1999 Exploration Program

on the

Lucky Property

Claims:	BASE 1,BASE 2,CKO 1,CKO 2,CKO 3,K6,K7,KNV,KO 1,KO 2,KO 3,KO 4,KO 6,KT 1,KT 2,KT 3,KT 4,KX,KZ,LUCKY 81,LUCKY 82,OYSTER 2,PEAK,RIDGE,SP 1,SP 2,SP 3,SP 4,TOQ 1,TOQ 2,TOQ 3,TOQ 5,TOQ 6,TOQ 7,WICK,
Mining Division:	Alberni
NTS Map Sheet:	NTS 92F 3
Latitude:	49° 04' N
Longitude:	~~145~~° 18' W 125
Owner of Claims:	Electrum Resource Corporation
Project Operator:	Electrum Resource Corporation
Consultant:	New Caledonian Geological Consulting
Report by:	Peter A. Ronning, P.Eng.
Date of Report:	March 2000

26,208

Table of Contents

List of Figures

List of Tables

List of Appendices

I. Summary and Conclusions

The Lucky Property is situated in British Columbia on NTS map sheet 92 F 3, on the southwest coast of Vancouver Island, approximately 22 kilometers northeast of Ucluelet. The property is rugged and densely forested, with relief of some 1,250 meters. Electrum Resource Corporation owns the claims and operated the work program described herein.

The property lies in the southern part of the Kennedy River Camp, an area that has been prospected since the early 1900's. Numerous gold veins exist in the camp, and there have been a few hundred tons of production. The most significant mineral production, however, was from the Brynnor magnetite mine, which produced 4.4 million tons of magnetite iron ore.

The Lucky is a gold-quartz vein that has been traced by surface trenching, drifting and diamond drilling for about 105 meters of strike. It has been drilled to a depth of nearly 90 meters below surface. Numerous samples have been obtained over widths of 20 cm. to 4.4 meters. Gold grades range from 0.1 oz Au/ton to almost 2 oz Au/ton.

Part of the present Lucky property was staked as early as 1905. The Lucky vein was stripped on surface and explored underground during the period 1920 - 1938. The 1980's saw extensive sampling and drilling of the vein as well as property-wide prospecting, geochemical surveys and geological mapping.

In 1991-92, a zone of highly sulphidized felsic rocks was discovered using geophysical techniques, on the TOQ grid. The exposures on the TOQ Grid are at the center of a 1.7 km long lithogeochemical trend of sub-economic but anomalous lead, zinc and gold concentrations.

It has been suggested that the sulphidized rocks on the TOQ grid may be part of the Paleozoic Sicker Group (Northcote, 1992). If that is so then these rocks would be the oldest rocks on the Lucky Claims. Most of the property is underlain by Triassic Karmutsen volcanic rocks. Smaller areas are underlain by late Triassic Quatsino limestones or Parson Bay argillites and siltstones. Lower Jurassic Bonanza volcanics are also found locally. Plutonic rocks include lower Jurassic granitic ones equivalent to the Island Intrusions, probable Tertiary granitic rocks, and gabbro dikes that also are probably Tertiary.

In a 1994 report the present writer described several target areas for exploration on the Lucky Property. With minor modifications to reflect work done since 1994, those target areas are:

1. The sulphidized zones on the **TOQ Grid** and west of the grid, across the river, in the **Toquart River West** area. To date significant base or precious metal concentrations have not been found in these sulphidized areas, but new logging roads continue to open up a larger mineralized area. Prospecting, mapping and sampling should continue as the logging roads progress.
2. **The Triple Creek Area**, where skarn mineralization is known and porphyry-style alteration has been identified. Prospecting should continue as the logging road network in this area expands.
3. **Nugget Creek**, where gold, copper and barium anomalies are prominent both in stream sediment samples and rock chip samples from float.

4. **The Toquart Peaks Area** is bounded on the south and southeast by Nugget Creek, the west and north by Toquart River and on the east by the eastern boundaries of the TOQ 1, TOQ 2 and TOQ 5 claims. Within it, to varying degrees, stream sediments contain high values of a number of metals. Prospecting hasn't revealed any interesting mineralization but parts of the area remain un-prospected.

Since the early 1980's a sequence of small exploration programs on the Lucky property has generated a steady trickle of exploration data including geochemical, geological and geophysical information. Activity by Consolidated Logan Mines in the period 1995 to 1998 generated a considerable volume of information. Most of the information is to be found in individual reports. At this stage in the property's history, the data generated over the last 20 years should be brought together and synthesized, to obtain a clear picture of the present exploration potential.

II. Introduction

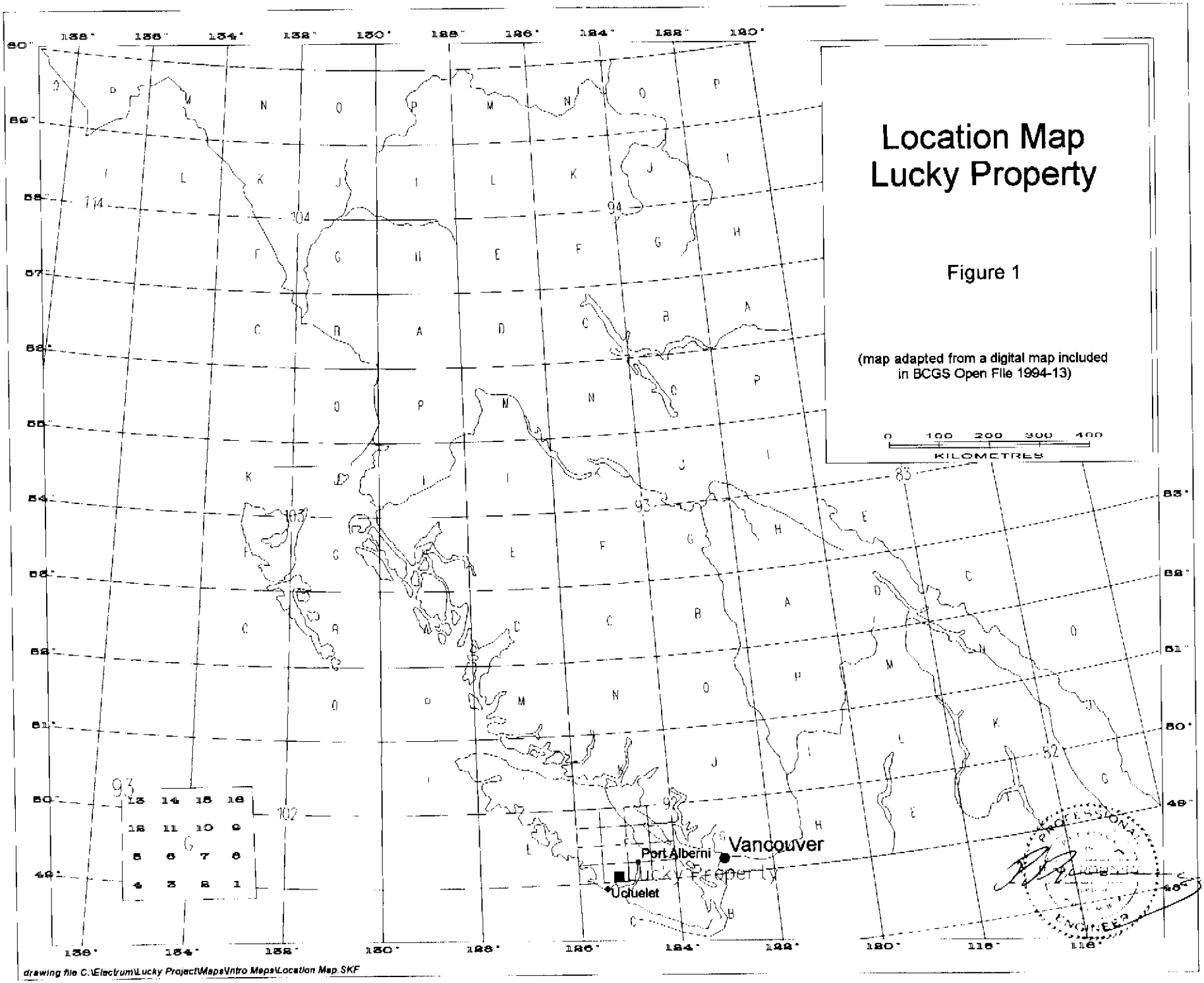
A. Location and Access

(see Figure 1 on page 4)

The Lucky Property is situated in British Columbia on NTS map sheet 92 F 3, on the southwest coast of Vancouver Island, approximately 22 kilometers northeast of Ucluelet. It is about 8 kilometers east of Kennedy Lake. A main line logging road leads from Kennedy Lake to Toquart Bay, whence a network of logging roads provides access to the western parts of the property. New roads continue to be built, increasing the access for exploration. Much of the property, particularly at higher elevations, is still accessible only by helicopter or by very difficult foot travel.

B. Physiography

Relief on the property is in the order of 1,250 meters, from sea level to the peak of Lucky Mountain. The rugged terrain is dissected by steep V-shaped valleys with heavily timbered slopes and dense underbrush. Only in the valley of Toquart River on the northwestern part of the property is the topography more gentle. There the river has locally formed a flood plain a kilometer or so wide.


Location Map
Lucky Property
Figure 1
(map adapted from a digital map included in BCGS Open File 1994-13)
0 100 200 300 400
KILOMETRES
Port Alberni
Vancouver
Ucluelet
Lucky Property
drawing file C:\Electrum\Lucky Project\Maps\Intro Maps\Location Map.SKF

C. *Property Definition*

1. Claims

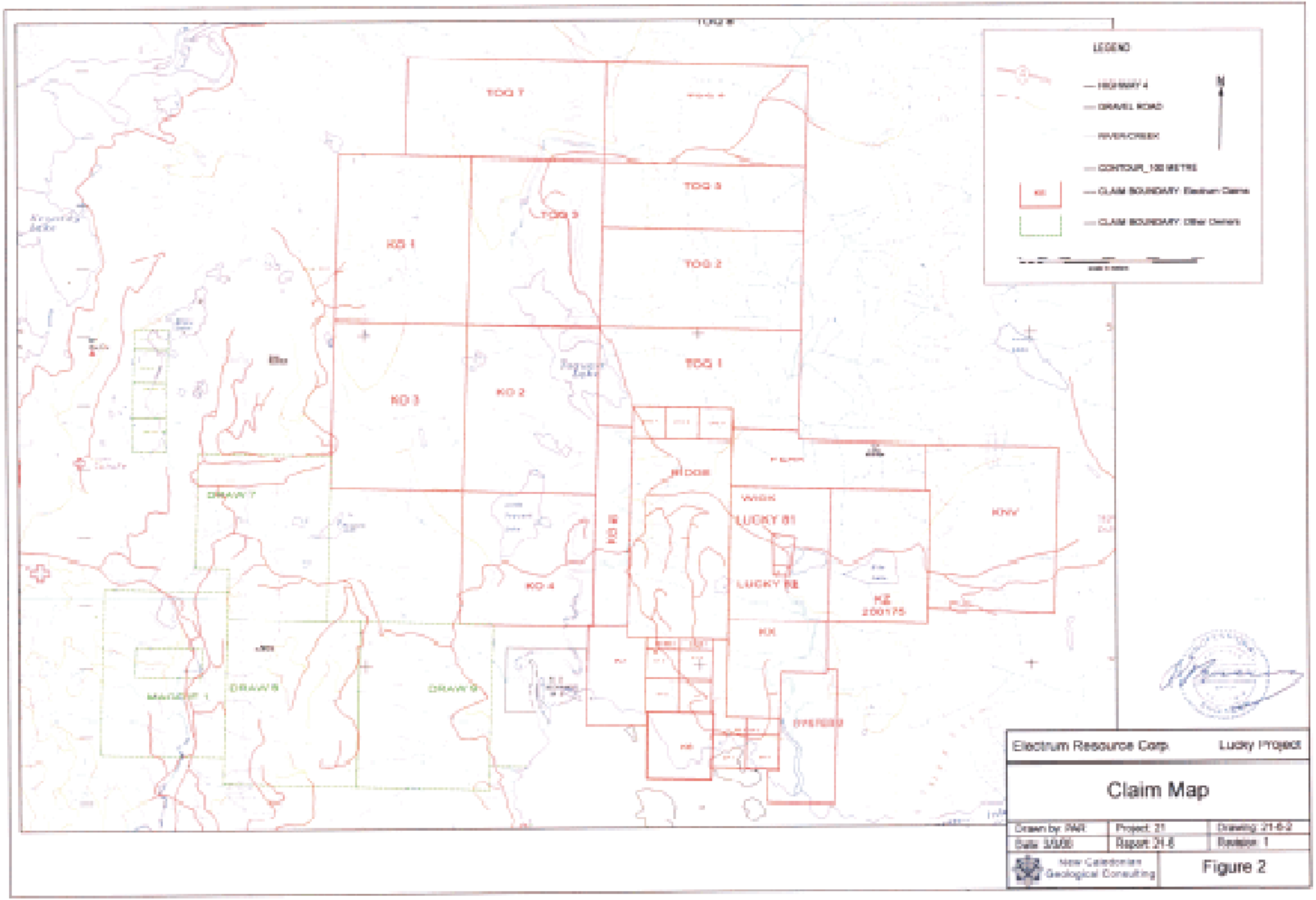
(see Figure 2)

The claims that comprise the property are listed in Table 1. All are owned by Electrum Resource Corporation.

Table 1: Claims in the Lucky Property

Claim Name	Record Number	Record Date	Expiry Date	Units
KO 1	335725	07-May-95	07-May-00	20
KO 3	335727	07-May-95	07-May-00	20
KO 2	335726	08-May-95	08-May-00	20
KO 4	335728	08-May-95	08-May-00	16
K7	335732	10-May-95	10-May-00	6
KO 6	335730	10-May-95	10-May-00	6
K6	335731	10-May-95	10-May-00	4
CKO 1	339197	19-Aug-95	19-Aug-00	1
CKO 2	339198	19-Aug-95	19-Aug-00	1
CKO 3	339199	19-Aug-95	19-Aug-00	1
SP 1	339200	22-Aug-95	22-Aug-00	1
SP 2	339201	22-Aug-95	22-Aug-00	1
SP 3	339202	22-Aug-95	22-Aug-00	1
SP 4	339203	22-Aug-95	22-Aug-00	1
RIDGE	339186	22-Aug-95	22-Aug-00	18
TOQ 7	305384	30-Sep-91	30-Sep-00	18
TOQ 5	305383	30-Sep-91	30-Sep-00	12

Claim Name	Record Number	Record Date	Expiry Date	Units
KNV	367171	10-Nov-98	10-Nov-00	20
KT 4	314980	29-Nov-92	29-Nov-00	1
KT 2	314978	29-Nov-92	29-Nov-00	1
KT 3	314979	29-Nov-92	29-Nov-00	1
TOQ 1	201243	23-Dec-90	23-Dec-00	18
PEAK	201246	23-Dec-90	23-Dec-00	14
TOQ 3	201245	23-Dec-90	23-Dec-00	20
TOQ 2	201244	23-Dec-90	23-Dec-00	18
BASE 2	200620	14-Jan-88	14-Jan-01	1
TOQ 6	307379	14-Jan-92	14-Jan-01	18
BASE 1	200619	14-Jan-88	14-Jan-01	1
KT 1	314977	29-Nov-92	29-Nov-01	1
KZ	200175	24-Nov-82	24-Nov-03	12
KX	200174	24-Nov-82	24-Nov-03	9
OYSTER 2	200463	22-Dec-86	22-Dec-03	8
LUCKY 81	200135	28-Jan-82	28-Jan-04	1
LUCKY 82	200136	28-Jan-82	28-Jan-04	1
WICK	200537	29-May-87	29-May-04	12


LEGEND
HIGHWAY 4
GRAVEL ROAD
RIVER/CREEK
CONTOUR_100 METRE
CLAIM BOUNDARY: Electrum Claims
CLAIM BOUNDARY: Other Owners
TOQ 7
TOQ 3
TOQ 2
TOQ 1
KO 1
KO 2
KO 3
KO 4
WIDOW
WASK
LUCKY 81
LUCKY 82
KZ
200175
KNV
KK
DRAVY 7
DRAVY 8
DRAVY 9
MAGGY 1
Electrum Resource Corp.
Lucky Project
Claim Map
Drawn by: PAR
Project: 21
Drawing: 21-6-2
Report: 21-6
Revision: 1
New Caledonian Geological Consulting
Figure 2

2. History

(Much of the history described herein is adapted from Price, 1992)

a) History of the District

The Lucky property is in the southern part of the Kennedy River Camp. Considerable prospecting in the area took place in the early 1900's and in the 1930's. Numerous vein type gold showings were discovered and a few hundred tons of production resulted.

The most significant mineral production from the area was at the Brynnor magnetite mine about 10 km west of the Lucky property. Between 1962 and 1966 it produced about 4.4 million tons of magnetite iron ore from skarns in tuffaceous argillite and andesite.

In the late 1980's several companies explored for gold in the Kennedy River area, creating a minor flurry of exploration.

b) History of the Lucky Property

1905	Part of the present property was staked as the Red Rover property.
1920-38	With the work of various operators the Lucky Vein was partially stripped and two adits were driven on it. Extensive sampling was carried out.
1972-81	Minor exploration work, mainly sampling at the Lucky Adit.
1981-82	Minor assessment work.
1983-84	J. Barakso, who at present controls the property through Electrum Resource Corporation, acquired the property. Silt, soil and rock chip sampling programs were carried out by Victoria Resource Corporation, under option.
1985	Falconbridge Ltd. optioned the claims and did work which included property-wide geochemical sampling, geophysical surveys and geological mapping. Underground workings were surveyed and sampled, and 332 meters of diamond drilling was done in 7 holes on the Lucky Vein.
1987	Electrum Resource Corporation optioned the property to Freemont Gold Corporation, who, with Alcove Gold Corporation, completed VLF-EM and magnetometer surveys, soil and rock chip geochemistry, geological mapping and prospecting.
1988	Canora Mining Corporation joined the joint venture and did 2,087 meters of diamond drilling in 20 holes on the Lucky vein, as well as 6 holes in an area known as the Ridge Zone.
1991	Electrum Resource Corporation did an IP and VLF-EM survey on the TOQ grid, located on the TOQ 3 claim. Pronounced chargeability and resistivity anomalies were located. A strong VLF-EM conductor is coincident with the former.
1992	Electrum carried out geological and geochemical investigations over much of the property.

1993 Electrum continued its geological and geochemical investigations, making use of logging roads completed since 1992. The 1993 work included a helicopter reconnaissance.

1994 Electrum continued geological and geochemical investigations, making use of new logging roads and of a helicopter based in Port Alberni.

1995-98: Consolidated Logan Mines Ltd. held the property under option from Electrum. Work done by Logan included geochemical soil and/or rock surveys on a number of grids, a lake sediment survey, an aeromagnetic survey and 826 meters of diamond drilling in 5 holes on the TOQ zone (Walker, 1997).

3. Economic Potential

The Lucky is a gold-quartz vein that has been traced by surface trenching, drifting and diamond drilling for about 105 meters of strike. It has been drilled to a depth of nearly 90 meters below surface. Numerous samples have been obtained over widths of 20 cm. to 4.4 meters. Gold grades range from 0.1 oz Au/ton to almost 2 oz Au/ton (data from Price, 1992). The vein may have potential to support a small, high grade gold mining operation, but no engineering or economic studies have been done to test this possibility.

The geophysical anomaly on the TOQ grid was a new discovery in 1991 (Zastavnikovich et al, 1992). Bzdel and Rockel (1991) describe the geophysical signature as being indicative of a massive sulphide core with an envelope of disseminated sulphides. After drilling the TOQ zone, Walker (1997) described it as being characterized by extensive pyritization in network stringers, veins and disseminations associated with zones of intense alteration including silica, sericite, pyrophyllite and clay. No potentially economic mineralization has yet been identified on the TOQ grid.

The Triple Creek target area was discovered by Falconbridge in the mid 1980's (Rebic and Lehtinen, 1985). The construction of new logging roads has created new rock exposures which have revealed the presence of highly altered quartz feldspar porphyry dikes and an extensive zone of propylitic alteration in the Karmutsen Volcanics. The alteration may suggest the presence of a porphyry copper system.

III. Work Program

During the period 3 October 1999 through 9 October 1999, Electrum caused field work to be done by two persons on the Lucky property. The field work and subsequent laboratory analysis included the following:

- 114 soil samples collected and geochemically analyzed.
- 37 rock samples collected, described and geochemically analyzed, with subsequent assays for copper done on two samples.
- 1 stream sediment sample collected.

- geological mapping of new road cuts over a distance of 2.5 kilometers in the Toquart River West area.
- geological mapping of about 10 hectares near Toquart Bay.

The cost of this program, including all follow-up reporting and data management, was $14,200.

IV. Geology

A. Regional Geological Setting

(Much of the following discussion is adapted from Price, 1992)
(See Figure 3)

Most of the district surrounding the Lucky claims is underlain by Triassic volcanics of the Karmutsen Formation. It includes mafic volcanics ranging from fine to medium grained, with equigranular or porphyritic textures. Amygdules are common and pillow structures are locally recognizable. The volcanics are dominantly basaltic. A few units of volcanically derived clastic sediments are present.

On a regional scale the Karmutsen commonly exhibits alteration that includes the development of chlorite, actinolite and epidote in the groundmass. Epidote, quartz and calcite are ubiquitous as veins and other open space fillings.

Limestone, argillite and tuffaceous argillite of the late Triassic Quatsino Formation overlie the Karmutsen Formation, with an abrupt but apparently conformable contact. Some argillaceous to sandy sediments found directly above the Quatsino may belong to its upper Triassic successor, the Parson Bay Formation.

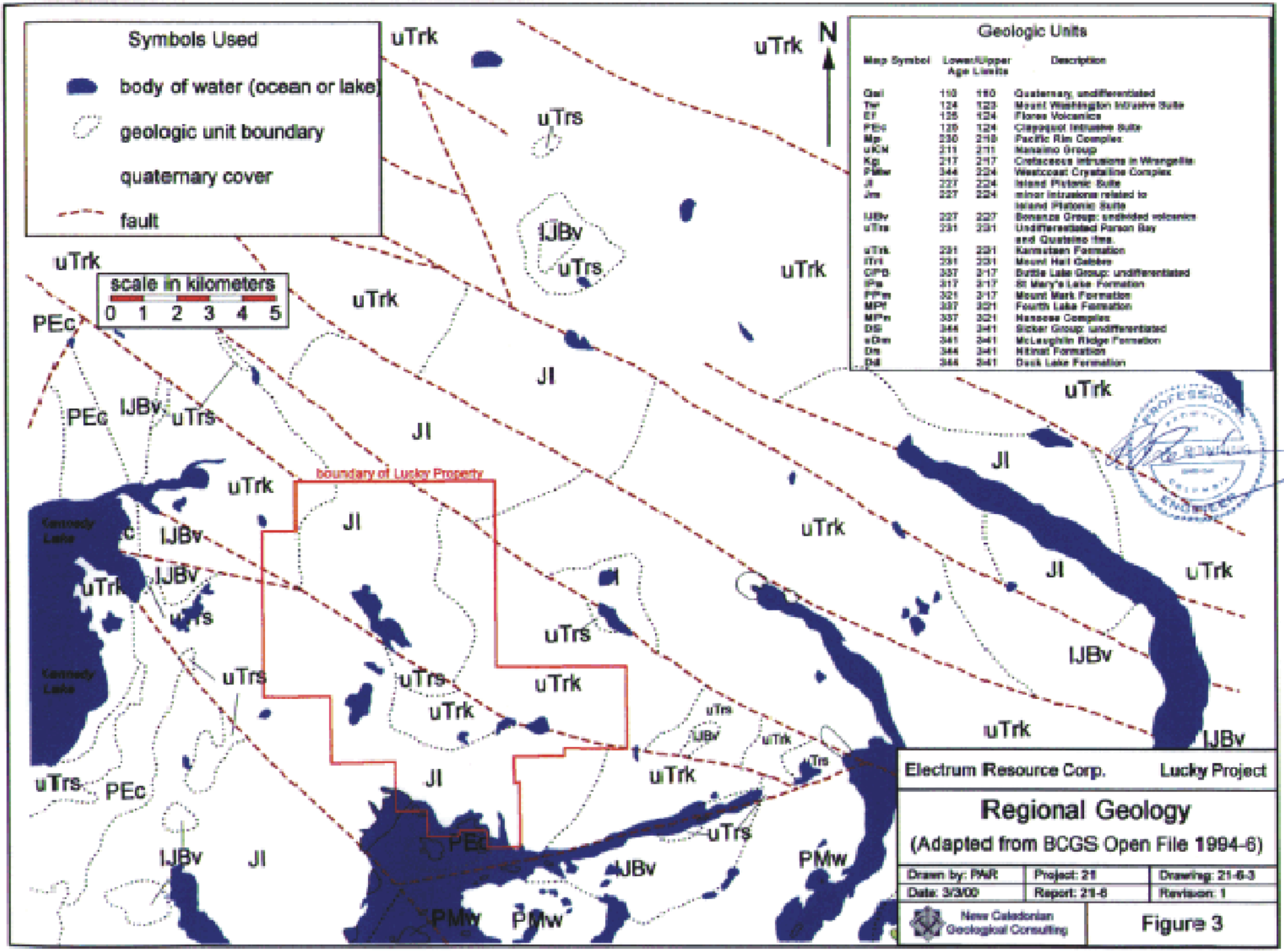
A few small areas in the eastern part of the project area are underlain by felsic volcanic rocks of the Jurassic Bonanza Group.

B. Mineral Deposits in the District

(Much of the following discussion is adapted from Price, 1992)

The Karmutsen Formation is the host to many gold-silver ± base metal veins in the Port Alberni, Kennedy Lake and Tofino areas. The veins typically contain high-grade pockets of mineralization and some have geological reserves developed. Small shipments of direct shipping ore have been made from a few of them.

The Brynnor Mine, noted on page 8, is the only significant past producer in the area. Between 1962 and 1966 it produced about 4.4 million tons of magnetite iron ore from skarns in tuffaceous argillite and andesite.


Symbols Used
body of water (ocean or lake)
geologic unit boundary
quaternary cover
fault
scale in kilometers
0 1 2 3 4 5
N
boundary of Lucky Property
Kennedy Lake
Kennedy Lake
uTrk
uTrs
PEc
IJBv
JI
PMw
Geologic Units
Map Symbol | Lower/Upper Age Limits | Description
Qal 110 110 Quaternary, undifferentiated
Tw 124 123 Mount Washington Intrusive Suite
Ef 125 124 Flores Volcanics
PEc 139 124 Clayoquot Intrusive Suite
Mp 230 210 Pacific Rim Complex
uKN 211 211 Nanaimo Group
Kg 217 217 Cretaceous intrusions in Wrangellia
PMw 344 224 Westcoast Crystalline Complex
Jl 227 224 Island Plutonic Suite
Jm 227 224 minor intrusions related to Island Plutonic Suite
IJBv 227 227 Bonanza Group: undivided volcanics
uTrs 231 231 Undifferentiated Parson Bay and Quatsino fms.
uTrk 231 231 Karmutsen Formation
lTrl 231 231 Mount Hall Gabbro
DPB 337 317 Buttle Lake Group: undifferentiated
IPa 317 317 St Mary's Lake Formation
PPm 321 317 Mount Mark Formation
MPf 337 321 Fourth Lake Formation
MPn 337 321 Nanaose Complex
DSl 344 341 Sicker Group: undifferentiated
uDm 341 341 McLaughlin Ridge Formation
Dh 344 341 Hitnist Formation
Dd 344 341 Dusk Lake Formation
Electrum Resource Corp.
Lucky Project
Regional Geology
(Adapted from BCGS Open File 1994-6)
Drawn by: PMR
Project: 21
Drawing: 21-6-3
Date: 3/3/00
Report: 21-6
Revision: 1
New Caledonian Geological Consulting
Figure 3

C. Local and Property Geology

1. Lithologic Units

The most comprehensive geological mapping program done on the Lucky property was by Falconbridge (Rebic and Lehtinen, 1985). They identified the supracrustal units listed in **Table 2**, following:

Table 2 - Supracrustal Rocks

lower Jurassic	
Bonanza Formation	andesite to dacite flows; agglomerates, breccias and tuffs. Fragments consist of bombs and blocks compositionally similar to their host.
upper Triassic	
Parson Bay Formation	thin bedded calcareous sedimentary rocks composed of mudstone, argillite, siltstone and sandstone.
Quatsino Formation	light to dark grey, massive or thick-bedded limestone.
Karmutsen Formation	basalt to andesite meta-volcanics. Porphyritic amygdaloidal flows, fine grained flows and brecciated flows. Flow banding and pillow structures locally present. Plagioclase and/or augite phenocrysts are common. Narrow tuff and limestone beds are present in the upper part.

