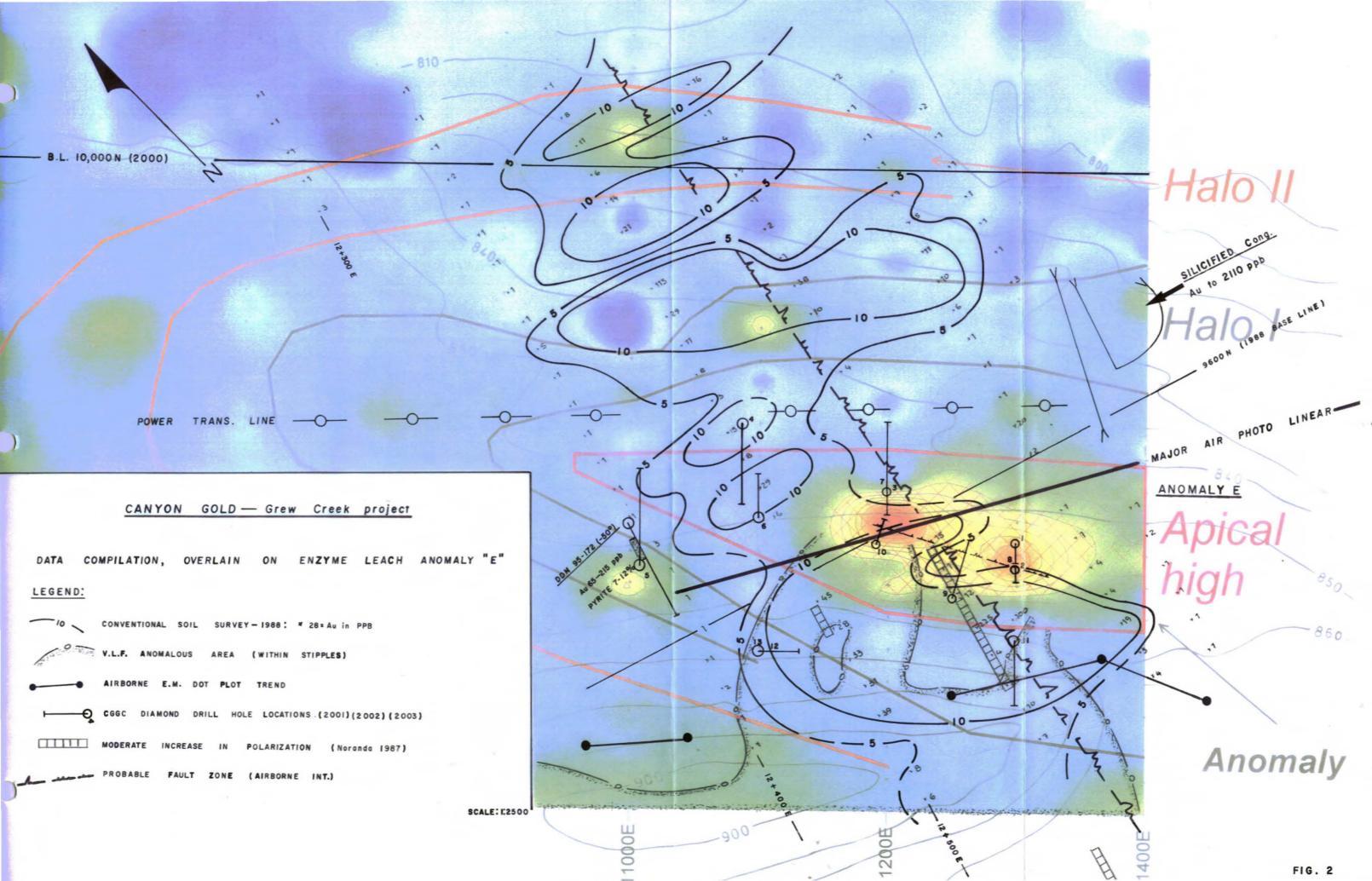
In 1983, Jim Morin (Diand geologist) believed that the character of veining at the mineralized outcrop (fig. 2) was of a high level nature within the epithermal system.

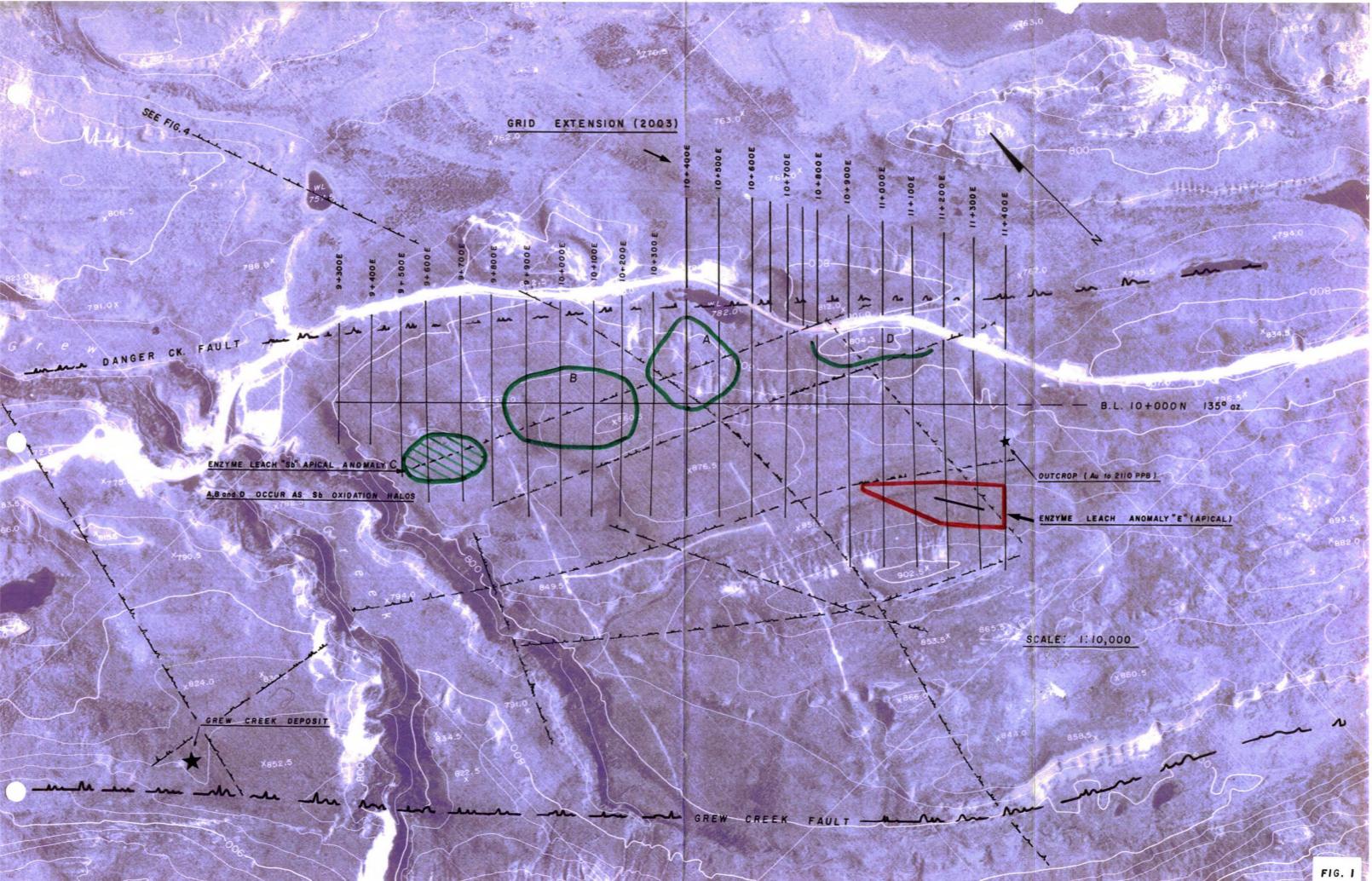
Results of 16 holes drilled in the vicinity suggest that Jim Morin's observations were correct.

Professional interpretation of the additional sampling of anomaly D should soon be completed. Casual study of raw data obtained confirm the presence of and further definition of this anomalous area.









#### **APPENDIX 1**

### STATEMENT OF QUALIFICATIONS

### ALLEN M. CARLOS, PROSPECTOR

- I, Allen M. Carlos of Whitehorse, Yukon Territory, hereby certify that:
  - 1. I have been actively engaged as a mineral prospector in Western Canada for 35 years, initially for a major company, then as an independent.
  - 2. I studied 3 years at the University of Saskatchewan:
    One year of Engineering followed by 2 years Arts and Science (Geology).
  - 3. I worked one year in northern Saskatchewan as a student assistant for the Department of Mineral Resources.
  - 4. I have for the last 18 years spent much time researching papers regarding Volcanic Hosted Epithermal type deposits.
  - 5. In 1983 I was responsible for discovering the Grew Creek precious metal deposit, the first epithermal deposit of this type along the Tintina Trench in Yukon.
  - 6. I planned and with the aid of my sons, carried out the current program.

Signed.

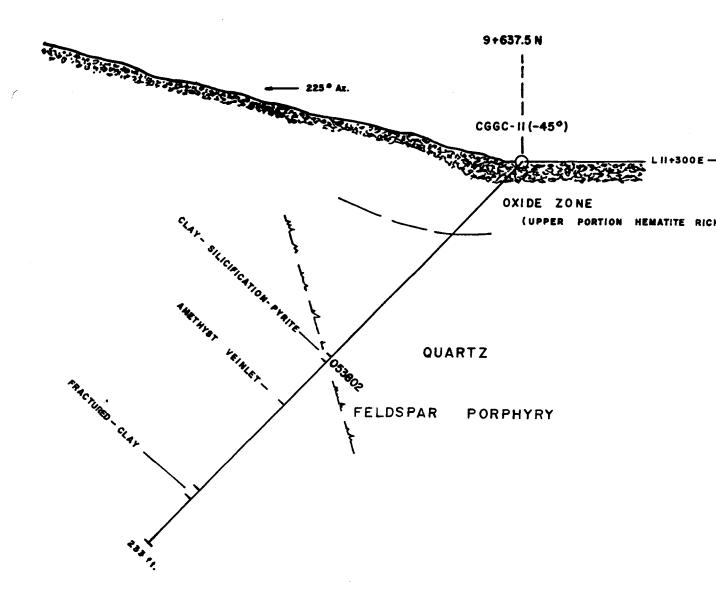
Allen M. Carlos, PROSPECTOR

January 21, 2004

### **APPENDIX 2**

# DIAMOND DRILL HOLE CROSS SECTIONS

**2003 PROGRAM** 



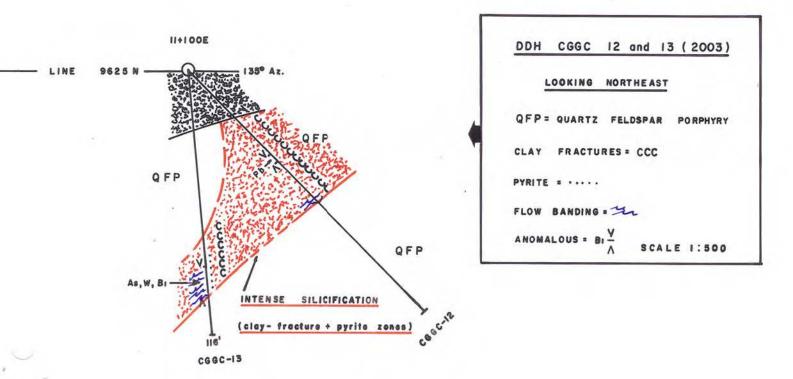
### SAMPLE 053802

ANOMALOUS IN Pb + Me

D.D.H. NO. II (2003)

LOOKING NORTWEST

SCALE: 1:500



### **APPENDIX 3**

# **ANALYTICAL RESULTS**



**EXCELLENCE IN ANALYTICAL CHEMISTRY** 

ALS Canada Ltd. 212 Brooksbank Avenue North Vancouver BC V7J 2C1 Canada Phone: 604 984 0221 Fax: 604 984 0218

CARLOS, ALLEN 275 ALSEK RD WHITEHORSE YT Y1A 4T1

Account: TFI

### **CERTIFICATE VA03049151**

Project: P.O. No: This report is for 11 DRILL CORE samples submitted to our lab in Vancouver, BC, Canada on21-Nov-2003. The following have access to data associated with this certificate: ALLEN CARLOS

SAMPLE PREPARATION								
ALS CODE	DESCRIPTION							
WEI-21	Received Sample Weight							
LOG-22	Sample login - Rcd w/o BarCode							
CRU-31	Fine crushing - 70% <2mm							
SPL-21	Split sample - riffle splitter							
PUL-31	Pulverize split to 85% <75 um							

	ANALYTICAL PROCEDUR	RES
ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA24	Au 50g FA AA finish	AAS
ME-MS41	50 element aqua regia ICP-MS	

To: CARLOS, ALLEN 275 ALSEK RD WHITEHORSE YT Y1A 4T1

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Phone Bon



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North Vancouver BC V7J 2C1 Canada Phone: 604 984 0221 Fax: 604 984 0218

ARLOS, ALLEN 275 ALSEK RD WHITEHORSE YT Y1A 4T1

Total # of pages: 2 (A - D) Date: 1-Dec-2003

**Account: TFI** 

**CERTIFICATE OF ANALYSIS** VA03049151

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA24 Au ppm 0.005	ME-MS41 Ag ppm 0.01	ME-MS41 Al % 0.01	ME-MS41 As ppm 0.1	ME-MS41 B ppm 10	ME-MS41 Ba ppm 10	ME-MS41 Be ppm 0.05	ME-MS41 Bi ppm 0.01	ME-MS41 Ca % 0.01	ME-MS41 Cd ppm 0.01	ME-MS41 Ce ppm 0.02	ME-M\$41 Co ppm 0.1	ME-MS41 Cr ppm 1	ME-MS41 Cs ppm 0.05
053801		2.60	<0.005	0.01	0.10	0.8	<10	50	0.08	0.01	5.93	0.08	3.02	0.6	67	0.09
053802		1.10	< 0.005	0.19	0.44	0. <b>6</b>	<10	50	1.50	0.95	0.43	0.18	192.5	1.2	65	2.30
053803		1.32	<0.005	0.03	0.58	1.8	<10	30	2.20	0.06	0.27	0.15	175.0	0.8	41	3.00
053804		1.58	<0.005	0.03	0.61	1.2	<10	30	2.42	0.04	0.51	0.22	174.0	0.9	65	3.30
053805		1.58	<0.005	0.04	0.71	2.5	<10	30	2.14	0.07	0.42	0.27	184.0	0.8	102	3.64
053806		1.78	<0.005	0.06	0.72	2.1	<10	40	2.14	0.15	0.38	0.42	174.5	1.0	132	3.22
053807		1.70	<0.005	0.07	0.81	1.9	<10	50	2.36	0.18	0.43	0.26	165.5	1.1	144	3.17
053808		2.28	<0.005	0.08	0.72	2.9	<10	30	2.10	0.13	0.39	0.25	164.5	1.2	154	2.87
053809		2.16	<0.005	1.19	0.68	3.4	<10	30	2.09	1.58	0.35	0.19	173.5	1.2	130	2.90
053810		1.94	<0.005	0.17	0.79	1.5	<10	40	2.39	1.08	0.37	0.25	166.0	1.2	157	3.11
053811		0.28	0.030	7.71	0.31	165.0	<10	10	0.07	2.03	0.06	3.37	4.62	33.9	245	0.43



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Total # of pages: 2 (A - D)

Date: 1-Dec-2003

**Account: TFI** 

CERTIFICATE OF ANALYSIS	VA0304915	51
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Sample Description	Method Analyte Units LOR	ME-MS41 Cu ppm 0.2	ME-MS41 Fe % 0.01	ME-MS41 Ga ppm 0.05	ME-MS41 Ge ppm 0.05	ME-MS41 Hf ppm 0.02	ME-MS41 Hg ppm 0.01	ME-MS41 In ppm 0.005	ME-MS41 K % 0.01	ME-MS41 La ppm 0.2	ME-MS41 Li ppm 0.1	ME-MS41 Mg % 0.01	ME-MS41 Mn ppm 5	ME-MS41 Mo ppm 0.05	ME-MS41 Na % 0.01	ME-MS41 Nb ppm 0.05
053801		2.2	1.94	0.31	<0.05	0.02	0.01	0.039	0.05	1.2	0.3	2.54	1035	1.86	<0.01	0.05
053802		5.0	1.93	3.00	0.24	1.26	0.03	0.086	0.26	93.4	1.0	0.05	431	21.0	0.01	0.40
053803		3.2	1.30	3.97	0.22	0.93	0.02	0.077	0.31	84.8	0.7	0.04	265	3.59	<0.01	0.65
053804		4.5	1.62	3.88	0.22	0.84	0.03	0.082	0.33	83.6	0.6	0.04	371	3.45	<0.01	0.58
053805		3.3	1.46	5.30	0.25	1.27	0.03	0.081	0.39	87.5	0.9	0.03	305	3.14	<0.01	0.63
053806		3.6	1.33	5.17	0.23	1.30	0.03	0.079	0.40	83.2	0.9	0.03	288	3. <b>6</b> 9	<0.01	0.59
053807		6.8	1.26	4.93	0.22	1.54	0.03	0.078	0.42	78.5	0.9	0.03	241	4.07	<0.01	0.48
053808		4.4	1.17	4.65	0.23	1.53	0.05	0.063	0.38	77.1	1.5	0.03	188	3.49	0.01	0.50
053809		5.4	1.46	4.57	0.24	1.11	0.03	0.072	0.39	82.7	1.0	0.03	307	3.93	0.01	0.55
053810		5.1	1.48	4.78	0.23	1.38	0.03	0.069	0.41	79.3	1.1	0.04	240	3.73	0.01	0.45
053811		281	13.80	0.86	0.33	0.11	0.06	0.201	0.10	2.2	2.0	0.15	22	34.4	0.01	0.14



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ge#: 2-C

Total # of pages: 2 (A - D)

