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GALLANT GOLD MINES LTD.

GEOLOGICAL, GEOPHYSICAL AND GEOCHEMICAL SURVEYS

Report on the

PERRY CREEK PROPERTY

FORT STEELE MINING DIVISION

BRITISH COLUMBIA

NTS 82 F/8E, 9E

November 1984

B.P. Butterworth, B.Sc.
J.C. Freeze, B.Sc.
A.G. Troup, P.Eng.

CLAIMS WORKED

CLAIMS	RECORDS	ANNIVERSARIES
PETRA 9-15	799-805	19 OCT
LINDA 2,4,6,8	810,812,814,816	5 NOV
ECLIPSE	343	7 NOV
ANNA	344	7 NOV
STANDARD	345	7 NOV
AGNES	346	7 NOV
PIONEER	347	7 NOV
OYSTER	348	7 NOV
EVENING STAR	349	7 NOV
MARK	136	24 NOV
LUKE	137	24 NOV
JOHN	138	24 NOV

Location: 49°29'/116°6'
Owners: Gallant Gold Mines Ltd.
Operator: Gallant Gold Mines Ltd.
Consultant: A.G.Troup, P.Eng., Archean Engineering Ltd.
Project Geologist: J.C. Freeze, B.Sc., Mark Management Ltd.
Field Geologist: B.P. Butterworth, B.Sc., Mark Management Ltd.

GALLANT GOLD MINES LTD.
GEOLOGICAL, GEOPHYSICAL AND GEOCHEMICAL SURVEYS
PERRY CREEK PROPERTY
FORT STEELE MINING DIVISION
NTS 82F/8,9

SUMMARY

The Perry Creek gold prospect is located 23 kilometres west of Cranbrook in southeastern B.C. The property consists of 96 units in several non-contiguous claim blocks paralleling Perry Creek in the Moyie Range of the Purcell Mountains. This area has been prospected for both placer and lode gold since the mid 1800's.

The property is underlain predominantly by sedimentary rocks of the Creston and Kitchener Formations. Microdiorite bodies belonging to the Moyie Intrusions have been emplaced along regional shear zones that crosscut these sediments. All three rock units belong to the Purcell Supergroup.

During the 1984 field programme, geological, geochemical and geophysical surveys were carried out over areas highlighted by previous surveys.

Results of the property work completed to date suggest that lode gold mineralization in the Perry Creek area is associated with quartz veins, quartz stockworks and siliceous zones in the vicinity of microdiorite bodies. Future exploration programmes should focus on further exposing these zones through geochemistry, geophysics, bulldozer trenching and diamond drilling.

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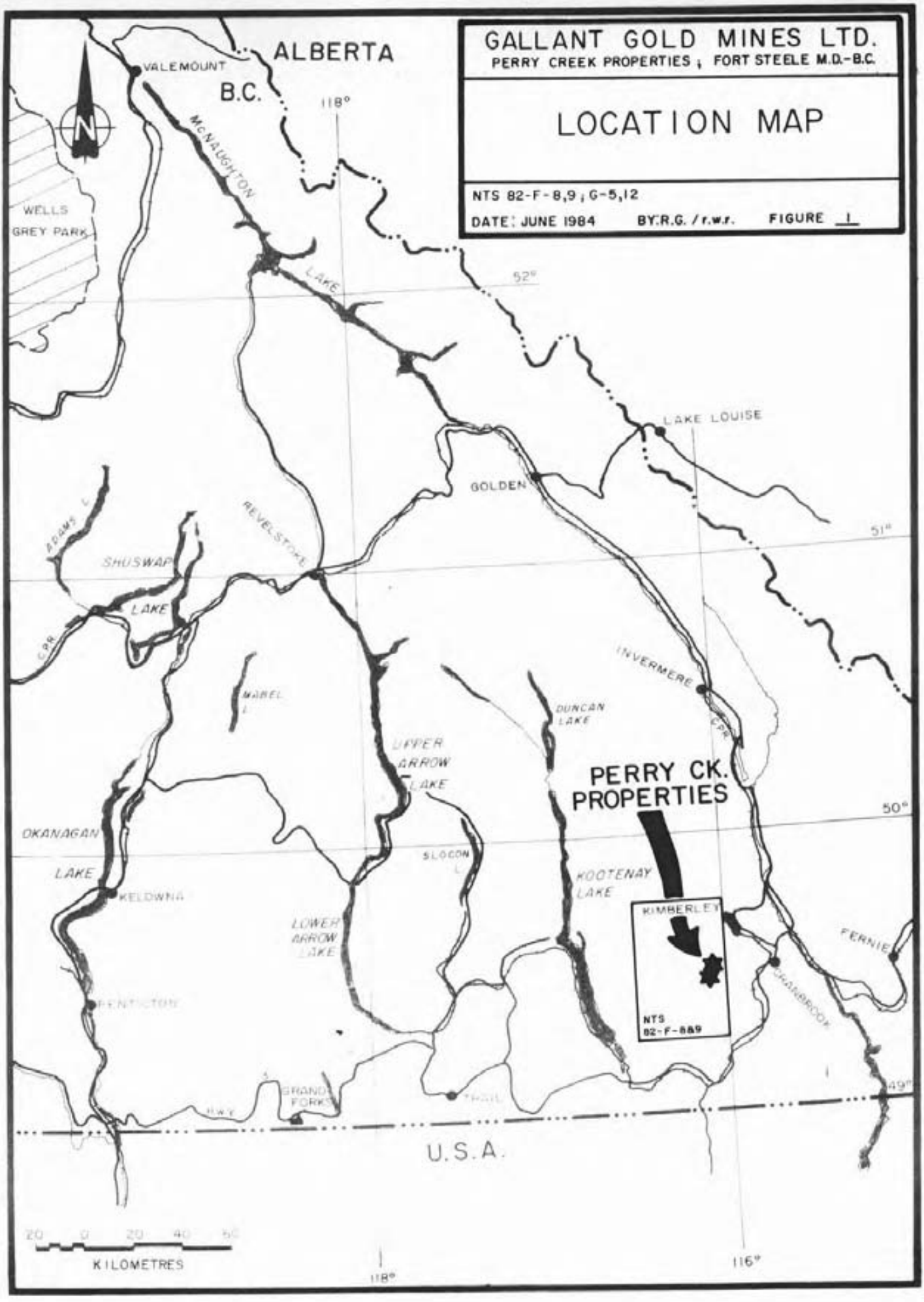
1. INTRODUCTION

The Perry Creek property is a gold prospect comprised of several claim blocks located along the west side of Perry Creek, 23km southeast of Kimberley, B.C. In 1984, an exploration programme was carried out to search for the source of placer gold found in Perry Creek. Geological, geochemical and geophysical work was carried out by a Mark Management crew of two during the period October 9 - 26. A base camp was set up beside Perry Creek at kilometre 13 on the main logging road. The programme was supervised by Mark Management field geologist B.P. Butterworth under the direction of project geologist J.C. Freeze and Archean Engineering consulting geologist A.G. Troup.

1.1 Location and Access

The property is situated on the west side of Perry Creek approximately 20km south-southwest of Kimberley and approximately 23km west-southwest of Cranbrook. It centres on latitude 49°29'N and longitude 116°6'W (Figure 1.1).

Access to the property is provided by a good, active logging road which leaves the Kimberley-Cranbrook highway at Wycliffe. Numerous new side-haulage roads and old pack trails provide good access to many of the areas of interest.


GALLANT GOLD MINES LTD.
PERRY CREEK PROPERTIES ; FORT STEELE M.D.-B.C.
LOCATION MAP
NTS 82-F-8,9 ; G-5,12
DATE: JUNE 1984 BY: R.G. / r.w.r. FIGURE 1
ALBERTA
B.C.
VALEMOUNT
McNAUGHTON LAKE
WELLS GREY PARK
118°
52°
LAKE LOUISE
GOLDEN
ADAMS L.
REVELSTOKE
SHUSWAP LAKE
51°
C.P.R.
MABEL L.
INVERMERE
DUNCAN LAKE
UPPER ARROW LAKE
PERRY CK. PROPERTIES
50°
OKANAGAN LAKE
KELOWNA
SLOCAN L.
KOOTENAY LAKE
KIMBERLEY
NTS 82-F-8&9
LOWER ARROW LAKE
FERNIE
PENTICTON
GRAND FORKS
TRAIL
49°
U.S.A.
20 0 20 40 60
KILOMETRES
118°
116°

1.2 Physiography

The property is situated in the Moyie Range of the Purcell Mountains. Maximum relief is approximately 3000 feet (914m) ranging from 4000 feet (1219m) to 7000 feet (2133m). The highest elevation in the immediate area is Grassy Mountain at 8174 feet (2491m). The major portion of the property is drained by northeasterly flowing Perry Creek and its associated east-southeasterly flowing side drainages. Lakes are scarce on the property, although small lakes reminiscent of tarns occur at higher elevations just outside of the property boundary.

Precipitation is high, from 16" to 72" (41 to 183cm). A moderate snow cover falls during normally severe winters. The mean daily temperature is 16° to 18° in July and -5° to -10° in January.

The claim area is well timbered with Engelmann spruce, alpine fir, lodgepole pine, white bark pine, alpine larch, limber pine, Douglas fir, western white pine and contains thinly dispersed growths of underbrush in the creek bottoms. Generally, travel by foot is pleasant and quick except in the steeper terrain.