The supracrustal rocks are intruded by a variety of intrusions. With the lack of age dates on the property, the assignment of intrusive rocks to lower Jurassic or Tertiary ages is largely guesswork. The intrusive rocks are described in Table 3, following:

Table 3 - Intrusive Rocks

Tertiary (?)	
	granite, quartz monzonite
	gabbro dikes, sills, stocks (these were considered lower Jurassic by Rebic and Lehtinen)
lower Jurassic (?)	
Island Intrusions	granodiorite, quartz diorite; commonly massive, medium to coarse grained, equigranular. Some porphyritic phases present.

2. Structural Geology

The characteristic structural style on the property is block faulting, on a scale of meters to hundreds of meters or possibly kilometers. Most of the recognized faults are steep dipping. Fault zones range from sharp breaks to zones several meters wide containing gouge and brittle shears.

On the TOQ grid there is some suggestion of ductile shearing. It variably manifests as mineral alignment, stylolitic cleavage or mylonitic colour banding. The dominant orientation is

north-northeast. Insufficient work has been done to determine the implications of this localized ductile shearing. It's spatial association with extremely sulphidic rock may be important.

3. Alteration

Most of the many faults and fractures in the rocks of the Lucky Property exhibit some form of alteration, ranging from veins to limited alteration envelopes around the fractures. Quartz, calcite, chlorite, epidote and many less abundant minerals are present. For the most part the alteration is restricted to an area of a few millimeters to a few meters adjacent to whichever fracture channeled the altering fluids. The most important of the numerous alteration assemblages are described as follows:

epidote

The most superficially striking alteration mineral throughout the Karmutsen Formation on the Lucky Property is epidote. It is found in veins, filling amygdules and as pods up to several centimeters or decimeters wide. The latter are not obviously open space fillings and their origin is unclear.

The minerals most commonly associated with the epidote are quartz and/or calcite. In veins and other open space fillings one or both of them may be found interior to the epidote, giving the impression that a cavity lined with epidote was subsequently filled by the quartz or calcite. Sulphides may or may not be present. Pyrite is the most common, but large blebs of chalcopyrite are sometimes associated with the epidote-quartz±calcite assemblage.

Epidote in the Karmutsen is not unique to the Lucky Property, being found on a regional scale. In the Triple Creek area, however, epidote alteration, accompanied by pyrite and chalcopyrite, is anomalously intense. The alteration in Triple Creek resembles epidote-rich propylitic alteration found associated with some porphyry-style mineralized systems.

quartz

Quartz veins are abundant on the Lucky Property. The most significant, in terms of mineralization, is the Lucky Vein itself. Many similar-appearing veins exist, probably representing several generations of quartz.

As noted above, quartz is also found associated with the ubiquitous epidote.

Silicification is found adjacent to some quartz veins and as zones a few meters in extent associated with faults.

calcite

Calcite exists in many of the quartz veins, including the Lucky. Calcite-only veins and veinlets are also widespread.

quartz-sericite

The area of coincident geophysical anomalies on the TOQ grid is underlain by rocks that have undergone intense quartz-sericite alteration. Walker (1997) described pyrophyllite and clay, with other minor alteration minerals, in addition to the quartz-sericite. Where the alteration is most intense the protolith is completely unrecognizable. The very finely crystalline mixture of quartz and sericite is light to medium grey, very fine grained and hard. For the most part it is unfoliated, although ductile shear foliations are present in some exposures.

This quartz-sericite rock on the TOQ Grid is almost everywhere pyritiferous, in the range 2% to 10% pyrite. Small samples of near-massive pyrite can be collected.

This silicified, sericitized and pyritized rock is the only pervasive alteration assemblage to be found covering a sizable area, at least 3 hectares.

argillic — argillic alteration, in the form of kaolinization of feldspars, is found in quartz feldspar porphyry dikes in the vicinity of Triple Creek. These dikes contain disseminated pyrite but have not been found to contain high base metal concentrations.

D. Mineralization

1. Lucky Vein

The Lucky gold-quartz vein is the best known and studied prospect on the property. It has been extensively described in prior reports (see in particular Carter, 1989; Eccles, 1984; Northcote, 1983a; Rebic and Lehtinen, 1985; Wilson and Zastavnikovich, 1989a).

Carter (1989) describes the Lucky Vein as follows:

"The Lucky quartz (carbonate) vein occupies a northerly striking, steeply east dipping shear zone and is exposed in surface trenches and two adits. The vein pinches and swells with widths ranging from a few cm. to 0.40 meter.

"... Six vein samples collected by Falconbridge over 28 meters of strike length had gold values ranging from 0.318(opt)/0.30 meter to 7.421(opt)/0.18 meter."

2. TOQ Grid

As noted previously, about 3 hectares of the TOQ grid is underlain by intensely sericitized rocks containing 2% to 25% pyrite. Work to date hasn't resulted in the discovery of base or precious metal enrichments in this material, but it still represents a target for further investigation.

The present report incorporates the results of soil and rock chip sampling across the river to the west of the TOQ grid, in the Toquart River West area, where another sulphidized zone is present that may or may not be related to that on the TOQ Grid.

3. Other Mineral Occurrences

Several occurrences of chalcopyrite, sphalerite and/or galena, with or without precious metals, are known on the property. All are veins or skarns whose known dimensions are small, but their abundance is encouraging.

V. Discussion of 1999 Work

A. Geological Survey

(see Figure 4)

1. Toquart River West

Geological mapping was done in two areas during the 1999 program. The first, called for convenience Toquart River West, is along a new logging road on the west side of the Toquart River, just downstream of the point where the river makes a right angle bend from westward flow to southward flow. This area is across the river due west of the TOQ grid area where drilling was done by Consolidated Logan Mines.

Published geological maps show this area to be underlain by Jurassic Island Intrusions, with upper Triassic Karmutsen volcanics to the west (for example Figure 3). In fact intrusive rocks are a relatively minor component of the bedrock exposed in the new road cuts. In the northern part of the mapped area, road cut exposures consist mainly of greenstone that is probably basaltic (unit 1 on Figure 4). The southern two thirds of the mapped exposures are mainly highly sulphidized tuffs and tuff breccias (units 3 and 4 on Figure 4).

The basalt is moderately to strongly magnetic, and contains variable concentrations of epidote, albitization, and saussuritization of feldspars. The basalt varies from cryptic pillow basalt to flow breccia. Locally it contains up to 4 meters thickness of finely banded water lain tuff. At one site the banded tuff exhibited a northwest strike with a 70 degree dip to the northeast.

The characteristics of the basalt are generally consistent with Karmutsen volcanics.

The tuffs and tuff breccias contain fragments ranging from fine ash to 5 cm rock fragments, mainly of volcanic derivation. These pyroclastic rocks are for the most part pyritized, typically with about 5% pyrite, as fine disseminated crystals. Locally the intensity of pyritization is much greater. Some rock fragments are preferentially pyritized, to the extent that they are almost massive sulphide. It is conceivable that some of the fragments of near-massive sulphide originated from syngenetic sulphide layers, now broken up and found as fragments in the tuff breccia. The writer prefers the interpretation that they are fragments of rock that were preferentially sulphidized by epigenetic processes within the tuff breccia.

In some exposures the tuff breccia is interlayered with green volcanic flows of andesitic or basaltic composition. The flow layers are up to several meters thick, but overall are subordinate in quantity to the pyroclastics.

The writer suspects, without any conclusive evidence, that these pyroclastic rocks belong to the Bonanza Volcanics.

At one site within the area otherwise underlain by pyroclastics, two types of intrusive rock are exposed for about 125 meters along the road. One type, unit A on Figure 4, is a massive, silicified, sericitized and pyritized rock in which the alteration obscures the protolith. It is likely in the monzo-granite to granite range of composition.

The other type of intrusive, unit B on Figure 4, found adjacent to the altered rock, is relatively fresh green diorite.

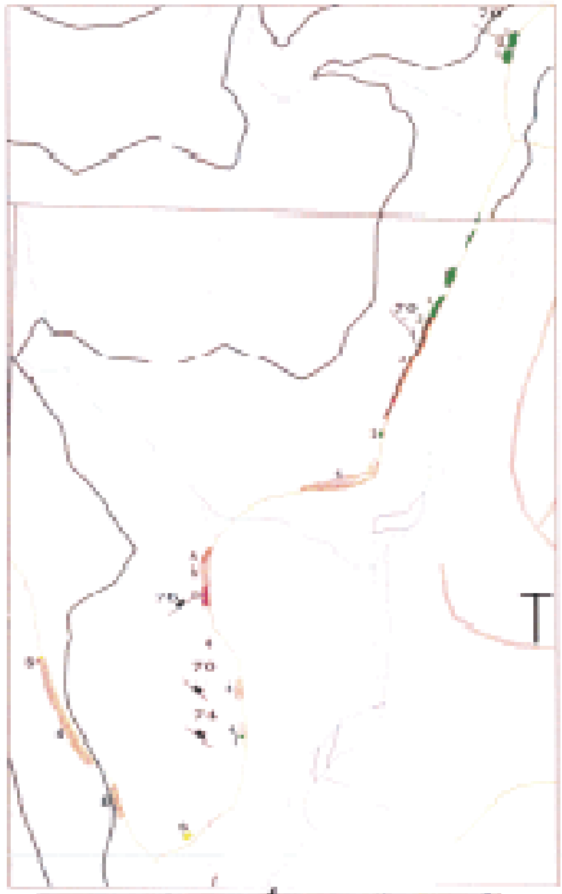
The age of the intrusive rocks, and their relationship to each other, is unclear. Their contact relationship with the surrounding pyroclastic rocks is not visible, but there is a zone of what looks like granitic rock hybridized by the ingestion of some volcanic rock. This may indicate that Unit A, for one, intrudes the pyroclastic rocks.

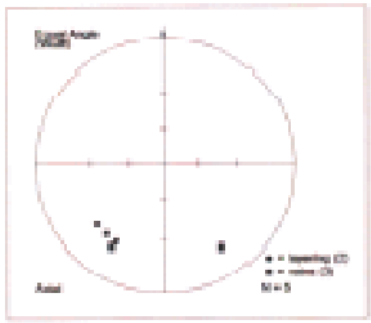
2. Toquart Bay Area

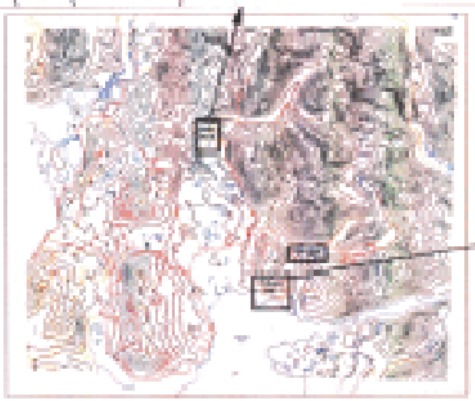
The other area mapped in 1999 was part of the northeast shore of Toquart Bay. Much of the area was logged in the recent past but is now overgrown and difficult of access. The type of large, recently blasted exposures characteristic of the road cuts in the Toquart River West area isn't available in the parts of the Toquart Bay area where mapping was done in 1999. Most of the outcrops found are small and obscure. They cannot be properly illustrated on the scale of the map in Figure 4, so they are shown as "point outcrops".

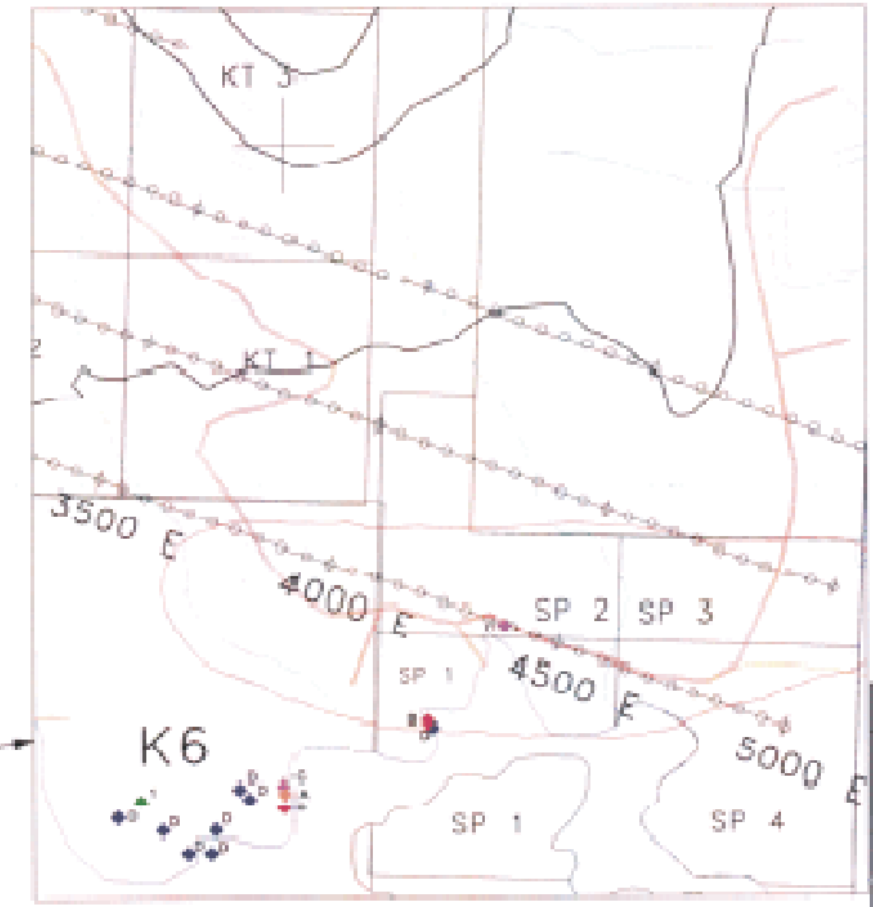
Rocks in the area mapped are all intrusive except for one possible example of a basalt. The intrusives are dominated by diabase and diorite on the west and by more intermediate diorite and monzo-diorite on the east. Alteration consists primarily of saussuritization of the feldspars and chloritization of some mafic minerals. Disseminated pyrite is typically present in the range 3% to 5%.

On the regional geological map in Figure 3 the area mapped at Toquart Bay is shown to be covered by quaternary alluvium, which, for the most part, it is. A Paleocene "Clayoquot Intrusive Suite" is mapped on nearby islands. The intrusives found during the 1999 mapping may be part of this suite.









Electrum Resource Corp. Lucky Project

Local Geology

1999 Work Areas

Drawn by: PMR	Project: 21	Drawing: 21-A4
Date: 3/2000	Report: 21-8	Revision: 1

New Caledonian Geological Consulting

Figure 4

B. Soil Geochemical Survey

(see Figure 5 through Figure 12)

The 1999 work included four soil sample traverses, two along roads, one in an old clear-cut and one in natural forest. In total 114 samples were collected. The method of collection was conventional. At each site an attempt was made to find a "B" soil horizon. Where this was not possible brown or grey mineral soil was collected from below the organic layer. Intervals between samples were 50 meters. In the case of road traverses, samples were collected from undisturbed soil on the uphill side of the road. Each sample consisted of in the order of 500 grams of material, placed in a standard, gusseted kraft paper soil sample bag.

Samples were analyzed at TSL Assayers in Vancouver, B.C. Gold and mercury were analyzed using conventional wet geochemical techniques, and 32 other elements were determined using a conventional ICP technique.

The discussion which follows does not incorporate any formal, mathematical statistical treatment of the data. It is based on a subjective interpretation of the spatial distribution of metals as viewed on the accompanying maps.

Note that the software used to generate the accompanying maps handles values falling below the detection limit by assigning a value of one-half the detection limit to the data point. Thus, a gold analysis reported by the laboratory as "less than 2 ppb (<2)" is shown on the maps as 1 ppb.

Sample symbols on the maps are colour coded to illustrate which range of values they fall into. The general colour scheme is from cooler colours for lower values to hotter colours for higher values. It should not be assumed that hotter colours indicate "anomalous" values. Even if all the values for any given element are low, the highest of the values will still appear in hot colours.

1. Gold in Soils

(see Figure 6)

Gold concentrations in soils fall in the range less than 2 parts per billion to 31 parts per billion. Within this range, two areas exhibit some clustering of higher values. One is the southern part of the road traverse in the Toquart River West area. The southern part of the traverse covers the area underlain mostly by highly pyritized tuff and tuff breccia. 10 out of 24 soil samples contain gold in the range 7 ppb to 26 ppb. To the north along the same road, in the area underlain mainly by basalt, only 2 out of 13 samples contain gold exceeding 6 ppb.

Another area with an apparent clustering of higher gold values is along the southwest shore of Kite Lake, where 5 out of 6 samples contain gold in the range 7 ppb to 31 ppb.

2. Silver in Soils

(see Figure 7)

The majority of silver values fall below the detection limit of 0.2 ppm. Seven were measured at 0.2 ppm and none were found to exceed this. In the areas sampled the soils give no indication of any silver mineralization

3. Copper in Soils

(see Figure 8)

Most copper values in soils are 50 parts per million or less. The one area that stands out in the 1999 soil data is along the south shores of Ellswick and Kite lakes, where a string of 21 samples spread over 1,000 meters contains 16 values in the range 55 ppm copper to 241 ppm copper. The writer is unaware of a reason for a concentration of relatively high copper values in soils in this area. It warrants further investigation.

4. Lead in Soils

(see Figure 9)

Lead values in soils fall in a range from below the 2 ppm detection limit to a high of 28 parts per million. The histogram of lead values in Figure 9 shows a strong positive skew. All of the higher lead values, 20 ppm or greater, are found in the Toquart River West area. Four out of six of the high values are near one 200 meter long road cut outcrop of pyritized tuff breccia. There is nothing in the field descriptions of this outcrop to suggest a reason for the higher associated lead values in soils.

5. Zinc in Soils

(see Figure 10)

Zinc values in soils are in general low, and none of the areas sampled in 1999 stand out in contrast to the others. The highest zinc value is 89 ppm, on the southwest shore of Kite Lake. The same sample contained the highest copper value of the survey, 241 ppm, and the highest gold value, 31 ppb.

6. Molybdenum in Soils

(see Figure 11)

Four molybdenum values fall in the range 18 to 34 ppm. All others are less than half of these values, being from below the detection limit of 2 ppm to a maximum of 8 ppm. The four high molybdenum values are geographically dispersed, and no strong tendency for molybdenum to be higher in one zone than another is evident. There is a slight tendency for soils overlying the tuffs and tuff breccias in the Toquart River West area to have a higher background of molybdenum than other soils in the area.

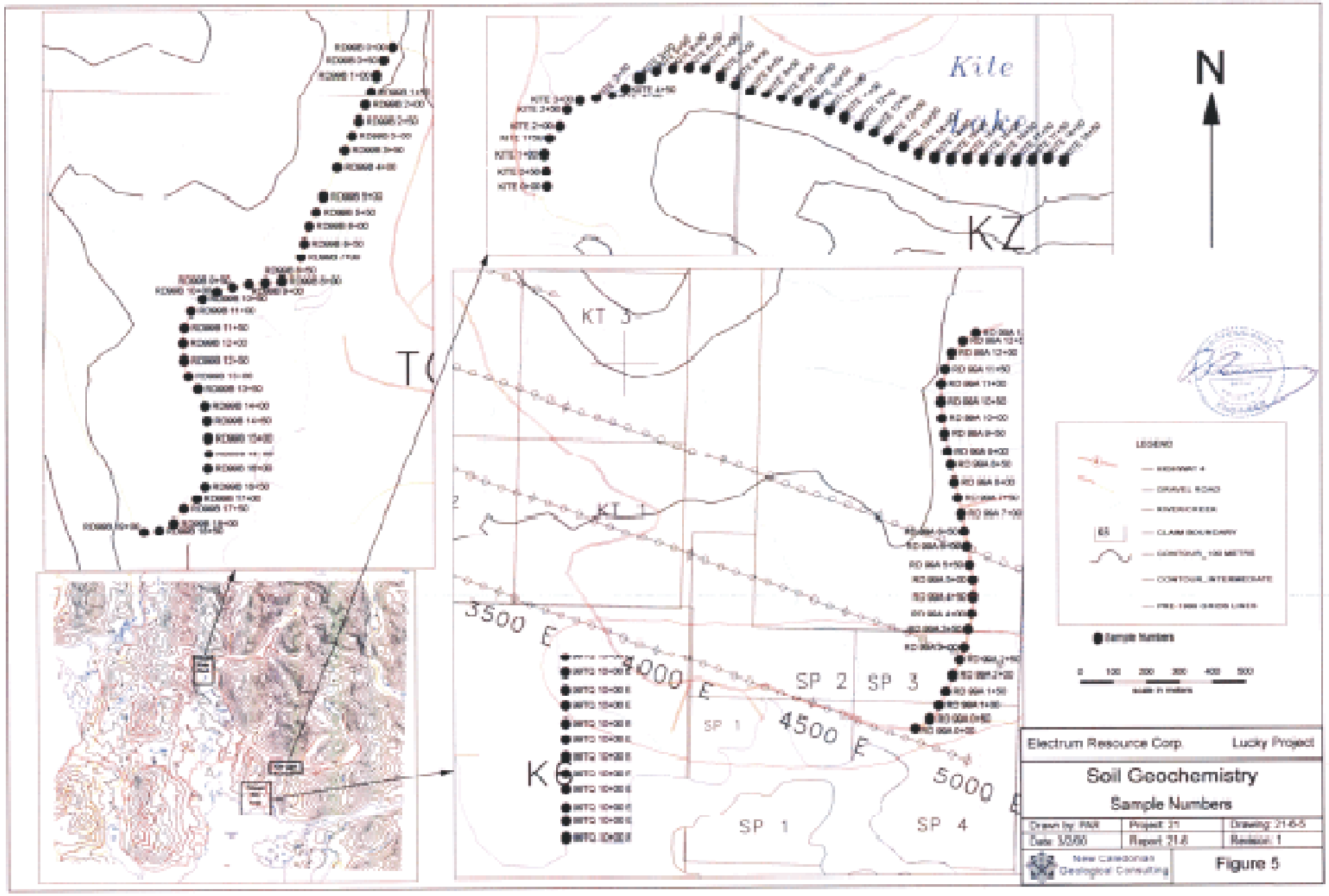
7. Mercury in Soils

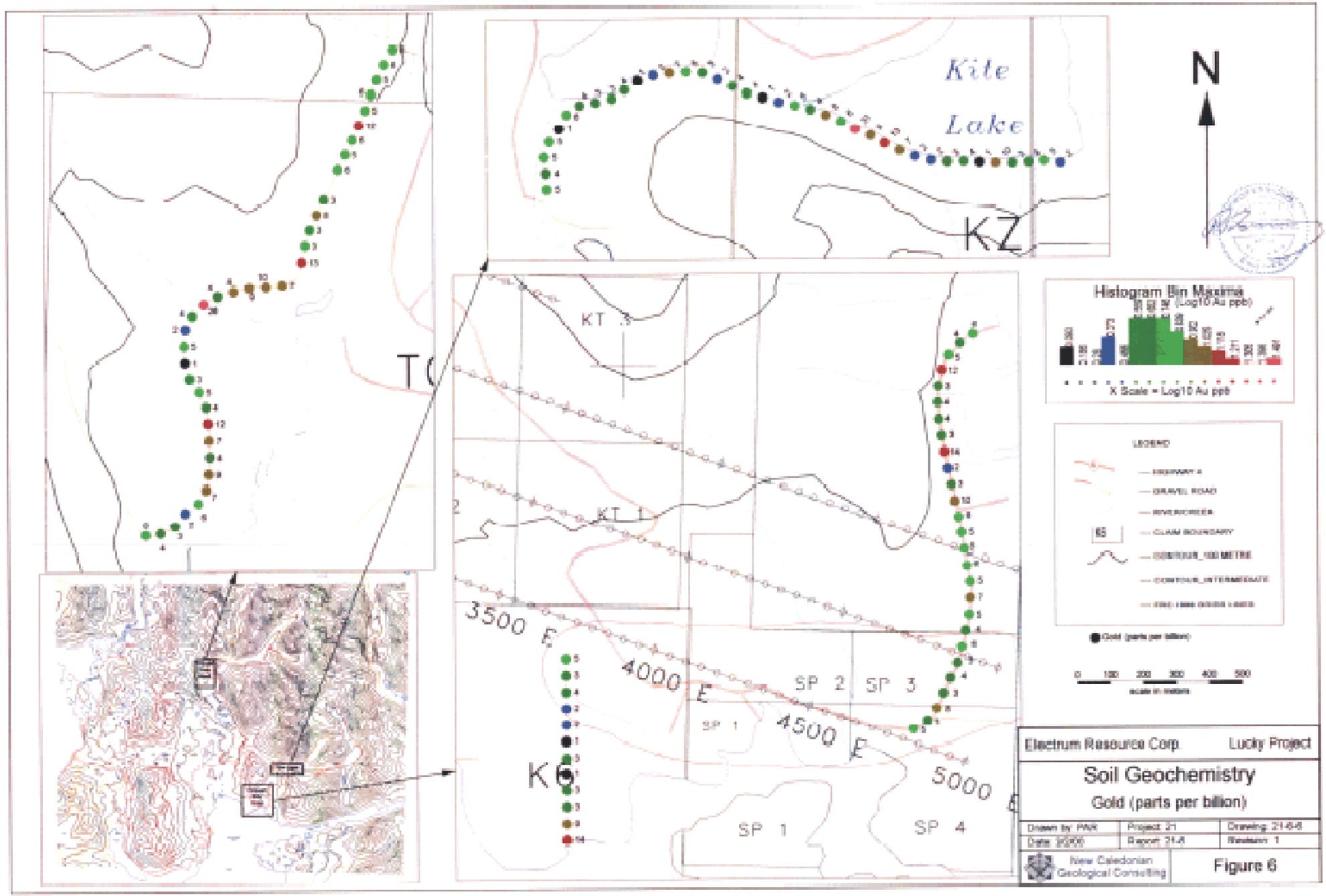
(see Figure 12)

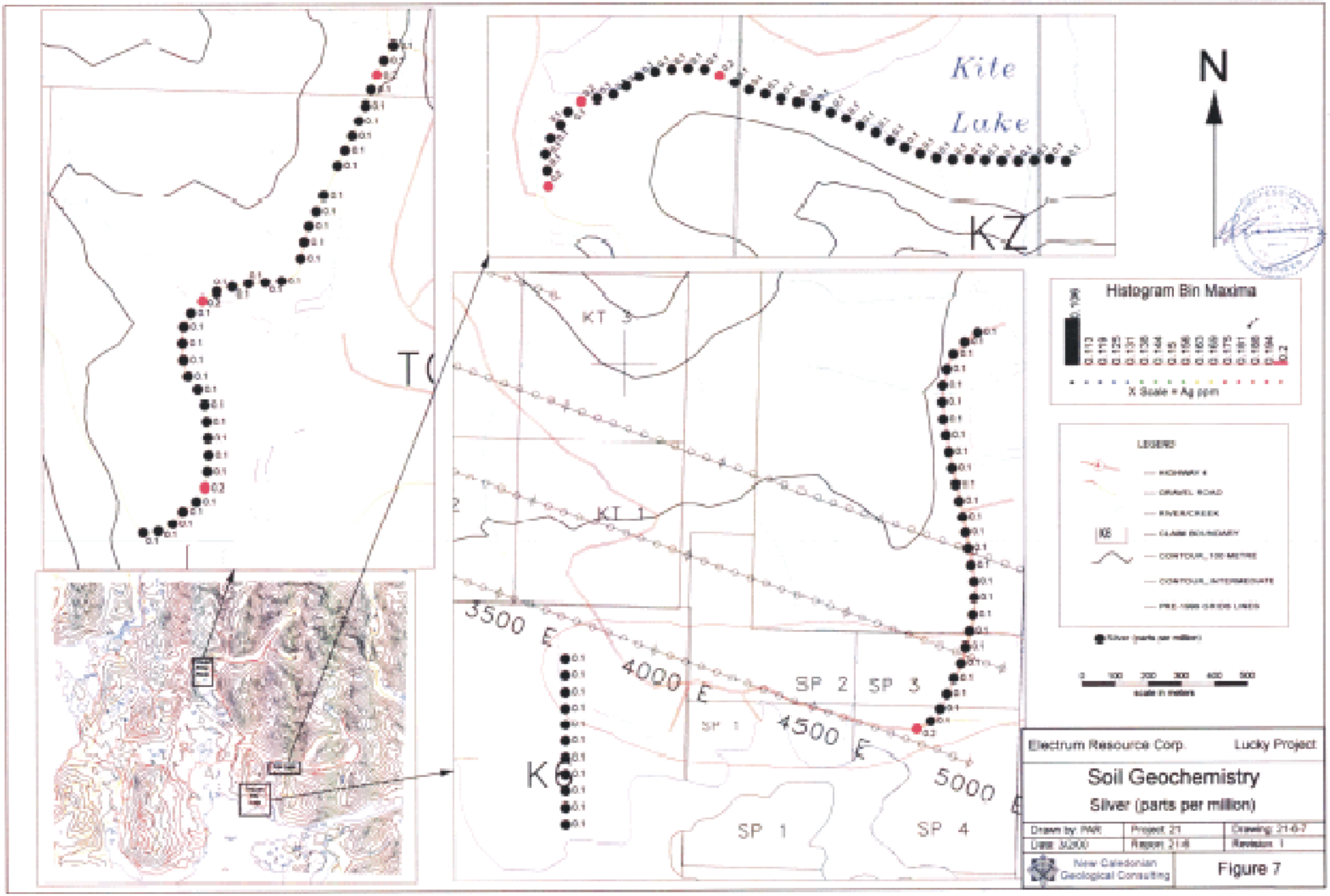
Relatively high mercury values were reported from some of the drill core originating in the TOQ grid area drilled by Consolidated Logan Mines (J. Barakso, personal communication). Because of this, soils and rocks collected on the Lucky property during 1999 were analyzed for mercury.

