86-613-15127

GEOLOGICAL, SELF POTENTIAL AND GEOCHEMICAL SURVEY OF THE JEN CLAIM GROUP

CARIBOO MINING DIVISION

NTS 93 G 14 W

53° 53' 123° 26'

Owner and Operator Colin Campbell

Author: C. J. Campbell October 18, 1986

TABLE OF CONTENTS

ILLUSTRATIONS

1.0 SUMMARY

The Jen Claim Group, comprised of 60 units, is located between 50 and 57 kilometres west of Prince George, B.C. The claims were staked by the writer during the summer of 1984 following the finding of anomalous gold values in soil near a road cut on Highway 16.

The Jen Claim Group is underlain by pyritiferous argillite and greenstones of the Cache Creek Group. An area of Listwanite underlies the central part of Jen #1.

This is a report on work conducted during 1985 consisting of geological mapping at a scale of 1:5000, petrography, a geochemical survey of 225 soil samples which located one new gold soil anomaly and extended two previously known anomalies and an 8.5 kilometre self potential survey which located three anomalies.

A coincidental self potential anomaly and gold soil anomaly warrants further work.

2.0 INTRODUCTION

The Jen Claim Group is located on the Interior Plateau of British Columbia between 50 and 57 kilometres west of Prince George. Access to most of the Claim Group is from Highway 16 which cuts across the claims from southeast to northwest (Figure 1). several old roads and the Bobtail Forestry access road give ready access to the remaining portions of the claims.

The Jen Claims were staked during 1984 by Colin Campbell following a prospecting program which included soil sampling targets with ready access.

During 1984 and early 1985 a grid was established over the area of interest, a preliminary geochemical and a ground magnetometer survey were completed and a report was submitted and approved for assessment purposes (Campbell 1985). The results of this initial work were encouraging and during the fall of 1985 further work consisting of an 8.5 kilometer self potential survey,a soil survey at 50 metre intervals along grid lines, rock chip sampling and two days of geological mapping was conducted.

The three mineral claims (60 units) in the JEN CLAIM GROUP were grouped July 19, 1985. They are:

Claim Name	Record No.	No. of Units	Anniversary Date
Jen #1	6266	20	July 20, 1988
Jen #2	6465	20	Sept.14, 1988
Jen #3	6466	20	Sept.14, 1988

2.1 GEOLOGY, TOPOGRAPHY AND VEGETATION

H. W. Tipper of the Geological Survey of Canada on Map 49-1960 shows the Jen Group of claims to be underlain by Permian rocks of the Cache Creek Group; he also mapped an assumed fault near the east end of Cluculz Lake. The Pinchi Fault occurs some six miles to the east. The most important rocks, in an economic sense, appear to be carbonate-altered andesites. Boulders and outcrops of quartz-ankerite-mariposite and pyrite (listwanites) occur on the central part of the Jen #1 M. C. Black pyritiferous argillite is exposed in the Lake Road Cut. It appears to be underlain by a sometimes layered, crystal tuff of andesitic composition which weathers to a brown colour. Quartz veins up to 1 foot wide by 20 feet long containing calcite, muscovite and pyrite occur in the Highway 16 road cut. Areas between these quartz veins are often altered to ankerite, sericite and small quartz veinlets; these areas of alteration contain the best gold values.

The Jen Claim Group covers part of the Interior Plateau and has gentle relief between 2500 and 3000 feet above sea level. Most of the claims are well drained hosting pine, Douglas Fir, Spruce and poplar; however locally, poor drainage and northern slopes have dense growth of alder, willow and balsam. A large steep banked melt water channel curves between the east end of Cluculz Lake and the west end of Bednesti Lake (GSC Map 12 88A).

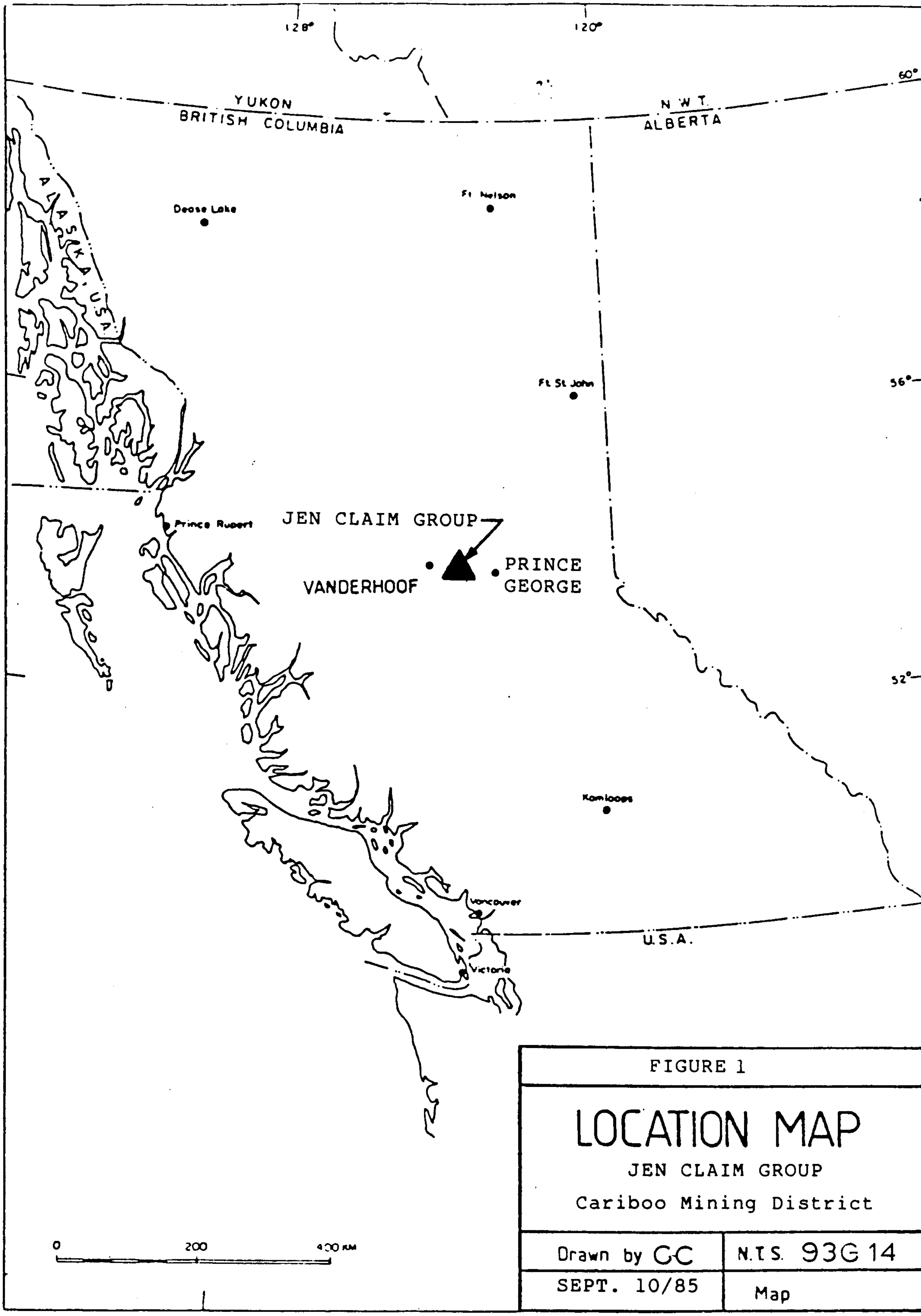

FIGURE 1

LOCATION MAP

JEN CLAIM GROUP

Cariboo Mining District

Drawn by GC	N.T.S. 93G 14
SEPT. 10/85	Map

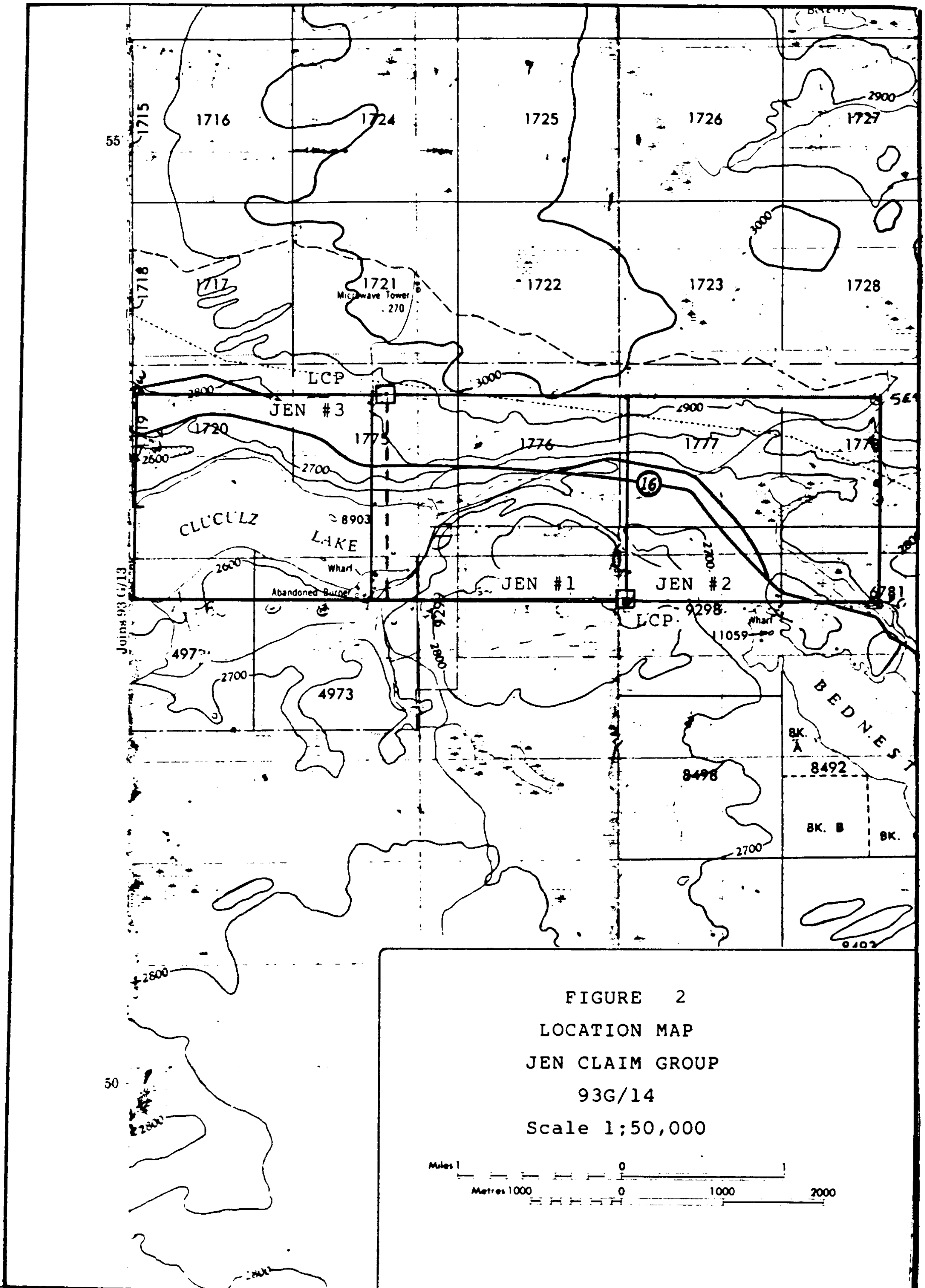

FIGURE 2
LOCATION MAP
JEN CLAIM GROUP
93G/14
Scale 1;50,000

Figure 2

3.0 PROPERTY GEOLOGY

Two days were spent in the field mapping outcrops not previously noted and two days were spent in the office examining and reporting on eight thin sections (Appendix D).

The results of the field mapping are on Geological Map J86-1.

3.1 Rock Units

A. "Greenstones"

These consist of altered fragmental and flow rocks of andesitic to basaltic composition and includes dense green to black carbonate rich rocks that may be serpentinites they occur as small outcrops on Highway 16 to the north of Line 6W. I also include the Dolomitic Tuff JT 111-R, JT 114-R, and Paynes (Payne 1984) andesitic tuffs in this unit.

B. Black Argillite - Phyllite

This unit consists of varing amounts a cherty quartz, sericite, carbonaceous material and pyrite. They vary in color from white to black depending on the amount of carbonaceous material (JT 85-R, M 102-R) and all contain pyrite.

