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GALLANT GOLD MINES LTD.

GEOLOGY AND DIAMOND DRILLING

PERRY CREEK PROPERTY
Fort Steele Mining Division
British Columbia
NTS 82F/8E, 9E

by

J.L. HARDY, M.Sc, F.G.A.C.

CLAIMS WORKED

CLAIMS	RECORDS	ANNIVERSARIES
LITHOS 1-4	2619-22	15 MAY
PERRY 1	2553	23 DEC
G.D. SAM	2623	15 MAY
WINTER	2567	3 FEB
CHEONA	2568	3 FEB
PETRA 9-15	799-805	19 OCT
LUKE	137	24 NOV
QUARTZ CREEK	98	4 NOV
LONE EAGLE	97	4 NOV
LINDA 1-7	810-816	5 NOV
CAROL 1-8	817-824	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

LOCATION: 49°29'/116°6'
OWNERS: GALLANT GOLD MINES LTD.
OPERATOR: GALLANT GOLD MINES LTD.
GEOLOGIST: J.L. HARDY

GALLANT GOLD MINES LTD.

REPORT ON GEOLOGY AND DIAMOND DRILLING
PERRY CREEK PROPERTY
FORT STEELE MINING DIVISION
NTS 82F 8, 9

SUMMARY

The Perry Creek gold property is located approximately 23 km west of Cranbrook in south-eastern B.C. It consists of 155 units in several non-contiguous claim blocks along Perry Creek. There is excellent access to much of the property by a well maintained network of logging roads.

The area has had a long history of exploration for both lode and placer gold since the 1840's. The property itself is underlain predominantly by Helikian Creston, Aldridge and Kitchener Formations, intruded by the Moyie sills along planes of regional shearing. Recent work has indicated that potentially economic gold mineralization is associated with quartz veins, stockworks and silicified zones near Moyie microdiorite bodies, and may extend into the surrounding wallrock.

Prior to 1986, exploration programmes completed by Gallant Gold Mines Ltd. were primarily for assessment purposes and focussed on areas of known or suspected mineralization. These surveys located two important showings that required drill testing - the Quartz Hill and the Petra.

The 1986 field program completed geologic mapping and prospecting on a property wide scale. Locations of old workings were confirmed. No new showings, prospects or alteration zones were located. Detailed mapping and 1239 ft of diamond drilling were completed in the Quartz Hill area, one of the largest and best exposed of the past producers. This work has proven that though areas of extremely high grade gold are present, gold distribution is erratic, and widths typically restricted. In addition, highest gold values here and elsewhere, tend to be localized near surface, suggesting that best values are at least partially the result of surface enrichment processes.

On the Petra, the possibility of stratabound mineralization is now considered remote as 200 ft of drilling on the 1985 trench site penetrated sheared and veined shallow water siltstones, not characteristically host to such mineralization.

A total of approximately $245,000 has been spent by Gallant Gold Mines Ltd. on the property to date. No further work is recommended.

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GALLANT GOLD MINES LTD.

REPORT ON GEOLOGY AND DIAMOND DRILLING PERRY CREEK PROPERTY FORT STEELE MINING DIVISION NTS 82F 8, 9

1. INTRODUCTION

The Perry Creek property consists of several non-contiguous claim blocks located predominantly along the west side of Perry Creek, about half way between Kimberley and Cranbrook, in SE B.C. The area has had a long history of exploration and development , but recent work began with ground acquisition by Gallant Gold Mines in 1978. Since that time exploration has been intermittent with geological, geochemical and trenching programmes. The present report synthesizes this work, as well as describing the mapping, sampling, and diamond drilling carried out in July, August and September 1986 under the supervision of J.L. Hardy, project geologist for Mark Management Ltd.

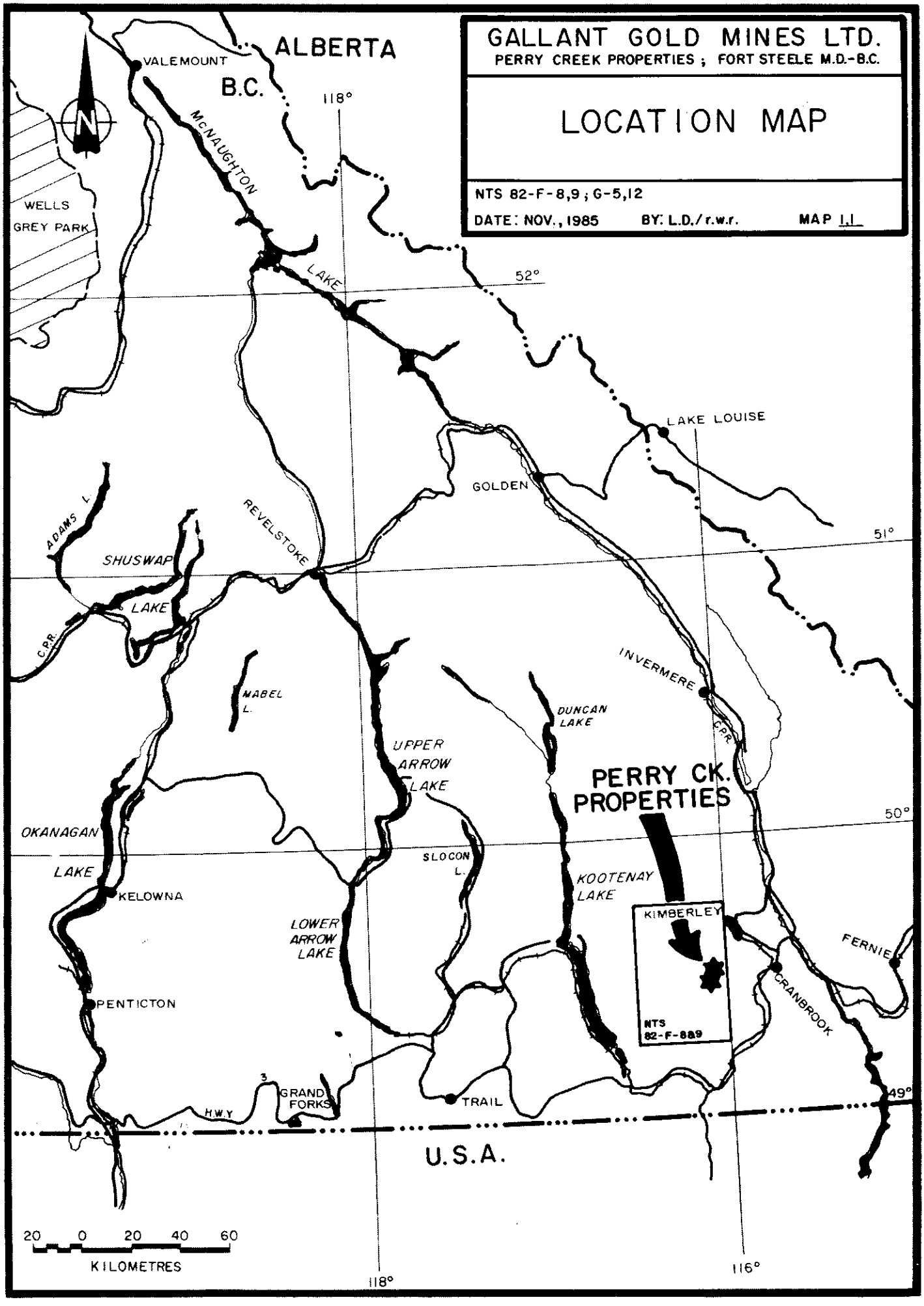
1.1 LOCATION AND ACCESS

The property is situated on the west side of Perry Creek approximately 20 km south-southwest of Kimberley and approximately 23 km west-southwest of Cranbrook. It centres on latitude 49°29'N and longitude 116°6'W and lies within NTS 82F8,9 and 82G5,12 in the Fort Steele Mining Division, as shown in **Figure 1.1.** The property is reached by the Wyecliff Park Road which leaves SW from the main Cranbrook - Kimberley Highway. A well established network of active logging roads developed by Crestbrook Forest Industries, based in Cranbrook provides access to much of the area. Logging commonly continues throughout the winter season. Old pack and foot trails, in places obscured by fresh windfalls provide access to many of the old showings.

1.2 PHYSIOGRAPHY

The property is situated in the Moyie Range of the Purcell Mountains. Maximum relief is approximately 1500 m ranging from 1219 m to 2133 m. The highest elevation in the immediate area is Grassy Mountain at 2491 m. Most 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 occur at higher elevations just outside of the property boundary.

The main Perry Creek valley is a U-shaped trough with steep lower valley slopes to about 300 m above the floor. Above this slopes flatten and tributary streams follow well-defined valleys. Below this tributaries have extreme gradients confined to narrow V-shaped valleys. Cliffs and bluffs are frequent at about 300 m above the main valley floor.


GALLANT GOLD MINES LTD.
PERRY CREEK PROPERTIES ; FORT STEELE M.D.-B.C.
LOCATION MAP
NTS 82-F-8,9 ; G-5,12
DATE: NOV., 1985 BY: L.D./r.w.r. MAP 1.1
ALBERTA
B.C.
VALEMOUNT
McNAUGHTON LAKE
WELLS GREY PARK
118°
52°
LAKE LOUISE
GOLDEN
ADAMS L.
REVELSTOKE
SHUSWAP LAKE
C.P.R.
51°
MABEL L.
INVERMERE
DUNCAN LAKE
UPPER ARROW LAKE
PERRY CK. PROPERTIES
50°
OKANAGAN LAKE
KELOWNA
SLOCON L.
KOOTENAY LAKE
KIMBERLEY
NTS 82-F-8&9
LOWER ARROW LAKE
FERNIE
CRANBROOK
PENTICTON
3
GRAND FORKS
TRAIL
H.W.Y.
49°
U.S.A.
20 0 20 40 60
KILOMETRES
118°
116°

Precipitation is commonly high, from 16" to 72" (41 to 183 cm). 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 underbush in the creek bottoms. Extensive windfalls or blowdowns in some areas make travel difficult.

The area has been glaciated and is covered by glacial material of highly variable thickness and composition. Glacial till consists of silt, clay, sand, and boulders and is common as thick accumulations masking outcrop at lower elevations, except rarely within the river beds. While till distribution is thinner at higher levels, it is present in at least small amounts over the larger part of the claim area. Erratics are found at all elevations below 2700 m.

1.3 CLAIM INFORMATION

Table 1 details the claims comprising the Perry Creek property and those claims on which work was completed in 1986 are listed on the title page. As a whole there are 18 modified grid claim units, 33 two-post claims and nine crown grants as shown in **Figure 1.3** for a total of 155 units.

TABLE 1: PERRY CREEK PROPERTY CLAIMS

CLAIMS	RECORDS	ANNIVERSARIES	UNITS
LITHOS 1-4	2619-22	15 MAY	4
PERRY 1, 2	2553-2554	23 DEC	15
PERRY 4, 5	2555-2556	23 DEC	22
G.D. SAM	2623	15 MAY	20
WINTER	2567	3 FEB	15
CHEONA	2568	3 FEB	20
PETRA 9-15	799-805	19 OCT	7
QUARTZ CREEK	98	4 NOV	1
LONE EAGLE	97	4 NOV	1
LINDA 1-7	810-816	5 NOV	7
CAROL 1-8	817-824	5 NOV	8
ECLIPSE	343	7 NOV	1
ANNA	344	7 NOV	1
STANDARD	345	7 NOV	1
AGNES	346	7 NOV	1
PIONEER	347	7 NOV	1
OYSTER	348	7 NOV	1
EVENING STAR	349	7 NOV	6
GOLDEN WOLFE	396	16 NOV	4
ADRIADNA 1-6	1057-1062	10 SEP	6
TANIS	149	4 FEB	4
PETER ROCK	397	16 NOV	9
MARK	136	24 NOV	6
LUKE	137	24 NOV	9
JOHN	138	24 NOV	4
BIRDIE LOAD	395	16 NOV	1
AZLIN	394	10 NOV	6
GOLD	148	4 FEB	10
JANET	86	22 OCT	1
JANET 1	87	22 OCT	4

Claim Map: Figure 1.3
(In back pocket)

1.4 PROPERTY HISTORY PRIOR TO WORK BY GALLANT GOLD MINES LTD.

The first recorded mining activities along Perry Creek date to the mid-1850's. Extensive placer mining took place above Old Town with the major areas of interest located between Old Town and Perry Creek Falls and a point about 3 km above the falls. Many shafts were sunk and pay streaks were worked both by surface sluicing and by way of tunnels driven along a false bedrock. No production records are available until about 1903 when interest intensified and several operations reported values up to $90/yard (Holcapek, 1982, p.3).

At present, the placer rights to Perry Creek are held by several different miners. 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. Recent work has been confined to extensive test pitting. Work on the other claims appears to be small scale and confined to summer weekends, except for one underground operation at the falls.

By 1898, prospectors were actively searching for the source of the rich placers and numerous claims had been located along the slopes of Perry Creek. Many of the prominent quartz "ledges" had been investigated but results were erratic. While local values of 0.2-0.5 oz/t Au were present, the average was believed to be too low to be of economic interest. A California type stamp mill erected in 1898 to test bulk samples from individual veins, apparently had recovery problems but the poor results led to abandonment of many of the claims.

In 1916, the discovery of the **Homestake (see section 3.3)** led to trenching, shaft sinking and drifting in efforts to delineate a large bulk tonnage deposit of 0.25 oz/t Au. While values up to 0.30 oz/t Au were reported from a shear zone impregnated with quartz and veinlets, overall the ledges returned trace to 0.05 oz/t Au.

By 1932, drifting and underground evaluation extended as well to the adjacent **Columbia** mine. Work centred on two zones of shearing associated with dykes or sills of what was termed "miner's porphyry". The zone contained quartz veins and impregnations with variable amounts of silicification and sulphides. Best values were reported from the narrower quartz stringers within the shears. Samples from the adjacent quartz ledge were disappointing.

From 1932 to 1933 work was intermittent and consisted for the most part of restaking and rediscovery of old workings and showings. Several small shipments were reported.

During 1973, a small open pit mining operation located at **Quartz Hill** shipped 1,373 tons of quartz plus pyrite, chalcopyrite, galena, and sphalerite which yielded 0.256 oz/t Au and 0.20 oz/t Ag. Little geological information is available about this work.

In 1978, research of old literature and discovery of old workings prompted Gallant Gold Mines Ltd. to begin ground acquisition.

1.5 PAST WORK BY GALLANT GOLD MINES LTD.

From 1977 to 1985 exploration programmes consisting of prospecting, mapping, rock chip sampling, soil sampling, VLF-EM, magnetometer, HMC sampling, and trenching were completed. These programs were for the most part of limited duration, carried out primarily for assessment purposes.

Soil sampling (Symonds, 1980; Madeisky, 1981; Butterworth, Freeze, and Troup, 1984; Dandy and Troup, 1985) indicated that gold shows an association with Cu, Fe, Ag, Bi, Pb, and Mn. In general, sporadic highs are present, but results are generally below detection limit and overall inconclusive. Best values of +10,000 ppb Au are from the vicinity of the Quartz Hill pit and apparently suffer from contamination resulting from past mining activities. Most geochemical indications in soil are obscured by the extensive and complex till cover which contains reworked placer accumulations. This precludes simple soil or basal till sampling as necessary indications of bedrock.

Twenty-five HMC and bulk soils were collected over sediment/intrusive contacts, shear zones and areas of mineralized quartz veins (Wong & Troup, 1981; Butterworth et al, 1984; Dandy & Troup, 1985). Thirty-nine samples returned gold values greater than 1000 ppb Au. Gold shows a high correlation with Cu, Mo, Fe, Ag, Bi, and Pb. Apart from Quartz Hill, best result is a 10,000 ppb Au sample from the Petra claims near the 1986 drill holes.

Apart from possible problems with till, comparison of bulk and HMC soils and standard B-horizon soils sampling suggests that the latter is an ineffective technique. Perry Creek mineralization occurs in heavy minerals that are not easily broken down and absorbed by the soils (Butterworth et al, 1984, p.16). HMC soils can be effective in locating mineralization concealed by limited glacial cover. This should be the preferred sampling method, despite its analytical and time cost.

HMC stream silt sampling has been described by Wong & Troup (1981), Ridley & Troup (1984) and Butterworth, Freeze & Troup (1984). Fifty to 100 kg silt samples were taken on Perry Creek at 250 m intervals and slightly upstream from the confluence of its tributaries. Fourteen samples contain more than 200 ppb Au. Statistical analyses show widely different threshold and anomalous values in part a function of the small sample population size. Best values are along areas of Perry Creek previously worked for placer and best correlations are generally of Au with Pb, Zn, and Ag. There is some suggestion of a primary metallogenic zoning (Ridley & Troup, 1984, p.19). Detailed HMC sampling may be a useful tool to locate the source of Perry Creek placers.

Mapping and sampling were completed over many of the showings and old workings. The **Golden Egg, Quartz Hill, Columbia, Homestake and Azlin** were described by Holcapek (1982), the **Running Wolfe** by Ridley and Troup (1984) and **Quartz Hill** by Dandy & Troup (1985). These concluded

that though the large quartz ledges are abundant they do not carry economic gold values. Best grades are recorded from mineralized shears adjacent to the ledges. The potential for finding additional gold-bearing shears was considered to be extremely good.

VLF-EM was carried out on several grids (Symonds, 1980; Wong & Troup, 1981; Ridley & Troup, 1984). Results were often inconclusive but at least in some areas tended to confirm suspected NNE trending fault traces along creeks where outcrop exists.

Magnetometer surveys on selected grids have been described by Madeisky (1981), Wong & Troup (1981) and Butterworth, Freeze & Troup (1984). Using a fluxgate instrument, results were somewhat variable. Generally there is much noise but sharp spikes in some cases where contacts are exposed and a lack of distinct peaks in areas of greater overburden cover. Results using a proton magnetometer in areas of moderate outcrop showed low peaks which may correspond to the contact but much sharper peak in areas of extensive stripping as on Quartz Hill. Where the diorite is very chloritic and fine grained, the proton magnetometer is not very useful in delineating the unit, but was very effective where the diorite is coarser grained.

Backhoe trenching was carried out at sites over the **Petra, Luke, and Quartz Hill** claims as described by Madeisky (1981) and Dandy & Troup (1985) in an attempt to locate mineralized shears and contacts between the microdiorite bodies and the sediments. Highly variable overburden depths and steep slopes made for difficult site selection. The glacial effects and multiple tills ensure that float is not necessarily a good indicator of bedrock type. Best results are from trench 3 on the Petra claims where 10 m of 0.115 oz/t Au were sampled from a somewhat rusty mudstone, apparently lacking in quartz veins.

1.6 1986 PROGRAM BY GALLANT GOLD MINES LTD.

The 1986 programme involved two geologists and a part-time core splitter over the period July 29, 1986 to September 9, 1986. Work consisted of 1:10,000 scale property wide mapping and prospecting, detailed mapping, sampling on areas of known showings previously identified as of interest and diamond drilling at sites on **Quartz Hill and Petra Claims.** Past data was reviewed and where appropriate utilized directly to build a base for 1986 work. Where discrepancies or differences existed these have been noted in the text. No work was completed in the area of the **Golden Egg, Birdie Load, Azlin or Running Wolfe claims.**

In addition to this work a three week program of prospecting was carried out by a two-man crew. This work described in **Appendix 4** and **Figures 10.1 & 10.2** confirms the location of old workings and showings and obtained selected grab samples described in **Table 2.**

TABLE 2: ROCK CHIP SAMPLING, PERRY CREEK
(Note: all samples are best grabs from old workings)
(for locations see Figures 3, 4)

NUMBER	LOCATION	DESCRIPTION/COMMENTS	RESULTS Au oz/t
CS- 1/1601H	Rock of Ages	sheared quartz with chlorite, <1% fresh py.	<0.002
CS- 2/1602H	Rock of Ages	sheared quartz with 2-3% fresh pyrite	<0.002
CS- 3/1603H	Apex	apparently leached quartz, with some box-work, no visible sulphides.	0.004
CS- 4/1604H	Apex	sheared quartz, locally limonitic with 2-5% coarsely crystalline pyrite.	<0.002
CS- 5/1605H	Manhattan	pinkish sheared, granular quartz, local boxworks, trace pyrite.	<0.002
CS- 6/1606H	B.A. Corp	sheared quartz, minor boxwork with phyllitic mudstone; minor pyrite.	<0.002
CS- 7/1607H	B.A. Corp	granular quartz with limonite stain, sheared with phyllitic partings.	<0.002
CS- 8/1608H	B.A. Corp	granular quartz or quartzite with mm oxi-dized spots.	<0.002
CS- 9/1609H	B.A. Corp	coarsely crystalline quartz with earthy limonite between crystal ends.	<0.002
CS-10/1610H	B.A. Corp	granular quartz/quartzite, limonitic with 5% pyrite, mm size malachite balls on one parting.	<0.002
CS-11/1611H	B.A. Corp	light grey quartzite with epitaxial quartz in veins, limonitic locally.	<0.002
CS-12/1612H	B.A. Corp.	light grey quartzite, limonitic along frac-tures, sheared, 2-3% pyrite.	<0.002
CS-13/1613H	McIntosh	granular quartz with 10-15% fine to med. py.	<0.002
CS-14/1614H	McIntosh	granular quartz/quartzite, trace to 2% cpy. with apparent quartzite.	<0.002
CS-15/1615H	McIntosh	granular quartz, 5-25% pyrite, locally limonitic, minor sphalarite.	<0.002
CS-16/1616H	McIntosh	coarsely crystalline quartz with hematitic fractures, 1-2% oxidized pyrite.	<0.002
CS-17/1617H	McIntosh	coarsely crystalline, limonitic quartz, 2-5% pyrite.	<0.002
CS-18/1618H	McIntosh	limonitic to hematitic quartz with frag-ment ghosts (?quartzite), sheared in part.	<0.002
CS-19/1619H	McIntosh	granular quartz, 1-2% med. crystalline py. to limonitic boxworks; trace galena.	<0.002
CS-20/1620H	Big Lodge	coarsely crystalline quartz, limonitic to hematitic with boxwork development.	<0.002
CS-21/1621H	Big Lodge	coarsely crystalline boxworks of quartz, limonite, 2-5% pyrite.	0.180
CS-22/1622H	Shakespeare	coarsely crystalline quartz, limonitic to hematitic on partings, to 10% pyrite.	0.002

Table 2 cont'd.

NUMBER	LOCATION	DESCRIPTION/COMMENTS	RESULTS Au oz/t
CS-23/1623H	Badger	very oxidized quartz, earthy, may be sheared.	<0.002
CS-24/1624H	Badger	granular quartz/quartzite, 2-3% fresh py. plus earthy limonitic	<0.002
CS-25/1625H	Badger	granular quartz with limonitic fractures, minor boxworks.	<0.002
CS-26/1626H	Badger	brown-grey siltstones: limonitic ground-mass.	<0.002
CS-27/1627H	Homestake	coarsely crystalline quartz, limonitic in places along partings, 1-2% oxidized py.	0.052
CS-28/1628H	Homestake	coarsely crystalline quartz, 5-10% fresh pyrite; siltstone wallrock.	0.088
CS-29/1629H	Columbia	sheared limonitic quartz, micaceous in places with siltstone, 2-3% pyrite.	0.408
CS-30/1630H	Columbia	coarsely crystalline quartz with anhedral pyrite plus limonitic Mn stained siltstone/ quartzite with boxworks, 2-3% pyrite.	0.304
CS-31/1631H	Scargie	coarsely crystalline quartz, 5% pyrite	0.006
CS-32/1632H	Liverpool Creek	altered limonitic diabase, goethite along partings.	<0.002
CS-33/1633H	Sawmill	highly weathered micaceous wallrock; ochre-like to bleached with ?Fe carb-veins.	<0.002
CS-34/1634H	Sawmill	coarsely crystalline quartz, limonitic to 2-3% fresh pyrite plus siltstone with pyrite veinlets to 15%.	<0.002
CS-35/1635H	Sawmill	granular quartz/quartzite, limonitic, with clear mm quartz veins.	<0.002
CS-36/1636H	Sawmill	limonitic to fresh Hb diorite.	<0.002
CS-37/1637H	Sawmill	relatively fresh Hb diorite plus granular	<0.002
CS-38/1638H	Sawmill	highly altered diorite, earthy	<0.002
CS-39/1639H	Sawmill	quartz rich but looks like altered diorite with sheared quartz and earthy limonitic siltstone.	<0.002
CS-40/1640H	Sawmill	quartzite, light to dark grey, limonitic with mm quartz veins.	<0.002
CS-41/1641H	Sawmill	medium green siltstone with sheared quartz, limonitic.	<0.002
CS-42/1642H	Sawmill	granular quartz to 10% pyrite plus phyllitic siltstones.	<0.002

2. GEOLOGY

2.1 REGIONAL 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 (1982). A compilation of these two maps is presented in **Figure 2.**

The property is underlain predominantly by Proterozoic age rocks of the Purcell Supergroup, including Aldridge, Creston and Kitchener-Siyeh Formations. Moyie microdiorite dykes and stocks occur within argillite, siltstone, and quartzite of the Creston and Kitchener Formations. In the northeast corner of the property sediments belonging to the Lower Cambrian Cranbrook and Eager Formations lie unconformably on the Kitchener Formation sediments.

CENOZOIC

Pliestocene and Recent tills and gravels

MEOZOIC 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

For complete descriptions refer to Leech (1957), Reesor (1982), Cairnes (1933), Rice (1956, 1937) and Schofield (1915).

The Perry Creek valley is bound to the north by the St. Mary Fault, a SW trending, steep dipping strike slip fault. A zone of longitudinal faults parallels Perry Creek and repeats the sedimentary sequence to the west. The Perry Creek anticline along the length of the valley leaves the Creston Formation dipping westward on the west limb (predominantly on the west side of the river) and eastward on the east limb.

2.2 OVERALL PROPERTY GEOLOGY

The following descriptions of the lithologies present on the Perry Creek claims are summarized and modified after work done by the GSC and Holcapek (1982), and 1986 1:10,000 scale mapping as shown in **Figures 3 and 4.**

Prior to 1986, geologic mapping was by way of specific individual lithologies rather than formations. In 1986, individual map units of previous workers were grouped to include facies equivalents resulting from slightly different sources or depositional energy levels.

PROTEROZOIC ALDRIDGE FORMATION (Ha)

Regionally the Aldridge is up to +10,000 ft but it is only exposed on the north western part of the property. Lithologies are mainly thinly bedded siltstones and fine quartzites with lesser mudstones in colours from grey to green grey to green through brown grey. The proportion of the various lithologies varies widely from outcrop to outcrop. Exposure is in part a function of the greater resistance of the quartzites, as mudstones are most common in sheltered areas. Bedding is typically well defined on a scale from 4 cm to 25 cm, with some quartzite beds up to 50 cm thick. Rarely heterolithic conglomerates are present containing subangular to subrounded clasts 2-10 mm in diameter. From trace to 3% finely disseminated pyrite is commonly present and may increase within certain beds and along fracture/cleavage planes though it does not appear stratabound; elsewhere up to 5% sub-mm pyrite cubes are present. Limonite is present locally along partings or patches due to apparent ground water seepage. Sporadic discontinuous milky quartz veins to 10 cm wide occur locally. Generally they are sulphide-free but may contain up to 5% hematite within clear quartz centres.

PROTEROZOIC-Creston Formation

The Creston Formation has been subdivided into three units, provisionally called Lower (Hc1), Middle (Hc2) and Upper Creston (Hc3). These are commonly difficult to separate on an outcrop to outcrop basis, as is typical of shallow water lithologies with abundant facies changes. On a broader scale, the Lower Creston (Hc1) is dominated by thin-bedded alternating mudstone and siltstone with lesser fine quartzite with a total thickness of about 1000 metres. Bedding is typically well defined on a mm to 10 cm scale, though rapid thickness variations are common. Proportions of the various lithologies vary widely: from e.g. 50% mudstone/50% quartzite to 90% quartzite/10% mudstone or 70% mudstone and siltstone/30% quartzite. This in part reflects rapid shallow water facies changes but it also relates to differential resistance to weathering according to variable exposures. Rocks are commonly light grey to white to dark grey to green grey. They frequently show a yellow tone on weathering and are markedly less green than Hc2. Bright yellow-brown limonitic coatings are common on joints, bedding planes and along seeps. In contrast to Hc2, quartzites tend to be coarser grained with individual

grains easily visible; they are generally less well cemented and never show maroon banding. Overall lithologies are less phyllitic than Hc2 though fine mica flakes are common in some interbands. Minor finely disseminated pyrite is present locally, as well as in sub-mm to 5 mm (rarely) cubes in part oxidized to limonite. Manganese dendrites are well developed in places. Quartz veins up to 5 cm in width are generally composed of milky with lesser clear quartz which can contain specular hematite with trace oxidized pyrite. Mudcracks, symmetrical ripples and soft sediment deformation are abundant throughout.

The contact with the underlying Aldridge Formation was not directly observed in outcrop within the map area. On a regional basis it is at the horizon where the rusty, even bedded, black/white banded mudstone grades into very uneven, pinching and swelling beds of green to greenish grey mudstone and siltstone, commonly characterized by mudcracks and other shallow water features.

When it occurs at higher elevations the upper section of the Lower Creston is typically a cliff-forming unit as a result of cleavage along steeply dipping joint faces. The dominant lithology is a green argillaceous siltstone bedded on a 10-15 mm scale.

The gradational contact with the overlying Middle Creston (Hc2) is marked by the beginning of thick-bedded, grey argillaceous siltstone commonly intercalated with thin-bedded units of deep-purple to almost black mudstone. The Hc2 itself consists of variable proportions of mudstone, siltstone and quartzite much like the composition of Hcl. It occurs regionally in thicknesses up to 1000 m. Colours are typically shades of green grey or grey green with quartzites showing very fine banding in tones of grey or more commonly maroon bands to mottles. Bedding is generally well-defined on a mm to 10 cm scale with quartzite beds to 50 cm. Weathered surfaces may show lenses of coarser tan coloured material or locally sub mm limonitic spots representing oxidized pyrite to 15% in places. Coarser beds in places contain coarse flakes of apparently primary mica on some bedding planes.

The unit is a cliff former and is characterized by blocky fractures within a relatively competent succession. Extremely well-preserved symmetrical wave ripples may be present. Thicker successions of black to deep purple mudstone may show mud cracks, and thin beds or lenses of medium-grained white quartzite. In several places sub mm highly convoluted crenulation cleavage and cm scale folds are common.

Where present quartz veins contain 1 - 2% hematite, trace pyrite and both milky and clear phases. Typically they are discontinuous and lack consistent orientation.

The transition to the Upper Creston (Hc3) is marked by a characteristic deep green siltstone to fine brown pink to green to grey quartzite to interbedded with green and purple mudstone, light to dark green mudstone or silty mudstone. Most beds vary from a few mm to 3 cm thickness. While it was only mapped in the area of the

Petra Claims (see Figure 3), regionally it is up to 300 m in thickness.

The contact between the Creston Fmt and the overlying Kitchener Fmt (Hk) was not observed in outcrop. It is described as transitional over several tens of metres and is marked on the basis of 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.

PROTEROZOIC KITCHENER FORMATION (Hk)

The Kitchener Formation is commonly exposed in thin fault slices or beneath the Lower Cambrian unconformity so that over most of the map area only partial sections have been preserved. Lower sections contain abundant green weathered mudstone and siltstone similar in character to the Creston Formation which can make distinction difficult. Lithologies are typically phyllitic thinly bedded green mudstone, grey-green to grey calcareous mudstone, green siltstone and brownish weathering dolomitic siltstone. Shallow water features like symmetrical ripples and mudcracks are locally abundant. Bedding is generally well- defined on a .25 cm to 2 cm scale.

The upper portion of the Kitchener Formation weathers to grey to black, brown or buff coloured, thinly bedded succession which on a fresh surface consists of black argillite, silty dolomite, or dolomitic siltstone.

?PROTEROZOIC MOYIE INTRUSIONS(Hm)

The Moyie Intrusions occur throughout the Purcell Supergroup with the possible exception of the Dutch Creek Fmt. The intrusions are mostly sills, dikes or apophyses ranging up to 100 m in thickness which are most common in the Middle Aldridge. Typically the dikes occur in groups of several individuals comprised of variably altered metadiorite to metaquartz diorite. Contact metamorphism is typically slight and confined to local biotite and/or garnet development.

Many of the old showings and workings are localized proximal to such dykes, which were termed "miner's porphyry".

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) which were not observed in 1986 mapping.

Cranbrook Formation

The Cranbrook Formation typically consists of white, medium- to fine-grained, locally crossbedded quartzite in beds up to 1 metre thick. Low in the sequence minor hematite-rich quartzite beds as well as purple or olive green mudstone are present. Locally near the base of

the Cranbrook Formation, lenses or thin beds of pebble conglomerate occur. Rarely, worm tracks can be found on shaley interbeds between quartzite beds and vertical worm burrows are present in some quartzite beds.

In addition to abundant white quartzite, medium- to fine-grained quartzite, purple mudstone and conglomerate are also present in this formation. The conglomerate contains angular to rounded pebbles, cobbles and boulders clearly derived from Middle Creston strata.

Eager Formation

The Lower Cambrian Eager Formation conformably overlies Cranbrook quartzite. It consists of thin bedded grey- to olive-grey mudstone and grey siltstone with, silty limestone, carbonate bearing mudstone bioclastic units and argillaceous limestone near the base. The last contain Olenellus and other fossil fragments of Lower Cambrian age.

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, but it is believed to be not less than 1000 metres thick.

Structure

The major structural features on the Perry Creek property are two NE trending longitudinal faults along Perry Creek. The first follows the upper part of the valley to Walsh Creek from where it cuts into Sawmill Creek from the Golden Egg mine. The second follows east from Lisbon Creek through the northward bend of Perry Creek and continues SW through the Rome Creek showing.

Northwest of Perry Creek small faults and parallel shears are common. These have topographic expression as level shelves up to 15 m wide along the valley sides and are often accompanied just upslope by zones of silicification and/or large bull quartz veins from 1 to 20 m wide. The bulk of movement on the faults appears to be strike slip but units also appear to be repeated due to faulting. Holcapek (1982) has described faulting near the Birdie Load.

More or less east-west trending faults may be contemporaneous with the folding of the Perry Creek anticline. They have generally limited displacements but as they tend to crosscut bedding, they form gulleys, cliffs and may deflect streams.

Evidence of local folding is present in the form of rapidly changing fracture cleavage orientations and localized isoclinal folding observed in several locations.

2.3 MINERALIZATION and GENERAL 1986 ROCK CHIP SAMPLING

Exploration and development work in the past has concentrated on three transitional deposit types:

1. Large quartz veins up to 20 m wide trending subparallel to Perry Creek.

2. Zones of remobilized quartz forming irregular lenses, pods or veins.

3. Mineral deposits associated with the Moyie Intrusions primarily in shear zones with wallrock alteration and irregular veins occurring as shear infill (eg. Quartz Hill), primarily on the west side of Perry Creek.

For the most part significant deposits within the Perry Creek drainage appear to be of type 2 and 3 and are usually of vein type, shear filling or stockworks related to fracturing. Quartz often contains boxworks of limonite, goethite and fresh pyrite. Gold and lesser silver typically are present with pyrite, galena, chalcopyrite and rare sphalerite. Gangue consists chiefly of quartz with minor calcite or siderite.

Type 1 consists of large quartz veins or ledges up to 20 m wide trending nearly parallel to the Perry Creek fault and clearly marked by topographic expression even in overburden-covered areas. They are often paired with type 2 shear zones which tend to be localized within topographic lows between the resistant ledges. Because of its recessive nature, much of the mineralization associated with such shears awaits discovery.

The various types of mineralization will be discussed more fully in **Section 3**. Generally pits and showings especially at lower elevations are sloughed and underground workings are inaccessible. Madeisky (1981) and Holcapek (1982) prospected extensively. Prospecting in 1986 primarily sampled only the freshest workings and all these samples were "best grab". This and additional 1986 rock chip sampling results are described in **Tables 2 and 3.**

TABLE: 3 ROCK CHIP SAMPLING, PERRY CREEK
(Areas other than Petra, Shakespeare and Quartz Hill)

NUMBER	LOCATION	WIDTH	DESCRIPTION/COMMENTS	RESULTS Au oz/t
28169A	G.D. Sam	Float	angular slightly rusty milky quartz with lesser quartz, tr. py., 1% ht.	<0.002
28170A	G.D. Sam	Best grab	over about 10 cm stratigraphic thickness in limonitic green phyllitic limestone.	<0.002
28171A	G.D. Sam	Best grab	quartz veined, sheared limonitic quartzite; veins to 20% of rock.	<0.002
28172A	Galway Crk	Best grab	subcropping quartz vein; milky, plus clear; hematitic tr. oxidized py.	<0.002
28173A	Galway Crk	Best grab	minor clear quartz veins (<1 cm width), hematite staining in light grey to limonitic quartzite.	<0.002
28174A	Galway Crk	Best grab	"knarled" milky quartz with chlorite from mm to 10 cm wide in grey siltstone.	<0.002
28175A	Galway Crk	2 m	near perpendicular to strike: limonitic light green siltstone.	<0.002
01643H	Winter	grab	phyllitic siltstone with cm limonitic areas; samplie of most rusty trench: hematitic; 1866 ppm Pb, 320 ppm As.	0.002
01644H	Winter	8 cm	quartz vein in phyllitic mudstone with 2-3% py., coarsely crystalline mica; 156 ppm Pb.	<0.002
01645H	Winter	grab	trench: many quartz veins in phyllitic siltstone; veins 40%, hematitic.	<0.002
01646H	Winter	grab	pit: phyllitic siltstone, limonitic	<0.002
01647H	Winter	30 cm	gnarled veins in quartzite with areas specular hematite.	<0.002
01648H	Winter	1 m	quartzite: limonitic on fractures, bedding planes, mm quartz veins.	<0.002
01649H	Winter	grab	milky quartz with clear centres in fine quartzite.	<0.002
01650H	Luke	float	milky quartz with clear centres, 5-10% sericite, earthy limonite, tr. galena, 882 ppm Pb.	<0.002
16343E	VOR road	1.5 cm	quartzite; tr. 1 cm quartz veins with tr. diss. py. and 8% py. along microfractures.	<0.002
16345E	VOR road	0.15 m	moderately fractured, vuggy cloudy white to clear quartz vein; 2-3% Fe- along fractures and vugs; hosted by siltstone, mudstone and minor quartzite.	<0.002

3. DETAILED WORK BY GALLANT GOLD MINES LTD.

Detailed work focussed on three areas: **Quartz Hill, the Petra Claims** and the newly discovered **Shakespeare Showing** and consisted primarily of geological mapping and sampling followed by diamond drilling at **Quartz Hill** and on the **Petra.**

All samples were analyzed by Chemex Labs, North Vancouver, B.C. for 30 element ICP and f.a.a. gold as follows:

In the laboratory, the samples were oven dried at approximately 60°C. The dried samples were sieved to minus 35 mesh and the resulting coarse fraction was analyzed for Au by atomic absorption after digestion with hot concentrated nitric and hydrochloric acids. Further, the samples were analyzed for 30 elements (Al, Ag, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sr, Ti, Tl, U, V, W, and Zn) by Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP-AES) analysis.