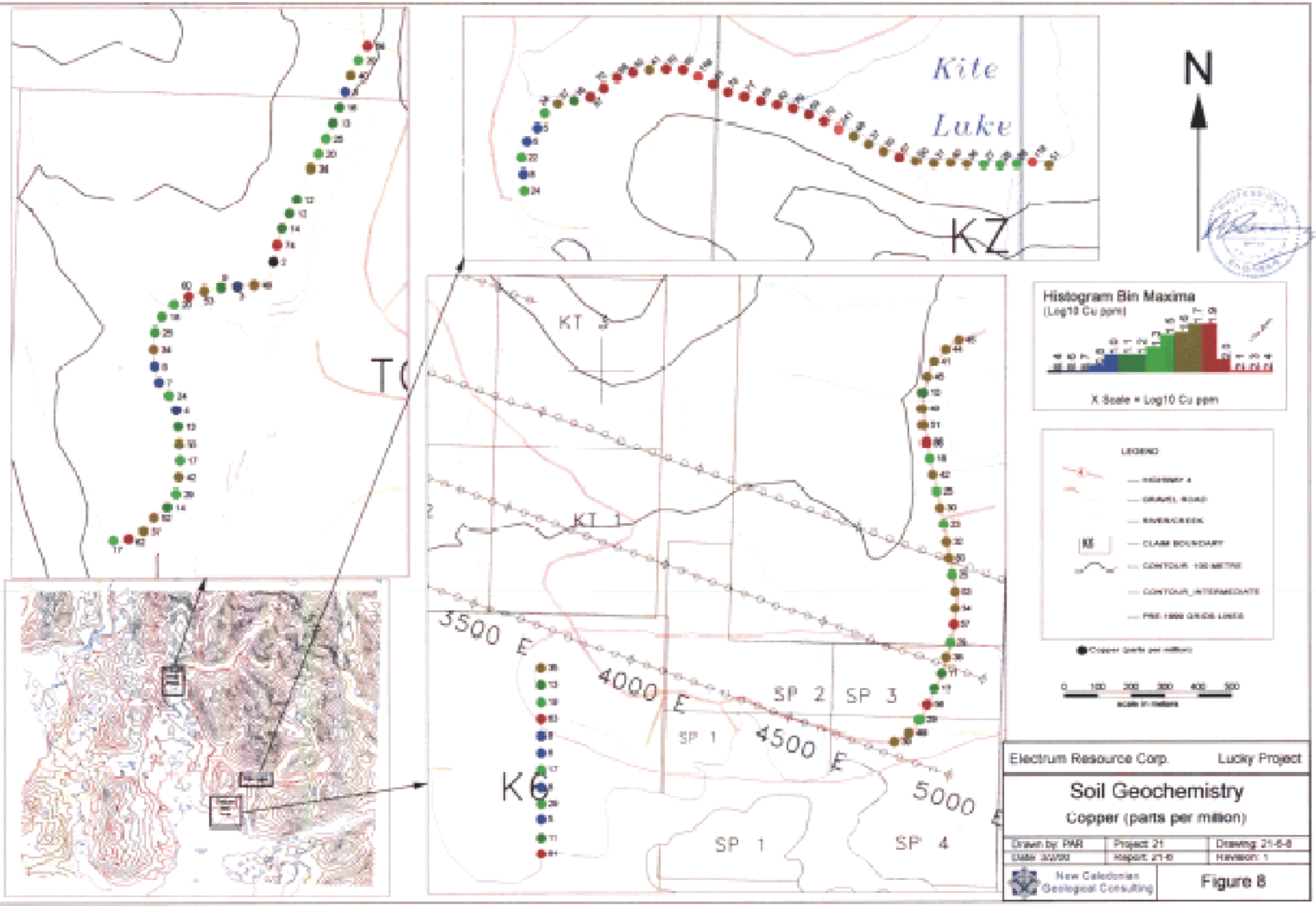
Mercury values in the soils appear relatively high, most exceeding 200 ppb. The writer, however, has little experience with mercury in soils in similar environments, so it is difficult to put the mercury concentrations in context.

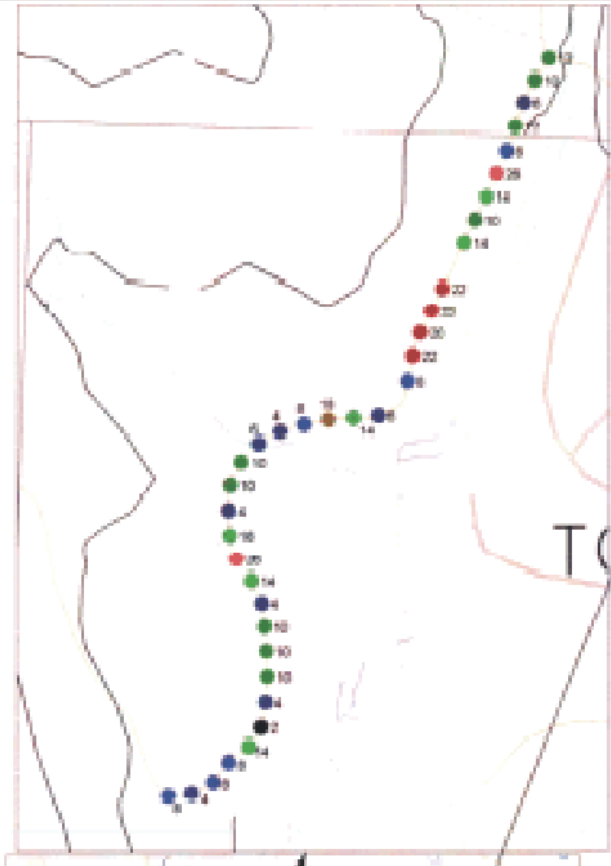
Soils from the traverse south of Kite Lake and the one along a road north of Toquart Bay contain higher background levels of mercury than the other two.

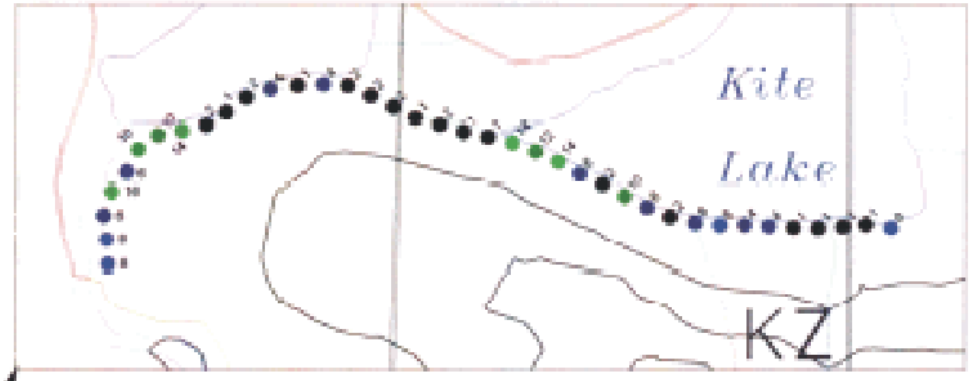

Kile
Arake
N
KT 3
KT 1
KZ
KE
3500 E
4000 E
4500 E
5000 E
SP 1
SP 2
SP 3
SP 4
LEGEND
Sample Numbers
Electrum Resource Corp.
Lucky Project
Soil Geochemistry
Sample Numbers
Drawn by: RAR
Project: 21
Drawing: 21-6-5
Date: 3/2/00
Report: 21-6
Revision: 1
New Caledonian Geological Consulting
Figure 5

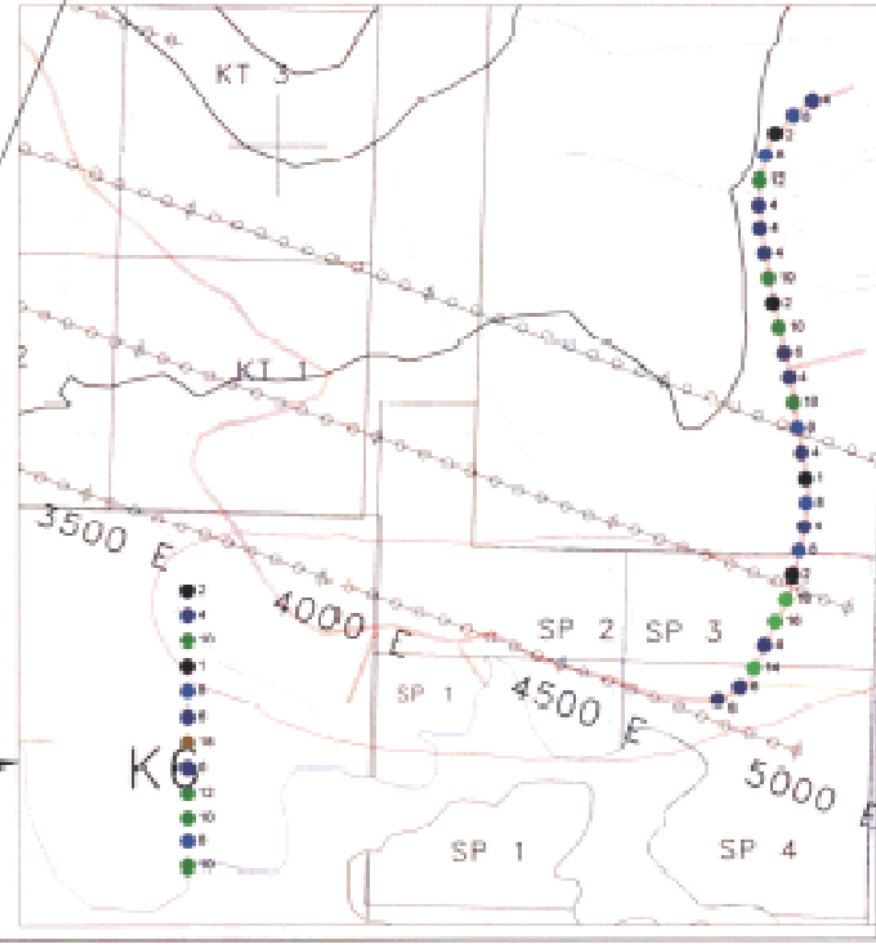

Kite
Lake
KZ
N
KT 3
KT 1
3500 E
4000 E
4500 E
5000 E
SP 1
SP 2
SP 3
SP 4
KC
Histogram Bin Maxima
X Scale = Log10 Au ppb
LEGEND
GRAVEL ROAD
CLAIM BOUNDARY
Gold (parts per billion)
Electrum Resource Corp
Lucky Project
Soil Geochemistry
Gold (parts per billion)
Drawn by: PWK
Project: 21
Drawing: 21-6-6
Date: 9/2/00
Report: 21-6
Revision: 1
New Caledonian Geological Consulting
Figure 6

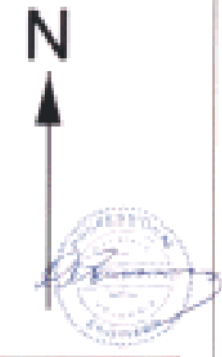

Kite
Lake
KZ
N
Histogram Bin Maxima
X Scale = Ag ppm
LEGEND
KT 3
KT 1
3500 E
4000 E
4500 E
5000 E
SP 1
SP 2
SP 3
SP 4
K6
Electrum Resource Corp.
Lucky Project
Soil Geochemistry
Silver (parts per million)
Drawn by: PMR
Project: 21
Drawing: 21-6-7
Date: 3/2001
Report: 21-6
Revision: 1
New Caledonian Geological Consulting
Figure 7

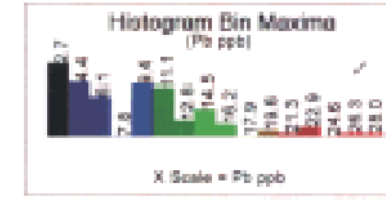

Kite
Lake
KZ
N
KT 2
KT 1
3500 E
4000 E
4500 E
5000 E
SP 1
SP 2
SP 3
SP 4
KG
Histogram Bin Maxima
(Log10 Cu ppm)
X Scale = Log10 Cu ppm
LEGEND
Electrum Resource Corp.
Lucky Project
Soil Geochemistry
Copper (parts per million)
Drawn by: PAR
Project: 21
Drawing: 21-6-8
Date: 3/2/00
Report: 21-6
Revision: 1
New Caledonian Geological Consulting
Figure 8

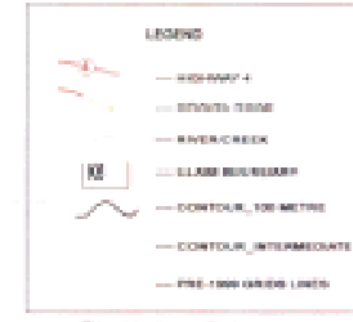












Electrum Resource Corp. Lucky Project

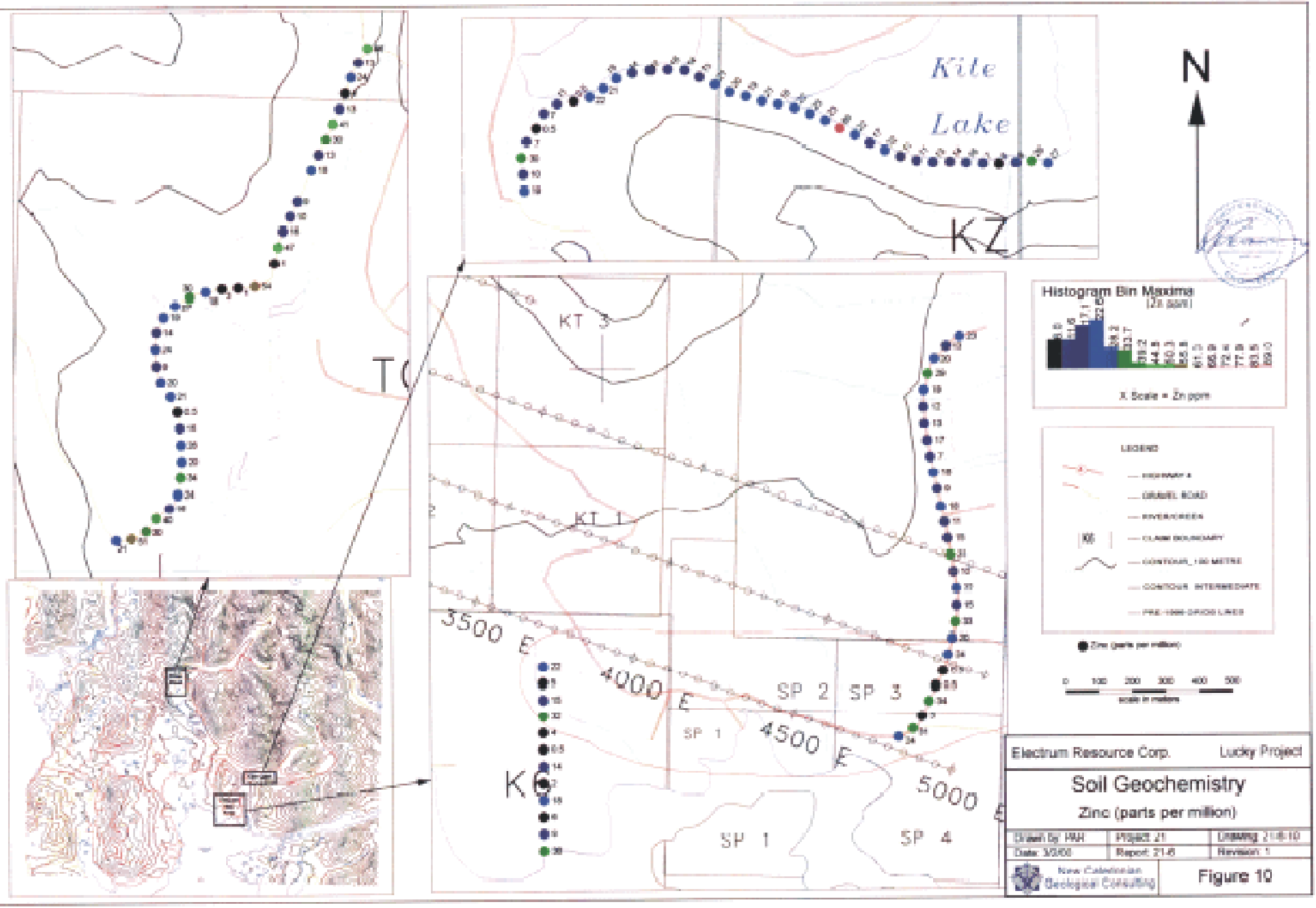
Soil Geochemistry

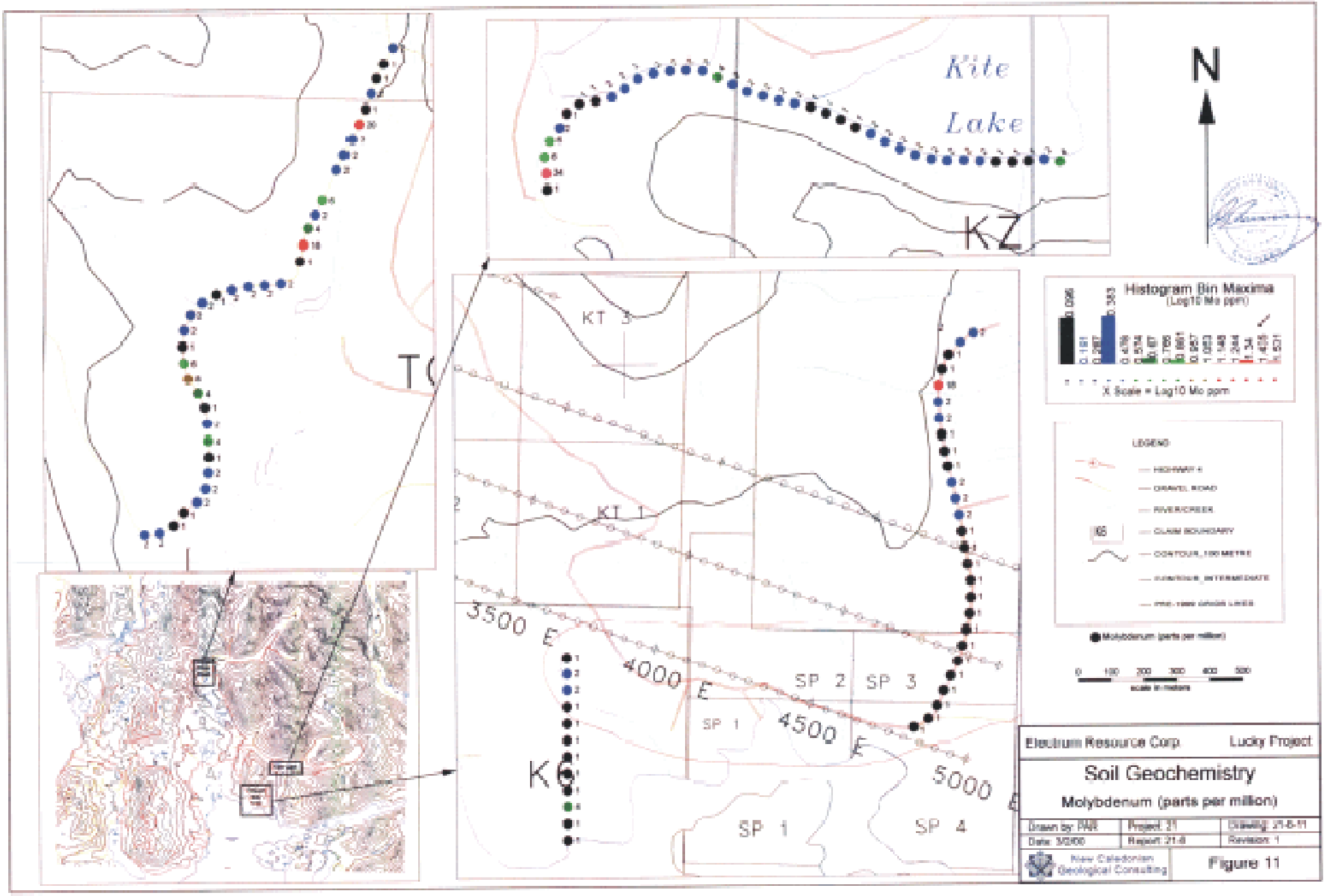
Lead (parts per million)

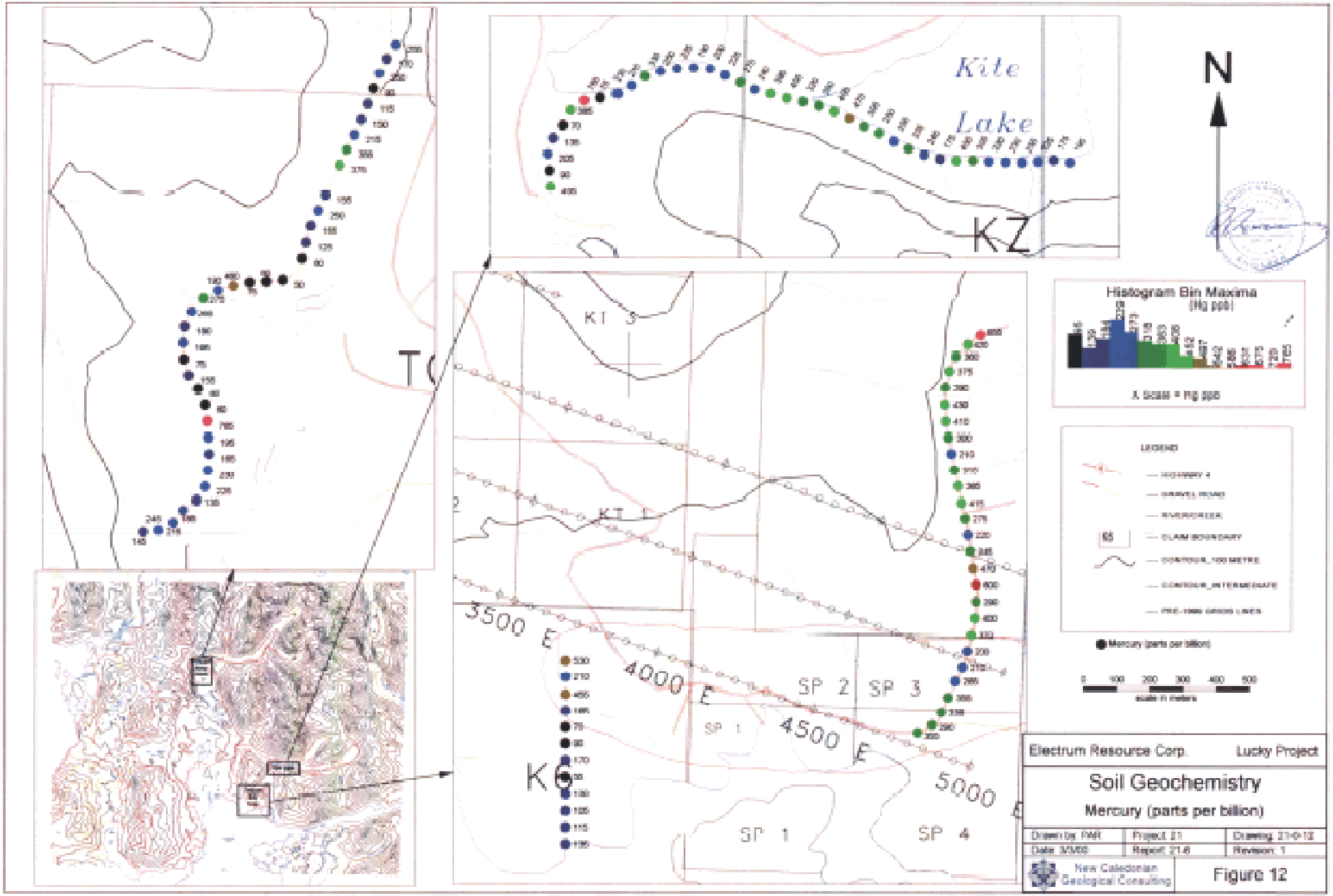
Drawn by: PAR	Project: 21	Drawing: 21-8-9
Date: 3/380	Report 21-8	Revision: 1

New Caledonian Geological Consulting

Figure 9


Kite
Lake
KZ
KT 3
KT 1
3500 E
4000 E
4500 E
5000 E
SP 1
SP 2
SP 3
SP 4
N
Histogram Bin Maxima
X Scale = Zn ppm
LEGEND
GRAVEL ROAD
CLAIM BOUNDARY
CONTOUR - 100 METRE
CONTOUR - INTERMEDIATE
Zinc (parts per million)
0 100 200 300 400 500
scale in meters
Electrum Resource Corp.
Lucky Project
Soil Geochemistry
Zinc (parts per million)
Drawn by: HAR
Project: 21
Drawing: 21-8-10
Date: 3/2/00
Report: 21-8
Revision: 1
New Caledonian Geological Consulting
Figure 10


Kite
Lake
KZ
KT 3
KT 1
3500 E
4000 E
4500 E
5000 E
SP 1
SP 2
SP 3
SP 4
N
Histogram Bin Maxima
(Log10 Mo ppm)
X Scale = Log10 Mo ppm
LEGEND
Molybdenum (parts per million)
Electrum Resource Corp
Lucky Project
Soil Geochemistry
Molybdenum (parts per million)
Drawn by: RAR
Project: 21
Drawing: 21-6-11
Date: 3/5/00
Report: 21-6
Revision: 1
New Caledonian Geological Consulting
Figure 11


Kite
Lake
KZ
N
Histogram Bin Maxima
(Hg ppb)
X Scale = Hg ppb
LEGEND
CLAIM BOUNDARY
CONTOUR_100 METRE
CONTOUR_INTERMEDIATE
Mercury (parts per billion)
scale in meters
K1 3
K1 2
K1 1
K6
3500 E
4000 E
4500 E
5000 E
SP 1
SP 2
SP 3
SP 4
Electrum Resource Corp.
Lucky Project
Soil Geochemistry
Mercury (parts per billion)
Drawn by: PWF
Project: 21
Drawing: 21-0-12
Date: 3/5/00
Report: 21-8
Revision: 1
New Caledonian Geological Consulting
Figure 12

C. Rock Geochemical Survey

The 1999 work included the collection of rock chip samples in and near the soil sample traverses and the areas where geological mapping was done. A total of 37 rock chip samples was collected. For the most part they were collections of random chips from within a radius of up to 3 meters of the nominal sample point. A few were grabs of single specimens. None were intended to be representative of specified widths, lengths or volumes of rock. Descriptions of the samples appear in Appendix 2, and analytical results in Appendix 4.

As in the case of soils, the rock samples were analyzed at TSL Assayers in Vancouver, B.C. Gold and mercury were analyzed using conventional wet geochemical techniques, and 32 other elements were determined using a conventional ICP technique.

The discussion which follows does not incorporate any formal, mathematical statistical treatment of the data. It is based on a subjective interpretation of the spatial distribution of metals as viewed on the accompanying maps.

Note that the software used to generate the accompanying maps handles values falling below the detection limit by assigning a value of one-half the detection limit to the data point. Thus, a gold analysis reported by the laboratory as "less than 2 ppb (<2)" is shown on the maps as 1 ppb.

Sample symbols on the maps are colour coded to illustrate which range of values they fall into. The general colour scheme is from cooler colours for lower values to hotter colours for higher values. It should not be assumed that hotter colours indicate "anomalous" values. Even if all the values for any given element are low, the highest of the values will still appear in hot colours.

1. Gold in Rocks

(see Figure 14)

Gold concentrations in almost all of the rocks collected by Electrum's crew in 1999 fell in the range from below the detection limit up to 5 ppb. These values are background levels.

Sample L99-19A from the north end of the Toquart River West traverse contained 19 ppb gold. This sample was selected from epidote-quartz-calcite-pyrite vein material in basalt. It was chosen for its high pyrite content and is not representative of a large volume of material.

