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Report

on the

Preliminary geology, petrography and petrophysics

of the

Flan Group of claims

in the

Nanaimo Mining Division

in

092L/01

at

50 07 N and 126 15 00W

for

Mikkel Schau, owner

November 15, 2001

Mikkel Schau, P.Geo.

(Submitted February 15, 2002)

SUMMARY

The FLAN Claims cover a newly located showing of gold-bearing veins cutting veined and faulted gabbro sills. The gold is irregularly distributed with assayed samples attaining a maximum of 61 gm/mt. The showings occur in Triassic? Gabbro sills hosted in middle Triassic? cherts and related shaly sediments, within tilted and faulted blocks, on the western slopes of Mt Adam, a part of the Northern Vancouver Island Ranges on northern Vancouver Island.

Access is currently along active logging roads. Nearest community is Woss located some 30 km WNW on the Island Highway, and there is access to the deep water port of Gold River along well travelled gravel roads and to Port McNeill along the paved Island Highway.

The claim area, has been selectively clearcut, and is located in a SMZ; the land claim treaty process has not directly discussed these lands, to the best of my knowledge. There has been no impediment to my claiming or working the land to time of writing. Instead, local people would like there to be more exploration, and possibly mining, to shore up the local economy.

Recommendations for future work includes:

1/Resample the vein systems and use larger volumes (1+kg) "metallics" assays to overcome local heterogeneous distribution of gold grains.

2/ Prospect claims again, after new logging completed.

3a/ Set up prototype sampling protocols to test below the till, using deep augering or bio-geochemistry, or some other technique, to see through the thick till cover at the valley bottom.
3b/ Use method selected above to show the size of the gold anomaly on claims.

4/ Eventually, drill the mineralized veins to check their lateral extent.

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Fig. 12.c Bivariate plot of Ag (in ppm) vs Cu (in ppm), showing that veins are distinct from the host gabbros.
Fig. 12.d Bivariate plot of Ag (in ppm) vs Au (in ppb), showing that veins are distinct from the host gabbros. The plots on this page strongly suggest that Cu-Ag-Au rich veins were introduced into the gabbro from an external source.

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1.0 Introduction:

This report covers the preliminary geology, petrography and petrophysics of the FLAN Group, focusing on the results of prospecting for precious metals. It has been prepared by the owner of the claims, for himself.

Sampling for precious metals was conducted during four day trips, separated by intervals to allow for the assesment of assay values resulting from the previous set of samples. The work consisted of checking along and sampling interesting new logging road outcrops as well as side trips into the forest and clearcuts to map scarce outcrop.

The work was carried out by Mikkel Schau, P.Geo., and helpers.

2.0 Property Location, Access and Title

The FLAN Group claims are located in the Schoen Creek valley at the foot of , and western flank of Mount Adam, about 30 km east-southeast of Woss, on Vancouver Island B.C. (Fig 1, 2). They are located in the Vancouver Island Ranges, at about 2500 ft in partially logged douglas fir forest. The property is in the Nanaimo Mining Division, on NTS 092L/01 and is centered at approximately 50 07 N. and 126 15 W. (Fig. 2).

Access to the claims is via a logging main branching off the Island Highway and continues along subsidiary logging roads that pass through Schoen Lake Provincial Park, south, into the area of interest. Two and four wheel drive vehicles can closely approach the showing, but a 4 wheel drive vehicle is needed to enter the claims. The main logging road is the one leading to Gold River, and at a junction marked Schoen, (with the label, "this is not the road to Schoen Lake Provincial Park") the road passes along the south of the Davies River and through the Park into the headwaters of Schoen Creek. The road proceeds upstream along the west side of the creek until, several km along, the required road (SC10) descends to the floor of the valley and crosses the creek over a bridge. The road continues upstream along the east side of the creek past another bridge. About a km past this the road splits, the lower part enters the lower part of the claim, the upper road does a hairpin turn and enters the claims as well (see fig. 3).

The showing is a new one, located with the help of a PAP grant received in 2000, and explored further in 2001 with the continued aid of a PAP grant. It is likely to be classified as an epithermal/polymetallic vein showing. It is in the Insular belt and forms part of the Wrangell Terrane.

The FLAN Group claims comprise 2 units as shown below:

Name	Record	Units	Anniversary Date		year recorded
FLAN1	383063	1	Nov 18	2007	2000
FLAN2	383064	1	Nov 18	2007	2000

Fig. 1. Location Map of FLAN claims in BC

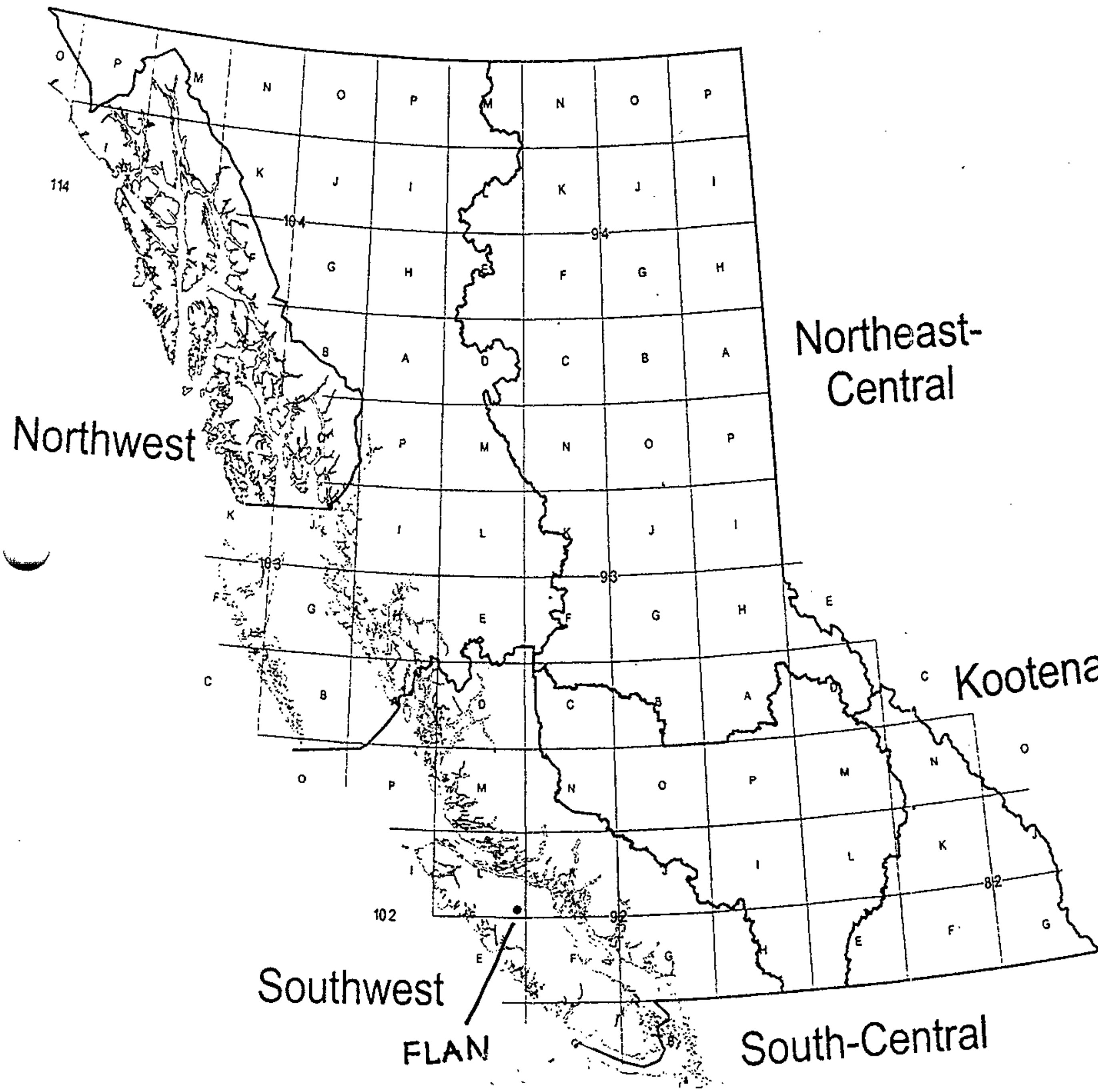
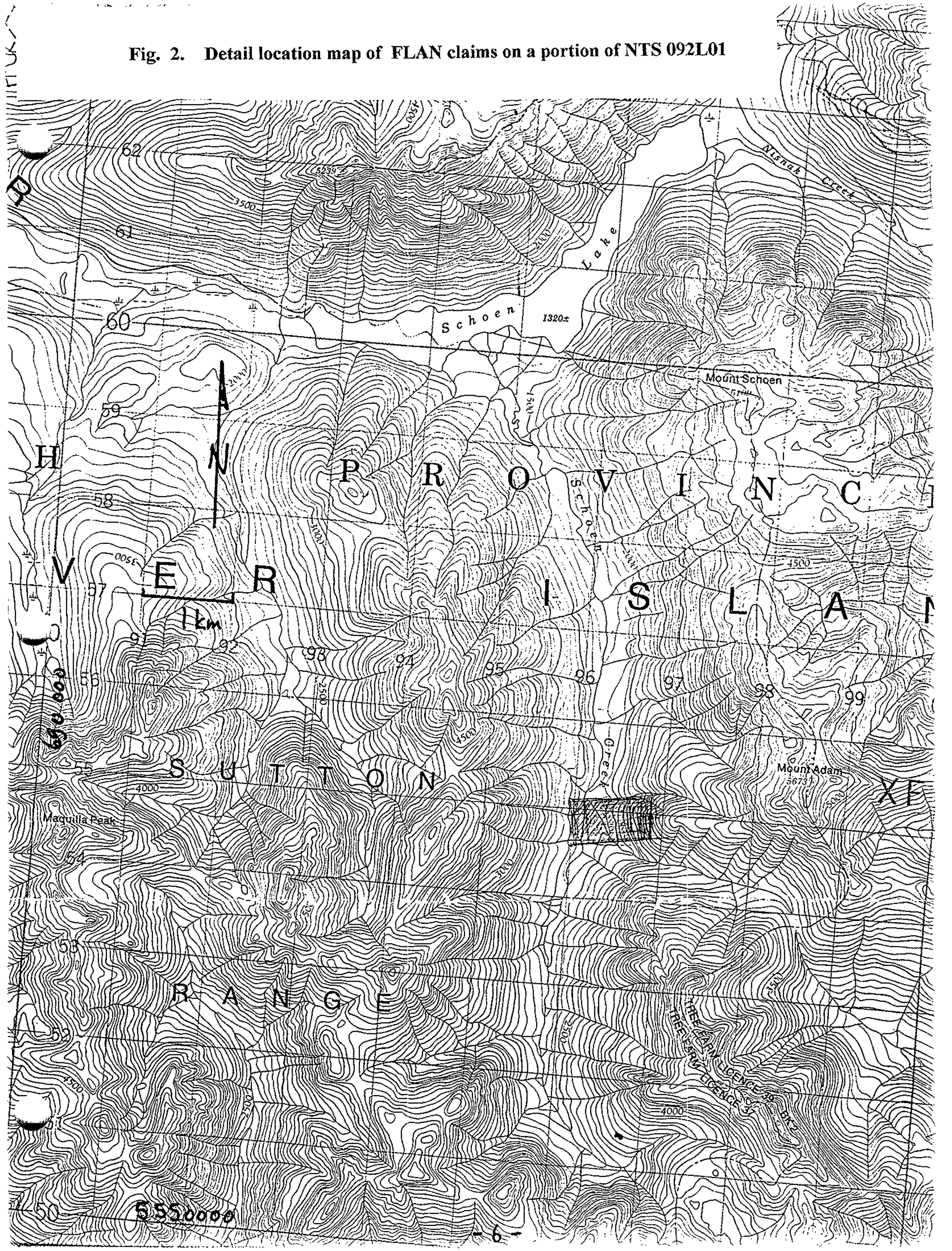


Fig. 2. Detail location map of FLAN claims on a portion of NTS 092L01



They were grouped as FLAN Group on Nov 20, 2001 (event #3173894).

All claims, which are focused on precious metals, are owned by Mikkel Schau.

The land situation is typical; I have claimed the mineral rights in a lawful manner; although the claimed area is being selectively clearcut (fig 3), it is located in a SMZ; to the best of my knowledge the land claim treaty process has not directly discussed these lands. There has been no impediment to my claiming or working the land to time of writing. Local people have told me they would like there to be more exploration, and possibly mining in region, to shore up their local economy.

3.0 Previous Work

The general area has had a sparse history of mineral exploration. Previous mapping by government sponsored regional mapping programs conducted by J.E. Muller et al. (1974) (Fig. 4) and made available in digital form by N.W. Massey (1995).

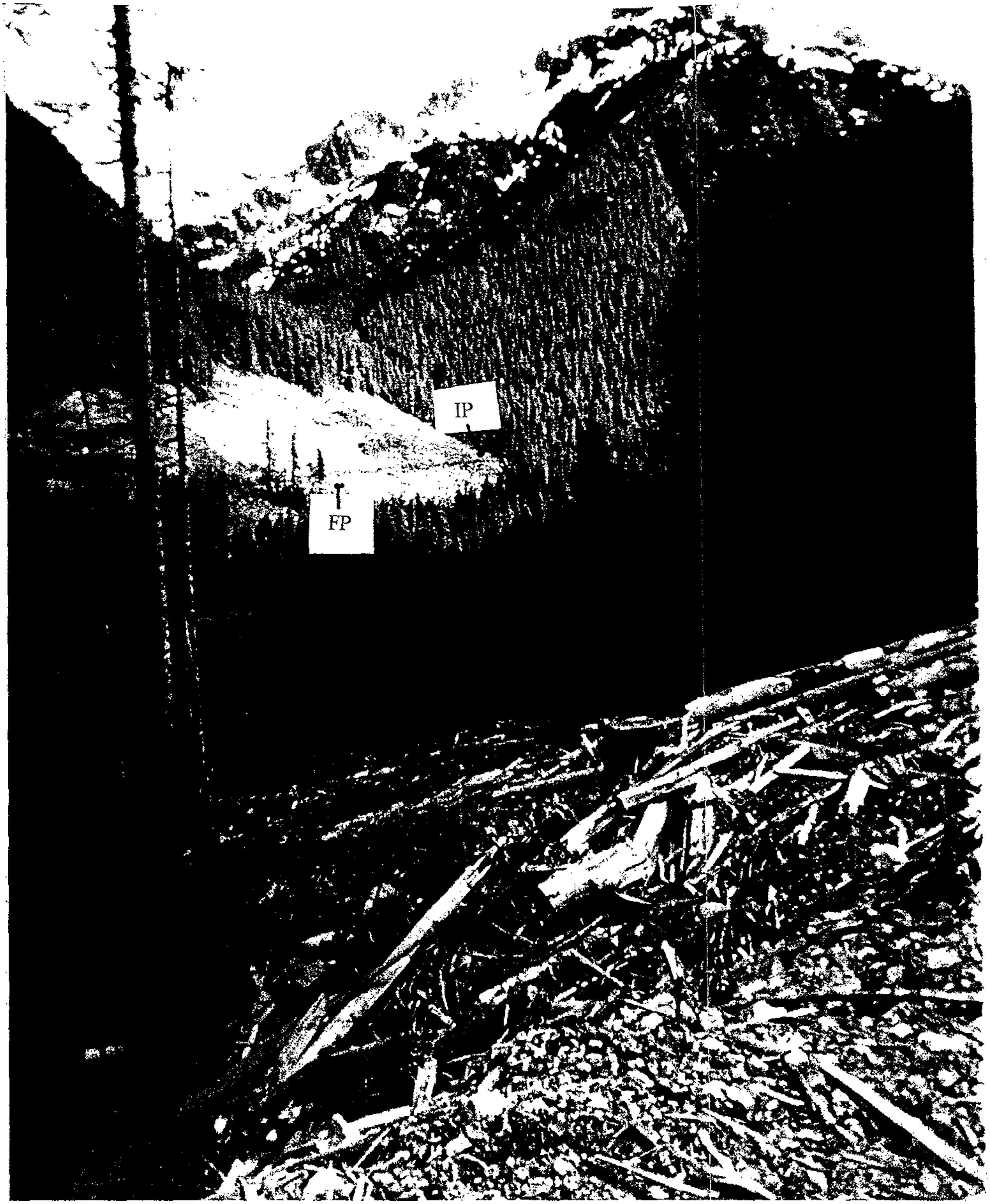
Government sponsored regional geochemical surveys indicate that creeks in the Schoen Lake watershed are anomalous, showing values up to 70 ppb Au. (MapPlace, 2000). An adjacent creek valley and a hill crest to the west of the Schoen Creek valley were staked in 1993 and shown to carry anomalous concentrations of several economic minerals, including gold (AR 23546). The claims have since lapsed.

In 2000 the showing was found by the current owner prospecting for precious metals under the Prospector's Assistance Program, and was staked in late 2000 based on results of initial assay reports. The current owner is Mikkel Schau, who is himself conducting grass roots exploration looking at the possibility of enlarging the showing to become a viable prospect.

The property shows thin, steep, gold-bearing vuggy quartz-sulphide veins cutting steeply across a 30 centimetre thick epidote-chlorite, pyrite, sphalerite, chalcopyrite bearing vein with local development of bull quartz stringers, in a fault zone, cutting a gabbro sill, emplaced in the Paleozoic cherts. White vuggy veins carry very sporadic gold values (up to 61ppm Au) whereas lower anomalous gold values (up to 400 ppb) has been found in the larger polymetallic vein. Currently the showing is local, but if any of the elements, currently found in anomalous quantities, can be found in any substantial quantity and/or grade it is possible that the showing could be converted into a prospect.

The showing will probably be catalogued as 092L XX, in Minfile as a Au showing and classified as a Au bearing polymetallic vein. It is in the Insular belt and forms part of the Wrangell Terrane

Fig. 3. Photograph looking SSE onto clearcut FLAN claim block



4.0 Summary of work done:

Prospecting on claims 50 ha.
Preliminary Geology 50 ha.
Number of samples assayed:

- 3 soils by multi-element icp-es and fire assay/icp-es finish for Au, Pt, and Pd.
- 26 rocks by multi-element icp-es and fire assay/icp-es finish for Au, Pt, and Pd.
- 11 rocks whole rock analyses , major elements(4A)
- 11 rocks whole rock analyses, trace elements, including REE (4B)
- 10 petrographic analyses
- 20 petrophysical analyses (sites with magnetic susceptibility determined)

The data for this work are summarized in appendices A to H.

5.0 Detailed technical data and interpretation

5.1/ Purpose

To better understand the initial assay results and to develop a way to enlarge the showing laterally. To understand the extent and significance of any alteration. To develop a strategy to find more veins.

5.2/ General Surficial Geology

The claims are situated on the edge of a U-shaped valley, and the bottom of the valley is covered with till. The mapped road outcrops are technically subcrops; a few knobs of bedrock crop out on the lower slopes; only at the upper steeper slopes are cliff forming outcrops abundant. Fig. 3 shows the general topography and the new logging road and clearcut so instrumental in locating the showing.

Striae were noted on the southern most subcrops, where the surficial debris had been washed away, after the road had been pushed through.These striae indicated ice movement was parallel with the valley wall.

5.3/ Regional Geology

The regional geology has been mapped by Muller et al 1974, (fig. 4) prior to the construction of current logging roads, and as such, suffers from not having access to the outcrops now exposed. Observations gained while prospecting in the region after the roads were available, indicate that a small granite stock occurs west of Schoen Creek, across the valley from the claims. The borders of this stock are not known, but it is seen in several roadcuts in the region.

Regional geology of the immediate area is simple. Daonella beds, a middle Triassic black shale and siliceous tuffaceous cherts are overlain by the Karmutsen basalts, a thick pile of pillowed and massive subacqueous lavas. Intrusive rocks include early gabbro sills, followed by large Jurassic granodiorite plutons.

The geology in Schoen creek is incompletely known, and the deep till cover at the base of the U shaped creek valley precludes a detailed map of even this small claim group. Nevertheless, a cross-section from east to west, across the Schoen Creek valley, in the vicinity of Mt Adam, would include these features:

East

Mt Adam underlain by Karmutsen basalts (with shallow west dip)

western flanks of Mt Adam cut by a fault (steep and northerly trending)-shown on Mullers map.

Black shales and cherts brought up against Karmutsen Basalts

Gabbro sills in tuffaceous cherts (FLAN Group)

Schoen Creek valley, possibly underlain black shales (Daonella beds)

Across the creek, and up the hill,

Unnamed Granitic Stock, emplaced on the west, into Karmutsen?

Karmutsen with shallow west dip.