C. Listwanites

Listwanite occurs as outcrop near L4W 1+75 N, L2W 1N, L2W 0+505 and boulders near the east end of Cluculz Lake and near L4W 4+00N. They are fractured light to bright green rocks contain quartz, ankerite, as veinlets and cementing fragments and mariposite as finely disseminate flakes in the cholcedonic quartz. Antigorite was also identified in thin section and could add to the green coloration. All contain pyrite, some up to three percent, they are anomalous in As and Sb but not in gold.

D. Late Dikes

Three dikes were mapped on L4E south of the base line; two are augite basalt, one is rhyolitic and contains quartz and pyrite, all strike at 280 to 290 and dip steeply to the south.

3.2 Structure

The topography is dominated by an east-west melt water channel which cuts the Jen Group from the east end of Cluculz Lake to Bednesti Lake. This I suggest is the eastern end of a major east-west lineament in central British Columbia. This break continues to the west along Cluculz Lake, Nulki Lake and Francois Lake. The Jen Group covers the western end of this break where it intersects the Pinchi Fault. Both the ground magnetics and the self potential survey supports its occurance on the Jen Group.

3.3 Mineralization

To date the most important mineralization found is in the sericitized and carbonatized crystal tuff near L6W 4+00N (Hiway Cut). Payne (1984) describes quartz veins containing "pyrite, sericite, and minor calcite. Pyrite grains contain moderately abundant inclusions of hematite, and a moderate number of grains contain inclusions from 0.005 - 0.02 mm in size of native gold" further he states "the abundance of native gold is very significant."

Gold also occurs near the Lake Road Cut between L 12W and L14W; here boudins in black argillite contain gold with carbonaceous material.

4.0 Self Potential Survey

A self potential survey was carried out on the central portion of Jen #1 and the southwestern portion of Jen#2 mineral claims during the fall of 1985. A total of 8.5 kilometres of a previously established chain and compass grid was surveyed in nine man days. Equipment used in the survey consisted of a Micronta 22-191 Digital multimeter, calibrated to read in millivolts, two unglazed ceramic pots containing a saturated solution of copper sulphate, and 250 metres of 18 guage multistrand copper wire with thermoplastic insulation on a winding spool with an armature. The spool was modified so that one person could both pull wire and take readings at the forward pot.

The long wire method (Lajoie, 1981) was used to conduct the survey. Readings were taken at 50 metre intervals and were corrected to a base station at 5 + 25 metres south and 6 + 75 metres east on Jen #2.

4.1 Results and Interpretation of the Self Potential Survey.

Results of the Self Potential survey are plotted on Map J 86-2. Three strong (greater than -100 millivolt) anomalies were found.

Anomaly A is some 1.2 kilometres long striking to the southeast from 1 + 00E on the base line to 6 + 00S on line 8E and appears to be dipping to the northeast; however, an increase in overburden to the northeast may be the actual cause of the skewed nature of this anomaly. Cherty sediments, containing bedded pyrite, outcrop near 7 + 00E - 5 + 00S and are the likely cause of this anomaly. No anomalous gold values were found in either soil or rock samples from this anomaly and it therefore has a low priority for future work.

Anomaly B strikes nearly east-west from 14W to 7 + 50W near the base line. It reaches a maximum of -501 millivolts in broken and oxidizing black argillite at 13+50 on the base line. Anomaly B is coincidental with the best gold soil anomaly.

Anomaly C reaches a maximum value of -281 milivolts and its source is unkown.

5.0 Geochemical Survey

This survey was conducted during the fall of 1985 to carry-out soil sampling as a follow-up to a preliminary Geochemical Survey (Campbell, 1985) and to check rock chip sample assay results from previous work. Two hundred and fifteen soil samples were taken, 166 were analyzed for gold and ICP, 29 for gold and mercury and 20 just for gold. Forty-six rock chip samples were taken, all were analyzed for gold and six for multi-elements by ICP.

Soil samples were taken at 50 metre intervals on a previously established hip chain and compass grid. All soil samples taken were from the B horizon and could be classified as normal immature soils typical of this region. Parent material in most cases appeared to be glacial debris or glacial lake silts. The results of the soil sampling are plotted on Map J86-3.

5.1 Field Methods

A. Soil Survey

A mattock was used to sample the first available mineral soil hrizon usually at a depth of less than six inches. These samples, typically a mixture of B and C horizons, were stored in 4"x 6" Kraft paper bags. Notes were kept on standard soil sheets to aid in interpretation of results. Sample location was controlled by pace and compass grid lines. Location of each soil sample is noted on the geochemical certiciffcates appearing in the Appendix of this report.

B. Rock Chip Survey

A rock hammer was used to obtain approximately five pounds of rock chips over a 1 meter width; samples were stored in plastic bags. The rock chip samples on Map 86-1 and Figure 3 were taken along 1 metre intervals controlled by chaining from a flagged picket and locations were marked with yellow spray paint.

5.2 ANALYTICAL METHODS

All samples were analyzed by Vangeochem lab Limited of 1521 Pemberton Avenue, North Vancouver, B.C. Analytical methods are summarized on the following three pages.

5 .2 ANALYTICAL PROCEDURE FOR GOLD IN SOIL AND SILT

Analytical procedure used to determine Aqua Regia soluble gold in geochemical samples

Method_of_Sample_Preparation

(a) Geochemical soil, silt or rock samples were received in the laboratory in wet-strength 4" x 6" Kraft paper bags or rock samples sometimes in 8" x 12" plastic bags.

(b) The dried soil and silt samples were sifted by hand using a 8" diameter 80-mesh stainless steel sieve. The plus 80-mesh fraction was rejected and the minus 80-mesh fraction was transferred into a new bag for analysis later.

(c) The dried rock samples were crushed by using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for later analysis.

Method_of_Digestion

(a) 5.00 - 10.00 grams of the minus 80-mesh samples were used. Samples were weighed out by using an electronic micro-balance into beakers.

(b) 20 ml of Aqua Regia (3:1 HCl : HNO3) were used to digest the samples over a hot plate vigorously.

(c) The digested samples were filtered and the washed pulps were discarded and the filtrate was reduced to about 5 ml.

(d) The Au complex ions were extracted into diisobutyl ketone and thiourea medium. (Anion exchange liquids "Aliquot 336").

(e) Separate Funnels were used to separate the organic layer.

Method_of_Detection

The gold analyses were detected by using a Techtron model AA5 Atomic Absorption Spectrophotometer with a gold hollow cathode lamp. The results were read out on a strip chart recorder. A hydrogen lamp was used to correct any background interferences. The gold values in parts per billion were calculated by comparing them with a set of gold standards.

The analyses were supervised or determined by Mr. Conway Chun or Mr. Eddie Tang and his laboratory staff.

5.2 ANALYTICAL PROCEDURE FOR GOLD IN ROCK SAMPLES

Analytical procedure used to determine gold by fire-assay method and detected by atomic absorption spec. in goelogical samples.

Method of Sample Preparation

(a) Geochemical soil, silt or rock samples were received in the laboratory in wet-strength 4" x 6" Kraft paper bags or rock samples sometimes in 8" x 12" plastic bags.

(b) The dried soil and silt samples were sifted by hand using a 8" diameter 80-mesh stainles steel sieve. The plus 80-mesh fraction was rejected and the minus 80-mesh fraciton was transferred into a new bag for analysis later.

(c) The dried rock samples were crushed by using a jaw crusher and pulverized to 100-mesh for finer by using a disc mill. The pulverized samples were then put in a new bag for later analysis.

Method of Extraction

(a) 20.0 - 30.0 grams of the pulp samples were used. Samples were weighed out by using a top-loading balance into fusion pot.

(b) A Flux of litharge, soda ash, silica, borax, flour, or potassium nitrite is added, then fused at 1900 degrees F and a lead button is formed.

(c) The gold is extract by cupellation and part with diluted nitric acid.

(d) The gold bead is saved for measurement later.

Method of Detection

(a) The gold bead is disolved by boiling with sodium cyanide, hydrogen peroxide and ammonium hydroxide.

(b) The gold analyses were detected by using a Techtron model AA5 Atomic Absorption Spectrophotometer with a gold hollow cathode lamp. The results were read out on a strip chart recorder. The gold values in parts per billion were calculated by comparing them with a set of gold standards.

The analyses were supervised or determined by Mr. Conway Chun or Mr. David Chiu and his laboratory staff.

5 .2 ANALYTICAL PROCEDURE FOR GOLD,SILVER AND ARSENIC BY ICP

Analytical procedure used to determine multiple elements in hot acid soluble by Induction Couple Plasma Spectrometer (ICP) analysis.

Method of Sample Preparation

(a) Geochemical soil, silt or rock samples were received in the laboratory in wet-strength 4" x 6" Kraft paper bags or rock samples sometimes in 8" x 12" plastic bags.

(b) The dried soil and silt samples were sifted by hand using a 8" diameter 80-mesh stainless steel sieve. The plus 80-mesh fraction was rejected and the minus 80-mesh fraction was transferred into a new bag for analysis later.

(c) The dried rock samples were crushed by using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for later analysis.

Method of Digestion

(a) 0.500 gram of -80 mesh sample was used.

(b) Samples were digested in a hot water bath at 95 C for 75 minutes with diluted aqua regia acids. (3 : 1 : 3, HCl : HNO_3 : H_2O)

(c) The digested samples were diluted to a fixed volume and shaken well.

Method of Analysis

The analyses were determined by using a Jarrel Ash ICAP model 9000 direct reading emission spectrometer with an inductively coupled plasma excitation source. Background and inter-element corrections (IEC'S) were applied. All data is compiled into an Apple IIe computer, stored on floppy disk and printed by an Epson 100 dot-matrix printer.

The analyses were supervised by Mr. Wade Reeves and Mr. Conway Chun of Vangeochem Lab Ltd. and their staff.

5.3 RESULTS and DISCUSSION

A. Gold in Soils

Gold in soil are plotted on Map J 86-3. Of the three soil anomalies only anomaly C is "new" in the sense that it was not found in the preliminary geochemical survey of 1984. Two lines were run 25 metres north and south of the base line between lines 4W and 6W soil samples were taken at 25 metre intervals but only slightly anomalous (less than 50 ppb) values were found.

Anomaly B was extended to the north by 100 metres on line 6W and remains a priority for further work.

Anomaly A is in an area underlain by brecicated and silicified argillite near a contact with the altered crystal tuff; it is also coincidental with S.P. anomaly B.

The lack of new gold soil anomalies was somewhat expected due to the precence of the glacial lake silts and till covering over 90 per cent of the area sampled during 1985.

B. Rock Chip Sampling

The results of the rock chip sampling are plotted on J86-1 and on Fig. 3 showing a comparison of detailed sampling at 1 metre widths with the 1985 sampling across 5 metres. Significant differences were found between the three sets of sampling.

C. Mercury in Soils

Along part of L4W and L6W twenty nine soil samples were analyzed for mercury. The results are plotted on map J86-3. Only two samples were slightly anomalous at 100 and 150 ppb; both of these samples are from a low swampy area.