As the bulk of the sampling was carried out within zones previously designated as anomalous or known to be mineralized, no attempt was made at statistical analysis beyond correlation coefficients. These revealed low correlation for all elements with gold. Hence only Au and Ag are plotted on the accompanying maps.

3.1 QUARTZ HILL AREA

3.1.1 WORK COMPLETED 1986

A three week program of geological mapping, sampling, and logging of diamond drill core was carried out in the Quartz Hill area over the period August 1 to September 8, 1986 by D. Mathison. Work consisted of 1:500 and 1:2500 scale mapping using a hip chain and altimetre. Base maps from Holcapek (1982-detail area 5) were used to delineate geological contacts, quartz veins and also to locate old workings. Approximately 50 rock chip samples were collected from within the pit area and are plotted with those from Dandy (1985) in Figures **6.1 and 6.2.** Two thin sections of altered rock from the Quartz Hill Pit were analysed by Vancouver Petrographics, Langley, B.C. (see Appendix 3).

Chip sample and trench locations by L. Dandy (1985) as well as geology in trenches now infilled after Holcapek (1982) have been included on the 1986 maps.

Following the mapping and sampling, a 1277' detailed diamond drilling program was carried out by Beaupre' Diamond Drilling of Princeton, B.C. A modified Longyear 38, was used and running one 12 hour shift per calendar day, eight NQ holes with spacing as shown in Figure **6.1, 6.2, and 6.3** were completed in 8 days. Water was obtained from a man-made sump located at the pit. All core was split in half, parallel to the core axis and analyzed, primarily in 5 ft lengths for 30 element ICP and f.a.a. Au as described previously. Geology is shown in **Figures 7.1-7.5.**

Time spent for site preparation, diamond drilling, core logging and splitting was approximately two weeks. Core from Quartz Hill and the Petra drilling is stored at the farm of Chris Sywulsky at about the 5 km mark on the Perry Creek access road just before the cut off to Old Town.

Approximately west and south of the Quartz Hill area, 1:10,000 scale regional geological mapping was conducted along the VOR (Vertically Oriented Radar) road. All mapping used airphotos, hip chain and altimetre and a 1:10,000 base map blown up from a 1:50,000 topo map.

3.1.2 GEOLOGY

Bedrock exposure within the Quartz Hill pit is generally good **(see Figure 6.3)**, with the central area of the pit forming a topographic high, giving almost complete bedrock exposure. Outside the pit, bedrock is best exposed along road cuts, trails and trenches **(Figure 5)**.

Quartz Hill is predominantly underlain by Aldridge Formation sediments which lie unconformably against Creston Formation outcropping northwest and south of the pit as shown in **Figures 4 and 5**. Intruding the Aldridge Formation are hornblende diorite dykes and/or apophyses of the Moyie Intrusions. Separating Aldridge Formation from Creston Formation sediments is a northeast/southwest trending fault which is likely a splay from the St. Mary Fault zone. Two minor faults on the pit are associated with this splay. Minor small scale folding is also evidenced, but bedding attitudes, which dip to the northwest, appear to be relatively constant overall.

Here the **Aldridge Formation** consists of a sequence of interbedded to laminated, impure quartzites, siliceous siltstones, and phyllitic mudstones. The first compose approximately 65% of the rock sequence. They are grey to green to buff white to tan, moderately fractured and fine to medium grained. They are often massive, thickly bedded and, in outcrop, resistant to weathering. Commonly, the quartzites are extensively bleached near the surface, with less bleaching gradationally with depth. The siliceous siltstones and phyllitic mudstones compose the remaining 35% of the rock sequence. The siltstones are grey- green, to green, to brown-green and weakly to moderately fractured. Commonly, they are strongly cleaved with the cleavage plane nearly parallel to bedding. The mudstones are grey-green to light green and weakly fractured. In outcrop they are generally the least resistant to weathering. Typically, the siliceous siltstones and the phyllitic mudstones are thinly interbedded to laminated between thicker beds of impure quartzites.

The Moyie Intrusions outcrop as an equigranular, medium grained, hornblende diorite. In the pit, a moderately fresh diorite dyke-like intrusion has been emplaced along a pre-existing fault. Movement along this fault is suggested by the strong jointing and mineral lineation in the hornblende diorite adjacent to the fault.

Faults evident in the Quartz Hill area generally show strong cleavage, dense fracturing, brecciation and differential erosion along the

fault lines. The minor faults in the pit, trending northeast to southwest, appear to be associated with a larger fault located east and south of the workings which itself is a splay from the St. Mary Fault.

Leech (1957) has described the St. Mary Fault as "steep and, where exposed, marked by breccia, appearing to represent dominantly vertical adjustment between tilting blocks, but having many of the characteristics of a strike slip fault." Further, description by J.E. Reesor (1980-81), suggests that displacement along the St. Mary Fault "must be in the order of 10 kms with north side up." Mapping in 1986 confirms that the larger fault at Quartz Hill, thought to be a splay of the St. Mary Fault, separates Aldridge Formation sediments to the north from unconformably overlying Creston Formation. As outlined by topography this splay appears to be locally steeply dipping to the northwest.

Additional tectonic features present include: one or possibly two conjugate fracture/cleavage planes **(see Figure 6.3)** and a mineral lineation, which appears to represent slickenslides produced from slip movement, along the fracture/cleavage planes. The last movement may be the result of local fault displacements; but the relative direction of slip movement parallel to the lineations, along the fracture/cleavage planes could not be obtained.

3.1.3 MINERALIZATION, ALTERATION AND SAMPLING RESULTS

Gold mineralization at Quartz Hill is primarily associated with quartz veining, - either large (<25 cm width) to intermediate size quartz veins, or as quartz stockworks, often consisting of randomly oriented, clear to cloudy white, quartz veinlets. Sample descriptions are given in **Table 4** and results shown in **Figures 6.2.**

In general, the intermediate size quartz veins and quartz veinlets are hosted in more competant quartzites and siliceous siltstones while large quartz veins may cross-cut several lithologies. From drill hole evidence, in all cases, the quartz veining appears to decrease with depth. Except for this change in abundance, lithologies and veining intersected in core closely resemble material exposed in outcrop in the pit.

The large quartz veins in general, appear to be structurally controlled. The veins cross-cut bedding, though the exact parameters controlling the orientation and shape of the veins are not clear. In the central area of the pit the large vein is approximately flat lying with the topography while curving with the shape of the hill (near sample 16335, the vein is close to horizontal; near sample 16341, the vein is dipping SSE). In the southwest area of the pit (near samples 16303, 16304), the large vein dips quite steeply to the southwest, while at the north end of the pit (near samples 16312, 16313) it may be flat lying.

The structural parameters at the Quartz Hill pit are unclear, but it appears that the shape of Quartz Hill is approximately coincident with

the orientation of the large outcropping quartz veins. While allowing for distortions due to past mining activities, the shape of Quartz Hill and hence, the orientation of the large quartz veins, appear to be controlled by one, or more likely, two conjugate fracture/cleavage planes. The lineation, previously described, only evident at Quartz Hill, is found along these fracture/cleavage planes and along the interfaces of large quartz veins with country rock. The lineation appears to represent slickenslides produced from slip movement along the fracture/cleavage planes. These slickensides, may be nearly parallel to the intersection produced from the hypothesized conjugate fracture/cleavage planes.

TABLE: 4 1986 ROCK CHIP SAMPLING QUARTZ HILL

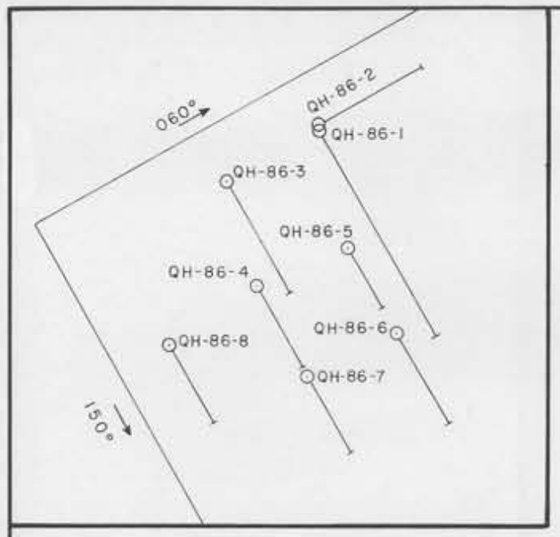
NUMBER	WIDTH	COMMENTS/DESCRIPTION	RESULTS AU oz/t
16301 E	3.0 m	quartzite; tr. diss. py.; hematite/rust brown staining on partings.	<0.002
16302 E	0.4 m	resistant pod-like bodies; brecciated, light grey, quartzite surrounded by dark matrix; tr. finely diss. py.	<0.002
16303 E	0.5 m	cloudy, white quartz less than 1% clear quartz veinlets and vugs, trace: pyrite, hematite, chalcopyrite, malachite; 445 ppm Cu.	0.092
16304 E	0.5 m	fine-grained quartzite; tr. finely diss. py.; rust staining on partings; hanging wall to sample 16303 E.	0.002
16305 E	1.0 m	rusty bull quartz in contact with light grey-green, phyllitic mudstone; tr. py. along quartz veinlets; rusty brown on partings.	0.008
16306 E	1.0 m	white bull quartz in contact with grey-green phyllitic mudstone; trace: pyrite, sericite, and clear quartz veinlets.	0.014
16307 E	0.3 m	soft, rusty, hornblende diorite cut by 1% clear quartz veinlets; 4% hematite; 1266 ppm Cu.	0.004
16308 E	1.0 m	highly altered, soft rusty brown, (possibly) siltstone; 2443 ppm Cu.	0.014
16309 E	0.3 m	hornblende diorite; rust brown staining on partings; tr. clear quartz veinlets.	0.002
16310 E	0.3 m	quartzite cut by quartz veinlets; 2% limonite; 2% pyrite; 723 ppm Cu.	0.100
16311 E	0.3 m	white to light grey-green quartzite cut by 2% quartz veinlets; 3% pyrite, 4% hematite; 455 ppm Cu.	0.004
16312 E	1.5 m	quartzite cut by large white quartz vein; tr. diss. pyrite; 2% pyrite, 3% hematite where clear quartz veinlets cut quartzite; 44.2 ppm Ag.	0.520
16313 E	1.0 m	same as sample description 16312 E	0.040
16314 E	1.0 m	quartzite; interbedded with phyllitic mudstone cut by white quartz stockwork; 5% pyrite, 5% hematite; 9.4 ppm Ag; 1652 ppm Cu; 1048 ppm Pb.	0.032
16315 E	2.0 m	white quartz vein cutting phyllitic mudstone 5% clear quartz veinlets and vugs; 3% limonite, 2% pyrite in clear quartz.	0.018
16316 E	2.0 m	quartzite interbedded with minor phyllitic mudstone; tr. diss. pyrite.	0.002
16317 E	1.5 m	white to grey-green, quartzite; tr. py., tr. hematite.	<0.002
16318 E	2.0 m	light tan to grey-green, fine-grained quartzite; tr. diss. pyrite; 517 ppm Cu.	<0.002
16319 E	2.0 m	white to tan fine-grained quartzite interbedded with grey green phyllitic mudstone; tr. pyrite, 613 ppm Cu.	0.004
16320 E	2.0 m	same as sample description 16319 E; 534 Cu, 312 ppm Pb.	0.002

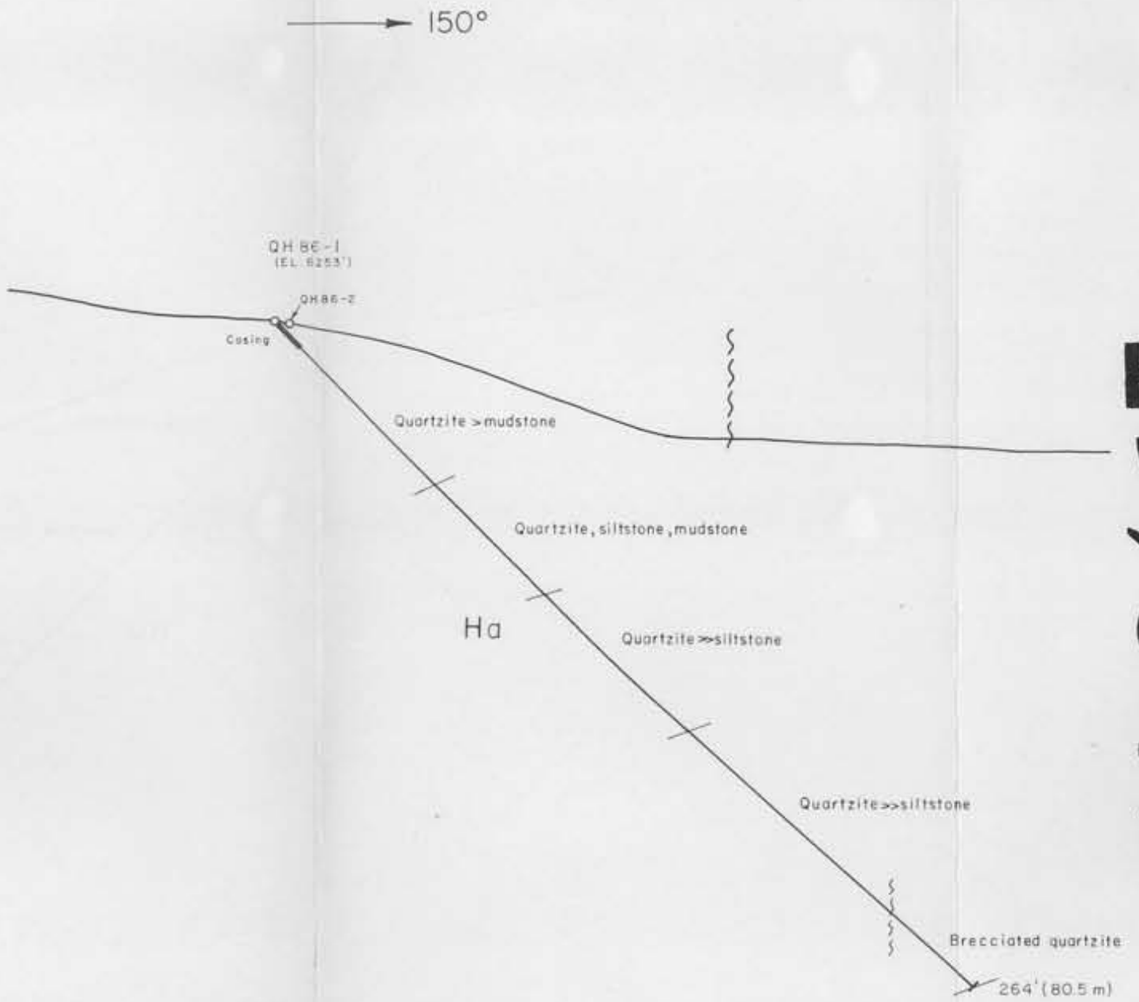
Table 4 cont'd.

NUMBER	WIDTH	COMMENTS/DESCRIPTION	RESULTS AU oz/t
16321 E	2.0 m	white to light tan, quartzite; tr. pyrite, tr. pyrite, trace pyrolusite on partings, 432 ppm Cu, 246 ppm Pb.	<0.002
16322 E	2.0 m	tan to light pink, quartzite; trace pyrite, tr. quartz veinlets, 427 ppm Cu, 1214 ppm Pb.	<0.002
16323 E	2.0 m	light tan quartzite cut by 3% quartz veinlets; 1% pyrite along veinlets; 10% pyrite in rare vugs, 300 ppm Pb.	0.004
16324 E	2.0 m	light tan to white quartzite; 2% hematite, 1% py. along quartz veinlets, 778 ppm Pb.	0.004
16325 E	0.5 m	light tan to white quartzite; 2% pyrite along veinlets, 454 ppm Pb; 726 ppm Cu.	<0.002
16326 E	2.0 m	interbedded siltstone and phyllitic mudstone; tr. diss. pyrite; 1% py. on cleavage planes. 1368 ppm Pb.	<0.002
16327 E	0.3 m	phyllitic mudstone cut by 15% clear quartz veinlets, 4% pyrite, 4616 ppm Pb; 558 ppm Cu.	0.008
16328 E	1.0 m	grey to white quartzite interbedded with minor green phyllitic mudstone; trace diss. pyrite. 971 ppm Cu; 4616 ppm Pb	<0.002
16329 E	1.5 m	interbedded light green phyllitic mudstone and light tan to white quartzite; tr. diss. pyrite, 1% pyrite along quartz veinlets; 2% rust brown staining on partings, 332 ppm Pb.	<0.002
16330 E	1.0 m	interbedded light green to white quartzite, white to tan siltstone, and light green phyllitic mudstone; 1% quartz veinlets, tr. py. diss. and along quartz veinlets, 156 ppm Pb.	<0.002
16331 E	1.0 m	interbedded brown-green to grey-green quartzite white siltstone, and grey-green phyllitic mudstone; trace diss. pyrite, 456 ppm Pb.	<0.002
16332 E	2.0 m	interbedded grey-green phyllitic mudstone and white to grey-green quartzite; tr. diss. py.; 1% rust brown stain on partings.	<0.002
16333 E	0.5 m	interbedded white quartzite and grey-green, phyllitic mudstone; 3% clear quartz veinlets; 3% pyrite along quartz veinlets; tr. diss. py. 230 ppm Pb.	0.004
16334 E	0.3 m	interbedded white quartzite and grey-green phyllitic mudstone; 10% cloudy white quartz; 3% pyrite along clear quartz veinlets and vugs. 3% rusty weathering along partings.	0.014
16335 E	0.3 m	highly altered grey-green phyllitic mudstone and quartzite; sample adjacent to cloudy white quartz vein; 5% limonite along partings, quartz veinlets and vugs.	0.028
16336 E	0.5 m	green-grey quartzite; tr. diss. pyrite; 1-2% pyrite along clear quartz veinlets; tr. hematite; sample is 20 m from diorite dyke; 120 ppm As.	<0.002
16337 E	0.3 m	strongly fractured white fine-grained quartzite and green phyllitic mudstone; tr. diss. py. 2-3% pyrite along fractures and quartz veinlets.	<0.002

Table 4 cont'd.

NUMBER	WIDTH	COMMENTS/DESCRIPTION	RESULTS AU oz/t
16338 E	3.0 m	interbedded light green medium grain quartzite and green to grey-green phyllitic mudstone; tr. diss. pyrite; limonite on partings.	<0.002
16339 E	3.0 m	interbedded grey to grey-green phyllitic mudstone and green to white quartzite; tr. diss. py., 2-4% pyrite along fractures, quartz veinlets and cleavage planes.	<0.002
16340 E	1.0 m	interbedded green to grey to white fine grained quartzite, green siltstone and green phyllitic mudstone; local quartzite brecciation; quartzite contains 5-10% quartz veinlets; 4% pyrite, 2% hematite along fractures, 1230 ppm Cu.	0.062
16341 E	0.2 m	strongly altered phyllitic rock beneath 1 m thick quartz vein; most of rock broken down to sediments.	<0.002
16342 E	0.3 m	green to brown-green, hornblende diorite; strongly fractured; 4% pyrite, 8% magnetite along fractures.	0.002
16344 E	0.3 m	white quartzite; 10% cloudy white to clear quartz veins (1 cm to 0.1 cm in width); 3% pyrite (strongly oxidized).	<0.002
61626 A	25 cm	shear zone in bleached phyllitic quartzite.	0.010
61627 A	60 cm	quartz-rich quartzites; most quartz milky, 5% clear, 1-2% pyrite; 590 ppm Cu.	0.026
61628 A	25 cm	1 m perpendicular to 61627 A; milky quartz 5% clear, limonitic, 1% pyrite.	0.480
61629 A	60 cm^2 panel	sheared oxidized quartzite with 40% quartz veins, 1% oxidized pyrite.	0.010
61630 A	60 cm	shattered friable quartzite with limonitic patches.	0.008
61631 A	30 cm^2 panel	earthy quartzite, limonitic, 2-3% quartz veins, finely micaceous.	0.004
61632 A	1 m channel	earthy quartzite, limonitic, very finely micaceous, quartz veins common.	0.004
61633 A	1 m^2 panel	coarsely crystalline quartz with minor earthy quartzite; limonitic, tr. pyrite.	0.076
61634 A	1.6 m^2 panel	earthy quartzite, abundantly limonitic, quartz veins to 2 cm.	0.006
61635 A	1.7m x 1m panel	earthy quartzite, lesser mudstone, quartz veins <2% local boxworks, 190 ppm Pb; 469 ppm Cu.	0.006
61636 A	2.0 m channel	limonitic quartzite, <2% quartz veins, tr. py. 120 ppm Pb.	0.010
61637 A	2.2 m channel	limonitic quartzite with milky to clear quartz veins, 5%.	<0.002





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GEOLOGICAL BRANCH
ASSESSMENT REPORT

HELIKIAN

PURCELL SUPERGROUP

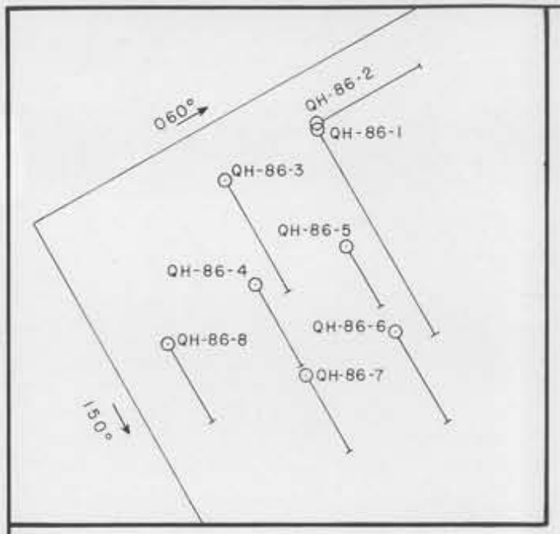
Ha ALDRIDGE FORMATION: white/grey/green, medium/fine grained quartzite; grey/green, siliceous siltstone; and grey/light green, phyllitic mudstone.

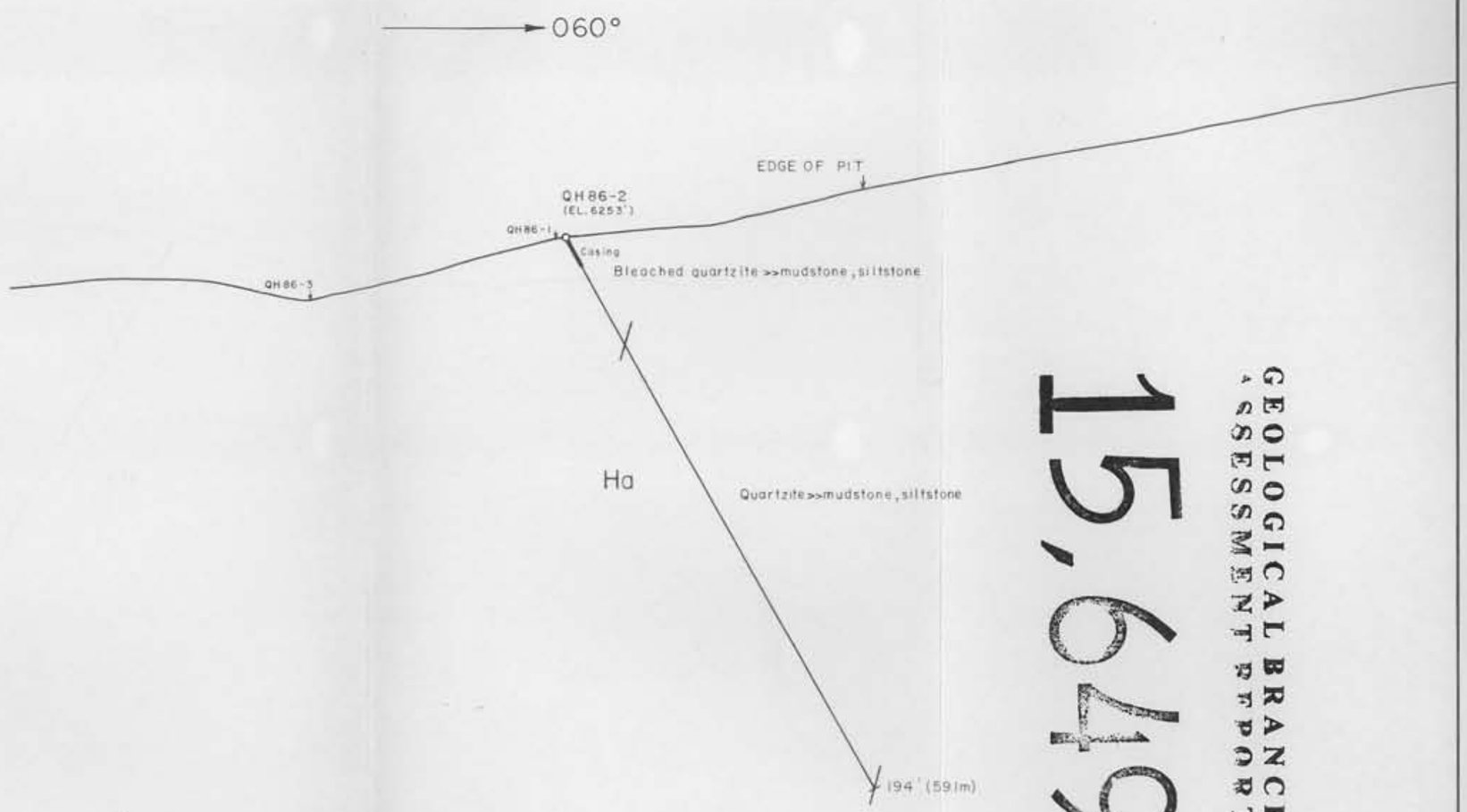
GALLANT GOLD MINES LTD.

PERRY CREEK PROPERTY
FORT STEELE MINING DISTRICT
QUARTZ HILL VERTICAL X-SECTION
DDH QH86-1

0 5 10 15 20 25 30 METRES

NTS 82-F-8-9 SCALE: 1:500
DATE: OCT 1986 DRAWN: D.M./rwr FIGURE: 7.1





GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,619

HELIKIAN

PURCELL SUPERGROUP

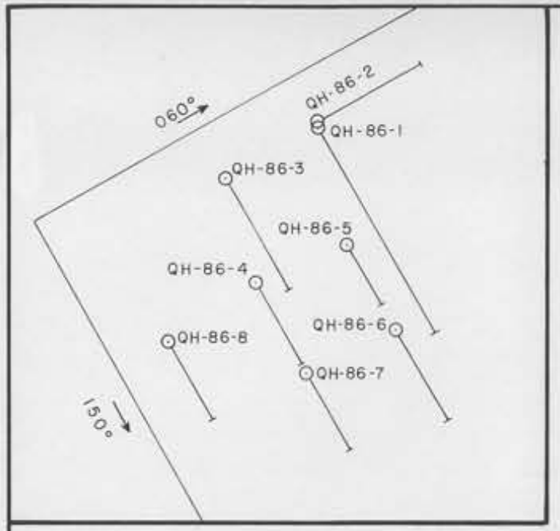
Ha ALDRIDGE FORMATION: white/grey/green, medium/fine grained quartzite; grey/green, siliceous siltstone; and grey/light green, phyllitic mudstone.

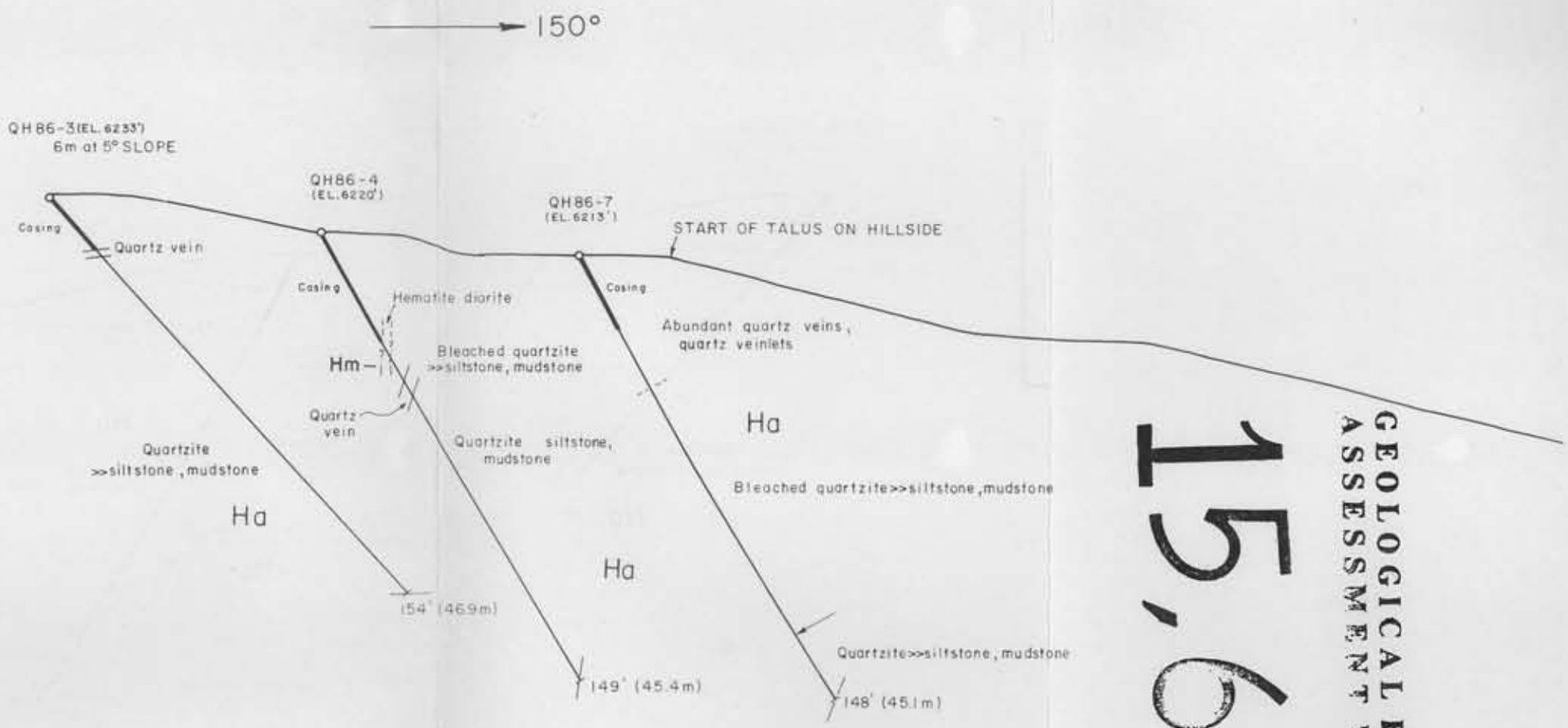
GALLANT GOLD MINES LTD.

PERRY CREEK PROPERTY
FORT STEELE MINING DISTRICT
QUARTZ HILL VERTICAL X-SECTION
DDH QH86-2

0 5 10 15 20 25 30 METRES

NTS 82-F-8-9 SCALE 1:500
DATE OCT. 1986 DRAWN D.M./rwr FIGURE 7.3





HELIKIAN

PURCELL SUPERGROUP

Hm MOYIE INTRUSIONS: dykes/apophyses of variably fresh, equigranular, medium grained, hornblende diorite.

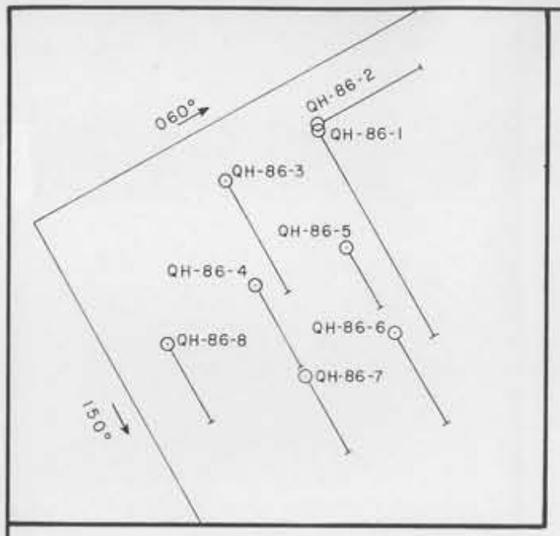
Ha ALDRIDGE FORMATION: white/grey/green, medium/fine grained quartzite; grey/green, siliceous siltstone; and grey/light green, phyllitic mudstone.

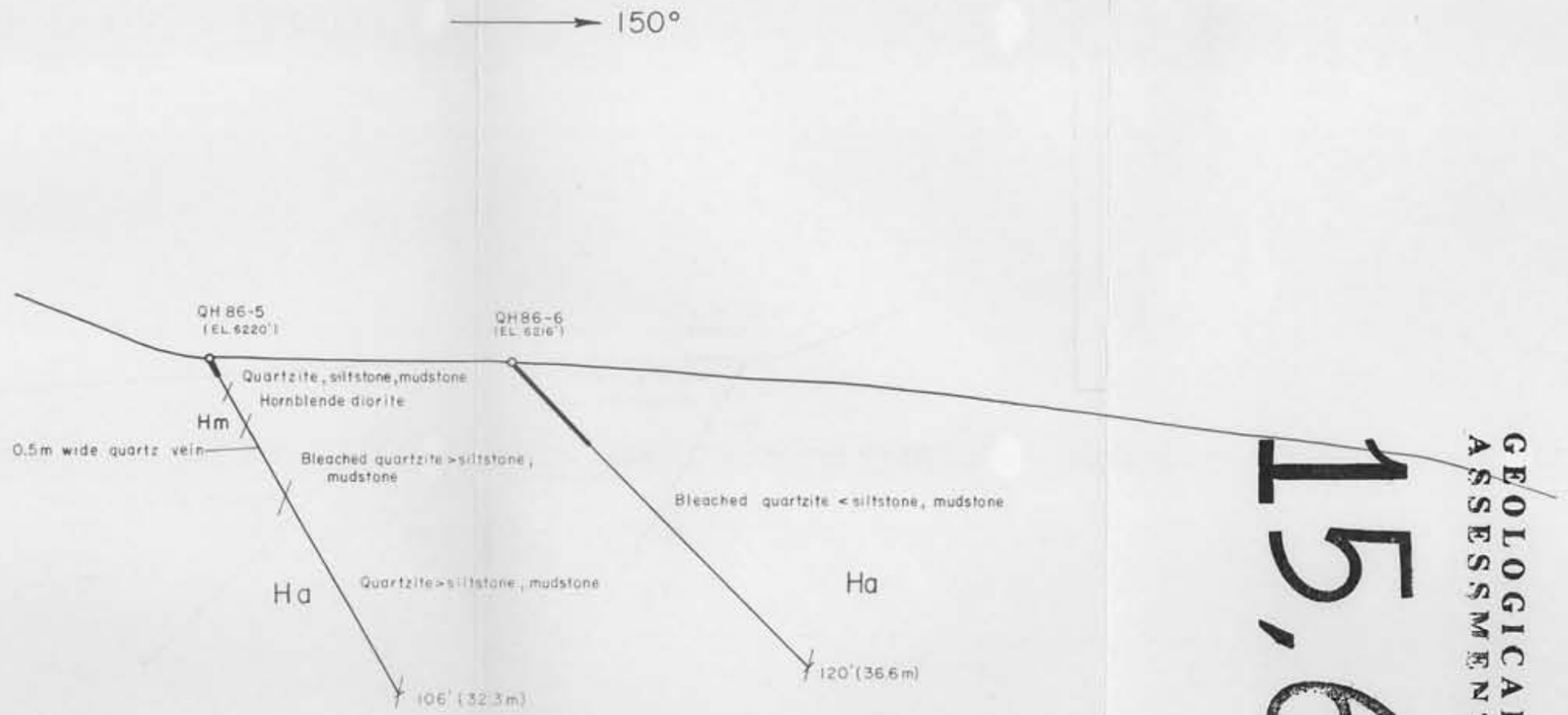
GALLANT GOLD MINES LTD.

PERRY CREEK PROPERTY
FORT STEELE MINING DISTRICT
QUARTZ HILL VERTICAL X-SECTION
DDH QH86-3, 4 & 7

0 5 10 15 20 25 30 METRES

NTS 82-F-8-9 SCALE: 1:500
DATE: OCT. 1986 DRAWN: D.M./rwr. FIGURE: 7.3





HELIKIAN

PURCELL SUPERGROUP

Hm MOYIE INTRUSIONS: dykes/apophyses of variably fresh, equigranular, medium grained, hornblende diorite.

