

**2003 TECHNICAL REPORT**

on work performed by  
**G Richards**  
and  
**D Bennett**

**As Partial Fulfillment of D Bennett's**  
**2003 FOCUSSED REGIONAL PROGRAM**  
under the  
**YUKON MINING INCENTIVES PROGRAM**  
**Number 03 – 068**

In the  
**SUMMIT AREA**  
**NTS 115P/01**

**January 13, 2004**

By  
**D Bennett**



## LOCATION, ACCESS & WORK PROGRAM

The following is a summary of work performed by G Richards and D Bennett in the Summit Area for 2003. Refer to Figure 1 for location of survey. The area was reached by helicopter in the evening of June 21 from a previous helicopter supported camp 20 km southwest of the Summit camp. Richards and Bennett demobed to Mayo by helicopter on the evening of June 27. On June 28, samples were dried, boxed and shipped from Carmacks. Gear was dried out and prepared for the next project.

Day	Date	Activity D Bennett	Activity G Richards
	June 21	Mob	Mob
1	22	soil sample	mag survey
2	23	soil sample	mag survey
3	24	soil sample	mag survey
4	25	soil sample	mag survey
5	26	soil sample	mag survey
6	27	soil sample, demob	mag survey, demob
7	28	drove Carmacks, shipped samples, sorted out gear.	

## GEOLOGY & PREVIOUS WORK

Previous work conducted under YMIP funded exploration outlined a doughnut shaped Cu-Pb-Zn anomalous geochemical anomaly centered on a pronounced hill four km southeast of Summit Lake. Flat lying quartz muscovite schist was mapped on the top of the hill with chlorite schists lower on the hill and graphitic shale along the base of the hill some 1000 feet below the summit. The present work was conducted to hopefully map magnetic mineralization and or marker horizons and to collect additional soil samples to better outline shape, intensity and size of the geochemical anomaly.

## WORK DONE

A grid was established on the targeted hill with two baselines, labeled A and B, each 1600 m long and oriented northeast about 840 m apart. Lines were run at 200-m interval. Stations at 20m interval were marked with flagging and labeled with a felt pen. See Figure 2. The grid was used to conduct a mag survey and for control of soil and bark samples in geochemical and biogeochemical surveys.

The mag survey was conducted with a Scintrex MP2 magnetometer. Two magnetometer readings were taken at each station in order to assure a relatively quiet

magnetic field. If electric storms were present or the earth magnetic field was changing rapidly for any reason, the survey was postponed. This happened on the first day and was avoided subsequently by conducting the remaining survey early in the day before late afternoon thunderstorms had a chance to build. Results were corrected for diurnal variation by a lengthy best-fit estimate and then plotted as shown on Figure 2. 57,000 gammas should be added to each reading to bring them to absolute values. 22,650 km of line were surveyed with a total of 22,650 stations.

Soil samples were collected as shown on Figure 2 by digging with mattock into till below a thin vegetative cover. About one kg of till was collected and placed into appropriately numbered gusseted kraft sample bags. A corresponding numbered flag was tied to a nearby tree. Rock type of nearby float and soil chips in the till sample pit was noted. Rock chip samples were collected from a few pieces of float by collecting from three to seven rock chips and placing them into numbered kraft sample bags and labeling a piece of flagging and tying to an adjacent tree. Biogeochemical samples were collected from bark on a white spruce or black spruce tree, four to eight inches in diameter. A paint scraper and paper plate were used to collect the bark which was placed into a numbered gusseted kraft sample bag. A numbered flag was hung from the tree. Biogeochemical samples were only collected if the ground was so frozen that till samples could not be collected. 68 till, 2 rock, and 26 bark samples were collected across the grid.

## RESULTS

Mag Results were discouraging. No strong anomaly was located. The results do not eliminate the potential for mineralization, only the lack of a magnetic response. Consecutive readings rarely exceeded 10 gammas with much less being most common. Two exceptions are in the northeast on lines A2 to A8 NE, southeast of the baseline, which were recorded on the first day of the survey late in the day and were probably affected by nearby thunderstorm activity. The second exception was in the valley at line A2 540, 560 and 580 SE and stations on adjacent lines. No thunderstorm activity was present during these readings but the response is so muted that it is hard to place too much significance on these results. Readings are at best 30 gammas above adjacent station readings and could be related to mineralization at depth.