The area has been glaciated and is covered by glacial material of variable thickness. Small drumlin-like features striking north-northeast are present in some areas, but no direction of ice movement can be discerned from these.

1.3 Claim Information

The claims on which work was conducted this year are listed on the title page of this report. The property consists of eleven modified grid mineral claims, 29 two-post claims and nine crown grants (Map 1.3) all within the Fort Steele Mining Division. Pertinent claim information including record numbers and expiry dates are given in Table 1.3.

TABLE 1.3

Claim Status

Claim Name	Units	Record No.	Expiry Date
Petra 9 - 15	7	799-805	Oct. 19, 1985
Linda 1 - 8	8	809-816	Nov. 5, 1985
Carol 1 - 8	8	817-824	Nov. 5, 1985
Eclipse (L10223)	1	343	Nov. 7, 1985
Anna (L10224)	1	344	Nov. 7, 1985
Standard (L10225)	1	345	Nov. 7, 1985
Agnes (L10226)	1	346	Nov. 7, 1985
Pioneer (L10227)	1	347	Nov. 7, 1985
Oyster (L10228)	1	348	Nov. 7, 1985
Evening Star (L10229)	1	349	Nov. 7, 1985
Mark	6	136	Nov. 24, 1986
Luke	9	137	Nov. 24, 1985
John	4	138	Nov. 24, 1985
Janet	1	86	Oct. 22, 1987
Janet 1	4	87	Oct. 22, 1987
Gold	10	148	Feb. 4, 1988
Azlin	6	394	Nov. 16, 1987
Birdie Load	1	395	Nov. 16, 1987
Golden Wolfe	4	396	Nov. 16, 1987
Ariadna 1 - 6	6	1057-62	Sept. 10, 1988
Tanis	4	149	Feb. 4, 1986
Peter Rock	9	397	Nov. 16, 1985
Lone Eagle (L14951)	1	97	Nov. 4, 1986
Quartz Creek (L14952)	1	98	Nov. 4, 1986

1.4 History

The Perry Creek area has been prospected for placer and lode gold since the mid 1800's. Most of the placer activity took place at Old Town, with only minor work done upstream. At present, the placer rights to Perry Creek are held by several different miners, most of whom work their claims seasonally. Mr. Zimmerman of Cranbrook, B.C. has the largest operation in progress. His placer claims overlap with Gallant's JOHN, MARK and BIRDIE LOAD mineral claims. In searching for lode gold, prospectors of the past explored quartz veins and ledges by putting in adits, shafts and hand trenches. Some of the veins carried gold and although no major deposit was discovered, several small ore shipments are reported.

Research of old literature and the discovery of old workings prompted Gallant Gold Mines Ltd. to restake the area. Since then, Gallant Gold Mines Ltd. has carried out programmes of prospecting, geologic mapping and rock chip sampling; soil, silt and heavy mineral concentrate sampling; VLF-electromagnetic and fluxgate magnetometer surveys and bulldozer trenching.

1.5 Work Done by Gallant Gold Mines in 1984

In 1984, field work was conducted by Gallant Gold Mines Ltd. from October 9 to 24. During this period the following surveys were completed:

1) Reconnaissance geological mapping was carried out over the Petra, Linda, Eclipse, Anna, Standard, Agnes, Pioneer, Oyster, Evening Star, Park, Mark, Luke and John claims.

2) A detailed geological mapping and rock chip sampling programme was carried out across microdiorite bodies occuring along the suspected Perry Creek shear zone.

3) A detailed fluxgate magnetometer survey was conducted over sections of the property in an attempt to delineate contacts between the microdiorite bodies and the sediments.

4) Detailed soil sampling was carried out over sediment/intrusive contacts. Samples were analysed for copper, lead, zinc, silver and gold.

5) Bulk soil samples were collected over the microdiorite bodies and their contacts with sediments. These samples were concentrated by panning and analysed for gold and arsenic.

2. GEOLOGY

2.1 General Geology

The regional geology of the Perry Creek area north of 44° 30' was mapped (1 inch = 1 mile scale) by G.B. Leech, of the Geological Survey of Canada, from 1950 to 1952. This data is compiled on Map 15 - 1957, St. Mary Lake Map Sheet. The geology south of 44° 30' was mapped (1:50,000 scale) by J.E.Reesor also of the Geological Survey of Canada in 1980 and 1981. This is available in Open File 820 (1981). A compilation of these two maps is presented on Figure 2.1

The property is underlain predominantly by Proterozoic age rocks of the Purcell Supergroup. The Moyie Microdiorite dykes and stocks occur within argillite, siltstones, and quartzites of the Creston and Kitchener Formation. In the northeast corner of the property sediments belonging to the Lower Cambrian Cranbrook and Eager Formations lie unconformably on the Kitchener Formation sediments.

From youngest to oldest the stratigraphic sequence is as follows:

CENOZOIC:

Pleistocene and Recent tills and gravels.

MESOZOIC or CENOZOIC:

Granodiorite, quartz monzonite, and pegmatite.

PALEOZOIC:

Lower Cambrian: Eager Formation.

Lower Cambrian: Cranbrook Formation.

PROTEROZOIC:

Moyie Intrusions

Purcell Supergroup including:

- Dutch Creek Formation.
- Kitchener-Siyeh Formation.
- Creston Formation.
- Aldridge Formation.

LEGEND

CENOZOIC — QUATERNARY
PLEISTOCENE AND RECENT
12 — Till, gravel, sand, silt, alluvium

MESOZOIC — CRETACEOUS
11 — Granodiorite, quartz monzonite, pegmatite

PALAEOZOIC — CAMBRIAN
LOWER CAMBRIAN
10 — EAGER FORMATION: dark argillite, grey argillite; grey limy argillite, brown weathering sandy limestone
9 — CRANBROOK FORMATION: siliceous quartzite, grit, and conglomerate

PURCELL OR (?) LATER
8 — MOYIE INTRUSIONS: meta-diorite and meta-quartz diorite

PURCELL
7 — DUTCH CREEK FORMATION: laminated black argillite, green argillite, quartzite, dolomite
6 — KITCHENER-SIYEH FORMATION: varicoloured argillites and dolomitic argillites, mostly buff and brown weathering; buff and brown weathering dolomite, commonly sandy
5 — CRESTON FORMATION: green and grey weathering green, grey, and purplish argillaceous quartzite, quartzite and argillite; 5a, grey weathering grey argillite and silty argillite, mud-cracked dark argillite
1,2,3,4 — ALDRIDGE FORMATION (1-4)
1. Lower Division: rusty weathering grey quartzite, siltstone, and argillite; grey weathering massive quartzite; metamorphosed equivalents
2. Middle Division: grey weathering massive grey quartzite and siltstone with argillite partings; rusty weathering quartzite, siltstone, and argillite
4. Upper Division: rusty weathering laminated argillite and siltstone; quartzite
3 — Middle and Lower Divisions undivided

- Limit of area in which distribution of Moyie intrusions is uncertain — U
- Outcrops of Moyie intrusions within above area
- Geological boundary (defined, approximate, assumed)
- Bedding (horizontal, inclined, vertical, overturned)
- Bedding (dip known, top of bed unknown)
- Cleavage (inclined, vertical)
- Fault (defined, approximate, assumed)
- Anticline (defined, approximate)
- Syncline (defined, approximate)
- Syncline (overturned, showing direction of dip of limbs)
- Anticline and syncline (arrow indicates plunge)
- Glacial striae (direction of ice movement known, unknown)
- Fossil locality
- Mine or mineral prospect (silver, Ag; gold, Au; copper, Cu; lead, Pb; tin, Sn; tungsten, W; zinc, Zn)

QUARTZ HILL
Sawmill Cr.
AZLIN
BIRDIE LODE
Paris Cr.
CREEK
Rome Cr.
Dublin Cr.
France Cr.
Glasgow Cr.
London Cr.
116°00'
49° 30'

TAKEN FROM G.B.LEECH, G.S.C. MAP 15-1957, ST. MARY LAKE, KOOTENAY LAND DISTRICT.

TAKEN FROM GSC OPEN FILE 820 (1981) GRASSY MOUNTAIN KOOTENAY LAND DISTRICT, BY J.E.REESOR

PERRY CREEK
Walsh Cr.
Wahon Cr.
HOMESTAKE
Liverpool Cr.
Shorty Cr.
Limerick Cr.
SHAKESPEAR
Hc1
Hc2
Hc3
Hk

LEGEND

PALEOZOIC — MESOZOIC — CRETACEOUS

Kgr — Granite with megacrysts of potash feldspar, and with approximately equal amounts of potash feldspar, plagioclase and quartz; up to 10% biotite, rare hornblende.

CAMBRIAN
LOWER CAMBRIAN
Ce — EAGER FORMATION: grey argillite and limy argillite, highly cleaved; siltstone and silty argillite; near base, thin bedded, buff weathering silty limestone and greenish grey argillite; rare bioclastic beds.
Cc — CRANBROOK FORMATION: siliceous, white, purple and green quartzite; purple argillite and argillaceous quartzite; gritty quartzite, pebble and cobble conglomerate.

LOWER CAMBRIAN(?)
Cc1 — CRANBROOK FORMATION(?): Conglomerate, angular to rounded clasts to cobble size derived from Purcell strata of Middle Creston and younger rocks.