West

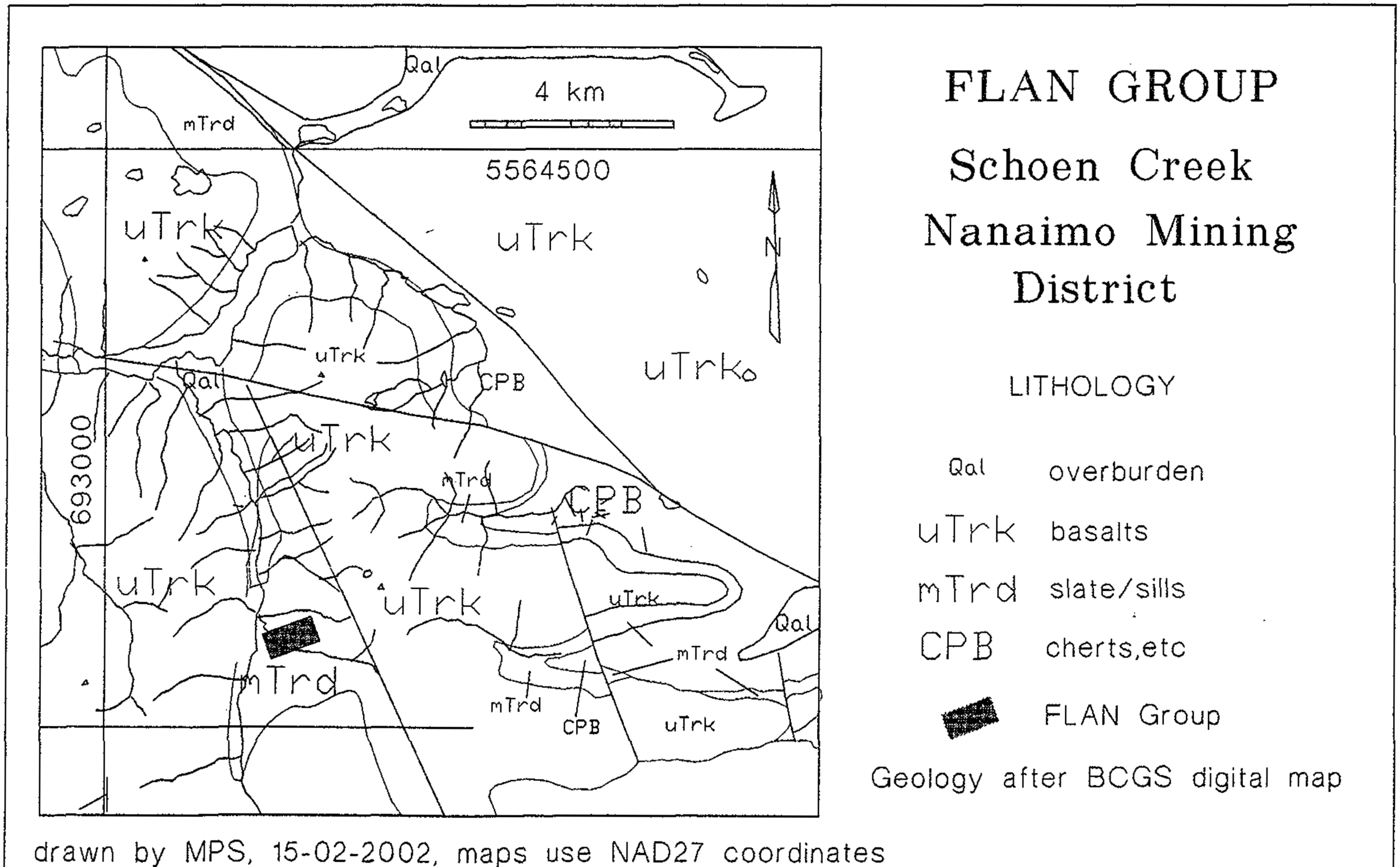


Fig. 4. Geological setting of FLAN claims (from BC digital geology files)

Previous workers reported gold (1ppm) in Karmutsen Andesite (sic, AR23546). They outlined a geochemically anomalous area west of the then unexposed granite, but dropped the claims without follow-up.

The hitherto un-documented presence of a granite stock near, but not known to be on the claims themselves, is presumably not associated with Jurassic Granodiorite, and provides a possible source for the gold and other mineralization in the area.

5.4 Detailed Geology

The geology of the claim group is relatively simple:

to the west, and uphill, are cliffs formed in fine-grained gabbro of the sills

just above the upper logging road, a rare outcrop exposes the upper contact of gabbro against tuffaceous cherts.

The subcrops exposed in the upper logging road are of gabbro, cut by faults, and veins.

The area from the road to the creek and edge of the claims, including the lower logging road are covered by till overlain by soil and talus.

A few chips of black slate in the till, and chip fragments in the creek, raise the possibility that these slates (possibly Daonella Beds) may, as shown by Muller (op cit), underlie part of the valley. This shown on Fig 5.

5.4.1 Notes on location of outcrops

Outcrops were located using a Garmin 12 handheld GPS as a guide. But topographical reflections and advent of changes to selective availability following Sept. 11, 2001 means that GPS positions are less accurate than the precision reported by the instrument. The UTM locations reported in the appendices are those recorded in the field, but they are incorrect as to the relative positions among each other. The map locations, on the other hand, are correct with respect to each other, although their location is not well known (within 50 m. or so). The provision of an accurate GPS survey should accompany any detailed work.

5.4.2 Discovery outcrop

The majority of the sampling has focussed on the vertical face of the subcrop shown in fig. 6. The gold bearing samples were found at the top of the intersection pointed to in figure 6.

5.4.3 Faulting

Most of the faults seen on property have a northerly trend, and are steep to the east or vertical in dip. They are presumably co-parallel and co-eval with the larger NS regional faults. In fig 6 the flat surfaces facing us are examples of these faulted surfaces.

Later, minor, E-W veins and faults offset the faults noted above. North of Schoen Lake faults with this orientation show a lot of argillic alteration. In fig 6 the small jut to which the scale is pointing is an example of these veins. They are quartz bearing and associated with some alteration adjacent to the vein. There is another set of carbonate bearing E-W striking veins which are not accompanied by alteration, these are thought to a later set.

5.4.3 Veining

Green polymetallic veins, traced along trace of road in roadcut, are seen to occupy faulted cataclased NS fault surfaces.

White quartz veins cross cut green polymetallic veins and are visible on fig 6

White carbonate veins cross cut the polymetallic veins.

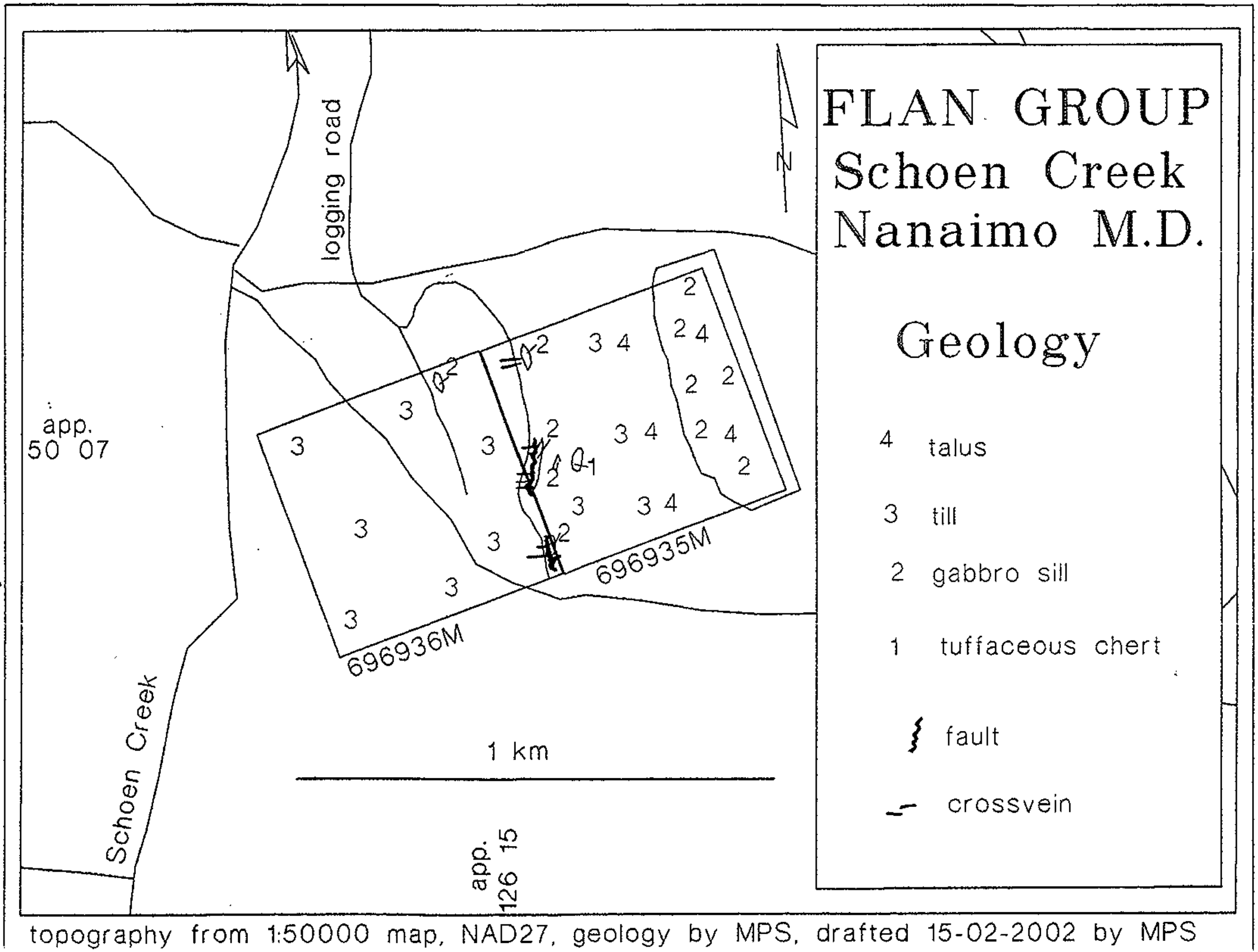


Fig. 5. Geological sketch map of the FLAN claims

Fig. 6. Photograph of discovery site, showing "green vein" and cross-cutting gold vein.

5.5 Detailed sampling results

5.5.1 Previous work

Anomalous values in precious metals are present in altered quartz bearing veins.

Data collected previously to work done for this report are provided to establish a context for the sampling program.

Values shown by assays, performed before staking, include:

White vuggy quartz veins:

gold:	Up to 67.8 **ppm**
silver:	Up to 25.7 ppm
copper:	5536 ppm
palladium:	13 ppb
bismuth:	37.6ppm

Green polymetallic vein: not seen nor assayed

5.2.1/ Current

Collecting along logging roads made acquisition of samples fairly easy; prospecting in the woods and clearcuts, by contrast, is plagued by scarcity of outcrop. Samples of gabbro and vein material as well as some country rock (to provide background values) were collected, and later selected and shipped to ACME Labs for analyses. This laboratory has a good reputation for providing quality Pd, Pt and Au assays, and was selected for this reason. Appendix G explores issues of accuracy and precision. The conclusions reached in this report based on assays are robust and are not dependent on minor analytical variations.

Details of procedures used by ACME ANALYTICAL LABORATORIES (their Geo4 package) are summarized on their assay sheets. Data reported here are analysis of .5 gm samples leached by aqua regia and analysed by ICP-ES (Appendix A). This method reports values of soluble elements (mainly those in sulphide minerals) but only a few easily dissolved silicates and few if any in the hard to dissolve oxides. Therefore values for copper, nickel, titanium and vanadium are minimum values. (Appendix F explores this divergence). The data also includes the results of a special method developed to extract small amounts of precious metals Pd, Pt, and Au. (30 gms of sample are treated and the elements are concentrated by fire assay and analyzed by ICP-ES.) The methods used by Schau in 2000, prior to staking, are similar. Hence that earlier data is directly comparable.

Some rocks were also selected for whole rock analyses (4A,B method) and thin section examination, to estimate how much alteration had actually taken place.(Appendices D and E)

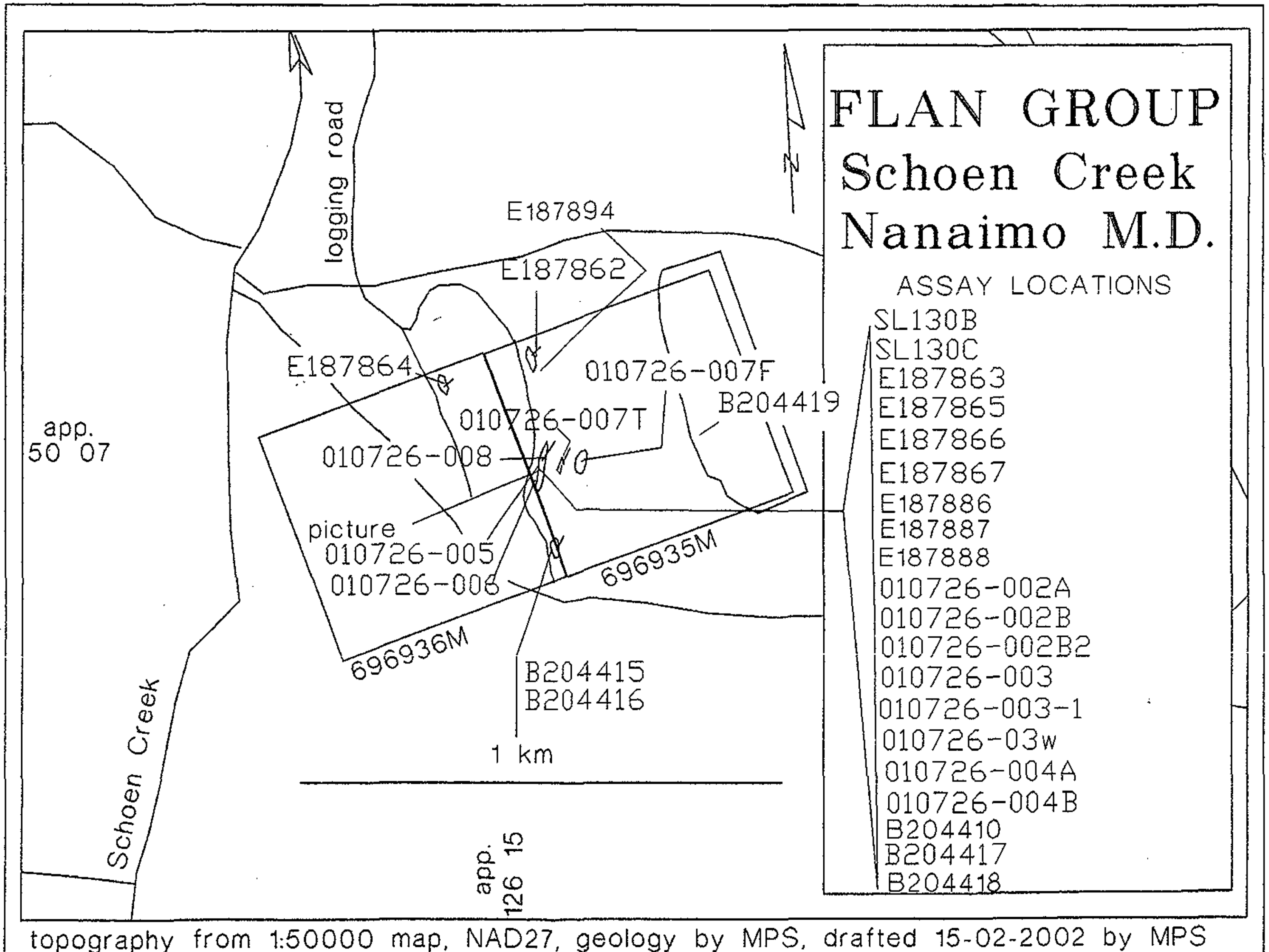


Fig 7. Detail map showing locations of Assays

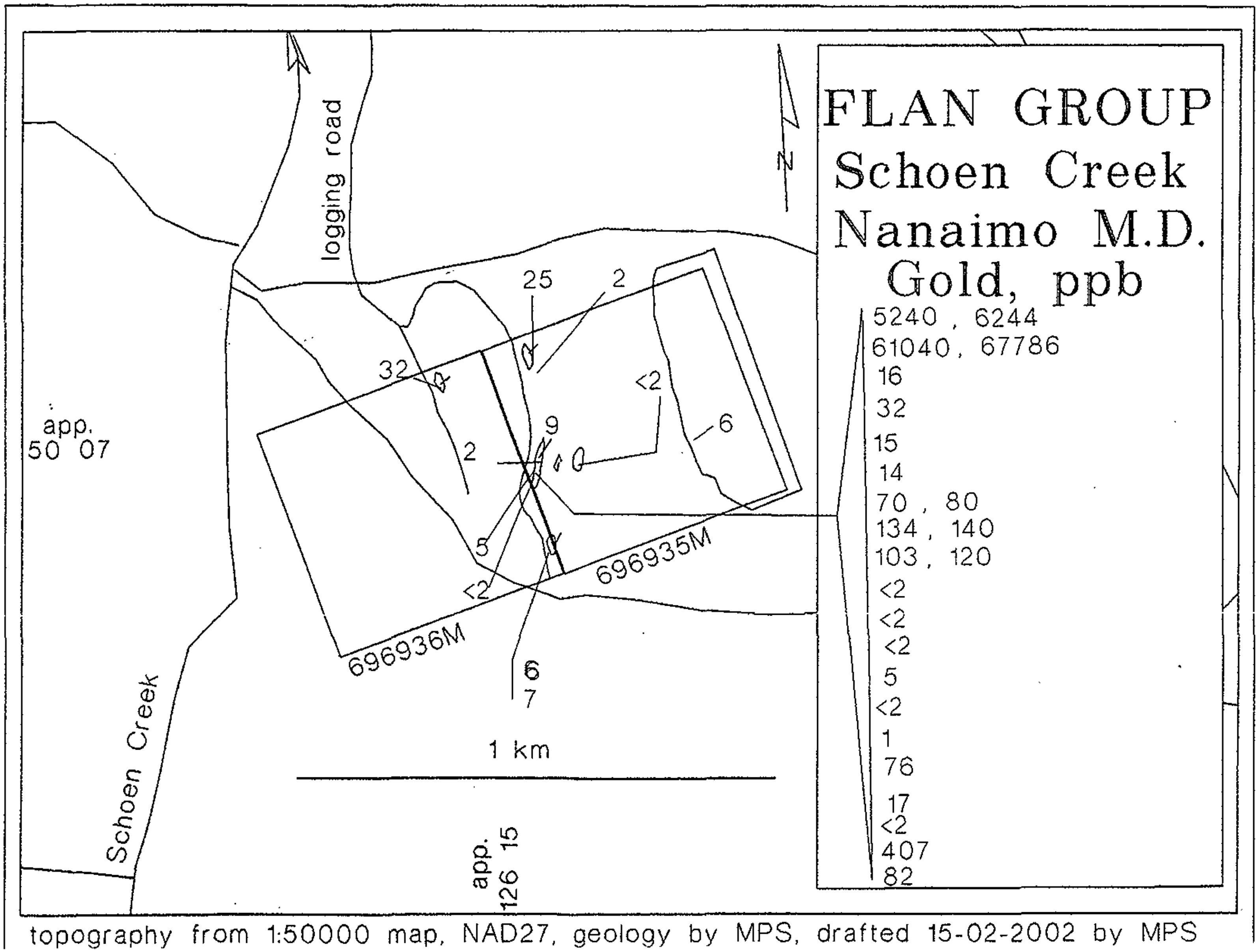


Fig. 8. Detail map showing results of gold assays (in ppb)

Fig. 9. Location of assayed samples on photogr

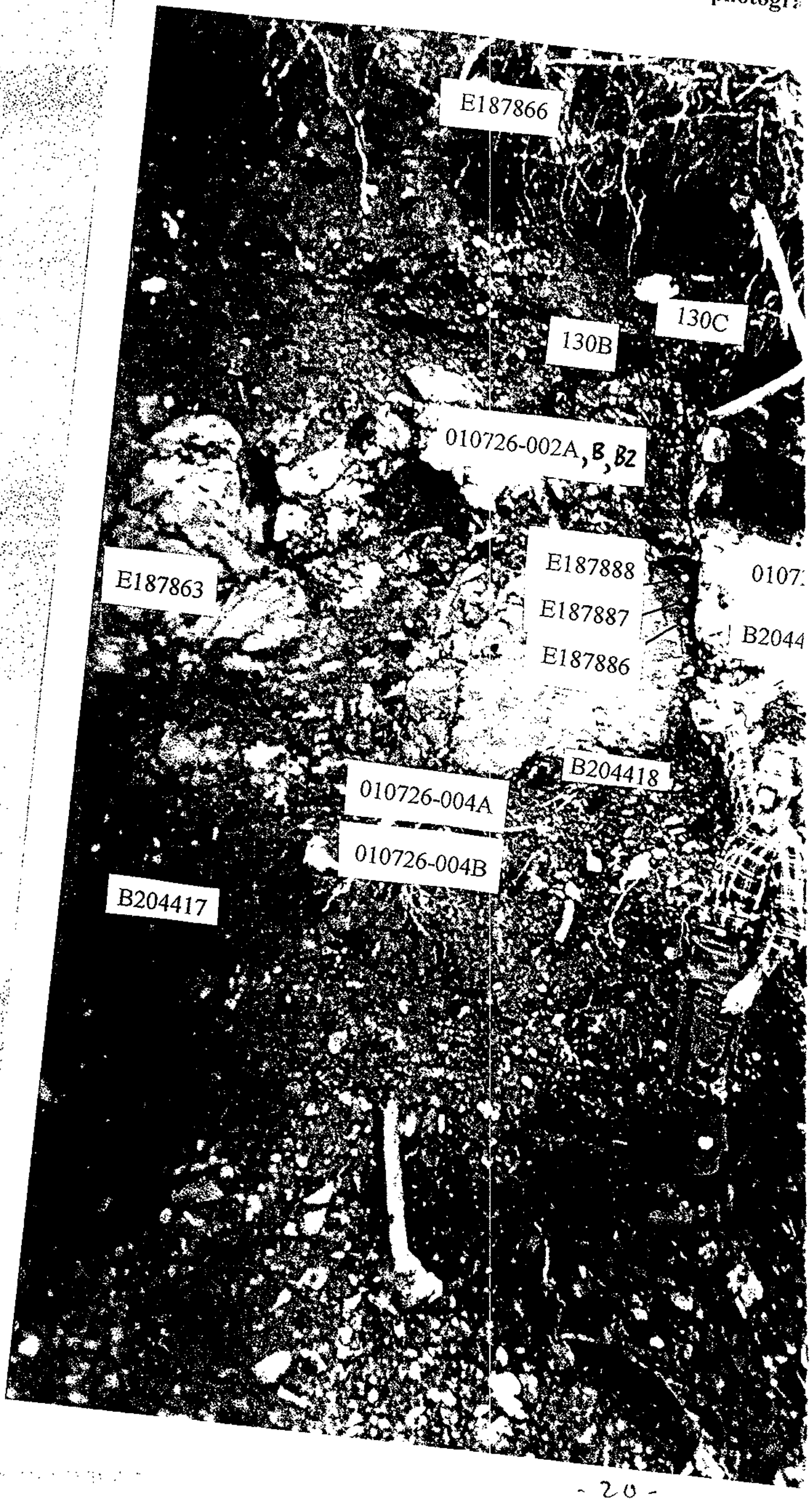


Fig. 10. Au assays shown on photograph of discovery site

Locations of assayed samples are shown on figure 7. The results of gold assays are shown on figure 8. It will be noted that the sample sites cluster on top of each other. Hence a vertical section best (fig 9) shows the location of the samples. The assay values for gold are shown on following section. (Fig 10)

The assay values reported below are not to be construed as anything else but the results from fist-sized specimens collected and sampled because they were thought to contain anomalous amounts of interesting metals.