Date: 1-Dec-2003 Account: TFI

### CERTIFICATE OF ANALYSIS VA03049151

Sample Description	Method Analyte Units LOR	ME-MS41° Ni ppm 0.2	ME-MS41 P ppm 10	ME-MS41 Pb ppm 0.2	ME-MS41 Rb ppm 0.1	ME-MS41 Re ppm 0.001	ME-MS41 S % 0.01	ME-MS41 Sb ppm 0.05	ME-MS41 Sc ppm 0.1	ME-MS41 Se ppm 0.2	ME-MS41 Sn ppm 0.2	ME-MS41 Sr ppm 0.2	ME-MS41 Ta ppm 0.01	ME-MS41 Te ppm 0.01	ME-MS41 Th ppm 0.2	ME-MS41 Ti % 0.01
053801		12.2	360	9.2	2.4	0.001	0.01	0.14	1.8	0.5	<0.2	44.7	<0.01	0.03	0.5	<0.01
053802		4.8	110	103.0	17.6	0.001	0.02	0.72	1.4	1.4	1.0	11.0	0.01	0.01	14.5	<0.01
053803		1.9	50	26.6	24.7	0.001	0.03	0.23	1.0	1.6	1.0	6.7	0.01	0.01	18.1	<0.01
053804		2.7	60	31.5	25.9	0.001	0.03	0.17	1.3	1.6	0.9	13.5	0.01	<0.01	18.2	<0.01
053805		1.7	40	32.2	31.6	<0.001	0.02	0.16	1.2	1.7	1.2	12.6	0.01	<0.01	22.2	<0.01
053806		2.0	30	39.5	31.8	<0.001	0.04	0.20	1.2	1.6	1.4	11.4	0.01	<0.01	22.8	<0.01
053807		2.6	40	60.0	31.1	< 0.001	0.02	0.19	1.2	1.6	1.7	11.8	0.01	<0.01	24.7	<0.01
053808		2.9	30	42.0	30.7	0.001	0.04	0.19	1.1	1.7	1.8	14.4	0.01	0.01	27.9	<0.01
053809		2.7	40	30.1	30.0	0.001	0.05	0.24	1.2	1.5	1.5	12.8	0.01	0.01	20.2	<0.01
053810		2.7	40	38.2	30.9	<0.001	0.03	0.19	1.2	1.5	1.8	13.6	0.01	<0.01	21.8	<0.01
053811		243	190	125.5	5.9	0.020	>10	81.2	0.4	39.4	0.7	10.2	0.01	0.26	1.9	<0.01



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Total # of pages: 2 (A - D)

Date: 1-Dec-2003 Account: TFI

CERTIFICATE OF ANALYSIS	VA03049151

									CERTIFICATE OF ANALYSIS	VA03049151
Sample Description	Method Analyte Units LOR	ME-MS41 TI ppm 0.02	ME-MS41 U ppm 0.05	ME-MS41 V ppm 1	ME-MS41 W ppm 0.05	ME-MS41 Y ppm 0.05	ME-MS41 Zn ppm 2	ME-MS41 Zr ppm 0.5		
053801		0.03	0.19	25	0.34	9.60	14	0.5		
053802		0.17	1.49	2	0.33	30.7	88	31.4		
53803	ļ	0.16	1.62	1	0.34	37.6	73	25.7		
053804	ļ	0.15	1.46	1	0.38	37.2	85	24.2		
053805	ŗ	0.17	2.03	1	0.14	40.6	81	27.6		
53806		0.19	2.34	1	0.12	38.4	98	27.8		
053807	•	0.20	2.77	1	0.14	36.7	84	29.4		
53808	•	0.18	3.20	2	0.22	40.9	83	27.6		
053809	•	0.21	1.76	1	3.99	33.7	86	20.7		
053810		0.20	2.45	2	0.45	35.3	86	26.8		
053811		0.09	0.92	11	0.56	1.45	301	3.0		
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### **APPENDIX 4**

### **SUMMARY OF FIELD EXPENDITURES**

2003 PROGRAM

**CANYON CLAIMS** 

### **Summary of Expenditures/Work Performed**

### **Diamond Drilling and Grid Costs**

•	Drill rental (Rated @ 10% of equipment value/month)	
	\$45,000.00 x 1.5 months x 75%	\$ 5,062.50
•	Drilling fluids & diamond products	\$ 2,259.48
•	Core boxes	\$ 460.00
•	Drill supplies other than diamond products	\$ 902.08
•	Fuel	\$ 1,741.72
•	Truck rental (3 months at \$1,450.00/month x 25%)	\$ 362.50
•	Truck costs: Whitehorse – return & work (3,200 km x.42)	\$ 1,344.00
•	Living expenses: \$35.00 x 110 man days	\$ 3,850.00
•	Salaries: (Luke) 35 days x \$150.00	\$ 5,250.00
	(Shane) 24 days x \$150.00	\$ 3,600.00
•	Cutting chainsaw grid & chaining (4.2 km.)	
	8 man days @ \$275.00 per	\$ 2,200.00
•	Soil sampling & supplies	\$ 1,014.52
•	Core assays	\$ 1,279.18
•	Soil survey analysis	\$ 4,397.70
•	Enzyme Leach survey interpretation (estimate)	\$ 4,500.00
•	Report preparation, core logging	\$ 1,500.00
•	Shipping: Chemex and Actlabs	\$ 203.36
	Copy and report binders	\$ 108.47

**GRAND TOTAL FOR SUMMER 2003** 

\$40,035.51

### **APPENDIX 5**

### **DIAMOND DRILL HOLE**

### **DESCRIPTIVE LOGS**



# DRILL HOLE LOG

	DIP	TESTS Property CANYON GULD G.C.	Hole Number	C	GCC	-11
At	Ft.	At	Dip - Q	.50		
At	Ft.	Claim No ]	.ength	<b>43</b>	3'	
At	Ft.	Working Place ]	Bearing 23	150 A.	)	******
At	Ft.	Baseline Footage 11+300E	Elev. Collar			
At	Ft.	Baseline Offset 9+637.5 N	Horiz. Trace	<b></b>		
At	Ft.	Date Started	Vert. Trace			
		Date Completed 2003	Date Logged			
ROM	ТО	DESCRIPTION		SAMPLE		SAY
<u> </u>		·		NUMBER	nnh	MUN
41		(1) 0 0 1 100 0 1			Au	170
01	14'	Wilmurnew				
14'	233'	RHYOLITE QUARTZ FELDSPAR 1701				
<u> </u>	417	TOTAL GUARTE PECISIANE 1701	CVHUNY			
		Crowy Querty eyes end	$\mathcal{C} \setminus \mathcal{C}_{0,1}$			
		Celtered foldsper phonocrysts	211000+			
		in a grow - grow grown by	we per			
		Surficiel Opidation continue	· +.			
		as' - The upper parties being				
		hematite n	_			
		121' - Ce 3" pyrito + Clay				-
		Svecture your @ 600 evre en	nf			
		your cove an	tie.			
		1201 - Julytha brooking time Mile	c: 1 si 2 is			
		122'- Julyto brecciention, Mile colong fracture @ 80° CA.	CI TICATION			
			****		· · · ·	
		122'12'- Clay + pyrite celus of tract	wa looca			
		• •	ひちろのいる	120-03	۷5	0.01
		128'- Julitle brucciation + pilicitica	tión	IAU ICS		0.01
		Colore & vecture	0 15(A.			
		1451- ( cm. freetuned Moon-class	-600CH			
		150' - Thin comethy theirest @ 1	U" LA			
		150'- Thin comethyst bendet @ 1 1931-3 cm. Fracture-clay @ 4	SO CA			
·						
		202'-207' - Highly tractured + white	Clay.	E.6	٥. ١٤	233'
`			•			

# DRILL HOLE LOG

	DIP	TESTS Property CAWYUW GOLd C.C. Hole Number	er (	<b>ુ</b> લ્ડ ૯	-12
At	Ft.	At Dip	45°		
At	Ft.	Claim NoLength	(	46'	
At	Ft.	Working Place Bearing			
At	Ft.	Baseline Footage 11+100E Elev. Collar			
At	Ft.	Baseline Offset Q+625N Horiz. Trace			
At	Ft.	Date Started Vert. Trace			
		Date Completed 2003 Date Logged			
FROM	TO	DESCRIPTION	SAMPLE		SSAY
			NUMBER	4,1.4	Num
<i>(</i> )'	28'	OUERRY KDEN		Au	Ma
	- 20	OUCTORY RUE IN		<del> </del>	
18'	146'	RHYDLITE QUARTS FELDS DAR DOROHYDZY			_
			-		
		Other than for the rection noted -			
···		gray querta eyes and Clay lettered			
		Jeldopar Phenocrysts are ret in a			
		Grey- green ground mars.			
		28'-67'- Interne pilici ficution - Consted			
		No se being -mus or (1/3 P)//2	28-33'	<b>4</b> 5	0.03
		francter nature of cove. In this	(0.33	(3	0.03
		rection no visible feldyew or 053804	33-38	11	11
		9tz. phenocyti are noted until 255'	,		
		Where they are small in ring, not vericely	•		
		letter they are small in pine, prograndely fathing larger part 68'. US3805	38'-93'	н	U.04
	•	av'-49'- Patches of a fine gray			
		Guerty Mhendring with General 053806	(12'-00'	٠,	0.06
		Milici fication, At other times this gray	47 11		0.00
	-	Color has a prederred direction US3807	49-55	٠,	FOIU
		@ Ow to come evois - where it trends Not			0.0 ;
<u>.</u>		as a distinct voin, but in a Madving			
		Meandring Manney.			

Logged by

FROM	το	DESCRIPTION	SAMPLE NUMBER	ASSAY
		ob'- Thin Gracture-visible pyrite-horbered on either fide by lam. wide gray gunty-as noted above.		
		78-79'- Crong query Coloned Thyslite Slow banding- some pyrite visible.		
		approvedically along thin Irrectures.		
		117'b'-a Cm. vide pyrite-clay hure at 40° core angle.		
		filteration: Interes pilicification Prom 28'-67'.		
		White clay in the pilicitiet more that occurs within fractures Created Oxilling problems.		
I		Prevvanine Clay 8 vom 67'-1(10')		
		146' E.D.H.		

Hole Number CGGC- 12 Sheet Number 2

# DRILL HOLE LOG

	DIP	Property CAWYUIN GOLD G.C.	Hole Number	C	UZ	
At	Ft	At	Dip	- 850		
At	Ft	Claim No.	Length	1161		
At	Ft	Working Place	Bearing	135°		
At	Ft.	Baseline Footage 11+100 E	Elev. Collar			
At	Ft.	Baseline Offset Q+625 N	Horiz. Trace	ce		
At	Ft.	Date Started	Vert. Trace			**
		Date Completed	Date Logged			
FROM	ТО	DESCRIPTION	·	SAMPLE NUMBER		SSAY
01	26'	WERRURNEN		NOMBER	MMh Au	nom
					<u> </u>	Ag
90,	1(6)	12H40lite QUARTY FELDSPAR PORT	PHYRY			
		Other than by the roction	noted -			
		gray guerty eyes and clay certand	Roldencer			
		phonoxysts are net in a gray of	Zneen			
		grund wars.				
		69:-971: Very Siliceons - no felde	Mr.			
		phenocrysts Wil				
		7615'-7815'- Secondary Cu				
		Celine thin- Clear 9ty. hrecie	ueinlets.			
		handing Mas a distinct duck fre	8 low			
		handing has a distinct duck gre	y Cast-			
		Which may rightly time pulphites			•••	
		Alteration:	<u> 3800</u>	169-69,	۷5	1.0E
			(1 0 12	2-1-10"		1.0
		Must prominent from 82'-98'.	35 00 1	8545'-01	ч	1.19
				0.00	M	n -
		White Clay Irm 96'-97' occur	53810	91'-97'		0.17
		Numerous fractures in this blocky	1 oction			
		Out nike of This pection the	grand		-, <u>-</u>	
		is nume even petent and clay is no	Ivvariuo			
		in altred Jeldram nhonocryst - to	lethou			
		Wille Lemer Sycietimes.				
		116' 8.1	U.H.			
		$( )_{-} $				

# Interpretation of Expanded Sampling Enzyme Leach<sup>™</sup> Data for the Carlos Gold Grew Creek Prospect

By: Gregory T. Hill, Consulting Geologist 3 May 2004

### **Summary**

The extension of the Grew Creek Enzyme Leach survey delineates the northeast half of the Target D oxidation anomaly originally recognized in the initial 2000 Enzyme Leach soil survey. The additional samples reveal a strong oxidation anomaly featuring very well developed oxidation halos among many oxidation suite and other elements. Gold is contained in many samples within and around the oxidation anomaly suggesting that Target D indicates a high priority drill target. The anomaly straddles the Danger Creek fault and several elements form subtle highs along the trace of that fault. Cobalt and Mn form distinctive linear highs above the hanging wall of the Danger Creek fault within the central lows developed among many elements. Drilling is recommended to test the subsurface beneath the oxidation anomaly, particularly where the Danger Creek fault underlies oxidation suite central lows.

### Introduction

Extension of the original Grew Creek soil survey (see 22 November 2000 report) was conducted by A. Carlos in the Fall of 2003 (Figure 1). The author has not visited the property. An additional 137 samples were collected and analyzed by Enzyme Leach<sup>SM</sup> (EL) at Activation Laboratories in Ancaster, Ontario, and final data were reported as: Enzyme Leach Job # A03-2499REVISE (file: 32499BRP.xls) on 7 April 2004. These new data were combined with the original data for a total of 695 soil samples.

Some difficulties were encountered when merging the two data sets primarily due to variations in background and anomaly contrast between the two. Except for gold, most elements are not strongly affected by this. The possible causes of this disparity were investigated. Possible causes are: (1) inconsistencies in sampling procedure, (2) natural seasonal/climatic variations, (3) differences/inconsistencies in sample preparation/storage, (4) differences/inconsistencies in analytical procedures. Although none of these factors can be ruled out as a component of the cause, some are more likely than others.

The original sample set was received on 28 September 2000 and results were reported 20 October 2000. The follow-up samples were received 7 November 2003 and reported 3 December 2003 (a revised report was issued on 7 April 2004 but contains no changes other than recalculated gold from the 3 December 2003 report). Factor 1 is unlikely to have introduced the variation because the sampling during both periods was completed by A. Carlos and the same methods were utilized to sample similar soil materials during both sampling periods. Furthermore, the sampling for each period was completed in the same season (Autumn) of each year.

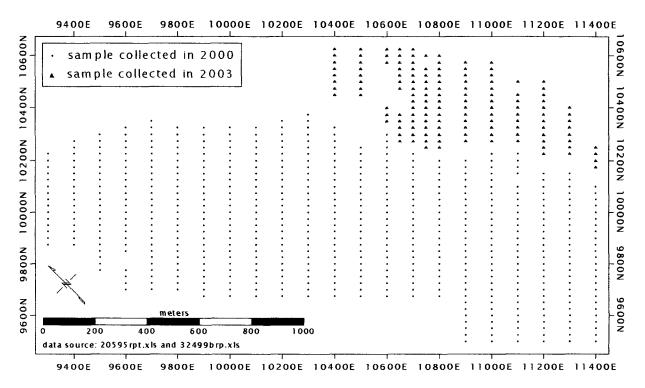


Figure 1. Sample location map showing samples collected in the original 2003 soil survey and infill and extension samples collected in 2004.

Although seasonal variability does occur with selective extraction soil surveys, the level of variability in this study is extreme for gold relative to numerous other studies that the author has worked on or is otherwise aware of. Therefore the influence of factor 2 also appears to be small. Nonetheless, the influence of factor 2 is unknown and could be important.

Factors 3 and 4 are the most likely causes of background and anomaly variability between the two data sets. These were investigated in depth. Differences in sample preparation and storage, factor 3, may have influenced the results. The variations between the two data sets could occur if there was significant variation in the times between sample collection and sample preparation and/or leaching and reading of the sample. It is known that soil samples devolatalize over time. This has been confirmed many times by various methods, including measuring headspace gas above soil samples and by reanalyzing samples that have been archived. Factor 4 is a likely contributor to the problem. A change in laboratory personnel occurred between the release of the original data set and the release of the follow-up data. It appears likely that changes in analytical procedure may have adversely influenced the results of the second data set. A discussion of potential pitfalls would be complex and is beyond the scope of this report. However, it is suspected that this factor was a strong contributor to the problem.

In an effort to rectify the problem with merging the gold values from the two data sets, gold from the second data set was re-reported as 32499BRP.xls. In this revision, Enhanced Enzyme Leach detection limits were utilized (gold detection limit 0.005 ppb) whereas the original gold data were reported with regular Enzyme Leach detection limits (gold detection limit 0.05 ppb). In

addition, no correction was made for a gold blank factor. The gold blank number is typically very small or zero and accounts for minute amounts of gold that may be present within laboratory apparatus. Whereas no gold values were reported at the regular detection limits, 31% of samples had detectable gold in the revised data set. All of the gold detections are below the regular Enzyme Leach detection limits. When plotted together, the gold values from the original and revised follow-up data sets form reasonable patterns as long as different background values are considered for each data set. This is necessary because an order of magnitude difference in gold values occurs between the original data set and the revised follow-up data set. Although this is less than ideal, it is considered that the two data sets can be interpreted together, as long as differences in background are taken into account. While more consistency between data sets would be preferable, the disparity is not overly concerning because recognition of patterns is considered to be much more important than absolute values.

### **Discussion and Recommendations**

The follow-up sampling was completed in order to provide better resolution of the geochemical response at Target D in the southeastern part of the original survey in an area where numerous gold values and a partial halo was detected in many other elements (Target D, 22 November 2000 report). This discussion is limited to the Target D area. Refer to the original report for a discussion of the other anomalies within the soil survey. No attempt was made to reinterpret the remainder of the soil survey as there is no significant reason to change the original interpretation in these areas.

The follow-up soil sampling exposes the northeastern half of a very well defined oxidation anomaly at Target D. This anomaly is characterized by continuous or nearly continuous halos developed in most oxidation suite elements and many others. Gold is also nearly continuously distributed in this halo (Figure 2) and appears to form a central low that largely corresponds to those of many oxidation suite and other elements. Examples of the central lows are indicated by the outlines of Br and Cd central lows shown in Figures 2-8.

Cobalt and Mn form distinctive northwest-trending linear highs parallel to the trace of the Danger Creek fault. The relationship between the Co-Mn high and the Danger Creek fault suggests that this high is located above the hanging wall of the southwest-dipping fault zone. The Danger Creek fault bisects the oxidation anomaly and many other elements also form much more subtle highs along the fault trace. These bisect elongate northwest-trending halos developed among many elements. Several examples of oxidation halos are shown in Figures 3-7. These include oxidation suite elements Cl, Mo, and Re (Figures 3-5), the base metal Cu (Figure 6), and the REE La (Figure 7). The Cl, Mo, Re, and Cu halos each have roughly the same dimensions and are concentric. In contrast, La forms a larger diameter halo centered in the same area and the distribution of this element also suggests the presence of nested halos. In addition to the Danger Creek fault, several other linear highs are contained within the data set. One example can be seen in the La distribution (Figure 7) in which a northwest-trending high cuts the southern margin of the oxidation halo. This La high corresponds with a zone of gold highs and appears to intersect the Danger Creek fault near the southeastern margin of the central low. The oxidation

anomaly corresponds with a small hill (812.0m) suggesting the presence of a subsurface alteration zone (silicified?) Or more competent lithologic unit (Figure 8).