PROTEROZOIC — HELIKIAN
PURCELL SUPERGROUP
Hm — MOYIE INTRUSIONS: Sills and minor dykes of diorite, quartz diorite; metamorphic equivalents.
Hd — DUTCH CREEK FORMATION(?): Black and grey and brown and grey, thin-bedded argillite and siltstone.
Hk — KITCHENER FORMATION: lower part, green argillite and siltstone with interbeds of buff to brown silty dolomite and dolomitic argillite; upper part, black argillite, buff to brown silty dolomite and dolomite; grey to reddish coloured siltstone; very thin-bedded.

Hc — CRESTON FORMATION: undivided
Hc3 — UPPER CRESTON: deep green siltstone, light and dark, thinly laminated argillite and siltstone; purple argillite.
Hc2 — MIDDLE CRESTON: grey, blocky siltstone and very fine quartzite in beds to 30 cm or more, commonly ripple marked, and commonly purple lined or mottled; black to deep purple argillite and thin-bedded siltstone; white, medium-grained quartzite commonly associated with purple mud-chip breccias.
Hc1 — LOWER CRESTON: thin-bedded dark argillite and grey siltstone characterized by irregular pinching and swelling of beds, ripple cross-lamination, mud-cracks, minor cut and fill features; green siltstone with thin interbeds of argillite.

Ha — ALDRIDGE FORMATION: undivided
Ha3 — UPPER ALDRIDGE: rusty weathering, black argillite and silty argillite, fine, regular, white laminae of siltstone.
Ha2 — MIDDLE ALDRIDGE: light grey weathering, grey quartzite and siltstone in beds 10 to 70 cm; interbeds of dark argillite and thin bedded alternating black argillite and grey siltstone.
Ha1 — LOWER ALDRIDGE: rusty weathering, laminated or cross-bedded quartzite, argillite and silty argillite. (Unit not identified in Grassy Mountain map-area).

GALLANT GOLD MINES LTD.
PERRY CREEK PROPERTIES ; FORT STEELE M.D.-B.C.

REGIONAL GEOLOGY MAP

0 1 2 SCALE IN KILOMETRES

NTS 82-F-8,9;G-5,12
DATE: Dec.17,1983 By: J.C.F, A.G.T. FIGURE 2-1

The following descriptions of the units present on the Perry Creek Properties are taken from G.S.C. publications.

PROTEROZOIC-Creston Formation: The Creston Formation has been subdivided into three units, provisionally called Lower (Hc_1), Middle (Hc_2) and Upper Creston (Hc_3). The Lower Creston is dominated by thin-bedded alternating argillite and siltstone, with a total thickness of about 1000 metres. Bedding varies in thickness from millimetres to centimetres and individual beds commonly vary rapidly in thickness from a few millimetres to 1 or 2 cm. Primary features are abundant; mudcracks, pull-apart structures, small cut and fill features, and ripple cross-laminations being the most common. Rocks are commonly green to greenish-grey; a weathering of this rock type often produces brown limonitic staining on joint faces. The contact with the underlying Upper Alderidge Formation is placed at the horizon where the red rusty, even bedded, black, white lined argillite grades into very-uneven, pinching and swelling beds of green to greenish grey argillite and siltstone, commonly characterized by mudcracks and other shallow water features. None of the latter features exists in the Upper Aldridge Formation, within this map area; however, a few units, 5 to 10 metres thick, of black argillite typical of the Upper Aldridge, are found above the Lower Creston contact as mapped.

In the upper portion of the Lower Creston, is a green argillaceous siltstone, 10-15cm thick; this unit becomes increasingly more common even though much of the section remains typically thin bedded. The upper section of the Lower Creston is often a cliff forming unit when it occurs at higher elevations. This feature is not so much the result of increased competence of the silty layers, but rather, it is due to breakage along vertical to near vertical joint faces.

The contact with the overlying Middle Creston is marked by the beginning of thick-bedded, grey argillaceous siltstone commonly intercalated with thin-bedded units of deep-purple to almost black argillite. The grey argillaceous siltstone is characteristically marked with purple laminae or irregular purple mottling. This unit is also a cliff former and is characterized by blocky fractures within a relatively competent succession. Dip slopes and slabs commonly show extremely well-preserved symmetrical wave ripples. Thicker successions of black to deep purple argillite may show mud cracks, and thin beds or lenses of medium-grained

white quartzite are commonly topped with purple mud-chip breccias. The Middle Creston is about 1000 metres thick.

The transition to the Upper Creston is marked by deep green siltstone or very-fine quartzite interbedded with green argillite, purple argillite, light- and dark-green argillite or silty argillite. Although the deep green siltstone beds can be up to 20cm in thickness, most beds vary from a few millimetres to a maxium of 3 centimetres. This unit is at most 300 metres thick.

The contact between the Creston and Kitchener Formation (Hk) is transitional over several tens of metres. The contact is mapped solely on the basis of the increasing proportion of carbonate-bearing rocks, dolomitic siltstone, or silty dolomite. Due to the lack of exposure or faulting, this contact is often difficult to identify.

Kitchener Formation: The Kitchener Formation is commonly exposed in thin fault slices or beneath the Lower Cambrian unconformity so that over most of the area only partial sections have been preserved. The lower portion of the Kitchener Formation contains abundant green weathered argillite and siltstone similar in character to the Creston Formation. In outcrop, it consists of very thin beds of green argillite, grey-green calcareous argillite, green siltstone and brown or buff weathering dolomitic siltstone. The upper portion of the Kitchener Formation weathers to a grey to black, brown, or buff coloured, thinly bedded succession which on a fresh surface consists of black argillite, silty dolomite, or dolomitic siltstone.

Moyie Intrusion: Moyie Intrusions (Hm) are found throughout the Purcell Supergroup, with the possible exception of the Dutch Creek(?) Formation. The intrusions consist mainly of sills and minor dikes that range up to 100 metres in thickness and are most common in the Middle Aldridge. Sills occur most generally in groups of several individuals and consist of metadiorite and metaquartz diorite, though in some localities original diabase interlocking textures may be found. In these zones the enclosing sediments show contact metamorphism with development of biotite up to 2 mm and in places garnet up to 1 mm.

PALEOZOIC-Lower Cambrian: Lower Cambrian strata are preserved along several fault slices in the region. This strata rests with profound unconformity on Purcell Supergroup rocks as far down as Middle Creston. The Cambrian rocks are subdivided into two units, Cranbrook (Cc) and Eager Formations (Ce).

Cranbrook Formation: The Cranbrook Formation typically consists of white, rarely pink or green, medium- to fine-grained, locally crossbedded quartzite in beds up to 1 metre thick. Near the base, are found some hematite-rich quartzite beds as well as purple or olive green argillite. Translucent purple coloured quartz grains up to 4 mm in size are dispersed in some beds. In places lenses or thin beds of pebble conglomerate occur near the base of the Cranbrook Formation, with angular to rounded clasts of quartzite, argillaceous siltstone, white milky quartz and argillite. Rarely, worm tracks can be found on shaley interbeds between quartzite beds and vertical worm burrows can be found in some quartzite beds.

In addition to abundant white quartzite, medium- to fine-grained quartzite, purple argillite and conglomerate are also present in this formation. Conglomerate consists of angular to rounded pebbles, cobbles and boulders of argillite, siltstone and fine-grained quartzite commonly purple lined or purple mottled and clearly derived from Middle Creston strata. Such conglomerate beds are found within a succession of purple quartzite, purple argillite and other rocks lithologically very similar to some horizons of the Middle Creston. For example, a few isolated exposures of conglomerate, tentatively mapped as Cranbrook Formation, are found east of Goat River and south of the main occurrences of this Lower Cambrian strata. Angular, sub-rounded and rounded clasts, occasionally greater than 10 cm in diameter and derived from Purcell Supergroup strata as old as Middle Creston, are often incorporated in the younger Cranbrook Formation. This conglomerate is lithologically similar to the westernmost occurrences of Lower Cambrian conglomerates and shows, if they are indeed of Lower Cambrian age, that Cranbrook Formation rested on Purcell strata well below the Kitchener Formation just as it does along its western exposures.

Eager Formation: The Lower Cambrian Eager Formation conformably overlies Cranbrook quartzite. It consists of thin bedded grey- to olive-grey argillite and grey siltstone with, near the base, silty limestone, carbonate bearing argillite

and slate, thin, bioclastic units and argillaceous limestone. These contain Olenellus (GSC Loc. 98008) and other fossil fragments of Early Cambrian age. A fossiliferous horizon has been found in each of the fault slices west of Mallandaine Creek and upper Goat River.

The true thickness of the Eager Formation is difficult to estimate because the rocks are highly cleaved, folded and probably faulted and consequently beds are often repeated. It is certainly not less than 1000 metres thick.

2.2.1 Property Geology

Geological mapping was carried out during the 1984 field programme between Glasgow and Galway Creeks on the northwest side of Perry Creek and along Galway Creek on the east side of Perry Creek. Logging roads provided easy access to the area and ground control was obtained with the aid of a hip-chain, compass and altimeter. All areas mapped between logging roads were tied into reference points established along logging roads. See Maps 2.2.1 and 2.2.2 and Table 2.2 for assay values, locations and description of samples.

Bedrock is best exposed at elevations above 4900' and along road cuts. In the valley of Perry Creek outcrops are poor or non-existing.