Current results categorized as to target type are shown below:

White quartz veins in gabbro:

gold:	up to 61.04 gm/mt (check analysis of first sample)
palladium:	up to 16 ppb
silver:	up to 15.3 gm/mt (check analysis of first sample)
nickel:	up to 36 ppm
copper:	up to 5536 ppm
molybdenum:	up to 113 ppm
zinc:	up to 5489 ppm

Green polymetallic veins in fault zone in gabbro sill:

gold:	up to 407 ppb
palladium:	up to 9 ppb
silver:	up to 9.6 ppm
nickel:	up to 32 ppm
cobalt:	up to 187 ppm
copper:	up to 4115 ppm
molybdenum:	up to 173 ppm
zinc	Up to 5566 ppm

A finer grained gabbro from contact zone (i.e. non mineralized gabbro):

gold:	6 ppb
palladium:	31 ppb
silver:	<.5 ppm
copper:	240 ppm
nickel:	17 ppm

A pyrite bearing cherty felsic tuffaceous country rock near contact:

gold:	up to 4 ppb
palladium:	up to 3 ppb
silver:	up to <.3ppm
copper:	up to 255 ppm
nickel:	up to 23 ppm

The two vein sets may have been formed in the same mineralization event, although the quartz rich veins at least post-date, in part, the epidote, chloride, metal sulphide vein. In one sample of the enriched gold bearing rock (130C) a thin vein of visible gold (softer than chlorite, easy to cut, gold color) is seen under a microscope to crosscut earlier sphalerite and other oxidized sulphide mineralization. Many additional fragments from the "high grade witness sample" were also examined with no visible gold being apparent.

Some secondary enrichment of gold may have taken place, because small vugs were seen in quartz veins to be occupied by rust, probable remnant from oxidized pyrite, in apparently weathered subcrop samples. The enrichment may be due to weathering of sulphide rich samples in an aerated soil profile. This weathering may well have affected the concentrations of the gold. On the other hand, small vugs were also seen in quartz within the green veins, far removed from obvious weathering.

5.6 Petrographic and petrochemical results (Appendix D and E):

Host rock is very fine grained cherty tuff of rhyodacite or andesitic origin cut by microveins of quartz and locally hosting 1mm pyrite cubes.

Gabbro is chilled near its contact with chert, and becomes coarser grained at lower elevations (i.e. within the sill). The body is interpreted to be a west dipping sill, although the base has not been located. The gabbro is a fairly typical example of a tholeiitic mafic rock. Fig 11a shows it to classify among the sub-alkalic basalts, and also shows that the cherty tuff may have had a rhyodacite-dacite component.

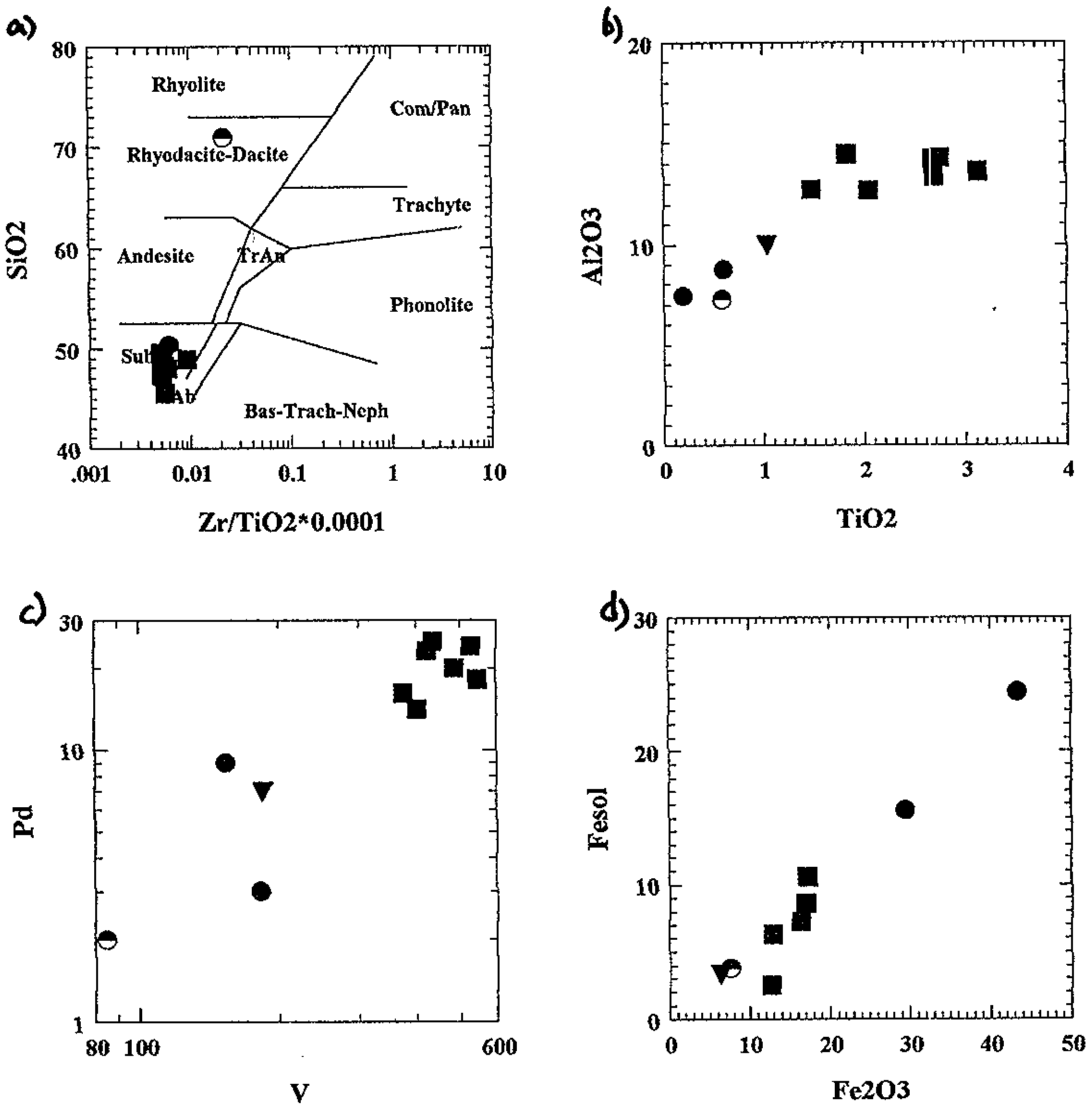


Fig. 11.a Classification of igneous rocks using SiO2 and trace elements

Fig. 11.b Bivariate plot of Al2O3 (in %) vs TiO2 (in %) showing veins (circles and triangle) distinct from higher values of gabbro (squares). Suggest that TiO2 and Al2O3 were unequally diluted by vein formation.

Fig. 11.c Bivariate plot of Pd (in ppb) vs V (in ppm) showing distinct lower values for both in veins compared to gabbro (symbols as above), ie the veins have a diluted gabbro component.

Fig. 11.d Bivariate plot of Fe as reported by aqua regia analysis (in %) vs total Fe2O3 as reported by whole rock analyses. Shows abrupt increase of soluble iron, interpreted to reflect influx of pyrite or similar soluble iron bearing sulphides.

Unaltered gabbro is widespread in the sill and relatively fresh (Fig. 11b). It appears to contain about 10-20 ppb Pd, which is about the same value as Karmutsen basalts return on a regional basis (Fig 11c).

Altered gabbro shows alteration of lower greenschist regional grade, or propylitic alteration if it is hydrothermal. Chlorite, actinolite, zoisite, and act as alteration of the darker silicates, clay, albite, saussurite and fine actinolite needles variously affect the plagioclase laths, and leucoxene has largely replaced ilmenite. Subophitic textures persist even though plagioclase has been transformed to clay in the most altered rocks. Fig 11b shows that Al2O3 and TiO2 are relatively constant in the gabbro, but that they are diluted by the veins. Similarly, Pd and V show that the dilution affects them too (Fig 11c). On the other hand it would appear that pyrite has been added to the gabbro (Fig 11d). Gold on the other hand is clearly associated with veining, (see fig 12 a) which in effect, dilutes the original PGE values.

It is clear that the gabbro has been locally faulted, but only some fault zones have been mineralized. Note on the figures shown above that the polymetallic vein samples (circles) and the carbonate vein sample (triangle) contain very different elemental compositions.

Vein materials are a mixture of new minerals, such as chlorite, actinolite, epidote, quartz, sphalerite, pyrite and chalcopyrite, partially replacing gouge and cataclastically broken country rock. The addition of material in the veins is suggested by reference to Figs 11 and 12.

Quartz veining is late in history of veining and local vuggy segments have been located.

Alteration adjacent to the mineralized veins is quite pervasive but very local. The alteration envelope is very narrow, not exceeding a few meters. Further from the veins it is very difficult to distinguish weak propylytic alteration from the incomplete low grade regional metamorphism that has affected area.

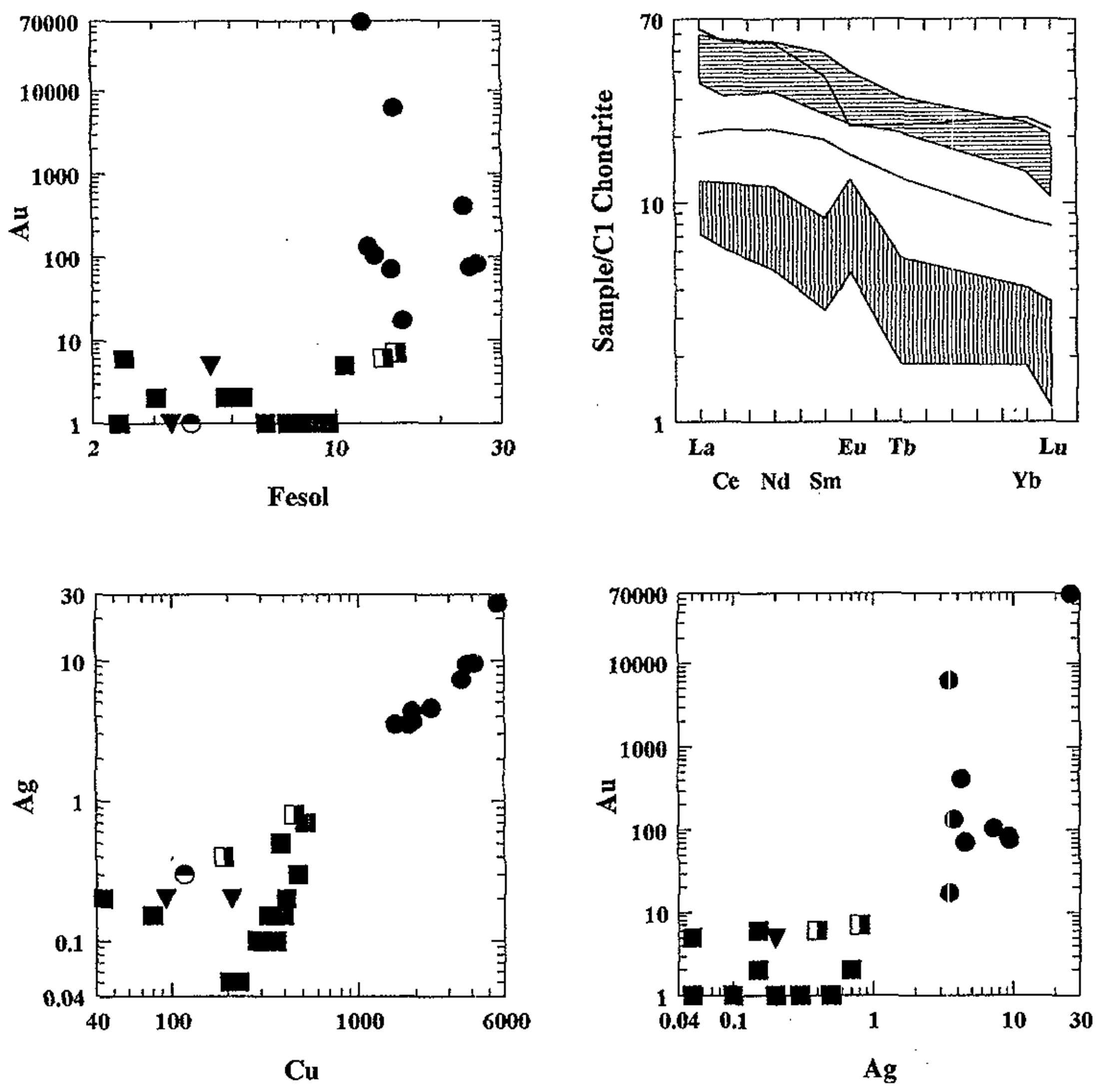


Fig. 12.a Bivariate plot Fe as reported by aqua regia analysis (in %) vs Au reported from Fire Analysis in ppb. Note that Au increases as Fesol passes a threshold. This threshold is thought to reflect influx of Au mineralized pyrite. (Symbols as on previous page, veins circles and triangle, gabbro squares, half square tuff)

Fig. 12.b Plot of Rare Earth Elements normalized agains C1 Chondrite to show the **distinction between vein system and host gabbro. The vein contain less REE than the gabbro, and the Eu is enhanced in the vein system, suggesting a paragenesis from a hydrothermal system, rather than a local re-organization of elements.**

Fig. 12.c Bivariate plot of Ag (in ppm) vs Cu (in ppm), showing that veins are distinct from the host gabbros.

Fig. 12.d Bivariate plot of Ag (in ppm) vs Au (in ppb), showing that veins are distinct from the host gabbros. The plots on this page strongly suggest that Cu-Ag-Au rich veins were introduced into the gabbro from an external source.

The contrast in content of interesting metals between un-mineralized and mineralized rock is considerable and lead to notion that polymetallic veins have been introduced and not recycled. Fig 11d shows the increase in total iron and the concomitant increase in soluble iron. Of interest is the essentially iron rich gabbro, enhanced by the influx of more soluble iron (interpreted to be mainly in the form of pyrite). In fig 12b the rare earths of the country rocks are contrasted with the contents from a carbonate veined rock and the polymetallic veins themselves. With the carbonate veined rock the REE pattern shows mainly a dilution of the country rock pattern. In the case of the polymetallic veins it is clear that a Eu rich component is present in the veins, and is not in the host gabbros or chert. Such Eu anomalies are usually associated with hydrothermal veins. Fig 12c shows how Cu and Ag are co-related. The change in Ag/Cu for the most silver rich sample may indicate a change in solutions, but more data is needed to come to any conclusions.

Weathering, or related supergene processes may have played a large part in the upgrading of the Au values. Reference to fig 12d shows that Ag and Au values in the polymetallic are generally about Ag about 4 ppm and Au about 100ppb. The enriched gold samples were collected nearer the weathering interface than the polymetallic vein. It may be that late percolating waters leached the sulphides away leaving Au enriched, as a chemical lag deposit. This explanation accounts for the initial location, the difficulty in repeating the higher Au values by repeated sampling, the different Au/Ag ratio of polymetallic veins compared to the enriched samples (fig. 12d), and the widespread presence of iron hydroxides in the enriched samples. It does not explain the larger Ag/Cu of fig 12c.

The weathering explanation does not help to predict the potential for a large gold enriched mineralized showing in this area. However, if the solutions are epithermal, rather than supergene, then the potential increases yet again. Clearly a resolution to this conundrum would be useful.

5.7 Petrophysical results (Appendix B)

Magnetic susceptibility measurements show that unaltered gabbro carries magnetic minerals such as magnetite. Altered gabbro and vein materials carry substantially less. The magnetite has presumably been altered by the passage of metal bearing hydrothermal fluids. It is concluded that a magnetic survey would possibly show locations of veins and fractures (magnetic lows) under the till cover. However the magnetic contrast is not large and details would be filtered by a substantial till fill in the valley.

5.8 Interpretations:

The results are subject to restrictions:

Some gold concentrations are almost certainly associated with weathering. Pyrite, the accompanying elements is not known. It is possible that the some elevated values of gold are due to, in part, gold remaining behind after sulphide has dissolved. Hence sampling using a different strategy may achieve different results. On the other hand, alternative possibilities have not been ruled out.

The mineralization, is of two types:

I/ Early, green, poly-metallic, epidote-chlorite-sulphide vein with irregular pods of quartz, and tens of cm wide, replacing a fault zone cutting a gabbro sill. Sphalerite, chalcopyrite and pyrite are common sulphides, but analyses suggest molybdenite and galena are present in small measure as well.

II/ A later, thin, white weathering, apparently cross cutting, quartz-sulphide vein assemblage with local Au concentration. Seems to carry best gold values near the earlier veins.

III/ Later thin carbonate veins crosscut the above and are not mineralized.

5.9/ Conclusions:

The work has indicated the possibility that polymetallic veins in gabbro sills may be mineralized with Cu, Ag, and Au. Weathering, or, less likely, later epithermal veining, has upgraded local Au values.

The possibility of precious platinum elements being enriched in these veins is very low, in fact, the Pd concentrations of the gabbro are lowered as the veining becomes more important.

Whether the polymetallic veins have extensive lateral continuity is not yet known. At any rate, although they have been found in neighbouring rocks outside the claim group as well, they are not currently known to be located in any large cluster and will require considerable prospecting effort to locate. The richer gold bearing veins are presumably near these polymetallic veins.

Widespread alteration is difficult to distinguish from that expected in a regional metamorphism; local, intense, alteration is restricted to close proximity to the veins.

The targets for further exploration will have to be the veins, and whatever geochemical trace they leave, themselves.

6.0 Future work

A/ Future work should concentrate on finding more anomalous areas of precious metals. The irregular distribution of gold seen to date is capable of both positive (tremendous potential) and negative (hard to find) interpretations.

In particular, it is felt that several larger samples (1kg each) of the "green vein" be tested using "metallics" fire assay to see if the gold is present in sufficiently anomalous amounts in larger samples.

B/ It is assumed that the ice traveled north, down the valley, and that surfaces, such as the faults that parallel the valley, i.e. the fault with the green vein, were plucked by glacial action, so that a down ice trail of metal, including gold, anomalies would be expected.

A geochemical or bio-geochemical survey could sample in the clear-cut area, but heavy till overburden will require special procedures be implemented to properly test the deeply covered majority of the claims. Augering through the hard till may be a feasible technique to test the underlying bedrock. A small pilot project would be advisable to examine the efficacy of several methods before covering the claims with samples. A small set of till samples collected along the roads and at right angles, some 100 200 and 400 m down ice would show whether the vein cast a down ice gold trail and whether the effort would be worthwhile. The expected target(s) of a larger survey would be mineralized veins adjacent to the one located.

C/ A few drill holes across the anomalous veins would best indicate the unweathered extent of the anomaly.