Drill testing of the Target D area is recommended. The highest priority drill holes should be targeted to intersect the Danger Creek fault where it intersects the Target D oxidation anomaly. Specifically, three drill holes, angled to the northeast are recommended. These should be collared at approximately 11200E/10225N, 11000E/10210N, and 10840E/10200N and drilled for approximately 200m in order to intersect the Danger Creek fault zone and into the footwall. The drill hole at 11200E/10225N is designed to test not only the Danger Creek fault but also to test a potential fault associated with the northwest-trending La and gold high that intersects the Danger Creek fault near the southeastern margin of the oxidation anomaly discussed above. Additional drilling should also be considered to the northeast and southwest within the area containing oxidation suite central lows, particularly if drilling along the Danger Creek fault is successful. Furthermore, the gold distribution, as well as the distributions of some oxidation suite elements suggest that the oxidation anomaly may continue to the north or north-northwest of the central low outlines shown in Figures 2-8. Therefore, drilling in this area (near 10400-10600E/10400-10600N) should also be considered.

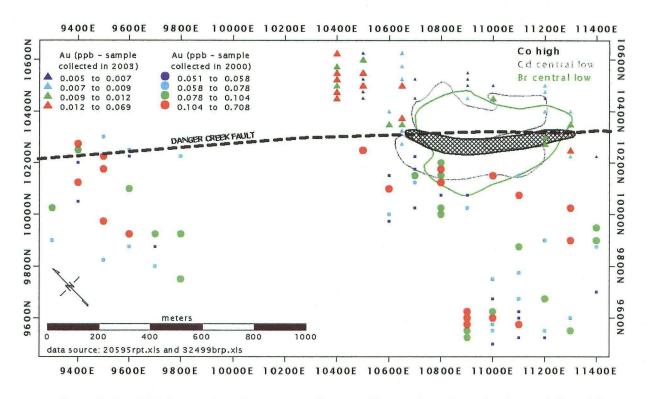


Figure 2. Gold distribution classed post map with trace of Danger Creek fault, Co high, and Cd and Br central lows. 2000 gold values shown as circles, 2003 shown as triangles.

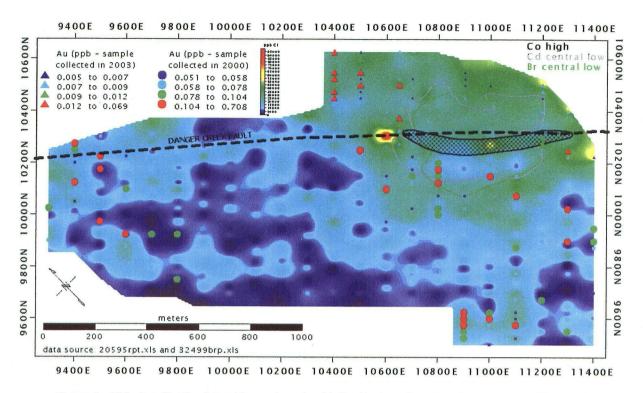


Figure 3. Chlorine distribution with overlay of gold distribution classed post map, trace of Danger Creek fault, Co high, and Cd and Br central lows. 2000 gold values shown as circles, 2003 shown as triangles.

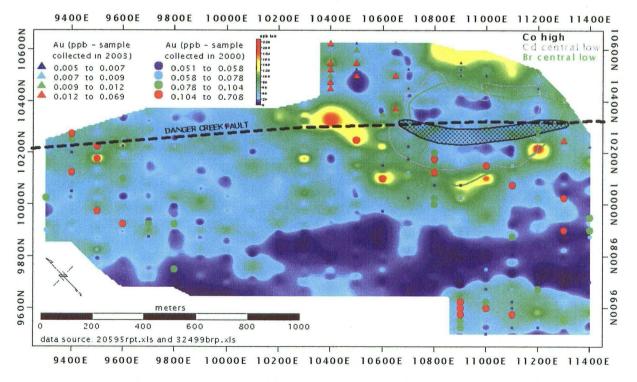


Figure 4. Molybdenum distribution with overlay of gold distribution classed post map, trace of Danger Creek fault, Co high, and Cd and Br central lows.

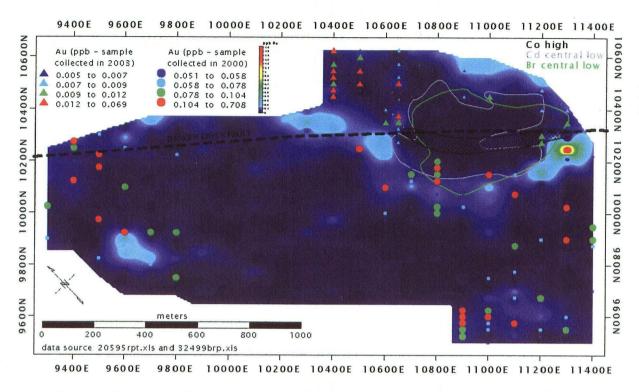


Figure 5. Rhenium distribution with overlay of gold distribution classed post map, trace of Danger Creek fault, Co high, and Cd and Br central lows.

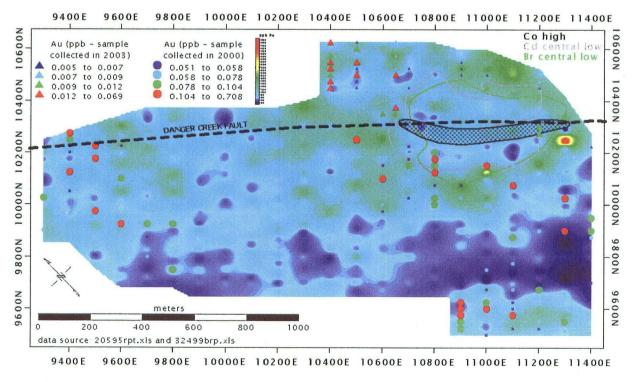


Figure 6. Copper distribution with overlay of gold distribution classed post map, trace of Danger Creek fault, Co high, and Cd and Br central lows.

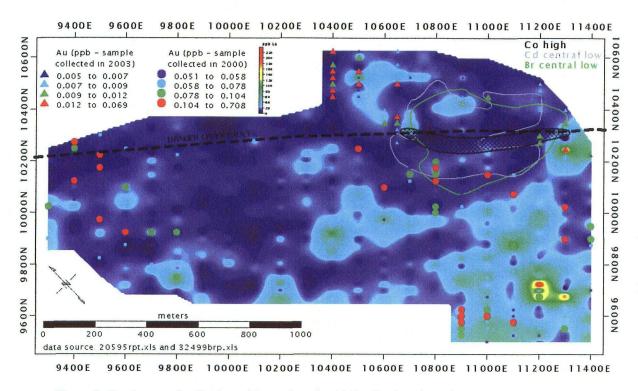


Figure 7. Lanthanum distribution with overlay of gold distribution classed post map, trace of Danger Creek fault, Co high, and Cd and Br central lows.

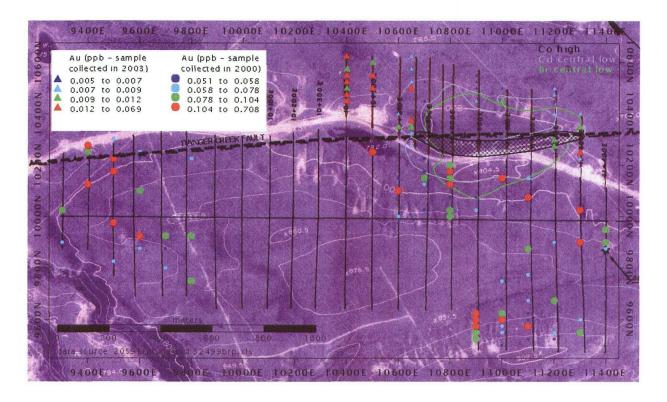
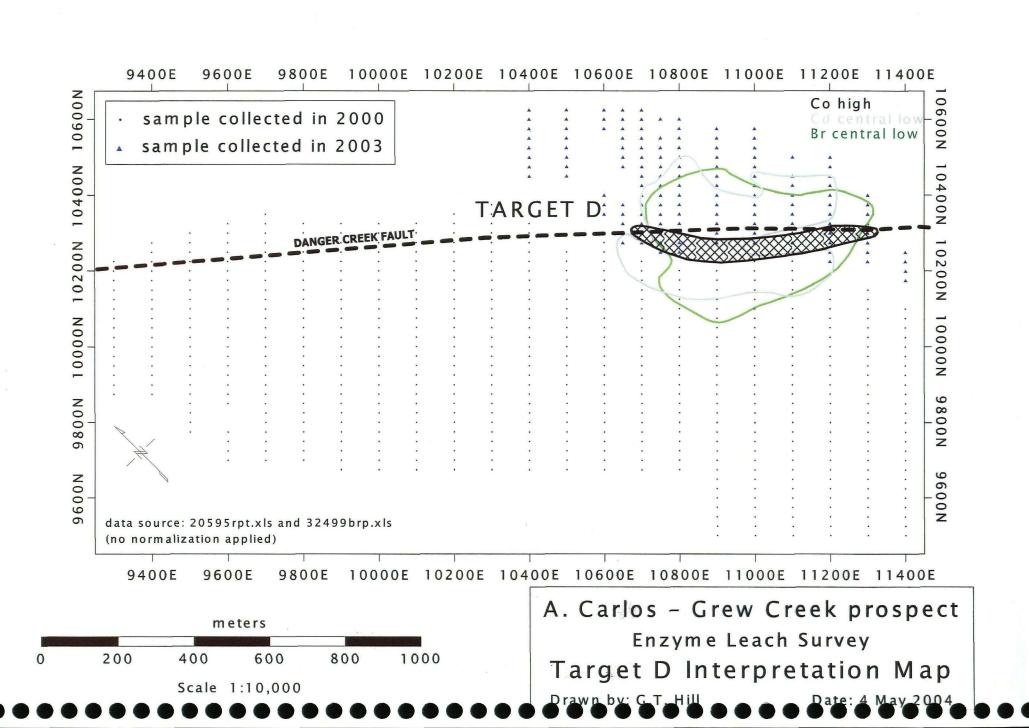
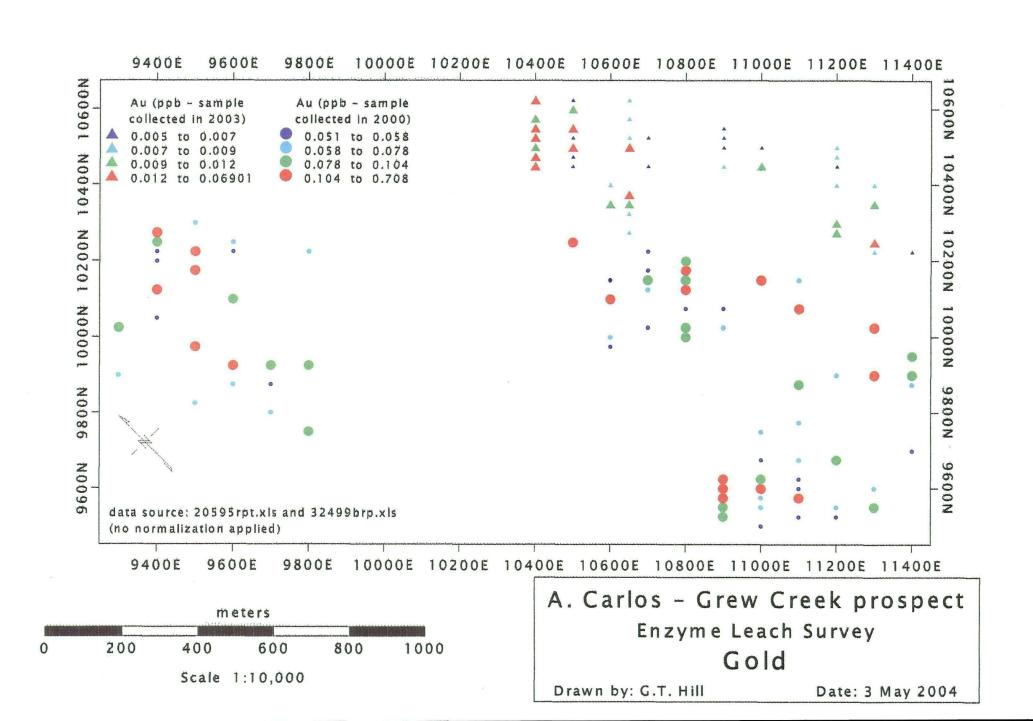
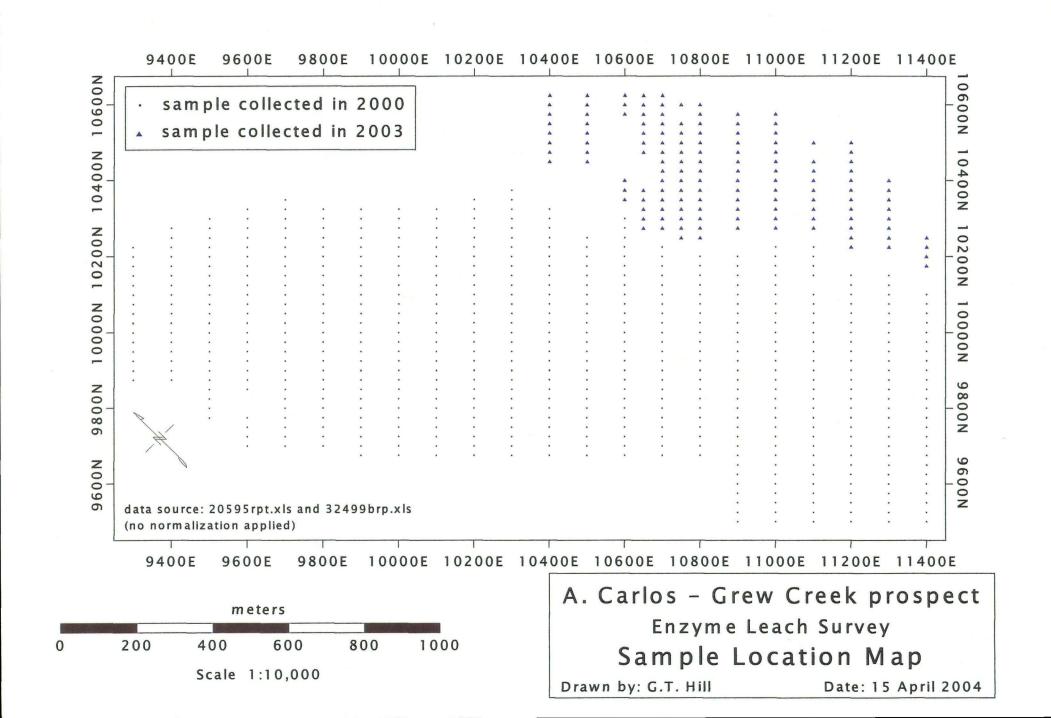
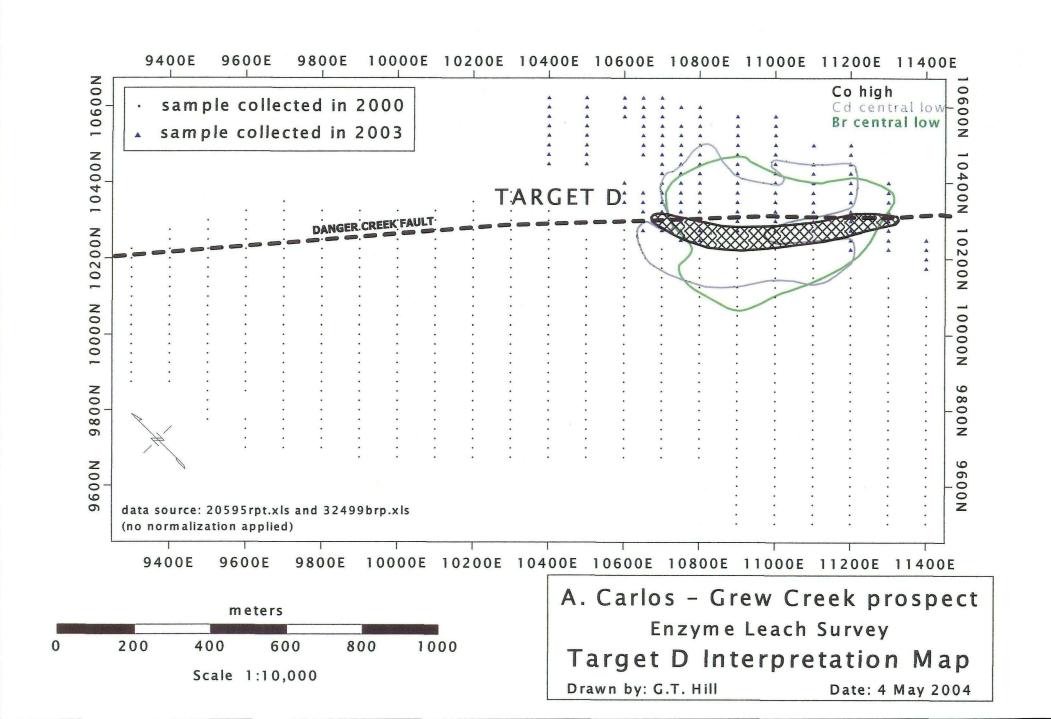


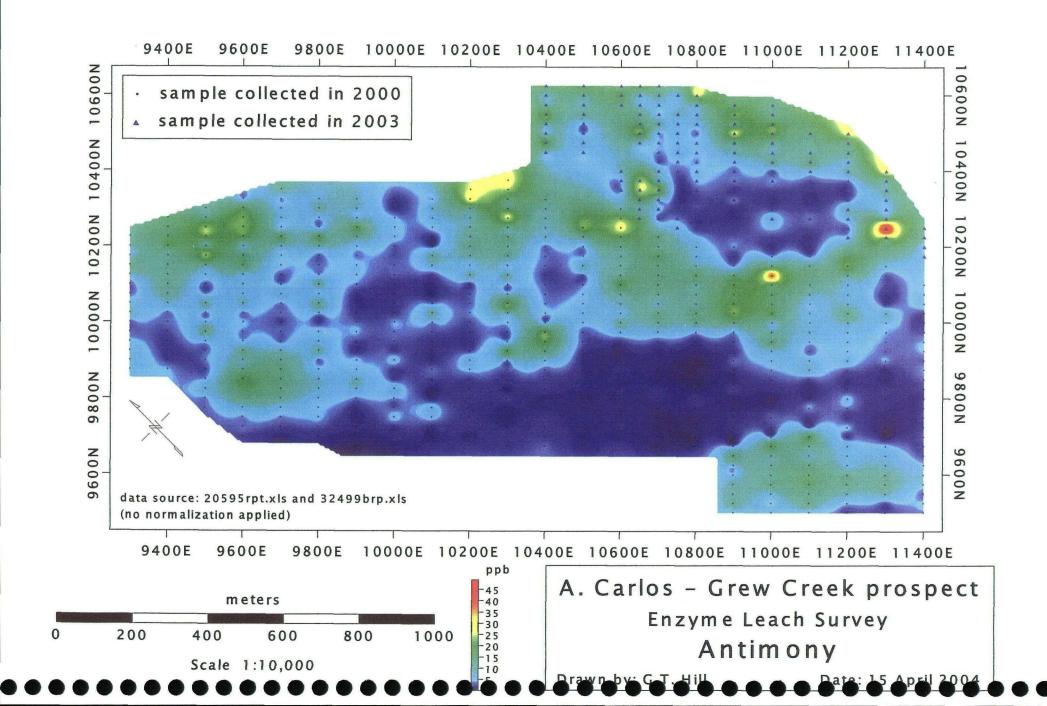
Figure 8. Orthophoto with overlay of gold distribution classed post map, trace of Danger Creek fault, Co high, and Cd and Br central lows.