Geochem results were somewhat more encouraging than the mag results. Anomalous results for both till and bark samples are shown on Figure 2 and Zn values in tills of >100 ppm Zn contoured as shown. Also shown on this map is the approximate contact between quartz muscovite schist, (QMS), and underlying chlorite quartz muscovite schist. The outcrop on top of the hill of QMS displays overturned flat-lying folds with fold axis trending 085/360 and 072/10+W. The zone of anomalous Zn in tills occurs in chloritic schists over a strike length of over two km. Although the results are not extremely high dilution by the high till content must be taken into account. Biogeochem samples support this pattern but a different suite of elements (Cu-Pb-Ag) is used, as Zn is an unreliable element in biogeochemistry due to its erratic and common uptake as a nutrient in most plants. Minor disseminated pyrite was noted in angular chips in tills at the northwest end of lines 0 and 2SW. Several large quartz boulders, up to two m long, were noted along baseline B 600SW and 960SW in the general area of highest geochem results. The highest Zn values occur at P166 (1212 ppm Zn) and P172 (666 ppm Zn).

#### CONCLUSIONS & RECOMMENDATIONS

A geochemical anomaly, (Zn-Pb-Cu), apparently related to stratigraphy occurs over a strike length of over two km. This could be related to VMS mineralization. No strong magnetic response was recorded anywhere on the survey.

Detailed prospecting should be conducted over the area of the contoured Zn anomaly, particularly in areas of the best results. Regional prospecting along this same horizon should also be considered.

Respectfully yours



Dave Bennett



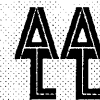




SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S	Rb	Hf	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm
G-1	1.7	4.5	20.5	54	<.1	5.0	3	709	2.24	3	3.4	<.1	6.9	717	<.1	.1	.4	47	2.86	.101	20.4	12.4	.63	1023	.266	7.47	2.586	3.02	2.1	8.6	40	1.6	13.8	20.4	1.4	2	5	31.5	<.1	95.6	.8	
Q101	.6	18.3	23.3	106	.1	21.9	8	212	3.56	7	2.2	<.1	9.1	103	<.1	2.9	.2	102	.25	.030	17.9	83.4	.61	1263	.330	7.53	.895	3.70	2.5	68.0	38	3.5	3.5	13.3	.9	2	8	24.7	.1	101.2	2.5	
Q102	.5	24.5	16.6	118	<.1	27.0	9	307	3.51	9	1.6	<.1	8.4	156	.1	3.8	.2	112	.53	.040	35.1	83.9	.89	1284	.280	7.85	1.556	2.63	1.3	31.0	62	2.1	7.8	8.6	.5	2	11	25.6	<.1	93.9	1.2	
STANDARD DST5	13.8	140.5	29.0	167	.4	30.7	14	1004	4.17	22	6.2	<.1	5.9	356	5.0	6.5	6.2	127	2.26	.107	23.7	227.1	1.24	644	.416	6.81	1.716	1.30	10.5	45.0	46	6.4	13.3	7.9	.6	3	12	24.7	<.1	49.9	1.7	

Sample type: TILL S150.





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GEOCHEMICAL ANALYSIS CERTIFICATE

Richards, Gordon PROJECT SUMMIT File # A303596
6410 Holly Park Drive, Delta BC V4K 4W6

Table with columns: SAMPLE#, Mo, Cu, Pb, Zn, Ag, Ni, Co, Mn, Fe, As, U, Au, Th, Sr, Cd, Sb, Bi, V, Ca, P, La, Cr, Mg, Ba, Ti, B, Al, Na, K, W, Sc, Tl, S, Hg, Se, Te, Ga. Rows include samples P11, P165, P167, P169, P170, P171, P184, P187, P223, Q65, Q66, Q67, Q68, Q69, Q70, RE Q70, Q72, Q73, Q80, Q81, Q83, Q84, Q85, Q86, Q87, Q88, Q96, and STANDARD V6.