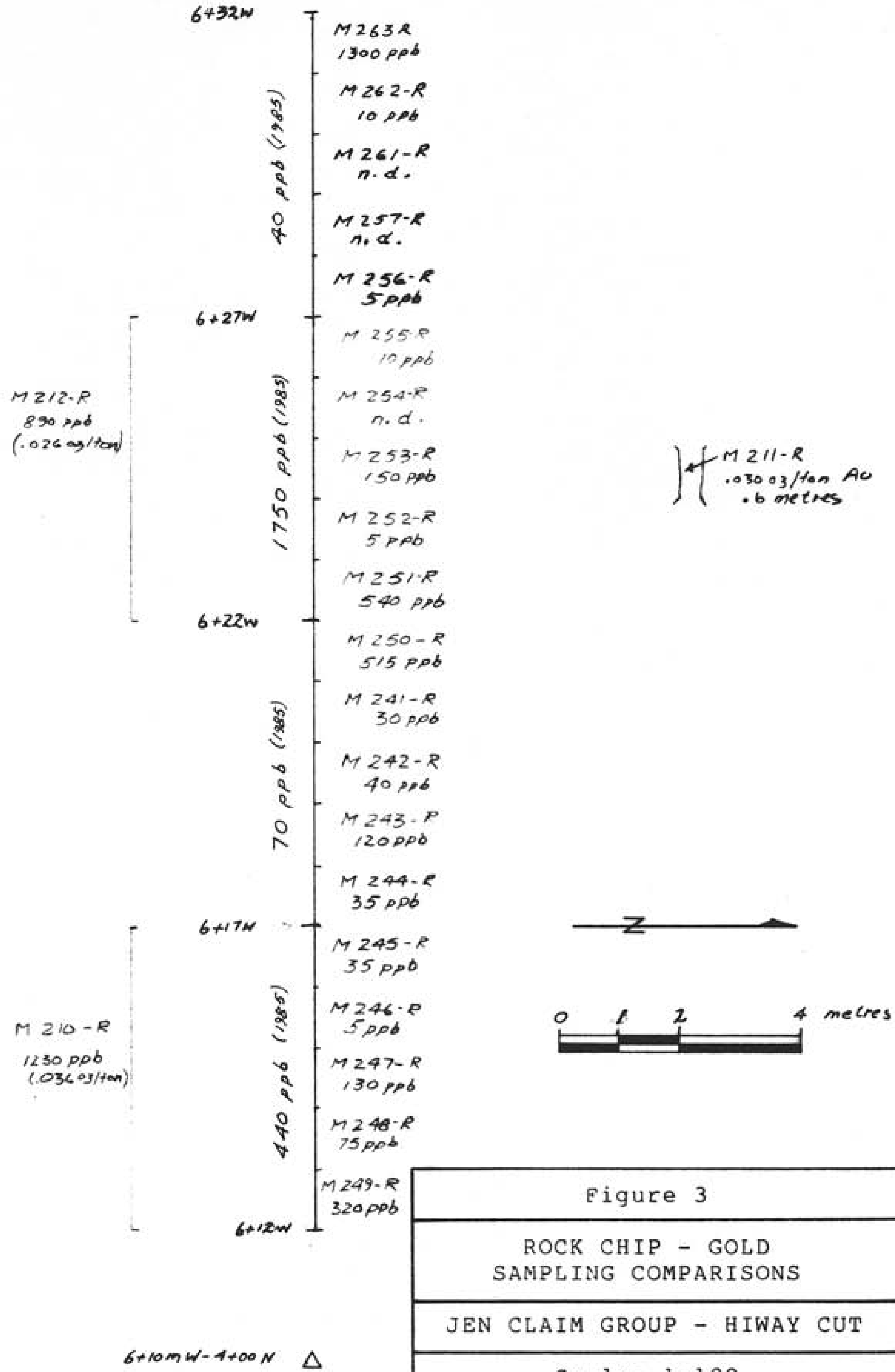

Figure 3

ROCK CHIP - GOLD
SAMPLING COMPARISONS

JEN CLAIM GROUP - HIWAY CUT

Scale: 1:100

Drawn by C.Campbell, Sept 86

BIBLIOGRAPHY

Campbell, C. J., 1985, Geophysical and Geochemical Report Jen 1-3. B.C. Dept. of Mines A.R.No. 85-826-14037.

Lajoie, 1981, Geophysical Class Notes, David Thompson, University Centre, Nelson, B.C. May 1981.

Payne, J.G., 1984, Private Petrographic Report for Colin Campbell August 1984.

APPENDIX A

STATEMENT OF QUALIFICATION

I, Colin Campbell, of the Town of Courtenay, in the Province of British Columbia, do hereby state that:

1. I am a geoligist.
2. I graduated from the University of British Columbia in 1966 with a B.Sc. Degree in Honours Geology.
3. I have worked steadily in mining exploration in British Columbia and Yukon Territory from 1966 to 1973; intermittently from 1974 to 1983 and steadily from January 1984 to the present.
4. I personally carried out, or supervised, the geological, self potential and geochemical survey on the Jen Claim Group.
5. Title to the Jen Claim Group is presently registered in my name.

Colin J. Campbell

APPENDIX B

STATEMENT OF EXPENDITURES - Jen Claim Group

1) Geological Survey

Wages - Colin Campbell

Fieldwork Sept. 18, 19, 1985		
Petrography April 11, 14, 1986		
4 man days @ $200.00	= 800.00	
8 thin sections @ $7.00	= 56.00	
Report preparation, printing and drafting	= 125.50	
TOTAL COST GEOLOGICAL SURVEY	981.50	981.50

2) Self Potential Survey

Wages - Colin Campbell
Fieldwork Sept. 15, 16, 17, 1985
Nov. 3, 4, 5, 7, 8, 9, 1985

Report and drafting		
9 days @ $200.00	= 1800.00	
Travel		
GMC 1/2 ton truck		
8 days @ 45.00/day	= 360.00	
Courtenay to Vanderhoof Return		
1/2 trip x 742.00	= 371.00	
Field Accommadation & Food		
9 days @ 45.00	= 405.00	
Equipment Rental (S. Punit)		
10 days @ 10.00	= 100.00	
Report and drafting	= 200.00	
TOTAL COST S. P. SURVEY	3236.00	3236.00

3) Geochemical Survey

Wages - Colin Campbell
Field - Sept. 30, Oct. 1, 2 (1/2 day), 3, 31, Nov. 1, 2, 6, 1985
Office - (Report and base map)
Oct 9, 10, 1985

9 1/2 days @ $200.00	= 1900.00

<u>Travel</u>			
GMC 1/2 ton truck			
8 days @ 45.00	=	360.00	
1 round trip Vanderhoof to Courtenay	=	742.00	
		1102.00	1102.00
<u>Field Accommodation and Food</u>			
8 days @ 45.00	=	360.00	360.00
<u>Field Supplies</u>			100.00
<u>Analytical Costs</u>			
A. Soil			
166 for Au & ICP @ 10.10	=	1676.60	
29 for Au & Hg & ICP	=	452.40	
20 for Au @ 5.60	=	112.00	
B. Rock			
6-Au & ICP @ 15.75	=	94.50	
24-Au @ 9.50	=	228.00	
16-Au @ 10.50	=	168.00	
		2731.50	2731.50
<u>Report Preparation</u>			
Typing and drafting		300.00	300.00
TOTAL COST GEOCHEMICAL SURVEY			6493.50
		TOTAL COST	10,711.00

Colin Campbell

19A

VANGEOCHEM LAB LIMITED

MAIN OFFICE: 1521 PEMBERTON AVE. N.VANCOUVER B.C. V7P 2S3 PH:(604)986-5211 TELEX:04-352578
BRANCH OFFICE: 1630 PANDORA ST. VANCOUVER B.C. V5L 1L6 PH:(604)251-5656

ICAP GEOCHEMICAL ANALYSIS

A .5 GRAM SAMPLE IS DIGESTED WITH 5 ML OF 3:1:2 HCL TO HNO3 TO H2O AT 95 DEG. C FOR 90 MINUTES AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR SN,MN,FE,CA,P,CR,MG,BA,PD,AL,NA,K,W,PT AND SR. AU AND PD DETECTION IS 3 PPM.
IS= INSUFFICIENT SAMPLE, ND= NOT DETECTED, -= NOT ANALYZED

COMPANY: COLIN CAMPBELL
ATTENTION: COLIN CAMPBELL
PROJECT: NONE GIVEN

REPORT#: 85-25-017
JOB#: 85573
INVOICE#: 9191

DATE RECEIVED: 85/11/21
DATE COMPLETED: 85/12/01
COPY SENT TO: --

ANALYST W. Rams

SAMPLE NAME	Location	AG PPM	AL %	AS PPM	AU PPM	BA PPM	BI PPM	CA %	CD PPM	CO PPM	CR PPM	CU PPM	FE %	K %	MG %	MN PPM	MO PPM	NA %	NI PPM	P %	PB PPM	PD PPM	PT PPM	SB PPM	SN PPM	SR PPM	U PPM	W PPM	ZN PPM
M-500S	2E 2+00N	.6	1.12	ND	ND	168	ND	.19	.5	10	34	8	2.10	.08	.28	481	1	.01	27	.15	13	ND	ND	ND	1	19	4	ND	76
M-501S	2E 1+50N	.4	.92	ND	ND	158	ND	.15	.5	6	21	4	1.40	.06	.18	519	1	.01	18	.08	11	ND	ND	ND	ND	16	ND	ND	67
M-502S	2E 1+00N	.5	1.09	ND	ND	119	ND	.12	.4	8	29	5	1.98	.06	.18	453	2	.01	21	.14	13	ND	ND	ND	ND	12	3	ND	72
M-503S	2E 0+50N	.5	1.36	3	ND	215	ND	.21	.7	9	29	10	2.06	.08	.31	885	2	.01	25	.12	15	ND	ND	ND	ND	24	5	ND	82
M-504S	2E B.L	.5	1.41	3	ND	132	ND	.16	.4	8	34	8	1.90	.07	.33	211	2	.01	38	.19	12	ND	ND	ND	ND	16	4	ND	63
M-505S	2E 0+50S	.3	.68	ND	ND	247	ND	.15	.8	8	27	5	1.47	.06	.20	1613	1	.01	24	.08	11	ND	ND	ND	ND	18	ND	ND	84
M-506S	2E 1+00S	.8	.69	ND	ND	124	ND	.17	.5	6	23	5	1.39	.07	.23	218	2	.01	16	.08	13	ND	ND	ND	1	15	6	ND	42
M-507S	2E 1+50S	.3	1.02	ND	ND	182	ND	.23	.6	8	26	5	1.98	.06	.25	480	1	.01	26	.08	12	ND	ND	ND	ND	18	ND	ND	82
M-508S	2E 2+50S	.4	1.12	ND	ND	475	ND	.23	.7	9	32	8	2.16	.07	.27	973	1	.01	28	.20	13	ND	ND	ND	ND	29	ND	ND	140
M-509S	2E 3+00S	.2	1.63	14	ND	265	5	.30	.9	19	86	42	3.55	.08	.83	1016	3	.01	100	.07	14	ND	ND	3	ND	24	ND	ND	110
M-510S	2E 3+50S	.4	.76	4	ND	187	ND	.23	.9	10	31	9	1.97	.06	.27	498	2	.01	25	.07	12	ND	ND	3	ND	14	ND	ND	122
M-511S	2E 4+00S	.3	1.02	10	ND	178	ND	.32	.9	20	69	10	2.38	.07	.42	556	2	.01	198	.10	12	ND	ND	ND	ND	21	ND	ND	150
M-512S	2E 4+50S	.4	.82	ND	ND	205	ND	.16	.4	7	31	5	1.92	.06	.19	598	1	.01	25	.11	12	ND	ND	ND	ND	12	ND	ND	90
M-513S	2E 5+00S	.1	1.43	ND	ND	259	ND	.22	.6	11	48	13	2.74	.05	.37	403	1	.01	55	.23	10	ND	ND	ND	ND	22	ND	ND	59
M-514S	2E 5+50S	.1	1.15	ND	ND	177	ND	.20	.5	9	38	9	2.06	.05	.23	627	1	.01	55	.13	11	ND	ND	ND	ND	17	ND	ND	91
M-515S	2E 6+00S	.1	1.29	ND	ND	258	ND	.30	.5	10	44	8	2.44	.06	.30	327	1	.01	67	.29	12	ND	ND	ND	ND	24	ND	ND	116
M-516S	2E 6+50S	ND	.98	ND	ND	144	ND	.12	.5	8	39	5	2.03	.04	.20	746	1	.01	39	.11	10	ND	ND	ND	ND	9	ND	ND	64
M-517S	2E 7+00S	ND	1.52	4	ND	154	ND	.22	.5	15	88	10	3.00	.05	.41	466	2	.01	163	.11	10	ND	ND	ND	ND	13	ND	ND	84
M-518S	2E 7+50S	.1	1.38	7	ND	113	ND	.18	.6	14	66	20	3.08	.06	.54	371	2	.01	92	.11	12	ND	ND	3	ND	11	ND	ND	69
M-519S	LO 7+50S	.1	1.14	ND	ND	113	ND	.18	.4	8	44	7	2.01	.04	.26	163	1	.01	36	.07	12	ND	ND	ND	ND	13	ND	ND	43
M-520S	LO 7+00S	ND	2.22	5	ND	248	ND	.71	1.2	19	124	27	3.62	.08	.90	1602	2	.01	200	.04	13	ND	ND	ND	ND	39	ND	ND	83
M-521S	LO 6+50S	.2	.91	ND	ND	92	ND	.37	.5	8	33	8	1.75	.04	.32	176	1	.01	29	.03	9	ND	ND	ND	ND	27	ND	ND	78
M-522S	LO 6+00S	.2	.96	ND	ND	150	ND	.19	.4	9	42	7	2.15	.05	.27	377	2	.01	35	.09	11	ND	ND	ND	ND	14	ND	ND	78
M-523S	LO 5+50S	.1	1.17	ND	ND	183	ND	.20	.6	10	43	11	2.41	.05	.35	477	2	.01	44	.07	11	ND	ND	ND	ND	16	ND	ND	66
M-524S	LO 5+00S	.1	1.38	3	ND	177	ND	.17	.5	10	38	9	2.44	.05	.32	270	2	.01	37	.16	10	ND	ND	ND	ND	15	ND	ND	68
M-525S	LO 4+50S	.2	1.51	ND	ND	127	ND	.16	.5	9	40	10	2.58	.04	.38	229	2	.01	43	.06	16	ND	ND	ND	ND	14	ND	ND	51
M-526S	LO 4+00S	.1	1.05	ND	ND	332	ND	.14	.5	8	27	6	1.98	.04	.19	695	1	.01	30	.13	11	ND	ND	ND	ND	13	ND	ND	80
M-527S	LO 3+50S	.1	1.31	ND	ND	200	ND	.16	.6	9	38	8	2.29	.05	.27	353	1	.01	35	.17	11	ND	ND	ND	ND	12	ND	ND	92
M-528S	LO 3+00S	ND	1.86	ND	ND	248	ND	.79	.9	17	49	19	2.17	.08	1.18	1067	1	.01	40	.09	7	ND	ND	ND	ND	30	ND	ND	138
M-529S	LO 2+50S	.1	1.20	ND	ND	325	ND	.20	.5	11	33	12	2.66	.05	.31	828	2	.01	31	.17	12	ND	ND	ND	ND	18	ND	ND	95
M-530S	LO 2+00S	.1	1.03	ND	ND	167	ND	.21	.4	13	39	20	2.94	.06	.31	432	3	.01	41	.06	11	ND	ND	ND	ND	17	ND	ND	59
M-531S	LO 1+50S	.1	1.41	7	ND	149	ND	.19	.7	18	82	34	3.46	.06	.67	458	4	.01	75	.10	12	ND	ND	3	1	15	ND	ND	81
M-532S	LO 1+00S	.3	.94	ND	ND	296	ND	.32	.9	11	36	11	2.69	.06	.30	676	1	.01	24	.16	14	ND	ND	ND	1	29	ND	ND	125
M-533S	LO 0+50S	.3	1.03	6	ND	164	3	.24	1.0	25	168	12	2.81	.06	1.41	553	2	.01	172	.08	12	ND	ND	3	1	26	ND	ND	66
M-534S	LO B.L	.2	1.43	4	ND	232	4	.16	.8	27	234	10	3.09	.05	1.68	761	2	.01	138	.11	13	ND	ND	3	ND	18	ND	4	98
M-535S	LO 0+50N	.1	1.50	ND	ND	222	ND	.19	.4	8	36	8	2.12	.05	.39	344	1	.01	31	.14	12	ND	ND	ND	1	21	ND	ND	109
M-536S	LO 2+00N	.3	.92	ND	ND	155	ND	.21	.3	9	31	6	2.05	.05	.28	433	1	.01	20	.13	12	ND	ND	ND	2	20	ND	ND	56
M-537S	L2E 3+50N	.3	1.67	ND	ND	254	ND	.25	.6	10	33	8	2.16	.06	.33	922	1	.01	29	.17	13	ND	ND	ND	1	31	ND	ND	99
M-538S	2E 4+00N	.1	1.44	ND	ND	274	ND	.25	.9	13	41	12	2.63	.06	.41	1517	1	.01	41	.16	13	ND	ND	ND	ND	26	ND	ND	101
DETECTION LIMIT		.1	.01	3	3	1	3	.01	.1	1	1	1	.01	.01	.01	1	1	.01	1	.01	2	3	5	2	2	1	5	3	1