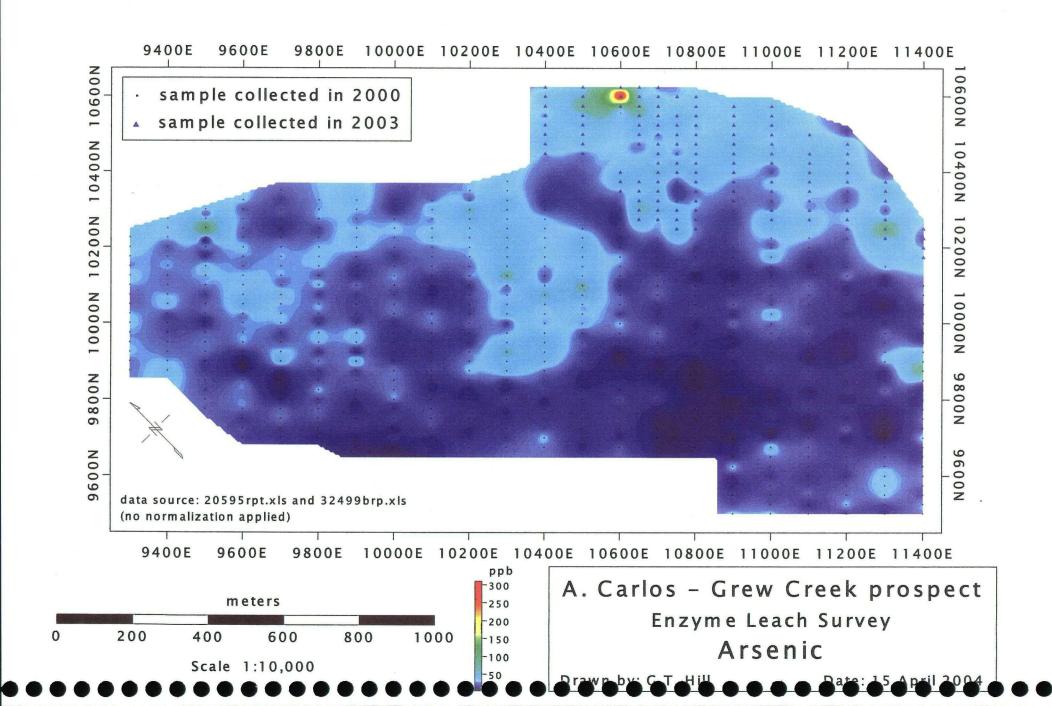


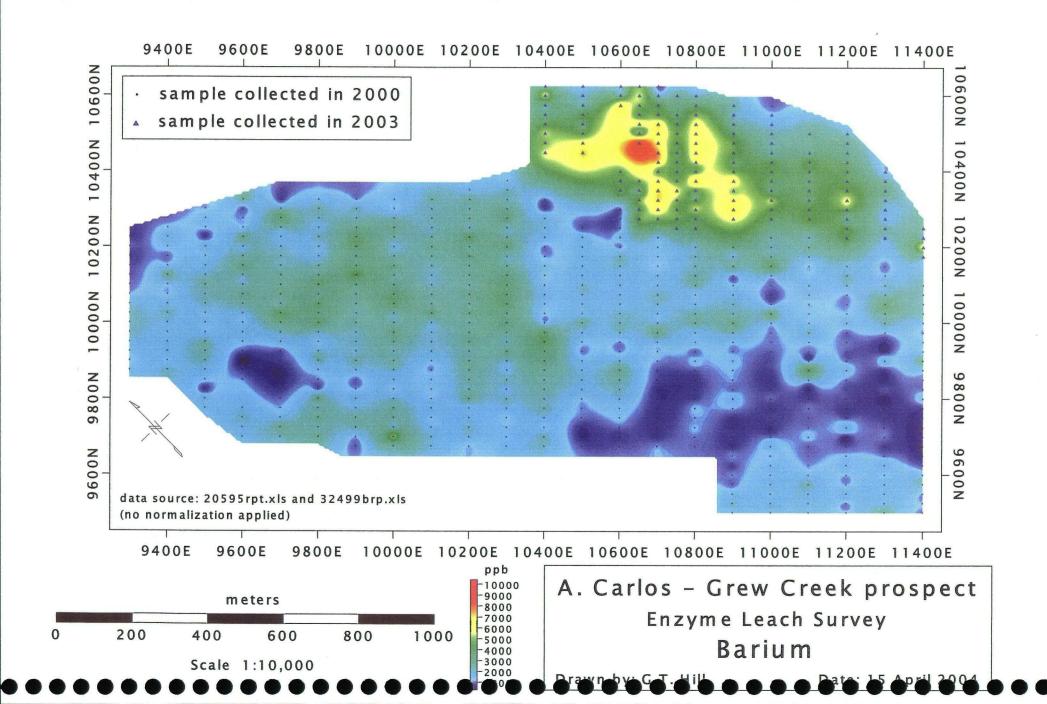


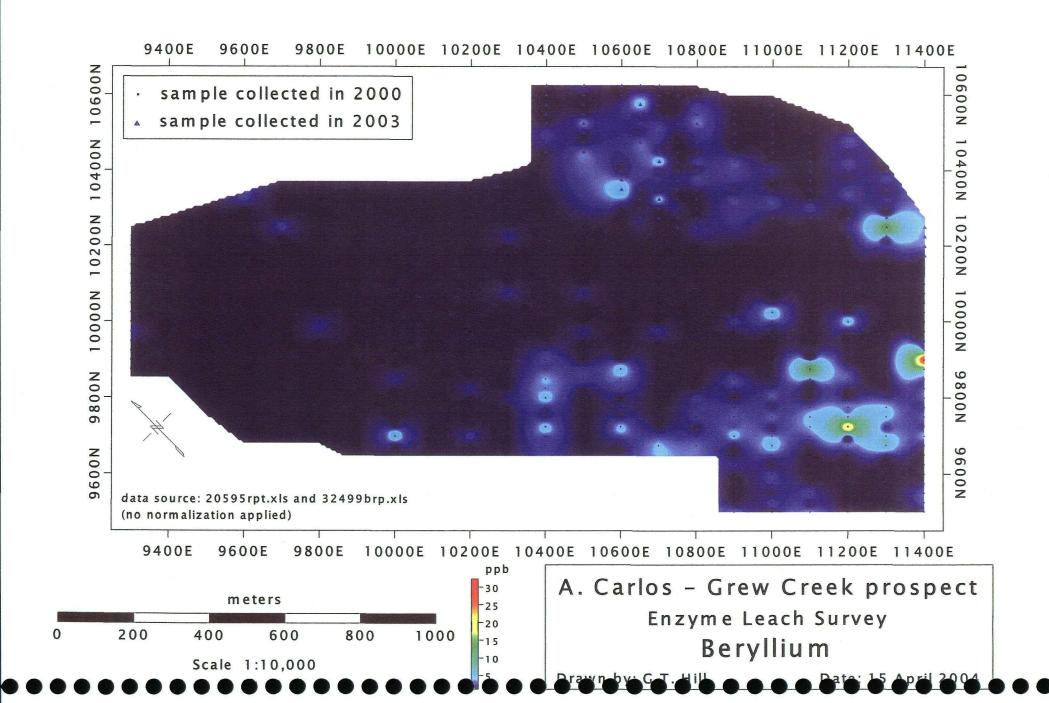


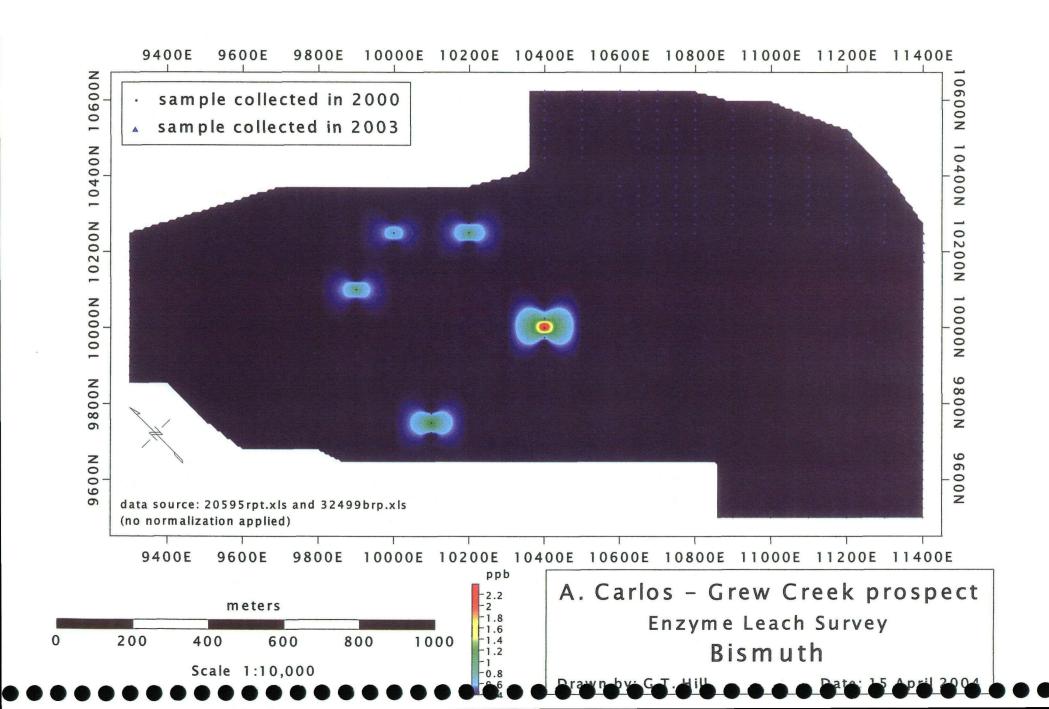


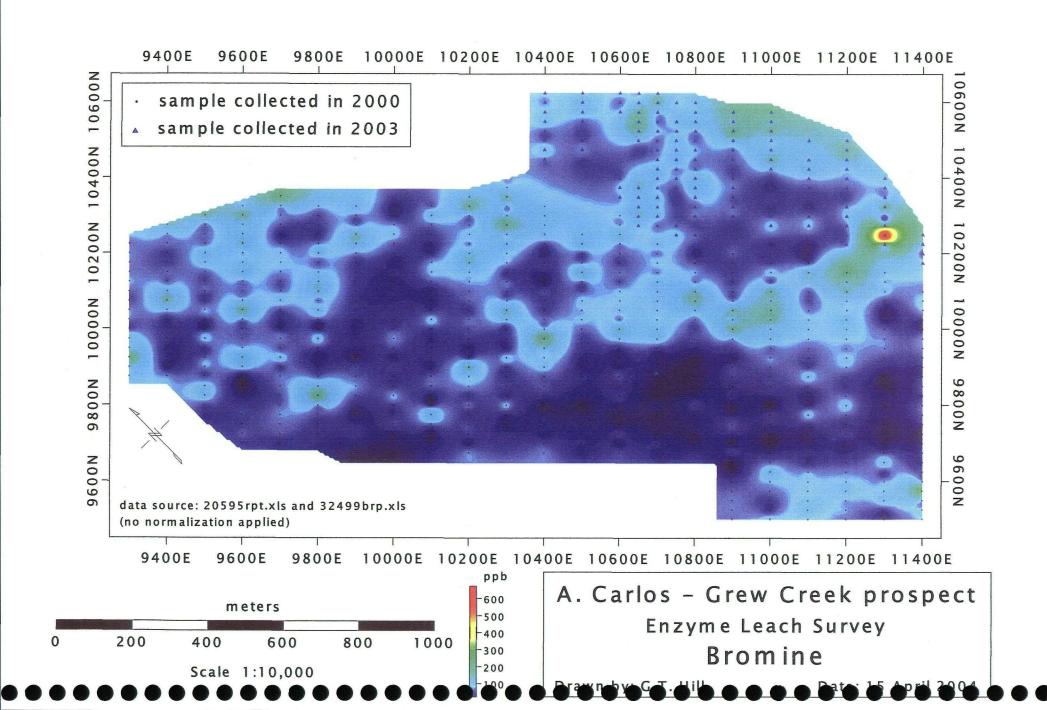


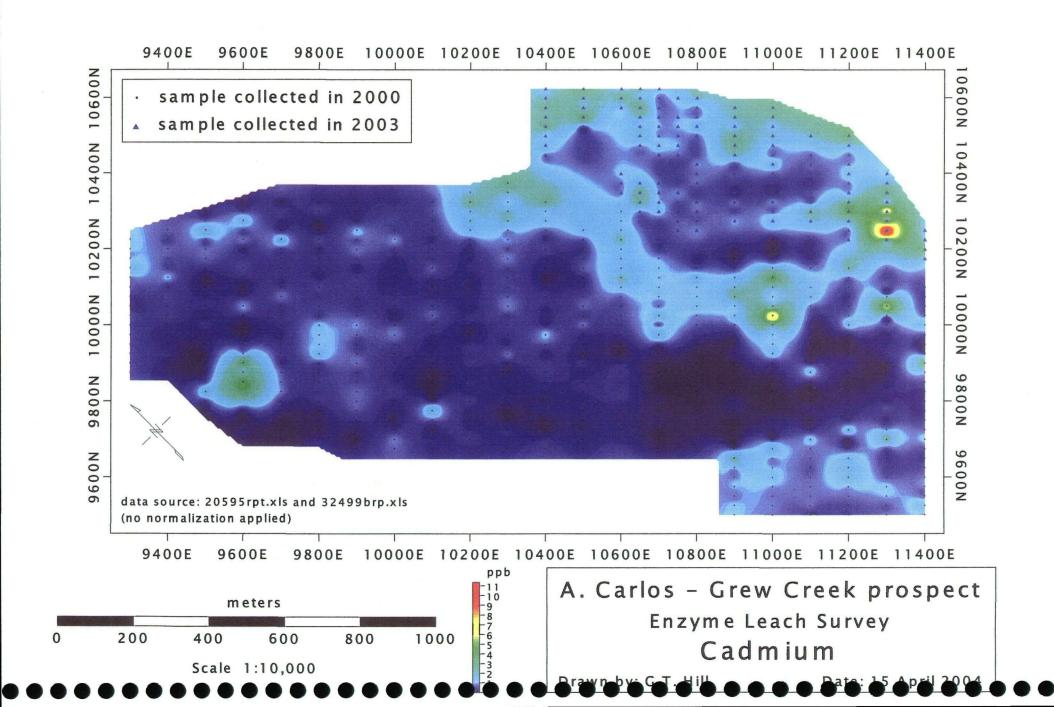


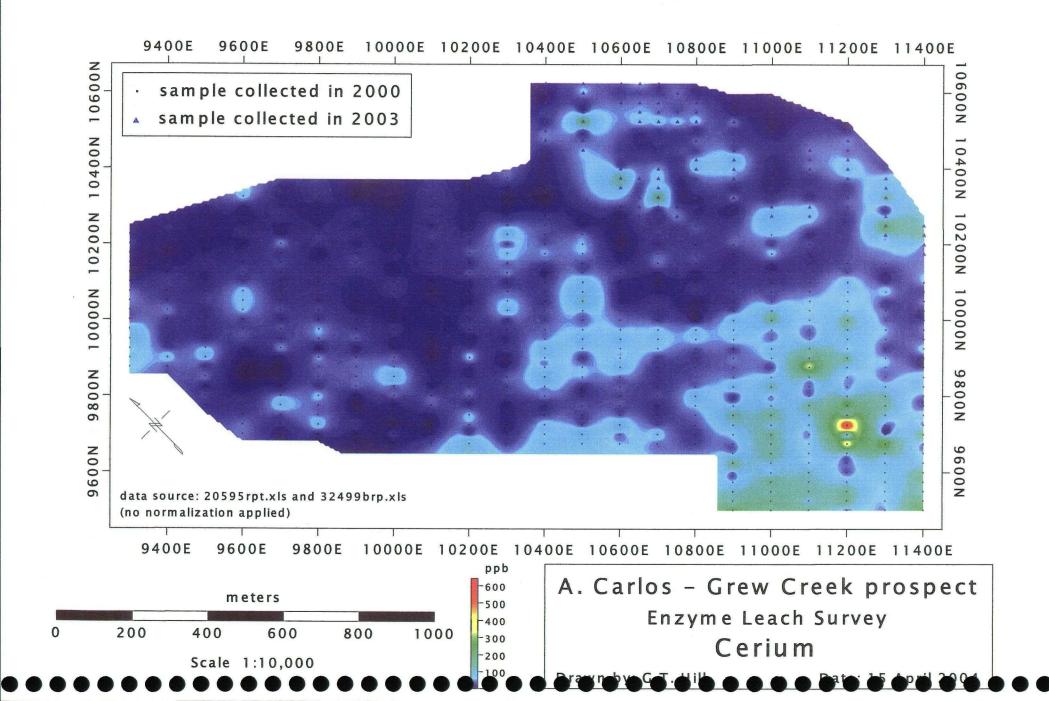


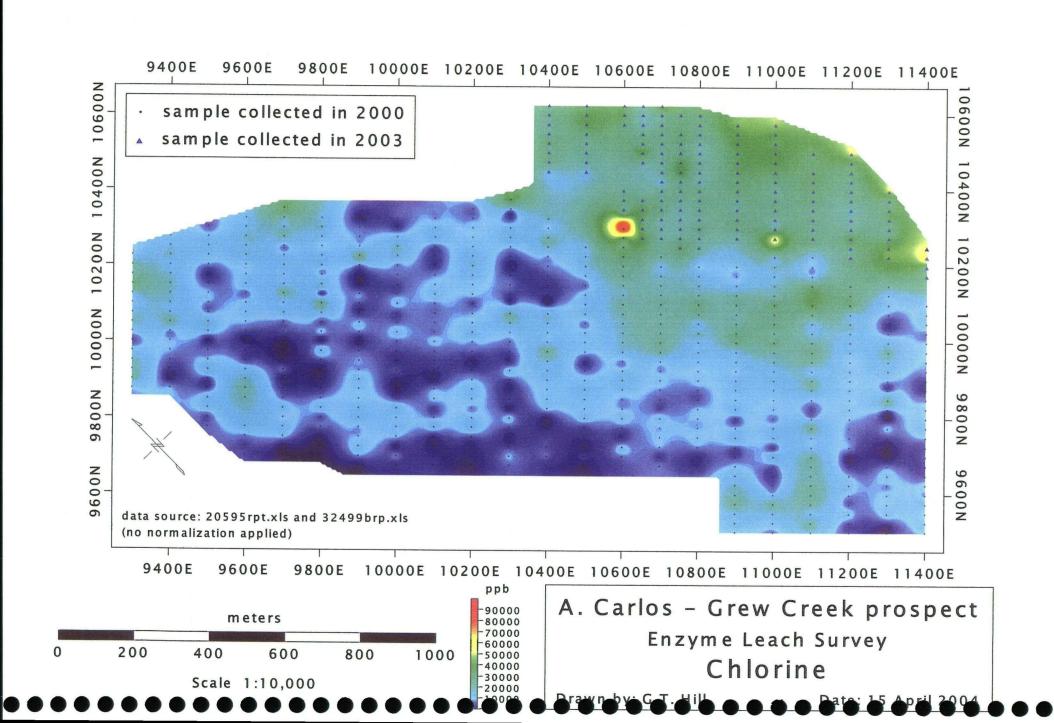