The valley of Perry Creek, on the Petra claims, is underlain by the Middle Creston, a sequence of medium bedded, grey to maroon, fine grained quartzite. Intercalated within this quartzite are thin beds, up to 5cm wide, of grey phyllite. A stockwork of quartz veinlets, up to 7cm wide, is found within the quartzite. A few of these narrow stringers carry up to 2% hematite and minor chalcopyrite.

To the west the latter sequence is overlain by the Upper Creston succession of thinly interbedded, light and dark green argillites and green siltstone. At some locations this package takes on a strong, phyllitic appearance. The sequence appears relatively unaltered throughout its entirety.

The Kitchener formation overlies the Upper Creston formation further to the northwest. The former consists of a black, calcareous, argillite intercalated with a thin-bedded, grey, phyllitic argillite. The black argillite is often cut by calcite veinlets which both parallel and crosscut bedding. At one location, on Shorty Creek, a 7cm wide quartz vein within the argillite parallels bedding and carries a minor amount of disseminated pyrite.

Above the Kitchener formation a sequence of interbedded black and green thin-bedded argillites and white, medium grained quartzite

has been mapped. Beds within this unit show strong phyllitic characteristics in places. In addition, shallow water sedimentary features such as ripple cross-laminations and mud-cracks were observed within the sequence. These shallow water despositional structures place this sequence in the Middle Creston formation. A fault is inferred where the older Middle Creston overlies the younger Kitchener formation but no evidence of shearing has been mapped.

Microdiorite bodies, part of the Moyie Intrusions, have been mapped within the Kitchener and Middle Creston Formations. The microdiorite is generally medium grained but has porphyritic phases containing hornblende phenocrysts. On the Petra claims and the Shorty Creek crown grants the microdiorite has been mapped in float only. It occurs within the Kitchener formation and has pervasive chlorite alteration.

On the Luke mineral claim a microdiorite has been emplaced along the fault contact between the Middle Creston and Kitchener formations. The microdiorite has pervasive chloritization and quartz stockwork within it. The argillites on both the footwall and hanging wall are siliceous. This may be secondary silicification related to the intrusive event. Disseminated pyrite occurs in both the quartz stockwork within the microdiorite and the phyllite in the Kitchener formation.

On the John mineral claim a microdiorite dyke intrudes the Middle Creston formation. Intense chlorite alteration masks all primary textures and mineralogy within the dyke. Quartz stockwork occurs throughout much of this unit.

2.2.2 Economic Geology

On this property gold mineralization is associated with quartz veins, quartz stockworks and siliceous zones in the vicinity of microdiorite bodies emplaced along regional shear zones in the sediments. The zones discovered to date run parallel to Perry Creek on the west side.

The shear zones are often filled by veins, irregular lenses and stringers of quartz containing boxwork, limonite, goethite, martite pseudomorphs after pyrite and occasionally gold, silver, galena, sphalerite and chalcopyrite. Hydrothermal alteration of the wall rocks occurs as chlorite, sericite and talc schists. Contact metasomatism may occur marginal to microdiorite bodies.

These shear zones are topographically recessive, occuring between resistant ledges of siliceous sediments. This may be explained by the ease at which breccia, gouge and hydrothermally altered materials found in and marginal to these shears are eroded. For this reason it is possible that much of the mineralization associated with these shear zones is yet to be uncovered.

3. GEOCHEMISTRY

3.1 Soil Sampling

3.1.1 Sampling, Sample Preparation and Analytical Procedures

A total of 51 soil samples were taken along selected lines to assess favourable geologic contacts and magnetic highs. Samples were taken at 20 metre intervals along northwest-southeast geophysical grid lines. All samples were collected from the 'B' soil horizon with the aid of a lightweight mattock and were sent to Chemex Labs Ltd. in North Vancouver for analysis.

In the laboratory, the samples were oven dried at approximately 60°C. The dried samples were sieved to minus 80 mesh and the resulting coarse fraction was analysed for the elements Cu, Pb, Zn, Ag and Au by atomic absorbtion after digestion with hot concentrated nitric and hydrochloric acids.

3.1.2 Treatment, Presentation and Discussion of Results

In assessing the soil geochemical results, graphical statistical methods were used to separate background from anomalous metal concentration. Threshold and anomalous levels were determined at the mean plus two standard deviations (x+2s) and the mean plus three standard deviations (x+3s) respectively, from log probability plots prepared for each element. The results of this statistical study are shown in Table 3.1. Sample locations and analytical results are shown on Map 3.1.

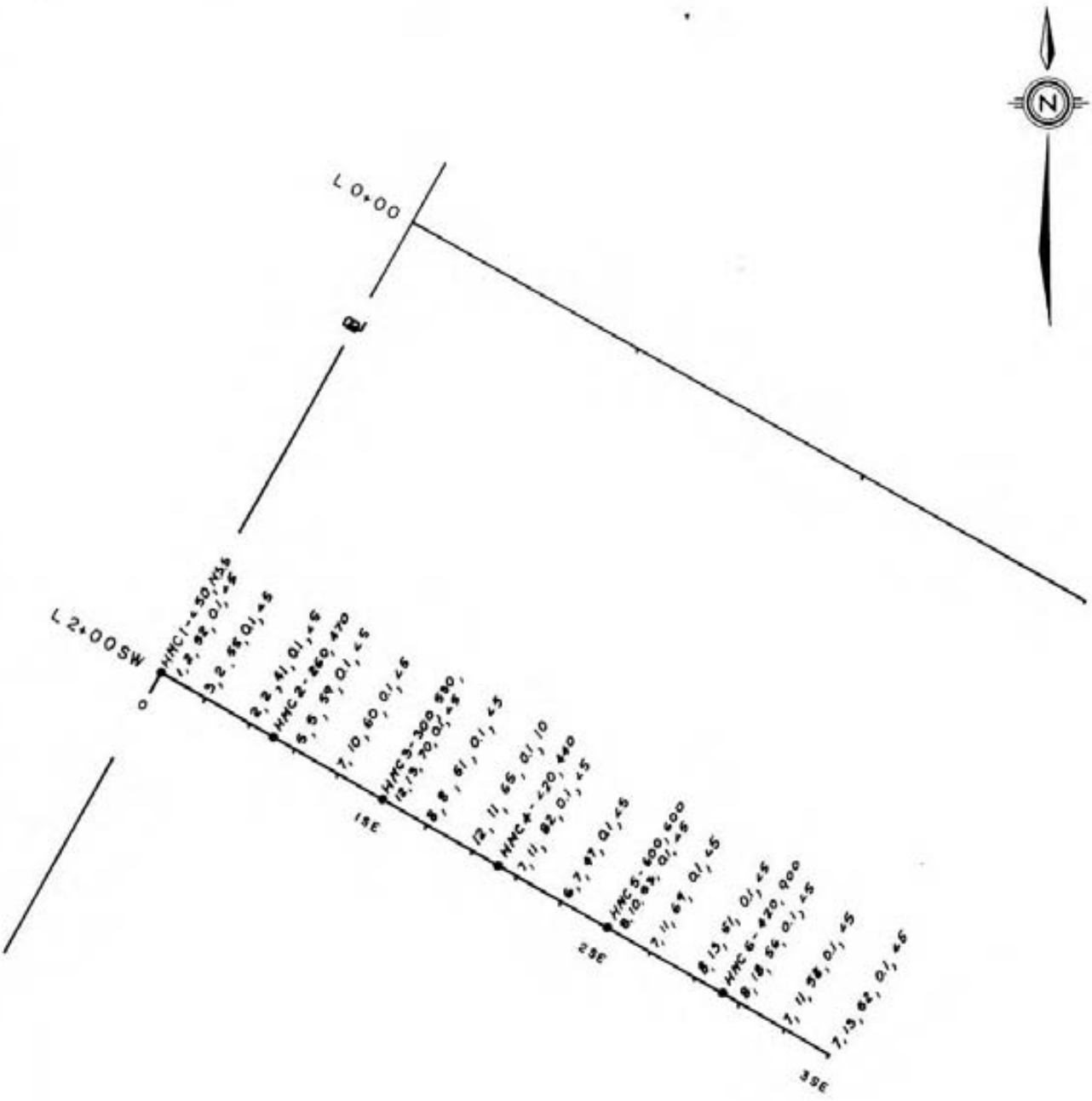
The values established by graphical statistics for anomalous concentrations were very low for all of the elements. Comparing the standard 'B' horizon soil sample results with the concentrated soil sample results suggests that the mineralization in this area occurs in heavy minerals which are not easily broken down and absorbed by the soils.

TABLE 3.1.1

Mean, Threshold and Anomalous Values in 'B' Horizon soil samples.

Element	No. of Samples	Mean (x)	Threshold (x+2s)	Anomalous (x+3s)
Cu	51	6 ppm	9 ppm	11 ppm
Pb	51	8 ppm	12 ppm	15 ppm
Zn	51	45 ppm	60 ppm	70 ppm
Ag	51	* ppm	* ppm	* ppm
Au	51	1.4 ppb	10 ppb	20 ppb

* Too few samples were above the detection limit



LEGEND

HMC 4- 420, 440 — PANNED CONCENTRATE SOIL RESULTS
Au. p.p.b., As. p.p.m.

8, 10, 63, 0.1, <5 — SOIL SAMPLE RESULTS
Cu, Pb, Zn, Ag in p.p.m., Au p.p.b.

GALLANT GOLD MINES LTD.

LINDA & PETER M.C. – B.C.