Ha ALDRIDGE FORMATION: white/grey/green, medium/fine grained quartzite; grey/green, siliceous siltstone; and grey/light green, phyllitic mudstone.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

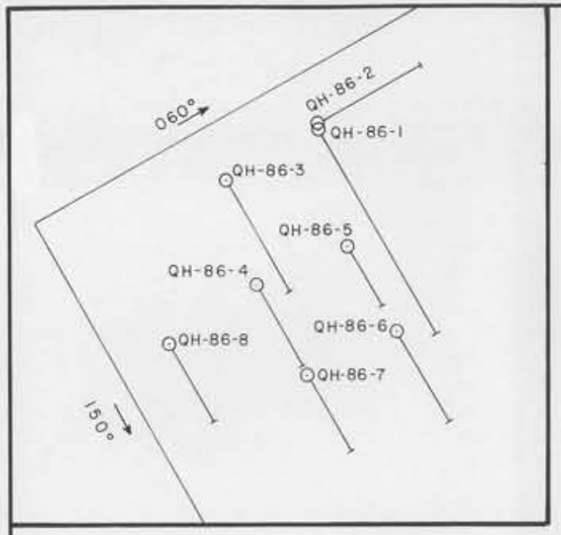
15,649

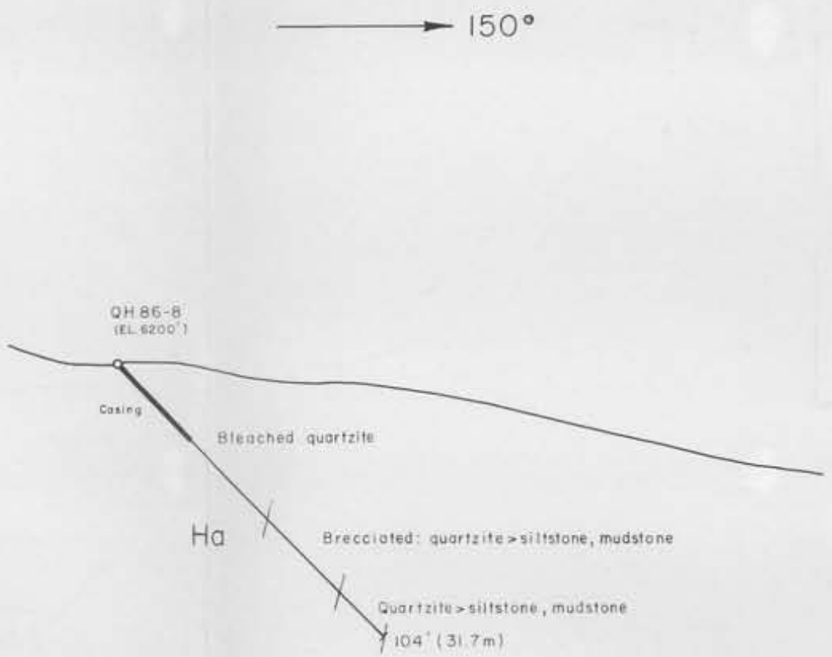
GALLANT GOLD MINES LTD.

PERRY CREEK PROPERTY
FORT STEELE MINING DISTRICT
QUARTZ HILL VERTICAL X-SECTION
DDH QH86-5 & 6

0 5 10 15 20 25 30 METRES

NTS 82-F-8-9 SCALE: 1:500
DATE: OCT 1986 DRAWN: D.M./rwr FIGURE: 7.4





HELIKIAN

PURCELL SUPERGROUP

Ha ALDRIDGE FORMATION: white/grey/green, medium/fine grained quartzite; grey/green, siliceous siltstone; and grey/light green, phyllitic mudstone.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,649

GALLANT GOLD MINES LTD.	
PERRY CREEK PROPERTY FORT STEELE MINING DISTRICT QUARTZ HILL VERTICAL X-SECTION DDH QH86-8	
0 5 10 15 20 25 30 METRES	
NTS 82-F-8-9	SCALE: 1:500
DATE: OCT. 1986	DRAWN: D.M./rwr FIGURE: 7.5

Past and present results suggest that gold is commonly too fine grained to be visible, or in other cases, covered by Fe-oxides from pyrite and hematite. Other minerals commonly found in the quartz veins include 1% to 2% pyrite, less commonly 1% to 2% hematite, and rare 1% calcite or dolomite veinlets, trace galena, chalcopyrite, malachite, azurite, and Ti-oxide. In general, metallic mineralization of quartz veins appears to occur as open space infillings either along fractures or with small vugs. Gold mineralization in the quartz veins appears to be more common where some metallics are present, but does not appear to be specifically associated with any one metallic mineral.

Alteration, at Quartz Hill, occurs predominantly along zones of faulting, fracturing, and brecciation and, generally, at depths less than 100 ft. A trace of white mica, often sericite or muscovite is most commonly present along microfractures and fracture/cleavage planes. Thin section textures **(see Appendix 3)** indicate cataclastic deformation in impure quartzites. Kaolinite forms a very few patches (up to 0.2 mm long) of extremely fine grained, unoriented flakes, with minor sericite/muscovite of coarser grain size. Pyrite is altered to hematite but the abundance of hematite at Quartz Hill, especially the hematite hosted in the hornblende diorite, suggests that not all is an alteration product of pyrite.

Bleaching is common in the quartzites and siliceous siltstones, apparently emanating from fractures. It is most extensive near the surface, while diminishing with depth and is also concentrated along zones of faulting, fracturing and brecciation. Thin section evidence suggests that bleaching in the two samples submitted, is the result of strong recrystallization and granulation in a cataclastic event. Only minor sericite and kaolinite are present in contrast to previous field descriptions. In some areas, the bleached appearance may be the result of alteration caused by the downward percolation of groundwaters, through sulphide-bearing rocks (i.e. solfateric effects).

3.1.4. DISCUSSION OF 1986 MAPPPING AND DRILLING PROGRAMS AT QUARTZ HILL

Contrary to previous geological studies in the Quartz Hill area, the showing in the Quartz Hill pit does not represent an isoclinal fold structure. Rather the sedimentary beds appear to be only gently folded or undulatory. The earlier discrepancies in the structure at the Quartz Hill pit may have arisen from the "seemingly folded" structure of the large veins. It would appear however, that the large quartz veins do not follow bedding, but have actually been emplaced along fracture/cleavage planes.

Assay values obtained from surface samples and drill core at the Quartz Hill pit were, on the whole, disappointing **(Table 4 and Appendix 2)** in contrast to 1985 surface results. Best values from surface samples of quartz veins provided 0.480 oz/t Au and 0.512 oz/t Au and best values from drill core were in hole QH 86.3 where a 12 foot interval at the top of the hole provided 0.027 oz/t Au.

Some explanation for the lower subsurface values may lie in the core recoveries which are shown for each interval between footage blocks in **Appendix 1.** Average recoveries range from 85 to 90% in the first four holes to 80% in QH 86.5, 68% in 86.6, 51% in 86.7 and 74% in 86.8 and were even lower for specific intervals. Once the problem was recognized, sludges were collected where there was water return. One sample from 50-60 ft of QH 86.8 returned 0.018 oz/t Au, an interval which provided core values of <0.002 oz/t Au. While core was taken during the sludge collection, sampling methods were imperfect and there is no way to assess how much gold bearing material was lost or whether low core recoveries significantly affected recovered grade.

Despite this limit, given the density of the close-spaced surface sampling and the excellent outcrop exposures, the poor results would appear to suggest that potential is limited for significant tonnage and grade in the Quartz Hill pit.

3.2 PETRA CLAIMS

3.2.1 WORK COMPLETED 1986

A programme of 1:1000 scale mapping **(see Figure 3)** was carried out over the period July 31 to August 11, 1986 by J.L. Hardy using a grid put in with hip chain and compass and checked by using an altimetre. Portions of the grid coincided with lines used for 1985 HMC soil sampling. The purpose of the mapping was to clarify the nature of mineralization uncovered in 1985 trenching which graded 10 m of 0.115 oz/t Au within apparently unveined rusty mudstones and to search for the source of a +10,000 ppb Au HMC soil anomaly. Using the new mapping two sites were selected for 200 ft of diamond drilling over the 1985 trench area. These were carried out with the same drilling rig described in **Section 3.1.1** over the period September 6-8. Water was obtained at 400 m distance from small creeks. A D6 cat was used for site preparation to haul the drill plus sledge up and down the steep slopes. Reclamation work was subsequently completed. Core was split and analyzed in the same manner for the Quartz Hill area, and logged by J.L. Hardy.

3.2.2 GEOLOGIC MAPPING, SAMPLING AND DRILLING RESULTS

Lithologies observed have been described under the section on property geology. Outcrop was typically poor and observed surface float frequently did not necessarily have a local source. Where basal tills were present they could be recognized by an increase in highly angular, very plate-like fragments, generally densely packed together. The presence of both basal tills as well as tills containing obviously exotic fragments make HMC soil sampling problematical.

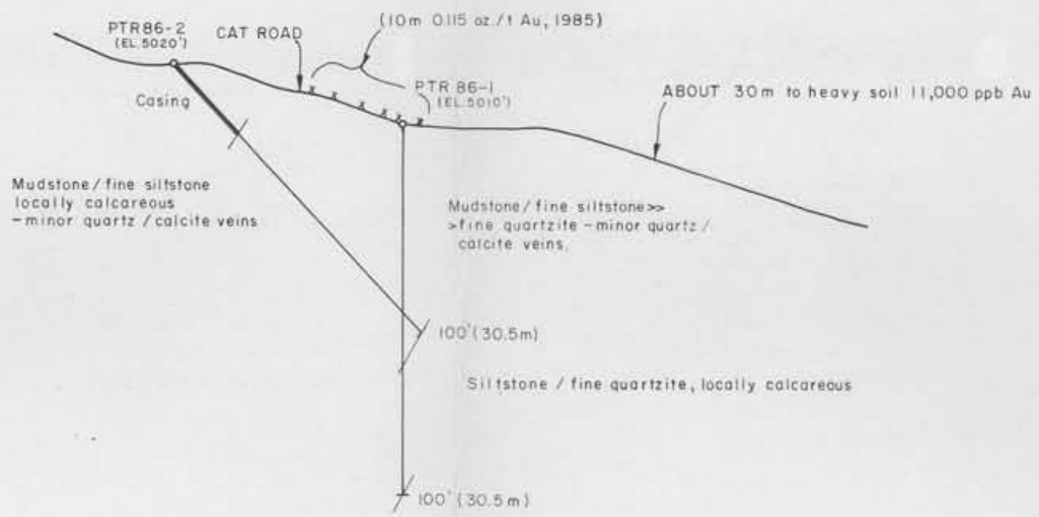
In contrast diorite float is generally sparse and closely restricted to specific areas. It appears to be a good guide to outcrop proximity so has been noted on the geological map **(Figure 8)**.

Previous mapping had indicated (Dandy & Troup, 1985) a stockwork of quartz veinlets to 70 cm wide in the area of 1985 trenching with a few narrow stringers containing up to 2% hematite with trace chalcopyrite and galena. No base metal sulphides or stockworks were observed in 1986 as the 1985 trenches had been filled, however quartz veins were common to 10 cm width, occasionally with traces of pyrite. Pyrite was also present to 2-3% as fine disseminations to sub-mm euhedra. Sampling of the most oxidized and veined lithologies as shown in **Table 5**, failed to yield even sub-economic gold results, though some samples are apparently anomalous in zinc.

TABLE: 5 ROCK CHIP SAMPLING, PETRA GRID
(all samples are outcrop except where labelled as float)

28151A	L4+00 S, 3+56 E	1.5 m	Light green phyllitic mudstone/ siltstone; minor quartzite	<0.002
28152A	L4+25 S, 4+00 E	1.5 m	as above, with <2% quartzite; may quartzite; may be greyer.	0.010
28153A	L4+50 S, 3+48 E	1.5 m	as above with <5% 10 mm wide 10 mm wide limonitic quartz veins.	<0.002
28154A	L5+00 S, 2+00 E	1.5 m	along strike (exposure only 20 cm) fine-grained quartzite to siltstone with many siltstone bands.	<0.002
28155A	L5+00 S, 3+25 E	1.5 m	green phyllite mudstones to siltstones with .5 cm quartz bands.	<0.002
28156A	L5+00 S, 3+92 E	1.2 m	dark grey phyllite mudstone to siltstone, minor quartzite.	<0.002
28157A	L6+00 S, 3+60 E	1.0 m	green phyllitic mudstone to silt with quartzites.	<0.002
28158A	L3+20 S, 4+20 E	1.0 m	light to medium grey phyllitic mudstone, quartz veins to 1 cm, average <1%.	0.014
28159A	BRA road about L1+21 S	1.0 m	light green phyllitic mudstone with local limonite along partings.	0.002
28160A	BRA road about L1+60 S.	1.0 m	as above with < 1cm limonitic patches, ? trace unoxidized pyrite	<0.002
28161A	BRA road about L1+96 S.	1.0 m	green phyllitic siltstones with sparse limonitic quartz veins	<0.002
8162A	BRA road about L2+24 S.	25 cm	very friable limonitic phyllitic mudstone, probable shear zone	<0.002
28163A	BRA road about L1+73 S.	1.0 m	green phyllitic mudstones to siltstones with < .5 cm quartz veins.	<0.002
28164A	BRA road L4+00 S	1.0 m	green phyllitic mudstones, 1% lacquered py. cubes, mm limonitic spots <10% quartz veins; 864 ppm Zn.	0.002
28165A	BRA road L5+18 S	1.0 m	green mudstone to siltstone with irregular quartz veins <10%; 454 ppm Zn.	<0.002
28166A	BRA road L5+60 S	1.0 m	green phyllitic mudstone with mm limonite spots; 296 ppm Zn.	0.002
28167A	BRA road L6+23S	1.3 m	green mudstone with lesser limonitic siltstone, crumbley, disintegrated, minor quartz along partings; 278 ppm Zn.	<0.002
28168A	BRA road L7+14S	20 cm	mudstone, rusty weathering to limonitic siltstone; to 50% quartzite; 152 ppm Zn.	<0.002

→ 110°



GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,619

GALLANT GOLD MINES LTD.
PERRY CREEK PROPERTY FORT STEELE MINING DISTRICT PETRA 9 CLAIM VERTICAL X-SECTION DDH PTR 86-1 & 2
0 5 10 15 20 25 30 METRES
NTS 82-F-8-9 SCALE 1:500
DATE OCT. 1986 DRAWN J.H./rwr FIGURE 9

The drill holes **(as shown in Figures 8 and 9)** were collared to intersect 1985 trench mineralization. Lithologies penetrated did not differ markedly from those observed on surface. However, the observed low core recoveries of 86% and 38% in PTR 86.1 (vertical) and 86.2 (-45°) respectively, the extremely platy (ie. poker-chip) mudstone/siltstone, the sheared nature of the core and the total lack of water return suggest proximity to a fault, shear or other tectonic feature. No sludges could be recovered and best values in core were 0.008 from 96-101 ft in PTR 86.1.

Despite the low recoveries, neither surface nor subsurface results provide encouragement for the potential occurrence of economic grades or tonnages of gold. It would appear that good grades observed in 1985 represent a localized high grade shoot within some sort of tectonic feature. There is no support for the existence of conditions conducive to stratabound gold accumulation.

3.3 COLUMBIA-HOMESTAKE AREA

The Columbia and Homestake showings were originally established on large quartz veins of type 1, both on the so-called Main Ledge but nearly all workings were subsequently developed on type 3 mineralization.

The **Homestake** Mine workings lie very close to the western border of the Perry Creek property. They are on the Luke Claims 100 metres along an unnamed branch road off the BRE road at about the 14 km mark on the main Sawmill Creek Road. Workings are badly sloughed, but grabs from the shaft yielded 0.084, 0.054 and 0.088 oz/t Au **(see Table 2)**. Narrow trails connect many of the old workings which appear to be partly in diorite adjacent to Creston quartzites and siltstones. No limestones or hydrothermal effects beyond silicification were observed but Holcapek's (1982) mapping appears to be otherwise accurate. This work and review of the literature suggests that NE striking/steep S dipping diorite dykes cross cut quartzites and siltstones and are commonly accompanied by silicification which extends for variable distances into the country rocks.

Minor sulphides are present as disseminations within quartz and dyke rock and sheared, brecciated and quartz veined sediments are common. Vein walls are well-defined with areas of talcose gouge. The shear itself, strikes N30°E/85°E and is reported to be 3-5 m in width with workings over a 700 m strike length but directly traced for <5 m. Reported historical values vary from an average 0.03-0.04 oz/t Au to 0.24 oz/t over 13"; best grades are up to 2.5 oz/t Au. Overall grades appear to have been erratic but best over narrow widths in the oxidized zone where local concentrations occurred due to pyrite oxidation; free gold was rarely present.

The **Columbia** workings much fresher than the **Homestake**, appear to be located along a parallel feature about 800 m SW from the Homestake Mine. Workings consist of two caved tunnels, many workings and a shaft. No diorite was observed. In part, the dump materials resemble those at the Homestake, except for the dump closest to the

road where the siltstone country rock appears bleached and hydrothermally or solfaterically altered. Mineralization is reported to consist of a large zone up to 15 m wide of quartz stringers and lenses adjacent to diorite with a NE strike and a steep S dip with low grade pyrite on the HW in both quartz and diorite. Samples from the shaft which provided 0.408 oz/t and 0.304 oz/t Au **(see Table 2)** are from very rusty pyrite-bearing dump material. The bulk of past work would appear to have taken place in the FW. To the SE, a zone of sheared rock is reported which contains narrow veins of quartz with mostly irregular lenses of pyrite with minor chalcopyrite and galena.

3.4 SHAKESPEARE AREA

The showing is located on BRE Road past the Columbia dump and Liverpool Creek about 100 m west of the road along a flagged trail. Its location differs from that in Holcapek (1982) and Dandy & Troup (1985) and was obtained from regional mapping and reconstruction of old survey records prior to location in the field. Old reports suggest that the showing consists of two silicified zones 15 and 30 m wide on the Big Ledge with a miner's porphyry dyke.

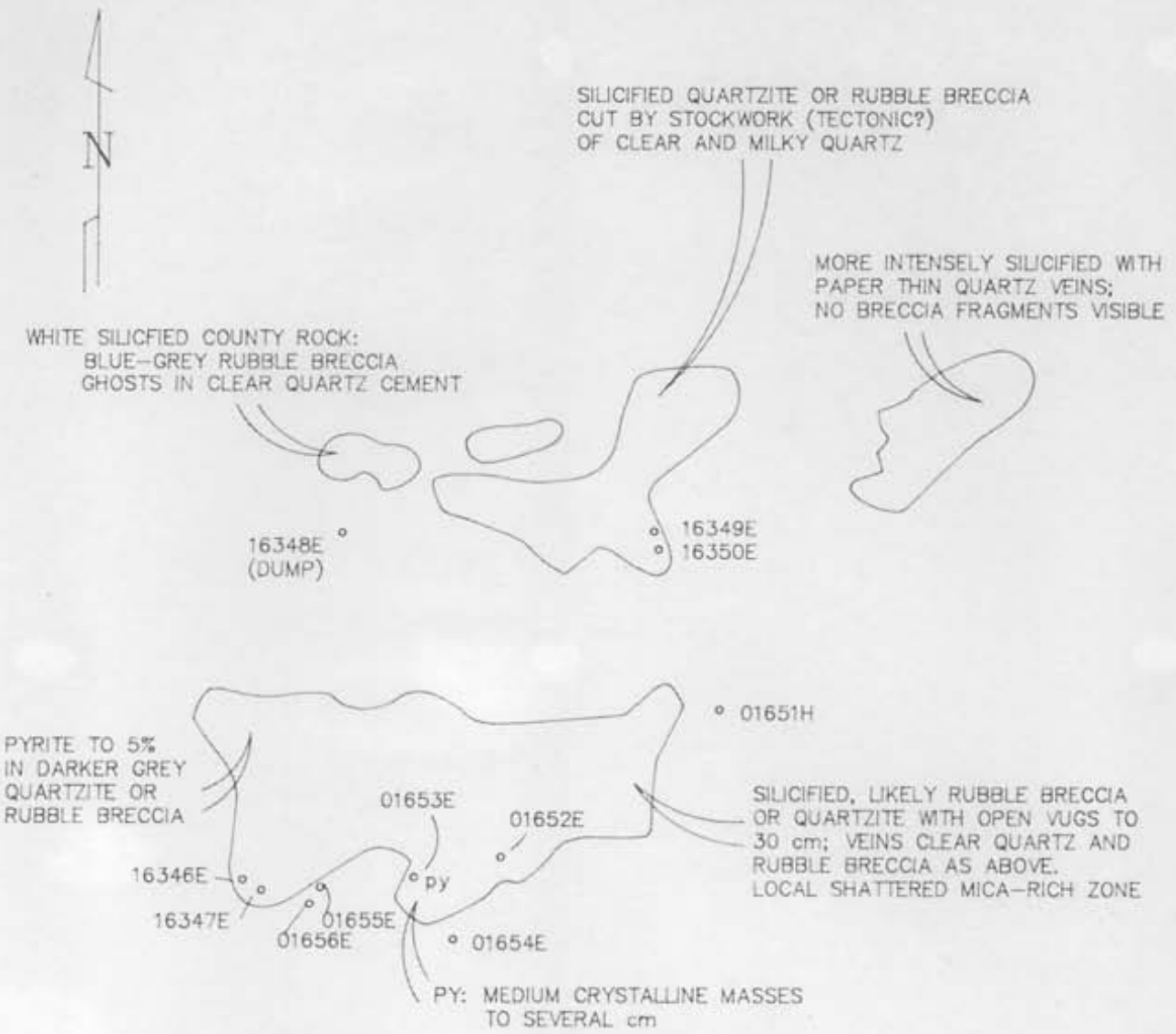
The present exposure is given in **Figure 11.** There is no outcropping evidence of the miner's porphyry reportedly exposed in several small pits and present exposures are much more limited than historic data would indicate. Old workings were reported to concentrate on a shear zone with wall rock silicification and irregular quartz veins as shear filling parallel to the Perry Creek fault. Values up to 1.0 oz/t Au were reported in 1898 but later work provided best grades of 0.20 oz/t to 0.75 oz/t Au.

Sampling results from 1986 are detailed in **Table 6.** Present exposures appear relatively fresh with evidence of some blasting within the last few years. The workings are exposed along the edge of a topographic knob and their edges disappear under overburden cover. The bulk of the outcrop consists of a highly silicified, fragment supported rubble breccia composed of light grey angular homogeneous quartzite fragments in a milky >>>clear quartz cement. Fragments are visible in places and in some parts of the outcrop vague ghosts are barely visible. Maximum fragment sizes are generally less than 10 cm. In places elongate voids to 30 cm diameter are partly lined with clear quartz coated with earthy limonite or hematite. Overall, the outcrop exhibits patchy hematite and/or limonite stain increasing along partings or fractures due to ground water percolation. Both fragments and cement are cross-cut by irregular veins to stockworks of milky >> clear quartz, which in places are dense enough to form a crackle breccia. Overall the Shakespeare appears tectonic in origin.

Rare limonitic boxworks are present and up to 2% pyrite can be found within open vugs to 8 cm across. Elsewhere pyrite occurs locally as medium crystalline anhedral masses of irregular shape to several cm in diameter and as subhedra up to 2 mm in size averaging <5% of the face over <3 m^2. Localized shattered/sheared areas of sericite or white mica with quartz suggest a more immediate tectonic component. A total of 11 samples failed to return even subeconomic values.

TABLE: 6 SAMPLE DESCRIPTIONS, SHAKESPEARE SHOWING

NUMBER	WIDTH	COMMENTS/DESCRIPTION	RESULTS
16346H	grab	milky quartz with hematite stain, 5% pyrite.	<0.002
16347E	grab	earthy limonitic material from near base of outcrop.	<0.002
16348E	grab	from dump: pinkish quartz with fractures of mm clear quartz with powdery hematite; tr py.	<0.002
16349E	Best grab	along fractures with powdery hematite between clear quartz, 2-3% pyrite.	<0.002
16350E	grab	over shattered zone parallel to major fracture 2-3% pyrite.	<0.002
1651H	grab	from dump: most hematite-rich quartz with fine boxwork.	0.002
1652H	2.3 m	across outcrop face: milky quartz with silicified country rock, powdery hematite.	<0.002
01653H	10 cm	5-10% pyrite in grey quartz host	0.002
01654H	grab	from dump; milky white quartz with 10% med. crystalline pyrite.	<0.002
01655H	grab	from dump; milky white quartz with grey patches (? frag's of wallrock); to 5% py.	<0.002
01656H	grab	from dump: hematite and limonite stained quartz; anhedral py. to 5%.	0.002



GALLANT GOLD MINES LTD.

SHAKESPEAR SHOWING

FORT STEELE M.D.-B.C. NTS: 82F/8&9

SKETCH MAP OF ROCK CHIP SAMPLING

DATE: NOV.,1986

BY: J.H./rwr

FIGURE 11

3.5 WESTERN AREA (includes Apex, Manhattan, Rock of Ages and British American Corp Claims)

This area was originally mapped by Holcapek (1982) who identified the showings as part of the Shakespeare. Prospecting in 1986 suggested that these claims lie to the west of the original Shakespeare showing and in fact were part of claims owned by the British American Corporation which included the Sourdough, Rory and Evil Genius prospects.

Sampling of the large quartz vein structure by Holcapek (1982) and from BCDM reports failed to provide values greater than trace. Additional 1986 sampling is detailed in **Table 2**; values are all subeconomic.

In 1986, geological work besides prospecting consisted mainly of a 2 day visit to the showings which in large part confirmed Holcapek's (1982) descriptions of the setting.

Quartz Ledges and Shear Zones

Four ledges or ledge systems (ie. series of ledges) are present at various elevations running S20°W/dipping vertically. These vary from 2.5 m to 18 m wide[1] and consist of milky coarsely cuptalline ("bull") quartz with minor clear quartz veinlets at ledge centres. Locally minor hematite or limonite discolouration is present. Rarely there are trace pyrite disseminations. The veins strike subparallel to the bedding and dip steeply to the SE. Gouge or shear zones are present in places along the vein edges. Exposures are patchy but outcrops of the ledges can be directly traced for more than 75 m. Larger shear zones striking parallel to the ledges form level shelves 5 - 30 m downslope from the ledges and up to 50 m wide and can be traced for several km. The upper side of the ledges is spaced tightly against the country rock but the lower side frequently shows the diorite dyke or miner's porphyry.

Numerous old pits and workings are located along the edges or shelves, but most are highly sloughed. In many there is no indication of mineralization or alteration so it is impossible to tell whether all the interesting material has been removed or whether these were just for exploratory purposes. Limited cleaning of such workings (Holcapek, 1982) established that they are controlled by the strong NE trending shear zones. While bleaching and brecciation are often present there is no indication of strong hydrothermal alteration.

1. The highest ledge is 3 m wide with the Big or Main Ledge about 500 m below about 18 m wide; the Middle is 130 m lower at 2.8 m width. The Lower Ledges, each 2.5 m wide, and separated by 30 m are about 300 metres further below.

Within the shears, quartz veinets, lenses or silicified zones carry minor patchy and variably oxidized pyrite. Limonite staining is locally abundant throughout. Erratic high gold values have been reported from such areas. Best values are found in rusty areas where oxidation has apparently freed the gold from it sulphide host and in narrow quartz veins at the side of the big ledges in sheared wallrocks.

Replacement Quartz/Silicification

In the western most area replacement quartz is found as lenses, pods, and fracture fillings which gradually blend into the surrounding country rock quartzites. Lenses can be up to 2 m wide and 60 m long with variably gradational contacts. Replacement often initiates outward from fractures and foliation planes. No sulphides are observed except where later stage veins or shearing are present.

4. CONCLUSIONS AND DISCUSSION

Placer gold along Perry Creek and its tributaries appears to have originated locally. Pre-glacial placers are present intact as well as partly reworked. These were subsequently till covered into post-glacial placers atop false bedrocks within the till. Much of the property remains unexplored beyond reconnaissance prospecting and mapping which have traced important diorite/sediment contacts, shears and quartz veins.

The 1986 program of geological mapping, chip sampling and diamond drilling tested the most significant showings discovered to date: the Quartz Hill and the Petra trench.

At **Quartz Hill**, it was established that gold is associated with quartz veins and stockworks hosted in Aldridge Fmt adjacent to hornblende diorite bodies of the Moyie Intrusions. The veins are crosscut by faulting associated with the St. Mary fault system. Good surface gold grades are highly erratic and generally are restricted in width. Best values are often though not necessarily associated with sulphides or oxidized zones. Diamond drilling of the pit failed to return economic grades or widths however in some holes core recoveries were low. To ensure consistent +95% recoveries and sampling, drilling mud and sludge recovery systems would be needed. Despite this limitation, no further work is recommended as the showing appears to have limited depth potential.

On the **Petra**, mapping, sampling, and diamond drilling have proven that gold values of 0.115 oz/t Au over 10 m observed in 1985 trenching are not of stratabound origin. This grade was not substantiated in the two holes drilled over the trench area, though similar problems in the core recoveries exist as at Quartz Hill. Mapping would suggest that the +10,000 ppb HMC soil sample could well be the result of a local placer accumulation. Indications are that any mineralization relates to strong shearing, veining, and tectonism and any high values might be expected to be of limited extent.

Past descriptions and 1986 work confirm that gold mineralization in Perry Creek is associated with quartz veins and stockworks frequently emplaced along regional shear zones and associated with Moyie diorite dykes or sills. While most showings contain at least small amounts of economic gold, average grades are low. High values tend to be over restricted widths. To date there is no suggestion that undiscovered economic gold grades are still present over anything close to minimum mining width. For such concentrations to occur it would appear that several requirements must be met: a diorite heat source was required to push (and perhaps supply a source for) gold-bearing fluids; a permeable plumbing system was required to move the fluids at the time they were available; and a suitable chemical or physical trap was required to precipitate the gold. Any further work on the Perry Creek area must involve search for a coincidence of these features.

No additional work is recommended at this time. Reconnaissance prosecting, mapping, and sampling have failed to indicate additional

showings worthy of drill testing. The low outcrop over much of the claim area makes more detailed mapping work ineffective. The complex till cover observed on the Petra and suggested elsewhere would indicate that HMC and soil sampling results could be suspect. Variable overburden thicknesses and diorites of differing magnetic susceptibilities make further magnetometer surveys of questionable value. In view of the complex glacial history it is unlikely that HMC silts would be effective in directly pinpointing areas for further exploration. It can be concluded therefore, that while some potential remains on the Perry Creek property for undiscovered economic gold mineralization, the probability of its discovery by practical economic means is limited.

5. COSTS STATEMENT
25 January - 9 September 1986
General Costs

FOOD & ACCOMMODATION:		
8 Pers., 123 man days @ $30.96		$ 3,807.51
SHIPPING & POSTAGE:		724.32
SUPPLIES:		3,209.29
FUEL:		914.10
RENTALS:		
Mark 4WD Bronco, 24-30 Jan, 7-12 May, 29 Aug-9 Sept. 56 days @ $43.00	$ 2,408.00	
Ezekiel Field Equipment, 123 days @ $6.00	738.00	
Budget Aries, 7-11 May	241.34	
Helicom Avionics, 2 FMX435 22 Jul-30 Sept. @ $80.25	374.50	
Kootney Comm Mobile Phone, 1 Aug-30 Sept. @ $75.55	151.10	
Budget 4WD Ford PU,	227.26	
Rent-A-Wreck, 29 Aug. - 8 Sept.	202.32	
		$ 4,342.52
TELEPHONE SERVICE:		121.04
MAINTENANCE:		1,750.39
CONSULTANT FEES:		
ARCHEAN ENGINEERING LTD.		1,375.00
PROJECT PREPARATION:		4,475.39
TOTAL GENERAL COSTS:		**$20,719.56**

GEOLOGICAL MAPPING

SALARIES & WAGES:	
3 Pers, 29 Aug - 2 Sep, 50 man days	$ 6,389.25
BENEFITS @ 8.18%	522.85
CONTRACTOR:	
CPS Explorations, 12 Jun - 10 Jul	4,300.00
REPORT PREPARATION:	2,772.87
GENERAL COSTS APPORTIONED:	
50/123 x $20,719.56	8,422.59
TOTAL GEOLOGICAL MAPPING COSTS:	**$22,407.66**

Costs Statement cont'd.

DIAMOND DRILLING COST

SALARIES & WAGES:		
4 Pers, 29 Aug-9 Sept., 48 man days @ $121.77		5,845.01
BENEFITS @ 8.5%		497.00
DIAMOND DRILLING:		
Beaupre, 18 Aug-3 Sep, 1439' (438.61 m) @ $17.50		$25,182.50
BULLDOZING:		
Beaupre JD550 20 hrs @ $55	1,100.00	
MBM D6SE6, 9 Hrs. @ $90	810.00	
19 hrs standby @ $45	855.00	
7.5 hrs longbed @ $62	465.00	
		3,230.00
SUPPLIES:		
Beaupre core boxes & lids 80 @ $7.25		580.00
RENTALS:		
NCI core splitter, 2.3 months @ $80.25	184.58	
Sywulsky core shack, Sep-Feb @ $20.83	125.00	
		309.58
ASSAYS & ANALYSES - CHEMEX LABS		
108 Rock for Au @ $11.50	1,242.00	
287 Rock for Au @ $17.00 (rush)	4,879.00	
394 Pulp for 30 ele ICP @ $6.50	2,561.00	
13 Rock Drying @ $2.00	26.00	
		8,708.00
ROCK CUT & REPORT - VANCOUVER PETROGRAPHICS		
2 @ $65.93		131.85
REPORT PREPARATION:		2,662.05
GENERAL COSTS APPORTIONED:		
48/123 x $20,719.56		8,085.68
TOTAL DIAMOND DRILLING COSTS:		**$55,231.67**

Costs Statement cont'd.

STAKING COST

SALARIES & WAGES:	
4 Pers, 25 man days @ $129.74	3,243.38
BENEFITS @ 11.5%	371.68
HELICOPTER:	
Okanagan 206B, 26-29 Jan, 7-11 May, 6.8 hrs @ $479.11	3,380.37
FEES:	320.00
GENERAL COSTS APPORTIONED:	
25/123 x $20,719.56	4,211.29
TOTAL STAKING COST:	**$12,631.40**

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Wong, C. and Troup, A.G., 1981, Geochemistry and Geophysics Report on the Perry Creek Gold Property, November 1981.

7. STATEMENT OF QUALIFICATIONS

I, Jenna Hardy of 535 E. Tenth St., North Vancouver, B.C., V7L 2E7 state the following:

1. I am a geologist with a B.Sc. (1974) and M.Sc. (1980) from the University of Toronto.

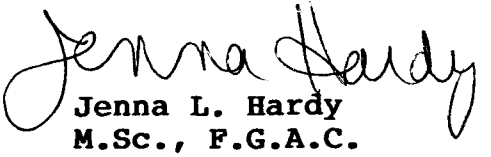
2. I am a Fellow of the Geological Association of Canada.

3. I have practised my profession as an explorationist in the Cordillera continuously since 1976, and have worked as a full-time project geologist since 1978 for RioAlgom Exploration, SMD Mining and Falconbridge Ltd.

4. I personally supervised all aspects of the Perry Creek program described herein while employed as a contract geologist for Mark Management on behalf of Gallant Gold Mines Ltd.

5. I have no interest financial or otherwise in the Perry Creek Property.

Respectfully submitted,



Jenna L. Hardy
M.Sc., F.G.A.C.

STATEMENT OF QUALIFICATIONS

D.A. Mathison, B.Sc.

Academic

1986	B.Sc. Geology	University of British Columbia

Practical

1986	Mark Management Ltd. Vancouver, B.C.	Geological mapping, Rossland and Cranbrook areas.
1985	Geological Survey of Canada Vancouver, B.C.	Regional geological mapping and assisting in Southwestern and Central British Columbia and the Eastern Yukon.
1984 (summer)	Geological Survey of Canada Vancouver, B.C.	Regional geological mapping and assisting in Central and Northwestern British Columbia.