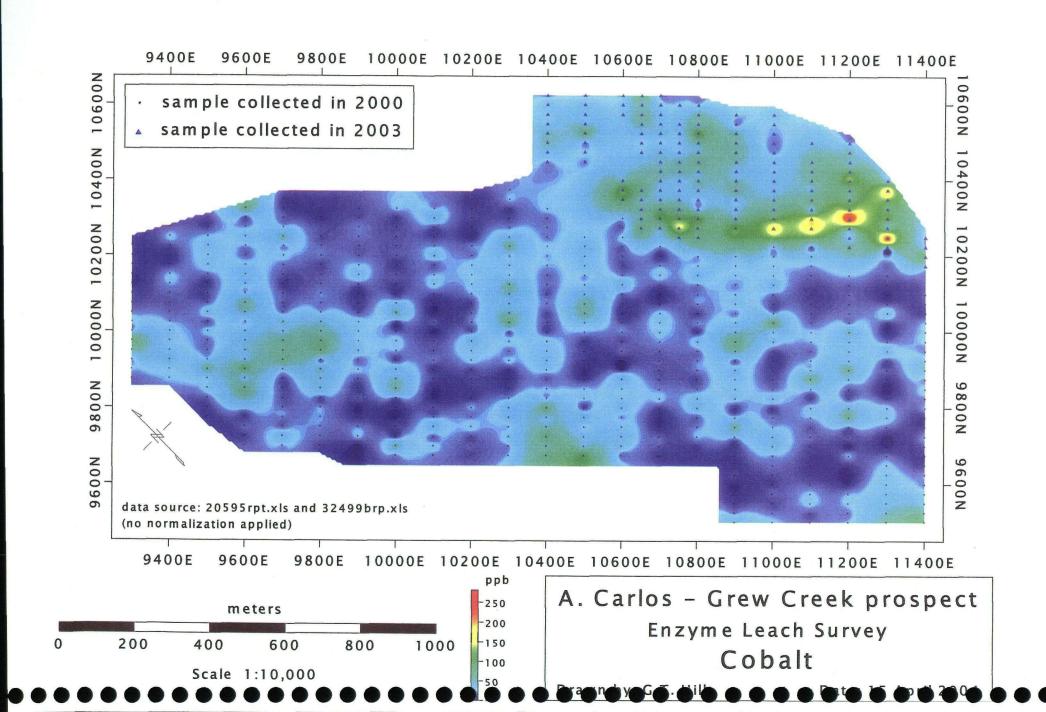


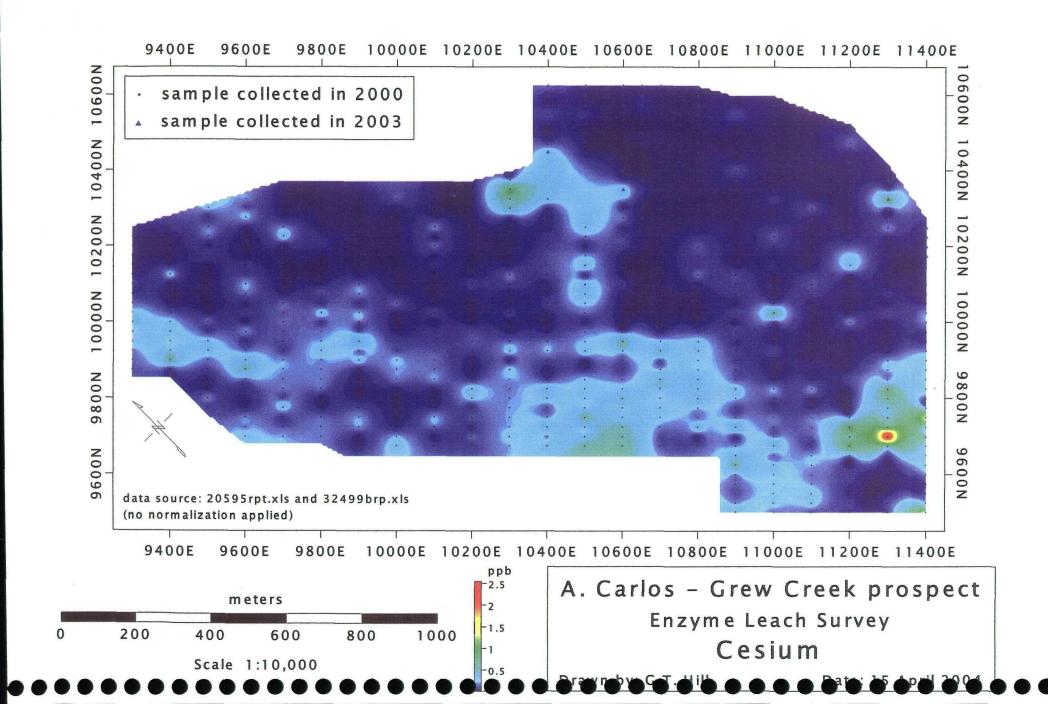


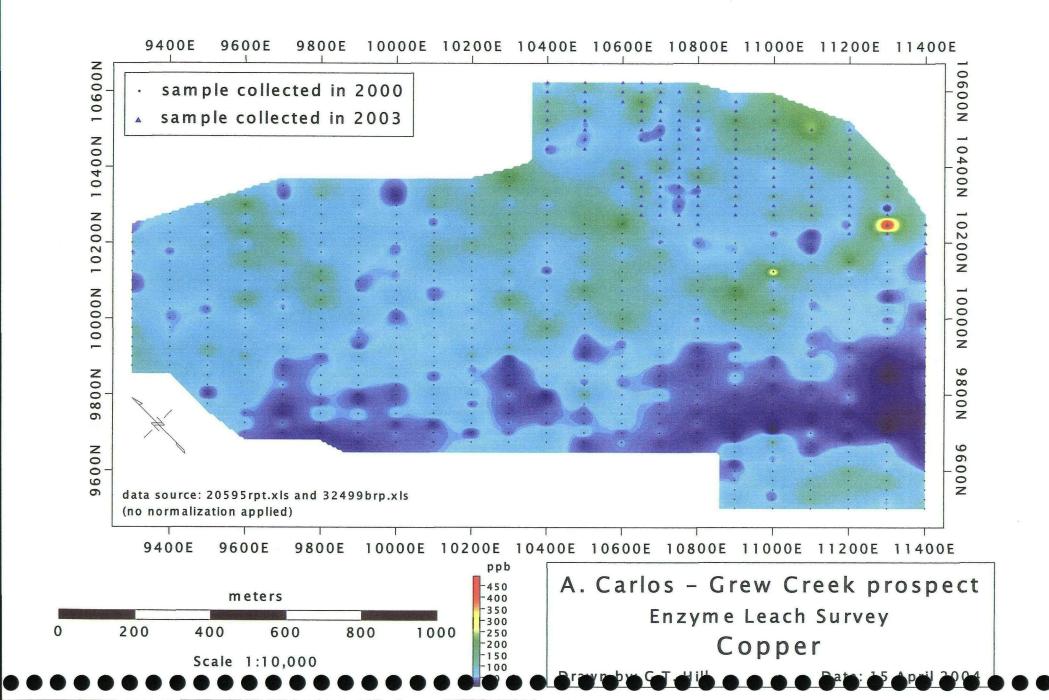


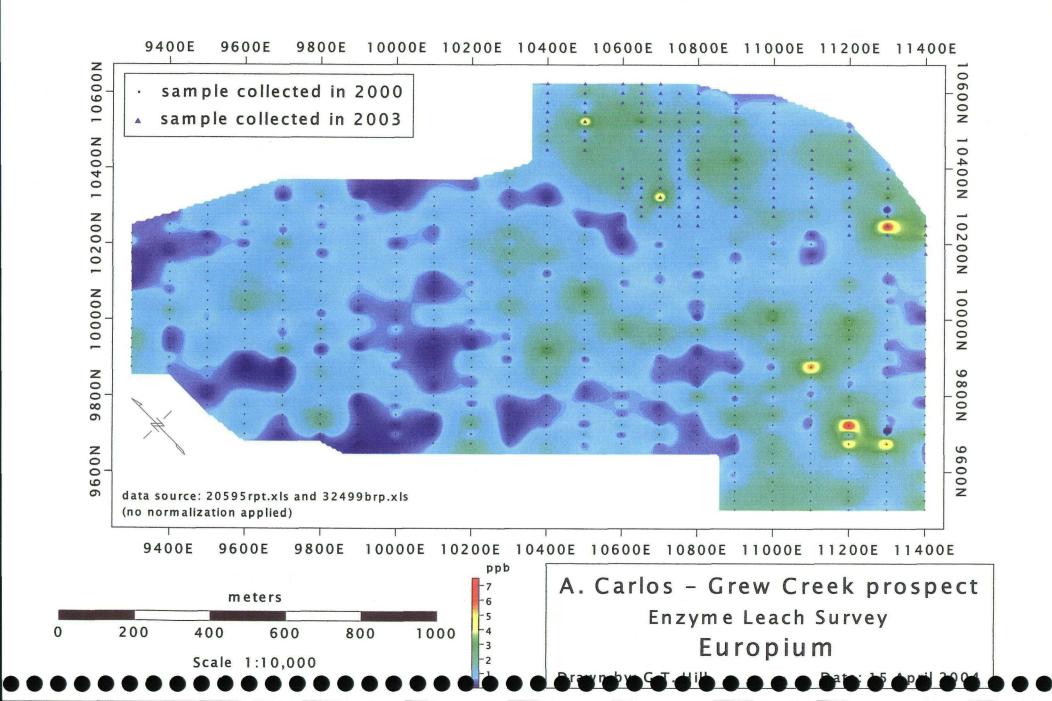


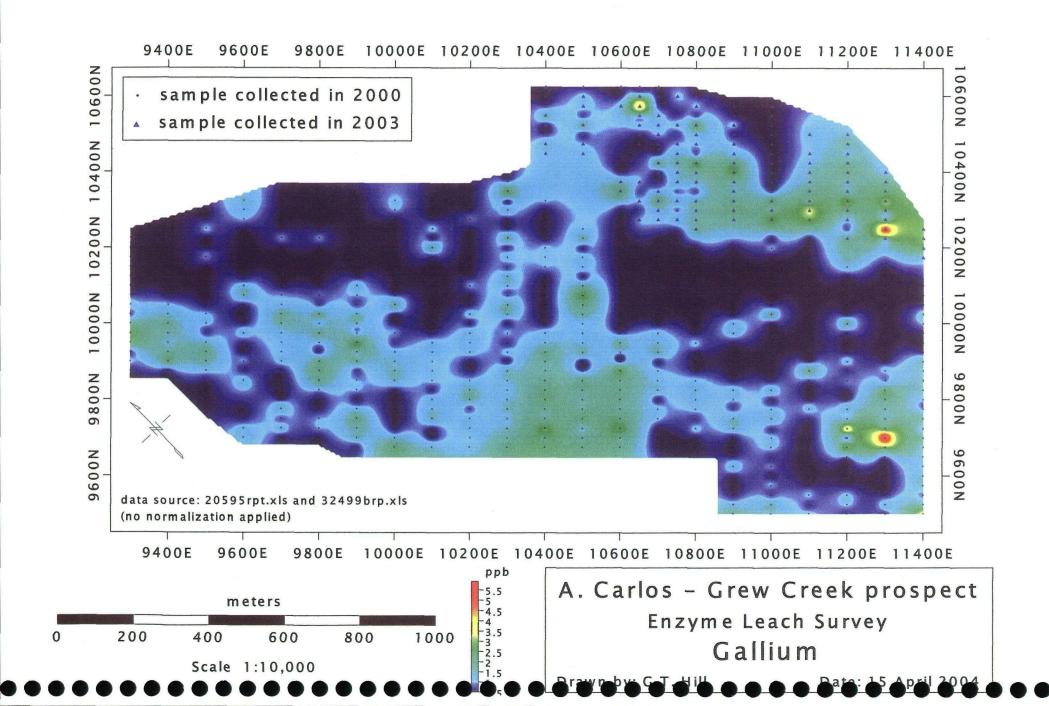


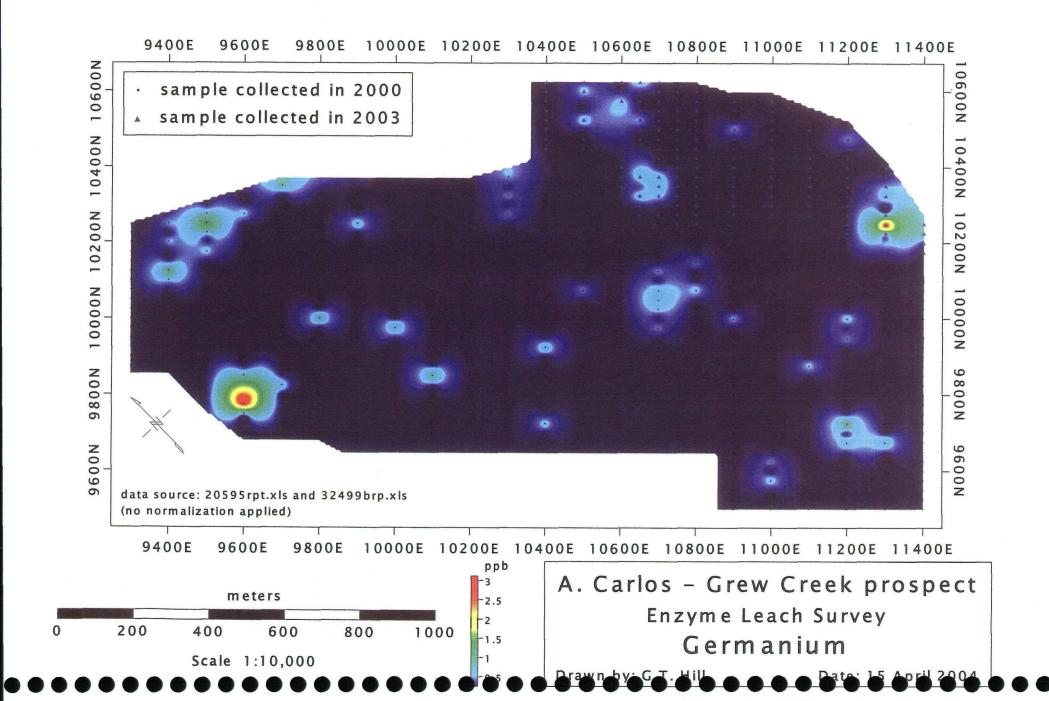


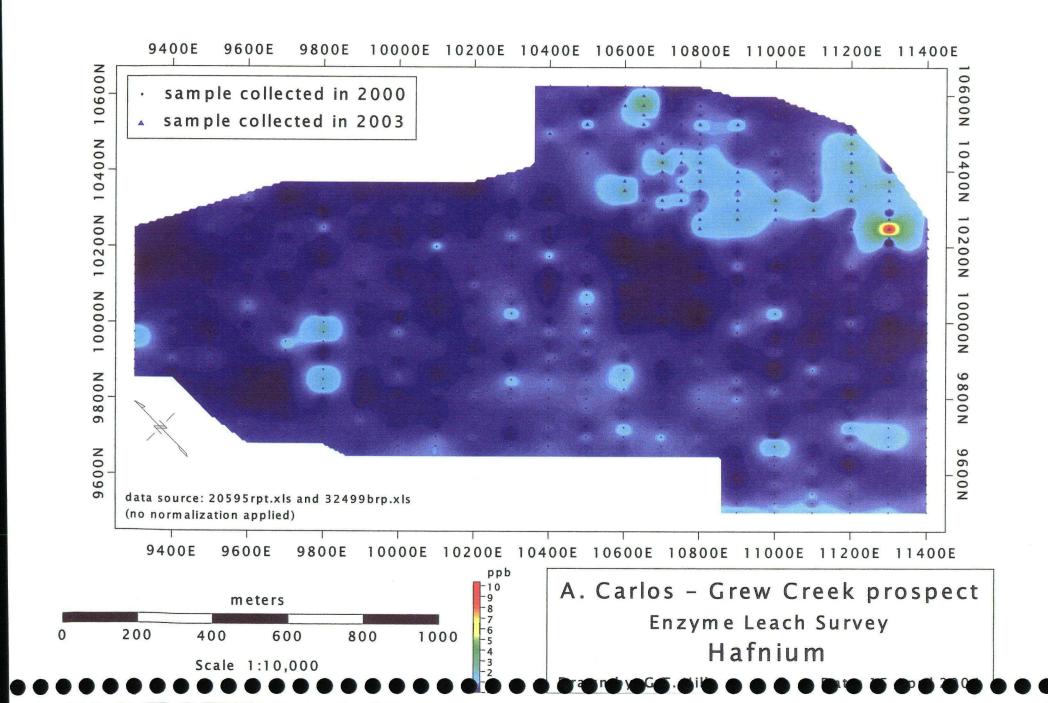


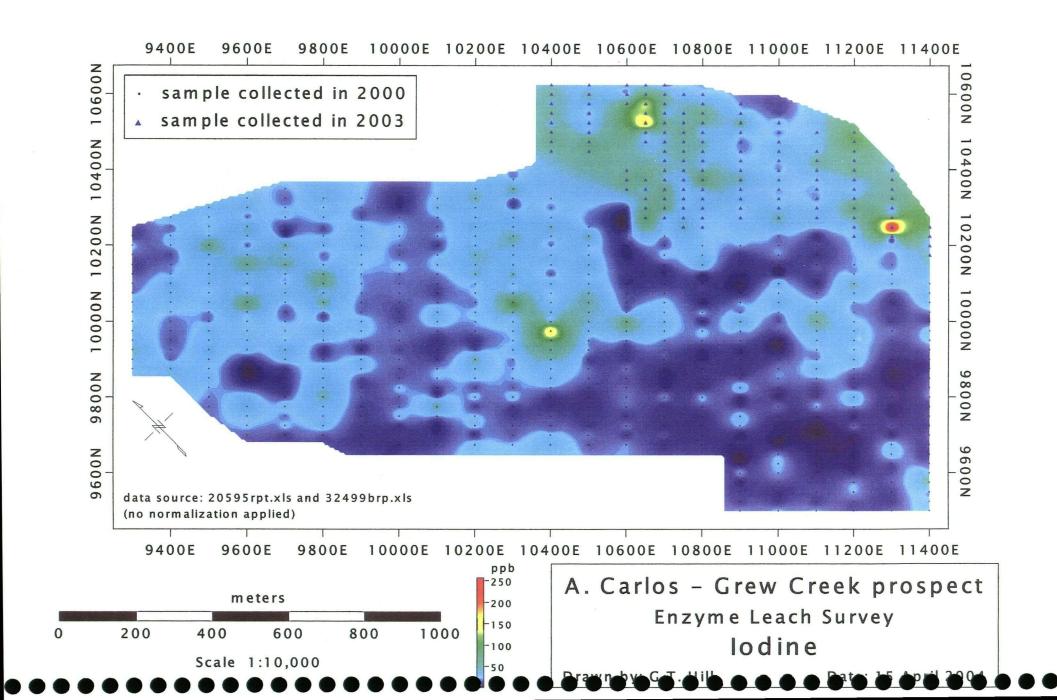