GEOCHEMICAL SURVEY

SCALE 1: 2500

0 50 100 150 METRES

DATE JAN. 1985

N.T.S. 82-F-8, 9, G-5, 12

MAP Nº 3-1

3.2 Bulk Soil Sampling

3.2.1 Sampling, Sample Preparation and Analytical Procedures

Bulk soil sampling was carried out over the microdiorite bodies and their contacts with the sediments.

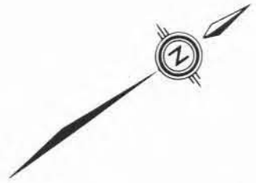
A total of eight bulk soil samples were collected at 50 metre intervals along line 2 + 00 SW on the Linda mineral claims and line 39 + 50 SW on the Luke mineral claims. All samples were collected from the 'B' soil horizon with the aid of a shovel and lightweight mattock. To ensure truly representative results, 100kg samples were taken at each site. These samples were then seived to minus ten mesh, the coarse fraction discarded, and the remaining fine fraction panned down to approximately 0.5kg. The panned concentrates were analysed by Chemex Labs Ltd. of North Vancouver.

Chemex further concentrated the samples by heavy liquid separation and magnetic mineral separation. Finally, the resulting concentrates were analysed for Au and As by atomic absorption and Al, Ba, Be, Bi, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, Po, K, Ag, Na, Sn, Ti, W, Vn, and Zn by Inductively Coupled Plasma - Atomic Emission Spectrometry (ICP-AES).

3.2.2 Treatment, Presentation and Discussion of Results

Due to the small sample population, graphical statistical methods were not used to assess these results.

Five of the eight samples contained high gold values of 60 to 600 ppb. Seven samples contained arsenic values of 100 to 900 ppm.



L 38+50 SW

2, 5, 13, 0.1, 10
2, 12, 21, 0.1, <5
2, 10, 21, 0.1, <5
1NW — 4, 6, 30, 0.1, <5
6, 8, 27, 0.1, 15
2, 2, 24, 0.1, <5
10, 8, 42, 0.1, <5
9, 7, 41, 0.1, <5
7, 9, 50, 0.1, <5
1, 13, 55, 0.1, 10
8, 11, 81, 0.1, <5
8, 16, 73, 0.1, <5
8, 14, 82, 0.2, <5
1SE — 6, 13, 65, 0.1, <5
4, 5, 46, 0.1, <5
6, 6, 57 0.1, <5
8, 6, 57, 0.1, <5
5, 8, 56, 0.1, <5
2SE — 7, 9, 40, 0.1, <5

L 39+50 SW

HNC 8 - 60, 170
HNC 7 - 240, 100

L 33+50 SW

3NW — 5, 9, 39, 0.1, <5
8, 13, 65, 0.1, <5
3, 8, 31, 0.1, <5
6, 14, 39, 0.1, <5
5, 16, 26, 0.1, <5
2NW — 3, 6, 27, 0.1, <5
13, 13, 49, 0.1, <6
18, 16, 50, 0.1, <5
10, 14, 49, 0.1, <5
8, 13, 49, 0.1, <5
1NW — 11, 9, 50, 0.1, <5
14, 23, 86, 0.1, <5
7, 14, 57, 0.1, <5
12, 11, 41, 0.1, <5
11, 8, 48, 0.1, <5
45, 21, 49, 0.1, 25

LEGEND

HNC 8 - 60, 170 — PANNED CONCENTRATE SOIL RESULTS
Au. p.p.b., As. p.p.m.

7, 9, 40, 0.1, <5 — SOIL SAMPLE RESULTS
Cu, Pb, Zn, Ag in p.p.m., Au p.p.b.

GALLANT GOLD MINES LTD.

LUKE M.C. – B.C.

GEOCHEMICAL SURVEY

SCALE 1:2500

0 50 100 150 METRES

DATE JAN. 1985

N.T.S. 82-F-8,9,G-5,12

MAP Nº 3-2

3.3 Rock Chip Sampling

3.3.1 Sampling, Sample Preparation and Analytical Procedures

Rock chip samples were taken across chloritized microdiorite bodies and across quartz veins.

The samples were placed in numbered plastic bags and sent to Chemex Labs Ltd. in North Vancouver for analysis. In the laboratory, samples were put through primary and secondary jaw crushers and a tertiary cone crusher. A sub-sample of aproximately 250 grams was then pulverized in a rotary pulverizer. Pulp for precious metal analysis was screened to minus 100 mesh and examined for 'metallics'. The pulp was then put through a fire assay preconcentration and analysed by atomic absorption for Au. A perchloric-nitric acid digestion followed by atomic absorption analysis was used for copper, lead, zinc, silver and molybdenum.

3.3.2 Presentation and discussion of Results

Assay results, locations and descriptions of samples are given in Table 3.3 and on Map 4.1.

Two grab samples of quartz contained significant lead, silver and gold values of 3160 ppm, 9.8 ppm, 5350 ppb and 22400 ppm, 45 ppm and 260 ppb respectively.

TABLE 3.3
Locations, Assay Values and Descriptions of Rock Samples

Sample Number	Located On Claim	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	W ppm	Au ppb	Description	Width in Metres
83168	Petra 15		10	<1	12	<0.2		<5	Qtz vein	0.07
83173	John		9	1	29	<0.2	1	5	Qtz stringers in sil. bedded arg.	Grab
83174	Luke NW corner		6	<1	15	<0.2	1	<5	Chloritic microdiorite w/qtz stockwork	Grab
83175	Luke		18	<1	92	<0.2	1	<5	Altered microdiorite. Minor diss. PY.	Grab
83176	Luke SW corner		8	<1	2	<0.2	1	5	Qtz vein. Boxwork texture	0.10
83177	Old workings near Oyster		320	3160	205	9.8	4	5350	Crushed qtz	Grab
83178	John		10	26	9	<0.2	2	70	Altered microdiorite w/qtz stockwork	Grab
83179	Standard	1		22400 (2.24%)	20	45.0	2	260	Qtz stockwork in maroon quartzite w/msv ga.	Float
83180	Luke	24		1	83	0.1		10	Chloritic microdiorite w/qtz stringers	
83181	Luke	9		1	119	0.1		5	Chloritized microdiorite. Strong pervasive alteration	
83182	Luke	6		4	152	0.1		<5	Microdiorite at footwall contact with argillite	
83183	Luke	12		5	114	0.1		5	Microdiorite Intense, pervasive chloritization. Few qtz stringers	

TABLE 3.3 Continued
Locations, Assay Values and Descriptions of Rock Samples

Sample Number	Located On Claim	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	W ppm	Au ppb	Description	Width in Metres
83184	Luke		13	1	145	0.1		<5	Altered microdiorite Strong chlorite, moderate kaolinite alteration	
83185	Luke		17	1	96	0.1		<5	Microdiorite	
83186	John		2	1	19	0.1		<5	Microdiorite Intense, pervasive chloritization. Qtz stockwork	

4. GEOPHYSICS

4.1 Fluxgate Magnetometer Survey

4.1.1 Instrument and Survey Techniques

Fluxgate magnetometer surveys were conducted both on the CAROL and LINDA mineral claims and on the LUKE mineral claim. A total of 2.06 line kilometers were surveyed using a Scintrex MF-2 fluxgate magnetometer. On the CAROL and LINDA claims, readings were taken at 10 metre intervals along four northwest-southeast survey lines spaced 200 metres apart. On the LUKE claim, readings were taken at 20 metre intervals along two northwest-southeast trending lines spaced 600 metres apart. Readings were taken in a northerly direction at all stations, including an established tie-in point which was checked for day to day variations.

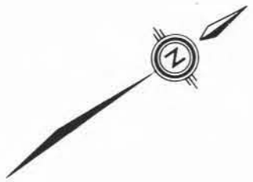
4.1.2 Presentation and Discussion of Results

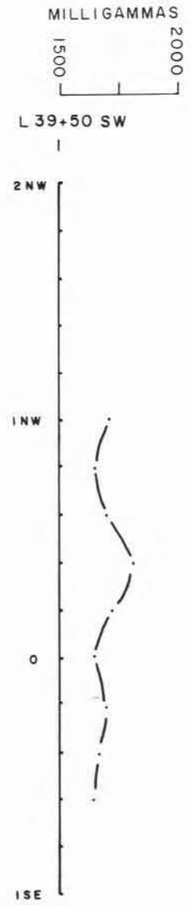
Magnetometer readings are in milligammas and have been corrected for day to day variations. Results of the survey are shown on Map 4.1 and the profiles of the corrected data are shown on Map 4.2.

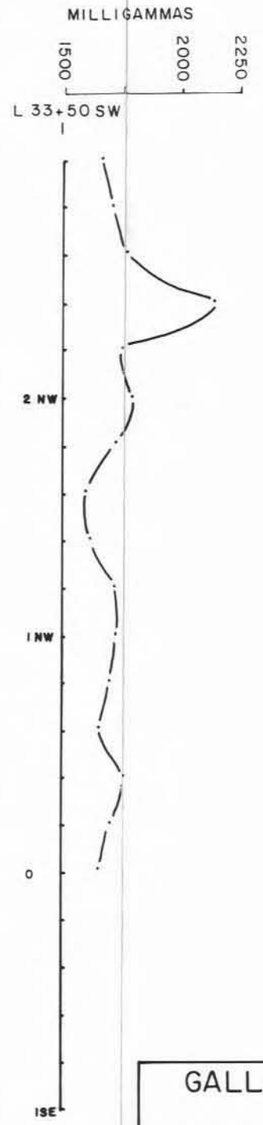
The purpose of the magnetometer survey was to delineate microdiorite/sediment contacts in areas where outcrop exposure is poor. On the LUKE mineral claim, values range from 1600 to 2150 milligammas and have a 100 milligamma noise level. In this area, microdiorite/sediment contacts are clearly defined in some outcrops. The results show a sharp spike on strike with the exposed contact on one line and a weak spike slightly off set on the other line. The survey carried out on the LINDA and CAROL mineral claims shows a range of values from 1500 to 2975 milligammas, and a noise level on the order of 450 milligammas. In this area, outcrop is scarce and the microdiorite has been mapped in float only, suggesting that thicker overburden occurs here. No distinctive peaks were outlined in the

profiles. Only broad fluctuations, in magnetic susceptability occur, which may be due to bedding in the sediments.