APPENDIX 1: Diamond Drill Logs and Core Recoveries

Diamond Drill Record

LOCATION: Quartz Hill			HOLE NO. QH.86.1 Page 1 of 5
AZIMUTH: 150°	DIPS - collar 45 °	CONTRACTOR: Beaupre Diamond Drilling	PROPERTY: Perry Creek
ELEVATION: 6253 ft.	-264 ft 42 °	LOGGED BY: D. Mathison	CLAIM NO. 14952 (Quartz Creek)
LENGTH: 264'	- m °	DATE: August 26, 1986	SECTION NO.
CORE SIZE: NQ	- m °	completed August 28, 1986	STARTED: August 25
PURPOSE: To test high grade gold mineralization outcropping on Quartz Hill			COMPLETED: August 26

Section		ROCK	Interval		ALTERATION,	VEINLETS		
from m/ft	to m/ft	DESCRIPTION	from m	to m	MINERALIZATION etc.	Thickness mm	Angle to core	minerals in decreasing abundance
0 ft casing	15.5	white to light tan, medium to fine grain quartzite	0 ft. casing	15.5	trace coarse to fine grain disseminated pyrite; 3% rust stain along fractures; 2% sericite along fractures	0.2mm	random	1% clear quartz veinlets throughout
15.5	64	80% grey-green to light tan to white, medium to fine grain quartzite interbedded with 20% light tan-green phyllitic mudstone and argillaceous siltstone -visible core bedding angles: 65°, 70°, 70° -light tan to white quartzite may be the result of bleaching along fractures	15.5	64	rock is moderate to strongly fractured; along fractures, rock contains 3% rust stain; in many cases, rust staining continues a few cm's from fracture into rock ie) in places, beyond the limit of the core width; - rock contains trace to 1% pyrite disseminated; -rock contains trace to 2% pyrite along fractures, quartz veins and quartz veinlets -rock contains 5% sericite along fractures and cleavage planes	12mm@32'	28°	cloudy white to clear quartz
						15mm@37'	25°	containing trace to 2% coarse
						3mm @55'	25°	to fine grained pyrite; quartz
								contains small vugs rimmed with
								clear quartz crystals
						0.2mm	random	3% clear quartz veinlets
								throughout

Diamond Drill Record

HOLE NO. QH.86.1 | Page 2 of 5

Section		ROCK	Interval		ALTERATION,	VEINLETS		
from ft	to ft	DESCRIPTION	from m	to m	MINERALIZATION etc.	Thickness mm	Angle to core	minerals in decreasing abundance
64	105	interbedded: (35%) light grey-green	79	80	70% moderately to densely	0.2mm	avg=65%	trace clear quartz veinlets
		to grey-green, medium to coarse			fractured, light grey-green			with or without visible
		grain quartzite, (40%) light grey-			quartzite to 30% light tan to			sulphides; attitude of
		green to grey-green siltstone and			white, bleached quartzite adjacent			veinlets is quite variable.
		(25%) light brown-green, phyllitic			to fractures. 5% of those fractures	3mm@89'	80°	black or brown, fine grain,
		mudstone-size of interbeds vary			also contain abundant chlorite			crystalline vein; streak is
		from 1.0mm to 20cm; bedding			and 1% pyrite:			dark black-brown (Mn-oxide?)
		contacts appear both gradational						
		and sharp	64	105	trace disseminated pyrite and	20mm@103'	20°	cloudy white to clear quartz
					concentrations of 1% pyrite along			vein; small vugs (2mm in
		avg. core bedding angle = 62°			fractures and quartz veinlets;			width); 1% fine to coarse
					total pyrite in rock is only trace			grain pyrite
			93	105	light green to tan, interbedded:			
					quartzite, siltstone and			
					mudstone; rock is moderate to			
					strongly fractured; 3% quartz			
					veins and quartz veinlets run			
					nearly parallel to core axis.			
					rock contains 3% pyrite and rust			
					stain; where fractures crosscut			
					quartzite, light green quartzite			
					is often bleached white and may			
					also be further stained to light			
					tan.			

Diamond Drill Record

HOLE NO. QH.86.1 | Page 3 of 5

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
105	159	interbedded: 85% grey to grey-	108	105	approx. 60% of core is quartzite			core contains approx. 1% veinlets
		green to white, fine to medium			that has been bleached from			(0.2mm to 3mm in width); veinlets
		grain quartzite, 10% grey-green			grey to grey-green quartzite			contain up to 1% coarse to fine
		to light green siltstone and 5%			to white to light tan quartzite;			grain pyrite
		light tan to light tan-green			bleaching along fractures			
		phyllitic mudstone;			penetrates from a few mm's into			
		rock is moderately fractured			rock up to beyond the limits of			
					the core width			
			151	153	4% fine grain pyrite and 4% fine			
					grain hematite along fractures			
					within densely fractured white			
					to light grey, fine grain quart-			
					zite; it appears the pyrite			
					cross-cuts the hematite			
			156	159	rock is strongly fractured and			
					contains approx. 3% rust staining			
					on fracture surfaces			
159	233.5	75% grey to grey-green to white	159	233.5	20% of quartzite is bleached			
		quartzite, 20% green to grey-			along fractures to white or			
		green siltstone and 5% light			light tan (from further rust			
		grey-green to tan-green			staining)			
		phyllitic mudstone						
		-rock is interbedded to laminated						

Diamond Drill Record

HOLE NO. QH.86.1 | Page 4 of 5

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
			194.5	196.5	quartzite is strongly fractured;			
					20% fine grain hematite is inter-			
					stitial to angular quartzite			
					clasts			
			200	202	light tan quartzite cut by 30%	7mm	5°	rare quartz vein from 200' to
					cloudy white to clear quartz			201'; vein contains 10% small
					veins and veinlets; most veins			vugs (1-3mm in width); vein
					are non-planar and randomly			contains 10% pyrite
					oriented, vein thickness from			-This is most structurally
					1mm to 2.5 mm; most veins contain			competent vein between 200 and
					between trace and 1% pyrite			202 ft.
			208	209.5	light tan, bleached quartzite	20mm	20°	cloudy white quartz vein in
					cut by 20% cloudy white to clear			interval 208 to 209.5 ft.;
					quartz veins and quartz veinlets;			boundaries of vein are indiscrete
					interval contains trace			due to later fracturing
					disseminated fine grain pyrite	1mm	22°	-several parallel veinlets
					in quartzite and trace to 10%			contain up to 20% pyrite;
					pyrite along quartz veins and			angle of veinlets are perpendicular
					quartz veinlets			to 20mm vein and near parallel
								to core axis

Diamond Drill Record

HOLE NO. QH.86.1 | Page 5 of 5

Section		ROCK	Interval		ALTERATION,	VEINLETS		
from m ft	to m ft	DESCRIPTION	from m	to m	MINERALIZATION etc.	Thickness mm	Angle to core	minerals in decreasing abundance
223.5	264	-grey to grey-purple to grey-green	223.5	224.5	white, bleached quartzite;	cont'd from p.4		50% of veinlets cross-cut
		to white, moderate to strongly			contains 1% to 2% fine grain			thicker 20mm vein
		brecciated quartzite;			pyrite along fractures; rock			
		-breccia appears to be tectonic			also cut by trace visible quartz	0.2 to	random	trace clear to cloudy white
		(adjacent to fault) clasts are			veinlets	5.0mm		quartz veinlets; veinlets
		angular (1mm to 15mm in width);						contain trace to 2% pyrite
		-clasts all quartzite	223.5	264	fractures are pervasively filled			
				EOH	by 5% chlorite; chlorite along			
					fracture surfaces often exhibits			
					slicken-sides; rock contains			
					trace, fine grain, disseminated			
					pyrite to 1% fine grain pyrite			
					along some fractures; overall,			
					rock contains only trace pyrite			
			245	251.5	grey to white strongly			
					brecciated quartzite; rock			
					contains 8% matrix - matrix is			
					10% pyrite, 20% chlorite and			
					70% black fine grain mineral;			
					black mineral may be Mn-oxide			
264		End of Hole						

Diamond Drill Record

LOCATION: QUARTZ HILL				HOLE NO. QH.86.2	Page 1 of 4
AZIMUTH: 060°	DIPS - collar	61°	CONTRACTOR: Beaupre Diamond Drilling	PROPERTY: PERRY CREEK	
ELEVATION: 6253 ft.	- 194' XX	60°	LOGGED BY: D. Mathison	CLAIM NO. 14952 (Quartz Creek)	
LENGTH: 194 ft.	- m	°	DATE: August 28, 1986	SECTION NO.	
CORE SIZE: NQ	- m	°		STARTED: August 26, 1986	
PURPOSE: To test high grade Au mineralization outcropping on Quartz Hill				COMPLETED: August 27, 1986	

Section		ROCK	Interval		ALTERATION,	VEINLETS		
from XXft	to XXft	DESCRIPTION	from m	to m	MINERALIZATION etc.	Thickness mm	Angle to core	minerals in decreasing abundance
10' casing		Green-grey to light green to	10'	37.5'	Quartzite is mainly bleached	.02 to	3.0m	Overall, quartz veins and quartz
	37.5	white fine to medium grain			white to light green; bleaching			veinlets appear to be randomly
		quartzite with minor interbeds			appears to eminate from frac-			oriented; however, approx. 10%
		of light grey-green phyllitic			tures; rock contains approx. 1%			of quartz veining has an average
		mudstone and green-grey			pyrite overall; rock contains:			width of 2.0 mm and an average
		Siliceous siltstone; rock			trace fine grain disseminated			angle to core of 40°; quartz
		is moderate to (mainly) strongly			pyrite and trace to 8% pyrite			veins are cloudy white to clear
		fractured; avg. bedding angle			along fractures, quartz veins			and contains trace to 8% pyrite;
		to core = 45°; along fractures			and quartz veinlets; in trace			
		rock is commonly stained			of fractures and quartz veins,			
					there is trace to 2% sericite;	20mm @	50°	Quartz vein with large vugs
		- rock down to 37.5' is more			rock contains 4% quartz veins	32.5		(15 mm wide); vein contains
		bleached than below 37.5'			and veinlets.			5-10% fine to coarse grain pyrite
								and 10% coarse grain light green
			25'	25.5'	Rock is white bleached quartzite			mica
					cut by 30% quartz veins and			
					quartz veinlets; quartz veins			
					contain 2-10% fine to coarse			
					grain pyrite; quartz veins			
					contain 2% light green mica			

Diamond Drill Record

HOLE NO. QH.86.2 | Page 2 of 4

Section		ROCK	Interval		ALTERATION,	VEINLETS		
from ##xft	to ##xft	DESCRIPTION	from ##xft	to ##xft	MINERALIZATION etc.	Thickness mm	Angle to core	minerals in decreasing abundance
37.5	194	Green-grey to grey to light grey,	10'	150	-Rock contains trace to 1% Fe-	6mm @ 69'	50°	- Cloudy white quartz vein; no
		fine to medium grain quartzite			staining on fractures			visible sulphides; appears to
		with minor interbeds of grey-	37.5	78	-Rock is moderately fractured			approx. parallel bedding
		green siltstone and green	78	194	-Rock is weakly fractured	5mm @ 71'	50°	- Clear to cloudy white quartz
		phyllitic mudstone; overall, only						vein; vein contains patches of
		minor bleaching of quartzite						25% calcite (or possibly
		along fractures; rock is						dolomite); vein contains trace
		moderately fractured overall	108.5	111.5	Zone of white to light grey-green			pyrite.
					bleached quartzite; bleached zone			
		Core bedding angles: 45° @ 40,			is strongly fractured; bleached			
		40° @ 48.5', 45° @ 85', 50° @ 97',			quartzite contains 4% fine to	10mm@92'	25°	Cloudy white quartz vein; trace
		40° @ 165', 45° @ 181'.			coarse grain pyrite, 1% chlorite,			pyrite, trace Mn-ozide.
					1% soft green mineral (possibly			
					talc), 1% dolomite (or calcite)	20mm@93'	60°	Vuggy, cloudy white, coarse grain quartz vein
					along fractures.			25% dolomite; dolomite borders hanging
					- Bleached quartzite is also cut			wall, while quartz borders foot wall;
					by 25% quartz veins (one qz vein			vein contains 4% Fe-staining.
					130mm wide) and randomly			- dolomite is rust stained and coarse
					orientated quartz veinlets (see			grained
					vein description).			
			37.5	194	Overall, rock contains: 1%	130mm @ 111'	50°	Cloudy white to clear, vuggy,
					quartz veins and veinlets, 1%			quartz vein; vugs appear to be
					pyrite along quartz veins and			parallel to fractures; vugs
					veinlets, and trace disseminated			average 30mm long, 5mm wide; vugs

Diamond Drill Record August 29

HOLE NO. QH.86.2 | Page 3 of 4

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
					pyrite throughout.	130mm @ 111		represent 5% of quartz vein;
								majority of quartz vein contain
								only trace disseminated fine
								grain pyrite; however, at footwall
								end of quartz vein, coarse
								grain ed pyrite fills fracture
								6mm wide (within quartz vein);
								angle of pyrite fracture-infill
								parallels quartz vein.
						8mm @ 113.5	50°)	Cloudy white to clear, vuggy,
						10mm @ 114.5	50°)	quartz veins; veins contain
							)	trace black fine grain mineral
							)	(possibly Mn-oxide)
						≤ 5mm ea	40°	4 parallel veins from 116.5' to
								117.5'; veins contain 50-90%
								clear to cloudy white quartz;
								veins are vuggy; veins contain
								50-10% dolomite; veins contain
								trace to 1% pyrite and trace to
								2% black mineral possibly Mn-Oxide

Diamond Drill Record

HOLE NO. QH.86.2 | Page 4 of 4

Section		ROCK	Interval		ALTERATION,	VEINLETS		
from m	to m	DESCRIPTION	from m	to m	MINERALIZATION etc.	Thickness mm	Angle to core	minerals in decreasing abundance
						20mm @	50°	Vuggy clear quartz vien; vein
						140.5'		contains 5% rusty pyrite.
						27mm @	42°	Vuggy, clear to cloudy white,
						173.5'		coarse grain quartz vein; vein
								contains 3% dolomite; trace
								fine grain pyrite.
						8mm @		Clear to cloudy white quartz
						193.5'		vein; vein contains 2% coarse
								grain dolomite, 1% medium
								grain pyrite.
194'		End of hole.						

Diamond Drill Record

LOCATION: QUARTZ HILL	DIPS – collar 47°	CONTRACTOR: BEAUPRE DIAMOND DRILLING	HOLE NO. QH.86.3 Page 1 of 3
AZIMUTH: 150°	– no dip test °	LOGGED BY: D. Mathison	PROPERTY: PERRY CREEK
ELEVATION: 6233 ft	– m °	DATE: August 30, 1986	CLAIM NO. 14952 (Quartz Creek)
LENGTH: 154 ft	– m °		SECTION NO.
CORE SIZE: NQ			STARTED: August 27, 1986
PURPOSE: To test outcropping high grade Au mineralization on Quartz Hill			COMPLETED: August 28, 1986

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
19 ft casing	154'	Interbedded: dark to light, grey to green to white, fine		22'	750mm quartz vein	750mm	not visible	Moderately fractured, cloudy white quartz vein; quartz vein
		to medium grain quartzite,		46.4'	Interval contains 80% quartzite:			contains trace to 1%, fine to
		green to light grey-green siltstone			- overall, quartzite contains			medium grain pyrite and rust
		and phyllitic mudstone			70% light grey to white			stain along fractures; common
					bleached quartzite and 30%			fracture orientation in quartz
		- approximately 80% quartzite			dark grey to green quartzite			vein is 60° to 40°.
		to 20% siltstone and mudstone			NB/siltstone and mudstone do			
					not appear bleached			
		- core bedding angles: 48°			- rock is moderately fractured	7.0mm	30°	Vuggy, clear to cloudy wite,
		@ 37'; 60° @ 80°; 50° @ 144'			- bleaching appears to eminate	@ 36.5'		coarse grained quartz vein;
					from fractures			quartz vein contains 2% coarse to
		Overall, rock contains trace			- bleached zone contains trace			medium grain pyrite and 1% fine
		disseminated pyrite and 1%			pyrite and trace hematite			grain hematite.
		pyrite along fractures and			along fractures			
		quartz veins;			- bleached zone contains:			
		- rock contains 1% quartz			trace quartz veins and quartz			
		veining overall			veinlets, and trace yellow			
		- rock contains rare dolomite			dolomite (or calcite) veinlets			
		(or calcite) veins; dolomite/			– (quartz veinlets» dolomite			

Diamond Drill Record

HOLE NO. QH.86.3 | Page 2 of 3

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
		calcite accompanies quartz veins.			veinlets).	3mm	52°	fracture infilling; contains
								70% hematite, 30° pyrite
			46.4	154	Interval contains 80% quartzite			- fracture infilling hosted by
					20% siltstone and mudstone.			light grey to white quartzite
					- overall, quartzite contains			
					40% light grey to white			
					bleached quartzite			
					NB/ amount of bleached			
					quartzite is gradational			
					with depth of hole ie) decreasing			
			65	65.5	Light grey to white, strongly			
					fractured, bleached quartzite			
					- along fractures, rock contains			
					4% fine grain hematite,			
					2% medium to coarse grain			
					pyrite.			
			78	87	80% light grey to white,			
					strongly bleached quartzite			
					- bleached quartzite contains			
					1% fine to corase grain			
					pyrite disseminated and along			
					fractures			

Diamond Drill Record

HOLE NO. QH.86.3 | Page 3 of 3

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
			100.5	112.5	Strongly fractured, light grey to			
					white, bleached quartzite:			
					rock contains 35% croase grain			
					pyrite along fractures; pyrite			
					infilling up to 10mm wide;			
					pyrite infilling shows			
					striations possibly due to			
					shearing			
			118.0	118.5	Strongly sheared, white,			
					bleached quartzite; 4% coarse			
					grain pyrite along fractures			
			121.5	122	Strongly fractured grey to			
					white, bleached quartzite;			
					contains 3% coarse grain pyrite			
					along fractures and quartz			
					veinlets			
154'		End of hole.						

Diamond Drill Record

LOCATION: Quartz Hill			HOLE NO. QH.86.4 Page 1 of 4
AZIMUTH: 150°	DIPS - collar 60 °	CONTRACTOR: Beaupro Diamond Drilling	PROPERTY: Perry Creek
ELEVATION: 6220 ft.	- 149' m 59 °	LOGGED BY: D. Mathison	CLAIM NO. 14952 (Quartz Creek)
LENGTH: 149'	- 45.4 m °	DATE: August 31, 1986	SECTION NO.
CORE SIZE: NQ	- m °		STARTED: August 27
PURPOSE: To test outcropping gold mineralization on Quartz Hill			COMPLETED: August 29

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
35' casing	37.5'	rock contains 35% hematite, 65%						
		white mineral						
		-white mineral is moderately hard						
		but may have been slightly						
		softened by ground water ie) could						
		be quartz or plagioclase						
		(originally)						
		-hematite is reasonably uniform						
		in size (medium grain); hemqtite						
		appears to have formed after						
		white mineral ie) either: fracture						
		infilling, or replacement of						
		hornblende or pyroxene, or						
		primary crystallization; hematite						
		is quite uniform in structure;						
		hematite crystals appear to be						
		anhedral						
		-from above, rock is possibly:						
		intrusive dyke rock eg) hematite						
		(replacing hornblende/pyroxene)						

Diamond Drill Record

HOLE NO. QH.86.4 | Page 2 of 4

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
		diorite, or strongly fractured						
		quartzite with hematite infilling						
		- my bet it dyke rock (c) hematite						
		diorite						
37.5'	56'	porceline opaque, white, strongly	37.5	56	-rock contains 4% disseminated	4.0mm	random	37.5' to 56' - rock contains 1%
		fractured, fine grained quartzite			boxwork texture throughout; yet,			quartz veinlets; some of the
		with minor interbeds of white			rock appears to contain only 1%			thicker veinlets contain cocks-
		to light green siltstone and			oxidized pyrite			comb textured, coarse grain, clear
		mudstone						quartz;
		-quartzite contains trace mica						-veinlets contain trace to 5%
		along some fractures (mica may be						pyrite
		from clay minerals in mudstone)						
		-rock may represent leached zone					45°	49.0 to 54.5 - vuggy, cloudy white
		from ground water						to clear quartz vein
								- adjacent to hanging wall (49 -
								49.3') vein is clear quartz with
								trace coarse grain pyrite; although
								clear quartz is broken, it appears
								individual anhedral crystals up
								to ≥ 40mm (which is width of largest
								clear quartz fragment)
								- remainder of vein is cloudy white
								quartz with 15% clear anhedral
								quartz crystals rimming vugs; vuggy
								cloudy white quartz contains 20%

Diamond Drill Record

HOLE NO. QH.86.4 | Page 3 of 4

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
56	149	80% grey to green to white to						brown, rusty mineral (possibly
		pink-white, fine to medium grain						originally pyrite)
		quartzite with minor interbeds of						
		20% green to light green-grey,						
		interbedded to laminated, siltstone and phyllitic mudstone	66	68	interbedded: quartzite>siltstone, mudstone is very strongly fractured (clasts 5mm in width); rock shows 1% Fe-stain on fractures	3.0mm	50°	@ 71.5', 70% fine to medium grain pyrite and 30% fine to medium grain hematite; hematite appears to be interstitial to pyrite
		30 to 40% of quartzite is bleached light grey to white to pink-white; bleaching appears to eminate from fractures						
			89.5	91.5	interbedded: light grey-green to white, bleached, quartzite and grey-green siltstone; rock is strongly fractured; fractures are infilled by 80% fine grain hematite and 20% medium grain pyrite; width of fracture infillings up to 20mm			
		-total rock is moderately fractured overall						
		- core bedding angles: 33° @ 81', 42° @ 107', 35° @ 127'						
		-overall, rock contains 1% quartz veins and veinlets; trace pyrite						
		overall (within quartz vein, along fractures, and disseminated through rock)						

Diamond Drill Record

HOLE NO. QH.86.4 | Page 4 of 4

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
			136	149(EOH)	-strongly fractured, green to grey to white, bleached, fine grain quartzite -fractures filled by 1% fine grain hematite, 1% fine to medium grain pyrite, 98% green mineral (probably chlorite); fracture infillings compose 3% of the rock			
149'		End of Hole						

Diamond Drill Record

LOCATION: QUARTZ HILL			HOLE NO. QH.86.5 Page 1 of 4
AZIMUTH: 150°	DIPS – collar 60°	CONTRACTOR: BEAUPRE DIAMOND DRILLING	PROPERTY: Perry Creek
ELEVATION: 6220 ft.	– 106' xx °	LOGGED BY: D. Mathison	CLAIM NO. 14952 (Quartz Creek)
LENGTH: 106	– m °	DATE: September 1, 1986	SECTION NO.
CORE SIZE: NQ	– m °		STARTED: September 1, 1986
PURPOSE: To test high grade gold mineralization outcropping on Quartz Hill.			COMPLETED: September 2, 1986

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
6 ft	11.5'	Interbedded: white to light pink	6 ft	11.5	Trace to 1% brown to red-brown			
		to light tan, fine to medium	casing		rust stain along fractures			
		grain quartzite and light grey-			- rock cut by trace to 1% quartz			
		green to light green to light			veinlets (up to 3 mm in thick-			
		tan green mudstone and siltstone			ness); quartz veinlets contain			
		- rock is strongly fractured			trace to 2% oxidized Fe-sulphide			
					- rock contains trace disseminated,			
					medium grain, oxidized Fe-			
					sulphide			
11.5'	21.5	Rock is equigranular, medium	11.5'	21.5'	- diorite contains approximately			
		grain hornblende diorite			4% magnetite overall (with			
		- due to limited length of diorite			trace disseminated fine grain			
		and flow banding texture, rock			magnetite to 15% fine grain			
		appears to be a dyke			magnetite as infillings along			
		- 10% of plagioclase has altered			fractures)			
		to a dull beige and fizzes			- diorite contains trace pyrite			
		slightly with HCl, ie) Ca-			overall (with trace disseminate,			
		plagioclase alters to Ca-			medium grain pyrite and up to			
		carbonate.			2% medium grain pyrite along			

Diamond Drill Record

HOLE NO. QH.86.5 | Page 2 of 4

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
					fractures).			
					- diorite contains 2% fine grain			
		- attitude of average flow			specular hematite along quartz			
		texture is 50°.			veinlets			
		- attitude of contact with wall			- diorite is cut by 2% quartz			
		rock also approximately 50°			veinlets and 2% calcite			
					veinlets; attitude of veinlets			
					appears to parallel flow			
					texture attitude ie) 50°.			
21.5	43.5	Interbedded: 65% grey to light	21.5'	26'	Rock is strongly fractured	3 mm	00°	@ 34' to 36.5' (continuous),
		grey-green to white, fine to			siltstone, phyllitic mudstone and			@ 38' to 41' (continuous)
		medium grain quartzite and 35%			quartzite; rock contains approx.	3 mm	30°	@ 36'
		grey-green to light tan-green			20% brown to red-brown rust			- stockwork of veinlets are clear
		siltstone and mudstone			stain.			to cloudy white, vuggy quartz
		- rock is moderately to strongly						- veinlets contain up to 5%
		fractured	21.5	43.5	Overall, rock contains trace			oxidized Fe-sulphide
		- core bedding angles =			disseminated fine to medium			- from veinlet walls, rust stain
		50° @ 34', 45° @ 36°			grain Fe-oxide and 1% Fe-oxide			penetrates 1.0 mm into wall
					along fractures and quartz			rock
		* approximately 90% of quartzite			veinlets			
		is bleached light grey-green				450mm	unknown	@ 28.5' to 30'; 8" rocovery of
		to white.	21.5	43.5	Overall, rock contains trace			core; rock is strongly fractured,
					sericite along fractures			vuggy, cloudy white to clear
								quartz vein

Diamond Drill Record

HOLE NO. QH.86.5 | Page 3 of 4

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
						continued		- vein contains: 1% grey-black
								(possibly Mn-oxide) along
								fractures; trace disseminated
								fine grain Fe-oxide and 1%
								fine grain Fe-oxide within vugs
								and along fractures
43.5	106	Interbedded: 65% grey to grey-	69	72	Strongly fractured, white to			
		green to white fine to medium			light grey, bleached quartzite			
		grain quartzite and 35% grey-			- along fractures rock contains			
		green to light green siltstone			approximately 25% hematite.			
		and phyllitic mudstone.						
					- rock is variably magnetic			
		- overall, 30% of quartzite is			(from strong to weak); it			
		bleached, light grey to light			appears fine grain magnetite			
		grey-green to white; bleaching			may be intimately mixed with			
		appears to eminate from			the hematite; rock may contain			
		fractures			5% magnetite			
		- overally, rock is moderately						
		fractured	43.5	109	- overall, rock contains trace			
		- core bedding angles =			pyrite (both disseminate and			
		40° @ 86', 40° @ 89'			along fractures and quartz			
					veinlets) and trace hematite			
		- rock contains trace randomly			usually along fractures			
		orientated quartz veinlets and						

LOCATION: QUARTZ HILL	Diamond Drill Record			HOLE NO. QH.86.6	Page 1 of 2
AZIMUTH: 150°	DIPS - collar	46 °	CONTRACTOR: BEAUPRE DIAMOND DRILLING	PROPERTY:	
ELEVATION: 6216 ft.	- 120 ft	44 °	LOGGED BY: D. Mathison	CLAIM NO. 14952 (Quartz Creek)	
LENGTH: 120 ft	- m	°	DATE: September 2/86	SECTION NO.	
CORE SIZE: NQ	- m	°		STARTED: September 2, 1986	
PURPOSE: To test high grade gold mineralization outcropping on Quartz Hill				COMPLETED: September 3, 1986	

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
32 ft casing	120 EOH	Laminated to interbedded: 30% grey to light pink, medium to fine grain quartzite, 30% grey-green to light brown-green, argillaceous siltstone and 40% grey-green to light brown-green, phillitic mudstone.	32 ft casing	60	- rock within this interval contains approx. 35% clear to cloudy white quartz indicative of quartz veins and veinlets - because the rock is strongly broken, the percentage of quartz veins and the majority of quartz veinlets can only be inferred; quartz of this variety contains trace to 1% fine to coarse grain pyrite. - host rock within thin interval is mainly white to light pink quartzite with minor interbeds of light green to light grey-green siltstone and mudstone - approx. 40% of the quartzite is chalk white and soft (perhaps characteristic of chemical erosion activated	7mm	20°	Clear to cloudy white, vuggy, coarse grain, quartz veinlet; veinlet contains 3% Fe-oxide (possibly limonite)
		- rock is strongly fractured - trace to 1% brown to red-brown Fe-staining is present along most fractures; and in many cases, Fe-staining has permeated throughout the siltstones and mudstones. - approximately 80% of the quartzite is light in colour to white, indicative of bleaching along fractures						

Diamond Drill Record

HOLE NO. QH.86.6 | Page 2 of 2

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
					by ground water)			
		Core bedding angles = 60° @ 77',			- rock within this interval			
		65° @ 83', 62° @ 10%, 45°			contains 3% brown to red-			
					brown Fe-oxide along fractures			
					and quartz veinlets; and			
					trace pyrite or Fe-oxide			
					disseminated throughout.			
			190.5	120	Rock contains approx. 5%			
					randomly oriented quartz			
					veinlets; veinlets contain			
					trace to 2% Fe-oxide (possibly			
					limonite after pyrite)			
					- thickness of veinlets = 0.2mm			
					to 15mm			
					- in most cases, veinlets are			
					moderately to strongly fractured			
120'		End of hole.						

Diamond Drill Record

LOCATION: QUARTZ HILL				HOLE NO. QH.86.7	Page 1 of 4
AZIMUTH: 150°	DIPS - collar 61 °		CONTRACTOR: BEAUPRE DIAMOND DRILLING	PROPERTY: Perry Creek	
ELEVATION: 6213 ft.	-148 ft. Rx 58.5 °		LOGGED BY: D. Mathison	CLAIM NO. 14952 (Quartz Creek)	
LENGTH: 148 ft.	- m °		DATE: September 3, 1986	SECTION NO.	
CORE SIZE: NQ	- m °			STARTED: September 3, 1986	
PURPOSE: To test high grade gold mineralization outcropping on Quartz Hill.				COMPLETED:	

Section from ft	Section to ft	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
24 ft casing	125.5'	- interbedded to laminated: 80%	24' casing	43.5'	Remaining core (5 ft.) contains:			
		tan to white to pink, fine to			90% clear light grey to clear			
		medium grain, bleached			light pink quartz, 9% white to			
		quartzite and 20% light tan to			tan bleached quartzite, and 1%			
		light green mudstone and			tan to tan-green, strongly			
		siltstone			fractured and weathered mudstone			
		- because very little mudstone			and siltstone.			
		and siltstone was recovered			- core recovery appears to			
		above 125.5', the % and colour			mainly represent the more			
		of mudstone and siltstone is			competent and resistent			
		roughly inferred from: low %			components of the rock column			
		core recovery, colour and grain			- clear light grey to clear light			
		size of drill sludge, and			pink quartz appears to be from			
		amount and colour of siltstone			quartz veins and quartz			
		and mudstone that was recovered			veinlets.			
		deeper in the hole.			- rock contains trace disseminated,			
					fine to coarse grain, moderate			
		NB/ Above 114', core recoveries			to strongly oxidized pyrite			
		are very poor.			throughout rock and trace to 1%			
					fine to coarse grain, moderately			

Diamond Drill Record

HOLE NO. QH.86.7 | Page 2 of 4

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
		- overall, moderate to strongly			to strongly oxidized pyrite			
		fractured and strongly broken			along some fractures and some			
		up			quartz veinlets.			
		Core bedding angles: 56° @ 124,						
		48° @ 133'.	24	60	100% of quartzite is chalk			
					white and moderately soft.			
			60	108	50% of quartzite is chalk white			
					and moderately soft to moderately			
					hard			
			108	148	15% of quartzite is chalk white			
					and moderately hard			
			24	148	Quartzite that is chalk white			
					and softened may be the result			
					of chemically erosive groundwater			
					NB/ Whiteness and softness of			
					quartzite is gradational			
					with depth.			
			24	125.5	Rock contains trace coarse grain			
					disseminated pyrite; rock contains			
					trace to 1% Fe-oxide (possibly			

Diamond Drill Record

HOLE NO. QH.86.2 | Page 3 of 4

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
					limonite and goethite) along			
					fractures and quartz veinlets			
					- rock contains trace yellow			
					mica along fractures			
			43.5	125.5	Rock contains 70% randomly			
					oriented, clear light grey to			
					clear light pink quartz veins			
					and quartz veinlets (30 mm to			
					0.2 mm in width)			
125	148	interbedded to laminated: 80%			- overall, rock contains: trace			
		grey-green to light grey to white			disseminated, fine to coarse			
		fine to medium grain quartzite			grain pyrite throughout rock			
		and 20% grey-green to light tan			and trace to 1% pyrite (or			
		green siltstone and mudstone			limonite) along fractures and			
					quartz veinlets			
		- rock is moderately fractured			- in rare cases, fractures			
					contain up to 3% pyrite			
		- below approximately 125 ft, rock			- approximately 15% of quartzite			
		gradually becomes comparatively			is bleached white to light			
		more green than rock higher in			brown-pink to light grey-green			
		the hole; "greener" quartzites						
		appear to be less bleached.						

Diamond Drill Record

HOLE NO. QH.86.2 | Page 4 of 4

Section		ROCK	Interval		ALTERATION,	VEINLETS		
from m	to m	DESCRIPTION	from m	to m	MINERALIZATION etc.	Thickness mm	Angle to core	minerals in decreasing abundance
		- overall, this interval of						
		rock contains 30% bleached						
		quartzite.						
148		End of hole.						