Sample L99-37A from southwest of Kite Lake contained 64 ppb gold. This sample was from a pail of rock given to Electrum by a logging company employee. The sample contained semi-massive chalcopyrite, probably from a quartz vein. Electrum's field crew was unable to locate the source of that sample.

2. Silver in Rocks

(see Figure 15)

Silver is generally low in the rocks collected by Electrum's crew in 1999, with most analyses falling below the detection limit and the highest reporting 2.0 ppm silver. The highest silver concentration, 23.2 ppm, was in the high grade sample from southwest of Kite Lake, that was given to Electrum by the logging company employee

3. Copper in Rocks

(see Figure 16)

The two highest copper values, one exceeding 10,000 ppm (assayed as 8.28%) and the other containing 4955 ppm (assayed as 0.446%), came from samples L99-19A and L99-37A, described under gold, above. Both these samples were "high graded", selected in the field for visible pyrite or chalcopyrite.

Samples RD99A 9+15, RD99A 9+75 and 99TQ 10+00E were all collected from the road in the Toquart Bay area. They contain copper in the range 249 ppm to 289 ppm. All three were collected by a prospector because they contained unusual quantities of pyrite.

Sample L99-08A, containing 124 ppm copper, came from a block of hornfelsed diabase within an outcrop of monzo-diorite in a quarry. It was sampled because it contained up to 3% finely disseminated pyrite.

4. Lead in Rocks

(see Figure 17)

The majority of lead values from rocks collected in 1999 fall in the range 4 ppm to 20 ppm. Two higher values were obtained, one of 144 ppm from the visibly mineralized specimen, L99-37A. The other higher value, 32 ppm, came from L99-27A, obtained from an outcrop of pyritized monzo-granite in the Toquart River West area.

5. Zinc in Rocks

(see Figure 18)

Zinc in the rocks collected in 1999 ranges from below the detection limit to a high of 101 ppm. Most of the higher zinc values are clustered in the Toquart River West area, and the majority of those come from the pyritized tuffs and tuff breccias. The highest zinc value is from L99-27A, the same pyritized monzo-granite that contained a relatively high lead level.

6. Molybdenum in Rocks

(see Figure 19)

Molybdenum values in rocks are low throughout the 1999 sample suite, the maximum value being 6 ppm.

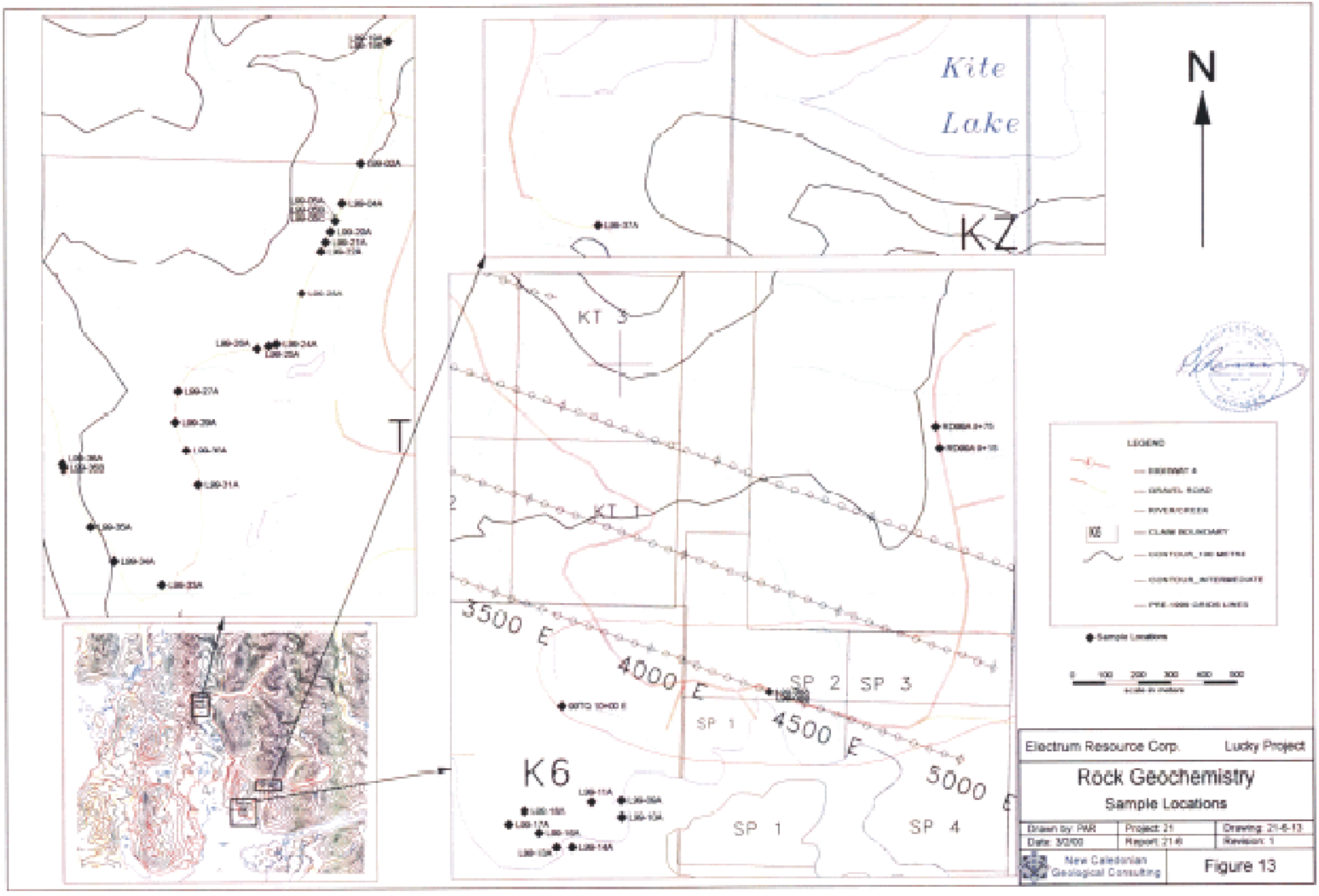
7. Mercury in Rocks

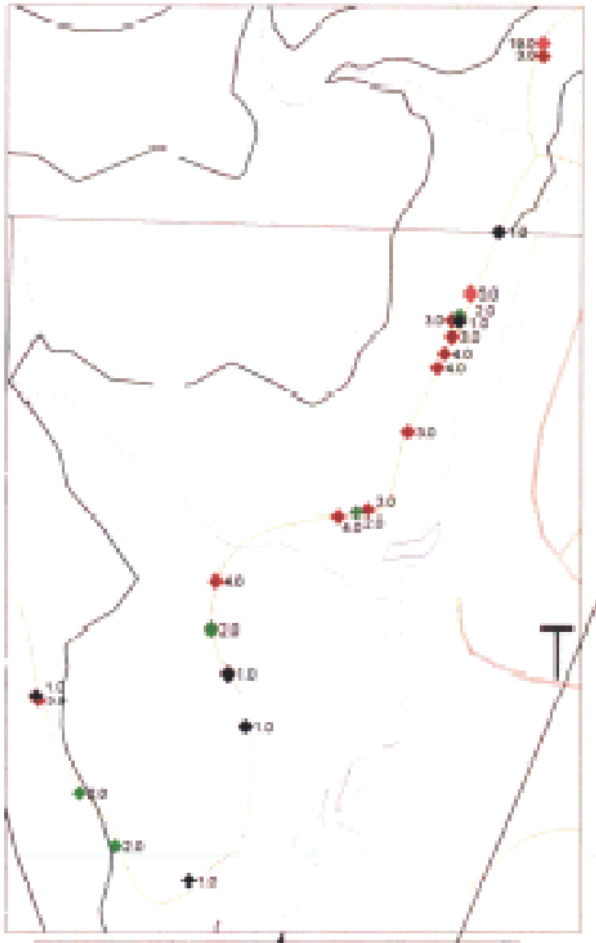
(see Figure 20)

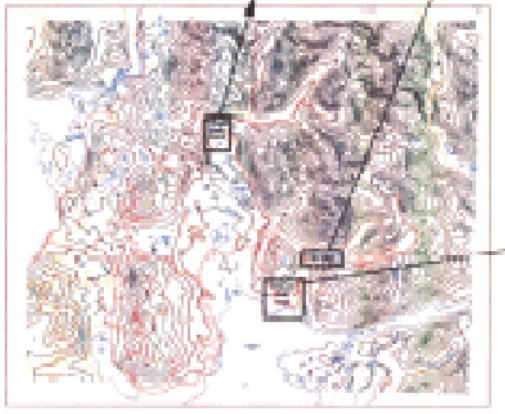
Comparatively high mercury values are scattered erratically within the 1999 sample suite. The highest value, 1,330 ppb, came from sample L99-37A, visibly mineralized rock, probably from a vein, but not seen in place by the writer.

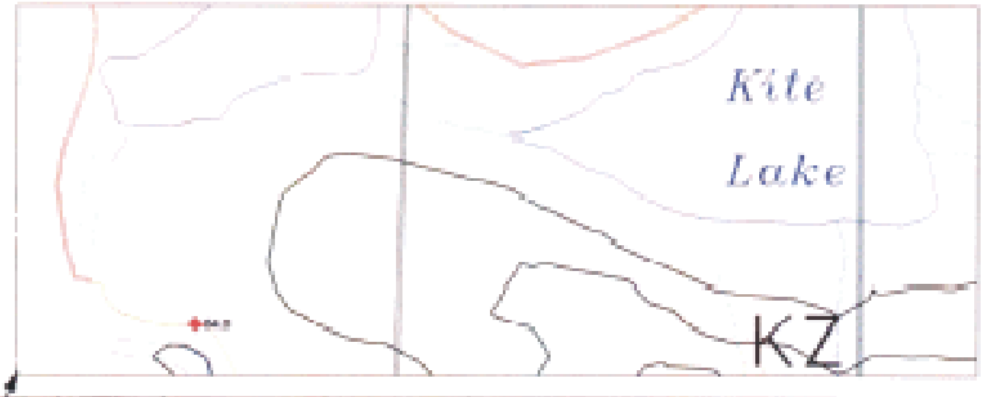
The highest mercury value in a sample collected by Electrum's field crew came from L99-04A, a sample from a 30 centimeter by 30 centimeter "knot" of pyritized material within a comparatively fresh basalt.

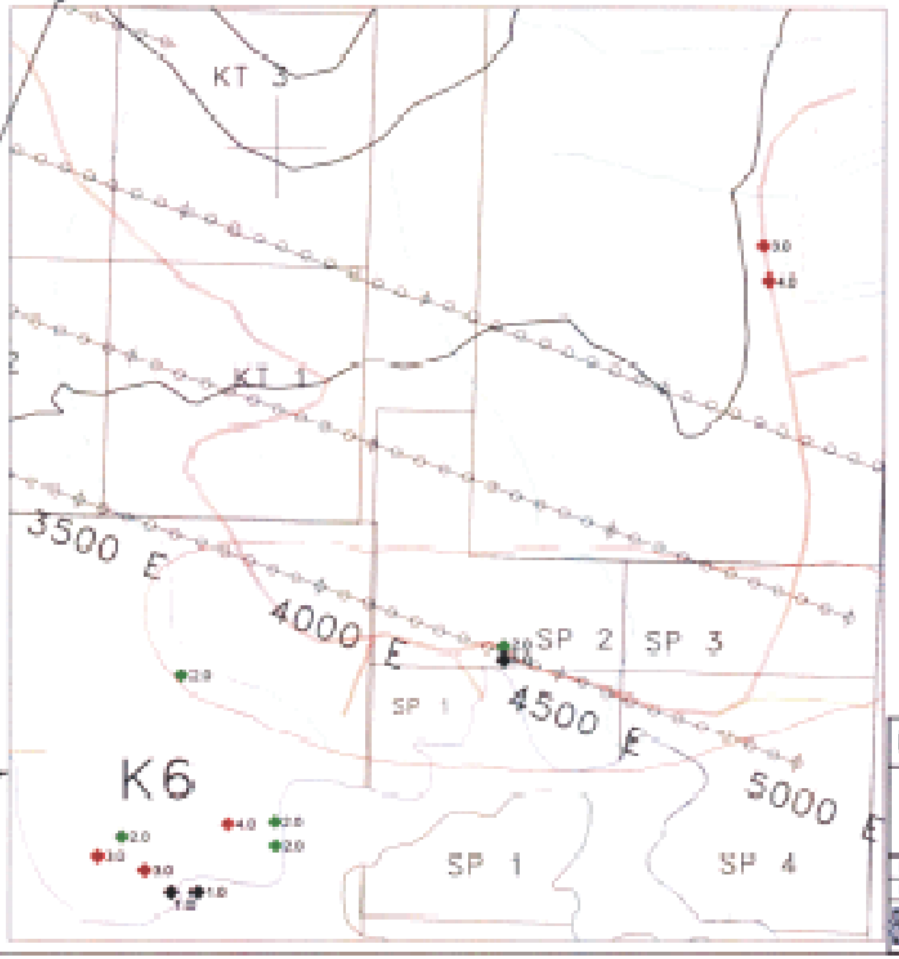
Three rock chip samples from the Toquart Bay area contained 210 ppb, 260 ppb and 460 ppb mercury. Each of these three samples came from pyritized intrusive rocks described as monzo-diorite, granodiorite or diorite. These rocks are distinct from the more prevalent diabase in the vicinity, and the comparatively higher mercury contents serve to further distinguish them.


Kite
Lake
KZ
N
KT 3
KT 1
T
3500 E
4000 E
4500 E
5000 E
SP 1
SP 2
SP 3
SP 4
K6
LEGEND
Sample Locations
Electrum Resource Corp.
Lucky Project
Rock Geochemistry
Sample Locations
Drawn by: PAR
Project: 21
Drawing: 21-6-13
Date: 3/2/00
Report: 21-R
Revision: 1
New Caledonian Geological Consulting
Figure 13

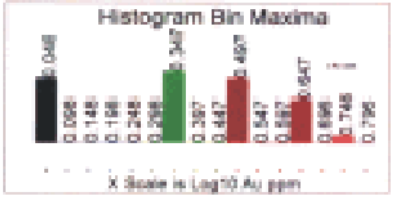




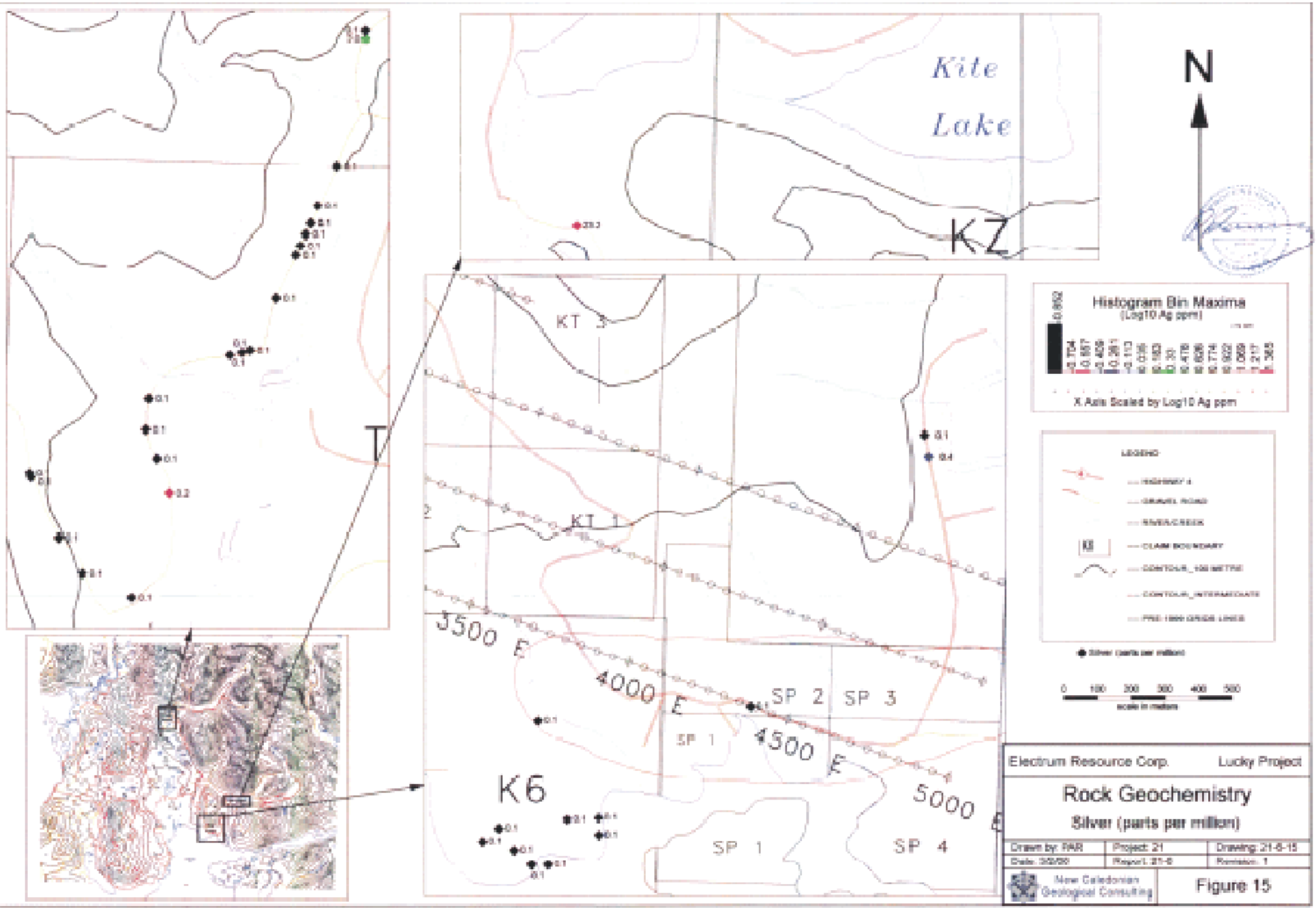


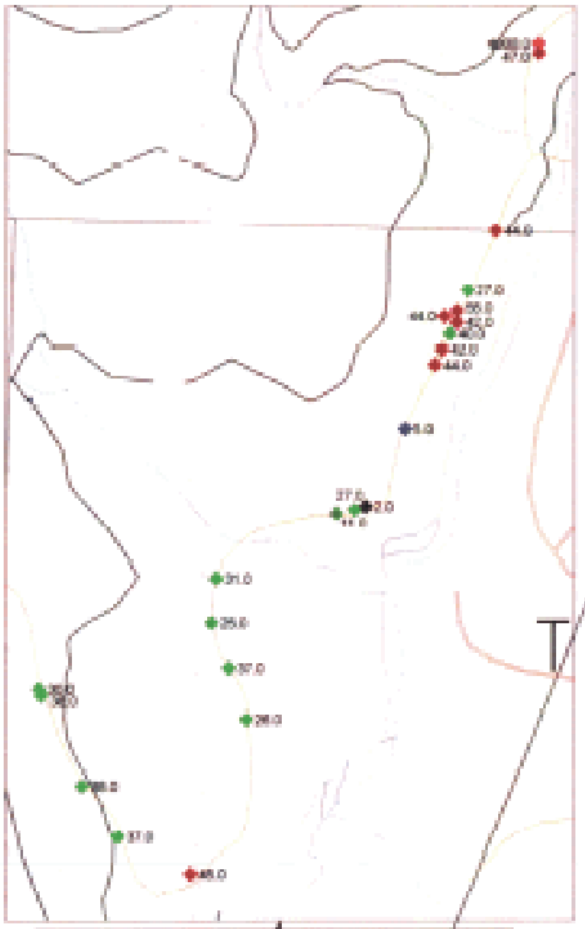


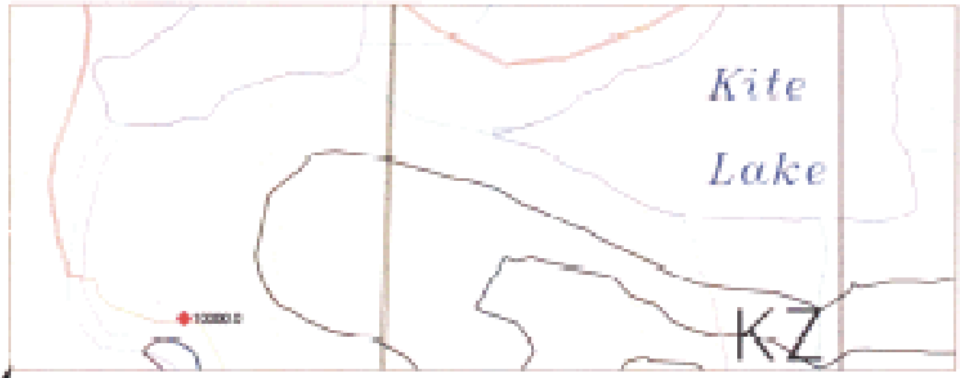
N

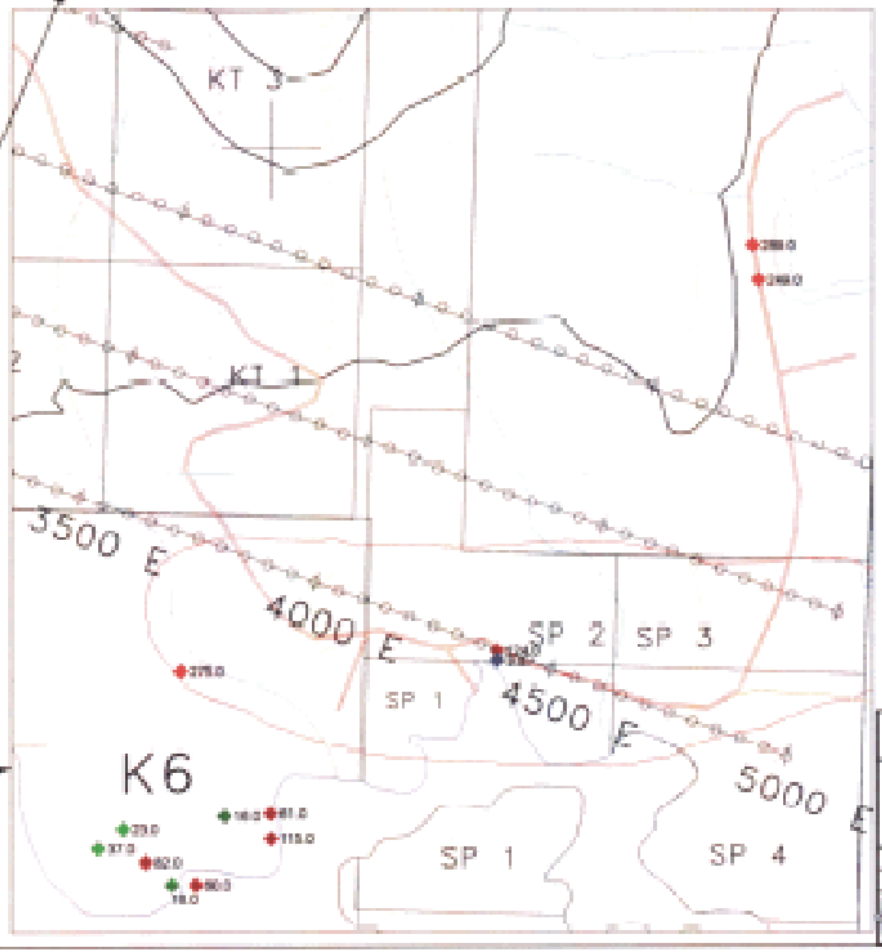


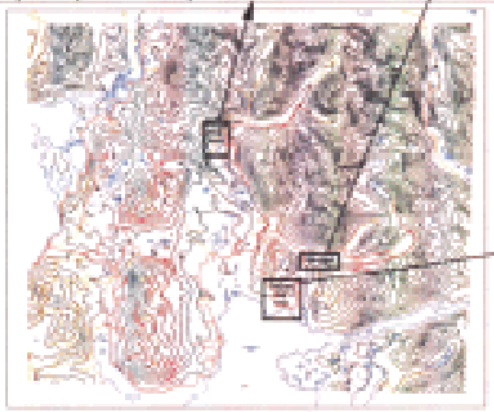
Electrum Resource Corp.		Lucky Project
Rock Geochemistry Gold (parts per billion)		
Drawn by: RAR	Project: 21	Drawing: 21-6-14
Date: 30/06	Report: 21-6	Revision: 1
New Caledonian Geological Consulting		Figure 14

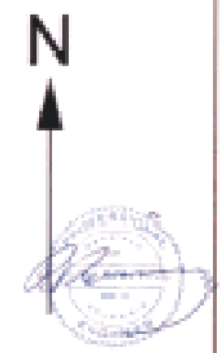

Kite
Lake
KZ
N
KT 3
KT 1
K6
3500 E
4000 E
4500 E
5000 E
SP 1
SP 2
SP 3
SP 4
Histogram Bin Maxima
(Log10 Ag ppm)
X Axis Scaled by Log10 Ag ppm
LEGEND
Silver (parts per million)
0 100 200 300 400 500
scale in meters
Electrum Resource Corp.
Lucky Project
Rock Geochemistry
Silver (parts per million)
Drawn by: RAR
Project: 21
Drawing: 21-6-15
Date: 3/2/00
Report: 21-6
Revision: 1
New Caledonian Geological Consulting
Figure 15