In summary, the magnetometer results appear to show some correlation with the microdiorite unit on the LUKE claim where bedrock is close to the surface. Where the overburden is deeper, the magnetometer results do not appear to delineate the microdiorite unit.







NOTE: PROFILE SCALE IS 1 CM. = 250 MILLIGAMMAS

GALLANT GOLD MINES LTD.
LUKE M.C. – B.C.

FLUXGATE MAG SURVEY

SCALE 1:2500
0 50 100 150 METRES

DATE: JAN. 1985
N.T.S. 82-F-8,9,G-5,12 MAP Nº 4-2

5. CONCLUSIONS

The results of the present programme may be summarized as follows:

1) Geological and geochemical evidence suggest that gold mineralization in the Perry Creek area is associated with quartz veins, quartz stockworks and siliceous zones in the vicinity of microdiorite bodies emplaced along regional faults crosscutting sedimentary formations.

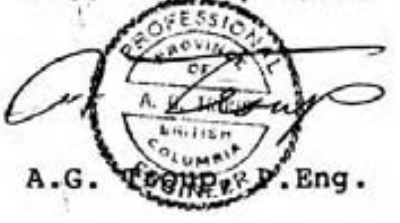
2) Traditional 'B' horizon soil sampling is not effective in this area and therefore bulk samples must be collected and concentrated in order to use geochemistry as an exploration tool.

3) The Fluxgate magnetometer is not very effective in delineating the microdiorite where it is covered by overburden.

Respectfully submitted,

B.P. Butterworth, B.Sc.

J.C. Freeze, B.Sc.



A.G. Troup, P.Eng.

REFERENCES

Fraser, D.C., 1969, Contouring of VLF-EM Data: Geopphysics, V.34, No. 6, p. 958-967.

Holcapek, F., 1982, Preliminary Geology and Evaluation Report on the Perry Creek Gold Property: Engineer's Report.

Madeisky, H.E., 1981, Geophysical and Geochemical Report on the JANET, JANET 1, BIRDIE LOAD, GOLDEN WOLFE, GOLD, TANIS, PETER ROCK, QUARTZ CREEK, LUKE, JOHN and PETRA Mineral Claims and Reverted Crown-Grants: Engineer's Report.

Symonds, D.F., 1980, Geophysical, Geochemical and Prospecting Report on the JANET, JANET 1, BIRDIE LOAD, GOLDEN WOLFE, GOLD, AZLIN, TANIS, PETER ROCK, LONE EAGLE, QUARTZ CREEK, LUKE, MARK, JOHN, ECLIPSE, ANNA, STANDARD, AGNES, PIONEER, OYSTER, EVENING STAR, PETRA, CAROL, LINDA Mineral Claims and Reverted Crown-Grants: Engineer's Report.

Wong, C. and Troup, A.G., 1981, Geochemistry and Geophysics Report on the Perry Creek Gold Property: Engineer's Report.

Ridley, J.C. (now Freeze) and Troup, A.G., 1984, Geological, Geophysical, and Geochemical Surveys Repport on the Perry Creek Property: Assessment Report.

STATEMENT OF QUALIFICATIONS

A.G. TROUP, P.ENG.

ACADEMIC

1967	B.Sc. Geology	McMaster University, Ontario
1969	M.Sc. Geochemistry	McMaster University, Ontario

PRACTICAL

1981 -	3605 Creery Ave. West Vancouver, B.C	Consulting Geologist with Archean Engineering Ltd.
1977 - 1980	Geological Survey of Malaysia	Project Manager on a CIDA supported mineral exploration survey over peninsular Malaysia.
1969 - 1977	Rio Tinto Canadian Exploration Ltd. Vancouver, B.C.	Geologist involved in all aspects of mineral exploration in B.C., the Yukon and N.W.T.
1968	McMaster University Dept. of Geology Hamilton, Ontario	M.Sc. thesis work. Reconnaissance mapping and geochemical study, Lake Shubenicadia area, Nova Scotia.
1967 (summer)	Canex Aerial Exploration Ltd. Toronto, Ontario	Geologist in charge of detailed mapping and reconnaissance geochemical program in Gaspe, Quebec
1966 (summer)	Mcmaster University Dept. of Geology Hamilton, Ontario	Detailed and reconnaissance mapping in Northern Ontario.
1965 (summer)	International Nickel Co. of Canada Thompson, Manitoba	Detailed mapping in the Thompson area, Manitoba.
1964 (summer)	Geological Survey of Canada Ottawa, Ontario	Regional geochemical survey in the Keno Hill area, Yukon.

STATEMENT OF QUALIFICATIONS

J.C. FREEZE (nee RIDLEY), B.SC.

Academic

1978	B.A. Geography	University of Western Ontario
1981	B.Sc. Geology	University of British Columbia

Practical

1981 - Present	Mark Management Ltd. Vancouver, B.C.	Project Geologist. Involved with geological, geochemical and geophysical aspects of precious metals exploration in B.C.
1980 - 1981	Utah Mines Vancouver, B.C.	Temporary Summer and part-time Winter Geologist in Charge of mapping and diamond drilling of a coal property in N.E. B.C. logging of rotary drilling chip samples on another coal property in N.E. B.C.
1979	Utah Mines Vancouver, B.C.	Temporary Summer. Reconnaissance and detailed mapping, logging of diamond drill core on coal properties in N.E. B.C.

STATEMENT OF QUALIFICATIONS

BRIAN P. BUTTERWORTH, B.Sc.

ACADEMIC

1983	B.Sc. Geology	University of B.C.

PRACTICAL

1983 -	Mark Management Vancouver, B.C.	Geologist involved in all aspects of precious metals exploration in B.C.
1982 (Summer)	Riocanex Vancouver, B.C.	Property work in Central B.C. which included detailed outcrop and trench mapping, core description and geochemical surveys.
1981 (Summer)	Riocanex Vancouver, B.C.	Regional geochemical survey, prospecting and property work throughout Central B.C. and Southern Yukon.
1980 (Summer)	Riocanex Vancouver, B.C.	Geochemical survey and and geologic mapping on properties in Central and Southeastern Yukon.

COST STATEMENT
GALLANT GOLD MINES LTD.
GEOLOGICAL, GEOPHYSICAL, AND GEOCHEMICAL SURVEYS
PERRY CREEK PROPERTY
9 - 26 October 1984

GENERAL COSTS

FOOD & ACCOMMODATION		
2 persons, 34 mandays @ $14.64		$ 497.83
FUEL		276.57
SUPPLIES		114.04
SHIPPING & POSTAGE		16.16
REPAIRS		101.71
FIELD TELEPHONE SERVICE		77.20
RENTALS		
MARK 4wd Bronco, 18 days @ $43	$774.00	
MITRON Radio Telephone, 18 days @ $5	90.00	
U-HAUL Trailer, 9-25 Oct, 17 days @ $13.71	233.12	
GABRIEL Field/Camp Equipment, 34 mandays @ $6	204.00	1,301.12
CONSULTANT FEES, ARCHEAN ENGINEERING		742.50
PROJECT PREPARATION		566.08
REPORT PREPARATION		2,690.96
TOTAL GENERAL COSTS		$6,349.67

GEOLOGICAL SURVEY COST

SALARIES & WAGES	
2 persons, 22 mandays @ $92.39	$2,032.58
BENEFITS @ 20%	406.52
GENERAL COSTS APPORTIONED	
22/32 X $6,349.67	4,365.40
TOTAL GEOLOGICAL SURVEY COST	$6,804.50

GEOPHYSICAL SURVEY COST

SALARIES & WAGES		
2 persons, 6 mandays @ $92.39		$ 554.34
BENEFITS @ 20%		110.87
RENTALS		
GOLIATH MF-1 Mag., 17 days @ $8	$136.00	
GALLANT MF-2 Mag., 17 days @ $24	408.00	544.00
GENERAL COSTS APPORTIONED		
6/32 X $6,349.67		1,190.56
TOTAL GEOPHYSICAL SURVEY COST		$2,399.77

GEOCHEMICAL SURVEY COST

SALARIES & WAGES			
2 persons, 4 mandays @ $92.39			$ 369.56
BENEFITS @ 20%			73.91
ASSAYS & ANALYSES, CHEMEX LABS			
30 rocks for	@ $13	$390.00	
51 Soils for	@ $8	408.00	798.00
GENERAL COSTS APPORTIONED			
4/32 X $6,349.67			793.71
TOTAL GEOCHEMICAL SURVEY COST			$2,035.18

Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

212 Brooksbank Ave.
North Vancouver, B.C.
Canada V7J 2C1

Telephone:(604) 984-0221
Telex: 043-52597

CERTIFICATE OF ANALYSIS

TO : GALLANT GOLD MINES LIMITED **

1500 - 675 WEST HASTINGS STREET
VANCOUVER, B.C.
V6B 1N2

ATTN: B. P. BUTTERWORTH & J. C. FREEZE

CERT. # : A8418685-001-A
INVOICE # : I8418685
DATE : 22-JAN-85
P.O. # : NONE
PERRY CREEK

Parameter Description	Sample # 1	Sample # 2	Sample # 3	Sample # 4	Sample # 5
Sample preparation code	214	214	214	214	214
Aluminium (pct)	3	2	2	2	2
Antimony (ppm)	100	<100	<100	<100	<100
Arsenic (ppm)	<100	200	200	300	200
Barium (ppm)	20	50	50	20	20
Beryllium (ppm)	2	2	2	2	2
Bismuth (ppm)	<5	<5	<5	<5	<5
Boron (ppm)	150	100	500	150	200
Cadmium (ppm)	<20	<20	<20	<20	<20
Calcium (pct)	1	0.5	0.2	0.5	0.1
Chromium (ppm)	100	70	70	70	70
Cobalt (ppm)	500	200	200	200	200
Copper (ppm)	30	20	50	100	50
Germanium (ppm)	<10	<10	<10	<10	<10
Iron (pct)	20	10	10	10	10
Lead (ppm)	30	50	50	50	50
Magnesium (pct)	2	1	1	1	0.7
Manganese (ppm)	500	500	200	300	100
Molybdenum (ppm)	<100	<100	<100	<100	<100
Nickel (ppm)	150	100	150	150	150
Niobium (ppm)	<500	<500	<500	<500	<500
Potassium (pct)	1	1	1	1	1
Silicon (pct)	5	5	2	10	2
Silver (ppm)	<1	<1	<1	<1	<1
Sodium (pct)	<0.05	0.1	0.1	0.05	0.05
Thorium (ppm)	<500	<500	<500	<500	<500
Tin (ppm)	<10	<10	<10	<10	<10
Titanium (ppm)	7000	5000	5000	10000	7000
Vanadium (ppm)	200	200	150	150	100
Zinc (ppm)	100	70	70	100	70
Zirconium (ppm)	5000	500	500	200	700

! SEMIQUANTITATIVE SPECTROGRAPH ANALYSIS !

Sample description information

Sample # 1 HMC-1
Sample # 2 HMC-2
Sample # 3 HMC-3
Sample # 4 HMC-4
Sample # 5 HMC-5

Preparation code description

214 Bag pulp

Certified by .....

Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

212 Brooksbank Ave.
North Vancouver, B.C.
Canada V7J 2C1

Telephone:(604) 984-0221
Telex: 043-52597

CERTIFICATE OF ANALYSIS

TO : GALLANT GOLD MINES LIMITED

1500 - 675 WEST HASTINGS STREET
VANCOUVER, B.C.
V6B 1N2

ATTN: B. P. BUTTERWORTH & J. C. FREEZE

** CERT. # : A8418685-001-I
INVOICE # : I8418685
DATE : 22-JAN-85
P.O. # : NONE
PERRY CREEK

Parameter Description	Sample # 6	Sample # 7	Sample # 8
Sample preparation code	214	214	214
Aluminium (pct)	2	2	3
Antimony (ppm)	150	<100	<100
Arsenic (ppm)	1000	100	100
Barium (ppm)	100	100	200
Beryllium (ppm)	3	3	2
Bismuth (ppm)	<5	<5	<5
Boron (ppm)	150	100	70
Cadmium (ppm)	<20	<20	<20
Calcium (pct)	1	2	2
Chromium (ppm)	100	200	300
Cobalt (ppm)	200	150	200
Copper (ppm)	100	100	70
Germanium (ppm)	<10	<10	<10
Iron (pct)	20	20	10
Lead (ppm)	200	50	150
Magnesium (pct)	1	1	1
Manganese (ppm)	500	1000	1000
Molybdenum (ppm)	<100	<100	<100
Nickel (ppm)	150	150	150
Niobium (ppm)	<500	<500	<500
Potassium (pct)	1	1	1
Silicon (pct)	5	5	10
Silver (ppm)	<1	<1	<1
Sodium (pct)	0.1	0.1	0.1
Thorium (ppm)	<500	<500	<500
Tin (ppm)	<10	<10	<10
Titanium (ppm)	>10000	>10000	>10000
Vanadium (ppm)	300	300	300
Zinc (ppm)	200	200	200
Zirconium (ppm)	500	700	500

! SEMIQUANTITATIVE SPECTROGRAPH ANALYSIS !

Sample description information

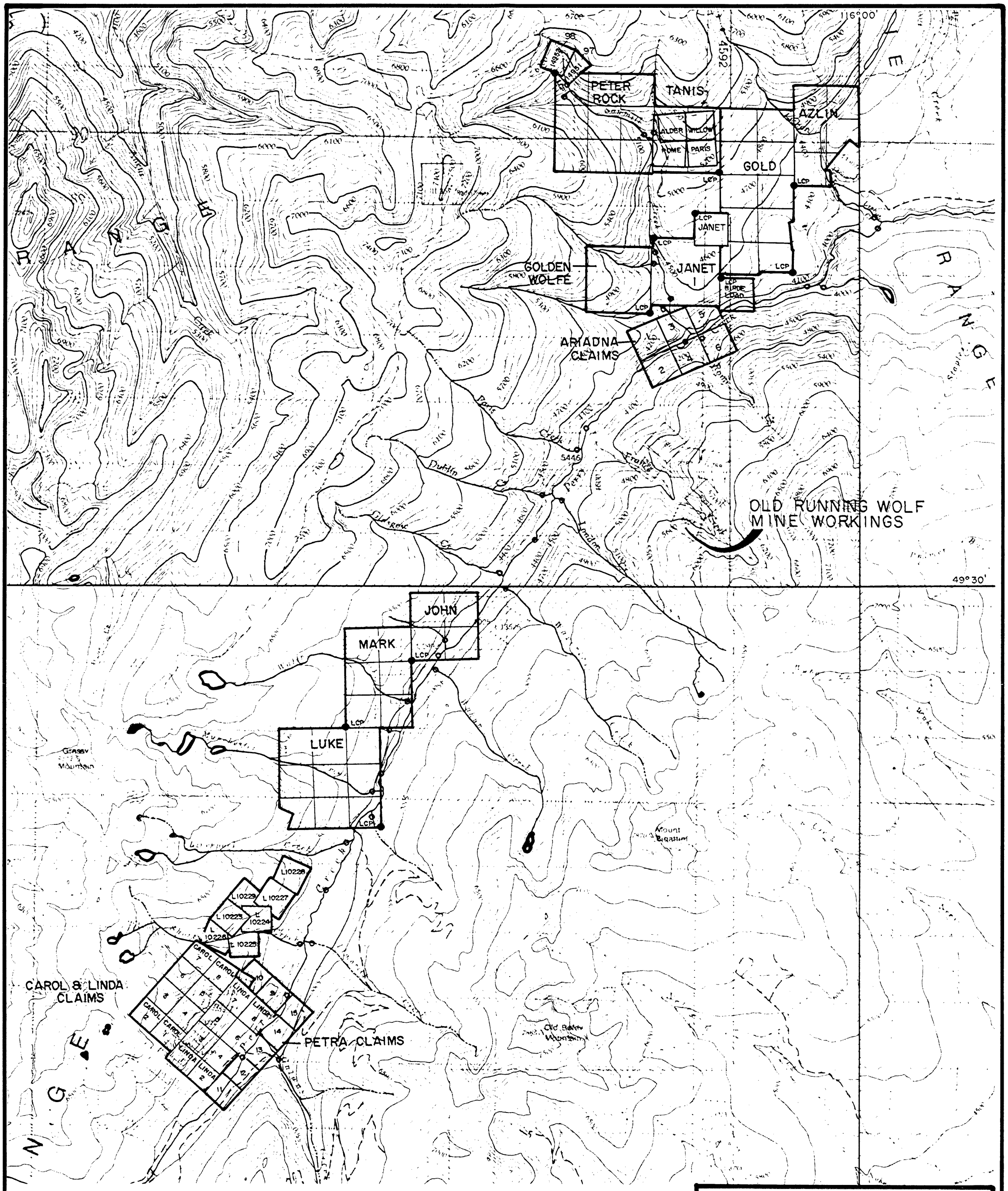
Sample # 6 HMC-6
Sample # 7 HMC-7
Sample # 8 HMC-8

Preparation code description

214 Bag pulp

CTA

Certified by .....



GALLANT GOLD MINES LTD.
PERRY CREEK PROPERTIES ; FORT STEELE M.D.-B.C.

CLAIM MAP

0 1 2 SCALE IN KILOMETRES

NTS 82-F-8,9; G-5,12
DATE: JUNE, 84 By: R.G./r.w.r. FIGURE 2

13,007

STANDARD M.C.

CAROL
M.C.

PETRA 10
M.C.

PETRA 9
M.C.