Diamond Drill Record

LOCATION: Quartz Hill			HOLE NO. QH.86.8 Page 1 of 3
AZIMUTH: 150	DIPS – collar 46 °	CONTRACTOR: Beaupre Diamond Drilling	PROPERTY: Perry Creek
ELEVATION: 6,200	– 104' ft 45 °	LOGGED BY: D. Mathison	CLAIM NO. 14952 (Quartz Creek)
LENGTH: 104	– m °	DATE: September 4, 1986	SECTION NO.
CORE SIZE: NQ	– m °		STARTED: September 4, 1986
PURPOSE: To test high grade gold mineralization on Quartz Hill			COMPLETED: September 4, 1986

Section		ROCK	Interval		ALTERATION,	VEINLETS		
from mft.	to mft.	DESCRIPTION	from mft.	to mft.	MINERALIZATION etc.	Thickness mm	Angle to core	minerals in decreasing abundance
29	59	grey to green to pink to white,	29	59	- quartzite contains 1% green	unknown	unknown	@ 49' to 51' interval contains 95%
		strongly fractured, bleached,			mineral (possibly chlorite) along			clear to cloudy white quartz
		medium to fine grain quartzite			fractures			fragments (20mm to 2.0mm in width)
								- this quartz may be from one or
		- 95% of quartzite is fine grain			- quartzite contains trace			more quartz veins
		and very hard			disseminated, fine to medium			- core recovery for this interval
					grain pyrite (or in many cases,			approx. 25%
					Fe-oxide) throughout			- this quartz contains trace, fine
								to medium grain, disseminated
					- rock contains trace to 1%			pyrite
					pyrite (or in many cases, Fe-oxide)			
					along fractures and along trace			
					visible quartz veinlets			
59	87	strongly brecciated: 65% grey-	59	87	- rock contains trace dissemi-			
		green to white to pink, fine to			nated, fine to medium grain			
		medium quartzite, 35% grey-green			pyrite (or Fe-oxide) throughout			
		to light green, to light tan			rock			
		green, laminated siltstone and			- rock contains trace to 2% pyrite			
		mudstone			(or Fe-oxide) along quartz			

Diamond Drill Record

HOLE NO. QH.86.8 | Page 2 of 3

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
					veinlets and fractures; overall,			
		-clast width between 1mm and 40mm			rock contains only trace pyrite/			
		-clasts are angular to subangular			Fe-oxide			
		-breccia appears to be tectonic						
		-core bedding angles (which may			-rock contains trace to 2% quartz			
		be distorted by tectonic movement)			veinlets (1mm to 10mm in width);			
		= 55° @ 69', 60° @ 79', 62° @ 86'			quartz veinlets contain trace to			
					1% pyrite; visible quartz vein-			
					lets appear to be randomly			
					oriented.			
		-approx. 80% of quartzite is						
		bleached pink to light green to						
		white.						
		-in many cases, breccia clasts						
		have undergone at least 2						
		episodes of fracturing/fracture						
		infilling.						
87	104	rock is similar to interval 59'						
		to 87' but, overall, rock appears						
		less brecciated and rock shows						
		bedding between bleached quart-						
		zite and laminated siltstone/						
		mudstone						

Diamond Drill Record

HOLE NO. QH.86.8 | Page 3 of 3

Section		ROCK	Interval		ALTERATION,	VEINLETS		
from m	to m	DESCRIPTION	from m	to m	MINERALIZATION etc.	Thickness mm	Angle to core	minerals in decreasing abundance
87	104	core bedding angles: 64° @ 90',						
		50° @ 96'						
104		End of hole						

LOCATION: Perry Creek	Diamond Drill Record			HOLE NO. PTR.86.1 Page 1 of 5
AZIMUTH: (Vertical)	DIPS – collar	° 90°	CONTRACTOR: Beaupre Diamond Drilling	PROPERTY: Perry Creek
ELEVATION: 5010'	– m	°	LOGGED BY: J. HARDY	CLAIM NO. Petra 9
LENGTH: 100 ft.	– m	°	DATE: September 6, 1986	SECTION NO.
CORE SIZE: NQ	– m	°		STARTED: September 3, 1986
PURPOSE: to test 10m of +0.10 oz/ton Au obtained in 1985 trenching				COMPLETED: September 3, 1986

Section from	Section to m-ft.	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
0	6'	Casing						throughout minor quartz and calcite
								veins, typically less than 1cm wide
6'	64	mudstone to fine siltstone,			- local Mn dendrites along			and averaging 1% of interval
		light green to green-grey,			partings			- vein centres may be porous
		phyllitic 70% with 25% siltstone			- in places sub to mm cubes,			containing brown earthy material
		to 5% very fine quartzite of			fresh to partly oxidized; trace			which effervesces; these appears
		same colour to pinkish-white or			over interval but to 3% with-			most common near calcareous red
		red brown colour as at 10 - 10.5,			in individual quartzite beds			brown quartzite beds
		13.5-15.0, 20-29.0			- plus sparse irregular earthy			- veins irregular, anastomosing,
		- mostly well and evenly bedded			brown areas of possible leached			appear to lack consistent orientation
		5mm to 5cm scale			sulphide which typically lie			to c.a.; some parallel bands at
		- elsewhere quartzite may lens			close to veins or described			70° c.a., others parallel to c.a.
		+ boudin			- minor irregular limonitic areas			
		- bedding angles average 30°L						
		to ca, with only slight waviness						
		- in places strongly calcareous						
		especially in coarser red brown						
		beds, elsewhere dolomitic but						
		appears to be erratic and						
		discontinous and averages less						

Diamond Drill Record

HOLE NO. PTR 86.1 | Page 2 of 5

Section from m	Section to ft	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
		than 50% of sequence						
		- 7-7.5: quartzite, white, with			trace to 2% mm pyrite cubes			crosscut by irregular,
		brown tinge, med. grained, finely			partly oxidized in wall rock			anastromosing calcite plus
		banded on mm scale						quartz to 0.5 cm; some with
								brownish powdery limonite,
		- 12-21.5: lenses of quartzite,			2% fresh py subhedra			
		elongate parallel to bands,						
		apparently soft sediment deform-						
		ation						
		- immediately above wisps of						
		hematite, elongate at divergent						- 10.5:- irregular milky
		angle from beds; 5% of interval						quartz vein subparallel to c.a
								- 2% mm fresh py cubes
								- appears 2.5 cm wide
								- 24.0: faintly pink calcite
								vein about 1cm wide with
								irregular milky quartz rim;
								parallels c.a.
to	39.0	- core badly broken, poor						
		recovery, footages only approx-						
		imate						- 30-31: Ct vein 70°L c.a., limonitic
								with trace sub-mm partly
								oxidized py cubes; estimated

Diamond Drill Record

HOLE NO. PTR 86.1 | Page 3 of 5

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
								width < 2 cm; limonite also extends
		+ 45 ft. - markedly more calcar-						beyond vein edges into country
		eous in both mudstone and						rock
		quartzite						
								- 41-46: highly irregular,
								discontinuous Ct veins; limonitic
								in places, especially at edges;
								bulk subparallel to bands; most
								< 0.5 cm
								- trace to 3% subhedral py locally
		- 46-54.5: white quartzite 40% of			-splotchy porous and limonitic			calcite and quartz veinlets to
		sequence; beds to 2 cm, most <1cm			patches, may extend out from			10% of interval; both parallel
		- veins in places follow and			<1cm Ct veinlets and perpendicular			to and cross-cutting bands, as
		merge with bands			to paper-thin fractures			well as merging with quartzite
		- 60.5-60.8: fine light grey						- 60.8-61: 1cm veinlet, subparallel
		calcareous mud						to c.a.; med crystalline white
								calcite surrounds yellow calcite
								core; edges in places red-brown
								with shapes suggesting oxidized
								pyrite
								- bleaching extends raggedly
								perpendicular up to 3cm from vein

Diamond Drill Record

HOLE NO. PTR 86.1 | Page 4 of 5

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
64.0	100	siltstone to fine quartzite;			minor open fractures parallel to			
		light to medium green 65% with			c.a., limonite stained and with			- minor calcite veins, may be
		20% mudstone, light apple green,			Mn dendrites			parallel to banding, or highly
		and 20% calcareous quartzite,			- trace anhedral to subhedral			irregular, cross-cutting; average
		white to light green, medium			pyrite within wall rocks, more			2% of interval, most < 2cm and with
		grained; overall phyllitic			common in quartzites where may			porous red brown limonitic borders
		- banding relatively even at			reach 2% locally			- 69.5-70.3: quartz vein 1cm
		70° c.a.						parallel to c.a.; with lesser
		- mudstone beds mm to 1cm;						calcite, minor limonite stain
		quartzite up to 5cm and siltstone						extending to 72.0 ft.
		averages 1-2cm						
		- minor waviness, boudinage						
		associated with soft sediment						
		deformation						
		- patches of calcareous material						
		within siltstone, mudstone;						
		irregular						- 75.0-76.5: zone of silicification
								and bleaching with quartz veining
		-65.5-66.3: red brown, somewhat						and calcite; minor limonite stain;
		earthy, highly calcareous						best developed 75.0-75.5
		mudstone within quartzite; also						
		at 68-69.5				< 1 mm	90°	-79.7-80.0: paper-thin red brown
								limonite plus calcite veinlet,
		+81: quartzite bands less regular						spread at < 1cm interval, trace

Diamond Drill Record

HOLE NO. PTR 86.1 | Page 5 of 5

Section from m	Section to m	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
		more lens-like, borders diffuse			- contain up to 3% coarsely			fresh pyrite; also at 80.8-81.1
		and merge with irregular calcite			crystalline anhedral pyrite			
		and quartz veins as at 87-87.5						
		- 84-85.5: white calcareous						- 85.8-88: zone of irregular
		quartzite shows irregular red			- 87.5: to 5% medium crystalline			calcite veins subparallel to
		brown stain			anhedral pyrite dissemination			c.a., anastomose, but average
								2cm plus irregular silicification
								or quartz veining; two phases of
								silica influx and two of carbonate
								(white, yellow) with 1-2% anhedral
								pyrite
								-91.3-93.0: calcite vein with
								inclusions wispy green phyllitic
								mudstone, parallel to c.a.,
								limonitic in places
								- 94.5-96.0: calcite vein parallel
								to c.a., trace anhedral pyrite
100		End of Hole						

Diamond Drill Record

LOCATION: PERRY CREEK				HOLE NO. PTR.86.2	Page 1 of 2
AZIMUTH: 110°	DIPS - collar 47°	CONTRACTOR: Beaupre Diamond Drilling		PROPERTY: PERRY CREEK	
ELEVATION: 5020'	- 100' ~~ft~~ 46°	LOGGED BY: J. Hardy		CLAIM NO. PETRA 9	
LENGTH: 100 ft	- m °	DATE: September 6, 1986		SECTION NO.	
CORE SIZE: NW	- m °			STARTED: September 4, 1986	
PURPOSE: To test 10 m of +0.10 oz/ton Au obtained in 1985 trenching				COMPLETED: September 4, 1986	

Section from	Section to	ROCK DESCRIPTION	Interval from m	Interval to m	ALTERATION, MINERALIZATION etc.	VEINLETS Thickness mm	VEINLETS Angle to core	VEINLETS minerals in decreasing abundance
		Drilling was slow in very blocky						
		ground, with poor recovery and						
		no return. Poker chip pieces						
		common.						
0	26	Casing						
26	100	Mudstone to fine siltstone,			Minor Mn dendrites on fine			Sparse quartz and calcite
		light green-grey, phyllitic,			open fracture parting			veinlets <2% of recovered
		with up to 10% fine grained						interval, mostly less than
		micaceous quartzite						2 cm, with trace partly
		- minor tan interbeds						oxidized pyrite cubes to 3 mm
		- locally calcareous, especially					80-90°	- same parallel to bands, rest
		in fine sparse interbeds which						near perpendicular or irregular
		are red brown and porous						discontinuous
		- bands 80-90° ca on mm to cm						
		scale						88.5-90: area of quartz plus
								calcite veining/influx; veins
								irregular anastomose with
								highly irregular red brown

Diamond Drill Record

HOLE NO. PTR.86.2 | Page 2 of 2

Section		ROCK	Interval		ALTERATION,	VEINLETS		
from m	to m	DESCRIPTION	from m	to m	MINERALIZATION etc.	Thickness mm	Angle to core	minerals in decreasing abundance
								limonite patches and irregular
								bleached areas extending
		- 58-69: sand, mud and clay						outward
		interspersed with angular						- veins both parallel to c.a.
		phyllitic mudstone plates						+ bands
								- also at 93.5-94.0
		+88 ft. core						
		Recovery markedly improved;						
		light green to white quartzites						
		40% to EOH						
100'		End of hole						

DDH P.T.R. 86-1

Core box Length	True Length	Recovery Percent
6 ft. casing		
6.0- 10.0= 4.0	2.3	58
10.0- 11.5= 1.5	1.8	100
11.5- 13.0= 1.5	1.0	67
13.0- 16.5= 3.5	3.2	91
16.5- 18.0= 1.5	1.5	100
18.0- 20.0= 2.0	2.0	100
20.0- 25.0= 5.0	1.8	36
25.0- 28.0= 3.0	0.5	17
28.0- 30.0= 2.0	1.6	80
30.0- 32.0= 2.0	2.0	100
32.0- 34.0= 2.0	1.0	50
34.0- 35.0= 1.0	0.3	33
35.0- 37.0= 2.0	0.8	40
37.0- 38.5= 1.5	1.5	100
38.5- 41.0= 2.5	1.7	68
41.0- 44.0= 3.0	3.0	100
44.0- 48.0= 4.0	4.6	100
48.0- 50.0= 2.0	1.8	90
50.0- 52.0= 2.0	1.8	90
52.0- 53.0= 1.0	0.6	60
53.0- 56.5= 3.5	3.5	100
56.5- 60.0= 3.5	3.7	93
60.0- 61.0= 1.0	0.6	60
61.0- 64.0= 3.0	3.0	100
64.0- 65.5= 1.5	1.5	100
65.5- 70.0= 4.5	3.0	100
70.0- 74.5= 4.5	4.3	96
74.5- 77.0= 2.5	2.3	92
77.0- 79.0= 2.0	2.0	100
79.0- 81.5= 2.5	2.0	80
81.5- 85.5= 5.0	4.2	84
85.5- 87.0= 1.5	1.5	100
87.0- 90.0= 3.0	2.3	77
90.0- 93.5= 3.5	3.5	100
93.5- 97.0= 3.5	3.9	100
97.0- 98.5= 1.5	1.3	87
98.5-100.0= 1.5	1.0	67

Total % core recovery **P.T.R. - 86.1** = 86%

DDH P.T.R. 86-2

Core box Length	True Length	Percent Recovery
26 ft. casing		
26.0- 35.0= 9.0	0.8	9
35.0- 40.0= 9.0	1.0	20
40.0- 42.0= 2.0	0.8	40
42.0- 45.0= 3.0	2.7	90
45.0- 51.0= 6.0	2.4	40
51.0- 55.0= 4.0	0.4	10
55.0- 60.0= 5.0	1.0	20
60.0- 65.0= 5.0	1.0	20
65.0- 69.0= 4.0	mud	0
69.0- 72.0= 3.0	0.8	27
72.0- 75.0= 3.0	2.4	80
75.0- 79.0= 4.0	1.8	45
79.0- 85.0= 6.0	0.7	12
85.0- 87.0= 2.0	0.3	15
87.0- 91.0= 4.0	4.0	100
91.0- 96.0= 5.0	4.5	90
96.0- 97.0= 1.0	0.3	33
97.0-100.0= 3.0	3.5	100

Total % core recovery **P.T.R. - 86.2** = 38%

DDH - QH.86-1

Core box Length	True Length	Recovery Percent
10 ft. casing		
10.0- 14.0= 4	2.6	65
14.0- 18.0= 4	2.6	65
18.0- 24.0= 6	4.4	73
24.0- 28.5= 4.5	3.3	73
28.5- 34.0= 5.5	4.5	82
34.0- 37.0= 3.0	2.6	87
37.0- 43.0= 6.0	6.0	100
43.0- 46.5= 3.5	2.7	77
46.5- 53.0= 6.5	6.5	100
53.0- 59.0= 6.0	4.2	70
59.0- 64.0= 5.0	4.6	92
64.0- 70.0= 6.0	4.6	77
70.0- 74.0= 4.0	4.3	100
74.0- 84.0=10.0	8.6	86
84.0- 94.0=10.0	9.0	90
94.0-104.0=10.0	9.7	97
104.0-110.5= 6.5	6.5	100
110.5-117.0= 6.5	5.8	89
117.0-124.0= 7.0	6.3	90
124.0-127.5= 3.5	3.2	91
127.5-133.0= 5.5	4.7	86
133.0-143.0= 7.0	7.8	100
143.0-146.0= 3.0	3.0	100
146.0-148.0= 2.0	5.5	100
148.0-154.0= 6.0	5.4	90
154.0-159.0= 5.0	4.3	86
159.0-164.0= 5 0	4.8	96
164.0-174.0=10.0	9.6	96
174.0-184.0=10.0	9.4	94
184.0-189.0= 5.0	4.0	80
189.0-199.0=10.0	7.6	76
199.0-201.0= 2.0	1.8	90
201.0-204.0= 3.0	3.3	100
204.0-214.0=10.0	8.4	84
214.0-223.0= 9.0	6.4	71
223.0-233.0=10.0	9.3	93
233.0-243.0=10.0	9.8	98
243.0-248.5= 5.5	4.6	84
248.5-258.0= 9.5	9.0	95
258.0-264.0= 6.0	5.8	97

Total % core
recovery **QH.86-1** = 89%

DDH - QH.86-2

Core box Length	True Length	Percent Recovery
10 ft. casing		
10.0- 14.5= 4.5	3.0	67
14.5- 16.0= 2.5	1.0	40
16.0- 19.5= 3.5	2.8	80
19.5- 25.5= 6.0	4.9	82
25.5- 31.5= 6.0	5.3	88
31.5- 32 5= 1.0	0.3	33
32.5- 36.0= 3.5	3.0	86
36.0- 40.5= 4.5	4.6	100
40.5- 46.0= 5.5	6.3	100
46.0- 52.5= 6.5	3.9	60
52.5- 56.0= 3.5	5.3	100
56.0- 62.0= 6.0	5.2	87
62.0- 66.0= 4.0	5.6	100
66.0- 76.0=10.0	5.8	58
76.0- 81.0= 5.0	3.5	70
81.0- 90.0= 9.0	4.6	51
90.0- 98.0= 8.0	9.0	100
98.0-106.0= 8.0	8.2	100
106.0-107.0= 1.0	0.9	90
107.0-116.0= 9.0	8.0	89
116.0-124.0= 8.0	7.4	93
124.0-134.0=10.0	9.0	90
134.0-144.0=10.0	5.3	53
144.0-154.0=10.0	9.1	91
154.0-160.5= 6.5	5.2	80
160.5-168.0= 7.5	6.8	91
168.0-170.0= 2.0	1.5	75
170.0-180.0=10.0	9.5	95
180.0-190.0=10.0	9.7	97
190.0-194.0= 4.0	4.1	100

Total % core
recovery **QH.86-2** = 86%

DDH - QH.86-3

Core box Length	True Length	Recovery Percent
19 ft. casing		
19.0- 22.0= 3.0	2.5	83
22.0- 26.5= 4.5	2.8	62
26.5- 34.0= 7.5	6.1	81
34.0- 38.5= 4.5	4.2	93
38.5- 42.5= 4.0	4.4	100
42.5- 47.5= 5.0	4.8	96
47.5- 54.0= 6.5	6.5	100
54.0- 64.0=10.0	9.7	97
64.0- 74.0=10.0	9.2	92
74.0- 84.0=10.0	9.5	95
84.0- 94.0=10.0	9.3	93
94.0-102.0= 8.0	6.8	85
102.0-107.5= 5.5	4.3	78
107.5-112.3= 5.0	3.5	70
112.5-121.5= 9.0	7.9	88
121.5-129.0= 7.5	7.3	97
129.0-137.5= 8.5	7.6	89
137.5-144.0= 7.0	5.8	83
144.0-154.0=10.0	9.4	94

Total % core recovery **QH.86-3** = 90%

DDH - QH.86.4

Core box Length	True Length	Percent Recovery
35 ft. casing		
35.0- 36.0= 1.0	.6	60
36.0- 46.0=10.0	9.6	96
46.0- 49.0= 4.0	1.8	60
49.0- 52.0= 3.0	1.3	43
52.0- 54.0= 2.0	.8	40
54.0- 57.0= 3.0	2.5	83
57.0- 62.5= 5.5	5.0	91
62.5- 66.0= 3.5	3.2	91
66.0- 76.0=10.0	10.2	100
76.0- 81.0= 5.0	4.6	92
81.0- 91.0=10.0	9.3	93
91.0-100.0= 9.0	8.6	96
100.0-105.0= 5.0	4.4	88
105.0-115.0=10.0	10.4	100
115.0-120.0= 5.0	4.2	84
120.0-126.0= 6.0	6.3	100
126.0-130.0= 4.0	3.2	80
130.0-136.0= 6.0	2.5	42
136.0-140.5= 4.5	4.5	100
140.5-149.0= 8.5	8.5	100

Total % core recovery **QH.86-4** = 89%

DDH QH.86-5

Core box Length	True Length	Recovery Percent
6 ft. casing		
06.0- 11.0= 5.0	3.9	78
11.0- 16.0= 5.0	5.2	100
16.0- 22.0= 6.0	5.3	88
22.0- 24.0= 2.0	.5	25
24.0- 26.0= 2.0	1.0	50
26.0- 28.5= 2.5	1.0	40
28.5- 31.5= 3.0	1.2	40
31.5- 33.0= 1.5	.5	30
33.0- 36.0= 3.0	2.7	90
36.0- 42.0= 6.0	5.6	93
42.0- 46.0= 4.0	2.5	63
46.0- 55.5= 9.5	9.3	98
55.5- 65.5=10.0	10.0	100
65.5- 67.0= 1.5	1.3	87
67.0- 72.0= 5 0	3.5	70
72.0- 76.0= 4.0	.4	10
76.0- 79.0= 3.0	1.1	37
79.0- 82.0= 3.0	2.0	67
82.0- 86.0= 4.0	3.2	80
86.0- 92.0= 6.0	6.0	100
92.0- 96.0= 4.0	4.0	100
96.0-100.5= 4.5	4.5	100
100.5-102.5= 2.0	1.5	75
102.5-106.0= 3.5	3.7	100

Total % core recovery **QH.86-5** = 80%

DDH QH.86-6

Core box Length	True Length	Percent Recovery
32 ft. casing		
32.0- 34.0= 2.0	1.0	50
34.0- 36.0= 2.0	1.0	50
36.0- 38.0= 2.0	0.5	25
38.0- 40.0= 2.0	0.8	40
40.0- 42.0= 2.0	0.7	35
42.0- 44.0= 2.0	1.2	60
44.0- 48.0= 4.0	2.0	50
48.0- 52.0= 4.0	1.0	25
52.0- 54.0= 2.0	1.4	70
54.0- 57.0= 3.0	mud	0
57.0- 60.0= 3.0	sand	0
60.0- 64.0= 4.0	2.2	55
64.0- 68.0= 4.0	2.5	63
68.0- 72.0= 4.0	2.3	58
72.0- 74.0= 2.0	1.0	50
74.0- 79.0= 5.0	3.0	60
79.0- 84.0= 5.0	5.0	100
84.0- 94.0=10.0	9.4	94
94.0-104.0=10.0	9.4	94
104.0-114.0=10.0	10.0	100
114.0-117.0= 3.0	2.0	67
117.0-120.0= 3.0	3.0	100

Total % core recovery **QH.86-6** = 68%

DDH QH.86-7

Core box Length	True Length	Recovery Percent
24 ft. casing		
24.0- 26.0= 2.0	0.6	24
26.0- 28.5= 2.5	sand	0
28.5- 31.0= 2.5	0.7	28
31.0- 40.0= 9.0	2.7	30
40.0- 43.0= 3.0	2.0	67
43.0- 44.5= 1.5	1.0	67
44.5- 48.0= 3.5	2.8	80
48.0- 56.0= 8.0	5.6	70
56.0- 60.0= 4.0	3.4	85
60.0- 61.0= 1.0	0.5	25
61.0- 62.5= 1.5	1.5	100
62.5- 66.0= 3.5	1.4	40
66.0- 68.0= 2.0	1.0	50
68.0- 72.0= 4.0	0.5	13
72.0- 76.0= 4.0	0.8	20
76.0- 78.0= 2.0	0.4	20
78.0- 80.0= 2.0	0.1	5
80.0- 83.0= 3.0	0.2	7
83.0- 86.0= 3.0	0.4	13
86.0- 92.0= 3.0	mud	0
92.0- 96.0= 4.0	1.5	38
96.0-100.0= 4.0	0.5	13
100.0-103.0= 3.0	0.2	7
103.0-106.0= 3.0	1.5	50
106.0-108.0= 2.0	1.9	95
108.0-111.5= 3.5	1.3	37
111.5-114.0= 2.5	1.6	64
114.0-120.0= 6.0	6.0	100
120.0-124.0= 4.0	2.6	65
124.0-126.0= 2.0	1.8	90
126.0-131.0= 5.0	4.2	84
131.0-133.0= 2.0	2.0	100
133.0-140.0= 7.0	6.8	97
140.0-148.0= 8.0	5.8	73

Total % core recovery **QH.86-7** = 51%

DDH QH.86-8

Core box Length	True Length	Percent Recovery
29 ft. casing		
29.0- 32.0= 3.0	2.8	93
32.0- 34.0= 2.0	1.3	65
34.0- 39.0= 5.0	4.7	94
39.0- 41.0= 2.0	1.7	85
41.0- 44.0= 3.0	1.0	33
44.0- 47.0= 3.0	0.7	23
47.0- 49.0= 2.0	1.2	60
49.0- 51.0= 2.0	0.6	30
51.0- 54.0= 3.0	2.2	73
54.0- 64.0=10.0	9.8	98
64.0- 70.0= 6.0	4.9	82
70.0- 74.0= 4.0	2.6	65
74.0- 80.0= 6.0	5.3	88
80.0- 90.0=10.0	9.0	90
90.0- 96.0= 6.0	3.8	63
96.0-100.0= 4.0	1.5	38
100.0-103.0= 3.0	2.0	67
103.0-104.0= 1.0	0.6	60

Total % core recovery **QH-86.8** = 74%

APPENDIX 2: Assays and Analytical Certificates

Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

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

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

CERTIFICATE OF ASSAY

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CC: J. HARDY

CERT. # : A8617313-001-A
INVOICE # : I8617313
DATE : 7-SEP-86
P.O. # : NONE
GAG/PC

Sample description	Prep code	Au oz/T	Drill Hole Footage Interval (ft)		Comments		
15001 G	207	0.002	--	--	--	--	--
15002 G	207	<0.002	10 casing → 18	--	QR-86-1	--	--
15003 G	207	<0.002	18 → 24	--	--	--	--
15004 G	207	<0.002	24 → 32	--	--	--	--
15005 G	207	0.002	32 → 37	--	--	--	--
15006 G	207	<0.002	37 → 41.5	--	--	--	--
15007 G	207	<0.002	41.5 → 48	--	--	--	--
15008 G	207	<0.002	48 → 54.5	--	--	--	--
15009 G	207	<0.002	54.5 → 62	--	--	--	--
15010 G	207	<0.002	62 → 64	--	--	--	--
15011 G	207	<0.002	64 → 69	--	--	--	--
15012 G	207	<0.002	69 → 74	--	--	--	--
			74 → 79				

VOI rev. 4/85

Anne Christi
Registered Assayer, Province of British Columbia

Chemex Labs Ltd.

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North Vancouver, B.C.
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•Analytical Chemists •Geochemists •Registered Assayers

Phone: (604) 984-0221
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CERTIFICATE OF ANALYSIS

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : A8617314-001-A
INVOICE # : I8617314
DATE : 11-SEP-86
P.O. # : NONE
GAG/PC

Semi quantitative multi element ICP analysis.

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :
CC: J. HARDY

Sample description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm		
15001 G	0.52	0.2	<10	20	<0.5	<2	0.04	<0.5	5	10	113	1.37	<10	0.16	20	0.05	84	<1	0.06	10	150	14	<10	2	<0.01	<10	<10	3	<10	20	--	--
15002 G	0.59	0.2	<10	30	<0.5	<2	0.05	<0.5	10	13	27	2.62	<10	0.26	30	0.13	426	<1	0.02	18	230	8	<10	3	<0.01	<10	<10	3	<10	32	--	--
15003 G	0.56	0.2	<10	40	<0.5	<2	0.05	<0.5	8	11	18	2.60	<10	0.28	30	0.15	264	3	0.02	13	270	14	<10	2	<0.01	<10	<10	2	<10	28	--	--
15004 G	0.56	0.2	<10	30	<0.5	<2	0.05	<0.5	5	10	45	1.85	<10	0.21	30	0.11	212	<1	0.03	12	170	8	<10	3	<0.01	<10	<10	3	<10	18	--	--
15005 G	0.43	0.2	<10	10	<0.5	<2	0.04	<0.5	6	12	38	1.52	<10	0.10	20	0.09	93	<1	0.04	11	140	8	<10	2	<0.01	<10	<10	3	<10	14	--	--
15006 G	0.56	0.2	<10	20	<0.5	<2	0.06	<0.5	6	12	89	1.99	<10	0.17	30	0.10	113	1	0.02	12	180	16	<10	3	<0.01	<10	<10	2	<10	22	--	--
15007 G	0.61	0.2	<10	30	<0.5	<2	0.12	<0.5	6	13	29	2.14	<10	0.21	30	0.10	202	<1	0.02	12	460	34	<10	3	<0.01	<10	<10	2	<10	22	--	--
15008 G	0.59	0.2	<10	40	<0.5	<2	0.08	<0.5	7	13	31	2.46	<10	0.26	30	0.08	210	<1	0.01	12	300	6	<10	3	<0.01	<10	<10	2	<10	22	--	--
15009 G	0.68	0.2	<10	30	<0.5	<2	0.07	<0.5	7	13	20	2.40	<10	0.21	30	0.14	217	<1	0.02	12	230	4	<10	3	<0.01	<10	<10	4	<10	22	--	--
15010 G	1.21	0.2	<10	40	<0.5	2	0.08	<0.5	11	18	51	3.49	<10	0.25	30	0.50	375	<1	0.01	18	280	12	<10	3	<0.01	<10	<10	6	<10	38	--	--
15011 G	1.24	0.2	<10	40	<0.5	<2	0.10	<0.5	7	20	19	2.69	<10	0.25	30	0.44	141	<1	0.01	16	370	10	<10	3	<0.01	<10	<10	7	<10	28	--	--
15012 G	1.45	0.2	10	50	<0.5	<2	0.08	<0.5	10	19	15	3.47	<10	0.23	20	0.61	173	<1	0.01	19	260	6	<10	3	<0.01	<10	<10	8	<10	36	--	--

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CERTIFICATE OF ASSAY

O : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : A8617476-001-A
INVOICE # : I8617476
DATE : 9-SEP-86
P.O. # : NONE
GAG/PC

CC: J. HARDY

Sample description	Prep code	Au oz/T RUSH FA	Drill Hole Footage Interval (ft)	Comments
15013 G	236	<0.002	79 → 84	QH-86-1 cont'd.
15014 G	236	<0.002	84 → 89	
15015 G	236	<0.002	89 → 94	
15016 G	236	<0.002	94 → 105	
15017 G	236	0.014	105 → 110	
15018 G	236	<0.002	110 → 115.5	
15019 G	236	0.002	115.5 → 121.5	
15020 G	236	<0.002	121.5 → 127	
15021 G	236	<0.002	127 → 132.5	
15022 G	236	<0.002	132.5 → 138	
15023 G	236	<0.002	138 → 143	
15024 G	236	<0.002	143 → 149	
15025 G	236	<0.002	149 → 151	
15026 G	236	0.002	151 → 153	
15027 G	236	<0.002	153 → 159	
15028 G	236	<0.002	159 → 164	
15029 G	236	<0.002	164 → 169	
15030 G	236	0.002	169 → 174	
15031 G	236	<0.002	174 → 179.5	
15032 G	236	<0.002	179.5 → 184.5	
15033 G	236	<0.002	184.5 → 190.5	
15034 G	236	<0.002	190.5 → 194.5	
15035 G	236	<0.002	194.5 → 196.5	
15036 G	236	<0.002	196.5 → 200	
15037 G	236	<0.002	200 → 202	
15038 G	236	<0.002	202 → 207	
15039 G	236	<0.002	207 → 212	
15040 G	236	<0.002	212 → 219	
15041 G	236	<0.002	219 → 225	
15042 G	236	<0.002	225 → 229	
15043 G	236	<0.002	229 → 233	
15044 G	236	<0.002	233 → 238	
15045 G	236	<0.002	238 → 243	
15046 G	236	<0.002	243 → 245	
15047 G	236	<0.002	245 → 248	
15048 G	236	<0.002	248 → 253	
15049 G	236	<0.002	253 → 260	
15050 G	236	<0.002	260 → 264	End of QH-86-1
15051 G	236	0.002	10 casing → 17	QH-86-2
15052 G	236	<0.002	17 → 22.5	

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Telex: 043-52597

CERTIFICATE OF ANALYSIS

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : A8617477-001-A
INVOICE # : I8617477
DATE : 17-SEP-86
P.O. # : NONE
GAG/PC

Semi quantitative multi element ICP analysis

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :
CC: J. HARDY

Sample description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm		
15013 G	1.05	0.2	10	50	<0.5	<2	0.09	<0.5	5	18	13	2.45	<10	0.14	20	0.56	176	<1	0.03	14	300	10	<10	3	<0.01	<10	<10	9	<10	30	--	--
15014 G	1.19	0.2	10	40	<0.5	<2	0.10	<0.5	9	25	14	3.38	<10	0.16	10	0.78	207	2	0.05	17	390	10	<10	3	<0.01	<10	<10	14	<10	34	--	--
15015 G	1.26	0.2	10	40	<0.5	<2	0.11	<0.5	5	22	16	3.27	<10	0.12	20	0.84	150	1	0.04	16	400	6	<10	3	<0.01	<10	<10	11	<10	42	--	--
15016 G	0.74	0.2	<10	20	<0.5	<2	0.09	<0.5	15	12	12	2.49	<10	0.10	30	0.13	211	<1	0.02	12	220	2	<10	5	<0.01	<10	<10	4	<10	20	--	--
15017 G	0.52	0.2	30	20	<0.5	<2	0.16	<0.5	5	12	15	1.75	<10	0.12	20	0.11	103	<1	0.06	10	440	4	<10	5	<0.01	<10	<10	4	<10	14	--	--
15018 G	1.02	0.2	<10	20	<0.5	<2	0.08	<0.5	11	18	13	3.03	<10	0.17	20	0.47	131	1	0.05	17	270	4	<10	3	<0.01	<10	<10	9	<10	28	--	--
15019 G	1.37	0.2	<10	20	<0.5	<2	0.10	<0.5	5	22	10	3.06	<10	0.17	20	0.79	103	<1	0.04	19	320	4	<10	3	<0.01	<10	<10	11	<10	36	--	--
15020 G	0.39	0.2	<10	10	<0.5	<2	0.10	<0.5	3	16	5	1.71	<10	0.04	20	0.19	121	<1	0.07	8	120	8	<10	4	<0.01	<10	<10	5	<10	14	--	--
15021 G	0.52	0.2	<10	20	<0.5	<2	0.12	<0.5	3	14	7	1.61	<10	0.19	30	0.16	154	<1	0.04	10	170	4	<10	4	<0.01	<10	<10	5	<10	16	--	--
15022 G	0.42	0.2	<10	40	<0.5	<2	0.08	<0.5	2	12	8	1.35	<10	0.16	20	0.15	108	<1	0.04	6	190	4	<10	3	<0.01	<10	<10	3	<10	12	--	--
15023 G	0.50	0.2	<10	20	<0.5	<2	0.06	<0.5	10	15	10	1.98	<10	0.12	20	0.24	150	<1	0.06	12	130	4	<10	2	<0.01	<10	<10	6	<10	16	--	--
15024 G	0.77	0.2	<10	30	<0.5	<2	0.07	<0.5	4	17	9	2.08	<10	0.16	30	0.35	138	<1	0.04	13	190	2	<10	2	<0.01	<10	<10	7	<10	18	--	--
15025 G	1.45	0.2	<10	50	<0.5	<2	0.09	<0.5	9	19	11	2.88	<10	0.30	20	0.72	62	<1	0.03	23	310	6	<10	2	<0.01	<10	<10	11	<10	30	--	--
15026 G	0.31	0.2	<10	<10	<0.5	<2	0.05	<0.5	19	19	9	4.55	<10	0.01	10	0.07	48	<1	0.12	15	200	4	<10	2	0.01	<10	<10	20	<10	8	--	--
15027 G	0.74	0.2	<10	10	<0.5	<2	0.12	<0.5	6	16	6	2.48	<10	0.09	20	0.25	106	<1	0.07	17	280	4	<10	4	<0.01	<10	<10	6	<10	22	--	--
15028 G	0.62	0.2	<10	40	<0.5	<2	0.15	<0.5	10	15	16	2.61	<10	0.23	20	0.37	252	1	0.02	18	300	4	<10	3	<0.01	<10	<10	4	<10	20	--	--
15029 G	1.08	0.2	10	30	<0.5	<2	0.29	<0.5	10	22	11	3.12	<10	0.22	20	0.88	287	<1	0.04	23	330	4	<10	2	<0.01	<10	<10	10	<10	34	--	--
15030 G	0.94	0.2	10	10	<0.5	<2	0.17	<0.5	10	27	8	2.84	<10	0.07	10	0.74	171	1	0.06	17	200	4	<10	2	<0.01	<10	<10	17	<10	22	--	--
15031 G	1.05	0.2	<10	10	<0.5	<2	0.16	<0.5	9	36	10	2.80	<10	0.05	20	0.80	123	1	0.13	17	410	6	<10	2	<0.01	<10	<10	25	<10	22	--	--
15032 G	0.71	0.2	<10	20	<0.5	<2	0.30	<0.5	8	25	8	2.30	<10	0.13	20	0.60	170	2	0.13	16	320	6	<10	3	<0.01	<10	<10	16	<10	16	--	--
15033 G	0.40	0.2	<10	<10	<0.5	<2	0.17	<0.5	20	28	11	2.51	<10	0.02	20	0.30	102	<1	0.12	14	240	4	<10	2	<0.01	<10	<10	12	<10	8	--	--
15034 G	1.18	0.2	<10	30	<0.5	4	0.10	<0.5	11	28	17	3.72	10	0.21	20	0.71	147	<1	0.08	19	190	8	<10	2	<0.01	<10	<10	15	<10	22	--	--
15035 G	0.32	0.2	<10	<10	<0.5	<2	0.14	<0.5	13	33	12	3.58	<10	0.02	10	0.16	104	<1	0.13	10	320	6	<10	1	0.02	<10	<10	42	<10	4	--	--
15036 G	0.97	0.2	<10	30	<0.5	2	0.14	<0.5	11	26	18	2.82	10	0.22	20	0.68	144	<1	0.04	19	300	10	<10	2	<0.01	<10	<10	14	<10	22	--	--
15037 G	0.17	0.2	<10	<10	<0.5	<2	0.21	<0.5	2	15	9	1.32	<10	0.03	20	0.11	147	<1	0.06	6	100	4	<10	3	<0.01	<10	<10	1	<10	4	--	--
15038 G	0.72	0.2	<10	40	<0.5	2	0.16	<0.5	6	25	16	2.20	10	0.25	30	0.44	173	<1	0.06	14	210	12	<10	3	<0.01	<10	<10	9	<10	18	--	--
15039 G	0.55	0.2	10	10	<0.5	<2	0.17	<0.5	6	25	11	1.95	<10	0.06	10	0.40	183	<1	0.07	11	130	10	<10	2	<0.01	<10	<10	7	<10	12	--	--
15040 G	0.91	0.2	10	20	<0.5	4	0.19	<0.5	7	30	14	2.36	10	0.12	20	0.65	130	<1	0.07	15	250	10	<10	2	<0.01	<10	<10	13	<10	16	--	--
15041 G	0.79	0.2	10	20	<0.5	4	0.28	<0.5	13	27	14	3.01	10	0.10	10	0.75	174	<1	0.05	20	310	12	<10	2	<0.01	<10	<10	12	<10	16	--	--
15042 G	1.06	0.2	10	20	<0.5	4	0.28	<0.5	16	32	23	3.95	10	0.12	20	0.92	184	<1	0.07	21	390	8	<10	3	<0.01	<10	<10	22	<10	18	--	--
15043 G	1.17	0.2	10	10	<0.5	4	0.35	<0.5	18	39	18	3.32	10	0.06	20	1.11	195	<1	0.09	18	410	14	<10	3	<0.01	<10	<10	29	<10	16	--	--
15044 G	0.83	0.2	10	10	<0.5	2	0.66	<0.5	17	31	18	2.98	10	0.04	20	0.84	220	<1	0.11	20	370	10	<10	3	<0.01	<10	<10	25	<10	10	--	--
15045 G	0.85	0.2	10	10	<0.5	4	0.55	<0.5	19	42	11	2.37	10	0.04	20	0.82	180	<1	0.10	18	440	12	<10	2	<0.01	<10	<10	26	<10	10	--	--
15046 G	0.97	0.2	10	10	<0.5	4	0.26	<0.5	12	38	14	2.65	10	0.04	20	0.92	107	<1	0.06	17	360	12	<10	2	<0.01	<10	<10	21	<10	14	--	-
15047 G	0.84	0.2	10	10	<0.5	4	1.14	<0.5	7	20	8	2.30	10	0.08	20	0.74	213	<1	0.04	12	410	10	<10	16	<0.01	<10	<10	8	<10	14	--	--
15048 G	0.77	0.2	10	<10	<0.5	2	0.51	<0.5	9	32	9	2.32	10	0.03	10	0.65	149	<1	0.05	17	360	14	<10	2	<0.01	<10	<10	21	<10	12	--	--
15049 G	1.18	0.2	10	<10	<0.5	4	0.22	<0.5	9	33	11	2.31	10	0.02	30	1.17	145	<1	0.09	16	270	10	<10	1	<0.01	<10	<10	35	<10	14	--	--
15050 G	1.28	0.2	10	<10	<0.5	6	0.56	<0.5	17	41	15	3.02	10	0.03	20	1.33	205	<1	0.11	22	420	12	<10	3	<0.01	<10	<10	41	<10	18	--	--
15051 G	0.72	0.2	10	30	<0.5	2	0.06	<0.5	5	19	29	1.69	10	0.24	30	0.11	78	<1	0.02	11	230	8	<10	3	<0.01	10	<10	5	<10	18	--	--
15052 G	0.66	0.2	20	20	<0.5	<2	0.04	<0.5	6	20	17	2.60	<10	0.17	30	0.68	157	<1	0.03	11	170	6	<10	2	<0.01	<10	<10	3	<10	16	--	--