-19A-

CLIENT: COLIN CAMPBELL JOB#: 85573 PROJECT: -- REPORT: 85-25-017 DATE: 85/12/01

SAMPLE NAME	LOCATION	AG PPM	AL %	AS PPM	AU PPM	BA PPM	BI PPM	CA %	CD PPM	CO PPM	CR PPM	CU PPM	FE %	K %	MG %	MN PPM	MO PPM	NA %	NI PPM	P %	PB PPM	PD PPM	PT PPM	SB PPM	SN PPM	SR PPM	U PPM	W PPM	ZN PPM
M 539S	2E 4+50N	.3	1.02	5	ND	182	ND	.29	.2	11	41	16	2.35	.05	.48	522	3	.01	45	.11	10	ND	ND	ND	1	27	ND	ND	55
M 540S	2E 5+00N	.1	1.58	11	ND	211	5	.30	.9	42	292	31	4.01	.07	2.26	1257	3	.01	365	.05	14	ND	ND	ND	ND	24	ND	10	71
M 541S	2E 5+50N	.1	1.55	12	ND	178	4	.41	.9	39	523	37	3.87	.08	2.68	903	3	.01	523	.05	13	ND	ND	ND	ND	27	ND	5	59
M 542S	2E 6+00N	.1	.74	3	ND	165	ND	.20	.2	8	33	8	2.11	.04	.29	572	1	.01	34	.04	7	ND	ND	ND	ND	20	ND	ND	49
M 543S	2E 6+50N	.2	1.13	ND	ND	196	ND	.32	.4	11	35	18	2.65	.07	.38	665	1	.01	35	.04	11	ND	ND	ND	ND	33	ND	ND	52
M 544S	2E 7+00N	.2	.76	6	ND	98	ND	.20	.2	6	23	6	1.71	.03	.19	250	1	.01	15	.03	9	ND	ND	ND	ND	17	ND	ND	29
M 545S	2E 7+50N	.2	.65	ND	ND	123	ND	.16	.3	5	19	5	1.62	.03	.14	414	1	.01	12	.07	10	ND	ND	ND	ND	16	ND	ND	33
M 546S	2E 8+00N	.2	1.12	ND	ND	129	ND	.20	.4	7	23	7	2.11	.04	.24	225	1	.01	22	.16	8	ND	ND	ND	ND	22	ND	ND	43
M 547S	2E 8+50N	.1	1.24	ND	ND	140	ND	.16	.1	7	22	7	2.29	.03	.21	221	2	.01	21	.16	10	ND	ND	ND	ND	17	ND	ND	33
M 548S	2E 9+00N	.1	.79	ND	ND	93	ND	.22	.2	6	19	6	1.67	.03	.22	201	1	.01	14	.03	8	ND	ND	ND	ND	20	ND	ND	23
M 549S	LO 9+00N	.1	1.34	ND	ND	204	ND	.14	.3	8	22	7	2.21	.03	.18	257	1	.01	22	.26	10	ND	ND	ND	ND	17	ND	ND	65
M 550S	LO 8+50N	.1	.99	ND	ND	142	ND	.12	.1	6	18	5	1.84	.02	.17	208	1	.01	15	.18	8	ND	ND	ND	ND	17	ND	ND	47
M 551S	LO 8+00N	.1	1.31	ND	ND	188	ND	.15	.3	8	22	6	2.31	.03	.18	520	1	.01	19	.23	9	ND	ND	ND	ND	18	ND	ND	79
M 552S	LO 7+50N	.1	1.68	ND	ND	217	ND	.24	.4	10	29	10	2.95	.04	.33	364	2	.01	30	.17	12	ND	ND	ND	1	28	ND	ND	53
M 553S	LO 7+00N	.2	.93	ND	ND	196	ND	.32	.3	8	27	12	2.19	.05	.28	639	1	.01	23	.10	11	ND	ND	ND	ND	35	ND	ND	54
M 554S	LO 6+50N	.2	.68	ND	ND	81	ND	.17	.1	5	16	4	1.47	.03	.18	201	1	.01	11	.03	9	ND	ND	ND	ND	16	ND	ND	26
M 555S	LO 6+00N	.1	.70	ND	ND	121	ND	.25	.1	8	25	10	2.00	.05	.30	615	1	.01	17	.03	9	ND	ND	ND	ND	30	ND	ND	35
M 556S	LO 5+50N	.1	.66	ND	ND	163	ND	.23	.4	8	29	19	2.99	.05	.20	691	2	.01	21	.04	11	ND	ND	3	ND	25	ND	ND	76
M 557S	LO 5+00N	.2	.85	ND	ND	164	ND	.24	.4	10	29	13	2.44	.05	.33	705	2	.01	26	.05	10	ND	ND	ND	ND	23	ND	ND	72
M 558S	LO 4+50N	.3	1.02	3	ND	155	3	.29	.6	13	49	24	2.55	.06	.54	404	2	.01	67	.08	11	ND	ND	ND	ND	27	ND	ND	51
M 559S	LO 4+00N	.1	.94	ND	ND	167	ND	.20	.1	10	30	10	2.18	.04	.27	630	1	.01	21	.06	10	ND	ND	ND	ND	21	ND	ND	46
M 560S	LO 3+50N	.1	.88	8	ND	203	ND	.33	.3	8	31	7	3.45	.05	.34	837	3	.01	21	.06	10	ND	ND	ND	ND	31	ND	ND	26
M 561S	BL 4+00E	.3	1.89	ND	ND	140	ND	.17	.5	10	39	10	2.34	.04	.32	261	2	.01	36	.23	11	ND	ND	ND	2	19	ND	ND	77
M 562S	4E 0+50S	.1	1.57	ND	ND	151	ND	.14	.3	9	34	7	1.80	.03	.28	305	1	.01	38	.13	10	ND	ND	ND	ND	14	ND	ND	95
M 563S	4E 1+00S	.3	1.54	ND	ND	186	ND	.24	.3	9	38	12	2.16	.04	.36	309	2	.01	35	.20	12	ND	ND	ND	1	27	ND	ND	65
M 564S	4E 1+50S	.3	1.14	ND	ND	310	ND	.34	.5	11	38	13	2.27	.06	.40	411	1	.01	36	.21	10	ND	ND	ND	ND	31	ND	ND	47
M 565S	4E 2+00S	.1	.60	ND	ND	390	ND	.22	2.2	9	25	16	2.78	.07	.16	1543	4	.01	30	.09	11	ND	ND	3	ND	22	ND	ND	117
M 566S	4E 2+50S	.1	1.07	5	ND	308	ND	.24	.8	13	46	28	3.39	.06	.37	1198	3	.01	44	.12	13	ND	ND	5	ND	27	ND	ND	110
M 567S	4E 3+00S	.1	1.27	3	ND	246	ND	.16	.6	10	31	18	2.70	.05	.46	832	2	.01	33	.08	12	ND	ND	3	ND	18	ND	ND	129
M 568S	4E 3+50S	.1	1.93	3	ND	475	ND	.27	.7	27	33	41	5.53	.06	.74	1666	3	.01	38	.11	13	ND	ND	ND	2	19	ND	7	104
M 569S	4E 4+00S	.1	2.33	18	ND	189	ND	.35	.7	19	82	82	4.73	.10	1.02	1413	4	.01	97	.06	18	ND	ND	3	1	32	ND	7	106
M 570S	4E 4+50S	.1	1.37	3	ND	201	ND	.50	.6	9	53	19	2.96	.07	.47	271	3	.01	41	.10	10	ND	ND	ND	ND	30	ND	ND	70
M 571S	4E 5+00S	.1	.71	ND	ND	265	ND	.17	.5	10	40	20	2.97	.07	.26	930	4	.01	38	.04	14	ND	ND	ND	ND	16	ND	ND	76
M 572S	4E 5+50S	.1	1.03	ND	ND	198	ND	.25	.6	13	58	16	3.08	.05	.41	732	2	.01	49	.08	10	ND	ND	ND	ND	17	ND	ND	89
M 573S	4E 6+00S	.1	1.66	ND	ND	250	ND	.22	.3	12	79	14	3.60	.05	.41	393	2	.01	65	.35	11	ND	ND	ND	ND	18	ND	ND	152
M 574S	4E 6+50S	.1	1.06	3	ND	123	ND	.19	.2	11	56	13	2.50	.04	.38	335	2	.01	87	.07	9	ND	ND	ND	ND	14	ND	ND	53
M 575S	4E 7+00S	.1	1.57	ND	ND	256	ND	.24	.5	14	65	18	3.30	.05	.47	757	3	.01	86	.18	11	ND	ND	ND	1	18	ND	ND	95
M 576S	4E 7+50S	.3	.64	ND	ND	115	ND	.12	.2	6	36	5	1.85	.04	.15	502	3	.01	30	.03	10	ND	ND	3	ND	8	ND	ND	42
M 577S	6E 7+50S	.3	.84	ND	ND	90	3	.18	.3	10	39	11	2.41	.05	.34	245	2	.01	33	.12	10	ND	ND	3	ND	14	ND	ND	41
DETECTION LIMIT		.1	.01	3	3	1	3	.01	.1	1	1	1	.01	.01	.01	1	1	.01	1	.01	2	3	5	2	2	1	5	3	1