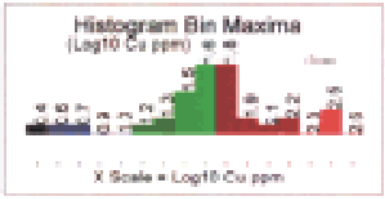




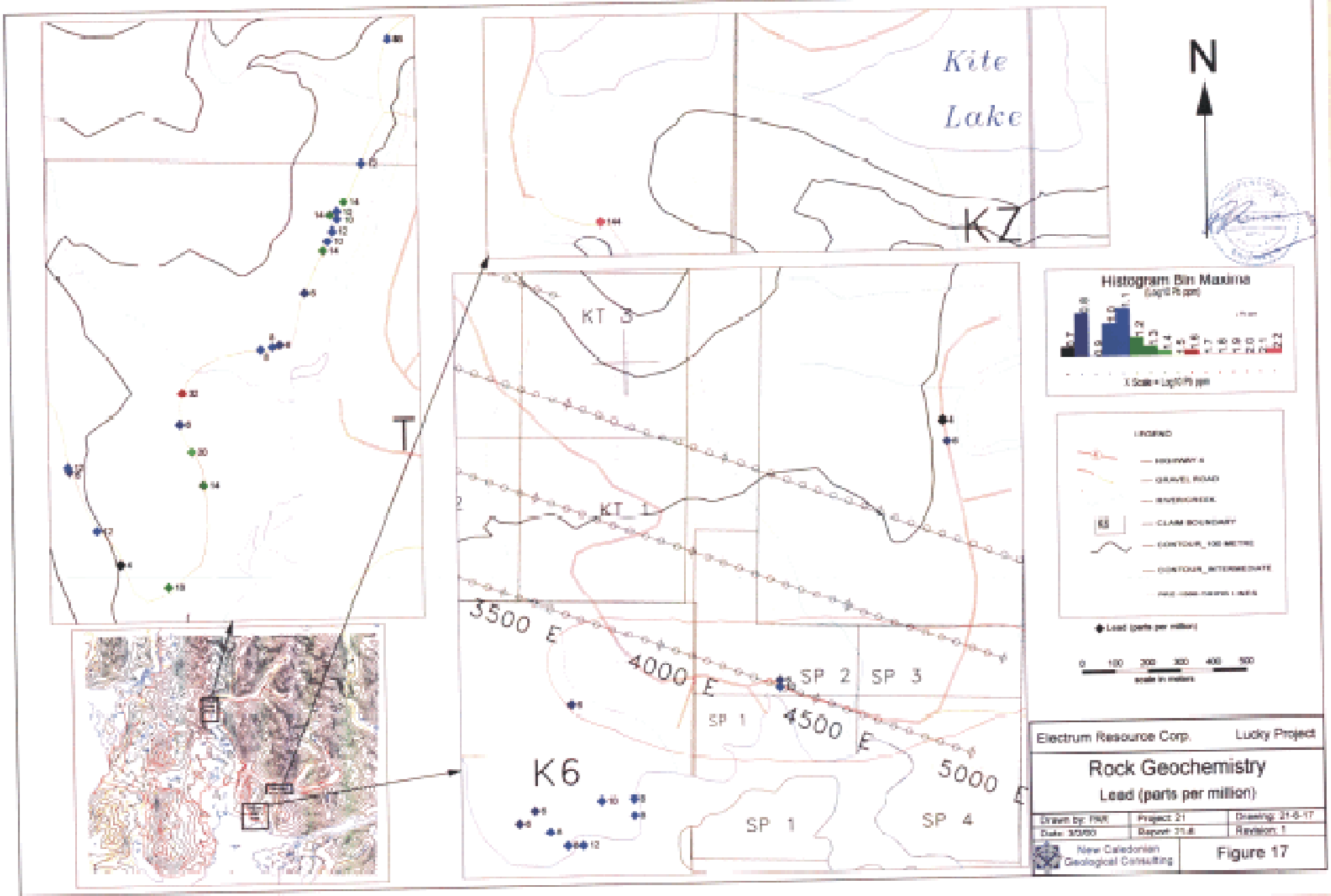


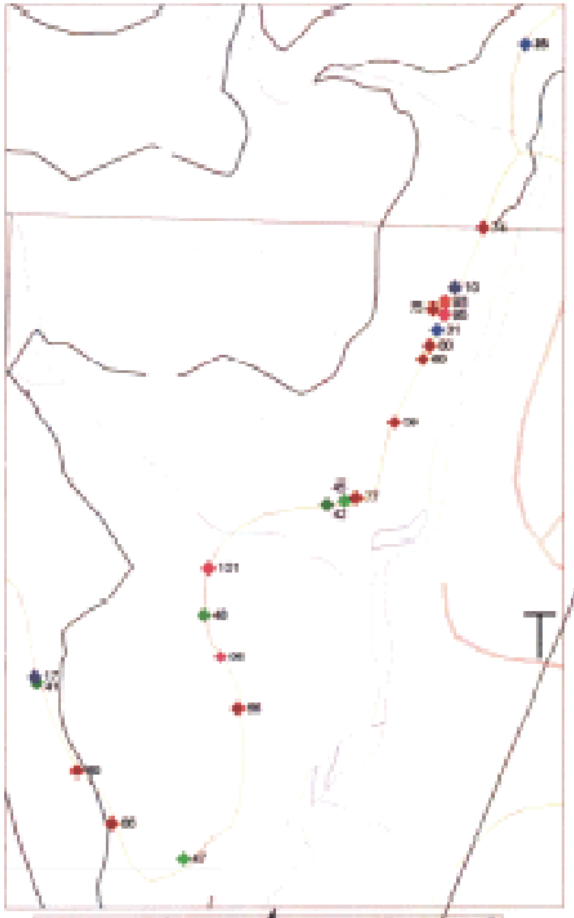


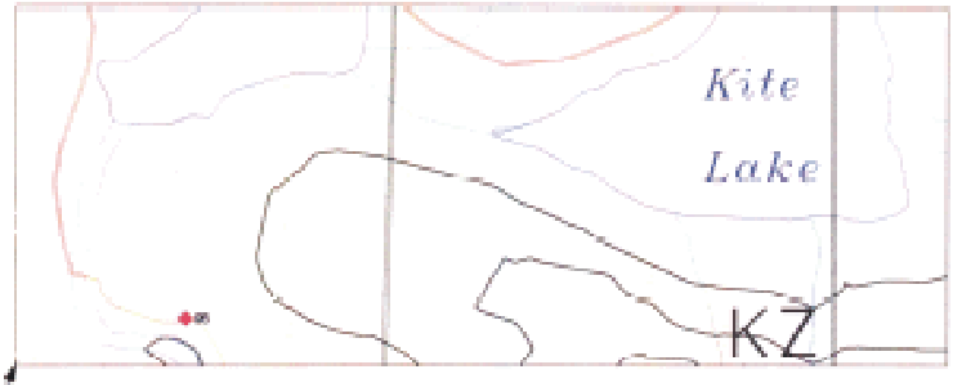


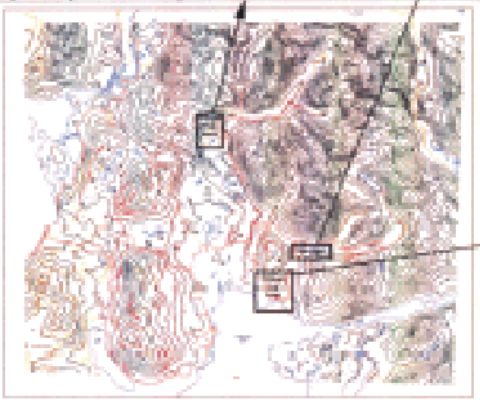


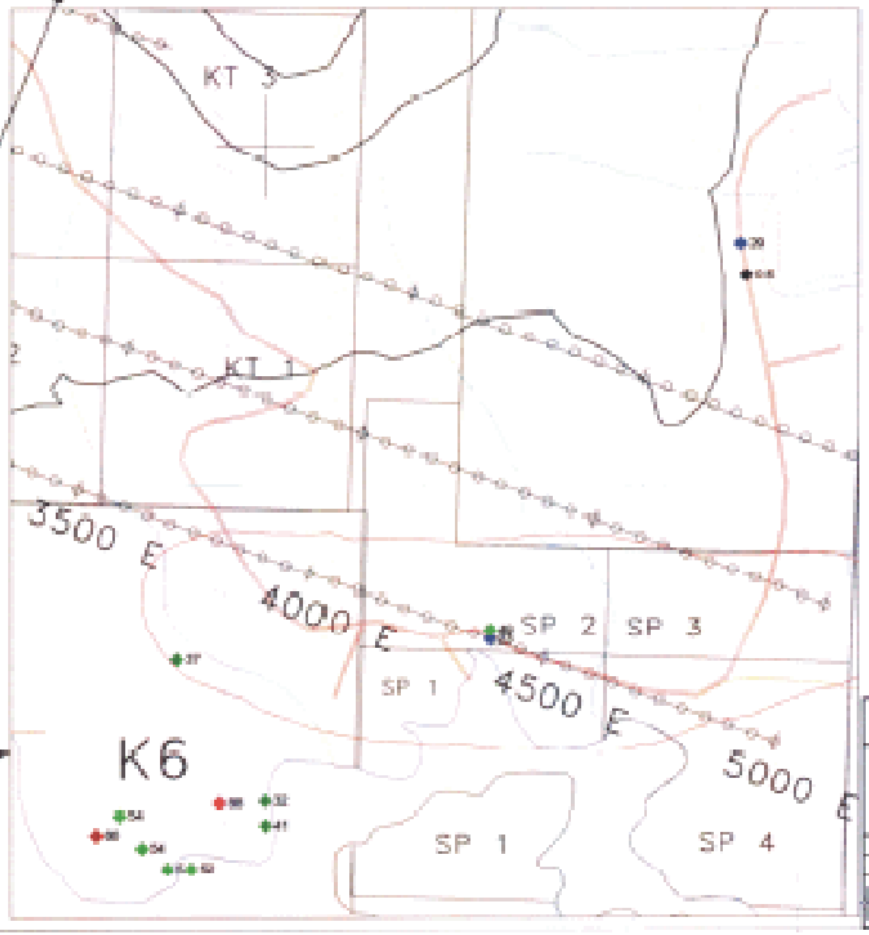
Electrum Resource Corp.		Lucky Project
Rock Geochemistry Copper (parts per million)		
Drawn by: PAR	Project: 21	Drawing: 21-6-16
Date: 3/2/06	Report: 21-6	Revision: 1
New Caledonian Geological Consulting		Figure 16


Kite
Lake
KZ
N
KT 3
KT 1
3500 E
4000 E
4500 E
5000 E
SP 1
SP 2
SP 3
SP 4
K6
Histogram Bin Maxima
LEGEND
Lead (parts per million)
Electrum Resource Corp.
Lucky Project
Rock Geochemistry
Lead (parts per million)
Drawn by: PMR
Project: 21
Drawing: 21-8-17
Date: 3/3/50
Report: 21-8
Revision: 1
New Caledonian Geological Consulting
Figure 17

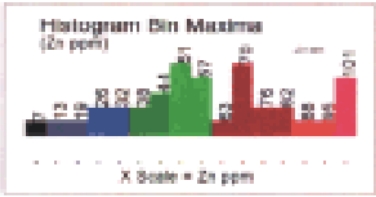








N



Electrum Resource Corp. Lucky Project

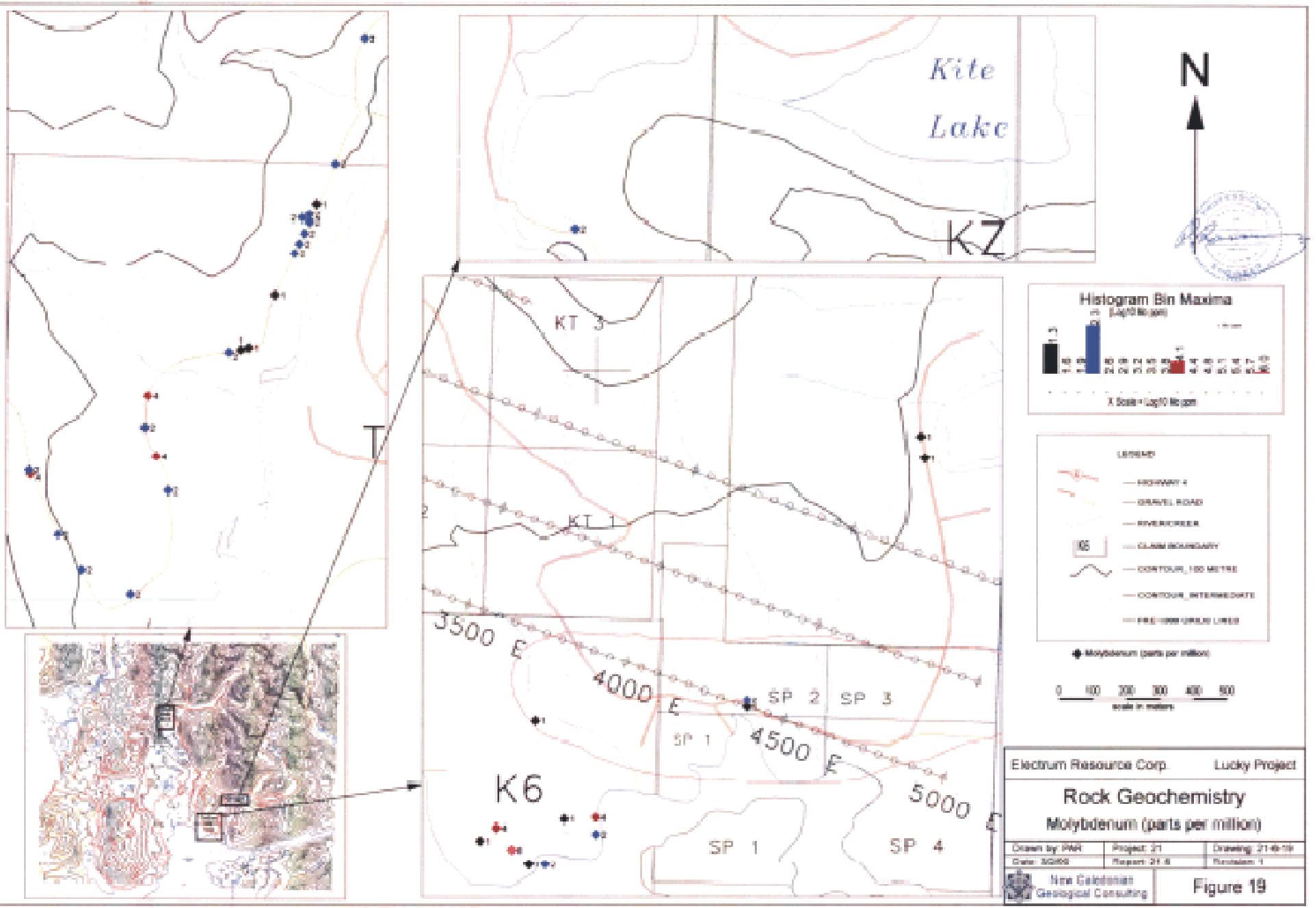
Rock Geochemistry

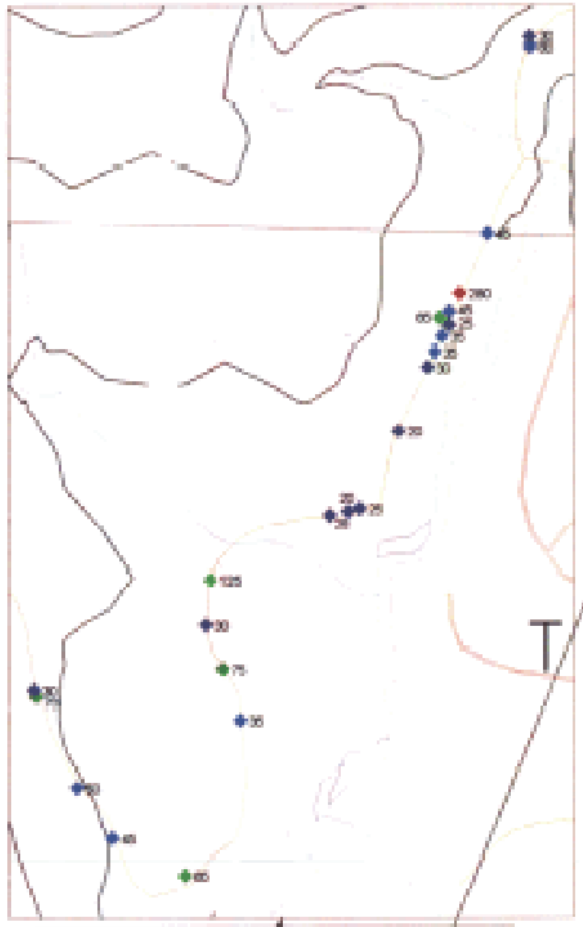
Zinc (parts per million)

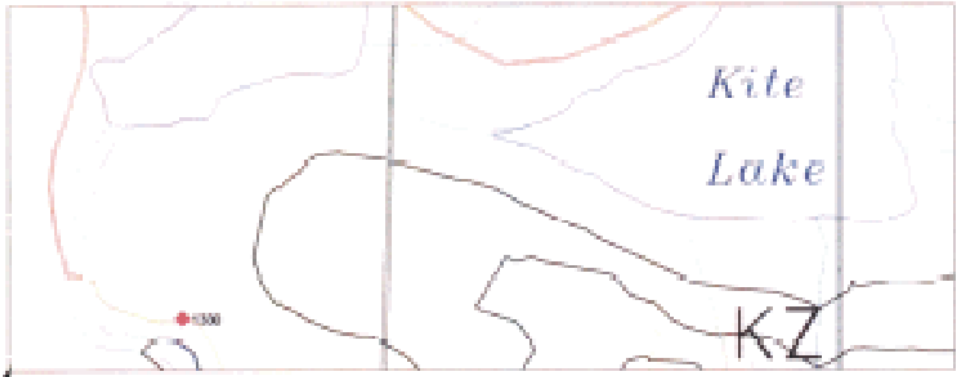
Drawn by: PAR	Project: 21	Drawing: 21-6-18
Date: 3/2/80	Report: 21-6	Revision: 1

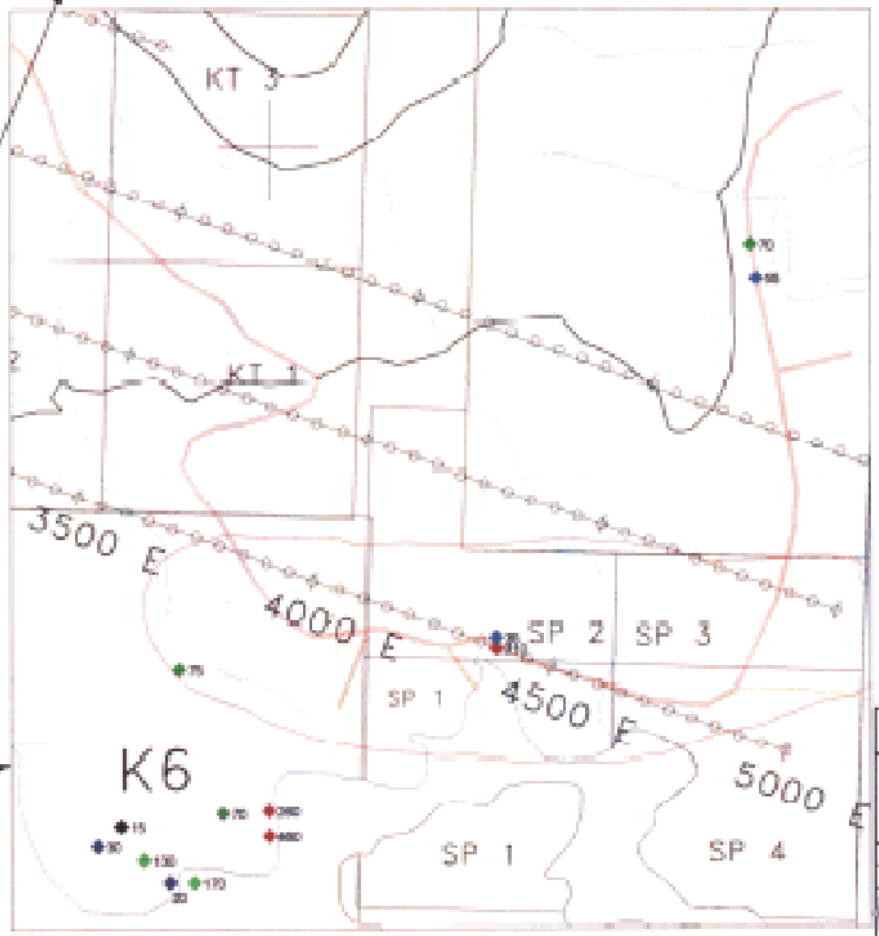
New Caledonian Geological Consulting

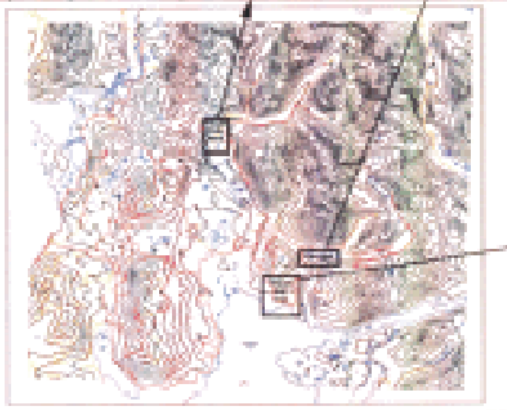
Figure 18

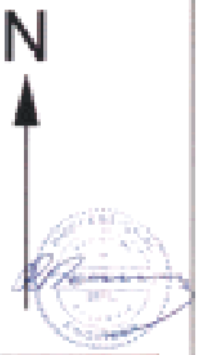

Kite
Lake
KZ
N
Histogram Bin Maxima
KT 3
KT 1
3500 E
4000 E
4500 E
5000 E
SP 1
SP 2
SP 3
SP 4
K6
LEGEND
HIGHWAY 4
GRAVEL ROAD
RIVER/CREEK
CLAIM BOUNDARY
CONTOUR_100 METRE
CONTOUR_INTERMEDIATE
Molybdenum (parts per million)
0 100 200 300 400 500
Electrum Resource Corp.
Lucky Project
Rock Geochemistry
Molybdenum (parts per million)
Drawn by: PAR
Project: 21
Drawing: 21-49-19
Date: 5/2/05
Report: 21-8
Revision: 1
New Caledonian Geological Consulting
Figure 19

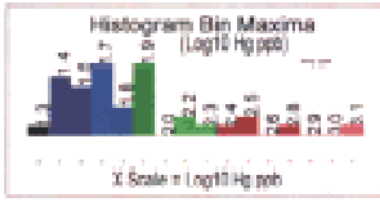


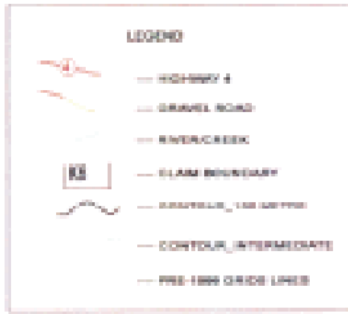












Electrum Resource Corp. Lucky Project

Rock Geochemistry

Mercury (parts per billion)

Drawn by: PMR	Project: 21	Drawing: 21-6-20
Date: 6/2020	Report: 21-6	Revision: 1

New Caledonian Geological Consulting

Figure 20

VI. Conclusions and Recommendations

The Lucky Project area contains numerous showings, including the Lucky Vein itself, and a number of similar if less well-known veins containing copper and gold mineralization. Skarn deposits, as at Triple Creek, are present.

The most intriguing area is still the vicinity of the bend in the Toquart River north of Toquart Lake. On the east side of the river is the intensely disseminated pyrite found in feldspar porphyry intrusive and basaltic wall rocks at the TOQ zone. West of the river, tuffs and tuff breccias exposed in road cuts in the Toquart River West Zone are rich in disseminated pyrite. Whether the pyritized rocks east and west of the river are part of one system is open to speculation. Their spatial proximity suggests a relationship but could be a coincidence. The failure so far to discover in-situ base or precious metal mineralization either by drilling or surface prospecting is discouraging. However, new logging road access continues to be created west of the Toquart River, exposing more and more sulphidized rock. Prospecting, sampling and mapping should continue in this area as it is opened up.

The Lucky Property has a long history of exploration, beginning with work on the Lucky Vein itself in the 1920's. Since the early 1980's a sequence of small exploration programs has generated a steady trickle of exploration data including geochemical, geological and geophysical information. Activity by Consolidated Logan Mines in the period 1995 to 1998 generated a considerable volume of information. Most of the information is to be found in individual reports. At this stage in the property's history, the data generated over the last 20 years should be brought together and synthesized, to obtain a clear picture of the present exploration potential.

VII. Bibliography

Bzdel, L.M. and Rockel, E.R.

1991: Report on Induced Polarization, Total Field Magnetic and VLF-EM Surveys on the TOQ and Lucky Claim Groups; unpublished consultant's report by Interpretex Resources Ltd. for Baril Developments Ltd. (*This report in included in Zastavnikovich et al, 1992, listed below)*

Carter, N.C.

1989: Geological Report on the Lucky Property; unpublished consultant's report for Freemont Gold Corporation, Alcove Gold Corporation and Canora Mining Corporation.

1988: Geological Report on the Toquart Bay Property; unpublished consultant's report for Freemont Gold Corporation, Electrum Resource Corporation and Alcove Gold Corporation.

1987: Geological Report on the Lucky Property; unpublished consultant's report for Freemont Gold Corporation.

Eccles, Louise

1984: Summary Report on the Wick and Adjoining Claims of Victoria Resource Corporation; unpublished consultant's report.

Northcote, K.E.

1983a: Report on Wick Claim, Lucky Creek - Toquart Bay Area, Vancouver Island; unpublished consultant's report for Victoria Resource Corporation.

1983b: Report on KV, KX, KY and KZ Claims, Lucky Creek - Toquart Bay Area, Vancouver Island; unpublished consultant's report for Victoria Resource Corporation

1992: Untitled petrographic report to Electrum Resource Corporation, on the subject of two samples from the TOQ grid area.

Price, Barry James

1992: Geological Report - Lucky Property; unpublished consultant's report by Rapitan Resources Inc. for Canora Mining Corporation.

Rebic, Z. and Lehtinen, J.

1985: Summary Report - Toquart Bay; unpublished in-house report for Falconbridge Limited

Ronning, P.A.

1993: Geological Reconnaissance and Rock Chip Sampling on the Lucky Property; assessment report for Electrum Resource Corporation.

Ronning, P.A.

1994a: Compilation of Stream Sediment Geochemistry on the Lucky Property; assessment report for Electrum Resource Corporation.

1994b: 1994 Exploration Program on the Lucky Property; assessment report for Electrum Resource Corporation.

Ronning, P.A. and Zastavnikovich, S.

1992: 1992 Exploration Program on the Lucky Property; assessment report for Electrum Resource Corporation.

Ronning, P.A. and Zastavnikovich, S.

1993: Geological Reconnaissance and Rock Chip Sampling Program on the Lucky Property, assessment report for Electrum Resource Corporation.

Sinclair, Alastair J.

1976: Applications of Probability Graphs in Mineral Exploration; The Association of Exploration Geochemists, Special Volume No. 4, 95 pp.

Stanley, Clifford R.

1987: PROBPLOT - An Interactive Computer Program to Fit Mixtures of Normal (or Log-Normal) Distributions With Maximum Likelihood Optimization Procedures; The Association of Exploration Geochemists, Special Volume No. 14, program plus 39 pp. on disk.

Walker, R.R

1997: Summary Report and 1997 Recommended Exploration Program on the Lucky Property; consultant's report for Consolidated Logan Mines Ltd.

Wilson, J.R. and Zastavnikovich, S.

1989a: Diamond Drilling Assessment Report, Lucky Mineral Claims Group; assessment report for Electrum Resource Corporation, Baril Developments Ltd. and Freemont Gold Corporation.

1989b: Diamond Drilling and Geophysical Assessment Report on the Oyster, TOQ and Handsome Groups Claims; assessment report for Electrum Resources Corp., Baril Development Ltd. and Freemont Gold Corporation.

Zastavnikovich, S., Bzdel, L.M. and Rockel, E.R.

1992: Geochemical and Geophysical Assessment Report, Lucky and TOQ Groups Claims.

VIII. Statement of Qualifications

I, Peter Arthur Ronning, of 1450 Davidson Road, Langdale, B.C., hereby certify that:

1. I am a consulting geological engineer, doing business under the registered name New Caledonian Geological Consulting. My business address is 912 - 510 West Hastings Street, Vancouver, B.C., V6B 1L8.

2. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia.

3. I am a graduate of the University of British Columbia in geological engineering, with the degree of B.A.Sc. granted in 1973.

4. I am a graduate of Queen's University in Kingston, Ontario, with the degree of M.Sc. (applied) in geology granted in 1983.

5. I have worked as a geologist and latterly as a geological engineer in the field of mineral exploration since 1973, in many parts North and South America.

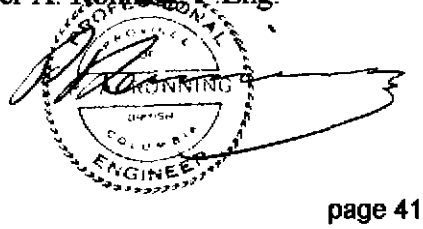
6. I am the author of the report entitled "1999 Exploration Program on the Lucky Property" and dated March 2000.

7. The conclusions expressed in this report are professional opinions, based upon my own work in the subject area in 1999 and on sources acknowledged in the text. Having undertaken reasonable due diligence, and believing the information I have used to be correct, I nevertheless accept no responsibility for the accuracy of information that I did not personally originate.

8. I neither own nor control a beneficial interest in the mineral property that is the subject of this report, nor in any corporation or other entity whose value could reasonably be expected to be affected by the conclusions expressed herein, including Electrum Resource Corporation (a private company) and its affiliates. I do not expect to receive any such interest. I do have a personal and business relationship with the principal of Electrum.

9. This report may be used by Electrum for any lawful purpose for which it is suitable. Should it be necessary to use abridgments of or excerpts from the report, these must be made in such as way as to retain their original meaning and context. All reasonable efforts must be made to obtain my approval prior to any use of such abridgments or excerpts.

Peter A. Ronning, P.Eng.