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CERTIFICATE OF ASSAY

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CC: J. HARDY

CERT. # : A8617476-002-A
INVOICE # : I8617476
DATE : 9-SEP-86
P.O. # : NONE
GAG/PC

Sample description	Prep code	Au oz/T RUSH FA	Drill Hole Footage Interval (ft.)	Comments
15053 G	236	0.002	22.5 → 29	QH-86-2 cont'd
15054 G	236	<0.002	29 → 34.5	
15055 G	236	0.006	34.5 → 37.5	
15056 G	236	<0.002	37.5 → 43.5	
15057 G	236	<0.002	43.5 → 49	
15058 G	236	0.002	49 → 54	
15059 G	236	0.002	54 → 59.5	
15060 G	236	<0.002	59.5 → 65.5	
15061 G	236	0.002	65.5 → 71	
15062 G	236	0.004	71 → 76	
15063 G	236	0.002	76 → 81	
15064 G	236	<0.002	81 → 85.5	
15065 G	236	<0.002	85.5 → 90.5	
15066 G	236	<0.002	90.5 → 95.5	
15067 G	236	0.002	95.5 → 100.5	
15068 G	236	<0.002	100.5 → 105.5	
15069 G	236	0.002	105.5 → 108.5	
15070 G	236	0.020	108.5 → 111.5	
15071 G	236	0.002	111.5 → 116.5	
15072 G	236	<0.002	116.5 → 122	
15073 G	236	0.014	122 → 127	
15074 G	236	0.002	127 → 132.5	
15075 G	236	0.002	132.5 → 137.5	
15076 G	236	0.002	137.5 → 142.5	
15077 G	236	<0.002	142.5 → 147.5	
15078 G	236	<0.002	147.5 → 153	
15079 G	236	0.004	153 → 159	
15080 G	236	0.002	159 → 164.5	
15081 G	236	<0.002	164.5 → 170	
15082 G	236	<0.002	170 → 175.5	
61626 A	236	0.010		
61627 A	236	0.026		See Table
61628 A	236	0.480		
61629 A	236	0.010		
61630 A	236	0.008		
61631 A	236	0.004		
61632 A	236	0.004		
61633 A	236	0.076		
61634 A	236	0.006		
61635 A	236	0.006		

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CERTIFICATE OF ANALYSIS

Semi quantitative multi element ICP analysis

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : A8617477-002-A
INVOICE # : I8617477
DATE : 17-SEP-86
P.O. # : NONE
GAG/PC

COMMENTS :
CC: J. HARDY

Sample description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm		
15053 G	0.35	0.2	10	110	<0.5	<2	0.04	<0.5	3	9	8	2.27	<10	0.09	20	0.06	73	<1	0.01	7	160	16	<10	2	<0.01	<10	<10	2	<10	18	--	--
15054 G	0.49	0.2	10	60	<0.5	<2	0.04	<0.5	5	11	42	1.88	<10	0.15	20	0.09	174	<1	0.02	9	140	14	<10	3	<0.01	<10	<10	2	<10	18	--	--
15055 G	0.54	0.2	<10	70	<0.5	<2	0.04	<0.5	5	11	182	1.66	<10	0.17	30	0.07	152	<1	0.03	10	170	12	<10	3	<0.01	<10	<10	3	<10	14	--	--
15056 G	0.62	0.2	<10	40	<0.5	<2	0.08	<0.5	8	12	97	2.36	<10	0.18	30	0.31	252	<1	0.01	15	240	8	<10	2	<0.01	<10	<10	4	<10	30	--	--
15057 G	1.42	0.2	10	70	<0.5	<2	0.16	<0.5	10	15	35	2.79	<10	0.26	20	0.50	308	4	0.02	18	320	8	<10	3	<0.01	<10	<10	6	<10	36	--	--
15058 G	0.49	0.2	<10	50	<0.5	<2	0.19	<0.5	10	12	16	2.54	<10	0.20	30	0.45	319	<1	0.02	14	210	8	<10	4	<0.01	<10	<10	4	<10	26	--	--
15059 G	0.41	0.2	<10	50	<0.5	<2	0.18	<0.5	11	13	8	1.86	<10	0.13	20	0.29	185	<1	0.04	14	160	18	<10	5	<0.01	<10	<10	4	<10	18	--	--
15060 G	0.52	0.2	<10	70	<0.5	<2	0.15	<0.5	1	14	6	1.21	<10	0.18	30	0.15	132	<1	0.11	7	140	12	<10	6	<0.01	<10	<10	5	<10	12	--	--
15061 G	0.25	0.2	<10	40	<0.5	<2	0.09	<0.5	5	10	6	1.50	<10	0.06	10	0.26	139	<1	0.03	8	100	10	<10	3	<0.01	<10	<10	3	<10	16	--	--
15062 G	0.46	0.2	<10	40	<0.5	<2	0.15	<0.5	4	17	8	1.87	<10	0.12	30	0.30	193	<1	0.08	9	110	6	<10	5	<0.01	<10	<10	6	<10	18	--	--
15063 G	0.38	0.2	<10	60	<0.5	<2	0.25	<0.5	5	10	12	1.74	<10	0.16	20	0.34	232	<1	0.03	9	200	14	<10	7	<0.01	<10	<10	3	<10	16	--	--
15064 G	1.33	0.2	<10	100	<0.5	<2	0.20	<0.5	13	17	61	3.39	<10	0.40	20	0.69	351	2	0.04	20	310	14	<10	4	<0.01	<10	<10	10	<10	30	--	--
15065 G	1.27	0.2	<10	100	<0.5	<2	0.10	<0.5	9	14	12	2.68	<10	0.44	30	0.57	328	<1	0.02	22	310	8	<10	2	<0.01	<10	<10	7	<10	28	--	--
15066 G	0.47	0.2	<10	50	<0.5	<2	0.21	<0.5	5	11	11	2.09	<10	0.22	20	0.51	295	<1	0.05	11	160	6	<10	5	<0.01	<10	<10	5	<10	18	--	--
15067 G	0.51	0.2	10	30	<0.5	<2	0.64	<0.5	10	15	12	2.92	<10	0.16	20	0.69	312	1	0.07	16	370	6	<10	20	<0.01	<10	<10	6	<10	20	--	--
15068 G	0.51	0.2	<10	30	<0.5	<2	0.49	<0.5	10	13	12	2.85	<10	0.17	20	0.69	282	<1	0.07	15	430	6	<10	12	<0.01	<10	<10	5	<10	20	--	--
15069 G	0.50	0.2	10	40	<0.5	<2	0.42	<0.5	9	12	14	3.51	<10	0.14	10	0.85	346	<1	0.06	17	430	14	<10	11	<0.01	<10	<10	5	<10	30	--	--
15070 G	0.37	0.2	<10	20	<0.5	<2	0.69	<0.5	8	13	10	2.72	<10	0.13	10	0.32	263	<1	0.07	14	310	8	<10	21	<0.01	<10	<10	3	<10	8	--	--
15071 G	0.39	0.2	10	40	<0.5	<2	0.69	<0.5	10	12	10	2.84	<10	0.11	10	0.59	325	1	0.06	14	390	16	<10	20	<0.01	<10	<10	3	<10	18	--	--
15072 G	0.39	0.2	<10	40	<0.5	<2	0.30	<0.5	10	9	9	2.78	<10	0.20	10	0.58	309	1	0.02	18	290	8	<10	6	<0.01	<10	<10	2	<10	18	--	--
15073 G	0.92	0.2	<10	70	<0.5	<2	0.32	<0.5	12	15	19	3.48	<10	0.31	20	0.81	374	1	0.03	20	410	8	<10	5	<0.01	<10	<10	6	<10	28	--	--
15074 G	0.53	0.2	10	50	<0.5	<2	0.83	<0.5	6	15	11	2.79	<10	0.25	20	0.69	396	1	0.02	15	200	10	<10	24	<0.01	<10	<10	4	<10	18	--	--
15075 G	0.65	0.2	<10	60	<0.5	<2	0.15	<0.5	10	12	10	2.79	<10	0.36	20	0.60	336	<1	0.02	17	220	8	<10	4	<0.01	<10	<10	4	<10	18	--	--
15076 G	0.46	0.2	<10	50	<0.5	<2	0.14	<0.5	3	12	10	1.77	<10	0.21	20	0.30	231	<1	0.04	10	150	8	<10	4	<0.01	<10	<10	3	<10	14	--	--
15077 G	0.25	0.2	<10	30	<0.5	<2	0.18	<0.5	1	12	7	1.15	<10	0.07	20	0.19	145	<1	0.08	6	90	14	<10	6	<0.01	<10	<10	2	<10	8	--	--
15078 G	0.56	0.2	<10	50	<0.5	<2	0.17	<0.5	4	13	7	1.77	<10	0.25	30	0.29	191	<1	0.05	10	140	10	<10	5	<0.01	<10	<10	4	<10	14	--	--
15079 G	0.24	0.2	<10	30	<0.5	<2	0.27	<0.5	1	12	6	1.22	<10	0.08	20	0.17	145	<1	0.05	7	90	8	<10	8	<0.01	<10	<10	2	<10	6	--	--
15080 G	0.22	0.2	<10	30	<0.5	<2	0.38	<0.5	11	11	7	2.15	<10	0.12	10	0.42	227	3	0.03	12	210	10	<10	10	<0.01	<10	<10	2	<10	12	--	--
15081 G	1.75	0.2	<10	90	<0.5	<2	0.30	<0.5	10	12	12	2.69	10	0.42	20	0.78	294	1	0.04	15	290	10	<10	6	<0.01	<10	<10	3	<10	22	--	--
15082 G	0.54	0.2	<10	50	<0.5	<2	0.27	<0.5	11	12	11	2.48	<10	0.28	20	0.61	356	<1	0.04	13	180	6	<10	11	<0.01	<10	<10	4	<10	20	--	--
61626 A	0.52	0.6	10	60	<0.5	<2	0.05	<0.5	19	11	72	3.09	<10	0.20	20	0.05	605	<1	0.05	21	160	28	<10	3	<0.01	<10	<10	5	<10	16	--	--
61627 A	0.29	1.8	<10	50	<0.5	<2	0.01	<0.5	4	36	54	2.40	<10	0.14	<10	0.02	171	6	0.01	20	160	32	<10	2	<0.01	<10	<10	10	<10	12	--	--
61628 A	0.32	2.0	40	20	<0.5	4	0.02	<0.5	6	16	590	4.65	<10	0.12	<10	0.03	244	21	0.01	16	270	96	<10	2	<0.01	<10	<10	14	<10	20	--	--
61629 A	0.42	0.4	10	20	<0.5	<2	0.03	<0.5	6	12	169	2.71	<10	0.06	20	0.05	139	2	0.03	14	240	22	<10	3	<0.01	<10	<10	4	<10	12	--	--
61630 A	0.51	0.4	20	30	<0.5	<2	0.03	<0.5	12	11	342	5.22	<10	0.03	30	0.04	141	2	0.02	22	380	38	<10	4	0.01	<10	<10	12	<10	18	--	--
61631 A	0.40	1.0	10	50	<0.5	<2	0.01	<0.5	1	9	54	1.07	<10	0.06	20	0.01	61	<1	0.09	5	110	30	<10	3	<0.01	<10	<10	4	<10	6	--	--
61632 A	0.33	0.2	10	20	<0.5	<2	0.02	<0.5	3	9	102	2.37	<10	0.06	10	0.02	101	2	0.02	9	170	20	<10	2	<0.01	<10	<10	2	<10	8	--	--
61633 A	0.10	0.4	<10	20	<0.5	4	<0.01	<0.5	<1	14	76	1.71	<10	0.03	<10	<0.01	93	3	0.01	6	90	46	<10	<1	<0.01	<10	<10	2	<10	4	--	--
61634 A	0.54	0.4	<10	20	<0.5	<2	0.02	<0.5	4	9	206	2.45	<10	0.08	30	0.02	48	2	0.04	10	280	112	<10	8	<0.01	<10	<10	2	<10	10	--	--
61635 A	0.50	0.2	<10	20	<0.5	<2	0.06	<0.5	5	9	489	2.17	<10	0.10	30	0.09	103	1	0.01	7	240	190	<10	8	<0.01	<10	<10	2	<10	8	--	--

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CERTIFICATE OF ASSAY

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CC: J. HARDY

CERT. # : A8617536-001-A
INVOICE # : I8617536
DATE : 8-SEP-86
P.O. # : NONE
GAG/PC

Sample description	Prep code	Au oz/T RUSH FA	Drill Hole Footage Interval (ft.)	Comments
15083	236	0.002	175.5 → 180.5	QH-86-2 cont'd
15084	236	<0.002	180.5 → 185.5	
15085	236	<0.002	185.5 → 190.5	
15086	236	<0.002	190.5 → 194	End of QH-86-2
15087	236	0.027	10 casing → 22	QH-86-3
15088	236	<0.002	22 → 29	
15089	236	<0.002	29 → 34	
15090	236	<0.002	34 → 39	
15091	236	<0.002	39 → 44	
15092	236	<0.002	44 → 49	

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CERTIFICATE OF ANALYSIS

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : A8617537-001-A
INVOICE # : I8617537
DATE : 11-SEP-86
P.O. # : NONE
GAG/PC

Semi quantitative multi element ICP analysis

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :
CC: J. HARDY

Sample description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm		
15083	0.90	0.2	20	80	<0.5	<2	0.14	<0.5	10	12	11	3.13	<10	0.52	30	0.82	425	<1	0.02	15	230	26	<10	4	<0.01	<10	<10	6	<10	32	--	--
15084	0.79	0.2	20	50	<0.5	2	0.17	<0.5	7	15	13	2.27	<10	0.30	10	0.62	257	<1	0.04	12	160	18	<10	4	<0.01	<10	<10	7	<10	30	--	--
15085	0.85	0.2	30	60	<0.5	2	0.25	<0.5	12	18	14	3.01	<10	0.41	30	0.82	327	4	0.06	17	270	16	<10	8	<0.01	<10	<10	9	<10	30	--	--
15086	0.63	0.2	20	50	<0.5	<2	0.41	<0.5	6	14	10	2.11	<10	0.35	30	0.49	288	<1	0.04	10	210	12	<10	12	<0.01	<10	<10	5	<10	18	--	--
15087	0.03	0.2	20	<10	<0.5	<2	0.01	<0.5	2	10	62	1.15	<10	0.01	<10	0.01	101	1	<0.01	4	20	56	<10	1	<0.01	<10	<10	<1	<10	4	--	--
15088	0.63	0.2	20	30	<0.5	<2	0.07	<0.5	10	14	178	2.67	<10	0.22	30	0.20	207	<1	0.03	16	240	46	<10	3	<0.01	<10	<10	4	<10	24	--	--
15089	0.60	0.2	10	40	<0.5	<2	0.07	<0.5	7	15	24	2.52	<10	0.26	20	0.25	284	<1	0.03	16	290	14	<10	2	<0.01	<10	<10	6	<10	24	--	--
15090	0.29	0.2	10	20	<0.5	<2	0.07	<0.5	8	9	16	1.88	<10	0.11	10	0.29	190	<1	0.03	12	140	12	<10	2	<0.01	<10	<10	3	<10	16	--	--
15091	0.26	0.2	10	20	<0.5	<2	0.11	<0.5	2	10	5	1.65	<10	0.13	20	0.48	202	<1	0.02	8	140	8	<10	3	<0.01	<10	<10	2	<10	16	--	--
15092	0.23	0.2	10	20	<0.5	<2	0.16	<0.5	2	11	6	1.60	<10	0.09	20	0.35	181	<1	0.03	7	120	8	<10	4	<0.01	<10	<10	3	<10	16	--	--

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CERTIFICATE OF ASSAY

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CC: J. HARDY

CERT. # : A8617592-001-A
INVOICE # : I8617592
DATE : 8-SEP-86
P.O. # : NONE
GAG-PC

Sample description	Prep code	Au oz/T RUSH FA	Drill Hole Footage Interval (ft)	Comments
15093 G	236	<0.002	49 → 54	OH-86-3 cont'd.
15094 G	236	<0.002	54 → 59	
15095 G	236	<0.002	59 → 64	
15096 G	236	<0.002	64 → 69.5	
15097 G	236	<0.002	69.5 → 75	
15098 G	236	<0.002	75 → 80	
15099 G	236	<0.002	80 → 85	
15100 G	236	<0.002	85 → 90.5	
15101 G	236	<0.002	90.5 → 96	

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CERTIFICATE OF ANALYSIS

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : AB617593-001-A
INVOICE # : I8617593
DATE : 11-SEP-86
P.O. # : NONE
GAG-PC

Semi quantitative multi element ICP analysis

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :
CC: J. HARDY

Sample description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm		
15093 G	0.38	0.2	<10	40	<0.5	<2	0.08	<0.5	4	11	10	1.68	<10	0.18	20	0.22	176	<1	0.03	9	140	4	<10	2	<0.01	<10	<10	3	<10	18	--	--
15094 G	0.42	0.2	<10	30	<0.5	<2	0.20	<0.5	7	13	9	2.35	<10	0.19	20	0.48	231	1	0.03	13	230	6	<10	4	<0.01	<10	<10	5	<10	18	--	--
15095 G	0.50	0.2	<10	40	<0.5	<2	0.21	<0.5	10	15	8	2.29	<10	0.23	20	0.53	233	<1	0.06	13	230	4	<10	4	<0.01	<10	<10	6	<10	18	--	--
15096 G	0.78	0.2	10	70	<0.5	<2	0.15	<0.5	11	15	9	2.86	<10	0.40	20	0.51	265	<1	0.05	14	330	8	<10	4	<0.01	<10	<10	8	<10	20	--	--
15097 G	0.72	0.2	10	60	<0.5	<2	0.16	<0.5	11	13	10	2.43	<10	0.35	20	0.48	253	2	0.05	12	210	98	10	4	<0.01	<10	<10	7	<10	24	--	--
15098 G	0.73	0.2	<10	50	<0.5	<2	0.21	<0.5	9	14	9	2.63	<10	0.33	30	0.57	317	<1	0.03	14	250	4	<10	5	<0.01	<10	<10	5	<10	28	--	--
15099 G	0.63	0.2	10	40	<0.5	<2	0.60	<0.5	13	16	9	3.29	<10	0.28	20	0.71	325	1	0.08	15	290	6	<10	14	<0.01	<10	<10	7	<10	26	--	--
15100 G	1.02	0.2	10	50	<0.5	2	0.44	<0.5	12	25	16	3.06	<10	0.26	20	0.80	251	1	0.07	16	430	8	<10	7	<0.01	<10	<10	12	<10	34	--	--
15101 G	0.92	0.2	10	20	<0.5	2	0.53	<0.5	13	27	14	3.56	10	0.13	20	0.98	328	<1	0.09	14	410	8	<10	7	<0.01	<10	<10	16	<10	32	--	--

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VANCOUVER, B.C.
V6C 2W2

CERT. # : A8617639-001-A
INVOICE # : I8617639
DATE : 9-SEP-86
P.O. # : NONE
GAG/PC

CC: J. HARDY

Sample description	Prep code	Au oz/T RUSH FA	Drill Hole Footage Interval(ft)	Comments
15102 E	236	<0.002	--	--
15103 E	236	0.006	96 → 101	QH-86-3 cont'd.
15104 E	236	0.026	101 → 107.5	
15105 E	236	0.010	107.5 → 112.5	
15106 E	236	0.006	112.5 → 117.5	
15107 E	236	0.004	117.5 → 123.5	
15108 E	236	0.012	123.5 → 129	
15109 E	236	0.004	129 → 134.5	
15110 E	236	0.002	134.5 → 141	
15111 E	236	<0.002	141 → 146.5	
15112 E	236	<0.002	146.5 → 151.5	
15113 E	236	<0.002	151.5 → 154	End of QH-86-3
15114 E	236	0.006	35 casing → 37.5	QH-86-4
15115 E	236	0.008	37.5 → 43.5	
15116 E	236	0.004	43.5 → 49	
15117 E	236	<0.002	49 → 54.5	
15118 E	236	<0.002	54.5 → 60	
15119 E	236	<0.002	60 → 65.5	
15120 E	236	0.002	65.5 → 71	
			71 → 76	

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North Vancouver, B.C.
Canada V7J 2C1

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

CERTIFICATE OF ASSAY

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CC: J. HARDY

CERT. # : A8617766-001-A
INVOICE # : I8617766
DATE : 11-SEP-86
P.O. # : NONE
GAG/PC

Sample description	Prep code	Au oz/T RUSH FA	Drill Hole Footage Interval (ft)	Comments
15121 G	236	<0.002	--	--
15122 G	236	<0.002	76 → 81.5	QH-86-4 cont'd
15123 G	236	<0.002	81.5 → 85	
15124 G	236	<0.002	85 → 89.5	
15125 G	236	<0.002	89.5 → 91.5	
15126 G	236	<0.002	91.5 → 96.5	
15127 G	236	<0.002	96.5 → 102.5	
15128 G	236	<0.002	102.5 → 107.5	
15129 G	236	<0.002	107.5 → 113	
15130 G	236	<0.002	113 → 119	
15131 G	236	<0.002	119 → 124	
15132 G	236	<0.002	124 → 131	
5133 G	236	<0.002	131 → 136.5	
15134 G	236	<0.002	136.5 → 142	
15135 G	236	<0.002	142 → 147.5	
15136 G	236	<0.002	147.5 → 149	End of QH-86-4
15137 G	236	<0.002	6 casing → 11.5	QH-86-5
15138 G	236	<0.002	11.5 → 16.5	
15139 G	236	<0.002	16.5 → 21.5	
15140 G	236	<0.002	21.5 → 26.5	
15141 G	236	<0.002	26.5 → 31.5	
15142 G	236	<0.002	31.5 → 36.5	
15143 G	236	<0.002	36.5 → 41.5	
15144 G	236	<0.002	41.5 → 46.5	
15145 G	236	<0.002	46.5 → 51.5	
15146 G	236	<0.002	51.5 → 56.5	
15147 G	236	<0.002	56.5 → 61.5	
15148 G	236	<0.002	61.5 → 66.5	
15149 G	236	<0.002	66.5 → 69	
15150 G	236	<0.002	69 → 72	
15151 G	236	<0.002	72 → 77	
15152 G	236	<0.002	77 → 82	
15153 G	236	<0.002	82 → 87	
15154 G	236	<0.002	87 → 92	
15155 G	236	<0.002	92 → 97	
15156 G	236	<0.002	97 → 102	
15157 G	236	0.004	102 → 106	End of QH-86-5
5158 G	236	<0.002	32 casing → 37	QH-86-6
15159 G	236	<0.002	37 → 42	
15160 G	236	<0.002	42 → 47	
			47 → 52	

VOI rev. 4/85

Registered Assayer, Province of British Columbia

Chemex Labs Ltd.

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

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

·Analytical Chemists ·Geochemists ·Registered Assayers

CERTIFICATE OF ANALYSIS

TO : MARK MANAGEMENT LIMITED

1500 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : A8617767-001 A
INVOICE # : I8617767
DATE : 22 SEP 86
P.O. # : NONE
SAG/PC

Semi quantitative multi element ICP analysis.

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since the digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Ti, Ti, W and Y can only be considered as semi-quantitative.

COMMENTS :
CC: J. HARDY

Sample description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Co ppm	Cu ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm		
15121 G	0.70	0.2	<10	10	<0.5	<2	0.06	<0.5	2	31	2	1.52	<10	0.08	20	0.38	81	<1	0.05	11	190	6	<10	2	<0.01	<10	<10	14	<10	12	--	--
15122 G	1.08	0.2	<10	20	<0.5	<2	0.14	<0.5	12	29	5	2.36	10	0.13	20	0.76	168	<1	0.06	18	260	4	<10	2	<0.01	<10	<10	20	<10	18	--	--
15123 G	1.07	0.2	<10	30	<0.5	<2	0.14	<0.5	11	27	3	1.78	10	0.19	20	0.72	144	1	0.04	11	240	4	<10	2	<0.01	<10	<10	14	<10	14	--	--
15124 G	0.29	0.2	<10	<10	<0.5	<2	0.03	<0.5	5	19	9	5.49	<10	<0.01	10	0.16	42	<1	0.02	7	130	2	<10	1	0.02	<10	<10	52	<10	6	--	--
15125 G	1.07	0.2	10	<10	<0.5	<2	0.11	<0.5	13	39	3	5.28	<10	0.02	20	0.90	121	1	0.07	22	290	4	<10	2	0.01	<10	<10	37	<10	22	--	--
15126 G	0.64	0.2	<10	<10	<0.5	<2	0.21	<0.5	10	33	7	3.04	<10	0.02	20	0.52	134	<1	0.07	15	360	6	<10	2	<0.01	<10	<10	17	<10	12	--	--
15127 G	0.98	0.2	<10	40	<0.5	<2	0.12	<0.5	7	18	5	2.04	<10	0.26	20	0.50	205	1	0.02	14	290	<2	<10	2	<0.01	<10	<10	13	<10	14	--	--
15128 G	0.93	0.2	<10	50	<0.5	<2	0.18	<0.5	6	18	22	1.93	<10	0.31	30	0.46	162	<1	0.02	12	190	4	<10	3	<0.01	<10	<10	8	<10	16	--	--
15129 G	0.36	0.2	<10	10	<0.5	<2	0.15	<0.5	3	17	8	1.12	<10	0.05	20	0.25	134	<1	0.04	6	90	6	<10	2	<0.01	<10	<10	6	<10	16	--	--
15130 G	0.59	0.2	10	30	<0.5	<2	0.10	<0.5	7	14	12	1.48	<10	0.17	30	0.24	106	<1	0.02	9	130	8	<10	2	<0.01	<10	<10	9	<10	24	--	--
15131 G	1.21	0.2	10	20	<0.5	<2	0.14	<0.5	11	22	7	2.87	<10	0.13	20	1.05	160	1	0.04	13	280	4	<10	1	<0.01	<10	<10	19	<10	24	--	--
15132 G	0.95	0.2	10	<10	<0.5	2	0.10	<0.5	14	29	4	2.88	<10	0.04	10	0.81	97	<1	0.05	17	410	6	<10	1	<0.01	<10	<10	21	<10	36	--	--
15133 G	0.98	0.2	10	<10	<0.5	2	0.19	<0.5	14	36	4	3.28	<10	0.01	10	0.89	138	<1	0.07	19	420	9	<10	1	<0.01	<10	<10	31	<10	22	--	--
15134 G	0.80	0.2	10	<10	<0.5	4	0.44	<0.5	12	34	3	2.97	10	0.01	10	0.80	216	<1	0.08	18	400	4	10	1	<0.01	<10	<10	28	<10	14	--	--
15135 G	0.84	0.2	10	10	<0.5	<2	0.06	<0.5	12	41	3	2.97	10	0.02	20	0.76	140	1	0.07	20	380	6	<10	1	<0.01	<10	<10	28	<10	12	--	--
15136 G	0.65	0.2	<10	20	<0.5	<2	0.06	<0.5	17	15	38	2.32	<10	0.12	30	0.22	323	<1	0.03	16	260	<2	<10	4	<0.01	<10	<10	8	<10	20	--	--
15137 G	2.48	0.2	10	<10	<0.5	<2	1.20	<0.5	25	62	57	9.27	20	0.01	20	2.54	1080	<1	0.04	46	520	4	<10	9	0.01	<10	<10	271	<10	84	--	--
15138 G	2.21	0.2	10	<10	<0.5	<2	1.23	<0.5	39	64	23	10.00	20	0.07	10	3.23	1102	<1	0.03	51	490	6	<10	16	<0.01	<10	<10	224	<10	96	--	--
15139 G	0.83	0.2	10	20	<0.5	<2	0.08	<0.5	22	22	843	8.84	<10	0.25	10	0.14	428	<1	0.01	29	660	42	<10	3	<0.01	<10	<10	37	<10	52	--	--
15140 G	0.58	0.2	<10	20	<0.5	<2	0.03	<0.5	5	17	124	2.63	<10	0.11	20	0.04	215	<1	0.06	10	140	2	<10	3	<0.01	<10	<10	4	<10	6	--	--
15141 G	0.97	0.2	<10	50	<0.5	2	0.05	<0.5	1	19	29	5.03	10	0.40	50	0.09	31	1	0.01	6	450	<2	<10	3	<0.01	<10	<10	6	<10	30	--	--
15142 G	0.77	0.2	<10	20	<0.5	<2	0.05	<0.5	4	12	9	2.43	<10	0.26	30	0.09	107	<1	0.02	6	150	2	<10	2	<0.01	<10	<10	9	<10	16	--	--
15143 G	0.83	0.2	<10	50	<0.5	<2	0.04	<0.5	2	16	5	1.29	10	0.32	40	0.10	53	<1	0.05	7	130	<2	<10	3	<0.01	<10	<10	7	<10	12	--	--
15144 G	0.63	0.2	<10	10	<0.5	<2	0.06	<0.5	3	19	5	1.84	<10	0.13	30	0.13	39	<1	0.05	9	220	2	<10	3	<0.01	<10	<10	8	<10	14	--	--
15145 G	0.26	0.2	<10	10	<0.5	<2	0.04	<0.5	5	15	3	1.26	<10	0.08	20	0.06	56	<1	0.08	8	120	2	<10	2	<0.01	<10	<10	5	<10	12	--	--
15146 G	0.66	0.2	<10	20	<0.5	<2	0.07	<0.5	8	17	5	2.31	<10	0.14	30	0.26	133	<1	0.05	12	170	2	<10	3	<0.01	<10	<10	6	<10	20	--	--
15147 G	0.94	0.2	<10	10	<0.5	<2	0.04	<0.5	4	26	2	2.17	10	0.09	40	0.51	54	<1	0.07	10	120	4	<10	2	<0.01	<10	<10	17	<10	30	--	--
15148 G	0.86	0.2	<10	<10	<0.5	<2	0.02	<0.5	5	25	2	2.09	<10	0.01	20	0.55	53	<1	0.07	6	100	4	<10	2	<0.01	<10	<10	27	<10	24	--	--
15149 G	0.24	0.2	<10	<10	<0.5	<2	0.02	<0.5	1	27	<1	7.17	<10	0.31	<10	0.05	56	<1	0.03	1	30	<2	<10	1	0.06	<10	<10	46	<10	6	--	--
15150 G	0.97	0.2	<10	10	<0.5	<2	0.07	<0.5	2	35	1	3.53	10	0.07	30	0.48	58	<1	0.04	13	160	6	<10	3	0.01	<10	<10	27	<10	22	--	--
15151 G	0.65	0.2	<10	30	<0.5	<2	0.07	<0.5	5	19	3	2.23	<10	0.21	20	0.10	55	1	0.03	6	260	2	<10	2	<0.01	<10	<10	8	<10	12	--	--
15152 G	0.91	0.2	10	50	<0.5	<2	0.11	<0.5	11	20	7	3.23	10	0.30	30	0.59	343	<1	0.03	19	260	6	<10	3	<0.01	<10	<10	7	<10	20	--	--
15153 G	1.48	0.2	10	50	<0.5	2	0.14	<0.5	11	29	3	3.24	10	0.20	30	0.88	132	<1	0.02	21	400	6	<10	2	<0.01	<10	<10	15	<10	26	--	--
15154 G	1.26	0.2	10	10	<0.5	2	0.12	<0.5	15	43	2	4.09	10	0.03	20	0.99	175	<1	0.10	18	410	6	<10	2	<0.01	<10	<10	35	<10	22	--	--
15155 G	1.27	0.2	10	10	<0.5	2	0.09	<0.5	17	44	1	5.02	10	0.02	10	1.09	214	1	0.06	21	360	6	<10	2	<0.01	<10	<10	41	<10	24	--	--
15156 G	0.96	0.2	10	20	<0.5	2	0.27	<0.5	12	42	3	3.42	10	0.05	10	0.80	275	<1	0.08	19	470	4	<10	3	<0.01	<10	<10	25	<10	18	--	--
15157 G	0.75	0.2	<10	10	<0.5	<2	0.03	<0.5	5	21	5	2.44	<10	0.03	10	0.10	38	<1	0.04	4	130	<2	<10	4	<0.01	<10	<10	9	<10	6	--	--
15158 G	0.64	0.2	10	<10	<0.5	<2	0.03	<0.5	4	20	9	2.19	<10	0.02	10	0.14	35	<1	0.03	6	130	<2	<10	3	<0.01	<10	<10	10	<10	8	--	--
15159 G	0.70	0.2	10	<10	<0.5	<2	0.03	<0.5	3	20	8	2.27	<10	0.05	10	0.14	44	<1	0.02	7	160	2	<10	2	<0.01	<10	<10	9	<10	10	--	--
15160 G	0.48	0.2	<10	<10	<0.5	<2	0.02	<0.5	3	14	4	1.27	<10	0.04	10	0.11	52	<1	0.02	7	90	4	<10	1	<0.01	<10	<10	6	<10	12	--	--

Certified By: Hrx H Bichler

V03 rev 11 85

Chemex Labs Ltd.

Analytical Chemists · Geochemists · Registered Assayers

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Telex: 043-52597

CERTIFICATE OF ASSAY

: MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : A8617766-002-A
INVOICE # : I8617766
DATE : 11-SEP-86
P.O. # : NONE
GAG/PC

CC: J. HARDY

Sample description	Prep code	Au oz/T RUSH FA	Drill Hole Footage Interval (ft)	Comments
15161 G	236	0.004	52 → 62	
15162 G	236	<0.002	62 → 67	
15163 G	236	<0.002	67 → 72	
15164 G	236	<0.002	72 → 77	
15165 G	236	<0.002	77 → 82	
15166 G	236	<0.002	82 → 87	
15167 G	236	<0.002	87 → 92	
15168 G	236	<0.002	92 → 97	
5169 G	236	<0.002	97 → 102	
15170 G	236	<0.002	102 → 107	
15171 G	236	<0.002	107 → 112	
15172 G	236	<0.002	112 → 117	
15173 G	236	<0.002	117 → 120	
15174 G	236	<0.002	24 casing → 33.5	
15175 G	236	<0.002	33.5 → 38.5	
15176 G	236	<0.002	38.5 → 43.5	
15177 G	236	<0.002	43.5 → 48.5	
15178 G	236	<0.002	48.5 → 53.5	
15179 G	236	<0.002	53.5 → 58.5	
15180 G	236	<0.002	58.5 → 63.5	
61638 A	236	<0.002	60 → 148	QH-86-6 cont'd
61639 A	236	<0.002	30 → 40	
61640 A	236	<0.020	50 → 60	
61641 A	236	<0.002	40 → 50	
61642 A	236	<0.002	20 → 30	
61643 A	236	0.006	40 → 50	
61644 A	236	0.002	10 → 20	
61645 A	236	0.018	50 → 60	
61646 A	236	<0.002	10 → 20	
61647 A	236	<0.002	60 → 104	
61648 A	236	<0.002	20 → 30	
61649 A	236	0.012	30 → 40	
61650 A			6 → 104	End of QH-86-6
				QH-86-7
				QH-86-7; sludge
				QH-86-8; sludge
				QH-86-7; sludge
				QH-86-7; sludge
				QH-86-8; sludge
				QH-86-8; sludge
				QH-86-7; sludge
				QH-86-8; sludge
				QH-86-8; sludge
				QH-86-8; sludge
				QH-86-8; sludge
				QH-86-7; sludge
				QH-86-7; sludge
				QH-86-5; sludge

Registered Assayer, Province of British Colu

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Phone: (604) 984-0221
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•Analytical Chemists •Geochemists •Registered Assayers

CERTIFICATE OF ANALYSIS

TO : MAPX MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : A8617767-002-A
INVOICE # : IC-17767
DATE : 28-SEP-86
P.O. # : NONE
GAB/PC

Semi quantitative multi element ICP analysis.