GROUP 1VE - 1.000 GM SAMPLE LEACHED WITH 2 ML HNO3 FOR ONE HOUR, THEN 6 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 20 ML, ANALYSED BY ICP/ES & MS. UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM. - SAMPLE TYPE: BARK Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 21 2003 DATE REPORT MAILED: Sept 8/03 SIGNED BY: C. Leong TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



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# GEOCHEMICAL ANALYSIS CERTIFICATE



## Richards, Gordon PROJECT SUMMIT File # A303597

6410 Holly Park Drive, Delta BC V4K 4W6

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S	Rb	Hf				
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SI	.6	3.0	14.7	19	.1	<1	<1	5	.12	2	.4	<1	.4	160	<1	1.0	.1	2	6.96	.008	2.4	8.7	.20	148	.006	.94	9.185	.19	2	90.7	4	2.7	3.0	.4	<1	<1	<1	3.3	.2	2.8	2.5				
P162	.2	4.2	14.2	16	<1	8.2	6	504	1.17	2	.5	<1	5.3	96	.1	.1	.2	23	.97	.008	5.7	19.9	.19	255	.034	2.65	.867	.57	.3	8.6	15	.7	2.8	.3	<1	<1	2	2.6	.2	24.1	.3				
P198	.3	5.0	7.0	22	<1	9.3	5	180	1.21	7	.6	<1	4.1	30	<1	.4	.1	16	.07	.015	7.1	14.4	.22	164	.035	2.02	.185	.62	.4	8.5	15	.3	2.2	.7	<1	<1	1	9.0	.1	29.8	.3				
STANDARD DST5	12.4	150.1	26.6	163	.4	30.1	15	1056	4.22	21	6.3	<1	6.0	348	4.9	6.2	5.3	118	2.23	.103	25.6	230.2	1.20	652	.417	6.92	1.736	1.28	10.1	44.4	50	6.1	13.9	7.6	.5	2	12	22.0	<1	49.1	1.5				

GROUP 1EX - 0.25 GM SAMPLE DIGESTED WITH HClO4-HNO3-HCL-HF TO 10 ML. UPPER LIMITS - AG, AU, W = 200 PPM; MO, CO, CD, SB, BI, TH & U = 4,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM. DIGESTION IS PARTIAL FOR SOME MINERALS & MAY VOLATIZE SOME ELEMENTS, ANALYSIS BY ICP-MS.  
 - SAMPLE TYPE: ROCK R150

DATE RECEIVED: AUG 21 2003

DATE REPORT MAILED: *Sept 3/03*

SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

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**SUMMIT PROJECT**  
Figure 3 Geochem + Magnetometer Survey  
115 P/01 Jan/04

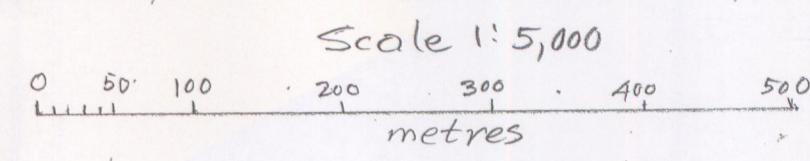
- Spruce Bark Sample
  - Till sample
- Anomalous Results
- $\geq 4 \text{ ppm Cu} / \geq 6 \text{ ppm Pb} / \geq 30 \text{ ppb Ag}$
  - $\geq 30 \text{ ppm Cu} / \geq 30 \text{ ppm Pb} / \geq 100 \text{ ppm Zn}$

57,000 to be added to results as plotted.

20 m station interval

Grid located by GPS with hip chain & compass control.

C chert  
CM chert muscovite  
GMS qtz muscovite schist  
Q big quartz boulders 7.5 m



> 100 ppm Zn in soils

generalized geologic contact between quartz muscovite schist and schist with common chert.