D/ This work, outlined in a general way above, will require more funds than are currently available to the owner. An option agreement is sought.

7.0 References

Anon, 2002

RGS23, NTS092L/102I, BCGS, available at BCGS website

--/--

MapPlace, available at BCGS website

Bradshaw, P.M.D., 1994

Assessment Report; Maquilla Property; BC Gov., Geological Branch Assessment Report 23546.

Massey, N.W.D., compiler, with Desjardin and Grunsky, 1994,

Vancouver Island Digital Geology, BCGS OF 1994-6

Muller, J.E., Northcote, K.E., and Carlisle, D. 1974

Geology and mineral deposits of Alert-Cape Scott map-area, Vancouver Island, BC;Geological Survey of Canada, Paper 74-8, 77pg., 1 map, 1:250000.

Schau, Mikkel, 2001

Prospector's Report on PAP2000-95, unpublished manuscript lodged with BCGS

Schau, Mikkel, 2002

Prospector's Report on PAP2001-91, unpublished manuscript lodged with BCGS

8.0 Authour's qualifications:

I have been a rock hound, prospector and geologist for over 40 years. My mineral exploration experience has been with Shell, Texas Gulf Sulfur, Kennco, Geophoto, Cogema and, several mining juniors. I have worked 10 years in southern BC and spent 23 years with the GSC focused on mapping in northeastern Arctic Canada. For the last 6 years I have prospected and explored for PGEs in Nunavut, Nunavik and BC.

I reside at 1007 Barkway Terrace, Brentwood Bay, BC, V8M 1A4

I am currently a BC Free Miner, # 142134, paid up until August 31, 2002.

During 2000 and 2001, I received Prospector's Assistance Program (PAP) grants to prospect on Vancouver Island.

My formal education is that of a geologist, I graduated with an honours BSc in 1964 and PhD in Geology in 1969, both, from UBC.

I am a P.Geol. licensed (L895) in Nunavut and NT, and, since mid October 2001, am a P.Geo. (25977) in BC.

I am sole owner of the claims in question.

I have affixed my stamp to this document on the table of content and on my statement of qualifications.

9.0 Itemized Cost Statement

Wages:		
Mikkel Schau, prospector		
3 days x 250 (November 18, 2000; June 16, 2001; July 26, 2001;)	750	
Mikkel Schau, P.Geo., geologist		
mapping 1 day x 400 (October 21, 2001)	400	
Alec Tebbutt, contract helper		
2 day x 100 (June 16, October 21, 2001)	200	
also two volunteers, no wages		
TOTAL Wages		*$1350*
Food and Accommodation:		
8 persondays, @$60.		
Total Food and accommodation		*$ 480*
Transportation:		
From Brentwood Bay to claims, and local transportation		
4100@.38/km+8 Mill Bay ferry trips		*$1720*
Freight		
(to ACME (6 sets of rocks to be assayed sent @15)		
(To Vancouver Petrographics, $15)		
Total		*$ 105*
Analyses:		
Nov 24, 2000, A004304R, 2 check assays ($ 37.70)		
Dec23, 2000, A004894, 4 geo4, ($ 84.60)		
Dec23, 2000, A004983, 2 geo4,2 4A,B ($112.50)		
July 9, 2001, A101911, 4 geo4 ($82.60)		
July 26, 2001, A101911R2, 3 checks ($ 29.97)		
Aug 20, 2001, A102490, 13 geo4,8 4AB ($556.25)		
Oct 19, 2001, A103508, 1 geo4 ($ 22.00)		
Nov08, 2001, A103803, 5 geo4, 1 4AB ($131.60)		
8 diskettes +$12		
total	$1069.22	
+GST @ 7%		*$1144.06*

Thin section preparation

Vancouver Petrographics (parts of two shipments)

1 large thin section	$50
10 thin sections	$140
Offcuts and polished slabs	$135.50

Shipping	$ 15		
Total		340.50	
Total with GST @ 7%			*$364.34*
Petrographic reports 10@$110/thinsection /inc GST			*$1100*
Magnetic susceptibility measurements@$5/station /inc GST			*$ 100*
Map preparation and digitizing (4hrs@50/hr)			*$200*
Photocopies of maps, assesment reports, staking maps			*$20*
Exploration supplies, sample bags, hip chain coils etc			*$56*
Data-basing, Plotting, and Drafting(4 hrs @50/hr)			*$200*
Report preparation(10hrs@$50)			*$500*
Copies, binding 3 copies,			*$15*
Telephone (portion of Sat phone rental)			*$45.81*
Total project cost			**$ 7400.21**

APPENDIX A Rock Descriptions and partial analysis

Nov 23, 2000 (A004304R), check assays for original find
SL 130C1(assay Au=61.04ppm, Ag=15.3ppm, Au/Ag 4:1)
rusty veined altered
gabbro

SL 130B(assay Au=5.24ppm, Ag=2.1ppm, Au/Ag 2:1)
rusty veined altered
gabbro with opagues
largely replaced by
pyrite

STATION kind, type, description	all in zone 10 UTME UTMN	ppb PD	PT	ppm AU	AG	CU
Dec 21, 2000, (A004893)						
187862=SL129B,WR* dark fresh gabbro	696717, 555471	4	4	25	na	174
187863=SL130A,WR* dark fresh gabbro	696717, 555471	3	<2	16	na	266
Dec 12, 2000 (A004894)						
187864=SL128A carbonate veins, very few pyrite veins in rusty gabbro	696717, 555471	2	2	32	<.3	401
Soils above showing 187865=SL130X-1 oxidized talus	696717, 555471	9	5	32	<.3	301
187866=SL130X-2 soil above showing oxidized (B?)	696717, 555471	2	3	15	<.3	87
187867=SL130X-3 soil above showing oxidized (B?)	696717, 555471	6	3	14	<.3	102

July 9, 2001 A101911

E187886 ,696684 ,5554791, ,16 ,4 ,70 ,4.6 ,2476
010616-147L
lower part of quartz-
sulphide vein fragment
1 cm wide 5 cm by 3 cm

E187887 ,696684 ,5554791, ,9 ,3 ,**134** ,3.8 ,1958
010616-147M
middle part of quartz-
sphalerite pyrite vein
fragment
4 cm wide 4 cm by 3cm

E187888 ,696684 ,5554791, ,14 ,< 2, **103** ,**7.3** ,3507
010616-147U
upper part of quartz-
chlorite-pyrite vein
fragment
7 cm wide 4 cm by 1cm

E187894 ,696661 ,5554944, ,19 ,< 2, 2 ,< .3 ,329
010616-146B
near northern
edge of claims,
outcrop, feldspar-
phyric gabbro

A101911R2 check assays for Au
E187886 ,696684 ,5554791,
E187886 wp147Al, see above, Au=.08 gm/mt
lower part of quartz
vein fragment fault
zone in gabbro
1 cm wide 5 cm

E187887 ,696684 ,5554791,
E187887 wp147Am, see above, **Au=.14 gm/mt**
middle part of quartz
vein fragment fault
zone in gabbro
4 cm wide 4 cm

E187888 ,696684 ,5554791,

E187888 wp147Au, see above, **Au=.12 gm/mt**
upper part of quartz
vein fragment in
fault zone in gabbro
7 cm wide 4 cm by 1cm

*A102490 Aug 20,01: all=1DX, *= 4A, 4B*

010726-002A,WR* ,696684 ,5554791, 24 ,5 .<2 , .1 ,362
gabbro with thin
white quartz veins

010726-002B , 696684 ,5554791, ,24 ,2 ,<2 ,.2 ,409
gabbro with thin
white quartz veins

010726-002B2, 696684 ,5554791, ,19 ,3 ,<2 ,<.1 ,230
gabbro with thin
white quartz veins

010726-003,WR*,TS,PCO 696684 ,5554791, ,20 ,<2 ,5 ,<.1 ,207
gabbro with thin
white quartz veins

010726-003A TS, PCO 696684 ,5554791 N/A
gabbro with thin
white quartz veins

010726-003-1,WR* 696684 ,5554791, ,18 ,<2 , <2 , .1 ,287
gabbro with thin
white quartz veins

010726-004A ,WR* 696683 ,5554793, ,9 ,2 ,76 **,9.6 ,4115**
green vein with pyrite
sphalerite, and chalcopyrite
set in chlorite, quartz, epidote,
and carbonate gangue

010726-004B ,WR*,TS,PCO 696683 ,5554793, ,3 ,<2 ,17 ,3.5 ,1852
010726-004B1 TS, PCO, 696683 ,5554793 N/A
green vein with pyrite
sphalerite, and chalcopyrite
set in chlorite, quartz, epidote,
and carbonate gangue, local

quartz vugs in center

010726-005 , 696684 ,5554785, ,11 ,<2 ,5 ,.2 ,209
gabbro with thin
white quartz veins

010726-006,WR* , 696684 ,5554791, ,7 ,<2 ,<2 ,.2 ,94
gabbro with thin
white carbonate veins

010726-007F,WR* , 696684 ,5554811, ,2 ,3 ,<2 ,.3 ,117
Cherty sediments
with thin pyrite veins

010726-007T,WR*,TS,PCO 696684 ,5554805, ,23 ,4 ,9 ,.3 ,476
sulphidic and rust
stained gabbro,
near contact with
tuffaceous chert.
TS shows contact.

010726-008 , 696684 ,5554796, ,22 ,4 ,2 ,.7 ,525
sulphidic and rust
stained gabbro,

010726-03w , 696684 ,5554791, ,24 ,1 ,1 ,0.5 ,389
gabbro with thin
white quartz veins

*A103538, Oct 18,01 1D, *=4A, 4B, 1DX*
B204410 ,696684 ,5554791 ,24 ,<2 , <2 ,0.5 ,389
010726-003
white veins with vuggy
cores and iron stained
epidote edges in altered
gabbro

*A103803 Nov 7,01 1D, *=4A, 4B, 1DX*
B204415 ,696689 ,5554763, ,20 ,5 ,6 ,0.4 ,191
011021-269A, old 131
broken fault zone
with small slickensided
fragments of gabbro set

in a matrix of pyrite chlorite and quartz, very loose, ie small fragments and much matrix								
B204416 011021-269A1, old 131 on Flan broken fault zone with small slickensided fragments of gabbro set in a matrix of pyrite chlorite and quartz, very loose, ie larger fragments and less matrix	,696689	,5554763,	,24	,4	,7		,0.8	,454
B204417 011021-268B ,old 130 on Flan, north vein, strikes northerly in fault zone; altered green stone with decimeter thick structure chlorite and epidote veins cut by quartz and sulphide veins and blebs. Sulphides include pyrite, sphalerite and chalcopyrite.	,696726	,5554962,	,1	,1	**,407**		,4.3	,1951
B204418 011021-268A, old 130 on Flan, center-vein, immediately below quartz vein 147, strikes northerly in fault zone; altered green stone with decimeter thick structure chlorite and epidote veins cut by quartz and sulphide veins and blebs. Sulphides include pyrite, sphalerite and chalcopyrite	,696726	,5554962	,1	,1	,82	**,9.5**	,3801	

B204419 ,696839 ,5554764, ,14 ,1 , 6 , 0.15 , 80
011021-270A, WR*
fg gb sill or less likely
, basic flow, from cliffs
above FLAN showing

Appendix B Magnetic Susceptibilities of selected locations:

What is magnetic suceptibility?

The magnetic susceptibility of a rock is a volume percent average of the magnetic susceptibility of its constituent minerals. The magnetic susceptibility of a mineral is a measure of how it responds to a magnetic field. The common rock-forming minerals are generally not particularly responsive. Minerals such as quartz and feldspar show dia-magnetic magnetism with negligible, negative, magnetic susceptibilities that do not contribute appreciably to the rock magnetism. Para-magnetic minerals such as olivine, pyroxene, amphibole, biotite and garnet, with weak, positive magnetic susceptibilities contribute a minor amount to rock magnetism. Finally, ferri-magnetic minerals such as magnetite and pyrrhotite show moderate to high complex magnetic susceptibilities and contribute largely to the overall rock magnetism. Consequently, magnetic susceptibility can be regarded as a crude measure of the volume of magnetite, and in special, usually self-evident, cases, pyrrhotite, in the rock.

Instrumentation:

All measurements were performed using a KT-9 magnetic susceptibility meter (manufactured by Exploranium Radiation Detection Systems). This instrument is capable of measuring magnetic susceptibilities in the range 0.01 x 10^3 to 999 x 10^3 (dimensionless SI units), which is adequate for all situations except those involving massive magnetite layers or masses. The unit was operated in "pin" mode to minimize errors introduced due to surface irregularities (Exploranium Radiation Detection Systems, KT-9 User's Guide).

Results: (in 10^{-3} SI units)

	Min	Med	Max	Range
SL 129 , 0696720, 5555011,				
greenish grey gabbro	0.98,	1.13,	1.68	0.7
rusty dk grey gabbro	0.96	1.02,	1.16,	0.2
gabbro with qz veins		1.16		
SL 130 , 0696717, 5554827	1.01	1.19	1.47	0.46
gabbro , various sites on fault surface (N=11)				
010616-147, 0696684, 5554791,				
Mineralized Veins	0.46		.89	.43
gabbro host on either side of vein	1.03	1.81	2.82,	1.79

010616-148, 0696676, 5554761	0.47,	.63	0.81,	.34
010616-149, 0696678, 5554717 old 131, fine grained gabbro with weathered altered feldspar, and several sets of thin unmineralized quartz veins	0.51,	.55	0.67	.16
011021-270, 0696839, 5554764, Gabbro at top of hill, and eastern edge, of claims. Fine grained and massive, several sites	1.03,	**1.25**,	*2.65*	*1.6*

Summary statement:

The magnetic susceptibility of units measured from 20 sites (and 60 measurements) is summarized below:

Gabbros are	about 1.2
altered gabbros are	about 0.6
Veins are	about 0.6

(No difference between mineralized and non mineralized veins)

Magnetite content of unaltered samples is estimated to be about 5% by volume, as estimated from chemical analysis. This would seem to correspond with a reading of about 1.2 x10^{-3} SI Units

Application to other geophysical methods:

The results indicate that, on the scale of the claims, the extent of "fresh" gabbro bodies would be shown on magnetic maps as a mildly positive area, (as opposed to the expected lower values in the cherty country rock (expected to be about .1 x10^{-3} SI units), and that faults traversing them, with or without veins, would show as linear magnetic lows.

In a more regional sense, Karmutsen volcanic rocks may possibly be confused from the standpoint of magnetic response, with the gabbro, but the adjacent granitic bodies of west Schoen creek would be easily distinguishable from the gabbro, because of the low magnetic susceptibility shown by these rocks, and from the regionally pervasive Jurassic magnetite bearing granodiorites, which are an order of magnitude more magnetic than the mafic units.

Appendix C Certificates of Analysis from ACME Labs

These samples were the basis for the showing and predate the staking:

A004304	1 4A,B for FLAN (SL129B) Nov 9,2000
	4 Geo4 for Flan (SL129A,B, 130,B,C) Nov 8, 2001

Note, analytical expenses claimed only for specimens indicated below whose certificate post date the staking(Nov 18, 2000):

parts of 8 batches:

*A004304R	2 check assays (sl130b,sl130c) Nov 20,2000
*A004894,	4 geo4 for FLAN, December 12, 2000
*A004893	2 geo4, 4AB for flan Dec 21,2000
*A101911,	4 Geo4 for FLAN July 9, 2001
*A101911R2	3 check assays for FLAN (187886,7,8),
*A102490,	13 geo4 (8 4AB) for FLAN,August 20, 2001
*A103538	1 geo4 for Flan, October 18, 2001(B204410)
*A103803	5 geo4, 1 4A,B for FLAN, Nov 08, 2001(B204415-..4419inc)

Total used:
29 Geo4 partial aqua regia digestion analysis
11 4A,B whole rock major and minor analyses
5 check analysis for gold

18 pages of certificates labelled 42-1 to 42-18 are included. Only a the samples mentioned in appendix A are considered in this report.

SAMPLE#	Mo %	Cu %	Ag** gm/mt	Au** gm/mt
SL105C1	.036	-	-	-
SL130B	-	-	2.1	5.24
SL130C	-	-	15.3	61.04
SL150E	-	2.154	-	-
RE SL150E	-	2.177	-	-

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML, ANALYSED BY ICP-ES.
AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
- SAMPLE TYPE: ROCK PULP Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: NOV 17 2000 DATE REPORT MAILED: Nov 23/00 SIGNED BY. C. L. D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data L FA ____

ACME AN ICAL LABORATORIES LTD. 852 E. HASTINGS ST. V OUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604 3-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Schau, Mikkel File # A004894

1007 Barkway Terrace, Brentwood Bay BC V8M 1A4 Submitted by: Mikkel Schau

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Pt** ppb	Pd** ppb
E 187852	2	1783	<3	22	1.2	9	25	330	5.58	7	10	<2	<2	22	<.2	<3	3	15	1.07	.012	2	12	.43	6	.09	<3	.51	.02	.02	4	17	<2	2
E 187853	3	694	<3	69	<.3	29	61	827	11.53	12	<8	<2	2	10	.6	<3	<3	234	.82	.199	8	12	1.84	105	.37	<3	3.54	.13	.90	4	11	<2	4
E 187854	6	144	4	102	<.3	23	18	631	5.32	2	<8	<2	2	16	<.2	4	5	202	.16	.019	6	31	1.31	588	.31	<3	2.79	.19	1.60	2	2	2	3
E 187855	<1	162	<3	76	<.3	81	32	772	5.45	4	<8	<2	<2	41	.2	4	<3	132	.91	.071	6	58	2.42	50	.34	3	2.79	.14	.04	2	3	3	16
E 187857	6	606	<3	13	<.3	5	428	208	33.23	15	<8	<2	<2	33	1.2	<3	<3	4	.50	.074	4	4	.26	15	.11	<3	.63	.04	.06	<2	43	4	3
E 187858	156	228	19	111	<.3	7	30	455	6.17	4	<8	<2	2	10	.5	3	<3	90	.88	.263	16	44	1.04	164	.21	<3	1.64	.10	.81	4	9	<2	3
E 187859	6	6	<3	12	<.3	14	2	493	.66	2	<8	<2	<2	2	<.2	<3	<3	6	.10	.018	8	27	.28	23	<.01	4	.31	.01	.04	5	<2	<2	2
E 187860	1	206	<3	76	<.3	90	32	711	5.84	2	<8	<2	<2	41	.2	<3	3	173	1.22	.068	7	22	1.96	149	.38	<3	2.90	.21	.10	<2	3	4	16
E 187861	5	255	<3	76	<.3	9	20	703	7.03	3	<8	<2	3	16	<.2	3	4	162	1.36	.297	16	10	1.13	195	.28	<3	2.23	.19	.65	3	4	<2	3
E 187864	1	401	<3	56	<.3	15	21	455	4.82	4	<8	<2	2	32	<.2	3	3	203	1.51	.140	10	7	.95	74	.27	<3	1.99	.24	.07	4	2	2	32
RE E 187864	1	393	<3	56	.3	15	22	446	4.74	6	<8	<2	2	32	<.2	3	<3	197	1.48	.138	10	10	.94	74	.27	<3	1.96	.24	.07	2	3	5	38
E 187865	1	301	4	157	<.3	55	46	1479	9.80	4	<8	<2	2	75	.9	<3	3	294	1.49	.109	9	14	3.11	26	.33	<3	4.49	.02	.01	4	9	5	32
E 187866	1	87	4	28	<.3	24	9	244	2.96	3	<8	<2	2	32	<.2	6	<3	93	.69	.044	5	58	.62	49	.21	<3	3.01	.11	.06	<2	2	3	15
E 187867	2	102	6	31	<.3	24	8	234	3.20	2	8	<2	3	23	<.2	5	<3	104	.57	.039	5	48	.61	50	.24	<3	3.83	.08	.04	3	6	3	14
STANDARD C3/FA-10R	25	62	34	169	5.1	39	12	759	3.42	61	25	2	24	30	22.3	21	24	77	.57	.092	19	175	.60	152	.09	25	1.80	.05	.19	18	481	465	489
STANDARD G-2	1	3	4	40	<.3	8	4	510	2.02	2	<8	<2	6	93	<.2	<3	3	36	.66	.099	8	79	.56	246	.12	<3	1.13	.16	.55	2	3	<2	2

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C AU** PT** PD** GROUP 3B BY FIRE ASSAY & ANALYSIS BY ICP-ES. (30 gm)
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: DEC 6 2000 DATE REPORT MAILED: Dec 12/00 SIGNED BY.............D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

Schau, Mikkel File # A004893
1007 Barkway Terrace, Brentwood Bay B[illegible] 1A4 Submitted by: Mikkel Schau