-19B-

CLIENT: COLIN CAMPBELL JOB#: 85573 PROJECT: -- REPORT: 85-25-017 DATE: 85/12/01

SAMPLE NAME LOCATION	AG PPM	AL %	AS PPM	AU PPM	BA PPM	BI PPM	CA %	CD PPM	CO PPM	CR PPM	CU PPM	FE %	K %	MG %	MN PPM	MO PPM	NA %	NI PPM	P %	PB PPM	PD PPM	PT PPM	SB PPM	SN PPM	SR PPM	U PPM	W PPM	ZN PPM
M 578S 6E 6+50S	.2	1.05	ND	ND	239	ND	.20	.4	8	24	6	1.80	.03	.22	778	1	.01	19	.13	11	ND	ND	ND	ND	23	ND	ND	63
M 579S 6E 6+00S	.2	1.55	3	ND	154	ND	.19	.3	9	33	9	2.22	.03	.30	240	2	.01	35	.14	11	ND	ND	ND	ND	19	ND	ND	45
M 580S 6E 5+50S	.2	.89	6	ND	180	ND	.28	.4	11	37	15	2.16	.03	.44	279	2	.01	36	.07	10	ND	ND	ND	ND	29	ND	ND	37
M 581S 6E 5+00S	.2	.98	ND	ND	156	ND	.28	.2	8	28	8	2.03	.03	.27	394	1	.01	19	.06	9	ND	ND	ND	ND	28	ND	ND	40
M 582S 6E 4+50S	.1	.97	ND	ND	329	ND	.10	1.4	9	26	17	2.13	.03	.24	1157	2	.01	30	.10	10	ND	ND	ND	ND	16	ND	ND	168
M 583S 6E 4+00S	.2	.72	ND	ND	176	ND	3.59	1.2	5	16	9	1.16	.07	.34	456	1	.01	17	.05	5	ND	ND	ND	ND	147	3	ND	40
M 584S 6E 3+50S	.2	.85	4	ND	222	ND	.32	1.3	10	28	32	2.24	.05	.33	786	3	.01	36	.06	12	ND	ND	ND	ND	31	ND	ND	144
M 585S 6E 3+00S	.3	.97	3	ND	152	ND	.29	.2	10	45	15	2.33	.05	.38	426	1	.01	36	.13	10	ND	ND	ND	1	29	ND	ND	53
M 586S 6E 2+50S	.1	.78	ND	ND	256	ND	.29	.9	8	28	12	1.99	.02	.20	1044	2	.01	22	.06	11	ND	ND	ND	ND	29	ND	ND	72
M 587S 6E 2+00S	.2	1.18	ND	ND	163	ND	.18	.2	8	33	10	1.98	.03	.31	302	2	.01	30	.19	9	ND	ND	ND	ND	18	ND	ND	66
M 588S 6E 1+50S	.2	1.39	ND	ND	127	ND	.19	.2	9	36	9	1.90	.03	.31	368	2	.01	36	.14	10	ND	ND	ND	ND	18	ND	ND	70
M 589S 6E 1+00S	.2	.81	ND	ND	160	ND	.13	.5	7	28	8	1.61	.02	.21	583	1	.01	21	.08	10	ND	ND	ND	ND	14	ND	ND	62
M 590S 6E 0+50S	.1	1.27	4	ND	137	ND	.16	.4	9	39	8	2.05	.03	.30	322	2	.01	37	.22	10	ND	ND	ND	ND	17	ND	ND	80
M 591S 6E B.L.	.1	1.17	ND	ND	135	3	.14	.2	8	32	9	1.99	.02	.27	321	1	.01	30	.12	9	ND	ND	ND	ND	15	ND	ND	52
M 592S 4W 4+00N	.3	.80	ND	ND	128	ND	.20	.2	7	26	6	1.55	.03	.22	346	1	.01	19	.06	11	ND	ND	ND	ND	17	ND	ND	61
M 593S 4W 4+50N	.2	1.70	ND	ND	318	ND	.43	1.4	12	40	38	2.75	.07	.46	2013	2	.01	43	.14	11	ND	ND	ND	ND	34	ND	ND	271
M 594S 4W 5+00N	.2	1.76	8	ND	298	ND	.88	1.3	16	42	76	3.15	.11	.49	1124	1	.01	37	.16	10	ND	ND	ND	ND	75	ND	ND	96
M 595S 4W 5+50N	.1	1.12	ND	ND	294	ND	.30	.4	8	24	10	2.47	.05	.29	868	2	.01	22	.08	9	ND	ND	ND	ND	38	ND	ND	94
M 596S 4W 6+00N	.1	.89	ND	ND	219	ND	.16	.1	6	21	6	1.83	.02	.19	531	1	.01	16	.09	10	ND	ND	ND	ND	19	ND	ND	79
M 597S 4W 6+50N	.1	1.06	ND	ND	135	ND	.21	.4	6	20	8	1.63	.03	.28	365	2	.01	20	.04	9	ND	ND	ND	ND	32	ND	ND	58
M 598S 4W 7+00N	.3	.80	ND	ND	83	ND	.20	.3	5	19	8	1.56	.03	.22	245	1	.01	20	.03	10	ND	ND	ND	ND	20	ND	ND	44
M 599S 4W 7+50N	.1	.99	ND	ND	156	ND	.18	.2	7	20	8	1.88	.03	.22	407	1	.01	22	.11	9	ND	ND	ND	ND	22	ND	ND	59
M 600S 4W 8+00N	.2	.73	ND	ND	88	ND	.10	.4	5	16	4	1.47	.02	.11	292	2	.01	12	.08	9	ND	ND	ND	ND	10	ND	ND	38
M 601S 4W 8+50N	.1	.87	ND	ND	133	ND	.15	.2	5	16	4	1.45	.02	.10	255	2	.01	11	.14	9	ND	ND	ND	ND	20	ND	ND	43
M 602S 4W 9+00N	.1	1.46	ND	ND	138	ND	.24	.4	7	20	8	1.77	.03	.36	530	2	.01	22	.04	9	ND	ND	ND	ND	30	ND	ND	61
M 603S 2W 9+00N	.1	1.15	ND	ND	121	ND	.12	.3	5	20	5	1.87	.02	.16	171	1	.01	17	.13	10	ND	ND	ND	ND	14	ND	ND	45
M 604S 2W 8+50N	.1	1.17	ND	ND	130	ND	.13	.4	7	22	5	1.99	.02	.17	586	2	.01	20	.13	8	ND	ND	ND	ND	15	ND	ND	57
M 605S 2W 8+00N	.2	.57	ND	ND	62	ND	.12	.1	4	14	4	1.22	.01	.14	126	1	.01	9	.03	7	ND	ND	ND	ND	13	ND	ND	33
M 606S 2W 7+50N	.1	.57	ND	ND	79	ND	.13	.1	4	15	4	1.34	.01	.14	167	1	.01	9	.03	8	ND	ND	ND	ND	13	ND	ND	39
M 607S 2W 7+00N	.1	.92	ND	ND	145	ND	.18	.1	5	19	5	1.75	.02	.16	180	1	.01	15	.18	9	ND	ND	ND	ND	20	ND	ND	52
M 608S 2W 6+50N	.1	.53	ND	ND	251	ND	.33	.4	5	16	5	1.58	.02	.14	1332	1	.01	12	.07	7	ND	ND	ND	ND	36	ND	ND	76
M 609S 2W 6+00N	.1	.82	ND	ND	133	ND	.16	.3	5	18	5	1.66	.02	.18	331	1	.01	19	.08	7	ND	ND	ND	ND	20	ND	ND	61
M 610S 2W 5+50N	.1	.59	ND	ND	119	ND	.16	.1	6	18	6	1.69	.03	.18	419	2	.01	13	.03	7	ND	ND	ND	ND	20	ND	ND	34
M 611S 2W 5+00N	.1	.76	ND	ND	121	ND	.16	.3	6	19	5	1.74	.03	.21	319	2	.01	17	.05	7	ND	ND	ND	ND	17	ND	ND	63
M 612S 2W 4+50N	.2	.83	ND	ND	121	ND	.20	.3	6	22	6	1.72	.03	.22	327	2	.01	18	.07	9	ND	ND	ND	ND	21	ND	ND	54
M 613S 2W 4+00N	.1	.38	ND	ND	49	ND	.14	.3	4	14	6	1.29	.01	.13	105	1	.01	8	.02	10	ND	ND	ND	ND	13	ND	ND	22
M 614S 2W 3+00N	.2	.97	ND	ND	105	ND	.22	.4	9	32	10	2.11	.04	.33	639	1	.01	22	.11	9	ND	ND	ND	1	19	ND	ND	49
M 615S 2W 2+50N	.2	.68	ND	ND	58	ND	.20	.3	8	25	7	1.63	.03	.27	331	2	.01	15	.01	8	ND	ND	ND	ND	18	ND	ND	23
M 616S 2W 2+00N	.1	.82	19	ND	873	ND	.99	.5	17	29	15	3.44	.08	.47	14236	12	.01	87	.08	8	ND	ND	ND	ND	80	ND	ND	23
DETECTION LIMIT	.1	.01	3	3	1	3	.01	.1	1	1	1	.01	.01	.01	1	1	.01	1	.01	2	3	5	2	2	1	5	3	1