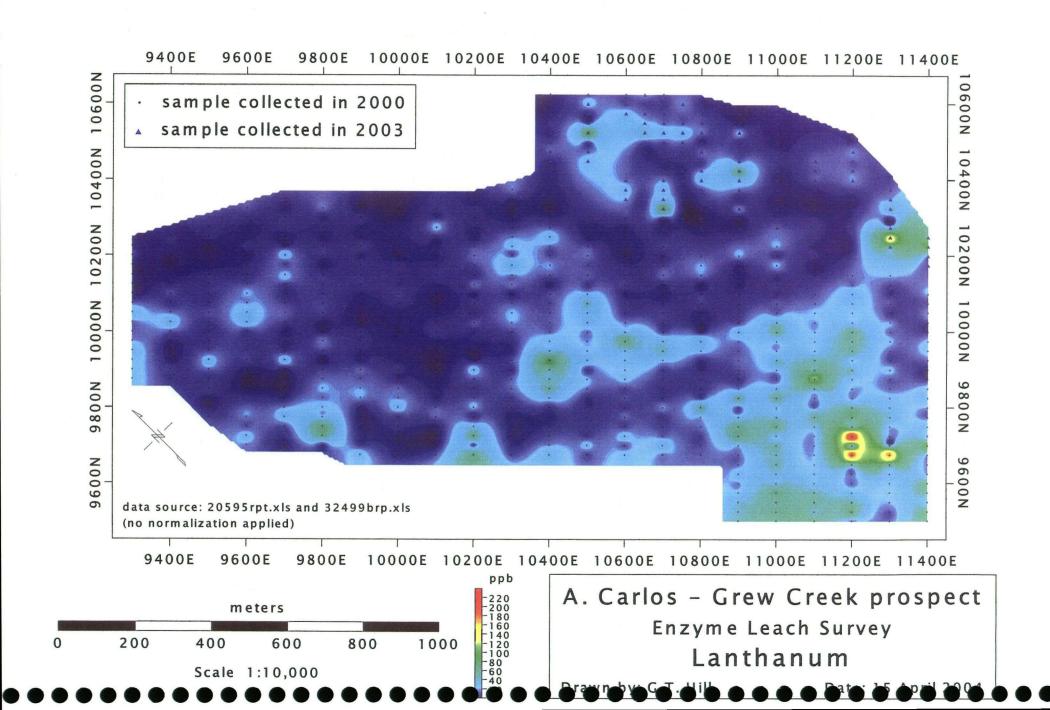


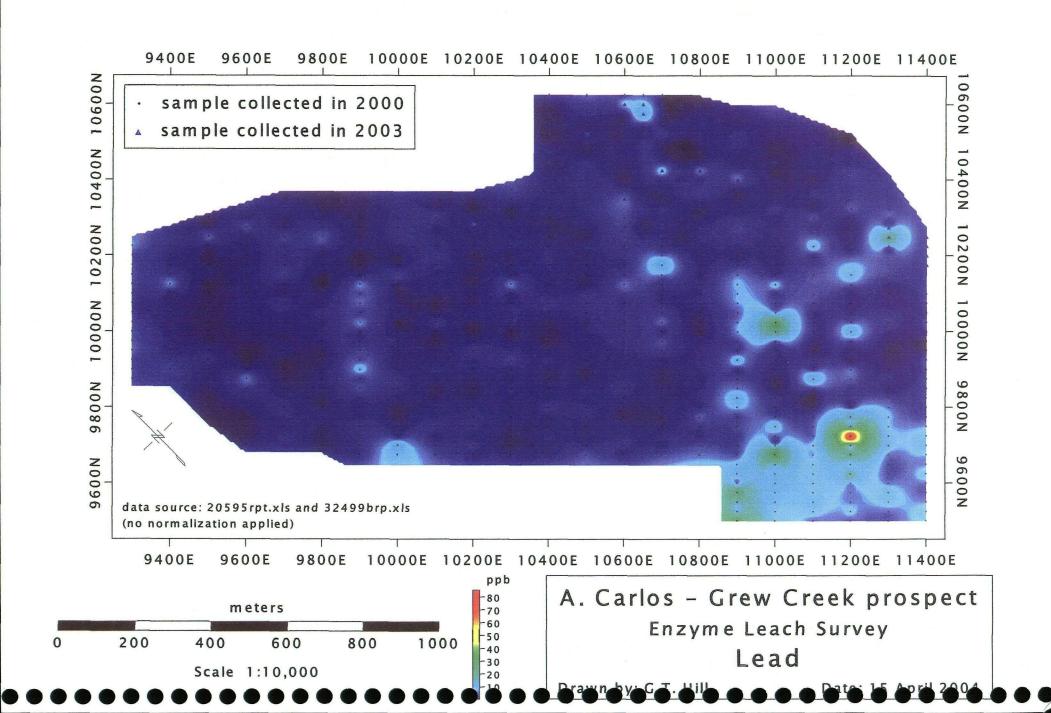


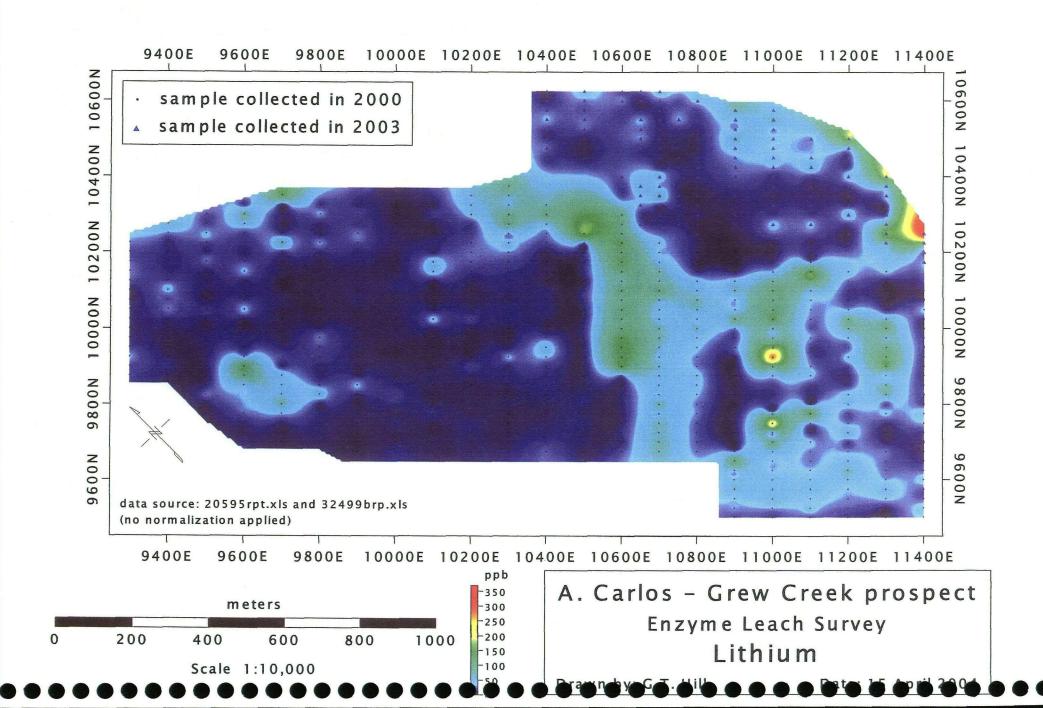


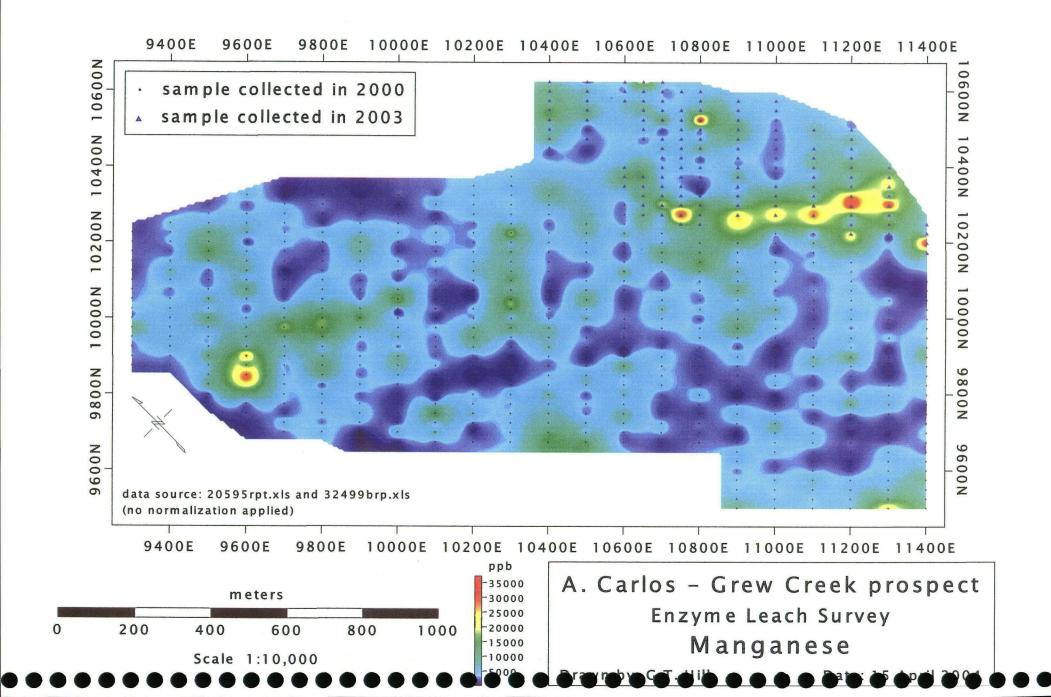


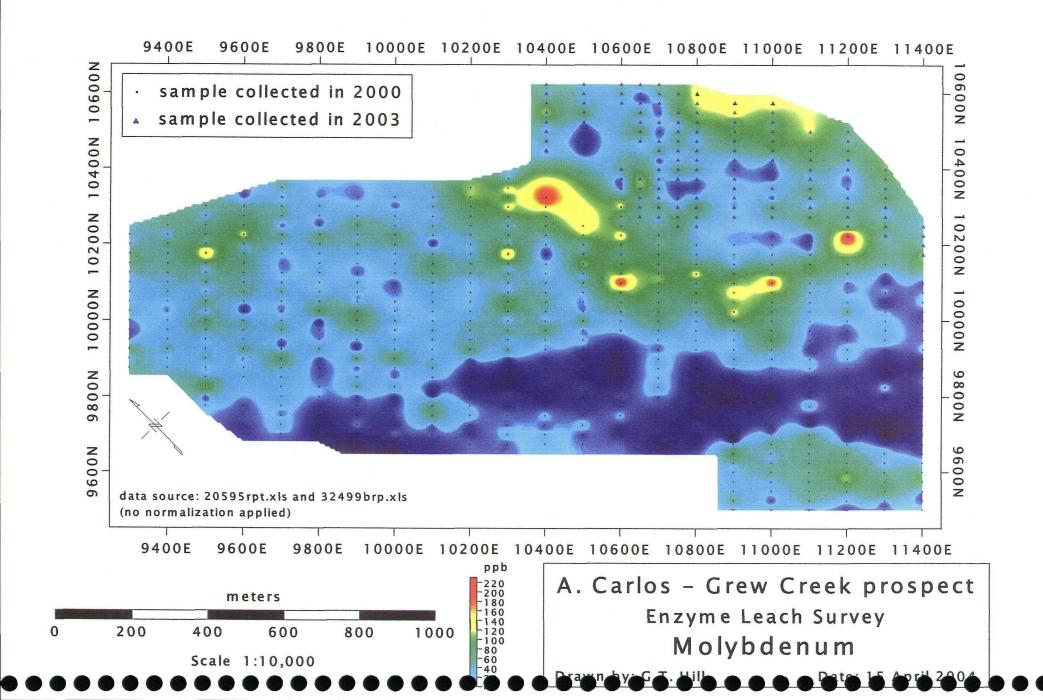


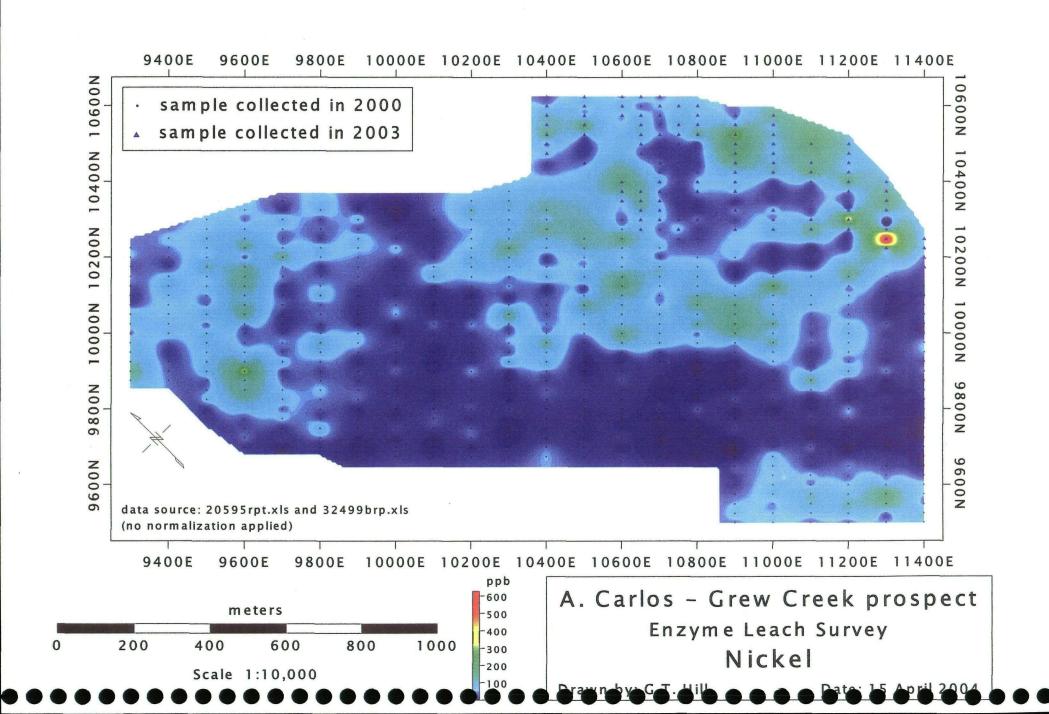


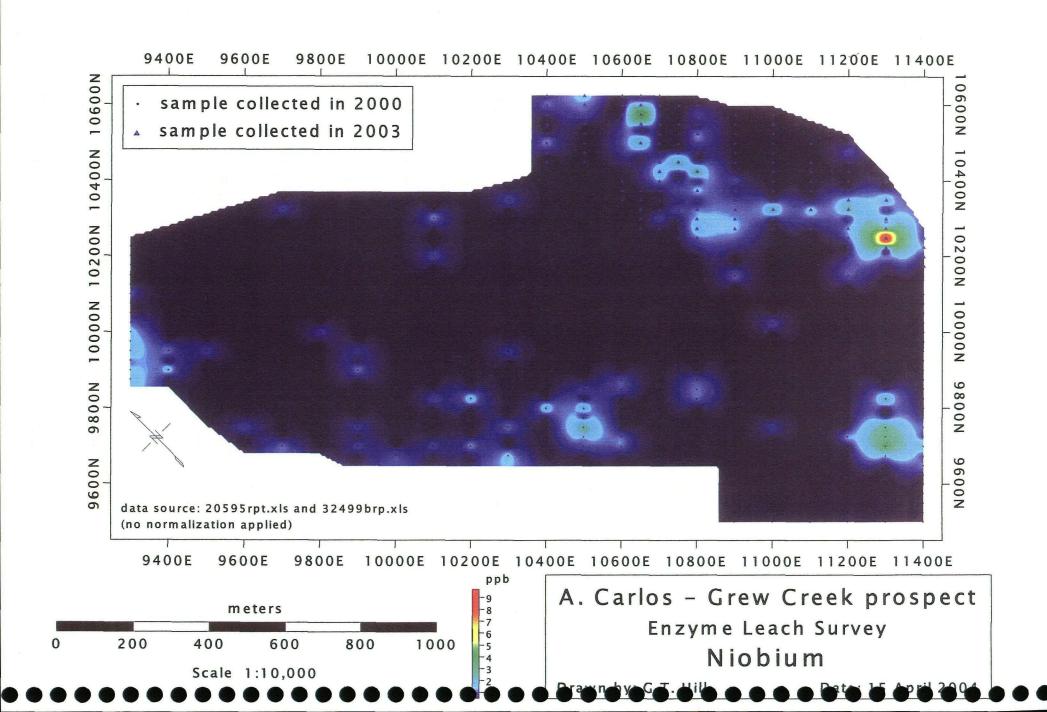


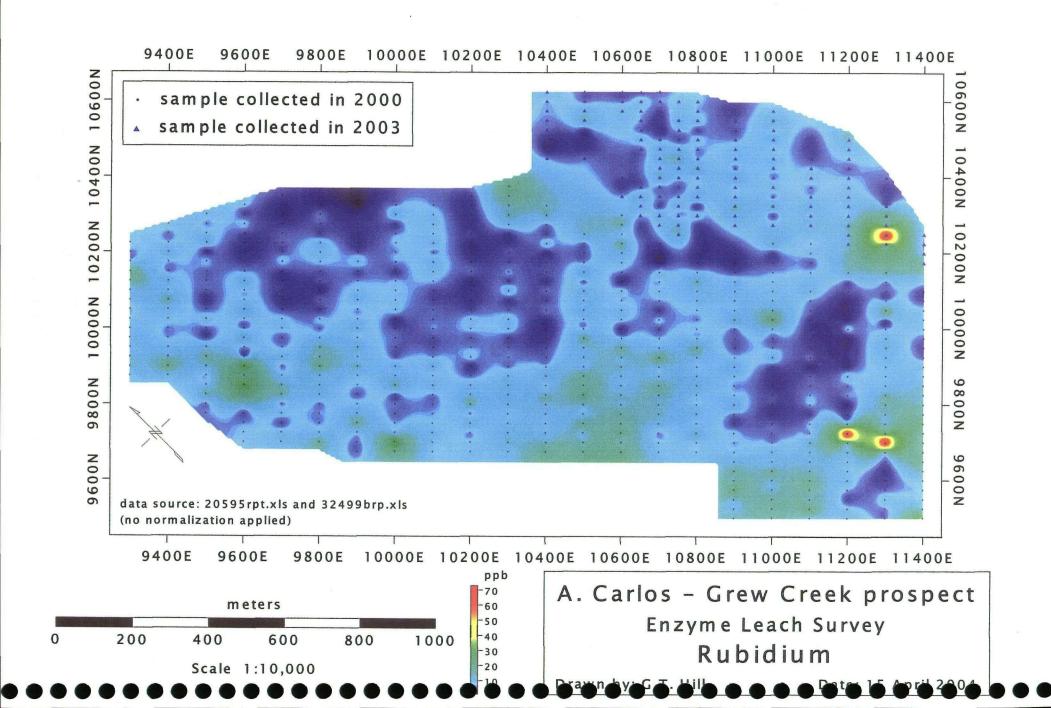