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Ni ppm	Sc ppm	LOI %	TOT/C %	TOT/S %	SUM %
E 187851	47.35	13.92	11.20	6.29	11.40	2.64	<.04	1.48	.11	.17	.034	67	202	36	4.6	.27	.04	99.25
E 187856	52.85	10.75	19.20	1.74	6.13	2.69	.54	2.47	.81	.21	.008	239	<20	28	1.4	.01	1.49	98.83
E 187862	48.88	12.70	16.67	5.57	9.01	2.28	.30	2.58	.23	.26	.006	226	62	40	.4	.01	.01	98.92
E 187863	49.19	12.64	15.86	6.09	8.72	2.60	.28	2.04	.19	.28	.008	204	70	40	1.2	.01	.27	99.14
RE E 187863	49.25	12.68	15.64	6.14	8.79	2.63	.30	2.07	.16	.28	.007	206	67	40	1.1	.01	.25	99.08
STANDARD SO-15/CSB	49.30	12.67	7.22	7.14	5.78	2.36	1.79	1.72	2.64	1.33	1.036	2069	81	13	5.9	2.43	5.30	99.13

GROUP 4A - 0.200 GM SAMPLE BY LIBO2 FUSION, ANALYSIS BY ICP-ES. LOI BY LOSS ON IGNITION.
TOTAL C & S BY LECO. (NOT INCLUDED IN THE SUM)
- SAMPLE TYPE: ROCK R150 60C
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: DEC 6 2000 **DATE REPORT MAILED:** Dec 21/00 **SIGNED BY**.......... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

4C-3

Data FA

SAMPLE#	Co ppm	Cs ppm	Ga ppm	Hf ppm	Nb ppm	Rb ppm	Sn ppm	Sr ppm	Ta ppm	Th ppm	Tl ppm	U ppm	V ppm	W ppm	Zr ppm	Y ppm	La ppm	Ce ppm	Pr ppm	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm
E 187851	39.7	.2	18.6	1.9	6.5	.7	1	408.8	.6	1.1	<.1	.2	289	2	72.2	21.3	6.1	14.5	2.19	11.2	3.2	1.22	3.47	.63	3.79	.74	2.26	.28	1.91	.29
E 187856	36.7	.6	26.1	12.8	38.1	15.0	2	276.5	3.0	4.3	<.1	1.4	22	7	450.6	102.8	39.8	94.7	13.82	67.9	19.0	5.06	17.14	3.24	19.06	3.67	11.07	1.36	8.78	1.33
E 187862	43.9	.3	20.5	4.1	12.9	5.4	2	244.6	1.1	1.6	<.1	.5	437	2	136.4	34.4	11.9	28.6	4.14	20.0	5.8	1.96	6.10	1.05	6.47	1.23	3.69	.44	2.89	.46
E 187863	48.9	.3	18.4	3.2	10.1	5.5	1	301.3	.8	1.2	<.1	.4	376	2	103.9	27.4	9.3	22.0	3.26	15.2	4.6	1.78	4.74	.82	4.96	.96	2.93	.37	2.35	.37
RE E 187863	47.9	.3	18.2	3.3	10.3	5.3	1	319.7	.8	1.1	<.1	.4	393	2	106.5	27.6	9.7	22.5	3.33	15.9	4.7	1.81	4.84	.84	5.11	.98	2.98	.39	2.42	.39
STANDARD SO-15	22.4	2.6	17.5	27.3	32.1	62.6	17	409.0	1.8	25.1	1.1	21.1	154	21	1029.3	24.3	30.1	59.4	6.18	24.1	4.5	1.00	3.94	.63	3.86	.75	2.54	.35	2.52	.41

GROUP 4B - REE - LiBO2 FUSION, ICP/MS FINISHED.
- SAMPLE TYPE: ROCK R150 60C
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: DEC 6 2000 DATE REPORT MAILED: Dec 21/00 SIGNED BY. D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

 Data ___ FA ___

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Schau, Mikkel File # A004893 (b)

1007 Barkway Terrace, Brentwood Bay BC V8M 1A4 Submitted by: Mikkel Schau

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	As ppm	Cd ppm	Sb ppm	Bi ppm	Au** ppb	Pt** ppb	Pd** ppb
E 187851	1	161	<3	69	65	4	.2	<.5	<.5	6	5	17
E 187856	4	652	<3	48	2	2	<.2	<.5	<.5	12	<2	3
E 187862	1	174	<3	32	12	<2	<.2	<.5	<.5	4	4	25
E 187863	3	266	<3	44	24	<2	.2	<.5	<.5	3	<2	16
RE E 187863	3	264	<3	45	25	<2	.2	<.5	<.5	-	-	-
STANDARD C3	27	67	34	172	36	58	24.4	16.4	22.9	481	465	487
STANDARD G-2	2	3	<3	45	8	<2	<.2	<.5	<.5	-	-	-

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C AU** PT** PD** BY FIRE ASSAY & ANALYSIS BY ICP-ES. (30 gm)
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: DEC 6 2000 DATE REPORT MAILED: Dec 21/00 SIGNED BY.......... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

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Data ___ FA ___

ACME AN[illegible]ICAL LABORATORIES LTD. 852 E. HASTINGS ST. V[illegible]OUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)[illegible]53-1716
(ISO [illegible]002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

[illegible] Mickel PROJECT NVI File # A101911

1007 Barkway Terrace, Brentwood Bay BC V8M 1[illegible] Submitted by: Mi[illegible]

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Pt** ppb	Pd** ppb
E 187874	2	17	<3	34	<.3	6	3	2362	6.00	8	<8	<2	<2	6	.4	<3	<3	63	7.14	.120	4	22	.19	3	.06	<3	1.20	.02	.01	4	2	3	4
E 187875	18	1318	<3	71	<.3	44	54	403	9.46	3	<8	<2	<2	7	<.2	<3	<3	384	.15	.049	2	72	3.11	41	.32	<3	2.81	.03	.71	<2	<2	<2	4
E 187876	2	49	4	30	<.3	7	4	1815	4.64	6	<8	<2	<2	8	.3	3	<3	46	5.55	.112	4	18	.20	4	.05	3	1.01	.01	.01	4	<2	<2	2
E 187877	4	84	4	50	.5	18	5	232	1.00	<2	11	<2	<2	482	1.1	3	<3	33	9.58	.073	7	9	.08	180	.10	10	5.58	.75	.09	2	5	3	4
E 187878	14	865	3	38	1.2	37	48	609	6.84	44	<8	<2	<2	32	.8	<3	<3	144	5.44	.116	7	8	.14	2	.12	<3	1.49	.01	.01	<2	<2	3	3
E 187879	12	7350	<3	212	6.5	193	129	1034	13.83	85	<8	<2	<2	1	4.6	5	<3	227	10.31	<.001	3	24	.08	8	.06	<3	1.11	.02	.02	<2	5	<2	5
E 187880	16	66405	4	486	68.6	85	157	880	18.00	131	<8	<2	<2	1	5.7	<3	<3	126	8.85	.021	2	13	.03	3	.02	<3	.71	.01	.02	<2	8	<2	12
E 187881	1153	2029	238	270	4.7	39	23	291	4.09	39	9	<2	<2	286	5.5	<3	13	306	6.51	.332	13	97	.13	1	.11	<3	2.94	<.01	.02	<2	5	3	10
E 187882	4	115	<3	13	.3	6	4	395	1.71	<2	<8	<2	<2	154	.2	<3	<3	100	8.57	.024	3	15	.31	3	.06	4	5.29	.02	.02	<2	<2	4	3
E 187883	3	185	3	52	<.3	10	16	145	3.30	15	<8	<2	<2	111	.8	<3	<3	64	1.61	.099	4	9	.44	20	.11	5	1.94	.21	.05	<2	5	<2	<2
E 187884	7	271	5	45	<.3	25	27	288	7.53	38	<8	<2	<2	29	<.2	<3	<3	149	.49	.104	6	14	1.18	41	.22	<3	1.91	.08	.07	<2	3	2	3
E 187885	2	99	<3	19	<.3	13	8	266	1.41	13	12	<2	2	467	.5	<3	3	31	8.72	.145	14	6	.08	180	.08	10	4.85	.09	.06	<2	<2	4	5
E 187886	113	2476	16	1699	4.6	37	85	1535	14.52	26	<8	<2	<2	63	12.7	<3	<3	266	.68	.048	4	10	1.89	14	.18	<3	3.53	.01	.01	<2	70	4	16
E 187887	46	1958	21	2034	3.8	21	115	875	12.38	103	<8	<2	<2	44	29.3	<3	4	114	.35	.011	2	10	.88	5	.06	<3	1.71	.01	.01	9	134	3	9
E 187888	51	3507	33	5489	7.3	25	105	916	12.97	80	<8	<2	<2	59	71.0	<3	3	139	.45	.008	2	8	.95	5	.05	<3	2.04	.01	.01	3	103	<2	14
RE E 187888	51	3505	31	5470	7.7	25	105	922	12.90	83	<8	<2	<2	59	71.8	<3	<3	140	.45	.008	2	11	.95	5	.04	<3	2.05	.01	.01	<2	103	<2	13
E 187889	2	3975	<3	27	2.2	12	3	142	1.26	<2	10	<2	<2	143	1.0	5	<3	83	3.12	.068	3	47	.10	3	.59	<3	.71	.01	.02	4	284	3	23
E 187890	2	780	202	96	1.6	2	16	844	5.94	40	<8	<2	5	55	.4	3	4	3	.80	.010	12	32	.13	14	.01	4	.77	.02	.19	2	30	2	3
E 187891	2	11	3	19	<.3	2	1	691	1.32	5	<8	<2	8	23	<.2	<3	<3	5	.37	.006	10	8	.12	49	.01	<3	1.04	.03	.10	2	<2	<2	<2
E 187892	3	66	<3	50	<.3	17	14	299	4.37	<2	<8	<2	<2	42	<.2	3	<3	154	.33	.063	5	52	1.39	68	.37	3	1.31	.08	1.07	<2	<2	<2	<2
E 187893	<1	191	<3	27	<.3	112	36	210	2.71	2	<8	<2	<2	25	<.2	4	4	65	1.69	.056	2	114	.85	8	.29	3	1.77	.17	.03	<2	<2	10	18
E 187894	<1	329	<3	39	<.3	24	13	313	3.05	3	9	<2	<2	50	<.2	4	<3	129	1.77	.091	7	24	.98	47	.16	3	1.97	.21	.04	<2	2	<2	19
E 187895	19	5774	6	108	6.5	5	28	576	4.52	2	8	<2	<2	53	.6	4	3	103	2.30	.039	6	17	1.43	3	.21	4	3.02	.03	.07	<2	7	<2	<2
E 187896	4	6351	5	73	9.1	5	21	454	3.38	<2	<8	<2	2	39	.7	<3	4	85	3.23	.028	6	20	.99	2	.15	3	2.85	.02	.02	<2	19	<2	<2
E 187897	1	94	33	141	<.3	24	16	1986	3.86	11	<8	<2	<2	8	<.2	<3	<3	39	.18	.072	9	29	1.25	98	.02	<3	1.91	.01	.11	<2	9	<2	3
E 187898	<1	1578	16	103	1.3	20	8	2609	6.77	5	<8	<2	<2	37	2.1	<3	3	92	10.22	.464	8	34	.34	3	.05	<3	1.73	.01	.01	7	2	2	<2
E 187899	24	216	33	354	1.6	79	23	199	5.35	5	<8	<2	<2	7	2.5	4	<3	108	.77	.094	4	82	.40	24	.27	<3	.48	.05	.18	<2	22	6	12
E 187900	<1	80	<3	56	<.3	55	25	533	3.90	<2	<8	<2	<2	160	<.2	6	<3	131	2.10	.077	2	76	1.71	2	.59	<3	2.50	.01	.01	<2	2	7	18
STANDARD C3/FA-10R	25	68	36	169	5.9	36	11	771	3.40	56	20	2	21	29	22.8	18	23	86	.57	.088	19	175	.63	153	.09	20	1.82	.05	.16	22	484	468	468
STANDARD G-2	1	4	3	43	<.3	7	4	529	2.03	<2	<8	<2	4	70	<.2	3	<3	44	.65	.093	8	80	.61	219	.14	3	.87	.07	.46	3	-	-	-

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C AU** PT** & PD** GROUP 3B BY FIRE ASSAY & ANALYSIS BY ICP-ES. (30 gm)
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUN 27 2001 **DATE REPORT MAILED:** July 9/01 **SIGNED BY** C. L[illegible] D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

 Data [illegible] FA [illegible]

ACME ANA[illegible]ICAL LABORATORIES LTD. 852 E. HASTINGS ST. V[illegible]COUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO[illegible]02 Accredited Co.)

ASSAY CER[illegible]IFICATE

Schau, Mikkel PROJECT NVI File # A101911R2
1007 Barkway Terrace, Brentwood Bay BC V8M 1A4 Submitted by: Mikkel Schau

SAMPLE#	Au** gm/mt
E 187886	.08
E 187887	.14
E 187888	.12
E 187889	.16
RE E 187889	.25
STANDARD AU-1	3.34

GROUP 6 - PRECIOUS METALS BY FIRE ASSAY FROM 1 A.T. SAMPLE, ANALYSIS BY ICP-ES.
- SAMPLE TYPE: ROCK PULP
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 13 2001 DATE REPORT MAILED: July 20/01 SIGNED BY C. L. D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

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Data FA YNG

ACME AN[illegible]TICAL LABORATORIES LTD. 852 E. HASTINGS ST. [illegible]COUVER BC V6A 1R6 PHONE(604)253-3158 FAX(60[illegible]3-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Schau, Mikkel File # A102490

1007 Barkway Terrace, Brentwood Bay BC V8M 1A4 Submitted by: Mikkel Schau

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm
010726-002A	.5	362	<2	122	.1	28	35	1148	8.60	1	<1	<2	1	75	.4	<.5	<.5	286
010726-002B	.5	409	<2	106	.2	25	33	1085	7.50	1	<1	<2	1	61	.3	<.5	<.5	276
010726-002B2	.6	230	<2	155	<.1	62	48	1457	9.48	1	<1	<2	1	61	.5	<.5	<.5	328
010726-003	.6	207	<2	160	<.1	70	54	1687	10.58	1	<1	<2	1	31	.5	<.5	<.5	369
010726-003-1	.6	287	<2	120	.1	30	36	1055	7.19	1	<1	<2	1	127	.5	<.5	<.5	271
010726-004A	81.2	4115	32	3386	9.6	19	187	958	24.40	29	<1	<2	1	29	49.5	<.5	1.0	111
010726-004B	172.8	1852	22	1221	3.5	12	96	1500	15.57	16	<1	<2	<1	42	21.9	<.5	<.5	144
010726-005	1.9	209	<2	58	.2	16	18	468	4.36	<1	<1	<2	<1	125	.4	1.2	<.5	172
010726-006	1.2	94	<2	47	.2	23	16	1116	3.34	2	<1	<2	<1	98	.2	.9	<.5	138
010726-007F	11.4	117	7	42	.3	32	5	121	3.80	8	<1	<2	2	10	<.2	<.5	<.5	51
010726-007T	1.4	476	3	29	.3	51	55	183	6.27	2	<1	<2	1	11	<.2	<.5	<.5	171
010726-008	.8	525	6	42	.7	76	67	326	5.37	4	<1	<2	<1	12	<.2	<.5	<.5	165
010726-176	.2	106	<2	3421	.1	67	4	1401	.57	11	4	<2	<1	92	59.3	1.1	<.5	401
010726-183	5.2	37	5	81	<.1	9	11	734	3.16	2	1	<2	1	76	.2	<.5	<.5	108
RE 010726-183	5.1	37	5	84	<.1	8	11	725	3.10	1	<1	<2	2	75	.2	<.5	<.5	105
010726-195	20.3	796	7	63	1.4	89	51	1370	10.65	31	5	<2	1	6	1.3	1.2	<.5	110
010726-203 skarn	.7	2321	<2	117	2.3	117	72	1398	13.64	20	9	<2	<1	4	1.7	.8	<.5	155
010726-203 marble	<.2	149	<2	14	.2	9	5	1134	4.85	21	3	<2	<1	274	.2	.9	<.5	3
010726-203-1	.8	2023	<2	87	2.3	197	241	1067	16.61	19	10	<2	<1	2	1.2	.7	.7	153
010726-214	<.2	1964	10	58	1.1	403	806	1168	25.58	62	4	<2	<1	2	<.2	<.5	1.2	50
010726-627	3.7	151	<2	34	.6	28	15	409	3.21	25	11	<2	5	327	1.2	.8	<.5	38
010726-627-1	3.3	115	<2	65	.5	18	9	394	1.83	10	2	<2	1	248	.7	2.2	<.5	43
STANDARD C3/FA-10R	27.2	65	33	177	6.4	37	12	838	3.50	56	25	<2	21	30	27.5	11.2	24.2	84
STANDARD G-2	1.6	9	2	46	<.1	8	4	568	2.08	1	2	<2	4	76	<.2	<.5	<.5	41

SAMPLE#	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Au** ppb	Pt** ppb	Pd** ppb
010726-002A	1.31	.095	8	11	2.27	46	.293	<1	3.53	.038	.02	<1	<1	17.9	2	<.02	16	<2	5	24
010726-002B	1.33	.101	9	9	2.18	29	.259	<1	3.35	.050	.02	<1	1	17.4	<1	<.02	16	<2	2	24
010726-002B2	1.00	.077	8	26	3.60	46	.239	<1	4.53	.030	<.01	<1	<1	28.0	3	<.02	19	<2	3	19
010726-003	.69	.077	7	30	4.29	48	.166	<1	4.94	.016	<.01	<1	<1	31.6	1	<.02	19	5	<2	20
010726-003-1	1.46	.089	8	17	2.13	30	.257	<1	3.36	.028	<.01	<1	<1	16.4	1	<.02	17	<2	<2	18
010726-004A	.34	.008	2	7	.77	7	.023	2	2.20	.006	<.01	16	<1	2.5	6	3.39	14	75	2	9
010726-004B	.59	.022	2	9	1.20	24	.057	<1	3.06	.005	<.01	6	<1	7.9	<1	1.60	16	17	<2	3
010726-005	5.07	.060	5	14	.92	14	.299	<1	4.14	.013	<.01	1	1	7.8	<1	.04	18	5	<2	11
010726-006	15.25	.030	3	15	.78	37	.207	1	4.19	.054	.03	<1	1	13.6	1	<.02	12	<2	<2	7
010726-007F	.71	.096	10	30	.31	106	.165	<1	.66	.051	.03	2	<1	3.3	<1	1.10	6	<2	3	2
010726-007T	.92	.087	3	51	.72	46	.424	<1	1.06	.110	.05	1	<1	8.5	<1	1.79	9	<2	4	23
010726-008	.90	.064	4	51	1.00	23	.475	<1	1.46	.118	.11	2	<1	7.4	1	2.23	12	2	4	22
010726-176	30.65	.027	5	29	.06	14	.018	1	.54	.004	<.01	<1	<1	1.9	<1	.19	2	<2	<2	<2
010726-183	1.56	.050	6	18	.96	275	.174	<1	2.05	.217	.09	2	<1	3.9	<1	.14	9	4	<2	4
RE 010726-183	1.49	.049	6	19	.94	269	.172	<1	2.02	.212	.09	2	1	3.8	<1	.14	9	<2	<2	<2
010726-195	11.16	.050	3	31	.06	12	.065	<1	1.85	.006	<.01	3	<1	4.4	4	1.87	5	<2	<2	2
010726-203 skarn	11.41	.010	2	31	.06	6	.076	<1	1.65	.002	<.01	4	<1	4.6	<1	2.86	4	<2	2	10
010726-203 marble	33.41	.004	2	2	.04	15	.001	<1	.16	.004	<.01	2	<1	.4	1	.28	2	4	3	<2
010726-203-1	8.91	.007	2	7	.04	5	.051	2	1.31	.002	<.01	3	<1	2.0	3	3.03	3	<2	4	18
010726-214	4.17	.024	4	19	.10	8	.047	5	.96	.002	<.01	2	<1	2.5	14	3.42	<1	37	4	33
010726-627	10.19	.328	29	8	.11	64	.089	4	4.42	.037	.06	<1	1	1.3	<1	1.76	8	<2	7	6
010726-627-1	11.32	.026	4	13	.15	141	.132	4	4.92	.038	.04	<1	1	1.6	<1	.86	10	2	<2	6
STANDARD C3/FA-10R	.62	.091	19	180	.63	157	.099	19	1.93	.044	.19	15	1	4.6	1	.02	10	480	473	484
STANDARD G-2	.69	.098	8	78	.61	218	.139	<1	1.00	.086	.55	2	<1	2.7	<1	<.02	6	-	-	-

GROUP 1DX - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY OPTIMA ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C AU** PT** PD** BY FIRE ASSAY & ANALYSIS BY ICP-ES. (30 gm)
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 31 2001 DATE REPORT MAILED: Aug 20/01 SIGNED BY: C. L... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