CLIENT: COLIN CAMPBELL JOB#: 85573 PROJECT: -- REPORT: 85-25-017 DATE: 85/12/01

SAMPLE NAME (LOCATION)	AG PPM	AL %	AS PPM	AU PPM	BA PPM	BI PPM	CA %	CD PPM	CO PPM	CR PPM	CU PPM	FE %	K %	MG %	MN PPM	MO PPM	NA %	NI PPM	P %	PB PPM	PD PPM	PT PPM	SB PPM	SN PPM	SR PPM	U PPM	W PPM	ZN PPM
M 617S 2W 1+50N	ND	.03	109	ND	271	ND	2.74	1.1	14	18	11	6.75	.11	.47	2132	4	.01	123	.07	11	ND	ND	5	ND	152	14	ND	3
M 618S 2W 1+00N	.3	.89	4	ND	163	3	.46	.7	18	90	18	2.61	.07	1.02	398	1	.01	215	.09	13	ND	ND	ND	1	33	ND	ND	36
M 619S' 2W 0+50N	.2	.80	17	ND	179	ND	1.02	.4	11	189	30	2.29	.08	.63	1006	1	.01	175	.09	9	ND	ND	7	ND	57	ND	ND	36
M 620S 2W B.L.	.3	1.06	3	ND	149	ND	.29	.8	13	60	10	1.99	.06	.54	365	1	.01	75	.13	11	ND	ND	ND	ND	25	ND	ND	67
M 621S 2W 0+50S	ND	2.41	64	ND	186	ND	.41	1.0	27	395	16	3.72	.07	2.86	1079	3	.01	281-	.07	13	ND	ND	ND	ND	25	ND	10	66
M 622S 2W 1+00S	.2	.88	ND	ND	110	ND	.12	.4	8	31	12	2.30	.04	.29	375	1	.01	25	.06	12	ND	ND	ND	ND	11	ND	ND	42
M 623S 2W 1+50S	.1	.87	ND	ND	248	ND	.30	.6	8	27	13	2.20	.06	.24	748	1	.01	30	.13	12	ND	ND	ND	ND	24	ND	ND	106
M 624S 2W 2+00S	.2	.85	ND	ND	197	ND	.28	.5	7	22	6	1.59	.04	.22	430	1	.01	17	.16	11	ND	ND	ND	ND	18	ND	ND	78
M 625S 2W 2+50S	.2	1.15	ND	ND	155	ND	.24	.5	9	34	8	2.16	.05	.31	290	1	.01	37	.08	12	ND	ND	ND	ND	17	ND	ND	71
M 626S 2W 3+00S	.2	1.34	ND	ND	203	ND	.15	.2	9	31	10	2.32	.05	.27	378	2	.01	37	.17	14	ND	ND	ND	ND	13	ND	ND	84
M 627S 2W 3+50S	.2	.84	ND	ND	126	ND	.13	.2	6	25	7	1.72	.04	.21	274	1	.01	32	.05	12	ND	ND	ND	ND	12	ND	ND	54
M 628S 2W 4+00S	.2	1.28	ND	ND	131	ND	.15	.2	8	28	6	2.12	.05	.18	277	1	.01	29	.17	13	ND	ND	ND	ND	11	ND	ND	58
M 629S 2W 4+50S	.2	1.01	ND	ND	171	ND	.17	.3	7	22	6	1.71	.04	.16	735	1	.01	24	.15	12	ND	ND	ND	ND	16	ND	ND	72
M 630S 2W 5+00S	.1	1.18	ND	ND	117	ND	.15	.2	9	32	12	2.38	.05	.32	259	1	.01	37	.08	10	ND	ND	ND	ND	15	ND	ND	53
M 631S 2W 5+50S	.2	.94	ND	ND	168	ND	.15	.4	9	33	9	2.26	.05	.27	541	1	.01	33	.08	11	ND	ND	ND	ND	14	ND	ND	65
M 632S 2W 6+00S	.2	1.06	ND	ND	222	ND	.23	.7	9	33	10	2.17	.05	.29	799	1	.01	31	.07	12	ND	ND	ND	ND	21	ND	ND	65
M 633S 2W 6+50S	.3	1.55	ND	ND	164	ND	.54	.7	9	45	28	2.57	.08	.55	379	1	.01	44	.03	14	ND	ND	ND	ND	37	ND	ND	58
M 634S 2W 7+00S	.3	1.13	ND	ND	109	ND	.18	.3	13	68	11	2.74	.05	.51	303	2	.01	57	.09	12	ND	ND	ND	ND	14	ND	ND	95
M 635S 2W 7+50S	.3	.88	ND	ND	150	ND	.19	.7	9	46	6	2.29	.04	.22	447	2	.01	30	.12	13	ND	ND	ND	ND	11	ND	ND	81
M 636S B.L. 2+50W	.3	1.37	4	ND	193	3	.27	.5	11	31	13	2.39	.06	.41	586	2	.01	31	.19	13	ND	ND	ND	1	25	ND	ND	106
M 637S B.L. 3+00W	.3	1.23	6	ND	187	ND	.19	.7	13	50	28	2.85	.05	.51	538	3	.01	70	.09	14	ND	ND	ND	1	18	ND	ND	131
M 638S B.L. 3+50W	.3	1.34	5	ND	135	ND	.18	.3	11	39	15	2.45	.05	.42	584	1	.01	41	.06	12	ND	ND	ND	1	20	ND	4	63
M 639S B.L. 6+50W	.3	.81	10	ND	204	ND	.32	.6	14	33	40	3.71	.07	.31	1152	3	.01	36	.08	18	ND	ND	4	1	37	ND	ND	115
M 640S B.L. 7+00W	.3	1.07	ND	ND	370	ND	.31	.8	8	23	10	1.93	.06	.26	1163	ND	.01	20	.14	12	ND	ND	ND	ND	32	ND	ND	190
M 641S B.L. 7+50W	.3	1.11	ND	ND	228	3	.22	.3	7	23	8	1.65	.04	.25	490	ND	.01	21	.17	10	ND	ND	ND	ND	24	ND	ND	113
M 642S B.L. 8+00W	.2	.70	ND	ND	172	ND	.14	.5	7	18	11	1.77	.04	.24	435	1	.01	15	.05	12	ND	ND	ND	ND	27	ND	ND	92
M 643S B.L. 8+50W	.3	.78	ND	ND	149	ND	.14	.5	8	21	7	1.82	.04	.16	322	1	.01	15	.12	12	ND	ND	ND	ND	13	ND	ND	89
M 644S B.L. 9+00W	.2	.92	ND	ND	299	ND	.17	.9	9	26	14	2.32	.04	.27	1797	1	.01	23	.09	12	ND	ND	ND	ND	19	ND	ND	176
M 645S B.L. 9+50W	.2	1.11	ND	ND	202	ND	.43	.7	11	22	12	1.93	.05	.32	1085	1	.01	19	.04	15	ND	ND	ND	ND	37	ND	ND	76
M 646S B.L. 10+00W	ND	.87	ND	ND	355	ND	.26	2.9	9	16	23	2.77	.05	.21	1900	3	.01	23	.12	13	ND	ND	ND	ND	37	ND	ND	188
M 647S B.L. 10+50W	.2	.76	ND	ND	155	ND	.22	1.3	7	20	10	2.03	.05	.22	579	1	.01	18	.06	12	ND	ND	ND	ND	32	ND	ND	144
M 648S B.L. 11+00W	.3	1.00	ND	ND	178	3	.20	.3	8	22	11	1.91	.04	.21	1205	2	.01	19	.10	12	ND	ND	ND	ND	33	ND	ND	141
M 649S B.L. 11+50W	.1	.41	ND	ND	136	ND	.15	.4	4	13	6	1.20	.03	.09	1021	1	.01	12	.05	11	ND	ND	ND	ND	25	ND	ND	120
M 650S B.L. 12+00W	ND	.42	ND	ND	173	ND	.03	.7	5	9	10	1.58	.04	.04	551	1	.01	13	.08	11	ND	ND	ND	ND	6	ND	ND	61
M 651S B.L. 12+50W	.2	.31	ND	ND	294	ND	.27	.9	4	10	9	1.22	.04	.11	2070	1	.01	9	.04	9	ND	ND	ND	ND	28	ND	ND	84
M 652S B.L. 13+00W	.1	.42	ND	ND	168	ND	.08	.3	3	9	12	1.44	.04	.09	434	2	.01	8	.04	8	ND	ND	ND	ND	13	ND	ND	46
M.653S B.L. 13+50W	.1	.60	ND	ND	201	ND	.09	.3	ND	9	11	.54	.06	.06	102	2	.09	6	.06	6	ND	ND	ND	ND	9	ND	ND	24
M 654S B.L. 14+00W	.1	.28	15	ND	106	ND	.13	.9	3	5	47	2.38	.05	.02	123	2	.01	16	.06	11	ND	ND	3	ND	15	ND	ND	138
M 655S 8W 0+50W	.2	1.28	ND	ND	231	ND	.30	.6	9	25	9	2.30	.06	.28	435	ND	.01	26	.24	9	ND	ND	ND	ND	41	ND	ND	140
DETECTION LIMIT	.1	.01	3	3	1	3	.01	.1	1	1	1	.01	.01	.01	1	1	.01	1	.01	2	3	5	2	2	1	5	3	1

-19D-

SAMPLE NAME LOCATION	AG PPM	AL %	AS PPM	AU PPM	BA PPM	BI PPM	CA %	CD PPM	CO PPM	CR PPM	CU PPM	FE %	K %	MG %	MN PPM	MO PPM	NA %	NI PPM	P %	PB PPM	PD PPM	PT PPM	SB PPM	SN PPM	SR PPM	U PPM	W PPM	ZN PPM
M 656S 8W 1+00N	.5	.62	ND	ND	103	3	.11	.3	5	15	5	1.28	.03	.19	227	ND	.01	8	.04	10	ND	ND	ND	1	13	ND	ND	52
M 657S 8W 1+50N	.3	.50	5	ND	560	ND	.34	.8	7	10	25	1.93	.06	.09	2632	3	.01	17	.07	13	ND	ND	ND	ND	54	ND	ND	75
M 658S 8W 2+00N	.5	.70	37	ND	157	ND	.13	.7	11	24	34	3.00	.06	.22	544	2	.01	29	.07	13	ND	ND	3	ND	17	ND	ND	109
M 659S 8W 0+50S	.3	.49	ND	ND	115	ND	.07	.2	3	12	1	1.22	.03	.06	123	ND	.01	5	.09	7	ND	ND	ND	ND	7	ND	ND	34
M 660S 8W 1+00S	.4	1.00	ND	ND	123	3	.24	.1	9	30	13	2.38	.06	.37	262	1	.01	28	.03	9	ND	ND	ND	ND	22	ND	ND	38
M 661S 8W 1+50S	.5	.99	ND	ND	93	3	.20	.1	8	21	16	2.45	.07	.44	587	2	.01	21	.06	14	ND	ND	ND	ND	23	ND	ND	73
M 662S 10W 0+50N	.4	.79	ND	ND	117	ND	.13	.6	12	28	25	2.74	.06	.27	670	1	.01	25	.06	12	ND	ND	ND	ND	13	ND	ND	72
M 663S 10W 1+00N	.4	.98	ND	ND	159	ND	.14	.4	9	22	12	2.02	.05	.41	495	1	.01	23	.08	9	ND	ND	ND	ND	17	ND	ND	77
M 664S 10W 1+50N	.5	.69	ND	ND	172	ND	.13	3.3	8	14	5	1.66	.05	.17	843	1	.01	11	.10	8	ND	ND	ND	ND	16	ND	ND	200
M 665S 12W 0+50N	.3	.35	ND	ND	234	ND	.08	1.0	5	11	22	1.81	.04	.07	1106	2	.01	15	.05	9	ND	ND	ND	ND	16	ND	ND	85
DETECTION LIMIT	.1	.01	3	3	1	3	.01	.1	1	1	1	.01	.01	.01	1	1	.01	1	.01	2	3	5	2	2	1	5	3	1

51

VANGEOCHEM LAB LIMITED

VGC

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 85-25-017 JOB NUMBER: 85573 MR. COLIN CAMPBELL

SAMPLE #	Au ppb
M 500-S	nd
M 501-S	nd
M 502-S	nd
M 503-S	nd
M 504-S	nd
M 505-S	nd
M 506-S	nd
M 507-S	nd
M 508-S	5
M 509-S	nd
M 510-S	10
M 511-S	nd
M 512-S	5
M 513-S	nd
M 514-S	nd
M 515-S	nd
M 516-S	nd
M 517-S	nd
M 518-S	nd
M 519-S	10
M 520-S	10
M 521-S	nd
M 522-S	nd
M 523-S	nd
M 524-S	nd
M 525-S	10
M 526-S	5
M 527-S	nd
M 528-S	nd
M 529-S	nd
M 530-S	nd
M 531-S	5
M 532-S	5
M 533-S	nd
M 534-S	nd
M 535-S	15
M 536-S	nd
M 537-S	nd
M 538-S	nd
DETECTION LIMIT	5

nd = none detected — = not analysed is = insufficient sample

19G

VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 85-25-017 JOB NUMBER: 85573 MR. COLIN CAMPBELL

SAMPLE #	Au ppb
M 539-S	nd
M 540-S	nd
M 541-S	5
M 542-S	nd
M 543-S	15
M 544-S	5
M 545-S	nd
M 546-S	nd
M 547-S	nd
M 548-S	nd
M 549-S	nd
M 550-S	5
M 551-S	nd
M 552-S	nd
M 553-S	nd
M 554-S	nd
M 555-S	nd
M 556-S	nd
M 557-S	10
M 558-S	5
M 559-S	nd
M 560-S	nd
M 561-S	nd
M 562-S	nd
M 563-S	nd
M 564-S	nd
M 565-S	nd
M 566-S	nd
M 567-S	nd
M 568-S	10
M 569-S	5
M 570-S	nd
M 571-S	nd
M 572-S	nd
M 573-S	nd
M 574-S	nd
M 575-S	nd
M 576-S	nd
M 577-S	nd
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED
MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578
BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 85-25-017 JOB NUMBER: 85573 MR. COLIN CAMPBELL

SAMPLE #	Au ppb
M 578-S	nd
M 579-S	5
M 580-S	nd
M 581-S	nd
M 582-S	nd
M 583-S	nd
M 584-S	nd
M 585-S	nd
M 586-S	nd
M 587-S	nd
M 588-S	nd
M 589-S	nd
M 590-S	nd
M 591-S	nd
M 592-S	nd
M 593-S	nd
M 594-S	15
M 595-S	nd
M 596-S	nd
M 597-S	nd
M 598-S	nd
M 599-S	nd
M 600-S	nd
M 601-S	nd
M 602-S	nd
M 603-S	nd
M 604-S	nd
M 605-S	nd
M 606-S	nd
M 607-S	5
M 608-S	nd
M 609-S	10
M 610-S	nd
M 611-S	nd
M 612-S	nd
M 613-S	nd
M 614-S	nd
M 615-S	nd
M 616-S	nd
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED
MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578
BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 85-25-017 JOB NUMBER: 85573 MR. COLIN CAMPBELL

SAMPLE #	Au ppb
M 617-S	nd
M 618-S	nd
M 619-S	nd
M 620-S	5
M 621-S	nd
M 622-S	nd
M 623-S	nd
M 624-S	nd
M 625-S	nd
M 626-S	nd
M 627-S	15
M 628-S	30
M 629-S	nd
M 630-S	nd
M 631-S	nd
M 632-S	nd
M 633-S	nd
M 634-S	nd
M 635-S	nd
M 636-S	nd
M 637-S	nd
M 638-S	nd
M 639-S	nd
M 640-S	5
M 641-S	nd
M 642-S	nd
M 643-S	nd
M 644-S	nd
M 645-S	nd
M 646-S	nd
M 647-S	nd
M 648-S	nd
M 649-S	nd
M 650-S	nd
M 651-S	nd
M 652-S	nd
M 653-S	nd
M 654-S	80
M 655-S	nd
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

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NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 85-25-017 JOB NUMBER: 85573 MR. COLIN CAMPBELL