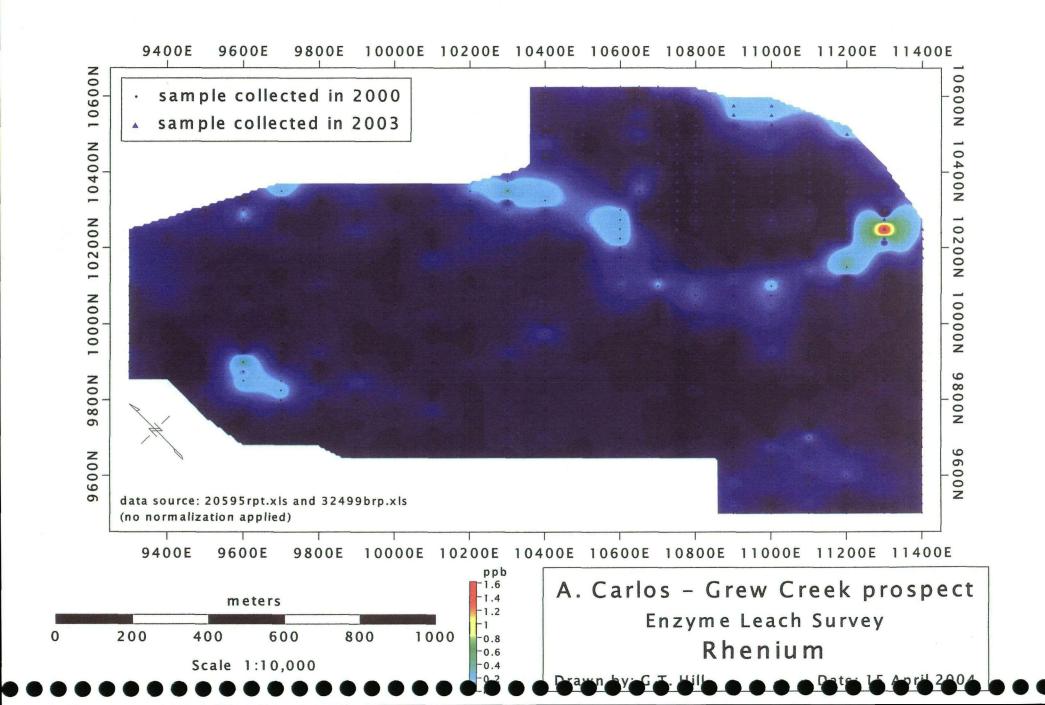


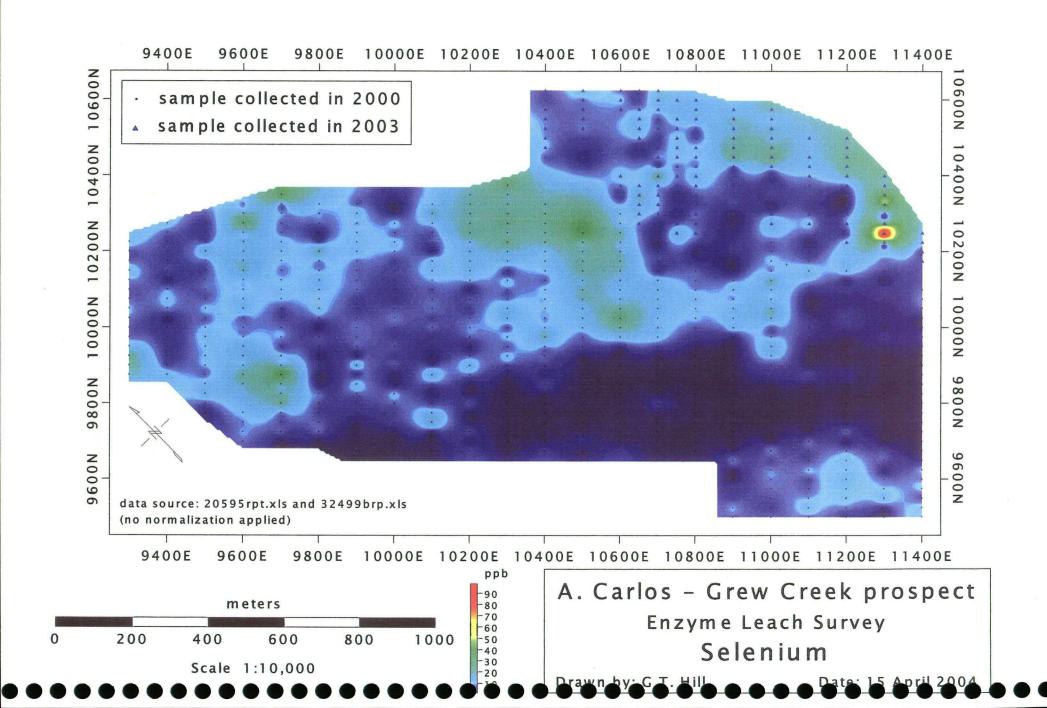


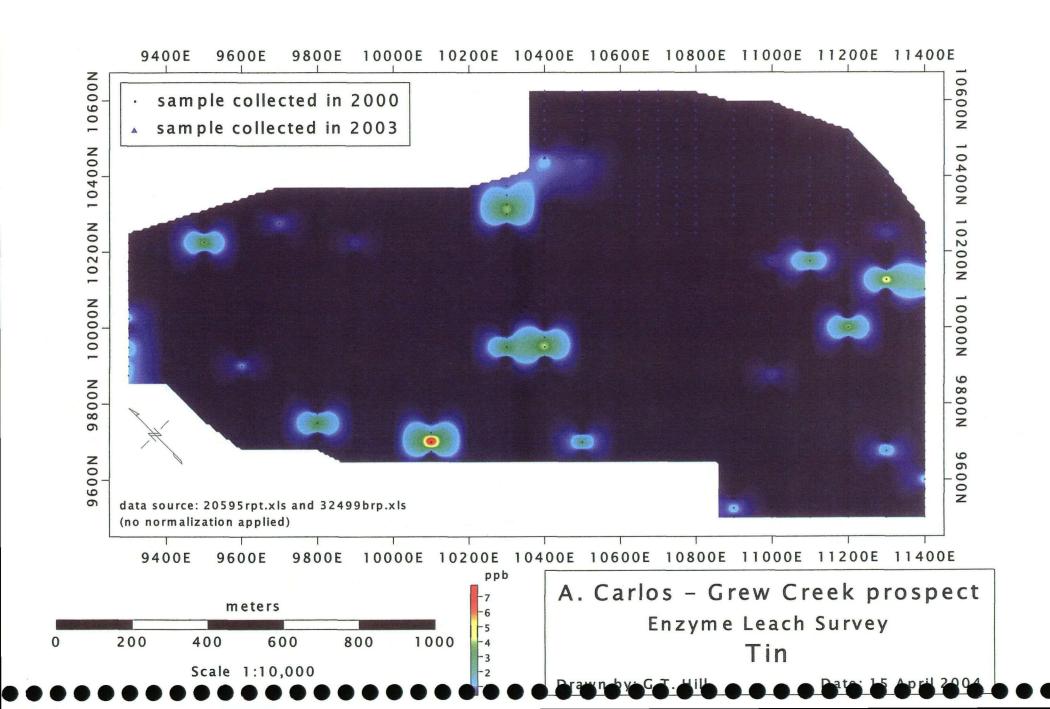


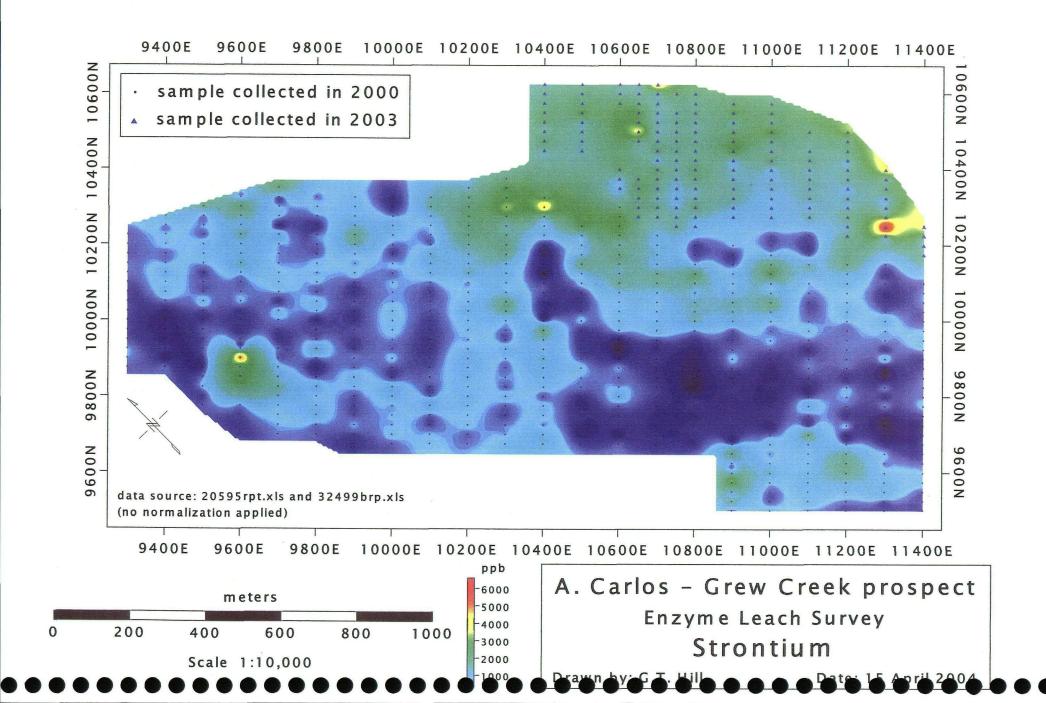


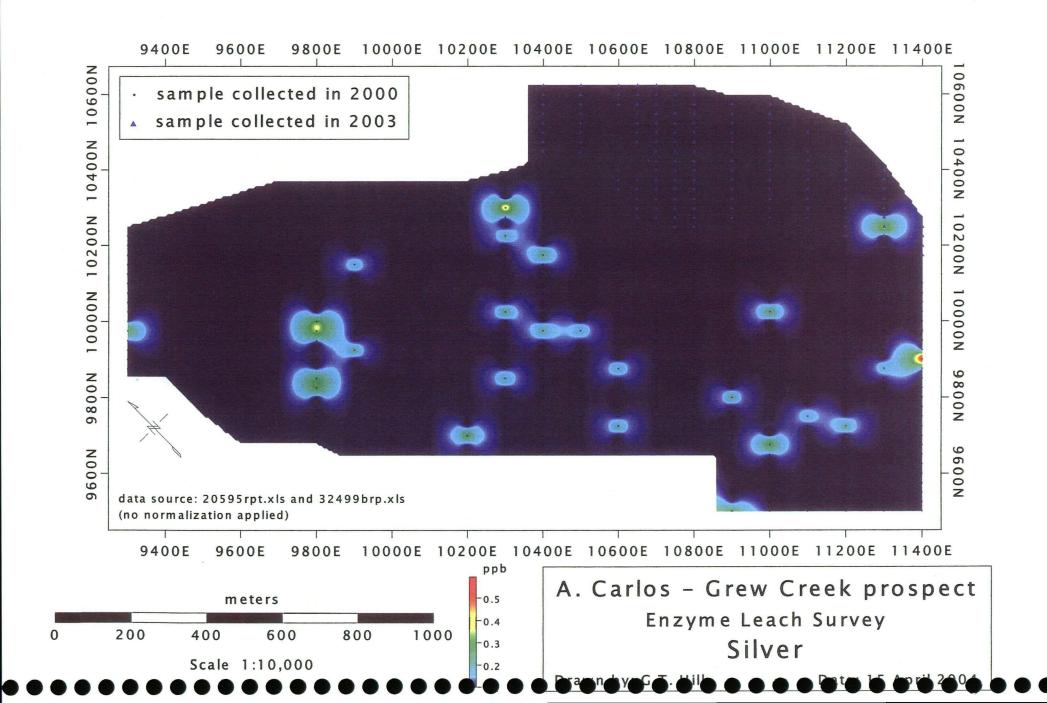


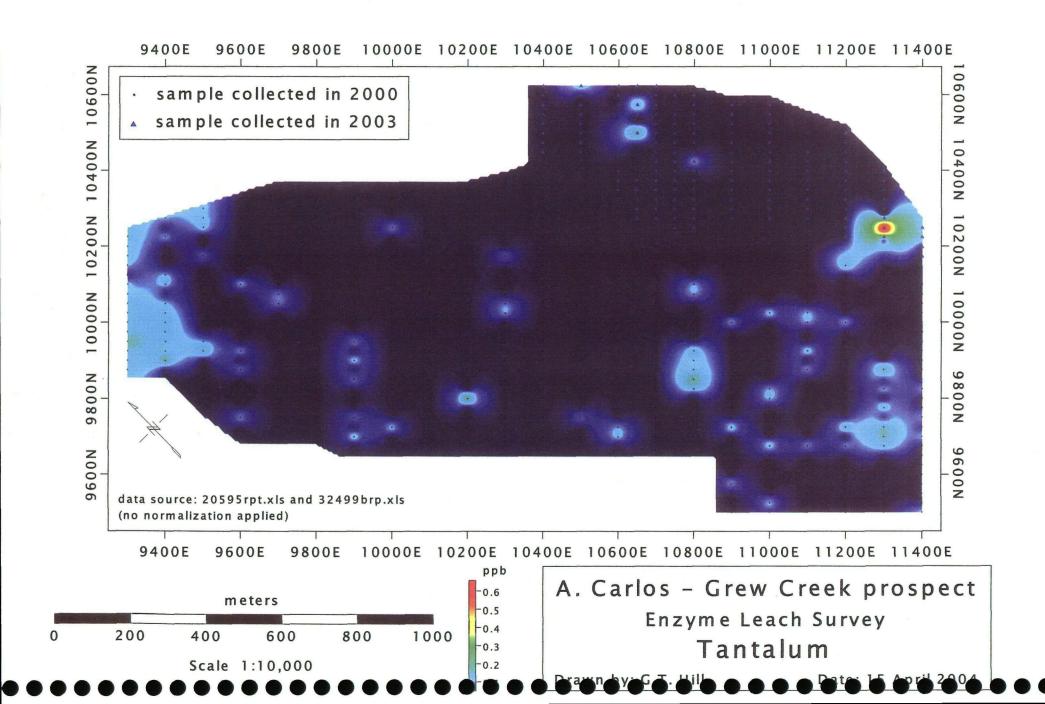


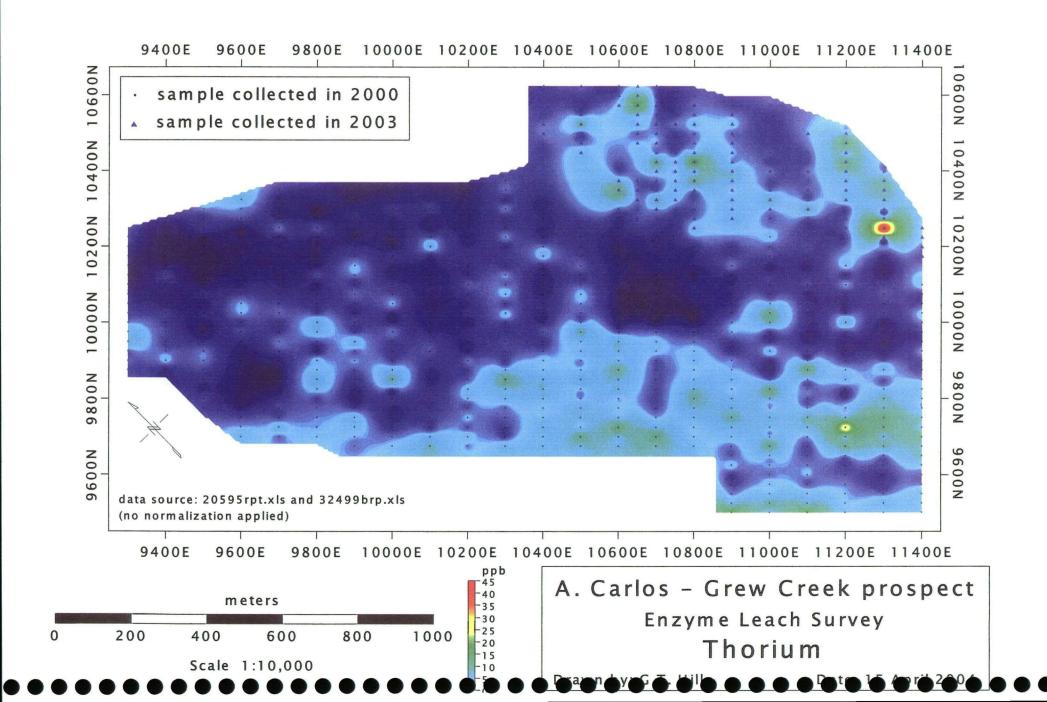


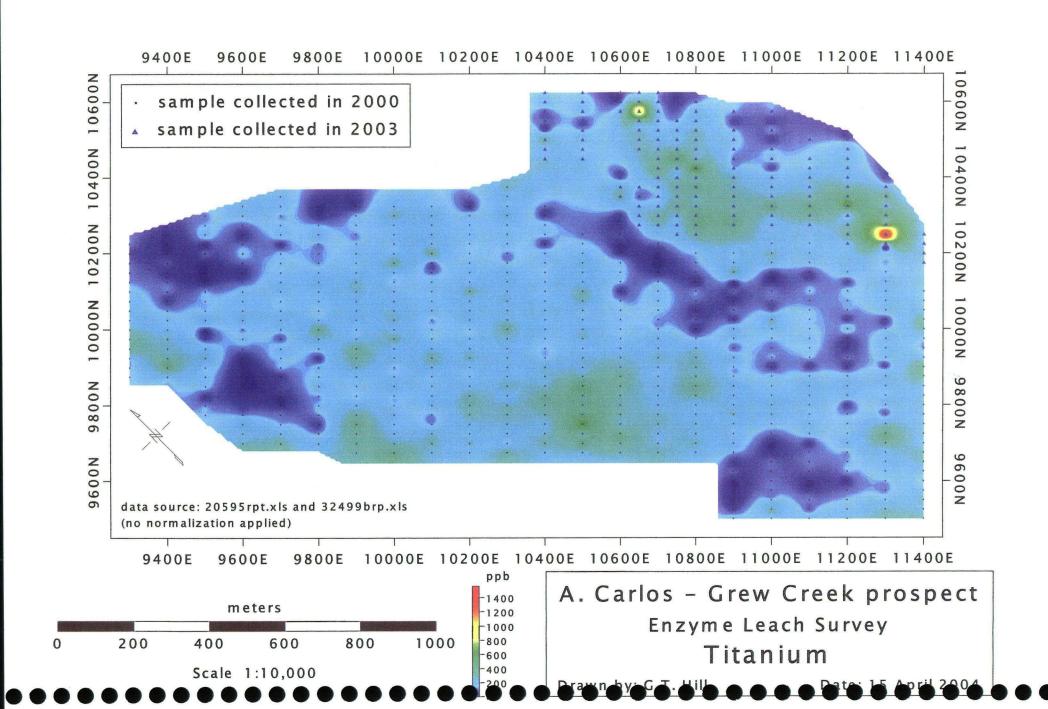