WHOLE ROCK ICP ANALYSIS

Schau, Mikkel File # A102490

1007 Barkway Terrace, Brentwood Bay BC V8M 1A4 Submitted by: Mikkel Schau

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Ni ppm	Sc ppm	LOI %	TOT/C %	TOT/S %	SUM %
010726-002A	47.20	13.58	17.09	5.25	6.52	2.33	.14	3.13	.26	.29	.003	81	52	34	4.0	.01	.02	99.81
010726-003	45.55	14.23	17.37	8.09	2.86	1.89	.06	2.68	.24	.22	.001	77	76	47	6.7	.03	.05	99.91
010726-003-1	47.93	13.58	16.48	4.80	8.08	1.53	.07	2.96	.24	.25	.001	52	52	34	3.8	.02	<.01	99.74
010726-004A	34.42	7.43	43.47	1.55	3.41	.08	<.02	.20	<.01	.14	.002	47	<20	2	8.7	.01	10.60	99.42
010726-004B	50.30	8.77	29.55	2.20	3.61	.08	.02	.60	.06	.20	.013	164	20	9	4.2	.03	2.65	99.63
010726-006	38.22	9.99	6.30	2.09	24.51	.27	.07	1.03	.08	.15	.002	63	21	19	17.2	3.62	.04	99.92
010726-007F	70.91	7.29	7.58	2.21	4.41	2.75	.99	.59	.23	.06	.005	2101	20	11	2.9	.19	1.26	100.16
010726-007T	47.92	14.27	13.02	4.25	5.77	4.99	.63	2.75	.22	.15	.015	2022	49	41	5.7	.08	2.10	99.93
010726-176	48.18	1.57	1.38	.82	46.36	.09	.03	.06	.08	.16	.006	27	83	3	.7	.35	.21	99.45
010726-183	62.37	15.04	5.54	2.42	4.93	3.55	2.99	.63	.12	.13	.003	1885	<20	15	2.1	.18	.16	100.04
RE 010726-183	62.30	15.06	5.54	2.41	4.94	3.59	2.78	.63	.13	.13	.001	1890	<20	15	2.1	.18	.17	99.83
010726-627-1	44.60	14.31	4.56	3.93	27.16	.24	.51	.87	.08	.13	.009	436	<20	21	3.4	.15	.99	99.85
STANDARD SO-16/CSB	58.12	10.93	11.01	5.52	.14	.34	6.27	.86	.26	.08	.009	847	38	11	3.6	2.41	5.35	97.24

GROUP 4A - 0.200 GM SAMPLE BY LIBO2 FUSION, ANALYSIS BY ICP-ES. LOI BY LOSS ON IGNITION.
TOTAL C & S BY LECO. (NOT INCLUDED IN THE SUM)
- SAMPLE TYPE: ROCK R150 60C
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 31 2001 DATE REPORT MAILED: Aug 20/01 SIGNED BY C.L. ...D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data ___ FA ___

ACME AN TICAL LABORATORIES LTD. 852 E. HASTINGS ST. COUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604 3-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Schau, Mikkel File # A102490
1007 Barkway Terrace, Brentwood Bay BC V8M 1A4 Submitted by: Mikkel Schau

SAMPLE#	Co ppm	Cs ppm	Ga ppm	Hf ppm	Nb ppm	Rb ppm	Sn ppm	Sr ppm	Ta ppm	Th ppm	Tl ppm	U ppm	V ppm	W ppm	Zr ppm	Y ppm
010726-002A	48.3	.2	24.4	4.7	15.4	2.2	2	332.7	1.0	.8	9.5	.6	527	3	162.7	37.0
010726-003	61.5	.2	23.3	4.5	13.2	1.4	2	194.8	.9	1.1	3.2	.5	487	2	145.0	28.7
010726-003-1	46.6	.2	27.5	5.0	14.4	1.0	2	541.9	1.0	1.4	1.6	.3	546	3	157.3	34.9
010726-004A	111.4	.1	23.2	<.5	1.8	<.5	<1	176.0	<.1	.3	1.0	.2	154	40	14.4	2.2
010726-004B	105.2	<.1	24.3	1.4	4.4	.6	1	192.0	.3	.2	.3	.7	183	31	36.4	6.8
010726-006	19.2	.6	15.1	1.8	4.8	2.3	<1	264.7	.4	.7	.3	.1	185	3	57.3	14.9
010726-007F	6.9	<.1	11.8	3.7	5.4	12.8	2	84.4	.4	3.4	.3	1.9	85	3	127.0	33.8
010726-007T	52.9	.1	21.5	4.6	11.5	11.5	2	226.0	.8	1.4	.1	.2	423	1	143.8	31.4
010726-176	5.0	<.1	2.4	.5	1.0	.5	<1	125.2	<.1	.4	<.1	4.5	627	<1	16.3	15.8
010726-183	14.1	.5	15.0	3.4	5.9	60.3	1	611.0	.4	4.4	.3	2.4	115	4	116.5	20.0
RE 010726-183	13.9	.5	14.9	3.3	5.8	58.5	1	595.5	.5	4.8	.2	1.8	110	4	115.8	19.6
010726-627-1	10.0	.7	15.4	2.8	6.5	12.3	1	712.6	.3	1.5	.2	4.7	255	2	89.6	17.3
STANDARD SO-16	408.7	5.8	16.0	6.5	21.7	244.9	4	53.8	1.9	28.1	.8	46.4	113	23	223.0	98.5

SAMPLE#	La ppm	Ce ppm	Pr ppm	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm
010726-002A	14.0	34.3	5.16	25.9	7.4	2.32	7.51	1.14	7.31	1.53	4.41	.51	3.92	.52
010726-003	10.4	26.6	3.95	20.6	5.6	1.51	5.73	.99	6.02	1.20	3.53	.42	3.20	.48
010726-003-1	12.9	32.3	4.80	23.9	7.2	2.10	7.11	1.13	7.19	1.39	4.33	.48	3.40	.51
010726-004A	1.7	3.8	.52	2.3	.5	.28	.63	.07	.48	.09	.27	<.05	.31	.03
010726-004B	3.0	7.5	1.04	5.5	1.3	.74	1.52	.21	1.51	.26	.80	.10	.70	.09
010726-006	4.9	13.1	1.80	10.0	3.0	.97	3.13	.49	2.78	.62	1.82	.20	1.42	.20
010726-007F	14.9	33.8	5.21	25.3	5.8	1.29	5.41	.84	5.62	1.26	4.09	.56	4.19	.55
010726-007T	10.8	26.9	4.17	20.5	6.4	2.01	6.56	.95	6.09	1.28	3.90	.43	3.09	.44
010726-176	5.5	6.4	1.38	6.4	1.4	.35	1.63	.27	1.73	.43	1.33	.15	1.25	.18
010726-183	14.7	30.7	3.79	16.7	4.1	.86	3.74	.52	3.82	.74	2.40	.32	2.71	.39
RE 010726-183	14.5	29.3	3.69	16.5	3.6	.85	3.19	.52	3.31	.75	2.46	.31	2.60	.33
010726-627-1	6.9	13.8	2.22	10.9	2.8	.80	2.71	.43	2.92	.60	2.00	.25	2.12	.28
STANDARD SO-16	59.6	127.6	15.57	65.6	18.1	2.47	16.03	2.50	15.62	3.27	9.82	1.27	9.78	1.29

GROUP 4B - REE - LiBO2 FUSION, ICP/MS FINISHED.
- SAMPLE TYPE: ROCK R150 60C
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 31 2001 DATE REPORT MAILED: Aug 20/01 SIGNED BY.......... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

 Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Schau, Mikkel File # A103538 Page 1

1007 Barkway Terrace, Brentwood Bay BC V8M 1A4 Submitted by: Mikkel Schau

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm
SI	<1	1	<3	2	<.3	1	<1	4	.03	<2	<8	<2	<2	3	<.2	<3	<3
B 204401 Torte	1	598	301	63	.7	40	31	291	5.62	6	<8	<2	<2	30	.3	<3	<3
B 204402 "	1	557	4	11	<.3	39	14	202	4.17	2	8	<2	<2	45	.2	<3	<3
B 204403 } Sicku	13	177	13	224	<.3	14	79	1848	23.58	45	<8	<2	<2	7	1.4	<3	4
B 204404	25	72	<3	319	<.3	17	65	2818	18.04	54	9	<2	<2	3	1.3	<3	4
B 204405	14	221	8	50	<.3	13	72	610	22.46	116	8	<2	<2	31	.7	<3	<3
B 204406 qz cont	2	176	3	25	.4	23	11	234	1.81	<2	<8	<2	<2	36	<.2	<3	<3
B 204407 Nit	2	27	5	63	<.3	22	26	656	3.64	2	12	<2	2	25	.2	<3	<3
B 204408 FP	2	12	3	18	<.3	6	7	255	1.81	<2	<8	<2	6	32	<.2	<3	<3
RE B 204408	2	11	5	18	<.3	7	7	259	1.85	<2	<8	<2	6	33	<.2	<3	<3
B 204409 biot	1	183	<3	18	<.3	17	12	295	1.52	<2	<8	<2	<2	16	<.2	<3	<3
B 204410 OZ Flow	2	389	<3	109	.5	54	45	1291	8.23	<2	<8	<2	<2	64	.4	<3	<3
B 204411 vein MC	<1	9	5	49	<.3	44	24	758	3.73	5	<8	<2	<2	110	.2	<3	<3
B 204412 vein MC	2	9	3	82	<.3	79	41	1127	7.02	9	<8	<2	2	45	.4	<3	<3
B 204413 vein MC	1	143	<3	45	<.3	44	22	661	3.56	5	<8	<2	<2	75	.2	<3	<3
B 204414 MIT	2	188	5	40	<.3	50	22	582	3.65	3	<8	<2	<2	57	.3	<3	<3
STANDARD DS3/FA-10R	9	129	36	160	<.3	35	13	835	3.24	32	<8	<2	4	29	5.8	5	7

SAMPLE#	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Pt** ppb	Pd** ppb
SI	<1	.14	<.001	<1	1	<.01	4	<.01	3	.01	.60	.01	<2	<2	<2	<2
B 204401	137	1.48	.209	7	37	.49	20	.34	<3	1.38	.16	.06	<2	3	<2	16
B 204402	93	1.56	.147	6	25	.54	31	.42	<3	1.72	.24	.06	<2	3	<2	14
B 204403	168	.15	.034	1	54	4.75	20	.08	<3	4.28	.02	.04	2	31	2	5
B 204404	213	.23	.068	2	36	7.17	12	.07	<3	6.69	.01	.02	4	14	<2	4
B 204405	52	.47	.010	3	42	1.29	14	.08	<3	1.45	.02	.04	<2	99	<2	4
B 204406	81	1.58	.084	6	28	.66	30	.29	<3	1.48	.18	.18	<2	3	3	18
B 204407	102	1.46	.121	12	33	1.69	31	.18	<3	2.24	.12	.15	<2	<2	4	5
B 204408	40	.88	.059	17	39	.60	46	.13	<3	1.27	.10	.23	<2	<2	<2	<2
RE B 204408	42	.89	.059	18	37	.60	47	.14	<3	1.29	.10	.24	<2	<2	<2	<2
B 204409	61	1.21	.117	5	46	1.29	133	.12	<3	1.05	.12	.40	<2	2	12	13
B 204410	336	1.26	.099	7	25	2.90	33	.33	5	4.08	.03	.03	2	<2	<2	24
B 204411	118	2.10	.172	8	104	2.15	40	.19	<3	2.96	.15	.16	<2	<2	<2	5
B 204412	226	1.26	.131	9	100	3.97	37	.26	3	4.61	.05	.07	<2	<2	<2	2
B 204413	117	1.50	.103	6	81	1.99	20	.16	4	3.05	.09	.08	<2	<2	2	3
B 204414	171	2.50	.106	6	69	2.11	12	.20	3	2.51	.43	.12	<2	<2	<2	4
STANDARD DS3/FA-10R	82	.55	.097	18	185	.61	145	.09	3	1.81	.04	.17	4	484	474	477

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: P1 ROCK P2 ROCK PULP AU** PT** PD** GROUP 3B BY FIRE ASSAY & ANALYSIS BY ICP-ES. (30 gm)
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

42-11

DATE RECEIVED: OCT 9 2001 DATE REPORT MAILED: Oct 18/01 SIGNED BY. C. Leong ... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

 Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

WHOLE ROCK ICP ANALYSIS

Schau, Mikkel File # A103538 Page 2
1007 Barkway Terrace, Brentwood Bay BC V8M 1A4 Submitted by: Mikkel Schau

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Ni ppm	Sc ppm	LOI %	TOT/C %	TOT/S %	SUM %
B 204401	48.79	12.88	14.59	4.75	9.55	2.29	.38	3.07	.45	.16	<.001	201	48	35	2.6	.06	2.19	99.54
B 204406 Gb	48.86	14.08	12.85	6.35	10.55	2.25	1.09	2.21	.16	.18	.012	197	82	37	1.3	.16	.02	99.93
B 204407 Mir	47.72	17.23	11.71	5.88	9.01	3.12	.98	.88	.28	.15	<.001	342	36	30	2.8	.04	<.01	99.81
B 204408	68.60	15.44	2.95	1.00	3.15	4.28	1.96	.35	.14	.03	<.001	853	20	4	1.8	.04	<.01	99.80
B 204409	49.70	13.25	10.08	10.20	10.45	2.56	.78	.69	.24	.18	.024	299	56	53	1.7	.06	.01	99.90
B 204414 Mir	49.19	16.21	10.04	6.89	8.67	4.12	.71	1.00	.24	.12	.016	249	90	36	2.5	.06	<.01	99.75
RE B 204414	48.63	16.09	9.96	6.80	8.55	4.10	.73	1.00	.23	.12	.017	250	99	36	2.4	.08	<.01	98.67
STANDARD SO-17/CSB	61.69	13.77	5.87	2.38	4.72	4.11	1.43	.64	.97	.51	.438	401	32	23	3.4	2.41	5.32	99.98

GROUP 4A - 0.200 GM SAMPLE BY LIBO2 FUSION, ANALYSIS BY ICP-ES. LOI BY LOSS ON IGNITION.
TOTAL C & S BY LECO. (NOT INCLUDED IN THE SUM)
- SAMPLE TYPE: P1 ROCK P2 ROCK PULP
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 9 2001 DATE REPORT MAILED: Oct 18/01 SIGNED BY C. Leong D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

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All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only. Data FA

ACME AN ICAL LABORATORIES LTD. 852 E. HASTINGS ST. OUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604 3-1716
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GEOCHEMICAL ANALYSIS CERTIFICATE

Schau, Mikkel File # A103538 Page 2 (a)
1007 Barkway Terrace, Brentwood Bay BC V8M 1A4 Submitted by: Mikkel Schau

SAMPLE#	Co ppm	Cs ppm	Ga ppm	Hf ppm	Nb ppm	Rb ppm	Sn ppm	Sr ppm	Ta ppm	Th ppm	Tl ppm	U ppm	V ppm	W ppm	Zr ppm	Y ppm	La ppm	Ce ppm	Pr ppm	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm
B 204401	40.0	.2	24.0	6.0	21.4	5.8	2	288.4	1.3	1.8	.5	.9	366	3	213.0	47.2	23.6	51.7	7.10	37.0	9.8	3.13	10.13	1.53	9.33	1.81	4.64	.68	4.12	.56
B 204406	44.5	.8	20.8	3.0	10.0	27.1	2	311.2	.5	1.3	.3	.3	395	<1	110.7	28.3	10.4	23.5	3.23	17.3	4.9	1.75	5.55	.89	5.26	.99	2.64	.41	2.27	.36
B 204407	43.9	.9	18.5	2.4	3.8	22.7	2	454.6	.1	3.2	.1	2.3	267	<1	73.7	20.5	17.8	35.1	4.42	20.9	5.2	1.64	4.63	.73	4.07	.71	2.04	.32	2.05	.26
B 204408	5.8	.9	14.7	3.0	12.5	44.6	6	490.9	1.0	7.7	.5	2.0	42	2	104.9	8.1	28.5	43.0	3.95	14.3	2.0	.70	1.77	.21	1.35	.25	.72	.13	.79	.13
B 204409	41.5	.7	12.6	1.1	1.9	16.0	5	287.1	.1	1.5	.1	.8	293	<1	41.3	17.6	14.2	27.1	3.17	14.7	3.5	1.24	3.87	.57	3.43	.64	1.59	.23	1.64	.21
B 204414	38.6	.6	15.1	1.9	5.6	15.8	14	578.5	.3	1.1	.4	.4	308	<1	57.8	20.2	12.5	25.2	2.90	14.1	3.6	1.32	4.04	.62	3.71	.71	1.90	.29	1.71	.23
RE B 204414	38.5	.6	15.8	1.6	5.4	15.2	15	576.5	.3	1.3	.4	.7	305	<1	56.4	19.7	12.6	24.3	2.91	13.4	3.8	1.26	3.40	.61	3.40	.71	2.01	.28	1.75	.25
STANDARD SO-17	18.7	3.7	19.1	12.3	24.2	24.1	11	311.0	4.1	10.9	.3	12.5	122	11	350.3	26.7	11.6	23.7	2.86	13.7	3.2	1.08	3.87	.64	4.35	.91	2.81	.44	2.76	.44

GROUP 4B - REE - LiBO2 FUSION, ICP/MS FINISHED.
- SAMPLE TYPE: P1 ROCK P2 ROCK PULP
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 9 2001 DATE REPORT MAILED: Oct 18/01 SIGNED BY.......... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

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ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
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GEOCHEMICAL ANALYSIS CERTIFICATE

Schau, Mikkel File # A103538 Page 2 (b)
1007 Barkway Terrace, Brentwood Bay BC V8M 1A4 Submitted by: Mikkel Schau

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	As ppm	Cd ppm	Sb ppm	Bi ppm	Ag ppm
B 204401	1.4	542	290	65	42	5	.2	1.8	<.5	.5
B 204406	.9	165	2	24	23	1	<.2	<.5	<.5	<.5
B 204407	1.0	21	4	56	21	1	<.2	<.5	<.5	<.5
B 204408	1.1	10	4	17	6	1	<.2	<.5	<.5	<.5
B 204409	.7	165	<2	16	17	<1	<.2	<.5	<.5	<.5
B 204414	.3	167	2	37	48	2	<.2	<.5	<.5	<.5
RE B 204414	.2	161	2	36	49	3	<.2	<.5	<.5	<.5
STANDARD DS3	8.9	127	34	155	37	30	5.5	4.6	5.5	<.5

GROUP 1DX - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: P1 ROCK P2 ROCK PULP Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 9 2001 DATE REPORT MAILED: Oct 18/01 SIGNED BY. C.L. D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

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Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Schau, Mikkel File # A103803 Page 1

1007 Barkway Terrace, Brentwood Bay BC V8M 1A4 Submitted by: Mikkel Schau

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Pt** ppb	Pd** ppb
SI	<1	1	<3	1	<.3	1	<1	5	.04	<2	<8	<2	<2	2	<.2	<3	<3	<1	.08	<.001	<1	2	<.01	2	<.01	<3	.01	.39	<.01	<2	<2	<2	<2
B 204415	1	191	<3	209	.4	27	36	3850	13.66	20	<8	<2	<2	1	2.1	<3	<3	484	.32	.099	6	13	3.16	9	.15	<3	5.84	.01	.01	<2	6	5	20
B 204416	3	454	<3	192	.8	55	57	3708	14.89	33	<8	<2	<2	2	1.9	<3	<3	475	.34	.101	8	43	2.97	40	.16	<3	5.63	.01	.01	2	7	4	24
B 204417	141	1956	55	479	4.3	24	183	1097	23.25	76	<8	<2	<2	26	6.1	<3	<3	100	.33	.011	2	6	.85	15	.02	<3	2.26	.01	.02	6	407	<2	<2
B 204418	101	3801	62	5566	9.5	32	221	1044	25.45	59	<8	<2	<2	18	62.3	<3	<3	108	.21	.005	2	3	.79	9	.02	<3	2.04	.01	.02	9	82	<2	<2
B 204419	2	80	4	39	<.3	22	14	357	2.47	<2	<8	<2	<2	61	<.2	<3	<3	116	1.85	.068	3	20	.82	42	.15	4	2.04	.34	.10	2	6	<2	14
B 204420	<1	818	4	113	.3	74	43	1226	7.03	<2	<8	<2	<2	28	1.4	<3	<3	272	1.24	.072	4	118	3.18	6	.49	<3	3.53	.03	.02	2	5	4	32
RE B 204420	<1	831	3	113	.3	77	44	1249	7.18	<2	<8	<2	<2	28	1.3	<3	<3	275	1.26	.071	3	118	3.25	6	.49	<3	3.60	.03	.02	2	6	5	32
B 204421	3	402	<3	48	.4	26	15	455	2.91	<2	<8	<2	<2	7	.2	<3	<3	112	.34	.030	1	52	1.16	5	.24	<3	1.15	.03	.01	2	5	<2	13
B 204422	5	45134	<3	119	23.9	43	18	636	7.78	12	<8	<2	<2	5	2.1	<3	<3	211	.27	.014	1	48	1.77	2	.18	<3	1.72	.03	.01	<2	107	10	118
B 204423	3	29462	<3	144	14.5	50	27	813	7.21	4	<8	<2	<2	13	1.7	<3	<3	239	.44	.028	2	54	2.16	8	.30	<3	2.30	.03	.03	<2	74	4	49
B 204424	1	313	<3	37	.3	30	18	343	3.73	<2	<8	<2	<2	66	.2	<3	<3	185	1.83	.092	5	23	1.07	11	.19	<3	2.37	.35	.05	3	4	<2	8
B 204425	<1	129	<3	58	<.3	496	64	1089	7.34	17	<8	<2	<2	32	1.1	<3	4	154	3.55	.019	1	1163	9.36	3	.21	16	6.75	.01	<.01	3	5	10	9
B 204426	2	73	<3	28	<.3	301	38	614	3.36	3	<8	<2	<2	27	<.2	<3	<3	59	2.66	.016	1	551	4.97	3	.10	11	2.58	.02	<.01	<2	6	8	8
B 204427	1	124	<3	40	<.3	559	60	860	5.32	8	<8	<2	<2	67	.8	<3	<3	114	4.45	.019	1	1158	5.76	8	.15	7	6.22	.38	.04	2	<2	4	8
B 204428	2	158	5	24	<.3	30	13	259	3.05	2	<8	<2	<2	72	<.2	<3	<3	143	1.43	.061	3	43	.81	7	.16	4	1.54	.24	.04	<2	4	7	11
STANDARD DS3/FA-10R	11	128	33	160	<.3	35	12	822	3.23	30	9	<2	4	27	5.9	5	6	80	.55	.097	18	185	.61	147	.09	3	1.78	.04	.17	4	485	482	474