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :
ATT: J. HARDY

Sample description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm		
15161 G	0.50	0.2	10	10	<0.5	2	0.04	<0.5	3	10	5	1.07	<10	0.07	10	0.08	26	<1	0.01	7	150	<2	<10	3	<0.01	<10	<10	5	<10	14	--	--
15162 G	1.36	0.2	10	10	<0.5	2	0.12	<0.5	6	32	3	2.73	10	0.05	30	0.96	78	<1	0.01	15	400	6	<10	5	<0.01	<10	<10	23	<10	40	--	--
15163 G	1.46	0.2	10	10	0.5	2	0.16	0.5	7	29	2	2.36	10	0.02	20	1.19	201	<1	0.01	15	370	4	<10	4	<0.01	<10	<10	21	<10	24	--	--
15164 G	2.12	0.2	10	<10	<0.5	4	0.19	0.5	7	37	1	3.39	10	0.02	30	1.71	136	<1	0.01	21	420	6	<10	5	<0.01	<10	<10	32	<10	40	--	
15165 G	1.96	0.2	10	<10	<0.5	2	0.15	<0.5	5	43	4	7.12	10	0.02	10	1.22	112	2	0.01	11	380	2	<10	5	<0.01	<10	<10	70	10	28	--	--
15166 G	2.47	0.2	10	<10	<0.5	2	0.22	<0.5	10	49	5	3.79	10	0.02	30	1.97	116	<1	0.01	25	520	6	<10	7	<0.01	<10	<10	37	<10	36	--	--
15167 G	2.27	0.2	10	<10	<0.5	2	0.10	<0.5	5	51	2	3.73	10	0.02	30	1.55	118	1	0.01	19	470	4	<10	4	<0.01	<10	<10	26	<10	34	--	--
15168 G	1.80	0.2	10	10	<0.5	4	0.14	<0.5	8	38	9	2.99	10	0.06	30	1.38	109	<1	0.01	20	470	4	<10	4	<0.01	<10	<10	25	<10	32	--	--
15169 G	1.77	0.2	10	10	<0.5	2	0.12	<0.5	10	39	2	3.04	10	0.08	30	1.80	97	<1	0.01	22	530	6	<10	4	<0.01	<10	<10	22	<10	34	--	--
15170 G	1.65	0.2	10	<10	<0.5	2	0.07	<0.5	6	36	3	3.24	10	0.05	30	1.19	79	<1	0.01	11	370	4	<10	2	<0.01	<10	<10	20	<10	28	--	--
15171 G	1.18	0.2	10	10	<0.5	2	0.07	<0.5	5	25	5	2.25	10	0.08	30	0.60	62	<1	0.01	12	230	4	<10	3	<0.01	<10	<10	9	<10	16	--	--
15172 G	1.10	0.2	10	10	<0.5	2	0.07	<0.5	6	20	4	2.49	<10	0.08	10	0.65	51	<1	0.01	12	180	4	<10	3	<0.01	<10	<10	12	<10	20	--	--
15173 G	1.09	0.2	<10	20	<0.5	2	0.07	<0.5	4	24	4	1.74	10	0.15	30	0.53	42	<1	0.03	12	190	4	<10	3	<0.01	<10	<10	10	<10	16	--	--
15174 G	0.91	0.2	10	<10	<0.5	<2	0.09	<0.5	1	17	40	1.51	<10	0.02	10	0.22	58	<1	0.02	9	130	2	<10	3	<0.01	<10	<10	15	<10	14	--	--
15175 G	0.18	0.2	<10	<10	<0.5	<2	0.02	<0.5	1	9	71	1.22	<10	0.01	<10	0.02	55	<1	0.02	3	40	2	<10	2	<0.01	<10	<10	3	<10	2	--	--
15176 G	0.22	0.2	<10	<10	<0.5	<2	0.03	<0.5	1	12	11	0.72	<10	0.01	10	0.14	38	<1	0.05	9	50	2	<10	2	<0.01	<10	<10	4	<10	4	--	--
15177 G	0.42	0.2	<10	<10	<0.5	<2	0.04	<0.5	1	11	5	0.58	<10	0.01	10	0.28	25	<1	0.07	3	140	2	<10	2	<0.01	<10	<10	3	<10	2	--	--
15178 G	0.34	0.2	<10	<10	<0.5	<2	0.01	<0.5	1	18	3	0.36	<10	0.01	20	0.06	27	<1	0.06	3	60	<2	<10	1	<0.01	10	<10	3	<10	2	--	--
15179 G	0.24	0.2	<10	<10	<0.5	<2	0.02	<0.5	2	7	3	0.49	<10	0.02	20	0.01	62	<1	0.07	3	130	<2	<10	1	<0.01	<10	<10	1	<10	<2	--	--
15180 G	0.23	0.2	<10	<10	<0.5	<2	0.01	<0.5	1	9	20	0.66	<10	0.03	10	0.01	38	<1	0.04	2	50	2	<10	2	<0.01	<10	<10	2	<10	<2	--	--
61638 A	0.34	0.2	10	90	<0.5	2	0.06	<0.5	12	21	127	2.12	<10	0.01	10	0.09	207	2	0.01	27	120	12	<10	5	<0.01	<10	<10	6	290	136	--	--
61639 A	0.25	0.2	10	70	<0.5	<2	0.02	<0.5	19	26	509	4.95	<10	0.01	<10	0.10	179	2	<0.01	55	340	12	<10	4	<0.01	<10	<10	10	230	218	--	--
61640 A	0.21	0.2	<10	20	<0.5	<2	0.04	<0.5	15	21	102	2.05	<10	0.02	20	0.07	286	2	0.05	35	100	4	<10	2	<0.01	<10	<10	8	190	58	--	--
61641 A	0.34	0.2	<10	10	<0.5	<2	0.04	<0.5	10	21	110	1.93	<10	0.01	10	0.10	200	1	0.02	25	140	4	<10	2	<0.01	<10	<10	7	170	58	--	--
61642 A	0.37	0.2	<10	70	<0.5	<2	0.04	<0.5	8	16	48	1.64	<10	0.01	<10	0.20	237	1	<0.01	22	80	6	<10	4	<0.01	<10	<10	7	100	36	--	--
61643 A	0.40	0.2	10	10	<0.5	<2	0.04	<0.5	16	20	383	2.67	<10	0.01	<10	0.23	307	1	<0.01	34	90	12	<10	2	<0.01	<10	<10	9	140	182	--	--
61644 A	0.01	0.2	10	70	<0.5	<2	0.07	<0.5	7	22	66	2.66	<10	1.08	20	0.43	194	<1	0.01	15	220	32	<10	5	0.01	<10	<10	17	10	26	--	-
61645 A	0.34	0.2	10	10	<0.5	10	0.03	<0.5	13	20	382	2.57	<10	0.01	<10	0.19	227	2	<0.01	24	130	18	<10	2	<0.01	<10	<10	5	120	156	--	--
61646 A	0.30	0.2	10	120	<0.5	<2	0.15	<0.5	13	24	40	3.20	<10	0.04	20	0.01	923	<1	0.01	23	220	16	<10	7	0.01	<10	<10	27	30	38	--	--
61647 A	0.41	0.2	<10	10	<0.5	<2	0.04	<0.5	14	22	243	2.48	<10	0.02	10	0.24	269	2	<0.01	27	120	8	<10	1	<0.01	<10	<10	9	220	140	--	--
61648 A	0.47	0.2	20	80	<0.5	<2	0.05	<0.5	13	22	103	3.59	<10	0.02	10	0.12	277	1	0.01	27	180	6	<10	5	<0.01	<10	<10	17	120	48	--	--
61649 A	0.32	0.2	10	20	<0.5	<2	0.03	<0.5	12	28	115	2.88	<10	0.01	10	0.10	304	3	0.01	47	120	8	<10	2	<0.01	<10	<10	11	150	62	--	--
61650 A	0.57	0.2	10	30	<0.5	<2	0.09	<0.5	18	25	278	4.27	<10	0.06	10	0.21	389	1	0.01	25	270	68	<10	3	<0.01	<10	<10	29	120	52	--	--

Certified by: Bert Bichler

V03 (rev 11-85)

Chemex Labs Ltd.

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212 Brooksbank Ave.
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Canada V7J 2C1

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Telex: 043-52597

CERTIFICATE OF ASSAY

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : A8617868-001-A
INVOICE # : I8617868
DATE : 12-SEP-86
P.O. # : NONE
GAG/PC

Sample description	Prep code	Au oz/T RUSH FA	Drill Hole Footage Interval (ft)	Comments
15181 G	236	<0.002	63.5 → 68.5	
15182 G	236	<0.002	68.5 → 73.5	QH-86-7 cont'd.
15183 G	236	<0.002	73.5 → 78.5	
15184 G	236	<0.002	78.5 → 83.5	
15185 G	236	<0.002	83.5 → 96	
15186 G	236	<0.002	96 → 101	
15187 G	236	<0.002	101 → 106	
15188 G	236	<0.002	106 → 111	
15189 G	236	<0.002	111 → 116	
15190 G	236	<0.002	116 → 121	
15191 G	236	<0.002	121 → 126	
15192 G	236	<0.002	126 → 131	
15193 G	236	<0.002	131 → 136	
15194 G	236	<0.002	136 → 141	
15195 G	236	<0.002	141 → 148	End of QH-86-7
15196 G	236	<0.002	29 casing → 34	QH-86-8
15197 G	236	<0.002	34 → 39	
15198 G	236	<0.002	39 → 44	
15199 G	236	<0.002	44 → 49	
15200 G	236	<0.002	49 → 54	
15201 G	236	<0.002	54 → 59	
15202 G	236	<0.002	59 → 64	
15203 G	236	<0.002	64 → 69	
15204 G	236	<0.002	69 → 74	
15205 G	236	<0.002	74 → 79	
15206 G	236	<0.002	79 → 84	
15207 G	236	<0.002	84 → 89	
15208 G	236	<0.002	89 → 94	
15209 G	236	<0.002	94 → 99	
15210 G	236	<0.002	99 → 104	End of QH-86-8
15211 G	236	<0.002	6 casing → 11	PTR-86-1
15212 G	236	<0.002	11 → 16	
15213 G	236	<0.002	16 → 21	
15214 G	236	<0.002	21 → 26	
15215 G	236	<0.002	26 → 31	
15216 G	236	<0.002	31 → 36	
15217 G	236	<0.002	36 → 41	
15218 G	236	<0.002	41 → 46	
15219 G	236	<0.002	46 → 51	
15220 G	236	<0.002	51 → 56	

VOI rev. 4/85

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CERTIFICATE OF ANALYSIS

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : A8617869-001-A
INVOICE # : I8617869
DATE : 23-SEP-86
P.O. # : JUNE
GAG/PC

Semi quantitative multi element ICP analysis.

Nitric-Aqua-Regia digestion of 0.5 gm sample material followed by ICP analysis. Since the digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :

Sample description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm		
15181 G	0.16	0.2	10	<10	<0.5	<2	0.02	<0.5	2	7	65	0.92	<10	<0.01	<10	0.02	54	<1	0.02	4	40	10	<10	1	<0.01	<10	<10	1	<10	2	--	--
15182 G	0.20	0.2	<10	<10	<0.5	<2	0.01	<0.5	2	13	57	1.11	<10	<0.01	10	0.03	59	<1	0.02	6	70	26	<10	1	<0.01	<10	<10	1	<10	4	--	--
15183 G	0.38	0.2	<10	<10	0.5	<2	0.02	<0.5	9	18	55	1.84	<10	<0.01	10	0.16	60	1	0.02	10	120	10	<10	1	<0.01	<10	<10	4	<10	9	--	--
15184 G	0.29	0.4	<10	<10	<0.5	<2	0.07	<0.5	1	12	122	1.06	<10	0.01	<10	0.08	72	<1	0.01	5	60	18	<10	2	<0.01	<10	<10	2	<10	10	--	--
15185 G	0.27	0.2	<10	<10	<0.5	<2	0.02	<0.5	2	12	20	1.35	<10	0.01	<10	0.02	71	1	0.02	5	50	6	<10	1	<0.01	<10	<10	1	<10	2	--	--
15186 G	0.05	0.2	<10	<10	<0.5	<2	<0.01	<0.5	<1	15	12	1.02	<10	0.01	<10	<0.01	86	<1	<0.01	4	10	16	<10	<1	<0.01	<10	<10	<1	<10	2	--	--
15187 G	0.18	0.2	<10	<10	<0.5	<2	0.01	<0.5	2	13	11	1.22	<10	<0.01	10	0.01	64	<1	0.02	6	50	6	<10	1	<0.01	<10	<10	1	<10	4	--	--
15188 G	0.25	0.2	<10	<10	<0.5	<2	0.01	<0.5	2	19	7	1.44	<10	<0.01	10	0.05	62	<1	0.02	5	70	4	<10	1	<0.01	<10	<10	1	<10	2	--	--
15189 G	0.55	0.2	10	<10	<0.5	<2	0.04	<0.5	7	24	6	1.77	<10	<0.01	20	0.23	53	<1	0.02	10	180	10	<10	2	<0.01	<10	<10	3	<10	11	--	--
15190 G	0.82	0.2	<10	<10	<0.5	2	0.03	<0.5	7	37	4	2.08	<10	0.01	20	0.51	79	<1	0.02	12	250	6	<10	2	<0.01	<10	<10	14	<10	16	--	--
15191 G	0.65	0.2	<10	<10	<0.5	<2	0.02	<0.5	6	22	4	2.12	<10	0.02	10	0.26	57	<1	0.02	11	160	6	<10	1	<0.01	<10	<10	6	<10	14	--	--
15192 G	0.72	0.2	<10	<10	<0.5	<2	0.03	<0.5	4	21	3	1.69	<10	0.05	10	0.40	56	<1	0.02	11	160	6	<10	1	<0.01	<10	<10	8	<10	20	--	--
15193 G	1.18	0.2	<10	<10	<0.5	2	0.03	<0.5	7	25	6	2.54	<10	0.03	10	0.91	62	<1	0.01	14	260	8	<10	1	<0.01	<10	<10	21	<10	32	--	--
15194 G	1.19	0.2	10	<10	<0.5	2	0.05	<0.5	9	37	9	2.74	<10	0.02	10	1.06	89	1	0.02	18	290	10	<10	1	<0.01	<10	<10	22	<10	36	--	--
15195 G	0.67	0.2	10	<10	<0.5	2	0.05	<0.5	8	22	5	2.27	<10	0.04	10	0.39	68	1	0.01	16	250	8	<10	1	<0.01	<10	<10	8	<10	22	--	--
15196 G	0.26	0.2	<10	<10	<0.5	2	0.02	<0.5	7	16	6	2.87	<10	0.01	<10	0.19	92	<1	<0.01	8	110	8	<10	1	<0.01	<10	<10	7	<10	6	--	-
15197 G	0.22	0.2	<10	<10	<0.5	<2	0.01	<0.5	2	12	4	1.07	<10	<0.01	10	0.21	98	<1	<0.01	4	20	10	<10	<1	<0.01	<10	<10	5	<10	6	--	--
15198 G	0.12	0.2	<10	<10	<0.5	<2	0.01	<0.5	1	13	4	0.86	<10	<0.01	<10	0.09	77	<1	<0.01	4	20	4	<10	<1	<0.01	<10	<10	2	<10	2	--	--
15199 G	0.16	0.2	<10	<10	<0.5	<2	0.02	<0.5	2	13	6	1.06	<10	<0.01	<10	0.12	98	<1	<0.01	5	20	8	<10	1	<0.01	<10	<10	3	<10	4	--	--
15200 G	0.16	2.0	<10	<10	<0.5	92	0.01	<0.5	1	15	390	1.69	<10	<0.01	<10	0.10	84	<1	<0.01	4	60	62	<10	1	<0.01	<10	<10	5	<10	4	--	--
15201 G	0.42	0.2	<10	<10	<0.5	10	0.14	<0.5	3	19	127	1.91	<10	0.01	<10	0.20	105	1	<0.01	5	70	10	<10	1	<0.01	<10	<10	10	<10	9	--	--
15202 G	1.25	0.2	<10	<10	<0.5	2	0.06	<0.5	7	24	26	2.61	<10	0.01	10	0.93	188	<1	0.01	12	130	10	<10	2	<0.01	<10	<10	31	<10	86	--	--
15203 G	1.31	0.2	<10	<10	<0.5	<2	0.06	<0.5	4	29	13	1.95	<10	0.03	10	0.73	152	<1	0.01	11	120	6	<10	2	<0.01	<10	<10	19	<10	26	--	--
15204 G	1.16	0.2	<10	10	<0.5	2	0.07	<0.5	5	27	7	2.19	<10	0.05	20	0.89	177	<1	0.01	12	140	10	<10	2	<0.01	<10	<10	19	<10	32	--	--
15205 G	0.97	0.2	<10	10	<0.5	<2	0.04	<0.5	9	24	21	2.00	<10	0.06	10	0.72	150	<1	0.01	11	120	8	<10	1	<0.01	<10	<10	15	<10	30	--	--
15206 G	1.35	0.2	<10	10	<0.5	2	0.10	<0.5	15	29	11	2.58	<10	0.06	20	0.88	221	<1	0.01	14	220	8	<10	3	<0.01	<10	<10	15	<10	44	--	--
15207 G	1.29	0.2	<10	20	<0.5	2	0.11	<0.5	10	27	19	2.27	10	0.08	20	0.83	222	<1	0.01	13	220	8	<10	2	<0.01	<10	<10	15	<10	52	--	--
15208 G	1.62	0.2	<10	10	<0.5	<2	0.15	<0.5	7	34	49	2.22	10	0.09	30	0.86	225	<1	0.02	15	220	10	<10	4	<0.01	<10	<10	20	<10	48	--	--
15209 G	1.38	0.2	<10	10	<0.5	<2	0.12	<0.5	10	28	17	2.58	10	0.09	20	0.84	206	<1	0.01	16	220	6	<10	4	<0.01	<10	<10	19	<10	44	--	--
15210 G	0.79	0.2	<10	10	<0.5	<2	0.09	<0.5	4	24	16	1.75	<10	0.02	10	0.45	170	<1	0.01	8	80	6	<10	3	<0.01	<10	<10	13	<10	26	--	--
15211 G	0.94	0.2	20	220	<0.5	2	3.58	<0.5	7	24	12	1.56	20	0.17	<10	1.67	574	<1	0.02	10	280	22	<10	14	<0.01	<10	<10	5	<10	80	--	--
15212 G	1.17	0.2	20	70	<0.5	<2	2.02	<0.5	8	24	18	1.76	10	0.15	10	1.79	395	<1	0.01	15	220	14	<10	7	<0.01	<10	<10	4	<10	134	--	--
15213 G	1.12	0.2	20	80	<0.5	2	2.28	<0.5	11	22	17	1.74	10	0.21	20	1.65	402	<1	0.01	14	350	12	<10	7	<0.01	<10	<10	4	<10	120	--	--
15214 G	1.24	0.2	20	120	<0.5	2	6.16	<0.5	7	28	24	1.94	20	0.12	<10	1.95	648	<1	<0.01	12	330	14	<10	6	<0.01	<10	<10	3	<10	152	--	--
15215 G	0.95	0.2	20	130	<0.5	2	4.90	<0.5	12	24	72	1.96	20	0.23	10	1.41	520	<1	<0.01	15	400	28	<10	9	<0.01	<10	<10	1	<10	102	--	--
15216 G	1.00	0.2	10	70	<0.5	<2	2.43	<0.5	5	23	14	1.44	10	0.30	30	1.21	351	<1	0.01	9	410	16	<10	6	<0.01	<10	<10	2	<10	84	--	--
15217 G	1.39	0.2	10	110	<0.5	2	2.60	<0.5	6	24	11	1.69	10	0.25	30	1.90	399	<1	0.01	12	400	16	<10	10	<0.01	<10	<10	4	<10	124	--	--
15218 G	1.27	0.2	10	140	<0.5	<2	2.44	<0.5	6	18	8	1.28	10	0.43	20	1.50	310	<1	0.01	9	430	12	<10	9	<0.01	<10	<10	2	<10	98	--	--
15219 G	0.78	0.2	20	130	<0.5	<2	5.82	<0.5	7	21	10	1.39	20	0.20	<10	2.75	842	1	<0.01	8	220	18	<10	13	<0.01	<10	<10	2	<10	66	--	--
15220 G	1.59	0.2	20	130	<0.5	<2	4.58	<0.5	12	27	17	2.96	20	0.19	<10	2.45	632	<1	<0.01	20	380	28	<10	<1	<0.01	<10	<10	5	<10	192	--	--

Certified by : ..

V03 rev. 11.85

Chemex Labs Ltd.

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CERTIFICATE OF ASSAY

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : A8617915-001-A
INVOICE # : I8617915
DATE : 14-SEP-86
P.O. # : NONE
GAG/PC

Sample description	Prep code	Au oz/T RUSH FA	Drill Hole Footage Interval (ft.)	Comments
15222 G	236	<0.002	61 → 66	PTR-86-1 cont'd
15223 G	236	<0.002	66 → 71	
15224 G	236	<0.002	71 → 76	
15225 G	236	<0.002	76 → 81	
15226 G	236	<0.002	81 → 86	
15227 G	236	<0.002	86 → 91	
15228 G	236	<0.002	91 → 96	
15229 G	236	<0.002	96 → 101	End of PTR-86-1
15230 G	236	0.008	26 casing → 30	PTR-86-2
5231 G	236	<0.002	35 → 42	
5232 G	236	0.002	42 → 51	
15233 G	236	<0.002	51 → 60	
15234 G	236	<0.002	60 → 69	
15235 G	236	<0.002	69 → 75	
15236 G	236	<0.002	75 → 85	
15237 G	236	0.002	85 → 91	
15238 G	236	<0.002	91 → 96	
15239 G	236	0.002	96 → 100	End of PTR-86-2

VOI rev. 4/85

Registered Assayer, Province of British Columbia

Chemex Labs Ltd.

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Telex: 043-52597

Analytical Chemists *Geochemists* *Registered Assayers*

CERTIFICATE OF ANALYSIS

TO : MARK MANAGEMENT LIMITED

[illegible]
VANCOUVER, B.C.
V6E 2H2

CERT. # : A8811796-001-A
INVOICE # : I8611796.0
DATE : 19-DEC-86
P.O. # : NONE
SAG/PC

Semi quantitative multi element ICP analysis

Nitric-aqua-Regia digestion of 0.5 gm sample material followed by ICP analysis. Since the digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Fe, La, Mg, K, Na, Sr, Ti, Tl, W and Y are considered as [illegible].

COMMENTS :

Sample description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm		
15222 G	1.69	0.4	10	90	<0.5	<2	8.67	<0.5	8	36	17	1.90	20	0.27	<10	2.13	538	<1	0.01	16	450	40	<10	28	<0.01	<10	<10	12	<10	126	--	--
15223 G	1.13	0.2	10	60	<0.5	<2	5.03	<0.5	8	23	16	1.71	10	0.14	<10	2.31	831	<1	0.01	13	340	60	<10	11	<0.01	<10	<10	7	<10	92	--	--
15224 G	0.21	0.2	10	170	<0.5	<2	1.17	<0.5	15	25	17	2.28	10	0.19	20	2.16	211	<1	0.03	23	120	50	<10	3	0.01	<10	20	12	<10	140	--	--
15225 G	1.65	0.4	20	90	<0.5	<2	6.77	<0.5	7	33	13	1.69	20	0.33	<10	2.31	621	<1	0.02	14	410	20	<10	24	<0.01	<10	<10	11	<10	114	--	--
15226 G	1.39	0.4	<10	80	<0.5	<2	5.10	<0.5	8	28	17	1.74	10	0.28	<10	2.50	862	<1	0.02	13	330	40	<10	11	<0.01	<10	<10	11	<10	76	--	--
15227 G	1.98	0.4	<10	110	<0.5	<2	3.69	<0.5	12	26	23	2.25	10	0.31	10	2.93	693	<1	0.03	16	470	18	<10	8	<0.01	<10	<10	11	<10	104	--	--
15228 G	1.88	0.2	10	150	<0.5	<2	4.24	<0.5	22	28	13	2.10	10	0.32	<10	2.38	531	<1	0.03	23	410	14	<10	12	<0.01	<10	<10	11	<10	96	--	--
15229 G	1.41	0.2	10	70	<0.5	<2	6.85	<0.5	8	26	20	1.64	20	0.20	<10	1.89	596	<1	0.01	12	340	30	<10	16	<0.01	<10	<10	8	<10	76	--	--
15230 G	1.21	0.2	10	50	<0.5	<2	1.20	<0.5	7	18	6	1.55	10	0.22	20	1.22	195	<1	0.03	16	200	16	<10	9	0.02	<10	<10	10	<10	32	--	--
15231 G	2.49	0.4	<10	10	<0.5	<2	1.79	0.5	10	25	4	1.92	10	0.04	20	6.01	212	<1	<0.01	12	350	2	<10	5	<0.01	<10	<10	19	<10	40	--	--
15232 G	4.24	0.2	<10	30	<0.5	<2	1.86	1.0	13	30	4	2.09	10	0.07	30	7.19	196	<1	<0.01	15	390	8	<10	5	<0.01	<10	<10	23	<10	54	--	--
15233 G	1.99	0.2	<10	90	<0.5	<2	7.15	<0.5	8	29	7	2.01	20	0.19	<10	2.96	434	<1	<0.01	13	410	8	<10	22	<0.01	<10	<10	8	<10	38	--	--
15234 G	1.64	0.2	10	80	<0.5	<2	11.25	<0.5	8	34	11	1.79	20	0.12	<10	2.41	639	<1	<0.01	14	440	12	<10	18	<0.01	<10	<10	8	<10	42	--	--
15235 G	1.56	0.2	10	70	<0.5	<2	8.52	<0.5	8	29	11	1.83	20	0.18	<10	2.33	515	<1	<0.01	12	410	12	<10	27	<0.01	<10	<10	7	<10	56	--	--
15236 G	1.94	0.2	10	150	<0.5	<2	8.95	<0.5	9	32	12	2.27	20	0.24	<10	2.15	392	<1	0.01	15	370	18	<10	22	0.01	<10	<10	9	<10	32	--	--
15237 G	0.91	0.2	10	90	<0.5	<2	10.71	<0.5	8	21	17	1.76	20	0.15	<10	2.36	911	<1	0.01	15	350	20	<10	38	<0.01	<10	<10	6	<10	62	--	--
15238 G	1.64	0.2	<10	490	<0.5	<2	5.71	<0.5	8	31	12	1.92	10	0.28	<10	2.14	491	<1	0.02	15	350	12	<10	23	0.01	<10	<10	11	<10	130	--	--
15239 G	1.84	0.2	<10	510	<0.5	<2	5.90	<0.5	9	33	16	2.06	20	0.39	<10	1.76	337	<1	0.03	17	380	20	<10	47	0.01	<10	<10	10	<10	144	--	--

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CERTIFICATE OF ASSAY

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : A8615775-001-A
INVOICE # : I8615775
DATE : 10-AUG-86
P.O. # : NONE
GAG/PC

Sample description	Prep code	Au oz/T					Comments
01601 H	207	<0.002	--	--	--	--	--
01602 H	207	<0.002	--	--	--	--	--
01603 H	207	0.004	--	--	--	--	--
01604 H	207	<0.002	--	--	--	--	--
01605 H	207	<0.002	--	--	--	--	--
01606 H	207	<0.002	--	--	--	--	--
01607 H	207	<0.002	--	--	--	--	--
01608 H	207	<0.002	--	--	--	--	--
01609 H	207	<0.002	--	--	--	--	--
01610 H	207	<0.002	--	--	--	--	--
01611 H	207	<0.002	--	--	--	--	--
01612 H	207	<0.002	--	--	--	--	--
01613 H	207	<0.002	--	--	--	--	--
01614 H	207	<0.002	--	--	--	--	--
01615 H	207	<0.002	--	--	--	--	--
01616 H	207	<0.002	--	--	--	--	--
01617 H	207	<0.002	--	--	--	--	--
01618 H	207	<0.002	--	--	--	--	--
01619 H	207	<0.002	--	--	--	--	--
01620 H	207	<0.002	--	--	--	--	--
01621 H	207	0.180	--	--	--	--	--
01622 H	207	0.002	--	--	--	--	--
01623 H	207	<0.002	--	--	--	--	--
01624 H	207	<0.002	--	--	--	--	--
01625 H	207	<0.002	--	--	--	--	--
01626 H	207	<0.002	--	--	--	--	--
01627 H	207	0.052	--	--	--	--	--
01628 H	207	0.088	--	--	--	--	--
01629 H	207	0.408	--	--	--	--	--
01630 H	207	0.304	--	--	--	--	--
01631 H	207	0.006	--	--	--	--	--
01632 H	207	<0.002	--	--	--	--	--
01633 H	207	<0.002	--	--	--	--	--
01634 H	207	<0.002	--	--	--	--	--
01635 H	207	<0.002	--	--	--	--	--
01636 H	207	<0.002	--	--	--	--	--
01637 H	207	<0.002	--	--	--	--	--
01638 H	207	<0.002	--	--	--	--	--
01639 H	207	<0.002	--	--	--	--	--
01640 H	207	<0.002	--	--	--	--	--

See Table

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CERTIFICATE OF ANALYSIS

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : A8615776-001-A
INVOICE # : I8615776
DATE : 13-AUG-86
P.O. # : NONE
GAG/PC

Semi quantitative multi element ICP analysis.

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :

Sample description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm		
01601 H	0.34	0.2	<10	20	<0.5	<2	0.01	<0.5	1	15	11	2.17	<10	0.07	<10	0.12	250	<1	0.02	7	190	6	<10	1	<0.01	<10	<10	2	<10	18	--	--
01602 H	0.17	5.2	<10	10	<0.5	<2	<0.01	<0.5	81	14	13	2.51	<10	0.08	<10	0.01	79	<1	<0.01	15	30	64	<10	1	<0.01	<10	<10	1	<10	10	--	--
01603 H	0.21	2.6	200	220	<0.5	<2	<0.01	<0.5	16	14	102	5.19	<10	0.09	<10	0.01	117	2	<0.01	7	350	518	20	2	<0.01	<10	<10	<1	<10	44	--	--
01604 H	0.16	0.6	30	20	<0.5	<2	<0.01	<0.5	8	14	41	2.02	<10	0.08	<10	0.01	151	<1	<0.01	7	190	184	<10	1	<0.01	<10	<10	<1	<10	56	--	--
01605 H	0.42	0.2	10	30	<0.5	<2	<0.01	<0.5	60	12	12	3.25	<10	0.06	<10	0.34	95	<1	<0.01	23	130	18	<10	1	<0.01	<10	<10	7	<10	10	--	--
01606 H	0.17	0.2	30	330	<0.5	<2	<0.01	<0.5	277	13	14	9.77	<10	0.04	10	0.05	62	1	<0.01	86	360	24	<10	1	<0.01	<10	<10	<1	<10	8	--	--
01607 H	0.40	0.2	<10	90	<0.5	<2	0.01	<0.5	8	9	9	1.63	<10	0.09	20	0.06	315	<1	0.01	7	110	8	<10	1	<0.01	<10	<10	<1	<10	22	--	--
01608 H	0.73	0.2	<10	50	<0.5	<2	0.01	<0.5	4	12	5	0.91	<10	0.20	20	0.32	98	<1	0.05	6	90	6	<10	1	<0.01	<10	<10	3	<10	20	--	--
01609 H	0.51	0.2	<10	60	<0.5	<2	0.01	<0.5	2	10	5	1.27	<10	0.22	10	0.05	392	<1	0.03	5	140	6	<10	1	<0.01	<10	<10	1	<10	12	--	--
01610 H	0.63	0.2	<10	70	<0.5	<2	0.10	<0.5	4	10	6	1.77	<10	0.28	20	0.09	277	<1	0.03	6	290	2	<10	2	<0.01	<10	<10	3	<10	52	--	--
01611 H	0.25	0.2	<10	40	<0.5	<2	0.02	<0.5	3	11	6	1.24	<10	0.12	20	0.05	130	<1	0.05	5	140	12	<10	1	<0.01	<10	<10	2	<10	18	--	--
01612 H	0.49	0.2	<10	100	<0.5	<2	0.05	<0.5	2	11	8	1.53	<10	0.15	20	0.06	738	<1	0.04	5	390	28	<10	2	<0.01	<10	<10	1	<10	28	--	--
01613 H	0.05	1.2	<10	10	<0.5	<2	0.01	<0.5	382	22	26	7.31	<10	0.01	<10	0.01	141	1	0.01	54	30	128	<10	1	<0.01	<10	<10	<1	<10	10	--	--
01614 H	0.61	0.2	<10	50	<0.5	<2	0.25	<0.5	15	13	6	1.17	<10	0.30	10	0.27	100	<1	0.01	8	100	16	<10	2	<0.01	<10	<10	4	<10	24	--	--
01615 H	0.13	1.0	10	80	<0.5	<2	0.11	<0.5	278	22	14	5.06	<10	0.04	<10	0.11	137	1	0.01	49	250	282	<10	4	<0.01	<10	<10	<1	<10	42	--	--
01616 H	0.19	0.2	10	30	<0.5	<2	<0.01	<0.5	68	15	10	3.72	<10	0.09	<10	0.01	98	<1	<0.01	24	510	70	<10	4	<0.01	<10	<10	<1	<10	92	--	--
01617 H	0.20	0.4	20	50	<0.5	<2	<0.01	<0.5	30	16	23	4.29	<10	0.10	<10	0.01	33	2	<0.01	13	290	498	<10	2	<0.01	<10	<10	<1	<10	64	--	--
01618 H	0.21	1.0	20	80	<0.5	<2	<0.01	<0.5	18	13	39	3.70	<10	0.10	<10	0.01	74	1	<0.01	12	460	934	<10	2	<0.01	<10	<10	<1	<10	22	--	--
01619 H	0.30	0.8	40	40	<0.5	<2	<0.01	<0.5	42	15	16	2.91	<10	0.16	10	0.01	66	2	<0.01	6	580	1892	<10	3	<0.01	<10	<10	4	<10	8	--	--
01620 H	0.48	0.8	180	20	<0.5	<2	0.01	<0.5	14	18	15	9.36	<10	0.18	50	0.02	69	2	<0.01	13	1320	620	<10	3	<0.01	<10	<10	<1	20	44	--	--
01621 H	0.15	3.8	120	10	<0.5	2	0.01	<0.5	206	15	63	18.94	<10	0.01	<10	0.02	90	<1	<0.01	33	980	434	<10	1	<0.01	<10	<10	<1	<10	126	--	--
01622 H	0.05	1.0	10	<10	<0.5	<2	<0.01	<0.5	201	16	12	3.38	<10	0.01	<10	<0.01	108	<1	<0.01	20	90	126	<10	1	<0.01	<10	<10	<1	<10	22	--	--
01623 H	0.63	0.2	10	20	<0.5	<2	0.02	<0.5	105	13	7	3.28	<10	0.09	<10	0.49	256	<1	<0.01	14	340	20	<10	1	<0.01	<10	<10	3	10	14	--	--
01624 H	1.09	0.2	10	<10	<0.5	<2	3.55	<0.5	39	21	6	1.34	20	0.04	<10	3.61	208	<1	<0.01	6	270	14	<10	8	<0.01	<10	<10	7	10	8	--	--
01625 H	0.41	0.2	40	10	<0.5	<2	0.25	<0.5	235	19	10	6.09	<10	0.11	<10	0.25	104	<1	<0.01	93	1360	10	<10	2	<0.01	<10	<10	1	<10	6	--	--
01626 H	1.11	0.2	560	70	<0.5	<2	0.75	<0.5	43	16	47	9.21	10	0.15	30	0.44	1486	<1	0.04	25	1880	8	<10	11	<0.01	<10	<10	23	<10	130	--	--
01627 H	0.15	1.2	10	10	<0.5	2	0.02	<0.5	7	15	7	3.21	10	0.02	10	0.02	315	<1	<0.01	10	220	6	<10	1	<0.01	<10	<10	8	10	38	--	--
01628 H	0.62	1.2	20	20	<0.5	2	0.11	<0.5	105	21	11	4.23	10	0.16	20	0.39	110	2	<0.01	66	5410	44	<10	10	<0.01	<10	<10	4	<10	46	--	--
01629 H	1.69	1.2	120	10	<0.5	2	0.02	<0.5	40	11	547	3.41	10	0.18	10	0.02	105	4	<0.01	22	2280	1120	<10	5	<0.01	<10	<10	13	<10	500	--	--
01630 H	0.29	4.6	160	10	<0.5	<2	0.04	3.5	25	34	472	26.18	<10	0.08	<10	0.05	136	2	<0.01	105	5280	818	<10	4	<0.01	<10	<10	12	<10	4466	--	--
01631 H	0.08	0.6	<10	<10	<0.5	<2	0.01	<0.5	161	16	15	3.58	<10	0.05	<10	0.01	85	1	<0.01	23	90	32	<10	1	<0.01	<10	<10	<1	<10	68	--	--
01632 H	2.85	0.4	10	340	<0.5	<2	1.22	<0.5	48	24	123	8.36	10	0.04	30	1.35	903	<1	0.02	19	2020	14	<10	47	0.43	<10	<10	80	<10	138	--	--
01633 H	1.52	0.4	120	30	0.5	2	0.02	<0.5	6	22	22	4.14	<10	0.20	10	0.05	32	2	<0.01	5	960	58	<10	2	<0.01	<10	10	9	<10	12	--	--
01634 H	0.46	1.2	10	10	<0.5	<2	0.11	<0.5	7	9	11	5.16	<10	0.02	<10	0.19	95	<1	0.03	8	140	8	<10	1	0.01	<10	<10	20	<10	22	--	--
01635 H	0.52	0.2	10	10	<0.5	2	0.03	<0.5	2	26	3	2.12	10	0.04	10	0.35	77	<1	0.12	10	260	10	<10	3	<0.01	<10	<10	15	<10	10	--	--
01636 H	1.23	0.2	10	20	<0.5	<2	0.48	<0.5	17	29	48	4.06	<10	0.07	10	0.67	334	<1	0.08	22	240	8	<10	10	0.10	<10	<10	50	<10	24	--	--
01637 H	1.42	0.2	10	30	<0.5	<2	0.71	<0.5	15	25	68	2.55	<10	0.10	10	0.84	419	<1	0.08	25	270	10	<10	15	0.14	<10	<10	62	<10	32	--	--
01638 H	1.02	0.2	<10	50	<0.5	<2	0.22	<0.5	31	10	43	9.58	<10	0.09	10	0.61	972	<1	0.07	21	740	8	<10	5	0.01	<10	<10	127	<10	40	--	--
01639 H	1.64	0.2	20	20	0.5	2	0.16	<0.5	21	15	25	5.52	<10	0.21	<10	0.95	540	<1	0.04	24	360	14	<10	5	0.09	<10	<10	137	<10	46	--	--
01640 H	1.51	0.2	10	30	0.5	2	0.02	<0.5	5	17	9	1.89	<10	0.19	20	0.23	134	<1	0.07	7	150	6	<10	2	<0.01	<10	<10	12	<10	20	--	--

Certified by: Stan Bichler

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CERTIFICATE OF ASSAY

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : A8615775-002-A
INVOICE # : I8615775
DATE : 10-AUG-86
P.O. # : NONE
GAG/PC

Sample description	Prep code	Au oz/T			Comments		
01641 H	207	<0.002	--	--	-- See Table	--	--
01642 H	207	<0.002	--	--	--	--	--

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CERTIFICATE OF ANALYSIS

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : A8615776-002-A
INVOICE # : I8615776
DATE : 12-AUG-86
P.O. # : NONE
GAG/PC

Semi quantitative multi element ICP analysis.