SAMPLE #	Au
	ppb
M 656-S	nd
M 657-S	nd
M 658-S	10
M 659-S	nd
M 660-S	nd
M 661-S	nd
M 662-S	5
M 663-S	150
M 664-S	15
M 665-S	20

DETECTION LIMIT 5

nd = none detected -- = not analysed is = insufficient sample

VGC

VANGEOCHEM LAB LIMITED

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1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 85-25-008 JOB NUMBER: 85246 **MR. COLIN CAMPBELL**

SAMPLE #	LOCATION	Au ppb	Hg ppb
M 140	4W 3+00N	10	30
M 141	4W 2+50N	5	25
M 142	4W 2+00N	15	35
M 143	4W 1+50N	5	30
M 144	4W 1+00N	nd	20
M 145	4W 0+50N	nd	20
M 146	B.L. 4+00W	nd	20
M 147	B.L. 4+50W	10	35
M 148	B.L. 5+00W	20	30
M 149	B.L. 5+50W	220	30
M 150	B.L. 6+00W	nd	25
M 151	6W 0+50N	nd	30
M 152	6W 1+00N	5	30
M 153	6W 1+50N	nd	20
M 154	6W 2+00N	nd	150
M 155	6W 2+50N	nd	25
M 156	6W 3+00N	nd	100
M 157	6W 3+50N	5	40
M 158	6W 4+50N	5	35
M 159	6W 5+00N	90	30
M 160	6W 5+50N	5	30
M 161	6W 6+00N	5	25
M 162	6W 6+50N	5	30
M 163	6W 7+00N	nd	25
M 164	6W 7+50N	5	30
M 165	6W 8+00N	5	20
M 166	6W 8+50N	nd	40
M 167	6W 9+00N	nd	60
M 168	6W 4+00N	60	30

DETECTION LIMIT 5 5

nd = none detected — = not analysed is = insufficient sample

194

VANGEOCHEM AB LIMITED

MAIN OFFICE: 1521 PEMBERTON AVE. N.VANCOUVER B.C. V7P 2S3 PH:(604)986-5211 TELEX:04-352578
BRANCH OFFICE: 1630 PANDORA ST. VANCOUVER B.C. V5L 1L6 PH:(604)251-5656

ICAP GEOCHEMICAL ANALYSIS

A .5 GRAM SAMPLE IS DIGESTED WITH 5 ML OF 3:1:3 HCL TO HNO3 TO H2O AT 95 DEG. C FOR 90 MINUTES AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR SN,MN,FE,CA,P,CR,MG,BA,PD,AL,NA,K,W,PT AND SR. AU AND PD DETECTION IS 3 PPM.
IS= INSUFFICIENT SAMPLE, ND= NOT DETECTED, -= NOT ANALYZED

COMPANY: COLIN CAMPBELL
ATTENTION: MR. COLIN CAMPBELL
PROJECT:

REPORT#: 95-25-008
JOB#: 85246
INVOICE#: 8745

DATE RECEIVED: 85/07/31
DATE COMPLETED: 85/08/02
COPY SENT TO: MR. COLIN CAMPBELL

ANALYST W Rums

SAMPLE NAME	AG PPM	AL %	AS PPM	AU PPM	BA PPM	BI PPM	CA %	CD PPM	CO PPM	CR PPM	CU PPM	FE %	K %	MG %	MN PPM	MO PPM	NA %	NI PPM	P %	PB PPM	PD PPM	PT PPM	SB PPM	SN PPM	SR PPM	U PPM	W PPM	ZN PPM
M 140	.1	.68	16	ND	79	ND	.20	.1	9	33	17	2.09	.06	.37	390	ND	.01	34	.07	6	ND	ND	ND	ND	18	ND	ND	38
M 141	.1	.61	8	ND	57	ND	.09	.1	7	32	8	2.07	.05	.28	172	ND	.01	27	.05	2	ND	ND	ND	ND	9	ND	ND	33
M 142	.1	.82	8	ND	155	ND	.32	.1	12	42	14	2.16	.06	.30	399	ND	.01	32	.08	9	ND	ND	ND	ND	32	ND	ND	36
M 143	.2	.93	4	ND	94	ND	.27	.1	12	58	14	2.34	.07	.58	253	ND	.01	101	.05	6	ND	ND	ND	2	23	ND	ND	35
M 144	.1	.67	3	ND	80	ND	.13	.1	5	31	8	1.73	.05	.26	188	ND	.01	26	.05	3	ND	ND	ND	ND	12	ND	ND	31
M 145	.1	.85	3	ND	93	ND	.15	.1	5	24	6	1.65	.05	.25	348	ND	.01	23	.07	5	ND	ND	ND	ND	14	ND	ND	57
M 146	.1	.90	6	ND	120	ND	.10	.1	6	28	7	2.03	.05	.19	302	ND	.01	14	.16	6	ND	ND	ND	ND	12	ND	ND	70
M 147	.1	.80	5	ND	92	ND	.22	.1	7	31	10	1.99	.05	.24	350	ND	.01	20	.08	6	ND	ND	ND	ND	23	ND	ND	68
M 148	.1	.95	20	ND	119	ND	.13	.1	6	24	6	1.85	.05	.22	248	ND	.01	25	.05	3	ND	ND	ND	ND	12	ND	ND	142
M 149	.1	.86	5	ND	193	ND	.37	.1	5	23	7	1.64	.06	.18	956	ND	.01	16	.09	6	ND	ND	ND	ND	29	ND	ND	116
M 150	.1	.59	6	ND	77	ND	.17	.1	5	19	7	1.74	.06	.23	474	ND	.01	12	.04	6	ND	ND	ND	ND	16	ND	ND	64
M 151	.3	1.04	7	ND	126	ND	.16	.1	11	44	13	3.15	.08	.31	427	ND	.01	26	.07	10	ND	ND	ND	4	19	ND	ND	81
M 152	.1	1.24	3	ND	130	ND	.17	.1	7	29	8	2.01	.06	.39	372	ND	.01	21	.08	6	ND	ND	ND	2	18	ND	ND	80
M 153	.1	.35	7	ND	60	ND	.11	.1	2	12	2	.89	.04	.13	142	ND	.01	5	.03	9	ND	ND	ND	ND	11	ND	ND	33
M 154	.3	1.10	6	ND	93	ND	.29	.1	10	48	16	2.49	.08	.52	331	ND	.01	47	.08	6	ND	ND	ND	2	22	ND	ND	50
M 155	.3	.59	ND	ND	85	ND	.34	.1	8	29	11	2.75	.09	.42	660	ND	.01	24	.08	8	ND	ND	ND	ND	35	ND	ND	39
M 156	.1	.28	9	ND	87	ND	3.33	.1	ND	9	11	.53	.09	.51	441	ND	.01	10	.08	3	ND	ND	ND	ND	164	4	ND	16
M 157	.4	.99	10	ND	141	3	.48	.1	13	46	23	2.86	.11	.61	516	ND	.01	53	.11	7	ND	ND	ND	2	48	ND	ND	51
M 158	.2	1.94	ND	ND	173	ND	.42	.1	11	30	21	2.81	.09	.51	813	ND	.01	27	.07	7	ND	ND	ND	ND	50	ND	ND	91
M 159	.1	1.78	ND	ND	169	ND	.38	.1	15	39	29	3.25	.09	.80	759	ND	.01	28	.07	1	ND	ND	ND	ND	35	ND	3	76
M 160	.2	1.19	3	ND	154	ND	.25	.1	6	21	8	1.95	.06	.26	419	ND	.01	22	.13	4	ND	ND	ND	ND	29	ND	ND	68
M 161	.1	1.30	3	ND	176	ND	.20	.1	6	20	7	2.02	.06	.27	257	ND	.01	19	.17	9	ND	ND	ND	ND	30	ND	ND	91
M 162	.1	.95	3	ND	68	ND	.27	.1	5	21	7	1.51	.06	.23	300	ND	.01	13	.04	6	ND	ND	ND	ND	26	ND	ND	35
M 163	.1	.90	5	ND	157	ND	.23	.1	6	21	8	2.01	.07	.21	457	ND	.01	14	.14	5	ND	ND	ND	ND	32	ND	ND	44
M 164	.1	1.90	ND	ND	124	ND	.24	.1	8	31	26	2.27	.08	.35	816	ND	.01	33	.06	4	ND	ND	ND	ND	33	ND	ND	45
M 165	.1	.90	4	ND	57	ND	.13	.1	5	22	5	1.90	.05	.19	164	ND	.01	16	.06	3	ND	ND	ND	ND	15	ND	ND	34
M 166	.1	1.03	5	ND	72	ND	.15	.1	5	26	7	1.91	.05	.23	215	ND	.01	16	.04	4	ND	ND	ND	ND	18	ND	ND	28
M 167	.1	1.04	5	ND	76	ND	.12	.1	5	20	5	1.75	.05	.21	210	ND	.01	16	.06	4	ND	ND	ND	ND	15	ND	ND	36
M 168	.4	.83	14	ND	92	ND	.72	.1	13	30	39	2.40	.10	.61	525	ND	.01	30	.09	10	ND	ND	ND	ND	49	ND	ND	41

VANGEOCHEM LAB LIMITED

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BRANCH OFFICE
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VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 85-25-011 JOB NUMBER: 85295 **MR. COLIN CAMPBELL** PAGE 1 OF 1

SAMPLE #	LOCATION	Au ppb
M 300S	4N 5+75W	3650
M 301S	4N 5+90W	120
M 302S	B.L. 5+75W	nd
M 303S	B.L. 5+25W	nd
M 304S	4N 0+25N	nd
M 305S	0+25N 4+25W	5
M 306S	0+25N 4+50W	5
M 307S	0+25N 4+75W	10
M 308S	0+25N 5+00W	nd
M 309S	0+25N 5+25W	5
M 310S	0+25N 5+50W	10
M 311S	0+25N 5+75W	nd
M 312S	0+25S 6+00W	nd
M 313S	0+25S 5+~~80~~ 75W	15
M 314S	0+25S 5+50W	5
M 315S	0+25S 5+25W	5
M 316S	0+25S 5+00W	nd
M 317S	0+25S 4+75W	20
M 318S	0+25S 4+50W	10
M 319S	0+25S 4+25W	15

JENG P.

DETECTION LIMIT 5

nd = none detected -- = not analysed is = insufficient sample

19.N

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(604) 251-5656

REPORT NUMBER: 85-25-015 JOB NUMBER: 85556 MR. COLIN CAMPBELL PAGE 1 OF 1

SAMPLE #	Au ppb
M 50 R	nd
M 51 R	nd
M 52 R	nd
M 53 R	nd
M 54 R	5
M 55 R	5

DETECTION LIMIT 5
nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

MAIN OFFICE: 1521 PEMBERTON AVE. N.VANCOUVER B.C. V7P 2S3 PH:(604)986-5211 TELEX:04-352578
BRANCH OFFICE: 1630 PANDORA ST. VANCOUVER B.C. V5L 1L6 PH:(604)251-5656

ICAP GEOCHEMICAL ANALYSIS

A .5 GRAM SAMPLE IS DIGESTED WITH 5 ML OF 3:1:2 HCL TO HNO3 TO H2O AT 95 DEG. C FOR 90 MINUTES AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR SN,MN,FE,CA,P,CR,MG,BA,PD,AL,NA,K,W,PT AND SR. AU AND PD DETECTION IS 3 PPM.
IS= INSUFFICIENT SAMPLE, ND= NOT DETECTED, -= NOT ANALYZED

COMPANY: COLIN CAMPBELL
ATTENTION: COLIN CAMPBELL
PROJECT: N.R.R.