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: P1 ROCK P2 ROCK PULP AU** PT** PD** GROUP 3B BY FIRE ASSAY & ANALYSIS BY ICP-ES. (30 gm)
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 26 2001 **DATE REPORT MAILED:** Nov 7/01 **SIGNED BY** ....D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
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WHOLE ROCK ICP ANALYSIS

Schau, Mikkel File # A103803 Page 2
1007 Barkway Terrace, Brentwood Bay BC V8M 1A4 Submitted by: Mikkel Schau

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Ni ppm	Sc ppm	LOI %	TOT/C %	TOT/S %	SUM %
B 204419	49.52	14.45	12.74	6.45	10.03	3.07	.29	1.84	.17	.19	.007	160	82	40	.9	.03	.01	99.69
B 204424	46.70	15.56	13.68	5.91	9.74	2.85	.08	2.46	.21	.18	.006	66	80	39	2.3	.04	<.01	99.70
B 204426	43.69	6.88	10.23	18.03	13.26	.24	.03	.44	.08	.30	.151	21	343	39	6.6	.47	.23	99.98
B 204427	42.53	14.94	9.67	12.88	9.86	.97	.18	.52	.08	.14	.179	30	501	46	7.8	.59	.09	99.83
B 204428	49.42	14.66	12.09	6.66	9.79	3.26	.08	1.78	.19	.17	.024	56	82	38	1.5	.03	<.01	99.64
RE B 204428	49.48	14.74	11.96	6.66	9.83	3.29	.04	1.77	.12	.17	.022	58	92	38	1.6	.03	<.01	99.71
STANDARD SO-17/CSB	61.09	14.10	5.93	2.37	4.74	4.10	1.43	.63	.95	.54	.447	407	35	24	3.4	2.40	5.30	99.78

GROUP 4A - 0.200 GM SAMPLE BY LIBO2 FUSION, ANALYSIS BY ICP-ES. LOI BY LOSS ON IGNITION.
TOTAL C & S BY LECO. (NOT INCLUDED IN THE SUM)
- SAMPLE TYPE: P1 ROCK P2 ROCK PULP
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 26 2001 **DATE REPORT MAILED:** Nov 7/01 **SIGNED BY** C. L....... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

42-16

Data L FA ____

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Schau, Mikkel File # A103803 Page 2 (a)

1007 Barkway Terrace, Brentwood Bay BC V8M 1A4 Submitted by: Mikkel Schau

SAMPLE#	Co ppm	Cs ppm	Ga ppm	Hf ppm	Nb ppm	Rb ppm	Sn ppm	Sr ppm	Ta ppm	Th ppm	Tl ppm	U ppm	V ppm	W ppm	Zr ppm	Y ppm	La ppm	Ce ppm	Pr ppm	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm
B 204419	43.4	.5	21.3	3.0	7.4	9.5	<1	278.1	.3	1.0	<.1	.2	403	1	93.2	27.9	8.4	18.9	2.56	14.9	3.9	1.32	4.89	.78	4.98	.94	2.72	.35	2.59	.27
B 204424	42.9	1.0	22.0	4.0	11.7	5.5	<1	365.1	.5	1.0	.1	.1	402	<1	127.4	33.9	10.5	24.3	3.45	19.6	5.2	1.66	6.38	.89	5.73	1.02	3.01	.46	3.18	.38
B 204426	50.7	.3	8.8	.6	.8	1.2	<1	58.6	<.1	<.1	<.1	<.1	216	<1	21.4	15.9	2.4	5.8	.54	3.6	.9	.46	1.67	.33	2.40	.56	1.67	.29	1.88	.23
B 204427	63.4	.8	13.3	.9	.9	5.1	<1	129.1	<.1	.1	.1	<.1	239	<1	25.4	17.6	1.5	5.4	.53	3.5	1.0	.44	1.72	.33	2.38	.58	1.85	.26	2.01	.30
B 204428	41.9	.2	18.5	2.4	8.0	3.6	<1	446.3	.4	.8	.1	<.1	326	<1	80.3	22.9	7.1	17.0	2.22	13.0	3.4	1.28	4.65	.69	4.11	.78	2.43	.34	2.11	.25
RE B 204428	42.4	.2	18.1	2.4	8.0	4.4	<1	469.6	.3	.5	.1	<.1	331	<1	83.7	24.2	7.3	17.4	2.36	13.6	3.7	1.19	4.76	.69	4.24	.84	2.31	.36	2.22	.27
STANDARD SO-17	18.7	3.5	19.9	11.9	24.6	21.4	8	301.0	4.6	12.1	.6	12.6	125	10	351.2	26.5	11.4	22.9	2.95	13.1	2.9	1.04	3.94	.63	3.99	.86	2.66	.38	2.87	.38

GROUP 4B - REE - LiBO2 FUSION, ICP/MS FINISHED.
- SAMPLE TYPE: P1 ROCK P2 ROCK PULP
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 26 2001 **DATE REPORT MAILED:** Nov 7/01 **SIGNED BY**.......... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

43-17

 Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Schau, Mikkel File # A103803 Page 2 (b)
1007 Barkway Terrace, Brentwood Bay BC V8M 1A4 Submitted by: Mikkel Schau

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	As ppm	Cd ppm	Sb ppm	Bi ppm	Ag ppm
B 204419	1.3	77	2	34	19	1	<.2	<.5	<.5	<.5
B 204424	.9	304	<2	48	27	1	<.2	<.5	<.5	<.5
B 204426	.6	68	<2	30	281	2	<.2	<.5	<.5	<.5
B 204427	.3	108	<2	42	460	1	<.2	<.5	<.5	<.5
B 204428	.9	155	2	26	28	<1	<.2	<.5	<.5	<.5
RE B 204428	.9	153	<2	27	27	<1	<.2	<.5	<.5	<.5
STANDARD DS3	10.6	131	35	155	36	32	5.8	5.4	5.9	<.5

GROUP 1DX - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: P1 ROCK P2 ROCK PULP Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 26 2001 DATE REPORT MAILED: Nov 7/01 SIGNED BY C. L.......D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

92-18

Data ✓ FA ____

Appendix D Petrographic Report

Catalogue:

SL128A, altered gabbro with minor veins

SL129B, altered gabbro

SL130A, altered gabbro

SL130B, veined and altered gabbro with sulphides

SL130C, heavily veined and faulted and altered gabbro with sulphides

003 altered and veined gabbro

003A veined cataclastic gabbro

004B mineralized vein

004B1 mineralized vein

007T altered gabbro in contact with tuffaceous chert

Sample Number: SL128A

Classification: Altered Gabbro with minor veining.

HAND SPECIMEN: Rusty weathering, dark grey, fine grained gabbro with schiller cleavages showing on some plagioclases.

THIN SECTION:

Mineralogy:

Major:

Plagioclase: 60%, laths, zoned from calcic cores to sodic rims, many about 4 mm in length, some are agglutinated,
Alteration: irregularly broken and veined by amphibole and chlorite, rimmed by zoisite, also Clay altered feldspars

Mafic: 35%, intergranular, mainly secondary alteration with relic clinopyroxene.
Alteration: Px replaced by chlorite, actinolite, few zoisite grains. Many mafic patches rimmed by blue green amphibole

Minor: about 5% Ilmenite/magnetite grains and laths among the mafic grains, local rimming alteration (leucoxene) and very fine grained in the intersertal patches

Texture: Subophitic to intergranular, typical of mafic sills.

Grain Size: Plagioclase laths are up to 4 mm in long direction, mafic regions about 4mm as well in dimension

Description of Texture: Plagioclase laths are arranged in a irregular framework, and the mafic, probably clinopyroxene crystallized somewhat later along with oxides, filling in the available space

Structure: locally cataclastic, fault contains chlorite, calcite and opague rusty dust

Alteration: chlorite, hornblende/actinolite, local carbonate

Veining: irregular chlorite carbonate veins, also quartz veins across local cataclastic fabric

Comment: This is a well preserved sill with minor faulting and low grade regional metamorphic imprint

Sample Number: SL129B,

Classification: Altered Gabbro

HAND SPECIMEN

Rusty weathering dark grey fine grained gabbro with few veins. Some plagioclase show schiller cleavage in proper light.

THIN SECTION DESCRIPTION

Mineralogy:

Major Plagioclase: 60%, laths often broken, zoned from calcic to sodic, many about 3 or 4 mm in length,

Alteration: minor albitization

Mafic: 35%, intergranular, mainly secondary amphibole with relic clinopyroxene cores

Alteration: much chlorite and actinolite replaces much of mafic minerals, some cores are of a twinned amphibole, these are also rimmed by chlorite and actinolite

Minor: about 5% Ilmenite/magnetite grains and laths up to a mm across, among the mafic grains, and very fine grained in the intersertal patches, small grains of pyrite.

Texture: Subophitic to intergranular, typical of mafic sills.

Grain Size: Plagioclase laths are up to 4 mm in long direction

Description of Texture: Plagioclase laths are arranged in a irregular framework, and the mafic, probably clinopyroxene crystallized somewhat later along with oxides, filling in the available space to form the subophitic texture.

Structure: massive, minor calcite veins

Veining: scarce

Comment: This is a well preserved sill with minor low grade regional metamorphic imprint

Sample Number: SL130A

Classification: Altered Gabbro

HAND SPECIMEN

Rusty weathering, dark grey, fine grained gabbro which shows schiller cleavage in feldspar.

THIN SECTION DESCRIPTION

Mineralogy:

Major Plagioclase: 60%, laths, zoned, many about 4 mm in length

Alteration: saussurite and albite

Mafic: 35%, intergranular, 2 mm across, mainly secondary amphibole with relic clinopyroxene cores

Alteration: Cpx altered to chlorite, epidote and amphibole/actinolite, some of the amphibole is polysynthically twinned.

Minor: "Ilmenite/magnetite grains and laths among the mafic grains, and very fine grained in the intersertal patches

Texture: Subophitic to intergranular, typical of mafic sills.

Grain Size: Plagioclase laths are up to 5 mm in long direction

Description of Texture: Plagioclase laths are arranged in a irregular framework, and the mafic, probably clinopyroxene crystallized somewhat later along with oxides, filling in the available space

Structure: massive, few veins

Veining: carbonate, clay and rust vein; en echelon chlorite filled veins. Late quartz veins

Comment: This is a well preserved sill with minor low grade regional metamorphic imprint

Sample Number: SL130B

Classification: Veined and altered Gabbro with sulphide replacing oxides

HAND SPECIMEN

Veined and altered gabbro with pyrite replacing iron-titanium oxide blebs.

THIN SECTION DESCRIPTION

Mineralogy:

Major Plagioclase: 60%, laths, zoned, many about 1 mm in length, some are agglutinated
Mafic: 35%, intergranular, mainly secondary amphibole with relic clinopyroxene cores

Minor: "Ilmenite/magnetite grains and laths among the mafic grains, and very fine grained in the intersertal patches

Texture: Subophitic to intergranular, typical of mafic sills.

Grain Size: Plagioclase laths are up to 7mm in long direction

Description of Texture: Plagioclase laths are arranged in a irregular framework, and the mafic, probably clinopyroxene crystallized somewhat later along with oxides, filling in the available space. Medium grained, subophitic texture well preserved.

Structure: massive

Alteration: mafic now hornblende/actinolite

Veining: minor quartz veins

Comment: This is a well preserved sill with minor low grade regional metamorphic imprint and propylitic alteration, including late pyrite replacing the oxides.

Sample Number: SL130C

Classification: heavily veined and faulted, and altered gabbro with pyrite and vg?

HAND SPECIMEN

Rusty, weathered, heavily veined and faulted, and altered gabbro with pyrite and vg? In quartz veins with local vugs.

THIN SECTION DESCRIPTION

Mineralogy:

Major Plagioclase: 60%, broken laths largely recrystallised into albite and quartz,

Mafic: 35%, intergranular, mainly secondary amphibole

Alteration: amphiboles are partly replaced by chlorite in a very fine grained mosaic. The recrystallization blurs earlier textures.

Minor: "Ilmenite/magnetite grains and laths among the relic mafic grains, and locally replaced by pyrite, and very fine grained in the intersertal patches

Texture: Cataclastic fabric with ghost remnants of subophitic textures

Grain Size: Plagioclase lath remnants are up to 4 mm in long direction

Description of Texture: Hints of subophitic textures are preserved in the mainly cataclastic texture. The mafic, are all recrystallized, the earlier diabasic texture is being replaced by the recrystallization.

Structure: locally massive, zones of cataclasite and veining, local vugs

Alteration: alteration grown over the palimpset diabasic tecture. Feldspars rèxallised, mafics now hornblende/actinolite and chlorite with a decussate fabric. Sulphides pseudomorphs many of the coarser ilmenite/magnetite grains.Quartz is locally abundant.

Veining: Many thin veins, occasional mm thick veins.. Sulphides are seen in the veins. One instance of gold was seen as a veinlet crossing an earlier sphalerite-iron hydroxide veinlet.

Comment: This is a well recrystallized sulphide veined rock which once was a gabbro. It is now described as a sulphide veined epidiorite with hydroxide stains and veins, locally vuggy and mineralized portions. In one part of the thinsection, it is believed that visible gold was encountered.

Sample Number: **010726-003**

Classification: altered and veined gabbro

HAND SPECIMEN

Greenish weathering gabbro with white veins

THIN SECTION DESCRIPTION

Mineralogy:

Major Plagioclase: 60%, broken laths now composed of sodic plagioclase and zoisite,
Mafic: 30%, intergranular, mainly secondary amphibole with chlorite and oxide dust

Minor: "Ilmenite/magnetite grains and laths among the mafic matrix, often strung along fabric as well as very fine grained in the intersertal patches

Texture: Subophitic to intergranular, typical of mafic sills cut by local zones of cataclastic gabbro.

Grain Size: Plagioclase regions are up to 7mm in long direction

Description of Texture: Subophitic texture locally preserved, but cataclastic fabrics are largely cut by veins

Structure: cut by cataclastic zones and veins, much of old fabric remains

Alteration:very small grains of clino-zoisite growing within albite pseudomorphs primary feldspar
Mafic now chlorite and small crystallites of hornblende/actinolite generally pseudomorphing primary mafic mineral .
Opagues locally broken and elongate

Veining: Epidote veins cross cut cataclastic fabric and primary texture Veins abundant

Comment: This is a sill cut by fault and altered and veined by later solutions, alteration propylitic

Sample Number: **010726-003A**

Classification: veined cataclastic gabbro

HANDSPECIMEN

Greenish on weathering and fresh surfaces, faulted and altered gabbro with abundant veins

THIN SECTION DESCRIPTION

Mineralogy:

Major Plagioclase: 60%, relic and broken laths, many about 1 mm in length, some clay alteration

Mafic: 35%, intergranular, mainly secondary amphibole

Minor: "Ilmenite/magnetite grains and laths among the mafic grains, and very fine grained in the intersertal patches often altered to leucoxene

Texture: Cataclastic with relic patches of subophitic to intergranular textures.

Grain Size: Plagioclase lath regions are up to 7mm in long direction

Description of Texture: Veins cut cataclastic fabric, relic subophitic textures

Structure: cataclastic

Alteration:.rock largely composed of chlorite and epidote, actinolite, quartz and oxide patches.

Veining: Chlorite veining abundant

Comment: This is a faulted veined altered gabbro

Sample Number: 004B

Classification: Vein

HANDSPECIMEN

Vein of chlorite, epidote, quartz with pyrite, sphalerite, and chalcopyrite

THIN SECTION DESCRIPTION

Mineralogy:

Majority of rock is a mixture of epidote, chlorite, quartz, and pyrite, sphalerite, and chalcopyrite.

Texture: veined giving a layered aspect. Layers of sulphide with quartz and albite and chlorite are interleaved with epidote and chlorite rich parts.

Grain Size: generally fine grained

Structure: cataclastic to fine grained vein

Comment: This is a tectonic breccia with a granular quartz epidote albite clasts set in a matrix of similar matrials. The rock is part of a partially replaced and veined fault. Suphides appear relatively late in the paragenesis.

Sample Number: 004B1

Classification: Vein

HAND SPECIMEN

Vein of chlorite, epidote, quartz with pyrite sphalerite and chalcopyrite. More quartz veining in this rock than previous adjacent 4B

THIN SECTION DESCRIPTION

Mineralogy:

Major Quartz:
Chlorite
Epidote
Sphalerite

Minor: Pyrite

Accessory: Chalcopyrite

Texture: granular

Grain Size: very fine grained

Description of Texture: swirly and layered , with quartz veining cutting the mass. Chlorite rich layers, interspaced with fine grained quartz layers and sphalerite, pyrite and chalcopyrite layers.

Structure: layered and veined

Alteration: the rock is part of a mineralized vein system.
sulphides are intergrown with small grains of quartz,
chlorite with small crystals of epidote and minor quartz form discrete layers
Local hematite laths seen on edges of sulphide masses.

Veining: Quartz vein with crystals in excess of several mm long set in a very fine grained quartz matrix.

Comment: This is a well mineralized vein system with propylitic alteration minerals

Sample Number: 007T

Classification: Altered gabbro in contact with tuffaceous chert

HAND SPECIMEN

altered gabbro with minor carbonate veins in contact with chert

THIN SECTION DESCRIPTION

gabbro part:

Mineralogy:

Major Plagioclase: 65%, laths, zoned, many about 1 mm in length, some are agglutinated

Mafic: 30%, intergranular, mainly secondary amphibole with relic clinopyroxene cores

Minor: "Ilmenite/magnetite grains and laths among the mafic grains, and very fine grained in the intersertal patches

Texture: Porphyritic typical of chilled borders of mafic sills.

Grain Size: Plagioclase phenocrysts are up to 1mm in long direction

Description of Texture: Plagioclase laths are arranged in a very fine grained matrix of very fine grained plagioclase laths, opague dust, and fine grained intergranular chlorite and actinolite

Veining: contact parallel chlorite veins accompany the contact, later iron hydroxide veins cut both types

tuffaceous part

Mineralogy:

Major Quartz: 75%, small grains set in microcrystalline matrix

Feldspar 20%? Very finegrained, with clay overlay

Minor: Mafic: 5%, locally abundant little

Accessory: pyrite cubes to 2mm across grow across fabric

Texture: swirled layers, tectonically modified original layering.

Structure: massive, in gabbro, irregularly layered in the tuffaceous part, interface beteen two rock types is probably a minor fault with local cataclasis and veining, minor calcite and sulphide veins traverse contact.

Alteration: probably albitization of felspar grains .

Veining: quartz veins with pyrite (rust) cut rock

Comment: This is a well preserved contact

Appendix E Petrochemical Analytical Results (Whole Rock analysis)

The calculated mineralogical compositions of the whole rocks analysed for this report are given below. The complete analytical data set is presented in associated tables as well as on assay sheets.

Possible chemically unaltered specimens:

e187862-129B

Q		=3.30
Fp(Or+Ab+An)		=46.64(sodic labradorite)
Mafic		
	CPX(Di(wo+en+fs)	=17.30
	OPX(Hy(en+fs)	=25.66
	Ol(en+fs)	=0.0
	Opagues(Mt+Il)	=7.1(Mt=4.16)

This sample is a potential least altered sample, and it would be a "norite". There is no current petrological evidence for orthopyroxene in this rock. Some hornblende may be hydrous equivalent of a mixture of the two mafic silicates.

E187862-130A

Q		=3.28
Fp(Or+Ab+An)		=46.63
Mafic		
	CPX(Di(wo+en+fs)	=17.3
	OPX(Hy(en+fs)	=25.71
	Ol(en+fs)	=0.0
	Opagues(Mt+Il)	=7.11(Mt=4.17)

This sample is also a potential least altered sample, and it too would be a "norite". There is no current petrological evidence for orthopyroxene in this rock. Some hornblende may be hydrous equivalent of a mixture of the two mafic silicates. Both of these samples are from the same sill.

b204419-gbbr

Q		=0.0
Fp(Or+Ab+An)		=53.50 calcic andesine-sodic labradorite
Mafic		
	CPX(Di(wo+en+fs)	=21.0
	OPX(Hy(en+fs)	=15.27
	Ol(en+fs)	=3.13
	Opagues(Mt+Il)	=6.85(Mt=3.27)

This is also considered a least altered specimen, but from possibly a different sill or portion thereof. If this indicative of original composition then the formal rock name should be "norite" as well. There is no current petrological evidence for orthopyroxene or olivine in this rock. Some hornblende may be hydrous equivalents of a mixture of the three mafic silicates.