Appendix 1 — Statement of Costs

Lucky Project Expenditures
Oct 1999 and February-March 2000

Professional Fees, NCG

Date	Rate per Day	GST amount	Fraction of Day	Fee Cost	GST Cost	Day Cost	Activity
23-Sep-99	$375.00	$26.25	0.2	$75.00	$5.25	$80.25	Discuss work to be done on Lucky property. Purchase claim maps.
28-Sep-99	$375.00	$26.25	0.2	$75.00	$5.25	$80.25	Meet with John Barakso and Jim Donaldson
01-Oct-99	$375.00	$26.25	0.5	$187.50	$13.13	$200.63	Meet with Jim Donaldson and John Barakso. Pick up radios in South Vancouver.
03-Oct-99	$375.00	$26.25	1	$375.00	$26.25	$401.25	Drive from Victoria to site and look for Jim Donaldson.
04-Oct-99	$375.00	$26.25	1	$375.00	$26.25	$401.25	Meet Jim Donaldson; set up camp. Mapping along road west of Toquart River.
05-Oct-99	$375.00	$26.25	1	$375.00	$26.25	$401.25	Mapping and sampling in the vicinity of Toquart Bay.
06-Oct-99	$375.00	$26.25	1	$375.00	$26.25	$401.25	Mapping and sampling in Toquart Bay area. Prospecting Black Peaks logging road.
07-Oct-99	$375.00	$26.25	1	$375.00	$26.25	$401.25	Mapping and sampling along road west of Toquart River and Toq grid.
08-Oct-99	$375.00	$26.25	1	$375.00	$26.25	$401.25	Mapping and sampling along road west of Toquart River.
09-Oct-99	$375.00	$26.25	1	$375.00	$26.25	$401.25	Wait for weather; decided to scrub work on North Pil and break camp. Drive to Victoria.
13-Oct-99	$375.00	$26.25	1	$375.00	$26.25	$401.25	Transcribe field notes and prepare lists of samples.
14-Oct-99	$375.00	$26.25	0.1	$37.50	$2.63	$40.13	Transcribe field notes and prepare sample shipment notice.
23-Feb-00	$375.00	$26.25	1	$375.00	$26.25	$401.25	Format geochem data files, merge in data base.
24-Feb-00	$375.00	$26.25	1	$375.00	$26.25	$401.25	Generate raw geochem data plots
25-Feb-00	$375.00	$26.25	1	$375.00	$26.25	$401.25	Prepare CAD files & merge raw geochem plots.
29-Feb-00	$375.00	$26.25	1	$375.00	$26.25	$401.25	Plot geology; start report writing
1-Mar-00	$375.00	$26.25	1	$375.00	$26.25	$401.25	Prepare report
2-Mar-00	$375.00	$26.25	1	$375.00	$26.25	$401.25	Summarize Expenditures; prepare report cover page, print 4 copies of report & maps.
Totals				**$5,625.00**	**$393.75**	**$6,018.75**	

Equipment Use Fees, NCG

Date	Rate/Week	GST amount	Fraction of Week	Fee Cost	GST Cost	Item Cost	Description
Oct-99	**$450.00**	**$31.50**	**1**	**$450.00**	**$31.50**	**$481.50**	use of 4x4 Dodge pickup truck, with camper; mobilization & on-site use

Professional Fees, Oxhead Explorations Limited

Date	Rate per Day	GST amount	Fraction of Day	Fee Cost	GST Cost	Day Cost	Activity
3-Oct-99	$200.00	$14.00	1	$200.00	$14.00	$214.00	travel Vancouver - Port Alberni
4-Oct-99	$250.00	$17.50	1	$250.00	$17.50	$267.50	travel to property; set up camp; recon., commence soil sampling
5-Oct-99	$250.00	$17.50	1	$250.00	$17.50	$267.50	soil sample/prospect
6-Oct-99	$250.00	$17.50	1	$250.00	$17.50	$267.50	soil sample/prospect
7-Oct-99	$250.00	$17.50	1	$250.00	$17.50	$267.50	soil sample/prospect
8-Oct-99	$250.00	$17.50	1	$250.00	$17.50	$267.50	soil sample/prospect
9-Oct-99	$200.00	$14.00	1	$200.00	$14.00	$214.00	travel property - Vancouver
Totals				**$1,650.00**	**$115.50**	**$1,765.50**	

Expenditures, NCG

Date	Base Cost	Tip	Pretax	GST	Other Taxes	Total Cost	Item
09-Oct-99	$10.20	$1.50	$11.70	$0.63	$0.00	$12.33	lunch
05-Oct-99	$13.96	$0.00	$13.96	$0.00	$0.00	$13.96	groceries
09-Oct-99	$38.79	$0.00	$38.79	$2.71	$0.00	$41.50	gasoline
05-Oct-99	$33.15	$5.00	$38.15	$2.32	$0.00	$40.47	dinner for two
03-Oct-99	$35.79	$0.00	$35.79	$2.51	$0.00	$38.30	gasoline
03-Oct-99	$8.55	$0.00	$8.55	$0.00	$0.00	$8.55	Propane
03-Oct-99	$212.76	$0.00	$212.76	$1.74	$1.52	$216.02	groceries
02-Oct-99	$56.50	$0.00	$56.50	$0.00	$0.00	$56.50	ferry to Vancouver Island
19-Oct-99	$300.00	$0.00	$300.00	$21.00	$21.00	$342.00	Radio Rental
Totals	**$709.70**	**$6.50**	**$716.20**	**$30.91**	**$22.52**	**$769.63**	

Expenditures, Oxhead Explorations Limited

Date	Base Cost	Tip	Pretax	GST	Other Taxes	Total Cost	Item
10-Oct-99	$432.94					$432.94	vehicle rental, Avis, 3 - 9 Oct 99
03-Oct-99	$37.25					$37.25	fare, B.C. Ferry Corporation
10-Oct-99	$37.25					$37.25	fare, B.C. Ferry Corporation
01-Oct-99	$178.07					$178.07	field supplies, Neville Crosby Inc.
03-Oct-99	$12.04					$12.04	meal, B.C. Ferry Corp.
09-Oct-99	$8.03					$8.03	meal, B.C. Ferry Corp.
09-Oct-99	$10.25					$10.25	meal, Husky, Port Alberni
05-Oct-99	$67.10					$67.10	fuel, Petro Can, Uclulet
10-Oct-99	$60.00					$60.00	fuel, Husky, Richmond
3-Oct-99	$62.10				$9.32	$71.42	hotel, Port Alberni
Totals	**$905.03**				**$9.32**	**$914.35**	

Laboratory Fees, TSL Assayers

Date	Unit Cost		Units	Item Cost	GST Cost	Total Cost	Description of Item
12-Nov-99	$1.80		1	$1.80	$0.13	$1.93	sample prep, 1 silt
12-Nov-99	$5.25		37	$194.25	$13.60	$207.85	sample prep, rocks
12-Nov-99	$1.80		113	$203.40	$14.24	$217.64	sample prep, soil
12-Nov-99	$8.00		152	$1,216.00	$85.12	$1,301.12	Multielement ICP analysis
12-Nov-99	$8.50		152	$1,292.00	$90.44	$1,382.44	Geochemical Gold Analysis
12-Nov-99	$7.00		152	$1,064.00	$74.48	$1,138.48	Geochemical Mercury Analysis
12-Nov-99	$9.00		2	$18.00	$1.26	$19.26	Copper Assays
Totals				**$3,989.45**	**$279.26**	**$4,268.71**	

Total Project Cost	**$14,218.44**

Appendix 2 — Descriptions of Rock Samples

Sample Number: L99-02A **UTM Easting:** 327585

Site Name L99-02 **UTM Northing:** 5442627

Field Notes chainage 159 m to 181 m

Low roadside exposure on west side of road.

Relatively fresh basalt. Dark grey, finely crystalline, strongly magnetic.

A pyritized zone cuts through the exposure. It is less well exposed, covered by rusty soil. Pyritized zone is mostly visible as rubble, but sufficient exposure is present to demonstrate that it is in place. The size of boulders in the rubble indicates that the width of the pyritized zone must be least 1 meter, but that is the only information that can be gleaned about the size and shape.

Pyrite within the zone is about 5%, as medium to finely crystalline disseminations. Mafics are destroyed and the rock is non-magnetic. Groundmass is sericitized. About 10% relict plagioclase(?) phenocrysts are visible.

Sample Description: grab sample of the pyritized rock, combination of chips from outcrop and rubble

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
44	1	-0.2	74	2	45

Sample Number: L99-04A **UTM Easting:** 327529

Site Name L99-04 **UTM Northing:** 5442509

Field Notes At 283 meters a large, bluff-forming outcrop begins. Fairly fresh dark grey basalt, variably magnetic. Prominent fracture sets produce a blocky pattern of breakage.

A "knot" of pyrtized material similar to that described at L99-02 is present near the beginning of the outcrop. It has dimensions of about 30 cm by 30 cm. It appears isolated and cannot be traced beyond those dimensions, though the exposure is good.

Sample Description: grab sample of material from pyritized "knot".

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
27	5	-0.2	10	-2	280

Sample Number: L99-05A **UTM Easting:** 327508

Site Name L99-05 **UTM Northing:** 5442457

Field Notes Blasted faces on the west side of the road form a cliff of basalt. Textures vary from cryptic pillows to flow breccias. There is a variable degree of albitization (spilitization?) with 1% to 3% pyrite disseminated in the albitized rock.

@ 385 meters a minor fault containing about 10 cm of gouge trends 240/85. The gouge is soft and punky, but contains remnants of calcite vein material.

Sample Description: grab of the fault gouge

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
44	3	-0.2	75	2	65

Sample Number: *L99-05B* ***UTM Easting:*** *327508*

Site Name L99-05 **UTM Northing:** 5442457

Field Notes Blasted faces on the west side of the road form a cliff of basalt. Textures vary from cryptic pillows to flow breccias. There is a variable degree of albitization (spilitization?) with 1% to 3% pyrite disseminated in the albitized rock.

@ 385 meters a minor fault containing about 10 cm of gouge trends 240/85. The gouge is soft and punky, but contains remnants of calcite vein material.

Sample Description: grab of the basalt north of the fault

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
55	2	-0.2	93	2	45

Sample Number: L99-05C **UTM Easting:** 327508

Site Name L99-05 **UTM Northing:** 5442457

Field Notes Blasted faces on the west side of the road form a cliff of basalt. Textures vary from cryptic pillows to flow breccias. There is a variable degree of albitization (spilitization?) with 1% to 3% pyrite disseminated in the albitized rock.

@ 385 meters a minor fault containing about 10 cm of gouge trends 240/85. The gouge is soft and punky, but contains remnants of calcite vein material.

Sample Description: grab of the basalt south of the fault

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
42	1	-0.2	95	2	25

Sample Number: L99-08A **UTM Easting:** 330449

Site Name L99-08 **UTM Northing:** 5434006

Field Notes Quarry on main access road in to this area. Dominant rock is a pale green monzo-diorite:

10% mafic phenocrysts, 1 mm to 2 mm; chlorite after hornblende.

85% finely crystalline pale creamy green sericitized felsic groundmass.

If quartz is present it is in the groundmass and not distinguishable.

Monzo-diorite contains inclusions of very finely crystalline, black hornfels probably originated as diabase. Now it is too finely crystalline to determine the mineralogy, but it is generally weakly magnetic. Very locally the inclusions are less magnetic and contain up to 3% finely disseminated pyrite.

Rare traces of pyrite.

Sample Description: grab sample of hornfels xenolith, selected for pyrite content.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
124	2	-0.2	23	-2	210

Sample Number: L99-08B **UTM Easting:** 330449

Site Name L99-08 **UTM Northing:** 5434006

Field Notes Quarry on main access road in to this area. Dominant rock is a pale green monzo-diorite:

10% mafic phenocrysts, 1 mm to 2 mm; chlorite after hornblende.

85% finely crystalline pale creamy green sericitized felsic groundmass.

If quartz is present it is in the groundmass and not distinguishable.

Monzo-diorite contains inclusions of very finely crystalline, black hornfels probably originated as diabase. Now it is too finely crystalline to determine the mineralogy, but it is generally weakly magnetic. Very locally the inclusions are less magnetic and contain up to 3% finely disseminated pyrite.

Rare traces of pyrite.

Sample Description: grab of typical monzo-diorite.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
3	1	-0.2	49	2	35

Sample Number: L99-09A **UTM Easting:** 329999

Site Name L99-09 **UTM Northing:** 5433680

Field Notes End of spur road, at shoreline. Outcrop is dominantly granodiorite, consisting of 25% hornblende with some biotite and 65% coarse (1 mm to 3 mm) plagioclase. The rock is weakly magnetic. It appears relatively fresh and unaltered, with the exception of pyrite.

3% pyrite is finely disseminated.

The southern 20% of the outcrop is monzo-granite. It contains about 15% chlorite after biotite. About 20% 1 mm to 3 mm quartz crystals. Groundmass is felsic.

The monzo-granite contains about 5% mafic xenoliths as described at L99-08. The monzo-granite is non-magnetic and the xenoliths are weakly magnetic.

A stream sediment sample collected 20 meters to the northeast of this site, where a bridge crosses a creek. Latter is 3 meters wide, 20 cm deep, with a gentle flow in relatively flat terrain. The stream bottom is dominantly gravel and boulders. The sample is sand and silt dug out from between the boulders, collected by J. Donaldson.

Sample Description: Grab sample dominated by pyritized granodiorite but including some monzo-granite.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
61	2	-0.2	32	4	260

Sample Number: L99-09B **UTM Easting:** 329999

Site Name L99-09 **UTM Northing:** 5433680

Field Notes End of spur road, at shoreline. Outcrop is dominantly granodiorite, consisting of 25% hornblende with some biotite and 65% coarse (1 mm to 3 mm) plagioclase. The rock is weakly magnetic. It appears relatively fresh and unaltered, with the exception of pyrite.

3% pyrite is finely disseminated.

The southern 20% of the outcrop is monzo-granite. It contains about 15% chlorite after biotite. About 20% 1 mm to 3 mm quartz crystals. Groundmass is felsic.

The monzo-granite contains about 5% mafic xenoliths as described at L99-08. The monzo-granite is non-magnetic and the xenoliths are weakly magnetic.

A stream sediment sample collected 20 meters to the northeast of this site, where a bridge crosses a creek. Latter is 3 meters wide, 20 cm deep, with a gentle flow in relatively flat terrain. The stream bottom is dominantly gravel and boulders. The sample is sand and silt dug out from between the boulders, collected by J. Donaldson.

Sample Description: stream sediment sample

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb

Sample Number: L99-10A **UTM Easting:** 330000

Site Name L99-10 **UTM Northing:** 5433630

Field Notes Fine grained diorite, moderately magnetic. There is a local rusty zone about 1 meter by 0.5 meters within which the diorite contains about 5% pyrite or pyrrhotite finely disseminated. Rock is strongly magnetic, suggesting that the iron sulphide is pyrrhotite.

Sample Description: grab sample of pyrrhotite-bearing rock.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
115	2	-0.2	41	2	460

Sample Number: L99-11A **UTM Easting:** 329906

Site Name L99-11 **UTM Northing:** 5433675

Field Notes Edge of a clearcut about 5 years old. Finely crystalline diabase or diorite. Difficult to determine which it is due to subsequent alteration. Dikelets and apophyses of the monzo-granite have intruded and have altered the older rock.

Mafic minerals are chloritized and feldspars are saussuritized.
The diabase or diorite is cut by centimetric calcite veinlets amounting to 1% of the rock. Within about 10 cm of the veinlets pyrite is formed within the rock. The pyrite is subhedral, about 1 mm in size. Locally it forms up to 5% of the rock, near the veinlets.

Sample Description: grab sample, primarily of diabase containing calcite veinlets, with pyrite.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
16	4	-0.2	88	-2	70

Sample Number: L99-14A **UTM Easting:** 329848

Site Name L99-14 **UTM Northing:** 5433539

Field Notes Location obtained using 600 readings and the Trimble Aculock system.

End of this branch of overgrown road, at the shoreline. Road cut exposure of plagioclase phyric (diabase?). Non-magnetic and contains rare traces of pyrite.

The diabase is in contact with a very finely crystalline felsic rock. The latter contains a groundmass that is mainly saussuritized plagioclase. It has a colour index of 10, consisting of fine green specks. There is about 3% pyrite, disseminated as fine to 1 mm subhedral crystals. It is fresh and yellow.

The contact relationship between the diabase and the felsic rock is not apparent with a cursory examination of the outcrop. The relationship is intrusive but it is not clear which intrudes which.

Sample Description: grab of the pyrite-bearing rock

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
60	1	-0.2	52	2	170

Sample Number: L99-15A **UTM Easting:** 329800

Site Name L99-15 **UTM Northing:** 5433539

Field Notes About 30 meters west of L99-014, skirting the bottom of the same outcrop.

Here there is a cave which appears to have formed by solution in the footwall of a fault. The rock is non-magnetic diabase containing a trace of pyrite. There is no obvious reason for the footwall fo the fault to be preferentially soluble.

Sample Description: grab sample from the footwall of the fault at the cave entrance.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
18	1	-0.2	54	-2	20

Sample Number: L99-16A **UTM Easting:** 329748

Site Name L99-16 **UTM Northing:** 5433583

Field Notes At the south edge of a clearcut, northwest of L99-14.

Moss and root-covered outcrop less than 1 m x 1m in exposed area.

Diabase, variably pyritized and strongly magnetic. There is an inverse relationship between pyrite content and magnetism.

The most pyrite-rich parts contain 3% pyrite, finely disseminated. In the pyrite-rich rock, *the feldspar in the groundmass has a waxy sheen, perhaps due to partial* saussuritization.

Sample Description: grab sample containing a mixture of pyritized and non-pyritized rock.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
82	3	-0.2	54	6	130

Sample Number: L99-17A **UTM Easting:** 329655

Site Name L99-17 **UTM Northing:** 5433610

Field Notes On a prominent hill near the southern tip of the peninsula on the east side of Toquart Bay. The hill is on the south edge of the clearcut, with a tuft of trees left on the hill top.

The hill is formed by a diabase or fine gabbro, similar to those described at L99-14, 15 and 16. One 0.5 centimeter wide chalcedonic quartz stringer is noted on the north face of the outcrop.

Sample Description: grab consisting of chips from the face of the outcrop. There a few shards of the chalcedonic quartz veinlet in the sample but it was not possible to get much of it.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
37	3	-0.2	66	-2	30

Sample Number: L99-18A **UTM Easting:** 329703

Site Name L99-18 **UTM Northing:** 5433649

Field Notes Blasted outcrop adjacent to overgrown logging road, about 15 m x 7 m.

Looks like a Karmutsen basalt. Has a dark green groundmass, with about 10% dark relict hornblende phenocrysts. Outcrop is laced with carbonate-epidote veinlets, about 1% of the rock.

Rock is non-magnetic and contains only a rare trace of pyrite.

Identification of this as Karmutsen brings into question the identification of other outcrops in the area as diabase. Some of them, with poorer exposures, may be mis-identified K basalts as well.

A brittle shear cuts across the center of the outcrop, at 282/85 (2 meters wide). The shear zone is followed by white quartz-carbonate veinlets, typically 2 mm to 3 mm wide with a density of about 20 per meter.

Within the brittle shear zone there are brown iron oxides and black manganese oxides coating the fracture surfaces.

Sample Description: grab of chips selected to represent the brittle shear.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
23	2	-0.2	54	4	15

Sample Number: L99-19A **UTM Easting:** 327670

Site Name L99-19 **UTM Northing:** 5443000

Field Notes Chaining along spur that goes north from the west end of the Toquart River Bridge in the Toq area. Zero point is where the north spur leaves the main southerly spur.

From 174 m to 218 m exposures are blasted out on the west or upper side of the road.

The east part of the exposure is massive grey-green basalt. It is variably hornblende and feldspar phyric. Very finely crystalline, grey-green, with a partly saussuritized groundmass. Moderately magnetic.

Epidote is abundant, comprising about 10% of the outcrop. It is found as 1/2 to 1 cm spots mottling the rock, and as veinlets ranging from hairline to 5 cm wide. The veinlets have a highly varied orientation. Quartz and calcite are found with epidote in some of the veinlets but not all.

Locally, coarse pyrite is associated with the epidote-quartz-calcite. Pyrite comprises up to 10% of some hand specimens but only trace fraction of the whole outcrop.

In the central part of the outcrop there is about a 4 meter thickness of light grey-green banded rock. The banding is on a scale of millimeters up to decimeters. The banded rock is hard, siliceous and non-magnetic. Locally up to 5% consists of feldspar phenocrysts. Probably a water lain tuff. There is minor, finely disseminated pyrite.

Sample Description: grab sample selected to contain abundant epidote-quartz-calcite-pyrite

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
4955	19	2	45	-2	60

Sample Number: L99-19B **UTM Easting:** 327670

Site Name L99-19 **UTM Northing:** 5443000

Field Notes Chaining along spur that goes north from the west end of the Toquart River Bridge in the Toq area. Zero point is where the north spur leaves the main southerly spur.

From 174 m to 218 m exposures are blasted out on the west or upper side of the road.

The east part of the exposure is massive grey-green basalt. It is variably hornblende and feldspar phyric. Very finely crystalline, grey-green, with a partly saussuritized groundmass. Moderately magnetic.

Epidote is abundant, comprising about 10% of the outcrop. It is found as 1/2 to 1 cm spots mottling the rock, and as veinlets ranging from hairline to 5 cm wide. The veinlets have a highly varied orientation. Quartz and calcite are found with epidote in some of the veinlets but not all.

Locally, coarse pyrite is associated with the epidote-quartz-calcite. Pyrite comprises up to 10% of some hand specimens but only trace fraction of the whole outcrop.

In the central part of the outcrop there is about a 4 meter thickness of light grey-green banded rock. The banding is on a scale of millimeters up to decimeters. The banded rock is hard, siliceous and non-magnetic. Locally up to 5% consists of feldspar *phenocrysts. Probably a water lain tuff. There is minor, finely disseminated pyrite.*

Sample Description: grab sample consisting of a series of chips spread over the thickness of the tuff horizon.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
47	3	-0.2	21	2	30

Sample Number: L99-20A **UTM Easting:** 327493

Site Name L99-20 **UTM Northing:** 5442424

Field Notes This site was selected for a sample due to the level of pyrite. From L99-05 to this point, variable amounts of pyrite are finely disseminated. Visible pyrite and visible mafic minerals are inversely related to each other; with an increase in pyrite mafics decline and the groundmass becomes sericitized. The result is a pale grey finely crystalline rock with up to 10% pyrite finely disseminated.

Sample Description: Grab of pyritized basalt, containing about 7% pyrite.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
40	3	-0.2	31	2	35

Sample Number: L99-21A **UTM Easting:** 327478

Site Name L99-21 **UTM Northing:** 5442392

Field Notes Since L99-20, the rock has averaged about 5% pyrite, mainly as fine disseminations. Fresh rock faces show what looks like a pyroclastic, volcanic breccia texture. Fragments sized from 1 mm to 5 cm, mainly sub-rounded. Some fragments are preferentially pyritized, including rare ones that appear to consist of nearly 100% fine pyrite.

Note: It could be argued that the very pyritiferous fragments were originally so, rather than having been pyritized in place. The overall character of the rock, however, suggests preferential pyritization of certain fragments.

Sample Description: Grab sample of typical, pyritized pyroclastic.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
42	4	-0.2	80	2	35

Sample Number: L99-22A **UTM Easting:** 327464

Site Name L99-22 **UTM Northing:** 5442363

Field Notes Pyritiferous, fragmental rock terminates abruptly at a contact with massive basalt. Presumed to be a flow for lack of other evidence. Just at the hanging wall of the basalt, the pyroclastic exhibits 2 cm of millimetric banding; probably layering in a fine ash. The contact is assumed to be conformable.

Sample Description: grab of the pyritized fragmental rock in the hanging wall of the contact.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
44	4	-0.2	69	2	30

Sample Number: L99-23A **UTM Easting:** 327406

Site Name L99-23 **UTM Northing:** 5442237

Field Notes Termination of pyritiferous fragmental described at L99-22 was not the case. The flow was an interlayer a few meters thick (less than 10). From L99-22 to this point, the pyritiferouse fragmental rock persists with occasional intervals of basaltic flow. There is some variability in the size of the fragments and degree of pyritization. The fragments are polylithic, variable from hard, siliceous and resistant to soft and recessive. Most of the fragments are of volcanic or pyroclastic rock.

Quartz veinlets, less than 1 cm thick, are common throughout the sequence, though as a percentage of the rock mass they are not significant (<< 1%). At this point, a brittle shear trends up the rock face. It is marked by unhealed fractures, but relics of vein quartz and epidote suggest that earlier fractures were healed by veins. This would indicate several periods of fracturing. The fracture zone is about 1 meter wide and trends on average 310/90.

Over the interval 600 m to 605 m, the fragmental rock gives way to a thicker sequence of massive basalt. The basalt is moderately magnetic and less pyritiferous than the pyroclastic.

Sample Description: grab of material from the brittle fracture zone.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
5	3	-0.2	59	-2	20

Sample Number: L99-24A **UTM Easting:** 327328

Site Name L99-24 **UTM Northing:** 5442083

Field Notes From 714 m to 789 m is an interval of interlayered volcanic breccia and more massive flow rock. The layering is on a scale of meters.

At 789 is an intermediate flow, pale grey-green, finely crystalline and hard. It is laced with epidote veinlets, that overall form about 3% of the OC. They are less than or equal to 2 mm thick. Pyrite forms about 5% of the rock, medium crystalline as opposed to the finely crystalline pyrite prevalent in the fragmental volcanics. There may be a trace of covellite and bornite with the pyrite.

Sample Description: Grab sample; several chips from the pyritiferous flow at 789 m.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
2	3	-0.2	77	-2	25

Sample Number: L99-25A **UTM Easting:** 327305

Site Name L99-25 **UTM Northing:** 5442077

Field Notes From 789 to 812 meters, massive flows dominate. Quartz veinlets are common within the flows, though they form only a small fraction of the rock mass. At 812 m, a zone about 5 m along the road contains unusually abundant quartz veinlets, forming about 10% of the rock. They are typically 1 mm to 2 cm thick, and are variably banded by black millimetric bands. The black mineral is not identified.

Pyrite comprises about 5% of the rock, and is much more abundant in the wall rock than in the veinlets.

Sample Description: grab of chips selected to contain the white-black banded quartz and pyrite.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
27	2	-0.2	45	-2	20

Sample Number: L99-26A **UTM Easting:** 327269

Site Name L99-26 **UTM Northing:** 5442069

Field Notes From 812 to 849 the volcanic flows containing quartz veinlets continue.

At 849 m there is an abundance of quartz stringers and veinlets sufficient to refer to the rock as silicified. About 5% of the rock mass is made up of quartz stringers.

Disseminated pyrite makes up 5% of the rock.

Sample Description: grab of quartz and pyrite rich material.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
11	4	-0.2	42	2	25

Sample Number: L99-27A **UTM Easting:** 327029

Site Name L99-27 **UTM Northing:** 5441942

Field Notes Exposure on west side of road of massive, pyritized intrusive rock. Silicification, sericitization and pyritization make it impossible to precisely identify the host rock, but it is probably in the monzo-granite to granite range.

Outcrop is laced with quartz veinlets, sub-millimetric to centimetric. Locally the veinlets comprise up to 25% of the rock mass. The overall average is about 2% quartz veinlet material.

Finely disseminated pyrite varies in the 3% to 5% range.

Rock is non-magnetic.

Sample Description: grab sample comprised of chips typical of the southernmost 5 meters of the outcrop. Selected to contain quartz and pyrite.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
31	4	-0.2	101	4	125

Sample Number: L99-29A **UTM Easting:** 327020

Site Name L99-29 **UTM Northing:** 5441849

Field Notes *Diorite. Dark grey-green, fresh, moderately magnetic. 25% dark green hornblende, up* to 1 mm. 50% plagioclase lathes to 1 mm.

Pyrite trace.

Epidote and calcite coat surfaces of open fractures.

Minor quartz veining, but much less than in L99-28.

At 1233 the diorite contains a number of quartz-epidote veinlets, 1 mm to 2 cm thick. They comprise about 1% of the rock mass at this location. They have varied orientations, but a prominent one is 235/76 (5 per m).

Sample Description: Grab selected from the zone of quartz-epidote veinlets at 1233 m. Sample contains about 50% veinlet material and 50% wall rock.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
25	2	-0.2	48	2	30

Sample Number: L99-30A **UTM Easting:** 327054

Site Name L99-30 **UTM Northing:** 5441762

Field Notes Outcrop of volcanic rock, dominantly pyroclastic but with intervals of dark green basalt. The pyroclastic rocks are laced with quartz veinlets comprising up to 10% of the rock mass over intervals of up to 5 meters. Pyroclastics are also pyritized, with pyrite comprising 3% to 5% of the rock as fine disseminations.

The basalt is much less affected by the silicification and pyritization, but does contain a few quartz veinlets and has local concentrations of pyrite coating fracture surfaces.

The pyroclastic rocks in this interval are mainly finer grained than those breccias previously noted to the north along this road. They are dominantly ash with less than 10% coarser, lapilli-sized fragments.

At the sample site there is a highly pyritized ash tuff. 10% of the rock mass is millimetric to centimetric quartz veinlets and stringers. The quartz is white to grey, with some being thinly colour laminated on a millimetric scale. The host rock is silicified and sericitized.

The quartz veinlets have varied orientations. The rock face is parallel to one quartz veinlet, along which the outcrop fractured when blasted.

Sample Description: grab sample from highly pyritized, silicified zone.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
37	1	-0.2	95	4	75

Sample Number: L99-31A **UTM Easting:** 327089

Site Name L99-31 **UTM Northing:** 5441661

Field Notes Outcrop similar to L99-30. As elsewhere on this road, quartz veinlets and stringers have many orientations, but in one 5 meter interval at 1,452 m, a dominant orientation gives a sheeted effect comprised of sub-centimetric veinlets at 310/70 (10/m)

Sample Description: grab sample comprised of wal lrock and sheeteed vein material. Chainage is 1,452 m.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
26	1	0.2	66	2	35

Sample Number: L99-33A **UTM Easting:** 326978

Site Name L99-33 **UTM Northing:** 5441356

Field Notes Blasted outcrop set back from the road about 10 meters. Southernmost outcrop along lower section of road. At 1,992 meters, road enters a switchback and trends northwest up sidehill.

The outcrop is intensely silicified, sericitized and pyritized, to the extent that the protolith is indeterminate.