REPORT#: 85-25-015
JOB#: 85556
INVOICE#: 9141

DATE RECEIVED: 85/11/08
DATE COMPLETED: 85/11/15
COPY SENT TO: MR. COLIN CAMPBELL

ANALYST W. Russell

SAMPLE NAME	AG PPM	AL %	AS PPM	AU PPM	BA PPM	BI PPM	CA %	CD PPM	CO PPM	CR PPM	CU PPM	FE %	K %	MG %	MN PPM
N50R	.1	1.13	78	ND	123	ND	2.05	.4	17	90	107	6.46	.17	1.11	15123
N51R	.1	.72	76	ND	135	ND	.75	.3	20	48	159	9.33	.16	.62	26105
N52R	.1	.10	ND	ND	70	ND	.13	.1	4	127	45	1.15	.04	.06	600
N53R	.1	.09	86	ND	163	ND	.39	.2	12	97	162	4.75	.08	.02	6682
N54R	.1	3.44	54	3	26	ND	4.35	.6	36	67	82	8.18	.15	3.37	1211
N55R	.1	.52	ND	ND	160	ND	.23	.4	9	110	77	1.80	.08	.44	1203
DETECTION LIMIT	.1	.01	3	3	1	3	.01	.1	1	1	1	.01	.01	.01	1

SAMPLE NAME	MO PPM	NA %	NI PPM	P %	PB PPM	PD PPM	PT PPM	SB PPM	SN PPM	SR PPM	U PPM	W PPM	ZN PPM
N50R	2	.01	102	.65	36	ND	ND	31	3	74	9	4	103
N51R	ND	.01	141	.24	53	ND	ND	24	1	41	ND	ND	160
N52R	1	.01	26	.02	7	ND	ND	6	1	8	ND	ND	41
N53R	3	.01	64	.27	19	ND	ND	21	1	36	ND	ND	111
N54R	4	.01	51	.14	16	ND	ND	3	5	140	9	31	98
N55R	2	.01	49	.05	13	ND	ND	ND	1	14	ND	ND	95
DETECTION LIMIT	1	.01	1	.01	2	3	5	2	2	1	5	3	1

-190-

VANGEOCHEM LAB LIMITED

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REPORT NUMBER: 85-25-014 JOB NUMBER: 85425 MR. COLIN CAMPBELL PAGE 1 OF 1

SAMPLE #	Au ppb
M 241R	30
M 242R	40
M 243R	120
M 244R	35
M 245R	35
M 246R	5
M 247R	130
M 248R	75
M 249R	320
M 250R	515
M 251R	540
M 252R	5
M 253R	150
M 254R	nd
M 255R	10
M 256R	5
M 257R	nd
M 258R	nd
M 259R	nd
M 260R	nd
M 261R	nd
M 262R	10
M 263R	1300
M 264R	1060
JB 101	nd
JB 102	5

} GRASS ROOTS.

DETECTION LIMIT 5

nd = none detected — = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

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BRANCH OFFICE
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REPORT NUMBER: 85-25-010 JOB NUMBER: 85296 **MR. COLIN CAMPBELL** PAGE 1 OF 1

SAMPLE #	Au oz/st
M 210R	.036
M 211R	.030
M 212R	.026
M 213R	<.005
M 214R	<.005
M 215R	<.005
M 216R	<.005
M 217R	<.005
M 218R	<.005
M 219R	.014
M 220R	<.005
M 221R	<.005
M 222R	<.005
M 223R	<.005
M 224R	<.005
M 225R	<.005
DETECTION LIMIT	.005

1 Troy oz/short ton = 34.28 ppm 1 ppm = 0.0001% ppm = parts per million < = less than

signed: ____________________

M53-R CHERT BRECCIA

Breccia fragments from 10 mm to extremely fine grained consist of white chert, argillaceous chert and bedded fragments of both. The fragments have been cemented by geothite and now form a tough competent glassy breccia.

In this section the argillaceous chert fragments contain evenly disseminated limonite filled vugs, averaging .25 mm, having likely replaced pyrite; however along some fractures the opaques are hackly suggesting original ankerite.

Late quartz veinlets up to .25 mm wide cut the argillaceous chert fragments.

white chert	20%	
black chert:		
cholcedonic quartz	75%	
sericite	20%	40%
geothite	5%	
breccia filling geothite		40%

JT 85-R PYRITIFEROUS PHYLLITE

In hand specimen this is a well foliated white and grey rock containing euhedral pyrite grains to 5 mm with cross cutting wuggy areas and lenses of chert.

In thin section layered cherty quartz dominates; some 5% has recrystallized to small boudin like masses.

cholcedony	75%	(5% to quartz)
sericite	12-15%	
carbonaceous material	3-5%	
sericite	12-15%	
pyrite (or voids)	2-3%	

APPENDIX D

JT 111-R SHEARED DOLOMITIC TUFF

In hand specimen this sample is a dark green foliated rock with carbonate in patches. In thin section it appears to be an altered and sheared equivalent of JT 114-R. The carbonate rhombohedra appear worn and erroded. The section is dominated by carbonate (60%) and coarse chlorite masses up to 2 mm long.

The ground mass consists of a fine grained mixture of plagiodase, chlorite sericite and minor fine quartz. Opaques are leucoxene and fine pyrite.

Ground mass:

plagioclase	15%
chlorite	10%
sericite	8%
quartz	2%
leucoxene	5%
pyrite	$<$ 1%

Some carbonate occurs as .25 mm by 1 cm long lenses.

JT 114-R DOLOMITIC TUFF

The section is dominated by euhedral rhombohedra of carbonate .5 mm to 1 mm in length, the crystals are strongly zoned suggesting dolomite with an ankeritic (brown) component. Some rhombohedra have a small core of quartz.These rhombohedra form some 40% of the rock and are generally fresh and very sharp in outline.

The ground mass consists of very fine grained fragments of plagioclase, carbonate and chlorite. Some curved fragments could be shards. Finely disseminated leucoxene is the only opaque observed.

Ground mass:

plagioclase	30%
carbonate	20%
chlorite	7%
leucoxene	3%

Late veins up to 1.5 mm wide are of quartz with carbonate (rusty) rims.

M 102-R <u>WHITE PHYLLITE</u>

In hand spicimen this is a white, rusty streaked cherty rock with coarse white mica and bedded pyrite.

The thin section consist of chalcedony, some 10% of which has recrystallized to .02 mm to .25 mm anhedral quartz. Fresh blades of sericite to .25 mm long are oriented at right angles to one another (and to the bedding) are interspersed throughout the slide and along the edges of a late 2 mm wide barren quartz veinlet.

cholcedony	70-75%
quartz	5-10%
sericite	15%
pyrite	2-3%
goethite	1-2%

J-1R <u>GREENSTONE</u>

In hand specimen this is a dark green competent rock of coarse (up to 2 cm) fragments cemented by quartz, and carbonate.

In thin section the fragments are felted masses of plagioclase, hornblende, chlorite and calcite. Some with .5 mm vesicles have been filled with calcite and rimmed by chlorite. One late .5 mm vein is lined by epidote and filled with calcite.

<u>Fragments</u>

Plagioclase	30-45%
Hornblended	20-25%
Chlorite	15-20%
Carbonate	15-25%

M 128-R <u>LISTWANITE</u>

This is a mottled green mixture of brownish carbonate and chalcedony with coarse grains of pyrite and minor chalcopyrite.

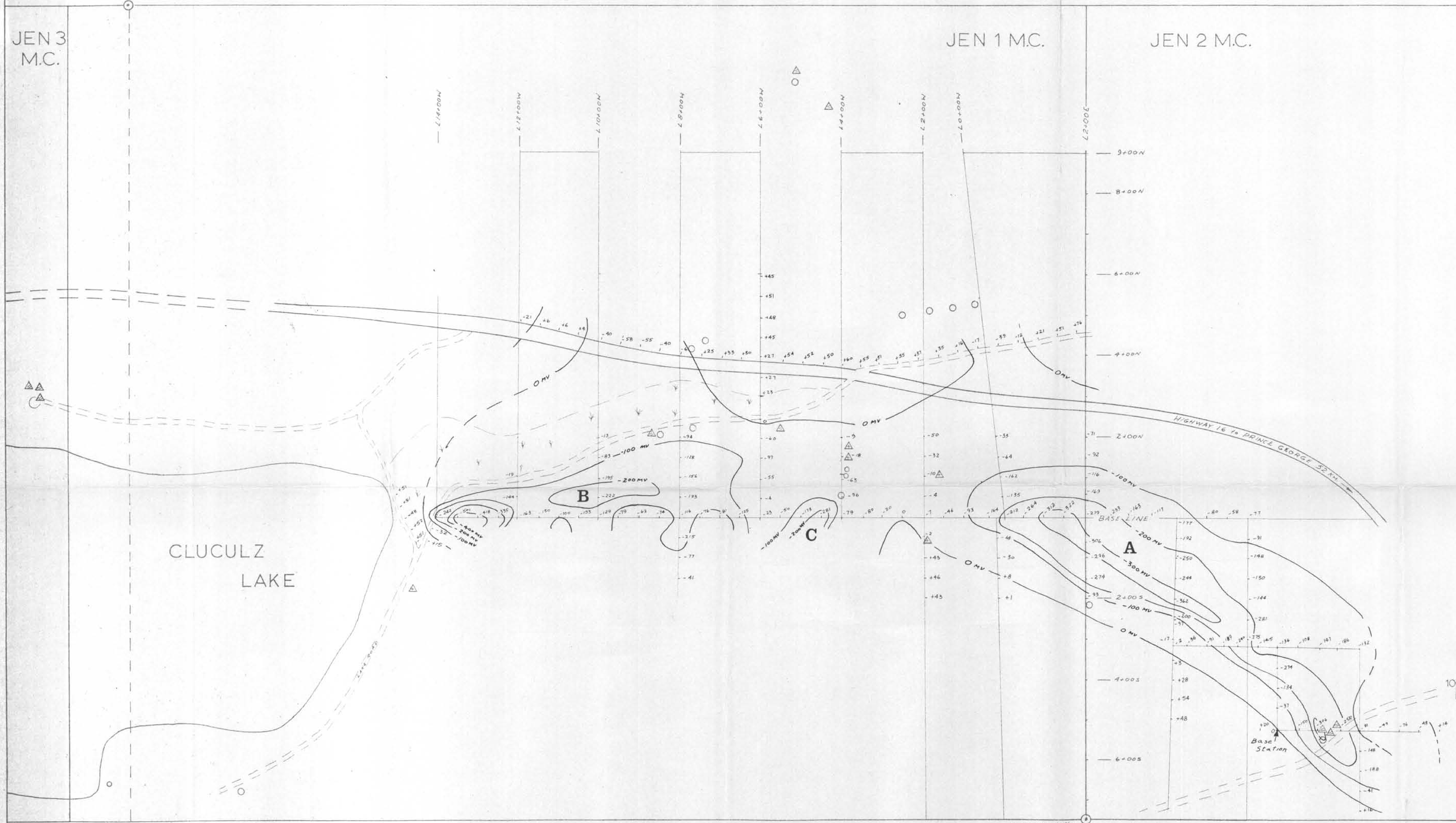
In thin section the chalcedony has very finely dispersed sericite (mariposite?). Carbonate up to 60% (dolomite-ankerite) as .25 mm veinlets cuts the chalcedony which contains .5 to 1mm euhedral grains of pyrite (2-3%). Minor chalcopyrite occurs as very tight veinlets in the cholcedony.

J 2-R **LISTWANITE**

This is a brecciated light coloured rock which weathers to sharp coarse uneven surfaces. In thin section the fragments are a) chalcedony with up to 50% very fine grained sericite (mariposite?) b) fine layers of cholcedony and carbonate (dolomite-ankerite) c) fragments of felted masses of plagioclase, antigorite and fine carbonate (calcite). The fragments are cemented by ankerite and dolomite and chalcedony with 1-2% pyrite.

Colin J. Campbell

JEN 3 M.C.
JEN 1 M.C.
JEN 2 M.C.
CLUCULZ LAKE
HIGHWAY 16 to PRINCE GEORGE
BASE LINE
LCP JEN #1,2
GEOLOGICAL BRANCH ASSESSMENT REPORT
15,127
100 50 0 100 200 metres
To accompany report by C. Campbell
JEN CLAIM GROUP
GEOLOGICAL SURVEY
Rock sample (Petrographic) site
1986 Survey results
Altered andesitic and basaltic flows, tuffs and fragmentals-"Greenstone"
Black argillite - Phyllite
Listwanites
Drawn by C.Campbell
Sept. 1986
Scale 1:5000
MAP J86-1



GEOLOGICAL BRANCH ASSESSMENT REPORT

15,127

N

100 50 0 100 200 metres

To accompany report by C. Campbell

JEN CLAIM GROUP

SELF POTENTIAL SURVEY

-150 Self Potential in millivolts

Drawn by C. Campbell	Sept. 1986
Scale 1: 5000	MAP J86-2


JEN 3 M.C.
JEN 1 M.C.
JEN 2 M.C.
CLUCULZ
LAKE
HIGHWAY 16 to PRINCE GEORGE 52 km
BASE LINE
A
B
C
LCP JEN #1, #2
GEOLOGICAL BRANCH
ASSESSMENT REPORT
15,127
N
100 50 0 100 200 metres
To accompany report by C. Campbell
JEN CLAIM GROUP
GEOCHEMICAL SURVEY
GOLD AND MERCURY IN SOIL
Soil Sample Site
>50 ppb Au
20 to 50 ppb Au
10 to 19 ppb Au
5 to 9 ppb Au
n.d. Au not detected
1985 survey if no values plotted
Drawn by C.Campbell
September 1986
Scale 1: 5000
Map J 86-3