These samples contain evidence of some chemical alteration:

Sample number	condensed calculated mode	
010726-002A		
	Q	=13.2
	Fp(Or+Ab+An)	=48.74 sodic labradorite
	Mafic	
	CPX(Di(wo+en+fs)	=5.5
	OPX(Hy(en+fs)	=28.16
	Ol(en+fs)	=0.0
	Opagues(Mt+Il)	=11.0(Mt=4.68)

The diopside is lower, and quartz higher than expected; this probably reflects local calcium redistribution and quartz veining.

010726-003		
	Q	=8.9
	Fp(Or+Ab+An)	=33.0 +cor=6.38
	Mafic	
	CPX(Di(wo+en+fs)	=0.0
	OPX(Hy(en+fs)	=41.04
	Ol(en+fs)	=0.0
	Opagues(Mt+Il)	=10.35(Mt=4.79)

The presence of corundum in the norm indicates that feldspars have been altered and the lack of diopside enforces the suggestion that calcium was removed during the process. Epidote alteration is abundant.

010726-003-1		
	Q	=9.75
	Fp(Or+Ab+An)	=45.04 (bytownite)
	Mafic	
	CPX(Di(wo+en+fs)	=9.52
	OPX(Hy(en+fs)	=25.35
	Ol(en+fs)	=0.0
	Opagues(Mt+Il)	=9.91(Mt=4.47)

The rock is enriched in calcium and silica, or depleted in soda. This gives spurious normative minerals.

010726-006

Q	=15.95
Fp(Or+Ab+An)	=34.65 (Anorthite)
Mafic	
CPX(Di(wo+en+fs)	=28.43
OPX(Hy(en+fs)	=0.0
Ol(en+fs)	=0.0
Opagues(Mt+Il)	=4.36(Mt=1.98)

The rock is veined with abundant calcite, as a result the normative mineralogy is spurious.

010726-007T

Q	=0.0
Fp(Or+Ab+An)	=65.03 (albite)+Ne=.14
Mafic	
CPX(Di(wo+en+fs)	=12.50
OPX(Hy(en+fs)	=0.0
Ol(en+fs)	=12.98
Opagues(Mt+Il)	=9..34(Mt=3.71)

Usually chill phases are considered to be examples of the original composition, but in this case the feldspars have been altered so they now are albite, and the rock is thought either to have been altered, and soda added from adjacent dacite tuff during metamorphism, or the soda may have been assimilated during emplacement.

Data for whole rock analyses are summary in table 56-1 to 56-8

Sample	010726-002A	010726-003	010726-003-I
SiO2	47.20	45.55	47.93
TiO2	3.13	2.68	2.69
Al2O3	13.58	14.23	13.38
Fe2O3	17.09	17.37	16.48
MnO	.22	.22	.25
MgO	5.25	8.09	4.80
CaO	6.52	2.86	8.08
Na2O	2.33	1.89	1.53
K2O	.14	.06	.07
P2O5	.26	.24	.24
LOI	4.0	6.7	3.8
Total	99.72	99.89	99.25
Rb	2.2	1.4	1.0
Sr	332.7	194.8	541.9
Y	37	28.7	34.9
Zr	162.7	145	157.3
Nb	15.4	13.2	14.4
Cr	20	6	6
Ni	52	76	52
Th	.8	1.1	1.4
Ta	1.0	.9	1.0
Hf	4.7	4.5	5.0
Sc	34	47	34
Co	48.3	61.5	46.6
Ba	81	77	52
Ga	24.4	23.3	27.5
Tl	9.5	3.2	1.6
U	.6	.5	.3
V	527	487	546
W	3	2	3
La	14.0	10.4	12.9
Ce	34.3	26.6	32.3
Nd	25.6	20.6	23.9
Sm	7.4	5.6	7.2
Eu	2.32	1.51	1.51
Tb	1.14	.99	1.13
Yb	3.92	3.2	3.40
Lu	.52	.48	.51

Sample	010726-002A	010726-003	010726-003-1
Mo	.5	.6	.6
Cu	362	207	287
Pb	1	1	1
Zn	122	160	120
Ag	.1	.05	.1
Nisol	28	70	30
Cosol	35	54	36
Mnsol	1148	1687	1055
As	1	1	1
Thsol	1	1	1
Srsol	75	31	127
Sb	.25	.25	.25
Bi	.25	.250	.25
Vsol	286	369	271
Crsol	11	30	17
Basol	46	48	30
Au	1	5	1
Pt	5	1	1
Pd	24	20	18
Fesol	8.60	10.58	7.19
Casol	1.31	.69	1.46
Psol	.095	.077	.089
Mgsol	2.27	4.29	2.13
Tisol	.293	.166	.257
Alsol	3.53	4.94	3.36
Nasol	.038	.016	.028
Ksol	.02	.005	.005

Sample	010726-006	010726-007T	B-204419-gbbr
SiO2	38.22	47.92	49.52
TiO2	1.03	2.75	1.84
Al2O3	9.99	14.27	14.45
Fe2O3	6.30	13.02	12.74
MnO	.15	.15	.19
MgO	2.09	4.25	6.45
CaO	24.51	5.77	10.03
Na2O	.27	4.99	3.07
K2O	.07	.63	.29
P2O5	.08	.22	.17
LOI	17.2	5.7	.9
Total	99.91	99.67	99.65
Rb	2.3	11.5	9.5
Sr	264.7	226.	278.1
Y	14.9	31.4	27.9
Zr	57.3	143.8	93.2
Nb	4.8	11.5	7.4
Cr	14	100	40
Ni	21	49	82
Th	.7	1.4	1
Ta	.4	.8	.3
Hf	1.8	4.6	3.0
Sc	19	41	40
Co	19.2	52.9	43.4
Ba	63	2022	160
Ga	15.1	21.5	21.3
Tl	.3	.1	.05
U	.1	.2	.2
V	185	423	403
W	3	1	1
La	4.9	10.8	8.4
Ce	13.1	26.9	18.9
Nd	10.	20.5	14.9
Sm	3.	6.4	3.9
Eu	.97	2.01	1.32
Tb	.49	.95	.78
Yb	1.42	3.09	2.59
Lu	.20	.44	.27

Sample	010726-006	010726-007T	B-204419-gbbr
Mo	1.2	1.4	2
Cu	94	476	80
Pb	1	3	4
Zn	47	29	39
Ag	.2	.3	.15
Nisol	23	51	22
Cosol	16	55	14
Mnsol	1116	183	357
As	2	2	1
Thsol	.5	1	1
Srsol	98	11	61
Sb	.9	.25	1.5
Bi	.25	.25	1.5
Vsol	138	171	116
Crsol	15	51	20
Basol	37	46	42
Au	1	1	6
Pt	1	4	1
Pd	7	23	14
Fesol	3.34	6.27	2.47
Casol	15.25	.92	1.85
Psol	.030	.087	.068
Mgsol	.78	.72	.82
Tisol	.207	.424	.15
Alsol	4.19	1.06	2.04
Nasol	.054	.110	.34
Ksol	.03	.05	.10

Sample	E187862-129B	E187863-130A	E187863-130A
SiO2	48.88	49.19	49.19
TiO2	1.48	2.04	2.04
Al2O3	12.70	12.64	12.64
Fe2O3	16.67	15.86	15.86
MnO	.21	.28	.28
MgO	5.57	6.09	6.09
CaO	8.72	8.72	8.72
Na2O	2.28	2.60	2.60
K2O	.30	.28	.28
P2O5	.23	.19	.19
LOI	.4	1.2	1.2
Total	97.44	99.09	99.09
Rb	5.4	5.5	5.5
Sr	244.6	301.3	301.3
Y	34.4	27.4	27.4
Zr	136.4	103.9	103.9
Nb	12.9	10.1	10.1
Cr	40	56	56
Ni	62	70	70
Th	1.6	1.2	1.2
Ta	1.1	.8	.8
Hf	4.1	3.2	3.2
Sc	40	40	40
Co	43.9	48.9	48.9
Ba	226	204	204
Ga	20.5	18.4	18.4
Tl	.05	.05	.05
U	.5	.4	.4
V	437	376	376
W	2	2	2
La	11.9	9.3	9.3
Ce	28.6	22.	22.
Nd	20.	15.2	15.2
Sm	5.8	4.6	4.6
Eu	1.96	1.78	1.78
Tb	1.05	.82	.82
Yb	2.89	2.35	2.35
Lu	.46	.37	.37

56-5

Sample	E187862-129B	E187863-130A	E187863-130A
	1	3	3
Mo	174	266	266
Cu	1.5	1.5	1.5
Pb	32	44	44
Zn	-	-	-
Ag	12	24	24
Nisol	-	-	-
Cosol	-	-	-
Mnsol	1	1	1
As	-	-	-
Thsol	-	-	-
Srsol	.25	.25	.25
Sb	.25	.25	.25
Bi	-	-	-
Vsol	-	-	-
Crsol	-	-	-
Basol	4	3	3
Au	4	1	1
Pt	25	16	16
Pd	-	-	-
Fesol	-	-	-
Casol	-	-	-
Psol	-	-	-
Mgsol	-	-	-
Tisol	-	-	-
Alsol	-	-	-
Nasol	-	-	-
Ksol			

Sb = 6

Sample	010726-004A	010726-004B	010726-007F
SiO2	34.42	50.30	70.91
TiO2	.20	.60	.59
Al2O3	7.43	8.77	7.27
Fe2O3	43.47	29.55	7.58
MnO	.14	.20	.06
MgO	1.55	2.20	2.21
CaO	3.41	3.61	4.41
Na2O	.08	.08	2.75
K2O	.01	.08	.99
P2O5	.005	.06	.23
LOI	8.7	4.2	2.9
Total	99.42	99.65	99.90
Rb	.25	.6	12.8
Sr	176	192	84.4
Y	2.2	6.8	33.8
Zr	14.4	36.4	127
Nb	1.8	4.4	5.4
Cr	12	80	33
Ni	10	20	20
Th	.3	.2	3.4
Ta	.05	.3	.4
Hf	.05	1.4	3.7
Sc	2	9	11
Co	111.4	105.6	6.9
Ba	47	164	2101
Ga	23.2	24.3	11.8
Tl	1.0	.3	.3
U	.2	.7	1.9
V	154	183	85
W	40	31	3
La	1.7	3.0	14.9
Ce	3.8	7.5	33.8
Nd	2.3	5.5	25.3
Sm	.5	1.3	5.8
Eu	.28	.74	1.29
Tb	.07	.21	.84
Yb	.31	.70	4.19
Lu	.03	.09	.55

Sample	010726-004A	010726-004B	010726-007F
Mo	81.2	172.8	11.4
Cu	4115	1852	117
Pb	32	22	7
Zn	3386	1221	42
Ag	9.6	3.5	.3
Nisol	19	12	32
Cosol	187	96	5
Mnsol	958	1500	121
As	29	16	8
Thsol	1	.5	2
Srsol	29	42	10
Sb	.25	.25	.25
Bi	1.	.25	.25
Vsol	111	144	51
Crsol	7	9	30
Basol	7	24	106
Au	76	17	1
Pt	2	1	3
Pd	9	3	2
Fesol	24.40	15.57	3.80
Casol	.34	.59	.71
Psol	.008	.022	.096
Mgsol	.77	1.20	.31
Tisol	.023	.057	.165
Alsol	2.20	3.06	.66
Nasol	.006	.005	.051
Ksol	.005	.005	.03

Appendix F Comparisons between Aqua regia and whole rock results for selected elements

The elements chosen for this comparison are all transition metals of the first row, since these elements show the greatest diversity in the minerals in which they reside. They are also more abundant than the heavier transition elements, and therefore issues of analytical accuracy and precision are not as critical.

All elements listed below occur in spinel structures, in different types of silicate infra-structures, and most occur as sulphides as well. Hence it is likely that only the part of the element contained in silicate sheet structures or sulphides in a given rock specimen will go into solution under aqua regia application. :

sample #	V ppm	V-sol ppm	Cr_2O_3 %	Cr-sol ppm	MnO %	Mn-sol, ppm	Fe_2O_3 %	Fe-sol.%	Ni ppm	Ni-sol ppm
002A S=<.02	527	286	.003	11	.29	1148	17.09	8.60	52	28
003 S=<.02	487	369	.001	30	.22	1687	17.39	10.58	76	70
003-1 S=<.02	546	271	.001	17	.25	1055	16.48	7.19	52	30
004A S=10.6	154	111	.002	7	.14	958	43.47	24.40	<20	19
004B S=2.65	183	144	.013	9	.20	1500	29.55	15.57	20	12
006 S=<.02	185	138	.002	15	.15	1116	6.30	3.34	21	23
007F S=1.26	85	51	.005	30	.06	121	7.58	3.80	20	32
007T S=2.10	423	171	.015	51	.15	183	13.02	6.27	49	51
B2044 19-gbbr	403	116	.006	20	.19	357	12.74	2.47	82	22

Appendix G Notes on Precision of analytical results

Precision of analytical results

Each sample batch is provided with an analyses of a standard provided by ACME Labs. Below selected elements are shown to give a sense of the precision and accuracy that the lab provides:

Geo4, aqua regia partial solution, but precious metals are done by fire assay

Standard S1 (quartz blank)

batch #	Mo	Cu	Zn	Au	Pt	Pd
A10358, Oct 18/01	<1	1	2	<2	<2	<2
A103803, Nov 7/01	<1	1	1	<2	<2	<2

Standard DS3/FA-10R

batch #	Mo	Cu	Zn	Au	Pt	Pd
A10358, Oct 18/01	9	129	160	484	474	477
A103803, Nov 7/01	11	128	160	485	482	474
A103803, Nov 7/01	10.6	131	155	n/a	n/a	n/a, no FA-10R done

Standard C3/FA-10R

A004894, Dec 12/00	25	62	169	481	465	489
A101911, July 9/01	25	68	169	484	468	468
A102490, Aug 20/01	27.2	65	177	480	473	484

Whole Rock Analyses 4A, 4B,

whole rock is fused and mass is brought into solution:

Standard SO-15/CSB

	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O	K_2O	TiO_2	P_2O_5
A004893, Dec 21/00	49.30	12.67	7.22	7.14	5.78	2.36	1.79	1.72	2.64

Standard SO-16/CSB

A102490, Aug 20/01	58.12	10.93	11.01	5.52	.14	.34	6.27	.86	.26

Standard SO-17/CSB

A103803, Nov 7/01	61.09	14.10	5.93	2.37	4.74	4.10	1.43	.63	.95

Standard C-3

		Mo	Cu	Zn	Au	Pt	Pd
A004893, Dec 21/00		27	67	172	481	465	487

Standard G-2							
A004894, Dec 12/00	1	3	40	3	<2	2	
A004893, Dec 21/00	2	3	45	-	-	-	
A101911, July 9/01	1	4	43	-	-	-	
A102490, Aug 20/01	1.6	9	46	-	-	-	
	Co	V	Zr	Y	La	Eu	Yb
Standard SO-15							
A004893, Dec 21/00	22.4	154	1029.3	24.3	30.1	1.00	2.52
Standard SO-16							
A102490, Aug 20/01	408.7	113	223.0	98.5	59.6	2.47	9.78
Standard SO-17							
A103803, Nov 7/01	18.7	125	351.2	26.5	11.4	1.04	2.87

	Mo%	Cu%	Ag,gm/mt
Standard R-1 for assays			
A101911R, July 24/01	.090	.831	100.3

	Au gm/mt
Standard for Au-1 assays	
A101911R, July20/01	3.34

Part B **Estimates of precision for precious metals**

Calculation showing how precision estimates for precious metals were derived:

Lab Standard	FA-10R		
batch #	Au	Pt	Pd (all in ppb)
A004894, Dec 12/00	481	465	489
A004893, Dec 21/00	481	465	487
A1011911, July 9/01	484	468	468
A102490, Aug 20/01	480	473	484
A10358, Oct 18/01	484	474	477
A103803, Nov 7/01	485	482	474
estimate of mean	482	469	481*
estimate of variability			
+/- 1 s	1.8	4.3	8.5*
%	.5	1	2*

This means that values of Au between 480-484 ppb cannot be distinguished with any precision, similarly Pt between 465-473ppb and Pd between 473-489ppb cannot be separated.
The lab thus indicates that their estimate of Pd is less reliable than Au, at these concentration levels. Au is well measured with a very small standard deviation.

In repeat measurements of the same rock powder, but at much smaller gold concentrations than shown above the following data is recorded:

		Au in ppb	
	M1	M2	diff
sample	70	80	10
	134	140	6
	103	120	17

Each sample (from adjacent portions of the same vein) has been analysed twice, yielding slightly larger values (about 10 % greater) the second time. A more detailed sampling protocol is needed to confirm any systematic difference between batches. If we consider all six samples as samples of the same vein to represent an estimate of the precious metal content of the vein at this particular location (a total volume of about 15x5x10cm3), then the estimated mean for that vein volume about is:

107 ppb Au

and the spread of +/- 1 standard deviation is 80-134ppb which is about 25 % of the value.

As is usually the case, at much higher concentrations the % variability is marginally lower, though not as low as the precision implied by the laboratory results:

67.8 ppm vs 61.0 ppm of gold (in SL 130C)
Or
6.2 ppm vs 5.2 ppm (in SL130B)

The higher concentration has the lower percentage variation ((10% or 6 ppm in 61ppm) and (20% or 1 ppm in 5.2 ppm)). Of interest, in this case, the later estimates were less than the prior ones. In a large sampling program care would have to be taken to insure homogeneous and minimal variability.

The differences in the variability are probably best explained by noting, that the samples for which replicates have been provided, are distinct fragments of a crushed specimen, and that the increased variability is due, in part, to the imprecise homogenization resulting from the pulverization process as well as the intrinsic variability of the instrumental analysis.

Considering the variability given for gold above, and given that the lab reports larger instrumental variability for Pt and Pd than for Au, then by analogy it follows that the values for Pt and Pd will be of a somewhat larger magnitude, than those estimated for gold, and the smaller the tenor, the larger the percent uncertainty.

Nevertheless there will be no difficulty in distinguishing anomalous samples (arbitrarily set at over 30 ppb for Au, 50ppb for Pt and 100 ppb for Pd) from background values (also arbitrarily set at about 3ppb Au, 3ppb of Pt, and 15ppb Pd, in gabbro). Thus, contrarily to the highly anomalous gold values, there are no samples showing anomalous PGE concentrations in this mineral showing.

In future sampling, it is recommended that using the "metallics" method, whereby a larger sample (say a kg) is analysed to overcome the inhomogeneity that the presence or absence of gold particles would generate in smaller(29.2 gm) samples would provide a more representative samples.

A systematic testing of the "green vein" with this type of sampling will remove uncertainty as to whether enough interesting amounts of gold are present in this vein set.

Appendix H Comparison of repeated UTM determinations over several visits

This investigation arose after the repeat determinations of localities seems to deviate more than the expected +/-10 m. A Garmin12 was used to determine location, the same instrument, but at different times, with the exception of the observation taken by J.Houle, district geologist. He used the same type, but a different instrument.

The vein intersection location from whence the high gold assay has been reported, is an easily re-visitable point; it has been visited on several occasions and the UTMs determined at that time are given below:

*It is noted that one of the measurements postdate Sept 11, 2001, and that selective availability was re-introduced at that time in accordance with US military needs. Hence inaccuracy is **expected** in the later measurements.*

first located 2000-130	696717, 5554827,
visited second time 2001-147,	696684, 5554791
with Jacques Houle	696685, 5554784
a *possible* location is	696695 +/-19, and 5554802+/-21

sept 11, 2001, GPS again unreliable?

2000-130=2001-268, nad27 696726, 5554957

note that this location is not within the expected error ellipse deduced for previous three values.

The estimated pre-sept-11,2001 variance of about 20 m., somewhat larger than the precision suggested by the Garmin for each determination (largest reported by instrument is +/- 13.1m).

IP staking (NAD 27) measured Nov 18, 2000	696713, 5554593,
IP re-measured 21-Oct-01	696688, 5554658 +/- 10.7

Thus the use of Garmin GPS is useful for regional studies, but when working on claims, *direct measurement from set points would still appear to be the more prudent approach.*

It is recommended that a precise differential GPS survey locate the claim post and minimize the uncertainty. It is possible that the full 500 metres were not claimed in the claim.

The position of the claims shown on Map-Place are not correct (Nov 20, 2001), but seem to have been moved north a bit. The claim does not include the stream shown as included on the Map-Place Claim map. The locations plotted on maps in this report has been "tweaked" so that observed relations between outcrops are preserved. A proper survey is needed for further detailed work.

NOTE: locations have been recorded in the appendices with the GPS coordinates measured at the time, this leads to some inaccuracy if plotted on the maps, but when back calculations become available, more accurate values can be substituted.