Silicification takes the form of variably oriented, sub-centimetric quartz veinlets and stringers comprising about 10% of the rock. The groundmass is silicified and sericitized and the rock contains about 5% pyrite.

Sample Description: Grab of typical chips over the length of the outcrop.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
45	1	-0.2	47	2	65

Sample Number: L99-34A **UTM Easting:** 326833

Site Name L99-34 **UTM Northing:** 5441426

Field Notes This first exposure on the upper leg of the switchback is similar to L99-33. It is a pyroclastic sequence with a few basalt dikes or interbeds. Quartz veinlets are common, with variable orientations. Locally a specific orientation of quartz veinlet may dominate.

326832.75 m, 5441426.49 m
0.91 m, 1.18 m

Sample Description: at 2,144 m, a grab sample containing chips from the quartz veinlets and from the host rock.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
37	2	-0.2	66	2	45

Sample Number: L99-35A **UTM Easting:** 326720

Site Name L99-35 **UTM Northing:** 5441609

Field Notes A blasted-out exposure of typical pyritized pyroclastic rock containing about 5% pyrite.

From 2,236 m to 2,448 m, the rock continues dominantly pyroclastic, though there is a significant component of basalt interlayers or dikes.

326720.50 m, 5441608.94 m
0.90 m, 1.20 m

Sample Description: At 2,257 m, a grab containing quartz veinlet material and pyritized host rock.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
38	2	-0.2	69	2	50

Sample Number: L99-35B **UTM Easting:** 326720

Site Name L99-35 **UTM Northing:** 5441609

Field Notes A blasted-out exposure of typical pyritized pyroclastic rock containing about 5% pyrite.

From 2,236 m to 2,448 m, the rock continues dominantly pyroclastic, though there is a significant component of basalt interlayers or dikes.

326720.50 m, 5441608.94 m
0.90 m, 1.20 m

Sample Description: At 2,448 m, a grab containing quartz veinlet material and pyritized host rock.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
38	3	-0.2	41	4	70

Sample Number: L99-36A **UTM Easting:** 326676

Site Name L99-36 **UTM Northing:** 5441720

Field Notes At 2,461 meters, the pyritized pyroclastic unit is intruded by what may once have been a high level plug of intermediate (andesite or dacite) composition. Now the intrusion is almost completely altered to a dense, finely crystalline quartz-sericite rock. It contains 3% to 5% white specks, 1 mm to 2 mm, that may once have been feldspar phenocrysts. Minor specks of chlorite may be remnants of mafic minerals.

Pyrite makes up 2% to 3% of the rock, as discrete 0.5 mm to 2 mm specks "peppered" through the rock. The distribution of pyrite suggests that it may have replaced mafic minerals. The pyrite in this rock is considerably less pervasive in the groundmass than it is in the pyroclastic rock.

This is the end point of the road traverse. From this point back to the switchback the average direction is about 150 degrees.

326675.65 m, 5441720.33 m
0.90 m, 1.21 m

Sample Description: grab sample of the intermediate intrusion material within about 2 m of the contact with the pyroclastics.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
30	1	-0.2	17	2	30

Sample Number:	L99-37A	**UTM Easting:**	331540
Site Name	L99-37A	**UTM Northing:**	5436011

Field Notes One of Coulson's equipment operators left two pails of rocks in the Lucky camp. He thought that the rocks contained VG.

The rocks are believed to come from near the point where the Black Peaks logging road crosses Lucky Creek.

Rocks are a fine grained feldspar porphyry volcanics, probably flows. They are propylitized, resulting in a greenish colour. They contain quartz-epidote veinlets, 1 cm to 3 cm wide. Within the veinlets, chalcopyrite makes of 30% to 50% of the vein mass. The overall dimensions of the mineralized zone are unknown, as we did not see it in the field.

Sample Description: selection of the smaller pieces from the pails of rocks. Originals left to be collected by provider.

Cu ppm	Au ppb	Ag ppm	Zn ppm	Mo ppm	Hg ppb
10000	64	23.2	95	2	1330

Appendix 3 — Soil Sample Analyses

TSL Assayers Vancouver
8282 Sherbrooke St.
Vancouver, B.C.
V5X 4R6
Tel: (604) 327-3436
Fax: (604) 327-3423

Quality Assaying for over 25 Years

Geochemical Analysis Certificate

9V-0409-SG1

Company: **Electrum Resources**
Project: Lucky
Attn: John Barakso

Nov-09-99

We *hereby certify* the following geochemical analysis of 24 samples submitted Oct-19-99 by Peter Ronning.

Sample Name	Au PPB	Hg PPB
99TQ 10+00 E 0+00	14	135
99TQ 10+00 E 0+50	9	115
99TQ 10+00 E 1+00	3	105
99TQ 10+00 E 1+50	3	130
99TQ 10+00 E 2+00	1	55
99TQ 10+00 E 2+50	3	170
99TQ 10+00 E 3+00	1	90
99TQ 10+00 E 3+50	2	70
99TQ 10+00 E 4+00	2	165
99TQ 10+00 E 4+50	4	455
99TQ 10+00 E 5+00	3	210
99TQ 10+00 E 5+50	5	530
KITE 0+00	5	435
KITE 0+50	4	90
KITE 1+00	5	205
KITE 1+50	5	135
KITE 10+00	5	320
KITE 10+50	4	350
KITE 11+00	8	400
KITE 11+50	6	470
KITE 12+00	31	305
KITE 12+50	9	280
KITE 13+00	13	255
KITE 13+50	7	335
*DUP 99TQ 10+00 E 0+00		125
*DUP 99TQ 10+00 E 4+50		470
*DUP KITE 11+50		490
*ICP-2		1005
*Blank		<1

Certified by _____

TSL Assayers Vancouver
8282 Sherbrooke St.
Vancouver, B.C.
V5X 4R6
Tel: (604) 327-3436 Fax: (604) 327-3423

TSL Assayers Saskatoon
#2 - 302 East 48th Street
Saskatoon, Saskatchewan
S7K 6A4
Tel: (306) 931-1033 Fax: (306) 242-4717

TSL Assayers Swastika
1 Cameron Ave.
Swastika, Ontario
P0K 1T0
Tel: (705) 642-3244 Fax: (705) 642-3300

TSL Assayers Vancouver
8282 Sherbrooke St.
Vancouver, B.C.
V5X 4R6
Tel: (604) 327-3436
Fax: (604) 327-3423

Quality Assaying for over 25 Years

Geochemical Analysis Certificate

9V-0409-SG2

Company: **Electrum Resources**
Project: Lucky
Attn: John Barakso

Nov-09-99

We *hereby certify* the following geochemical analysis of 24 samples submitted Oct-19-99 by Peter Ronning.

Sample Name	Au PPB	Hg PPB
KITE 14+00	2	245
KITE 14+50	2	175
KITE 15+00	3	400
KITE 15+50	4	305
KITE 16+00	1	220
KITE 16+50	10	230
KITE 17+00	3	255
KITE 17+50	4	225
KITE 18+00	5	175
KITE 18+50	2	195
KITE 2+00	1	70
KITE 2+50	6	385
KITE 3+00	4	760
KITE 3+50	3	75
KITE 4+00	3	230
KITE 4+50	4	245
KITE 5+00	1	335
KITE 5+50	2	250
KITE 6+00	7	225
KITE 6+50	5	190
KITE 7+00	3	200
KITE 7+50	2	225
KITE 8+00	4	275
KITE 8+50	4	240
*DUP KITE 14+00		255
*DUP KITE 18+50		205
*DUP KITE 6+50		205
*ICP-2		1080
*Blank		<1

Certified by _____

TSL Assayers Vancouver
8282 Sherbrooke St.
Vancouver, B.C.
V5X 4R6
Tel: (604) 327-3436 Fax: (604) 327-3423

TSL Assayers Saskatoon
#2 - 302 East 48th Street
Saskatoon, Saskatchewan
S7K 6A4
Tel: (306) 931-1033 Fax: (306) 242-4717

TSL Assayers Swastika
1 Cameron Ave.
Swastika, Ontario
P0K 1T0
Tel: (705) 642-3244 Fax: (705) 642-3300

TSL Assayers Vancouver
8282 Sherbrooke St.
Vancouver, B.C.
V5X 4R6
Tel: (604) 327-3436
Fax: (604) 327-3423

Quality Assaying for over 25 Years

Geochemical Analysis Certificate

9V-0409-SG3

Company: **Electrum Resources**
Project: Lucky
Attn: John Barakso

Nov-09-99

We *hereby certify* the following geochemical analysis of 24 samples submitted Oct-19-99 by Peter Ronning.

Sample Name	Au PPB	Hg PPB
KITE 9+00	1	390
KITE 9+50	2	405
RD 99A 0+00	5	355
RD 99A 0+50	3	290
RD 99A 1+00	8	335
RD 99A 1+50	3	355
RD 99A 10+00	4	410
RD 99A 10+50	4	430
RD 99A 11+00	3	290
RD 99A 11+50	12	375
RD 99A 12+00	5	360
RD 99A 12+50	4	420
RD 99A 13+00	6	655
RD 99A 2+00	4	265
RD 99A 2+50	3	210
RD 99A 3+00	6	200
RD 99A 3+50	4	370
RD 99A 4+00	5	400
RD 99A 4+50	7	290
RD 99A 5+00	5	600
RD 99A 5+50	6	470
RD 99A 6+00	5	345
RD 99A 6+50	5	220
RD 99A 7+00	6	275
*DUP KITE 9+00		400
*DUP RD 99A 11+50		365
*DUP RD 99A 5+00		585
*ICP-2		1055
*Blank		<1

Certified by _____

TSL Assayers Vancouver
8282 Sherbrooke St.
Vancouver, B.C.
V5X 4R6
Tel: (604) 327-3436 Fax: (604) 327-3423

TSL Assayers Saskatoon
#2 - 302 East 48th Street
Saskatoon, Saskatchewan
S7K 6A4
Tel: (306) 931-1033 Fax: (306) 242-4717

TSL Assayers Swastika
1 Cameron Ave.
Swastika, Ontario
P0K 1T0
Tel: (705) 642-3244 Fax: (705) 642-3300

TSL Assayers Vancouver
8282 Sherbrooke St.
Vancouver, B.C.
V5X 4R6
Tel: (604) 327-3436
Fax: (604) 327-3423

Quality Assaying for over 25 Years

Geochemical Analysis Certificate

9V-0409-SG4

Company: **Electrum Resources**
Project: Lucky
Attn: John Barakso

Nov-09-99

We *hereby certify* the following geochemical analysis of 24 samples submitted Oct-19-99 by Peter Ronning.

Sample Name	Au PPB	Hg PPB
RD 99A 7+50	10	415
RD 99A 8+00	3	365
RD 99A 8+50	2	310
RD 99A 9+00	14	210
RD 99A 9+50	3	300
RD99B 0+00	6	255
RD99B 0+50	6	170
RD99B 1+00	5	250
RD99B 1+50	6	90
RD99B 10+00	4	190
RD99B 10+50	26	275
RD99B 11+00	4	265
RD99B 11+50	2	180
RD99B 12+00	5	195
RD99B 12+50	1	75
RD99B 13+00	3	155
RD99B 13+50	5	65
RD99B 14+00	4	60
RD99B 14+50	12	765
RD99B 15+00	7	195
RD99B 15+50	4	165
RD99B 16+00	9	230
RD99B 16+50	7	225
RD99B 17+00	6	135
*DUP RD 99A 7+50		390
*DUP RD99B 10+00		195
*DUP RD99B 15+00		205
*ICP-2		1050
*Blank		<1

Certified by _____

TSL Assayers Vancouver
8282 Sherbrooke St.
Vancouver, B.C.
V5X 4R6
Tel: (604) 327-3436 Fax: (604) 327-3423

TSL Assayers Saskatoon
#2 - 302 East 48th Street
Saskatoon, Saskatchewan
S7K 6A4
Tel: (306) 931-1033 Fax: (306) 242-4717

TSL Assayers Swastika
1 Cameron Ave.
Swastika, Ontario
P0K 1T0
Tel: (705) 642-3244 Fax: (705) 642-3300

TSL Assayers Vancouver
8282 Sherbrooke St.
Vancouver, B.C.
V5X 4R6
Tel: (604) 327-3436
Fax: (604) 327-3423

Quality Assaying for over 25 Years

Geochemical Analysis Certificate

9V-0409-SG5

Company: **Electrum Resources**
Project: Lucky
Attn: John Barakso

Nov-09-99

We *hereby certify* the following geochemical analysis of 18 samples submitted Oct-19-99 by Peter Ronning.

Sample Name	Au PPB	Hg PPB
RD99B 17+50	2	245
RD99B 18+00	3	185
RD99B 18+50	4	215
RD99B 19+00	6	145
RD99B 2+00	5	115
RD99B 2+50	12	150
RD99B 3+00	6	215
RD99B 3+50	5	355
RD99B 4+00	6	375
RD99B 5+00	3	155
RD99B 5+50	8	250
RD99B 6+00	3	155
RD99B 6+50	5	125
RD99B 7+00	13	80
RD99B 8+00	7	50
RD99B 8+50	10	85
RD99B 9+00	9	75
RD99B 9+50	8	460
*DUP RD99B 17+50		225
*DUP RD99B 5+00		145
*ICP-2		1085
*Blank		<1

Certified by _____

TSL Assayers Vancouver
8282 Sherbrooke St.
Vancouver, B.C.
V5X 4R6
Tel: (604) 327-3436 Fax: (604) 327-3423

TSL Assayers Saskatoon
#2 - 302 East 48th Street
Saskatoon, Saskatchewan
S7K 6A4
Tel: (306) 931-1033 Fax: (306) 242-4717

TSL Assayers Swastika
1 Cameron Ave.
Swastika, Ontario
P0K 1T0
Tel: (705) 642-3244 Fax: (705) 642-3300

Electrum Resources
Attention: John Barakso
Project: Lucky
Sample: .

TSL Assay , Vancouver
8282 Sherbrooke St., Vancouver, B.C., V5X 4R6
Tel: (604) 327-3436 Fax: (604) 327-3423

Report No : 9V0409 SJ
Date : Nov-03-99

MULTI-ELEMENT ICP ANALYSIS

Aqua Regia Digestion

Sample Number	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sn ppm	Sr ppm	Ti %	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
99TQ 10+00 E 0+00	<0.2	2.65	<5	120	0.5	<5	0.42	<1	23	56	81	4.46	0.04	0.90	900	<2	0.01	29	450	10	<5	13	<10	30	0.39	148	<10	16	38	16
99TQ 10+00 E 0+50	<0.2	1.86	<5	20	<0.5	<5	0.07	<1	4	38	11	3.63	0.10	0.21	100	<2	0.01	4	130	8	<5	2	<10	8	0.18	132	<10	1	9	7
99TQ 10+00 E 1+00	<0.2	1.99	<5	20	<0.5	<5	0.07	<1	5	18	5	2.82	0.03	0.28	135	4	0.01	3	150	10	<5	3	<10	7	0.23	195	<10	1	6	2
99TQ 10+00 E 1+50	<0.2	3.99	<5	20	<0.5	<5	0.12	<1	10	96	29	7.81	0.02	0.49	215	<2	0.01	14	250	12	<5	13	<10	11	0.36	224	<10	2	18	25
99TQ 10+00 E 2+00	<0.2	1.12	<5	20	<0.5	<5	0.04	<1	2	3	8	0.36	0.04	0.06	50	<2	0.01	1	100	6	<5	2	<10	5	0.15	63	<10	1	2	1
99TQ 10+00 E 2+50	<0.2	4.46	<5	10	<0.5	<5	0.06	<1	10	96	17	9.91	0.03	0.31	130	<2	0.01	10	290	18	<5	6	<10	7	0.49	305	<10	<1	14	30
99TQ 10+00 E 3+00	<0.2	1.09	<5	20	<0.5	<5	0.05	<1	3	13	8	0.44	0.03	0.05	40	<2	0.01	3	120	6	<5	1	<10	5	0.23	82	<10	1	<1	1
99TQ 10+00 E 3+50	<0.2	2.01	<5	40	<0.5	<5	0.01	<1	4	4	8	6.28	0.05	0.18	100	<2	0.01	3	200	8	<5	3	<10	3	0.04	157	<10	3	4	4
99TQ 10+00 E 4+00	<0.2	4.87	<5	30	0.5	<5	0.24	<1	10	52	63	1.97	0.03	0.60	255	<2	0.01	12	510	<2	<5	11	<10	17	0.29	118	<10	10	32	7
99TQ 10+00 E 4+50	<0.2	4.63	<5	20	<0.5	<5	0.14	<1	11	74	19	8.94	0.04	0.31	180	2	0.01	9	380	10	<5	10	<10	10	0.49	226	<10	3	15	24
99TQ 10+00 E 5+00	<0.2	2.26	<5	10	<0.5	<5	0.08	<1	6	48	13	4.52	0.02	0.15	90	2	0.01	6	190	4	<5	4	<10	8	0.28	144	<10	2	5	9
99TQ 10+00 E 5+50	<0.2	4.44	<5	20	<0.5	<5	0.19	<1	9	50	35	4.71	0.02	0.49	225	<2	0.01	11	430	2	<5	7	<10	13	0.28	99	<10	7	22	7
KITE 0+00	0.2	3.75	<5	10	<0.5	<5	0.14	<1	15	113	24	8.07	0.02	0.58	255	<2	0.01	16	270	8	<5	10	<10	10	0.61	244	<10	2	19	41
KITE 0+50	<0.2	1.38	<5	20	<0.5	<5	0.12	<1	8	23	8	3.45	0.03	0.38	135	34	0.01	10	160	8	<5	3	<10	13	0.42	157	<10	1	10	4
KITE 1+00	<0.2	2.47	<5	20	<0.5	<5	0.34	<1	14	43	22	3.59	0.03	0.79	310	6	0.01	16	300	6	<5	7	<10	20	0.42	97	<10	6	30	12
KITE 1+50	<0.2	1.88	<5	20	<0.5	<5	0.06	<1	3	9	5	5.52	0.03	0.18	150	6	0.01	4	280	16	<5	2	<10	7	0.10	167	<10	1	7	3
KITE 10+00	<0.2	5.65	<5	20	<0.5	<5	0.20	<1	13	88	62	6.75	0.02	0.33	225	2	0.01	12	480	<2	<5	13	<10	10	0.57	214	<10	12	18	23
KITE 10+50	<0.2	4.24	<5	10	<0.5	<5	0.14	<1	15	101	70	9.07	0.02	0.35	285	<2	0.01	13	510	14	<5	11	<10	11	0.61	279	<10	8	22	23
KITE 11+00	<0.2	4.10	<5	10	<0.5	<5	0.16	<1	15	96	69	8.55	0.02	0.38	310	<2	0.01	13	500	12	<5	11	<10	12	0.59	269	<10	8	23	22
KITE 11+50	<0.2	4.10	<5	20	<0.5	<5	0.16	<1	15	96	70	8.56	0.02	0.39	305	<2	0.01	14	500	14	<5	11	<10	12	0.59	271	<10	8	23	22
KITE 12+00	<0.2	3.87	<5	40	0.5	<5	0.66	<1	34	78	241	6.45	0.05	2.26	1275	<2	0.01	55	820	6	<5	15	<10	23	0.47	173	<10	13	89	22
KITE 12+50	<0.2	5.16	<5	20	<0.5	<5	0.16	<1	14	76	48	6.99	0.02	0.41	470	2	0.01	11	490	2	<5	12	<10	12	0.39	170	<10	13	22	9
KITE 13+00	<0.2	3.29	<5	20	<0.5	<5	0.14	<1	10	62	37	7.59	0.02	0.21	225	2	0.01	8	480	10	<5	6	<10	11	0.37	235	<10	5	17	8
KITE 13+50	<0.2	3.97	<5	20	<0.5	<5	0.20	<1	12	69	50	6.13	0.02	0.31	180	2	0.01	11	430	6	<5	9	<10	13	0.40	160	<10	8	22	8
KITE 14+00	<0.2	4.25	<5	20	<0.5	<5	0.19	<1	10	75	67	5.81	0.02	0.24	110	2	0.01	10	480	2	<5	9	<10	10	0.49	196	<10	8	11	13
KITE 14+50	<0.2	3.45	<5	20	<0.5	<5	0.18	<1	11	70	50	6.25	0.02	0.23	105	2	0.01	10	440	6	<5	6	<10	11	0.51	206	<10	6	11	11
KITE 15+00	<0.2	3.77	5	20	<0.5	<5	0.13	<1	11	73	31	6.93	0.01	0.14	135	2	0.01	9	500	8	<5	5	<10	10	0.46	202	<10	5	13	12
KITE 15+50	<0.2	4.57	5	20	<0.5	<5	0.14	<1	12	72	40	6.88	0.02	0.22	165	2	0.01	10	530	4	<5	7	<10	9	0.42	185	<10	10	14	11
KITE 16+00	<0.2	4.89	5	20	<0.5	<5	0.14	<1	14	78	36	7.12	0.03	0.19	165	2	0.01	10	460	4	<5	9	<10	8	0.51	203	<10	13	16	16
KITE 16+50	<0.2	5.85	5	20	<0.5	<5	0.17	<1	11	82	27	5.27	0.01	0.39	135	<2	0.01	13	420	<2	<5	13	<10	10	0.43	145	<10	15	7	19

A .5 gm sample is digested with 10 ml 3:1 HCl/HNO3
at 95c for 2 hours and diluted to 25ml with D.I.H2O.

Signed:_____

Electrum Resources
Attention: John Barakso
Project: Lucky
Sample: .

TSL Assay s Vancouver
8282 Sherbrooke St., Vancouver, B.C., V5X 4R6
Tel: (604) 327-3436 Fax: (604) 327-3423

Report No : 9V0409 SJ
Date : Nov-03-99

MULTI-ELEMENT ICP ANALYSIS

Aqua Regia Digestion

Sample Number	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sn ppm	Sr ppm	Ti %	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
KITE 17+00	<0.2	6.19	<5	10	<0.5	<5	0.16	<1	11	87	28	5.66	0.01	0.34	125	<2	0.01	12	430	<2	<5	14	<10	9	0.46	159	<10	15	6	21
KITE 17+50	<0.2	6.34	<5	10	<0.5	<5	0.16	<1	11	87	28	5.52	0.01	0.34	120	<2	0.01	13	440	<2	<5	15	<10	9	0.45	151	<10	15	8	21
KITE 18+00	<0.2	4.69	55	20	0.5	<5	0.26	<1	11	51	116	4.60	0.02	0.29	305	2	0.01	14	740	<2	<5	9	<10	14	0.18	87	<10	22	29	4
KITE 18+50	<0.2	4.80	35	20	0.5	<5	0.19	<1	10	51	51	5.12	0.01	0.22	180	4	0.02	12	490	8	<5	8	<10	11	0.26	108	<10	13	27	6
KITE 2+00	<0.2	1.15	<5	20	<0.5	<5	0.03	<1	2	3	5	1.08	0.02	0.03	30	2	0.01	1	200	6	<5	1	<10	4	0.10	74	<10	1	<1	1
KITE 2+50	<0.2	3.83	<5	10	<0.5	<5	0.11	<1	14	116	24	10.38	0.01	0.15	80	<2	0.01	8	320	10	<5	9	<10	7	0.85	384	<10	2	7	39
KITE 3+00	0.2	4.95	<5	10	<0.5	<5	0.13	1	18	183	37	12.39	0.01	0.18	105	<2	0.01	10	490	10	<5	15	<10	7	1.01	457	<10	5	11	53
KITE 3+50	<0.2	1.06	<5	10	<0.5	<5	0.11	<1	17	69	16	10.14	0.01	0.11	100	<2	0.01	8	240	14	<5	2	<10	7	0.98	489	<10	<1	<1	23
KITE 4+00	<0.2	6.03	<5	20	<0.5	<5	0.18	<1	16	89	87	6.77	0.01	0.33	420	2	0.01	13	580	2	<5	14	<10	10	0.57	206	<10	15	22	19
KITE 4+50	<0.2	4.67	<5	20	<0.5	<5	0.35	<1	14	67	70	5.03	0.02	0.55	290	2	0.01	16	540	<2	<5	10	<10	12	0.43	143	<10	11	21	14
KITE 5+00	<0.2	4.99	<5	20	<0.5	<5	0.31	<1	14	71	68	5.37	0.01	0.49	270	2	0.01	15	570	2	<5	10	<10	12	0.46	153	<10	11	19	16
KITE 5+50	<0.2	5.12	<5	20	<0.5	<5	0.16	1	12	88	55	7.07	0.02	0.23	210	2	0.01	11	760	4	<5	11	<10	9	0.57	230	<10	9	14	20
KITE 6+00	<0.2	5.29	<5	10	<0.5	<5	0.16	<1	12	87	41	6.96	0.02	0.22	160	2	0.01	10	490	<2	<5	11	<10	8	0.59	238	<10	8	12	23
KITE 6+50	<0.2	5.72	<5	20	<0.5	<5	0.16	<1	13	93	70	7.24	0.02	0.22	205	2	0.01	11	1060	4	<5	13	<10	9	0.61	249	<10	10	16	21
KITE 7+00	<0.2	5.39	<5	10	<0.5	<5	0.15	<1	12	88	65	6.95	0.01	0.22	175	2	0.01	9	640	2	<5	12	<10	8	0.58	233	<10	9	14	22
KITE 7+50	0.2	5.60	<5	20	<0.5	<5	0.15	<1	15	86	168	6.48	0.01	0.19	270	4	0.01	13	570	2	<5	14	<10	7	0.60	217	<10	16	15	19
KITE 8+00	<0.2	5.43	<5	20	<0.5	<5	0.26	<1	15	80	61	6.16	0.02	0.43	275	2	0.01	14	610	2	<5	11	<10	10	0.51	177	<10	11	21	19
KITE 8+50	<0.2	5.37	<5	20	<0.5	<5	0.31	<1	15	74	76	5.41	0.02	0.51	305	2	0.01	15	610	<2	<5	11	<10	11	0.46	152	<10	12	20	17
KITE 9+00	<0.2	5.38	<5	20	<0.5	<5	0.29	<1	14	74	71	5.47	0.02	0.46	290	2	0.01	14	610	2	<5	11	<10	10	0.46	153	<10	12	19	18
KITE 9+50	<0.2	4.95	<5	20	<0.5	<5	0.30	<1	14	72	65	5.37	0.02	0.47	275	2	0.01	14	570	<2	<5	10	<10	11	0.45	151	<10	11	21	16
RD 99A 0+00	0.2	4.88	<5	20	<0.5	<5	0.13	<1	13	111	39	7.01	0.02	0.65	230	<2	0.01	19	330	6	<5	13	<10	11	0.46	206	<10	3	24	27
RD 99A 0+50	<0.2	4.00	<5	20	<0.5	<5	0.17	<1	16	97	49	6.95	0.02	0.89	290	<2	0.01	25	230	6	<5	14	<10	14	0.46	207	<10	3	31	28
RD 99A 1+00	<0.2	2.30	<5	10	<0.5	<5	0.11	<1	16	130	29	8.47	0.02	0.14	100	<2	0.01	20	480	14	<5	4	<10	8	0.53	305	<10	3	3	9
RD 99A 1+50	<0.2	4.33	<5	20	<0.5	<5	0.18	<1	17	102	56	7.08	0.02	1.00	320	<2	0.02	27	230	4	<5	16	<10	14	0.47	208	<10	4	34	31
RD 99A 10+00	<0.2	4.76	5	20	<0.5	<5	0.16	<1	12	120	51	6.69	0.01	0.37	150	2	0.01	16	340	4	<5	13	<10	11	0.37	185	<10	14	13	22
RD 99A 10+50	<0.2	4.43	5	20	<0.5	<5	0.17	<1	12	117	49	6.66	0.01	0.36	150	2	0.01	15	400	4	<5	11	<10	13	0.35	176	<10	13	12	18
RD 99A 11+00	<0.2	2.50	<5	30	<0.5	<5	0.09	<1	7	27	10	6.53	0.03	0.40	245	18	0.01	7	310	12	<5	3	<10	7	0.14	116	<10	3	19	5
RD 99A 11+50	<0.2	3.64	<5	30	<0.5	<5	0.27	<1	14	55	45	6.19	0.02	0.65	460	<2	0.01	19	460	8	<5	8	<10	11	0.36	153	<10	10	29	9
RD 99A 12+00	<0.2	5.73	<5	20	<0.5	<5	0.13	<1	13	104	41	6.34	0.01	0.53	205	<2	0.01	14	230	2	<5	12	<10	11	0.45	199	<10	2	20	26
RD 99A 12+50	<0.2	6.68	<5	20	<0.5	<5	0.08	1	12	114	44	9.14	0.01	0.20	165	2	0.01	9	490	8	<5	20	<10	5	0.60	278	<10	4	13	48

A .5 gm sample is digested with 10 ml 3:1 HCl/HNO3 at 95c for 2 hours and diluted to 25ml with D.I.H20.