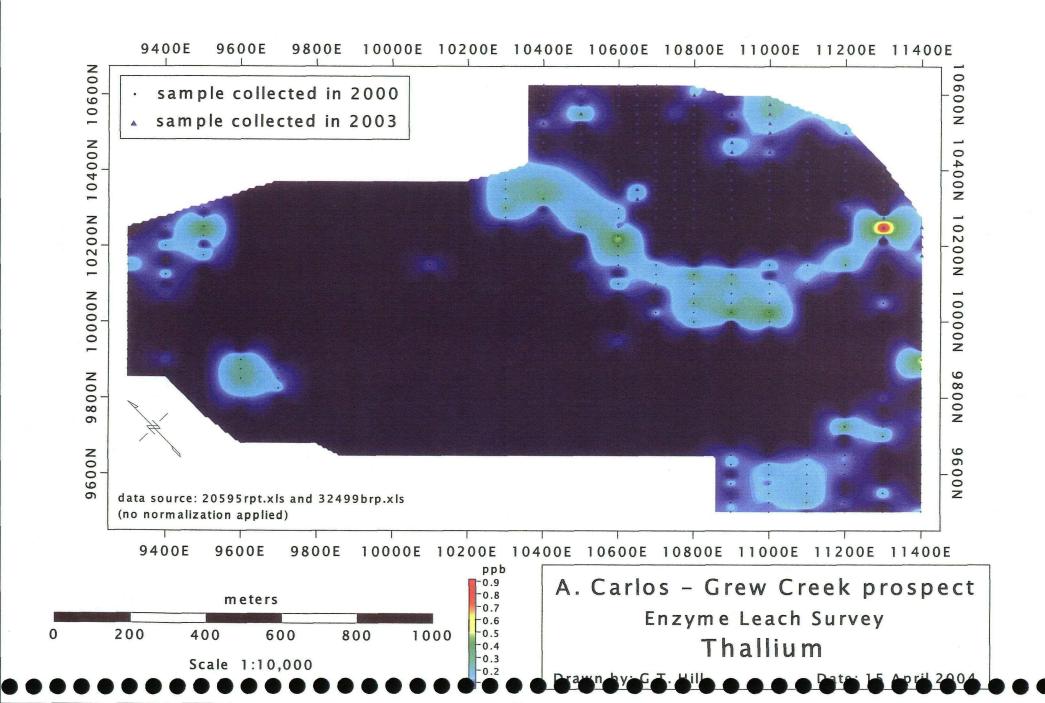


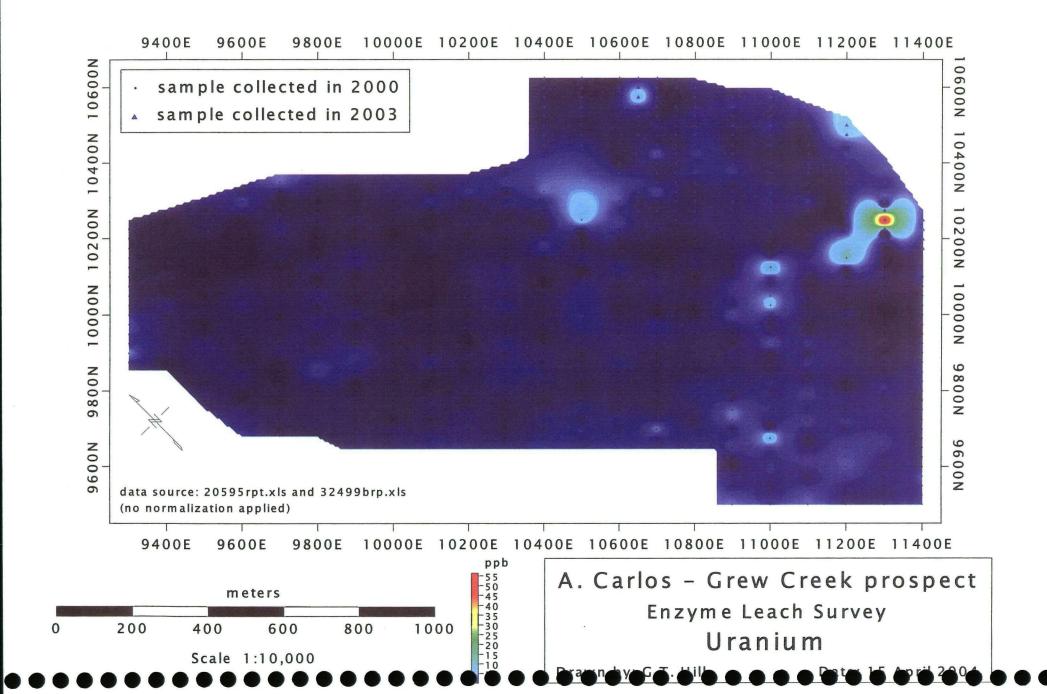


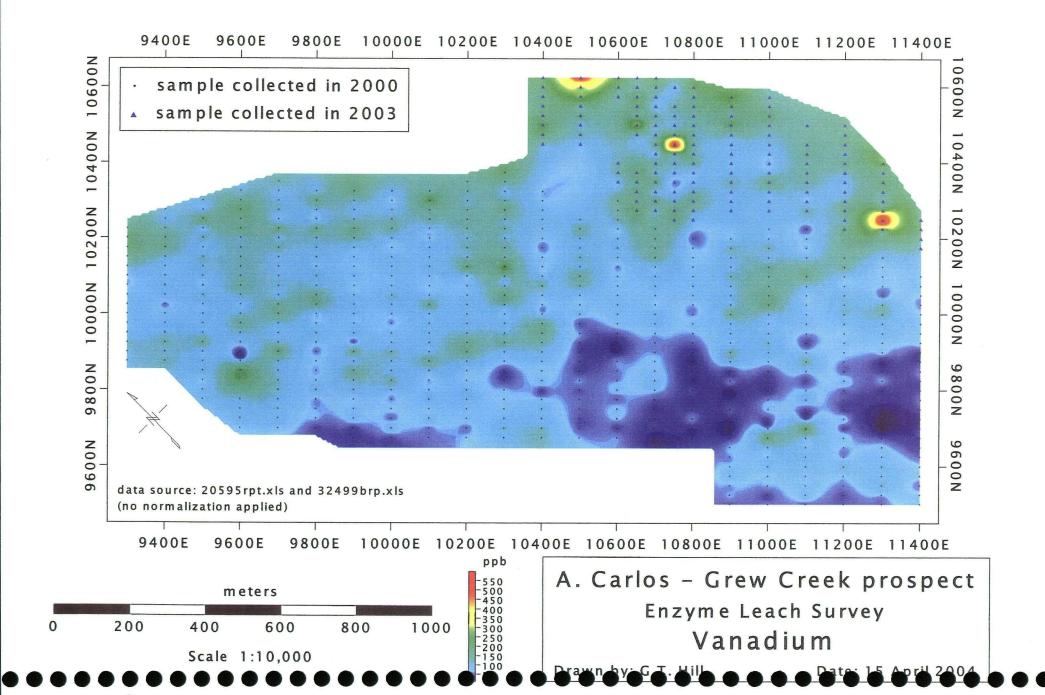


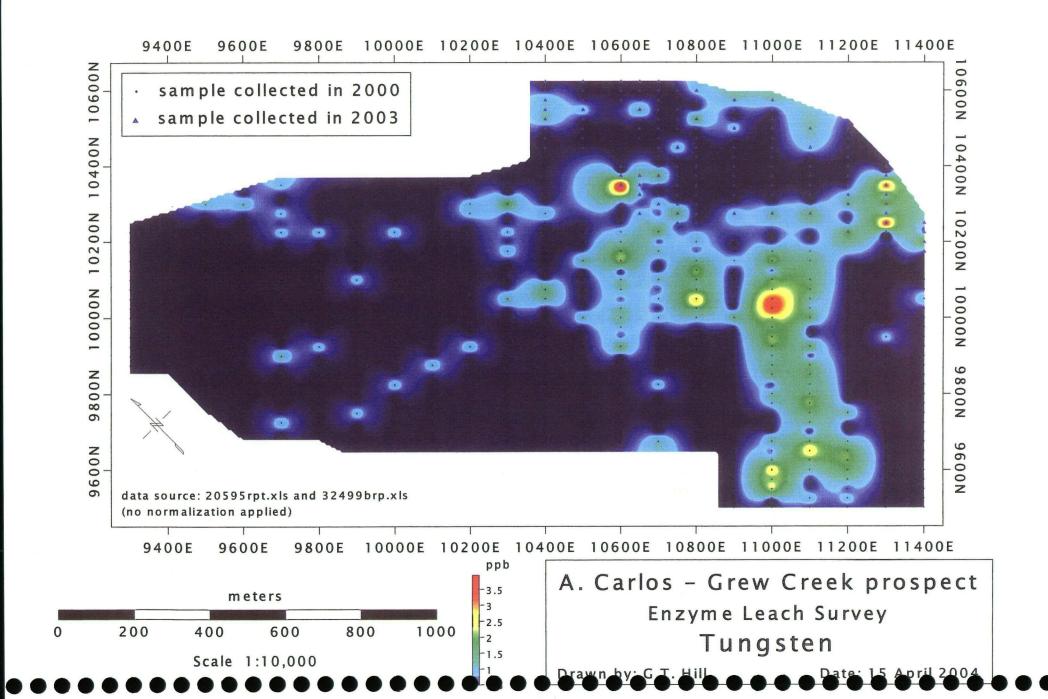


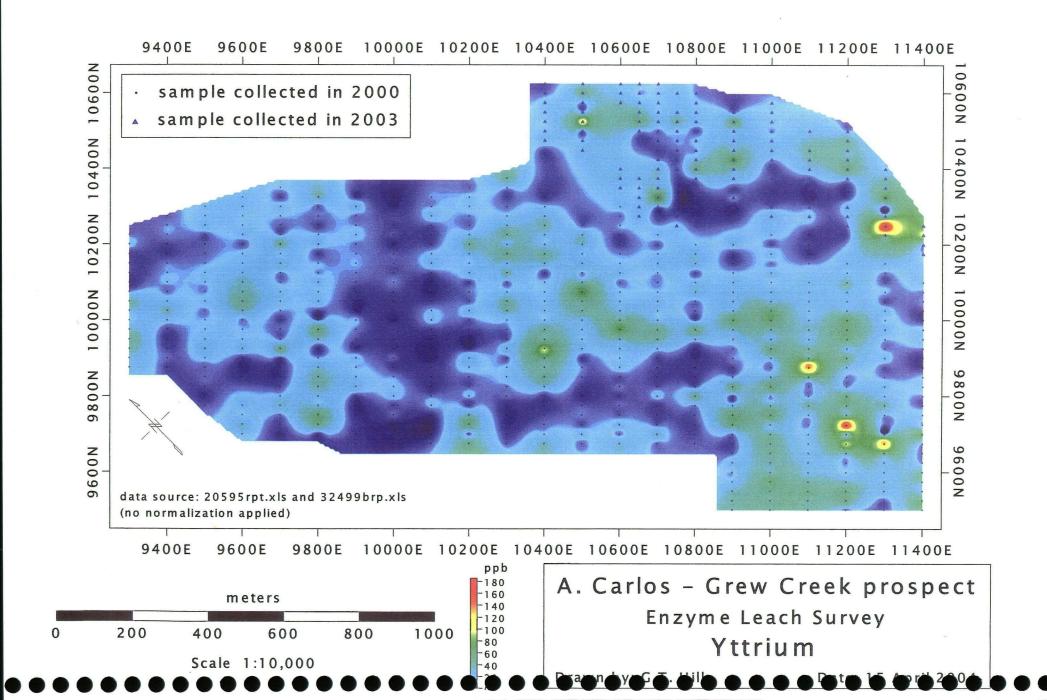


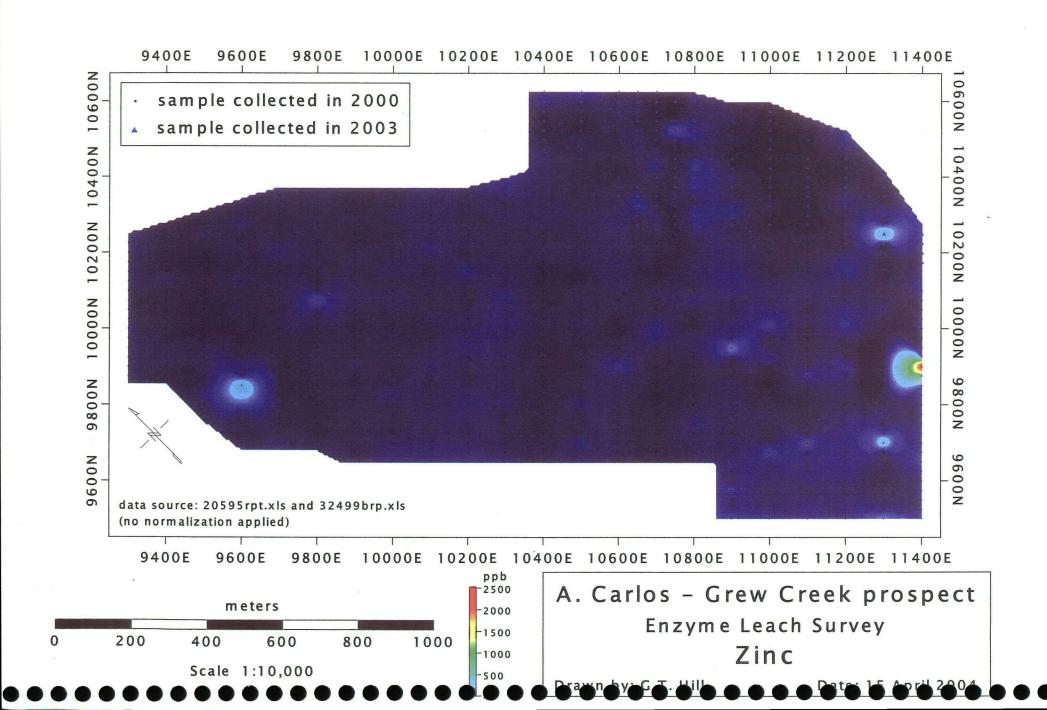


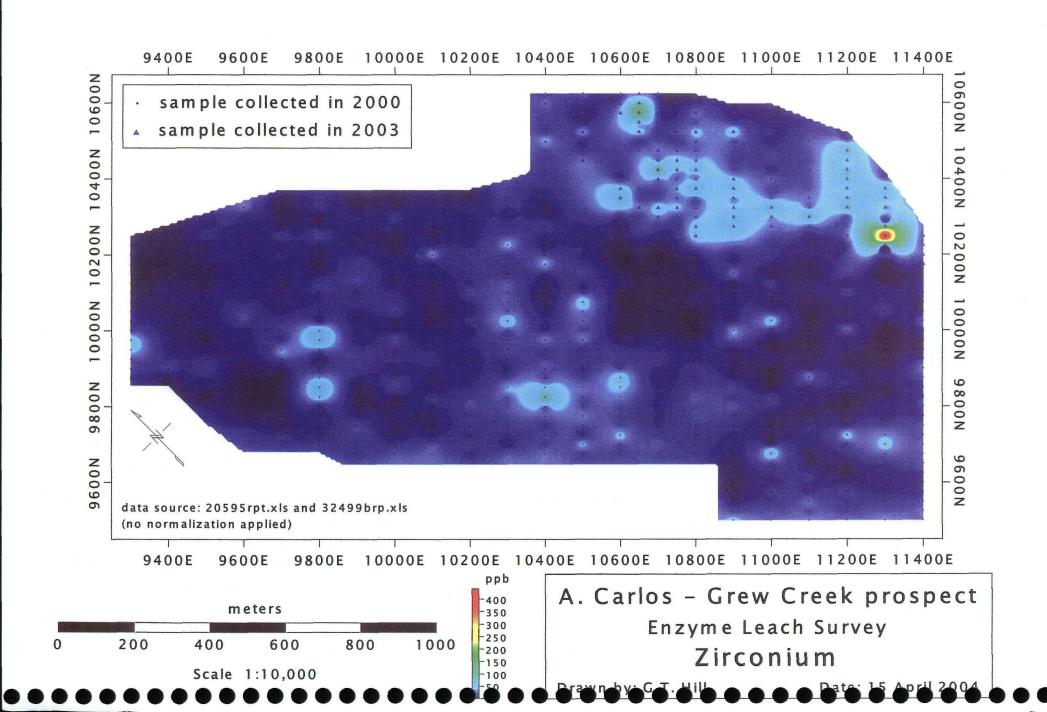














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