LINDA
M.C.'S

BASE LINE

LOGGING ROAD

MILLIGAMMAS

1000 1500 2000 2500 3000

1SE 2SE 3SE L0+00

1000 1500 2000 2500

1SE 2SE 3SE L2+00SW

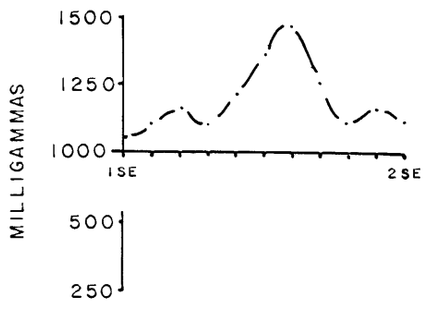
1000 1500 2000 2250

1SE 2SE 3SE 4SE L4+00SW

1000

1SE 2SE 3SE 4SE 5SE L6+00SW

LEGEND



SCALE : 1cm=250 MILLIGAMMAS , INSTRUMENT : SCINTREX MF-2 FLUXGATE MAGNETOMETER

GALLANT GOLD MINES LTD.

PERRY CREEK PROPERTIES ; FORT STEELE M.D., B.C.

MAGNETOMETER SURVEY
(PROFILES)

0 50 100 150 200 250 m.

1:2500

NTS 82-F-8,9;G-5,12

DATE : JAN. 1985 By: B.P.B./r.w.r. MAP 4.1

LEGEND

- FAULT, EXISTENCE UNCERTAIN
- GEOLOGICAL CONTACT
- STRIKE & DIP OF BEDDING
- " " " CLEAVAGE
- " " " WHERE BEDDING PARALLELS CLEAVAGE
- " " " SCHISTOCITY

83185 (PC84-22) ROCK SAMPLE LOCATION (SAMPLE SITE DESIGNATION)
14,1,76,0.1,–,<5 Cu, Pb, Zn, As, W, Au (ppb) – other elements in ppm

600,500 BULK SOIL SAMPLE SITE. RESULTS: Au (ppb), As (ppm)
A dash (–) indicates result is lower then detection limit.

- OUTCROP
- FLOAT
- SOIL SAMPLE SITES ALONG SOIL LINES.

PROFILE SCALE
2000
1500
1000
500
0
GAMMAS

INSTRUMENT: MF-2 FLUXGATE MAGNETOMETER

LIVERPOOL CREEK
Hk
Hc2
L 10228
L 10229
L 10227
L 10223
L 10224
L 10226
L 10225
Hm
Hc3
Calcareous, black Argillite
Green Phyllite
Fault location assumed
Fine grained, maroon quartzite. Interbedded maroon and green Argillite. Thinly bedded maroon and green Siltstone. Thin beds of phyllitic Argillite.
Chloritized Microdiorite. Float.
Black, calcareous Argillite
Interbedded, fine grained, maroon Quartzite and green Argillite.
Microdiorite - Andesite with pervasive chloritization. Float.
1, >10,000 (2.24%), 20, 45.0, 2,260
Quartz - stockwork in maroon Quartzite. 1 cm quartz vein contains massive Galena. Float.
83179
83160
Green, bedded Argillite
Chlorite Microdiorite. Float
<50, N S S
260,470
300,330
20,440
600,600
420,900
Interbedded, fine grained maroon Quartzite and green Argillite.
Thinly laminated light and dark green Argillite and green Siltstone.
Fine grained, maroon Quartzite with barren quartz stockwork.
Maroon, fine grained Quartzite cut by stockwork of barren quartz veins crosscutting bedding.
Quartz vein 7 cm wide in maroon Quartzite ~2% hematite, minor chalcopyrite and covellite Veins crosscut bedding/schistosity 116/76 SW
83168
Green, phyllitic Argillite
Green Argillite.
Interbedded, green Siltstone and grey phyllitic Argillite.
Siliceous, green Argillite.
Garnetiferous, fine grained, maroon Quartzite.
Maroon, fine grained Quartzite.
Maroon, fine grained Quartzite with quartz stringers.
Bear Trail
SHERRY CK
CAROL 1
CAROL 2
CAROL 3
CAROL 4
CAROL 5
CAROL 6
CAROL 7
CAROL 9
LINDA 1
LINDA 2
LINDA 3
LINDA 4
LINDA 5
LINDA 6
LINDA 7
LINDA 8
PETRA 9
PETRA 10
PETRA 11
PETRA 12
PETRA 13
PETRA 14
PETRA 15
PERRY CREEK
PERRY CREEK ROAD
R.O.W.
6000
5500
5000
4900
4300

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,007

GALLANT GOLD MINES LTD.
PERRY CREEK PROPERTIES, FORT STEELE M.D., B.C.

COMPILATION MAP

0 100 200 300 400 500 m
1:5000

NTS 82-F-8.9, G-5,12
DATE Jan. 1985 By B.P.B./r.w.r MAP NO. 2.2.1

N

10km to intersection of Sawmill Creek and Perry Creek roads.

Interbedded maroon Quartzite & green thinly bedded Argillite

Hc2

Fine grained maroon Quartzite & green Argillite. Quartz veins up to 7cm wide crosscutting bedding

Siliceous, green, bedded Argillite. Quartz stringers, parallel & crosscut bedding. Bedding becomes less recognizable toward contact with Hc_2 intrusive

83178 (PC84-24)

83186 (PC84-25) 2,1,19,0.1,-,<5

Hm

Intensely chloritized Andesite-Microdiorite, with quartz stockwork. Quartz veins show vuggy texture, minor hematite staining.

83174 83184 (PC84-3)

83173 (PC84-1)

JOHN M.C.

5500

5000

WELSH CREEK

LCP

Hc2

Black, phyllitic Argillite

Black, phyllitic Argillite

Hc2

Interbedded green Siltstone and black Argillite

MARK M.C.

Black Argillite and green Siltstone. Ripple marked. Interbedded with white, medium grained Quartzite, and green phyllite. 016/38 NW

Microdiorite sill 033/75 NW 83182 - 6,4,152,0.1,-,<5

Interbedded black Argillite, green Argillite and green Phyllite Ripple marked.

Argillite - Microdiorite contact 025/61 NW

Microdiorite - pervasive chloritization. Quartz stockwork with veins up to 4 cm wide. Minor desseminated Py 83183 12,15,114,0.1,-,5

Road

Black Argillite 017/71 NW

1550 1525 1500 1475 1450 1425 1400

5000' 4900' 4800' 4700'

Hc2 Hm Hc2 Hm Hk

A A'

Scale: Horizontal = Vertical 1:2500

5500

LCP

LUKE M.C.

Black Argillite, green Siltstone, ripple marked. Interbedded with white medium grained Quartzite

Hc2

Siliceous green, thinly bedded Argillite at footwall contact with 4.8 m wide Microdiorite - Andesite 83182 (PC84-11) 6,4,152,0.1,-,<5

MANCHESTER CREEK

83183 (PC84-15) 12,5,114,0.1,-,5 Chloritic Microdiorite. Quartz Stockwork, with veins up to 4 cm wide. Minor desseminated Py. 83175 (PC84-8) -,-,-,-,-,<5

Black, phyllitic Argillite PC84-7

Block Argillite

83181 9,1,19,0.1,-,5 (PC84-9)

Green Phyllite

Black, calcareous Argillite

L 33+50S

4800

5000

5700

Hc2 Hm Hk

Angular chloritic microdiorite boulders.

Microdiorite - chloritized, minor quartz - stockwork

Interbedded siliceous, green, thinly bedded Argillite and rusty, green, pyritic Phyllite.

83180 (PC84-6) 24,1,83,0.1,-,10

Microdiorite - chloritized, minor quartz stockwork.

Black, calcareous Argillite

83185 (PC84-22) 17,1,76,0.1,-,<5

Black Argillite

L 38+50S

Hm

83184 (PC84-21) 13,1,145,0.1,-,<5 Microdiorite with chlorite and kaolinite alteration. Hematite Stained.

Quartz vein, 18 cm wide, 038/75NW in green, phyllitic Argillite. Minor boxwork texture.

83176 (PC84-16)

Quartz vein / ledge at least 10 m wide with boxwork texture and hematite staining (PC84-20)

Grey-green phyllitic Argillite

83177 (PC84-19) 4,5350

Dump

(PC84-17,18)

LIVERPOOL CREEK

Hk

Calcareous, black Argillite

Hc3

Green Phyllite

5500

5000

LEGEND

- FAULT, EXISTENCE UNCERTAIN
- GEOLOGICAL CONTACT
- STRIKE & DIP OF BEDDING
- " " " CLEAVAGE
- " " " WHERE BEDDING PARALLELS CLEAVAGE
- " " " SCHISTOCITY
- 83185 (PC84-22) 17,1,76,0.1,-,<5 — ROCK SAMPLE LOCATION (SAMPLE SITE DESIGNATION) Cu, Pb, Zn, As, W, Au(ppb) — other elements in ppm
- ⊕ 600,500 — BULK SOIL SAMPLE SITE RESULTS: Au(ppb), As(ppm) A dash (-) indicates result is lower then detection limit.
- OUTCROP
- FLOAT
- SOIL SAMPLE SITES ALONG SOIL LINES

PROFILE SCALE

GAMMAS 2000 1500 1000 500 0

INSTRUMENT: MF-2 FLUXGATE MAGNETOMETER

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PERRY CREEK PROPERTIES ; FORT STEELE M.D., B.C.

COMPILATION MAP

0 100 200 300 400 500 m
1:5000

NTS 82-F-8,9,6-5,12

DATE Jan 1985 By B.P.B./r.w.r. MAP NO. 2.2.2