Signed:_____

TSL Assay . Vancouver
8282 Sherbrooke St., Vancouver, B.C., V5X 4R6
Tel: (604) 327-3436 Fax: (604) 327-3423

Electrum Resources
Attention: John Barakso
Project: Lucky
Sample: .

Report No : 9V0409 SJ
Date : Nov-03-99

MULTI-ELEMENT ICP ANALYSIS

Aqua Regia Digestion

Sample Number	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sn ppm	Sr ppm	Ti %	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
RD 99A 13+00	<0.2	9.18	<5	20	<0.5	<5	0.09	<1	14	69	45	8.74	0.02	0.49	245	2	0.01	12	690	4	<5	15	<10	7	0.58	191	<10	9	23	37
RD 99A 2+00	<0.2	2.12	<5	10	<0.5	<5	0.07	<1	10	50	12	9.05	0.01	0.10	85	<2	0.01	5	250	16	<5	4	<10	6	0.56	251	<10	2	<1	13
RD 99A 2+50	<0.2	2.05	<5	10	<0.5	<5	0.06	<1	10	50	11	8.90	0.01	0.09	85	<2	0.01	4	240	16	<5	4	<10	6	0.54	240	<10	2	<1	13
RD 99A 3+00	<0.2	5.15	<5	20	<0.5	<5	0.14	<1	16	86	38	7.31	0.02	0.57	245	<2	0.02	16	260	2	<5	12	<10	10	0.62	222	<10	2	24	32
RD 99A 3+50	<0.2	3.86	5	10	<0.5	<5	0.17	<1	14	75	29	7.44	0.02	0.59	250	<2	0.03	17	260	8	<5	10	<10	11	0.55	167	<10	3	20	22
RD 99A 4+00	<0.2	4.50	<5	20	<0.5	<5	0.19	<1	17	72	57	6.01	0.02	0.85	310	<2	0.01	24	260	4	<5	14	<10	15	0.47	162	<10	8	33	22
RD 99A 4+50	<0.2	3.12	<5	10	<0.5	<5	0.14	<1	14	69	34	7.18	0.01	0.53	215	<2	0.01	15	210	8	<5	6	<10	11	0.48	187	<10	3	15	17
RD 99A 5+00	<0.2	6.06	<5	10	<0.5	<5	0.14	<1	17	86	53	5.87	0.01	0.64	260	<2	0.02	19	510	<2	<5	20	<10	9	0.65	187	<10	14	22	36
RD 99A 5+50	<0.2	5.26	<5	10	<0.5	<5	0.12	<1	15	97	25	7.17	0.01	0.27	165	<2	0.01	10	420	4	<5	14	<10	9	0.69	221	<10	10	10	25
RD 99A 6+00	<0.2	2.95	<5	20	<0.5	<5	0.35	<1	17	51	50	4.95	0.03	0.90	420	<2	0.02	23	720	8	<5	7	<10	18	0.41	142	<10	6	31	15
RD 99A 6+50	<0.2	2.75	<5	10	<0.5	<5	0.18	<1	13	60	32	5.64	0.01	0.45	215	<2	0.01	13	280	10	<5	6	<10	17	0.46	161	<10	6	15	11
RD 99A 7+00	<0.2	3.93	<5	10	<0.5	<5	0.13	<1	12	56	23	6.40	0.01	0.21	240	2	0.01	8	360	4	<5	9	<10	9	0.53	190	<10	11	11	16
RD 99A 7+50	<0.2	4.09	<5	20	<0.5	<5	0.22	<1	15	66	30	7.00	0.02	0.36	265	2	0.01	12	370	6	<5	9	<10	16	0.59	162	<10	8	18	17
RD 99A 8+00	<0.2	3.24	<5	10	<0.5	<5	0.12	<1	10	48	25	8.00	0.02	0.18	120	2	0.01	9	510	10	<5	5	<10	9	0.33	138	<10	5	9	8
RD 99A 8+50	<0.2	5.88	5	10	<0.5	<5	0.16	<1	13	70	42	6.45	0.02	0.36	225	<2	0.01	11	460	2	<5	14	<10	13	0.50	162	<10	5	18	23
RD 99A 9+00	<0.2	2.36	10	10	<0.5	<5	0.18	<1	9	25	18	6.09	0.02	0.24	115	<2	0.01	8	430	10	<5	4	<10	9	0.40	175	<10	4	7	7
RD 99A 9+50	<0.2	6.70	5	10	<0.5	<5	0.21	<1	16	130	86	8.73	0.01	0.43	170	<2	0.01	18	630	4	<5	15	<10	13	0.41	272	<10	8	17	19
RD99B 0+00	<0.2	3.00	<5	70	<0.5	<5	0.17	<1	10	24	58	6.76	0.03	0.78	440	2	0.01	11	500	12	<5	5	<10	11	0.11	103	<10	7	46	4
RD99B 0+50	<0.2	2.32	<5	20	<0.5	<5	0.11	<1	12	58	20	7.65	0.02	0.19	215	<2	0.01	7	430	10	<5	3	<10	9	0.54	263	<10	1	13	13
RD99B 1+00	0.2	5.37	<5	20	<0.5	<5	0.15	<1	14	93	40	7.68	0.03	0.44	225	<2	0.01	13	370	6	<5	8	<10	9	0.58	249	<10	8	24	30
RD99B 1+50	<0.2	1.44	<5	10	<0.5	<5	0.13	<1	9	29	8	5.68	0.02	0.08	110	2	0.01	4	250	12	<5	2	<10	8	0.48	233	<10	1	4	8
RD99B 10+00	<0.2	5.05	<5	20	<0.5	<5	0.18	<1	13	49	60	5.76	0.03	0.57	260	<2	0.01	13	590	4	<5	13	<10	12	0.40	168	<10	12	30	16
RD99B 10+50	0.2	8.01	<5	30	<0.5	<5	0.09	<1	10	52	20	7.15	0.03	0.45	295	2	0.01	7	370	6	<5	15	<10	9	0.41	143	<10	5	27	42
RD99B 11+00	<0.2	6.70	<5	20	<0.5	<5	0.08	<1	10	47	18	8.54	0.02	0.28	150	2	0.01	6	370	10	<5	13	<10	7	0.46	173	<10	5	19	49
RD99B 11+50	<0.2	5.03	<5	20	<0.5	<5	0.07	<1	10	33	25	7.27	0.02	0.22	120	2	0.01	5	280	10	<5	9	<10	7	0.46	200	<10	15	14	26
RD99B 12+00	<0.2	8.68	<5	30	<0.5	<5	0.05	<1	10	57	34	8.78	0.01	0.22	140	<2	0.01	7	590	4	<5	20	<10	4	0.49	232	<10	7	24	45
RD99B 12+50	<0.2	1.24	<5	10	<0.5	<5	0.07	<1	4	10	8	5.52	0.02	0.16	105	6	0.01	5	270	16	<5	1	<10	7	0.11	145	<10	1	9	3
RD99B 13+00	<0.2	1.70	<5	10	<0.5	<5	0.07	<1	5	12	7	8.17	0.03	0.33	165	8	0.01	6	370	26	<5	2	<10	7	0.17	114	<10	1	20	5
RD99B 13+50	<0.2	1.24	<5	50	<0.5	<5	0.24	<1	10	3	24	2.24	0.04	0.21	320	4	0.01	5	280	14	<5	1	<10	16	0.10	46	<10	3	21	2
RD99B 14+00	<0.2	0.35	<5	10	<0.5	<5	0.04	<1	4	3	4	0.50	0.02	0.04	30	<2	0.01	1	140	4	<5	1	<10	5	0.17	70	<10	1	<1	1

A .5 gm sample is digested with 10 ml 3:1 HCl/HNO3
at 95c for 2 hours and diluted to 25ml with D.I.H20.

Signed:_____

Electrum Resources
Attention: John Barakso
Project: Lucky
Sample: .

TSL Assay... Vancouver
8282 Sherbrooke St., Vancouver, B.C., V5X 4R6
Tel: (604) 327-3436 Fax: (604) 327-3423

Report No : 9V0409 SJ
Date : Nov-03-99

MULTI-ELEMENT ICP ANALYSIS

Aqua Regia Digestion

Sample Number	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sn ppm	Sr ppm	Ti %	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
RD99B 14+50	<0.2	5.36	<5	10	<0.5	<5	0.08	<1	11	68	13	8.81	0.02	0.21	115	2	0.01	6	420	10	<5	5	<10	7	0.57	231	<10	1	15	23
RD99B 15+00	<0.2	6.22	<5	20	<0.5	<5	0.12	<1	11	41	30	5.18	0.02	0.42	180	4	0.01	8	360	10	<5	11	<10	12	0.42	138	<10	7	28	20
RD99B 15+50	<0.2	4.60	<5	20	<0.5	<5	0.12	<1	11	33	17	7.17	0.04	0.35	195	<2	0.01	6	380	10	<5	12	<10	13	0.46	175	<10	4	20	27
RD99B 16+00	<0.2	4.67	<5	40	<0.5	<5	0.18	<1	13	37	42	5.85	0.03	0.56	295	2	0.01	10	470	4	<5	12	<10	15	0.38	137	<10	13	34	9
RD99B 16+50	0.2	6.68	<5	20	<0.5	<5	0.11	<1	11	56	29	6.81	0.02	0.38	200	2	0.01	8	390	2	<5	14	<10	9	0.41	178	<10	5	24	29
RD99B 17+00	<0.2	2.42	<5	20	<0.5	<5	0.10	<1	8	27	14	7.55	0.04	0.22	135	2	0.01	6	290	14	<5	2	<10	8	0.33	195	<10	1	16	9
RD99B 17+50	<0.2	3.81	<5	60	<0.5	<5	0.12	<1	13	29	52	5.38	0.03	0.66	420	<2	0.01	12	360	8	<5	6	<10	19	0.16	131	<10	5	40	4
RD99B 18+00	<0.2	3.54	<5	60	0.5	<5	0.13	<1	11	24	37	5.51	0.03	0.41	595	<2	0.01	7	550	8	<5	4	<10	15	0.14	135	<10	8	30	3
RD99B 18+50	<0.2	6.25	<5	80	0.5	<5	0.14	<1	16	36	62	5.77	0.03	0.57	545	2	0.01	11	690	4	<5	9	<10	18	0.18	137	<10	15	51	5
RD99B 19+00	<0.2	3.88	<5	20	<0.5	<5	0.12	<1	11	47	17	6.52	0.02	0.42	195	2	0.01	9	270	8	<5	7	<10	11	0.41	177	<10	2	21	14
RD99B 2+00	<0.2	3.32	<5	10	<0.5	<5	0.15	<1	11	54	16	4.57	0.01	0.17	115	<2	0.01	5	260	8	<5	6	<10	11	0.60	236	<10	2	13	16
RD99B 2+50	<0.2	2.67	<5	30	<0.5	<5	0.20	<1	249	35	13	8.49	0.04	0.22	4540	20	0.01	8	480	28	<5	3	<10	12	0.29	169	<10	3	41	5
RD99B 3+00	<0.2	5.29	<5	20	<0.5	<5	0.10	<1	13	58	25	9.61	0.02	0.29	185	2	0.01	9	420	14	<5	5	<10	8	0.46	223	<10	4	30	14
RD99B 3+50	<0.2	3.51	<5	20	<0.5	<5	0.06	<1	9	31	20	7.44	0.02	0.10	95	2	0.01	5	410	10	<5	4	<10	6	0.26	180	<10	4	13	7
RD99B 4+00	<0.2	4.51	<5	20	<0.5	<5	0.06	<1	8	14	34	7.80	0.02	0.17	145	2	0.01	7	680	14	<5	3	<10	6	0.13	106	<10	7	18	5
RD99B 5+00	<0.2	2.63	<5	20	<0.5	<5	0.03	<1	10	12	12	9.87	0.02	0.10	80	6	0.01	5	410	22	<5	2	<10	4	0.26	209	<10	1	9	7
RD99B 5+50	<0.2	3.30	<5	10	<0.5	<5	0.06	1	9	26	12	12.16	0.03	0.13	75	2	0.01	6	430	22	<5	4	<10	6	0.32	204	<10	3	10	12
RD99B 6+00	<0.2	2.88	<5	30	<0.5	<5	0.18	<1	10	23	14	9.21	0.03	0.24	115	4	0.01	7	440	20	<5	2	<10	27	0.41	285	<10	1	16	7
RD99B 6+50	<0.2	2.85	<5	60	0.5	<5	0.41	<1	28	12	74	8.57	0.05	0.52	720	18	0.02	12	1040	22	<5	3	<10	67	0.16	98	<10	10	47	5
RD99B 7+00	<0.2	0.71	<5	10	<0.5	<5	0.07	<1	6	13	2	3.48	0.01	0.03	50	<2	0.01	2	130	8	<5	1	<10	6	0.37	179	<10	<1	1	5
RD99B 8+00	<0.2	2.51	5	120	<0.5	<5	0.35	<1	20	15	48	4.47	0.06	0.92	535	2	0.01	9	810	6	<5	7	<10	39	0.32	92	<10	11	54	16
RD99B 8+50	<0.2	1.01	<5	20	<0.5	<5	0.06	<1	6	9	3	4.24	0.02	0.05	50	2	0.01	2	190	14	<5	1	<10	6	0.33	157	<10	2	1	4
RD99B 9+00	<0.2	1.53	<5	10	<0.5	<5	0.04	<1	9	13	9	8.29	0.03	0.05	40	2	0.01	5	310	18	<5	1	<10	4	0.34	270	<10	1	3	6
RD99B 9+50	<0.2	8.56	<5	20	<0.5	<5	0.09	<1	8	27	53	8.36	0.02	0.27	150	2	0.01	9	770	8	<5	13	<10	12	0.20	76	<10	17	18	13

A .5 gm sample is digested with 10 ml 3:1 HCl/HNO3 at 95c for 2 hours and diluted to 25ml with D.I.H20.

Signed:_____

Appendix 4 — Rock Chip Sample Analyses

TSL Assayers Vancouver
8282 Sherbrooke St.
Vancouver, B.C.
V5X 4R6
Tel: (604) 327-3436
Fax: (604) 327-3423

Quality Assaying for over 25 Years

Geochemical Analysis Certificate

9V-0409-RG1

Company: **Electrum Resources**
Project: Lucky
Attn: John Barakso

Nov-09-99

We *hereby certify* the following geochemical analysis of 24 rock samples submitted Oct-19-99 by Peter Ronning.

Sample Name	Au PPB	Hg PPB	Cu %
L99-02A	1	45	
L99-04A	5	280	
L99-05A	3	65	
L99-05B	2	45	
L99-05C	1	25	
L99-08A	2	210	
L99-08B	1	35	
L99-09A	2	260	
L99-10A	2	460	
L99-11A	4	70	
L99-14A	1	170	
L99-15A	1	20	
L99-16A	3	130	
L99-17A	3	30	
L99-18A	2	15	
L99-19A	19	60	0.446
L99-19B	3	30	
L99-20A	3	35	
L99-21A	4	35	
L99-22A	4	30	
L99-23A	3	20	
L99-24A	3	25	
L99-25A	2	20	
L99-26A	4	25	
*DUP L99-02A		40	
*DUP L99-11A		65	
*DUP L99-22A		35	
*ICP-2		1030	
*96-3	104		
*Blank		<1	

Certified by _____

TSL Assayers Vancouver
8282 Sherbrooke St.
Vancouver, B.C.
V5X 4R6
Tel: (604) 327-3436 Fax: (604) 327-3423

TSL Assayers Saskatoon
#2 - 302 East 48th Street
Saskatoon, Saskatchewan
S7K 6A4
Tel: (306) 931-1033 Fax: (306) 242-4717

TSL Assayers Swastika
1 Cameron Ave.
Swastika, Ontario
P0K 1T0
Tel: (705) 642-3244 Fax: (705) 642-3300

TSL Assayers Vancouver
8282 Sherbrooke St.
Vancouver, B.C.
V5X 4R6
Tel: (604) 327-3436
Fax: (604) 327-3423

Quality Assaying for over 25 Years

Geochemical Analysis Certificate

9V-0409-RG2

Company: **Electrum Resources**
Project: Lucky
Attn: John Barakso

Nov-09-99

We *hereby certify* the following geochemical analysis of 13 samples submitted Oct-19-99 by Peter Ronning.

Sample Name	Au PPB	Hg PPB	Cu %
L99-27A	4	125	
L99-29A	2	30	
L99-30A	1	75	
L99-31A	1	35	
L99-33A	1	65	
L99-34A	2	45	
L99-35A	2	50	
L99-35B	3	70	
L99-36A	1	30	
L99-37A	64	1330	8.28
TQ99 10+00E 4+00N	2	75	
RD99A 9+15	4	55	
RD99A 9+75	3	70	
*DUP L99-27A		115	
*DUP L99-37A		1345	
*MP-1a			1.41
*Blank			<0.001

*Certified by*_____

TSL Assayers Vancouver
8282 Sherbrooke St.
Vancouver, B.C.
V5X 4R6
Tel: (604) 327-3436 Fax: (604) 327-3423

TSL Assayers Saskatoon
#2 - 302 East 48th Street
Saskatoon, Saskatchewan
S7K 6A4
Tel: (306) 931-1033 Fax: (306) 242-4717

TSL Assayers Swastika
1 Cameron Ave.
Swastika, Ontario
P0K 1T0
Tel: (705) 642-3244 Fax: (705) 642-3300

TSL Assayers Vancouver
8282 Sherbrooke St.
Vancouver, B.C.
V5X 4R6
Tel: (604) 327-3436
Fax: (604) 327-3423

Quality Assaying for over 25 Years

Geochemical Analysis Certificate

9V-0409-LG1

Company: **Electrum Resources**
Project: Lucky
Attn: John Barakso

Nov-09-99

We *hereby certify* the following geochemical analysis of 1 sample submitted Oct-19-99 by Peter Ronning.

Sample Name	Au PPB	Hg PPB
L99-09B	12	125
*DUP L99-09B		115
*ICP-2		1000
*Blank		<1

Certified by _____

TSL Assayers Vancouver
8282 Sherbrooke St.
Vancouver, B.C.
V5X 4R6
Tel: (604) 327-3436 Fax: (604) 327-3423

TSL Assayers Saskatoon
#2 - 302 East 48th Street
Saskatoon, Saskatchewan
S7K 6A4
Tel: (306) 931-1033 Fax: (306) 242-4717

TSL Assayers Swastika
1 Cameron Ave.
Swastika, Ontario
P0K 1T0
Tel: (705) 642-3244 Fax: (705) 642-3300

TSL Assayers Vancouver
8282 Sherbrooke St., Vancouver, B.C., V5X 4R6
Tel: (604) 327-3436 Fax: (604) 327-3423

Electrum Resources
Attention: John Barakso
Project: Lucky
Sample: .

Report No : 9V0409 LJ
Date : Nov-03-99

MULTI-ELEMENT ICP ANALYSIS

Aqua Regia Digestion

Sample Number	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sn ppm	Sr ppm	Ti %	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
L99-09B	<0.2	2.29	<5	80	<0.5	<5	0.66	<1	18	30	50	4.07	0.04	0.85	940	<2	0.02	14	400	16	<5	5	<10	36	0.22	108	<10	5	61	4

A .5 gm sample is digested with 10 ml 3:1 HCl/HNO3
at 95c for 2 hours and diluted to 25ml with D.I.H20.

Signed:_____

TSL Assay Vancouver
8282 Sherbrooke St., Vancouver, B.C., V5X 4R6
Tel: (604) 327-3436 Fax: (604) 327-3423

Electrum Resources
Attention: John Barakso
Project: Lucky
Sample: .

Report No : 9V0409 RJ
Date : Nov-03-99

MULTI-ELEMENT ICP ANALYSIS

Aqua Regia Digestion

Sample Number	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sn ppm	Sr ppm	Ti %	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
L99-02A	<0.2	2.81	<5	60	0.5	<5	1.09	<1	19	63	44	5.44	0.15	1.28	745	2	0.22	15	880	12	<5	4	<10	83	0.06	49	<10	7	74	4
L99-04A	<0.2	0.56	10	50	<0.5	<5	0.43	<1	20	27	27	5.37	0.20	0.20	140	<2	0.02	7	860	14	<5	2	<10	5	0.13	21	<10	6	10	5
L99-05A	<0.2	3.72	<5	50	<0.5	<5	0.72	1	26	44	44	5.69	0.12	1.01	1175	2	0.03	18	810	14	<5	4	<10	35	0.12	52	<10	8	75	4
L99-05B	<0.2	2.78	<5	50	<0.5	<5	0.74	<1	20	61	55	5.52	0.11	1.74	950	2	0.13	15	860	10	<5	5	<10	46	0.06	68	<10	7	93	4
L99-05C	<0.2	3.46	<5	50	<0.5	<5	1.20	1	19	65	42	5.17	0.07	1.76	1145	2	0.17	14	880	10	<5	4	<10	76	0.12	79	<10	7	95	4
L99-08A	<0.2	1.85	<5	90	<0.5	<5	0.19	<1	18	59	124	6.16	0.18	1.06	715	<2	0.03	15	590	10	<5	5	<10	11	0.03	80	<10	5	23	4
L99-08B	<0.2	0.82	<5	40	<0.5	<5	0.27	<1	5	88	3	1.86	0.12	0.50	405	2	0.04	4	460	6	<5	1	<10	20	0.06	11	<10	4	49	2
L99-09A	<0.2	1.97	<5	170	<0.5	<5	1.22	<1	16	93	61	3.96	0.11	1.07	640	4	0.05	20	640	8	<5	7	<10	32	0.19	85	<10	7	32	3
L99-10A	<0.2	1.83	<5	130	<0.5	<5	1.09	<1	21	60	115	5.31	0.15	1.12	525	2	0.03	23	600	8	<5	7	<10	22	0.22	96	<10	7	41	4
L99-11A	<0.2	1.88	<5	50	<0.5	<5	2.48	<1	19	45	16	4.44	0.13	1.68	915	<2	0.02	6	890	10	<5	6	<10	31	0.18	86	<10	10	88	4
L99-14A	<0.2	2.78	50	80	<0.5	<5	0.88	<1	21	65	60	5.68	0.10	1.89	590	2	0.15	13	710	12	<5	11	<10	46	0.18	132	<10	8	52	4
L99-15A	<0.2	2.18	<5	50	<0.5	<5	1.19	<1	15	35	18	5.06	0.08	1.26	820	<2	0.05	4	1230	8	<5	8	<10	20	0.17	117	<10	13	54	13
L99-16A	<0.2	3.43	<5	60	<0.5	<5	1.50	<1	27	53	82	6.16	0.16	1.62	485	6	0.26	14	770	8	<5	7	<10	94	0.28	158	<10	4	54	4
L99-17A	<0.2	2.89	<5	60	<0.5	<5	1.23	1	21	35	37	5.13	0.15	1.73	830	<2	0.12	12	760	6	<5	7	<10	45	0.33	144	<10	6	66	4
L99-18A	<0.2	3.04	<5	290	0.5	<5	2.71	<1	10	45	23	3.17	0.19	1.07	650	4	0.02	5	780	6	<5	7	<10	21	0.24	67	<10	11	54	4
L99-19A	2.0	1.00	<5	30	<0.5	<5	3.28	2	26	61	4955	6.52	0.01	0.81	345	<2	0.02	32	520	16	<5	2	<10	42	0.24	67	<10	3	45	10
L99-19B	<0.2	0.78	<5	70	<0.5	<5	2.18	<1	3	118	47	1.17	0.35	0.15	255	2	0.02	3	180	8	<5	1	<10	9	0.04	5	<10	4	21	4
L99-20A	<0.2	1.59	<5	40	0.5	<5	0.61	<1	32	34	40	5.02	0.18	0.60	360	2	0.14	27	730	12	<5	1	<10	69	0.04	24	<10	5	31	4
L99-21A	<0.2	2.78	<5	80	<0.5	<5	1.15	<1	19	83	42	5.24	0.15	1.28	835	2	0.24	13	810	10	<5	5	<10	96	0.10	52	<10	8	80	5
L99-22A	<0.2	1.65	<5	70	<0.5	<5	0.65	<1	19	41	44	5.55	0.21	1.03	620	2	0.06	13	910	14	<5	3	<10	27	0.11	39	<10	7	69	4
L99-23A	<0.2	1.67	<5	20	<0.5	<5	0.82	<1	13	88	5	2.72	0.08	1.15	525	<2	0.02	10	550	6	<5	3	<10	80	0.12	40	<10	6	59	4
L99-24A	<0.2	2.01	<5	40	<0.5	<5	0.94	<1	21	55	2	4.92	0.05	1.51	730	<2	0.04	8	930	6	<5	3	<10	34	0.13	62	<10	4	77	5
L99-25A	<0.2	2.78	<5	70	<0.5	<5	1.86	1	16	38	27	4.16	0.14	0.77	495	<2	0.08	9	640	8	<5	2	<10	34	0.08	37	<10	6	45	4
L99-26A	<0.2	3.57	<5	60	<0.5	<5	1.98	<1	17	37	11	4.11	0.07	1.05	505	2	0.07	12	620	8	<5	3	<10	28	0.10	48	<10	5	42	3
L99-27A	<0.2	1.82	5	70	<0.5	<5	1.73	<1	14	61	31	4.48	0.08	0.81	475	4	0.09	9	740	32	<5	4	<10	21	0.08	56	<10	8	101	4
L99-29A	<0.2	3.61	10	330	<0.5	<5	6.23	<1	18	51	25	4.28	0.07	1.32	655	2	0.01	9	880	6	<5	5	<10	48	0.15	97	<10	9	48	10
L99-30A	<0.2	2.11	<5	40	<0.5	<5	2.09	<1	18	76	37	4.80	0.13	1.02	835	4	0.02	13	850	20	<5	4	<10	17	0.13	65	<10	9	95	5
L99-31A	0.2	2.30	<5	70	<0.5	<5	1.40	<1	16	61	26	4.25	0.12	1.23	610	2	0.09	11	880	14	<5	4	<10	38	0.11	53	<10	7	66	4
L99-33A	<0.2	2.14	<5	40	<0.5	<5	1.19	<1	16	67	45	4.86	0.16	0.76	285	2	0.06	12	870	18	<5	2	<10	54	0.04	29	<10	7	47	3
L99-34A	<0.2	2.29	<5	70	<0.5	<5	0.82	<1	18	75	37	5.03	0.14	1.21	740	2	0.12	13	760	4	<5	3	<10	80	0.06	50	<10	9	66	4

A .5 gm sample is digested with 10 ml 3:1 HCl/HNO3
at 95c for 2 hours and diluted to 25ml with D.I.H20.

Signed:_____

TSL Assay. . Vancouver
8282 Sherbrooke St., Vancouver, B.C., V5X 4R6
Tel: (604) 327-3436 Fax: (604) 327-3423

Electrum Resources
Attention: John Barakso
Project: Lucky
Sample: .

Report No : 9V0409 RJ
Date : Nov-03-99

MULTI-ELEMENT ICP ANALYSIS

Aqua Regia Digestion

Sample Number	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sn ppm	Sr ppm	Tl %	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
L99-35A	<0.2	2.06	<5	50	<0.5	<5	0.91	<1	19	73	38	5.39	0.14	0.88	480	2	0.06	15	730	12	<5	3	<10	33	0.03	42	<10	7	69	4
L99-35B	<0.2	1.14	<5	60	<0.5	<5	0.46	<1	18	70	38	4.89	0.24	0.68	370	4	0.03	14	850	6	<5	2	<10	34	0.01	26	<10	7	41	4
L99-36A	<0.2	0.37	<5	240	<0.5	<5	0.46	<1	1	110	30	1.15	0.10	0.09	210	2	0.05	3	130	12	<5	<1	<10	15	0.03	3	<10	4	17	2
L99-37A	23.2	0.75	10	20	<0.5	<5	0.39	14	21	111	>10000	9.38	0.06	0.57	240	2	0.01	14	1560	144	5	3	<10	16	0.05	21	<10	2	95	8
TQ99 10+00E 4+00N	<0.2	1.30	<5	60	<0.5	<5	0.90	<1	12	89	275	3.14	0.12	0.84	555	<2	0.03	6	610	6	<5	6	<10	10	0.20	58	<10	9	37	2
RD99A 9+15	0.4	1.88	<5	30	<0.5	<5	1.42	<1	21	82	249	6.29	0.03	0.34	220	<2	0.11	16	640	6	<5	2	<10	40	0.09	25	<10	4	<1	5
RD99A 9+75	<0.2	2.10	<5	80	<0.5	<5	1.24	<1	20	72	289	5.11	0.03	1.92	405	<2	0.02	35	1080	4	<5	4	<10	21	0.08	56	<10	3	29	7

A .5 gm sample is digested with 10 ml 3:1 HCl/HNO3
at 95c for 2 hours and diluted to 25ml with D.I.H20.

Signed:_____