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :

Sample description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm		
01641 M	0.43	0.2	<10	10	<0.5	<2	0.04	<0.5	6	17	10	2.25	<10	0.04	20	0.18	147	<1	0.04	9	230	10	<10	1	0.01	<10	<10	11	<10	14	--	--
01642 M	0.97	0.2	10	<10	<0.5	<2	0.01	<0.5	27	41	29	5.77	<10	0.03	<10	0.83	171	<1	0.07	19	80	36	<10	<1	0.01	<10	<10	65	<10	28	--	--

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Telex: 043-52597

CERTIFICATE OF ASSAY

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CC: J. HARDY

CERT. # : A8616247-001-A
INVOICE # : I8616247
DATE : 20-AUG-86
P.O. # : NONE
GAG/PC

Sample description	Prep code	Au oz/T				Comments		
16301 E	207	<0.002	--	--	--	See Table	--	--
16302 E	207	<0.002	--	--	--		--	--
16303 E	207	0.092	--	--	--		--	--
16304 E	207	0.002	--	--	--		--	--
16305 E	207	0.008	--	--	--		--	--
16306 E	207	0.014	--	--	--		--	--
16307 E	207	0.004	--	--	--		--	--
16308 E	207	0.014	--	--	--		--	--
6309 E	207	0.002	--	--	--		--	--
16310 E	207	0.100	--	--	--		--	--
16311 E	207	0.004	--	--	--		--	--
16312 E	207	0.520	--	--	--		--	--
16313 E	207	0.040	--	--	--		--	--
16314 E	207	0.032	--	--	--		--	--
16315 E	207	0.018	--	--	--		--	--
16316 E	207	0.002	--	--	--		--	--
16317 E	207	<0.002	--	--	--		--	--
16318 E	207	<0.002	--	--	--		--	--
16319 E	207	0.004	--	--	--		--	--
16320 E	207	0.002	--	--	--		--	--
16321 E	207	0.002	--	--	--		--	--
16322 E	207	<0.002	--	--	--		--	--
28151 A	207	<0.002	--	--	--	See Table	--	--
28152 A	207	0.010	--	--	--		--	--
28153 A	207	<0.002	--	--	--		--	--
28154 A	207	<0.002	--	--	--		--	--
28155 A	207	<0.002	--	--	--		--	--
28156 A	207	<0.002	--	--	--		--	--
28157 A	207	<0.002	--	--	--		--	--
28158 A	207	0.014	--	--	--		--	--

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CERTIFICATE OF ANALYSIS

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : A8616248-001-A
INVOICE # : I8616248
DATE : 24-AUG-86
P.O. # : NONE
GAG/PC

Semi quantitative multi element ICP analysis

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :
CC: J. HARDY

Sample description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm		
16301 E	0.65	0.2	<10	20	<0.5	<2	0.05	<0.5	4	14	7	2.11	<10	0.10	30	0.16	71	<1	0.07	11	260	12	<10	4	<0.01	<10	<10	13	<10	14	--	--
16302 E	0.29	0.2	<10	<10	<0.5	<2	0.03	<0.5	4	25	3	5.18	<10	<0.01	30	0.04	51	<1	0.08	9	360	10	<10	2	0.06	<10	<10	62	<10	4	--	--
16303 E	0.10	0.6	<10	20	<0.5	<2	0.01	<0.5	2	5	445	1.49	<10	0.05	<10	0.01	107	11	<0.01	6	50	36	<10	1	<0.01	<10	<10	3	<10	2	--	--
16304 E	0.50	0.2	<10	20	<0.5	<2	0.04	<0.5	4	7	44	2.82	<10	0.14	30	0.04	52	1	0.06	8	340	8	<10	10	<0.01	<10	<10	5	<10	12	--	--
16305 E	0.23	0.2	10	20	<0.5	<2	0.01	<0.5	7	15	332	3.11	<10	0.10	10	0.02	207	9	<0.01	17	180	30	<10	2	<0.01	<10	<10	17	<10	14	--	--
16306 E	0.35	0.2	50	40	<0.5	<2	0.02	<0.5	13	15	508	5.17	<10	0.19	<10	0.03	518	9	<0.01	28	250	22	<10	2	<0.01	<10	<10	47	<10	30	--	--
16307 E	0.91	0.6	<10	90	<0.5	<2	0.14	<0.5	37	4	1266	9.81	<10	0.29	10	0.16	1810	<1	0.03	49	540	14	<10	7	<0.01	<10	<10	60	<10	86	--	--
16308 E	0.74	0.4	60	90	<0.5	<2	0.06	<0.5	34	64	2443	12.00	<10	0.36	50	0.13	3261	3	<0.01	121	640	22	<10	5	<0.01	<10	<10	75	<10	144	--	--
16309 E	3.18	0.6	<10	20	<0.5	<2	0.31	<0.5	42	11	390	9.68	10	0.09	10	2.25	1006	<1	0.03	44	580	8	<10	8	<0.01	<10	<10	278	<10	88	--	--
16310 E	0.58	1.8	40	10	<0.5	<2	0.03	<0.5	9	5	723	5.84	<10	0.01	20	0.06	103	2	0.04	12	360	136	<10	4	<0.01	<10	<10	9	<10	12	--	--
16311 E	0.97	0.6	<10	60	<0.5	<2	0.06	<0.5	23	7	455	3.32	<10	0.23	60	0.07	771	<1	0.02	15	200	62	<10	4	<0.01	<10	<10	8	<10	12	--	--
16312 E	0.34	4.2	10	20	<0.5	10	0.01	<0.5	2	5	225	4.48	<10	0.08	<10	0.02	92	4	0.02	11	350	52	<10	4	<0.01	<10	<10	<1	<10	4	--	--
16313 E	0.16	1.2	<10	10	<0.5	2	<0.01	<0.5	<1	<1	118	1.35	<10	0.01	<10	<0.01	70	1	0.02	5	50	22	<10	1	<0.01	<10	<10	<1	<10	2	--	--
16314 E	0.52	9.4	40	130	<0.5	66	0.02	<0.5	33	2	1652	7.52	<10	0.30	10	0.04	3791	6	<0.01	29	320	1048	<10	14	<0.01	<10	<10	26	<10	34	--	--
16315 E	0.16	0.4	20	80	<0.5	<2	0.01	<0.5	11	3	454	3.13	<10	0.06	<10	0.02	876	3	<0.01	16	120	30	<10	3	<0.01	<10	<10	12	<10	10	--	--
16316 E	0.68	0.4	<10	50	<0.5	<2	0.04	<0.5	4	4	306	1.42	<10	0.22	30	0.04	170	<1	0.03	8	150	10	<10	2	<0.01	<10	<10	4	<10	10	--	--
16317 E	0.68	0.6	<10	20	<0.5	<2	0.05	<0.5	12	7	354	2.51	<10	0.08	20	0.14	413	<1	0.05	15	230	16	<10	3	<0.01	<10	<10	5	<10	18	--	--
16318 E	0.91	0.2	<10	20	<0.5	<2	0.09	<0.5	3	6	517	2.30	<10	0.12	30	0.15	94	<1	0.03	14	200	38	<10	4	<0.01	<10	<10	5	<10	22	--	--
16319 E	0.93	0.2	<10	50	<0.5	<2	0.09	<0.5	12	7	613	2.43	<10	0.26	40	0.10	457	<1	0.02	16	220	146	<10	4	<0.01	<10	<10	5	<10	20	--	--
16320 E	0.83	0.8	<10	20	<0.5	<2	0.07	<0.5	15	7	534	2.43	<10	0.11	30	0.13	186	<1	0.05	14	230	312	<10	3	<0.01	<10	<10	4	<10	16	--	--
16321 E	0.91	0.4	<10	20	<0.5	<2	0.07	<0.5	15	9	432	2.22	<10	0.14	40	0.11	172	<1	0.06	13	260	246	<10	3	<0.01	<10	<10	5	<10	12	--	--
16322 E	0.82	1.4	<10	20	<0.5	<2	0.06	<0.5	21	4	427	2.17	<10	0.07	30	0.04	609	<1	0.06	9	280	1214	<10	3	<0.01	<10	<10	2	<10	6	--	--
28151 A	1.67	0.2	<10	70	<0.5	4	0.04	<0.5	10	12	12	1.73	<10	0.23	30	1.57	188	<1	0.02	15	200	36	<10	2	<0.01	<10	<10	8	<10	76	--	--
28152 A	1.21	0.2	10	150	<0.5	<2	0.63	<0.5	10	16	18	2.30	<10	0.44	40	0.96	972	1	0.01	18	350	22	<10	9	0.01	<10	<10	9	<10	54	--	--
28153 A	1.41	0.2	<10	50	<0.5	<2	0.05	<0.5	11	14	14	1.94	<10	0.14	20	1.38	178	1	0.02	18	250	36	<10	2	<0.01	<10	<10	6	<10	76	--	--
28154 A	1.74	0.2	<10	40	<0.5	<2	0.05	<0.5	6	13	7	2.33	<10	0.16	30	1.73	145	1	0.02	16	240	18	<10	1	<0.01	<10	<10	7	<10	82	--	--
28155 A	1.88	0.2	<10	70	<0.5	<2	0.38	<0.5	11	21	4	2.28	<10	0.20	40	2.09	563	1	0.02	21	480	8	<10	8	<0.01	<10	<10	8	<10	116	--	--
28156 A	0.80	0.2	<10	70	<0.5	<2	0.18	<0.5	6	13	2	2.18	<10	0.31	40	0.46	328	1	0.02	14	410	8	<10	4	0.01	<10	<10	5	<10	32	--	--
28157 A	1.19	0.2	<10	60	<0.5	<2	0.02	<0.5	4	11	4	1.58	<10	0.25	30	0.93	176	1	0.01	12	180	12	<10	1	<0.01	<10	<10	3	<10	44	--	--
28159 A	0.60	0.2	<10	110	<0.5	<2	0.35	<0.5	7	11	6	2.33	<10	0.36	30	0.23	731	1	<0.01	14	380	14	<10	8	<0.01	<10	<10	4	<10	28	--	--

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CERTIFICATE OF ANALYSIS

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : A8616419-001-A
INVOICE # : I8616419
DATE : 19-AUG-86
P.O. # : NONE
GAG/PC

Semi quantitative multi element ICP analysis

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :
CC: J. HARDY

Sample description	Au oz/T WSH FA	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm	comments
28159 A	<0.002	2.34	0.2	<10	120	<0.5	<2	0.09	<0.5	7	16	5	2.62	10	0.56	50	1.67	126	1	0.01	20	420	10	<10	3	<0.01	<10	<10	9	<10	54	-- See Table
28160 A	<0.002	2.95	0.2	<10	100	<0.5	<2	0.13	<0.5	12	27	9	2.60	10	0.37	40	2.88	398	1	0.03	21	460	8	<10	2	<0.01	<10	<10	16	<10	88	--
28161 A	<0.002	4.62	0.2	<10	40	<0.5	<2	0.08	1.0	10	27	3	2.91	10	0.19	30	5.78	121	1	<0.01	20	420	4	10	1	<0.01	<10	<10	24	<10	58	--
28162 A	<0.002	2.60	0.2	<10	120	<0.5	<2	0.07	<0.5	16	16	24	4.78	10	0.24	50	1.94	3263	1	<0.01	19	970	20	<10	3	<0.01	<10	<10	10	<10	46	--
28163 A	<0.002	1.49	0.2	<10	50	<0.5	<2	3.88	<0.5	11	23	35	2.13	10	0.21	<10	3.05	986	<1	0.02	17	460	8	<10	<1	<0.01	<10	<10	10	<10	38	--
16323 E	0.004	0.49	0.2	<10	10	<0.5	<2	0.06	<0.5	3	4	158	1.53	<10	0.03	20	0.05	47	2	0.06	5	230	300	<10	4	<0.01	<10	<10	1	<10	6	-- See Table
16324 E	0.004	0.62	0.6	<10	20	<0.5	<2	0.04	<0.5	13	7	377	1.81	<10	0.09	20	0.03	441	2	0.04	7	200	778	<10	3	<0.01	<10	<10	2	<10	10	--
16325 E	<0.002	0.71	1.0	<10	20	<0.5	<2	0.06	<0.5	5	8	726	2.02	<10	0.08	40	0.07	169	1	0.03	7	240	454	<10	3	<0.01	<10	<10	2	<10	10	--
16326 E	<0.002	0.90	1.6	<10	20	<0.5	<2	0.03	<0.5	2	5	558	2.86	<10	0.18	40	0.03	42	6	0.03	3	260	1368	<10	2	<0.01	<10	<10	4	<10	6	--
16327 E	0.008	1.04	1.0	<10	540	<0.5	4	0.05	<0.5	1	11	971	4.13	10	0.47	60	0.07	38	4	0.02	5	370	4616	<10	12	<0.01	<10	<10	15	<10	10	--
16328 E	<0.002	0.55	0.4	<10	100	<0.5	<2	0.02	<0.5	4	7	378	1.28	<10	0.07	20	0.04	57	1	0.05	4	180	332	<10	3	<0.01	<10	<10	2	<10	6	--
16329 E	<0.002	0.73	0.2	<10	30	<0.5	<2	0.03	<0.5	9	9	373	2.14	<10	0.13	20	0.06	104	2	0.08	8	280	156	<10	4	<0.01	<10	<10	6	<10	10	--
16330 E	<0.002	0.71	0.2	<10	30	<0.5	<2	0.04	<0.5	2	8	280	1.58	<10	0.18	20	0.05	71	2	0.06	5	240	456	<10	3	<0.01	<10	<10	6	<10	8	--
16331 E	<0.002	1.28	0.2	<10	50	<0.5	2	0.09	<0.5	7	14	41	2.32	<10	0.24	30	0.43	75	1	0.03	16	210	18	<10	7	<0.01	<10	<10	10	<10	26	--
16332 E	<0.002	1.39	0.2	<10	40	<0.5	<2	0.14	<0.5	8	18	15	2.48	<10	0.25	30	0.69	144	2	0.02	19	410	8	<10	5	<0.01	<10	<10	13	<10	26	--
16333 E	0.004	0.71	0.6	<10	50	<0.5	<2	0.10	<0.5	14	10	191	2.22	10	0.29	60	0.06	671	1	0.07	13	340	230	<10	4	<0.01	<10	<10	7	<10	20	--
16334 E	0.014	0.61	0.2	<10	40	<0.5	<2	0.03	<0.5	3	10	35	2.76	<10	0.27	40	0.04	104	3	0.03	8	210	18	<10	3	<0.01	<10	<10	7	<10	16	--
16335 E	0.028	0.27	0.2	20	20	<0.5	4	0.02	<0.5	5	16	616	5.56	<10	0.17	10	0.02	95	14	<0.01	21	360	64	<10	1	<0.01	<10	<10	10	<10	20	--

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CERTIFICATE OF ASSAY

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : A8617868-002-A
INVOICE # : I8617868
DATE : 12-SEP-86
P.O. # : NONE
GAG/PC

Sample description	Prep code	Au oz/T RUSH FA						
15221 G	236	<0.002	--	--	--	--	--	--
16345 E	236	<0.002	--	--	--	--	--	--
16346 E	236	<0.002	--	--	--	--	--	--
16347 E	236	<0.002	--	--	--	--	--	--
16348 E	236	<0.002	--	--	--	--	--	--
16349 E	236	<0.002	--	--	--	--	--	--
16350 E	236	<0.002	--	--	--	--	--	--
01651 H	236	0.002	--	--	--	--	--	--
01652 H	236	<0.002	--	--	--	--	--	--
01653 H	236	0.002	--	--	--	--	--	--
01654 H	236	<0.002	--	--	--	--	--	--
01655 H	236	<0.002	--	--	--	--	--	--
01656 H	236	0.002	--	--	--	--	--	--

Drill Hole Footage Interval (ft.): 56 → 61

Comments: PTR-86-1 cont'd. See Table

Comments: See Table

VOI rev. 4/85

Registered Assayer, Province of British Columbia

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CERTIFICATE OF ANALYSIS

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : A8617869-002-A
INVOICE # : I8617869
DATE : 23-SEP-86
P.O. # : NONE
GAG/PC

Semi quantitative multi element ICP analysis

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :

Sample description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm		
6321 G	1.77	0.2	10	100	<0.5	2	4.92	<0.5	10	27	21	1.98	20	0.32	<10	1.94	354	<1	0.01	16	350	22	<10	24	<0.01	<10	<10	7	<10	170	--	--
6345 E	0.47	0.2	<10	60	<0.5	<2	0.08	<0.5	4	15	14	0.89	<10	0.17	20	0.09	115	<1	0.02	7	70	8	<10	4	<0.01	<10	<10	2	<10	12	--	--
6346 E	0.05	0.2	<10	<10	<0.5	<2	0.01	<0.5	62	12	5	1.54	<10	0.03	<10	0.01	68	<1	<0.01	9	30	46	<10	1	<0.01	<10	<10	<1	<10	1	--	--
6347 E	0.34	0.2	10	30	<0.5	<2	0.02	<0.5	19	22	13	2.84	<10	0.10	10	0.10	127	<1	<0.01	9	230	142	<10	2	<0.01	<10	<10	2	<10	26	--	--
6348 E	0.02	0.2	<10	<10	<0.5	<2	<0.01	<0.5	9	12	7	1.16	<10	0.01	<10	<0.01	79	<1	<0.01	4	30	18	<10	<1	<0.01	<10	<10	<1	<10	2	--	--
6349 E	0.01	0.2	<10	<10	<0.5	<2	<0.01	<0.5	49	13	7	2.20	<10	0.01	<10	<0.01	85	<1	<0.01	8	40	50	<10	<1	<0.01	<10	<10	<1	<10	6	--	--
6350 E	0.01	0.2	<10	<10	<0.5	<2	<0.01	<0.5	5	13	4	1.14	<10	0.01	<10	<0.01	80	<1	<0.01	4	10	8	<10	<1	<0.01	<10	<10	<1	<10	4	--	--
1651 H	0.01	0.2	20	20	<0.5	<2	<0.01	<0.5	4	11	10	2.58	<10	0.07	<10	<0.01	74	<1	<0.01	3	90	128	<10	1	<0.01	<10	<10	<1	<10	<2	--	--
1652 H	0.09	1.0	<10	10	<0.5	<2	<0.01	<0.5	4	10	17	1.14	<10	0.06	<10	<0.01	57	1	<0.01	4	110	278	<10	1	<0.01	<10	<10	<1	<10	26	--	--
1653 H	0.04	0.4	30	20	<0.5	<2	<0.01	<0.5	179	15	22	1.21	<10	0.01	<10	0.01	91	<1	<0.01	18	200	366	<10	1	<0.01	<10	<10	<1	<10	28	--	--
1654 H	0.02	2.0	20	10	<0.5	<2	<0.01	<0.5	257	17	16	3.76	<10	0.02	<10	<0.01	106	<1	0.01	20	50	126	<10	1	<0.01	<10	<10	<1	<10	6	--	--
1655 H	0.09	0.2	<10	10	<0.5	<2	<0.01	<0.5	95	11	11	1.86	<10	0.07	<10	<0.01	78	<1	0.01	11	20	48	<10	1	<0.01	<10	<10	<1	<10	2	--	--
1656 H	0.05	0.6	10	40	<0.5	<2	<0.01	<0.5	151	16	16	3.22	<10	0.04	<10	<0.01	102	<1	0.01	16	110	90	<10	1	<0.01	<10	<10	<1	<10	22	--	--

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TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CC: J. HARDY

CERT. # : A8616562-001-A
INVOICE # : I8616562
DATE : 17-AUG-86
P.O. # : NONE
GAG/PC

Sample description	Prep code	Au oz/T RUSH FA				Comments		
28164 A	236	0.002	--	--	--	See Table	--	--
28165 A	236	<0.002	--	--	--		--	--
28166 A	236	0.002	--	--	--		--	--
28167 A	236	<0.002	--	--	--		--	--
28168 A	236	<0.002	--	--	--		--	--

Anne Christie

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CERTIFICATE OF ANALYSIS

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1900 - 999 W. HASTINGS ST.
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CERT. # : A8616563-001-A
INVOICE # : I8616563
DATE : 25-AUG-86
P.O. # : NONE
GAG/PC

Semi quantitative multi element ICP analysis

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :
CC: J. HARDY

Sample description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm		
28164	6.31	1.0	<10	10	<0.5	<2	0.09	4.5	28	29	57	4.33	10	0.06	10	7.78	216	<1	<0.01	21	220	146	10	1	<0.01	<10	<10	26	<10	846	--	--
28165	4.10	0.2	<10	20	<0.5	<2	0.07	2.0	12	23	29	2.28	10	0.05	10	5.30	81	<1	<0.01	13	290	82	10	1	<0.01	<10	<10	18	<10	454	--	--
28166	3.61	0.2	<10	30	<0.5	<2	0.07	1.0	12	23	20	2.22	<10	0.13	20	4.46	142	<1	<0.01	16	320	54	<10	1	<0.01	<10	<10	15	<10	396	--	--
28167	1.66	0.2	<10	130	<0.5	<2	0.19	0.5	10	15	31	2.45	<10	0.16	30	1.61	1679	<1	0.01	17	420	76	<10	1	<0.01	<10	<10	6	<10	278	--	--
28168	1.31	0.2	10	110	<0.5	<2	1.50	<0.5	9	18	14	2.21	10	0.18	20	1.75	1157	<1	0.02	14	410	40	<10	2	<0.01	<10	<10	7	<10	152	--	--

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CC: J. HARDY

CERT. # : A8616760-001-A
INVOICE # : I8616760
DATE : 28-AUG-86
P.O. # : NONE
GAG/PC

Sample description	Prep code	Au oz/T				Comments		
16336 E	207	<0.002	--	--	--	See Table	--	--
16337 E	207	<0.002	--	--	--		--	--
16338 E	207	<0.002	--	--	--		--	--
16339 E	207	<0.002	--	--	--		--	--
16340 E	207	0.062	--	--	--		--	--
16341 E	207	<0.002	--	--	--		--	--
28169 A	207	<0.002	--	--	--	See Table	--	--
28170 A	207	<0.002	--	--	--		--	--
28171 A	207	<0.002	--	--	--		--	--
28172 A	207	<0.002	--	--	--		--	--
28173 A	207	<0.002	--	--	--		--	--
28174 A	207	<0.002	--	--	--		--	--
28175 A	207	<0.002	--	--	--		--	--

Anne Choate

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CERTIFICATE OF ANALYSIS

TO : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

CERT. # : A8616761-001-A
INVOICE # : I8616761
DATE : 1-SEP-86
P.O. # : NONE
GAG/PC

Semi quantitative multi element ICP analysis.

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :
CC: J. HARDY

Sample description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm		
16336 E	0.31	0.2	120	<10	<0.5	<2	0.02	<0.5	1	18	6	2.29	<10	0.02	10	0.11	74	<1	0.02	8	140	46	<10	2	<0.01	<10	<10	11	<10	28	--	--
16337 E	1.10	0.6	20	10	<0.5	<2	0.02	<0.5	9	21	5	3.17	10	0.03	20	0.68	153	<1	0.02	13	290	24	<10	2	<0.01	<10	<10	17	<10	24	--	--
16338 E	0.86	0.4	10	80	<0.5	<2	0.01	<0.5	9	10	41	2.26	10	0.02	30	0.20	237	<1	0.01	12	260	20	<10	1	<0.01	<10	<10	4	<10	34	--	--
16339 E	1.57	0.2	20	20	<0.5	2	0.06	<0.5	11	39	7	3.95	10	0.11	10	1.35	320	1	0.04	22	480	18	<10	1	<0.01	<10	<10	36	<10	36	--	--
16340 E	1.00	0.8	50	50	<0.5	<2	0.11	<0.5	21	14	1230	5.60	<10	0.15	20	0.18	1115	10	<0.01	29	340	84	<10	7	<0.01	<10	<10	24	<10	28	--	--
16341 E	0.73	0.4	10	10	<0.5	<2	0.01	<0.5	19	28	36	3.59	<10	0.04	10	0.48	163	<1	0.07	16	150	24	<10	1	0.01	<10	<10	43	<10	20	--	--
28169 A	0.20	0.6	20	20	<0.5	<2	<0.01	<0.5	5	16	7	1.15	<10	0.12	<10	0.01	74	1	<0.01	6	80	82	<10	1	<0.01	<10	<10	2	10	12	--	--
28170 A	1.03	0.4	10	150	<0.5	<2	0.19	<0.5	7	19	2	1.85	10	0.45	60	0.23	458	<1	0.03	14	180	10	<10	4	<0.01	10	<10	6	<10	44	--	--
28171 A	0.81	0.2	10	60	<0.5	<2	<0.01	<0.5	9	18	2	2.13	<10	0.04	10	0.86	774	1	<0.01	13	70	14	<10	1	<0.01	<10	<10	2	<10	54	--	--
28172 A	0.07	0.4	<10	<10	<0.5	<2	<0.01	<0.5	1	20	15	1.13	<10	0.02	<10	0.01	285	1	<0.01	8	40	62	<10	4	<0.01	<10	<10	<1	<10	22	--	--
28173 A	0.07	0.2	<10	<10	<0.5	<2	<0.01	<0.5	1	19	5	1.11	<10	0.02	<10	0.01	148	<1	<0.01	8	30	8	<10	<1	<0.01	<10	<10	<1	<10	6	--	--
28174 A	2.01	0.6	10	70	<0.5	<2	0.03	<0.5	13	21	12	3.99	10	0.28	20	0.69	511	<1	0.02	22	200	110	<10	4	<0.01	<10	<10	11	<10	108	--	--
28175 A	1.17	0.2	10	50	<0.5	<2	0.01	<0.5	7	14	9	1.82	<10	0.12	50	0.50	965	<1	0.01	14	220	8	<10	2	<0.01	<10	<10	5	<10	38	--	--

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V6C 2W2

CC: J.L. HARDY

CERT. # : A8617248-001-A
INVOICE # : I8617248
DATE : 7-SEP-86
P.O. # : NONE
GAG/PC

Sample description	Prep code	Au oz/T				Comments		
01643 H	207	0.002	--	--	--	See Table	--	--
01644 H	207	<0.002	--	--	--		--	--
01645 H	207	<0.002	--	--	--		--	--
01646 H	207	<0.002	--	--	--		--	--
01647 H	207	<0.002	--	--	--		--	--
01648 H	207	<0.002	--	--	--		--	--
01649 H	207	<0.002	--	--	--		--	--
01650 H	207	<0.002	--	--	--		--	--
16342 E	207	0.002	--	--	--		--	--
16343 E	207	<0.002	--	--	--	See Table	--	--
16344 E	207	0.002	--	--	--		--	--

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CERT. # : A8617049-001-A
INVOICE # : I8617049
DATE : 19-SEP-86
P.O. # : NONE
GAG/PC

Semi quantitative multi element ICP anal...

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since the digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, K, La, Mg, Na, Sr, Ti, Tl, W and Y can only be considered as semi-quantitative.

COMMENTS :
CC: J.L. HARDY

Sample description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	W ppm	Y ppm	Zn ppm		
1643 H	3.69	0.6	50	50	<0.5	8	0.02	<0.5	12	10	14	2.75	<10	0.05	<10	4.64	200	<1	<0.01	11	60	1866	220	2	<0.01	<10	<10	7	<10	110	--	--
1644 H	0.26	0.2	10	70	<0.5	<2	0.01	<0.5	4	14	8	1.87	<10	0.06	<10	0.17	329	1	<0.01	10	50	156	30	1	<0.01	<10	<10	6	<10	16	--	--
1645 H	4.04	0.2	<10	20	<0.5	<2	0.01	<0.5	9	28	6	2.22	10	0.01	20	5.46	152	1	<0.01	19	10	36	<10	1	<0.01	<10	<10	25	<10	48	--	--
1646 H	1.86	0.2	10	90	<0.5	<2	0.04	<0.5	11	23	8	6.77	<10	0.36	30	1.13	58	<1	0.01	19	190	70	10	3	0.04	<10	<10	21	<10	26	--	--
1647 H	1.37	0.2	10	50	<0.5	<2	0.02	<0.5	9	10	7	8.51	<10	0.22	20	1.21	205	12	<0.01	11	110	28	10	1	<0.01	<10	<10	7	<10	36	--	--
1648 H	0.94	0.2	<10	90	<0.5	<2	<0.01	<0.5	1	9	3	1.09	<10	0.30	40	0.06	61	<1	0.02	6	100	50	10	2	<0.01	10	<10	5	<10	14	--	--
1649 H	0.26	0.2	<10	20	<0.5	<2	<0.01	<0.5	1	9	5	0.69	<10	0.07	<10	0.11	102	<1	0.01	4	20	26	<10	1	<0.01	<10	<10	1	<10	4	--	--
1650 H	0.03	1.0	<10	20	<0.5	<2	0.01	<0.5	<1	12	7	1.02	<10	0.02	<10	0.01	122	1	<0.01	5	60	882	<10	<1	<0.01	<10	<10	<1	<10	6	--	--
5342 E	1.47	0.2	10	10	<0.5	<2	0.02	<0.5	35	21	13	14.08	10	0.01	<10	1.21	114	<1	0.03	40	610	40	<10	4	0.07	<10	<10	204	<10	38	--	--
5343 E	1.35	0.2	<10	120	<0.5	<2	0.15	<0.5	9	21	47	2.82	<10	0.60	20	0.59	192	1	0.03	16	340	28	<10	7	0.15	<10	<10	17	<10	32	--	--
5344 E	0.30	0.2	<10	40	<0.5	<2	0.04	<0.5	1	11	5	0.96	<10	0.04	10	0.05	103	<1	0.05	3	110	18	<10	1	<0.01	<10	<10	2	<10	1	--	--

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V6C 2W2

CC: J. HARDY

CERT. # : A8617476-003-A
INVOICE # : I8617476
DATE : 9-SEP-86
P.O. # : NONE
GAG/PC

Sample description	Prep code	Au oz/T RUSH FA				Comments		
61636 A	236	0.010	--	--	--	See Table	--	--
61637 A	236	<0.002	--	--	--		--	--

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V6C 2W2

CERT. # : A8617477-003-A
INVOICE # : I8617477
DATE : 17-SEP-86
P.O. # : NONE
GAG/PC

Semi quantitative multi element ICP analysis

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :
CC: J. HARDY

Sample description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm		
61636 A	0.35	0.2	<10	30	<0.5	<2	0.02	<0.5	4	9	133	2.52	<10	0.11	30	0.03	163	3	0.02	8	320	120	<10	21	<0.01	<10	<10	2	<10	10	--	--
61637 A	0.28	0.4	<10	10	<0.5	<2	0.02	<0.5	10	12	245	1.80	<10	0.05	20	0.03	218	1	0.02	9	110	28	<10	2	<0.01	<10	<10	1	<10	8	--	--

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APPENDIX 3: Thin Section Reports, Quartz Hill Area

Vancouver Petrographics Ltd.

JAMES VINNELL, Manager
JOHN G. PAYNE, Ph. D. Geologist

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Report for: Jenna Hardy,
Mark Management Ltd.,
1900 - 999 West Hastings,
VANCOUVER, B.C., V6C 2W2

Invoice 5949
September 1986

Samples: TS-1(S), TS-2 (H)
Aldridge formation, Perry Creek, B.C.

Summary:

The samples are cataclastically deformed impure quartzites, dominated by quartz, with minor plagioclase and lesser muscovite/sericite, pyrite, and Ti-oxide. A few textures suggest relic pebbles of quartz and of plagioclase-rich rocks. The samples contain patches of coarser grained quartz, which in part represent early-formed (during metamorphism?) veins. The rocks are strongly recrystallized and granulated in a cataclastic event. This probably accounts for the bleached appearance of the rock. Only minor sericite and kaolinite are present. Pyrite is moderately abundant, mainly as disseminated grains; these are strongly to completely replaced by hematite.

Late veins consist of undeformed quartz with minor muscovite.

John G. Payne

TS-1 (S) Cataclastically Deformed Arkosic Quartzite

The section is a cataclastically deformed metasedimentary rock dominated by quartz, with much less plagioclase and minor muscovite/sericite, pyrite (altered to hematite), and kaolinite. It contains early-formed veins dominated by quartz. Cataclastic deformation produced an irregular intergrowth of partly granulated grains. A few late veins (post-deformation) are dominated by quartz with patches of biotite/chlorite?.

coarser grains and patches	
quartz	10-15%
plagioclase	3- 4
groundmass	
quartz (± plagioclase)	70-75
muscovite/sericite	0.1
pyrite/hematite	0.2
Ti-oxide	0.2
zircon	trace
early quartz veins	4- 5
kaolinite patches	minor
late quartz-rich veins	½-1

The rock contains anhedral grains and minor patches of quartz averaging 0.05-0.15 mm in size, and scattered anhedral plagioclase grains from 0.05-0.2 mm in size. These represent relics of the original metasedimentary rock. Their borders are irregular against a groundmass of much finer grained aggregates of quartz and lesser plagioclase. The latter average 0.01-0.02 mm in grain size, with a gradation through coarser grains to the relic grains of quartz and plagioclase. The groundmass texture and granulation textures along borders of coarser grains indicate that the rock was cataclastically deformed.

Muscovite/sericite forms scattered flakes and aggregates of flakes averaging 0.03-0.05 mm in length.

Pyrite forms disseminated subhedral to euhedral grains averaging 0.05-0.15 mm in size, with a few coarser grains up to 0.5 mm across. It locally is concentrated in patches of a few grains, and also forms one vein-like zone parallel to foliation. In the latter, numerous pyrite grains of widely varying size are set in granulated groundmass. Pyrite is not deformed. One larger, subhedral grain has a thin rim of sericite/muscovite flakes oriented parallel to the crystal faces of the pyrite grain. Pyrite is completely replaced by pseudomorphic hematite; the latter commonly shows a weak concentric structure.

Ti-oxide forms wispy trains and a few larger, ragged patches of extremely fine grained aggregates. A few of the larger lenses were offset along foliation.

Zircon forms a very few, subhedral to euhedral prismatic grains up to 0.05 mm in length.

Early quartz veins and vein fragments average 0.2-0.3 mm in width. They consist of fine grained quartz with scattered flakes of muscovite. Quartz is partly recrystallized, mainly along grain borders to equant granular aggregates, which grade in texture into the cataclastic groundmass quartz.

Kaolinite forms a very few patches up to 0.2 mm long of extremely fine grained, unoriented flakes, with minor sericite/muscovite of coarser grain size. Kaolinite may be post deformational in origin.

(continued)

TS-1 (S) (continued)

The rock is cut by a few planar veins up to 0.15 mm in width, which appear to be post-deformational in origin. They are dominated by fine grained quartz showing no deformational textures. Some contain patches from 0.05-0.15 mm in size of pale brown, extremely fine grained unoriented aggregates of equant flakes of biotite-chlorite?.

TS-2 (H) Cataclastically Deformed Arkosic Quartzite

The sample is a cataclastically deformed metasedimentary rock dominated by quartz with much less plagioclase, and with minor pyrite/hematite and sericite/muscovite. Coarser grained quartz grains may be relic pebbles. A few coarser grained patches may represent pre-deformation veins. Many irregular coarser grained patches of quartz are of uncertain origin. Plagioclase-rich patches up to 1 mm in size may represent original detrital material. The rock contains a few late quartz veins.

detrital grains	
quartz	2- 3%
plagioclase (single grains)	1%
plagioclase aggregates	0.5
zircon	trace
groundmass	
quartz (±plagioclase) (fine)	45-50%
quartz (coarser)	40-45
muscovite/sericite	0.1
pyrite/hematite	1- 1½
Ti-oxide	minor
late quartz veins	2- 3

Quartz forms a few isolated, subrounded grains from 0.7-1 mm in size. These are slightly granulated along grain borders to extremely fine grained, granular aggregates. These are interpreted as original detrital grains. With more intense recrystallization, such grains are variably destroyed.

Plagioclase forms scattered anhedral grains from 0.05-0.15 mm in size. These may represent original detrital grains, but interpretation is not as positive as for the coarser quartz grains. Several patches up to 1 mm in size consist of aggregates of fine grained plagioclase; grains are equant, with a mosaic texture suggestive of an original metamorphic rock. These patches are interpreted as detrital in origin. One similar patch is of medium grained plagioclase; it may be of a metamorphic or plutonic rock.

Zircon forms a very few subhedral prismatic grains up to 0.03 mm in size.

The groundmass contains irregular patches of coarser grained quartz (up to 1 mm) variably intergrown with much finer grained quartz. The former may in part represent detrital grains, and in part early formed veins (pre-deformation). Some of the quartz may have formed as coarser grains during metamorphism prior to the cataclastic deformation. All are slightly to moderately recrystallized to extremely fine grained, mosaic to granular aggregates. The finer grained quartz (probably with some plagioclase) shows a cataclastic texture and a weak to moderate foliation.

Muscovite/sericite forms disseminated single grains and clusters of a few grains, with size averaging 0.05-0.1 mm in length.

Pyrite forms disseminated subhedral to euhedral grains ranging from 0.05 to 0.6 mm in size. A few larger grains contain relic cores of fresh pyrite rimmed by concentric replacement zones of hematite. Other pyrite grains are completely replaced by hematite, and a few are represented by cavities from which the hematite was removed. A few grains are partly rimmed by thin flakes of muscovite oriented along crystal faces of pyrite.

Ti-oxide forms irregular, extremely fine grained patches up to 0.05 mm in size.

The rock contains a few quartz veins up to 0.5 mm in width, which consist of fine grained, mainly undeformed quartz.

APPENDIX 4: Prospecting Reports, C. Sywulsky, C.P.S. Explorations

PERRY CREEK 86

An Exploration Program Report
for

GALLANT GOLD MINES LTD.
Vancouver, B.C.

Prepared by: CPS Explorations
Kimberley, B.C.

July, 1986

THE PROGRAM

CPS Explorations has completed a mapping and sampling program on claims held by Gallant Gold Mines on Perry Creek. The program began on June 12th/1986 and completed July 10th/1986. Research is continuing.

Maximum time proposed for the program was 14 days, however the execution proved more time consuming. Several factors determined this delay;

1. The abundance of windfall in part of the program areas slowed traverse time , and concealed old trails and prospects.
2. Areas logged have increased, and although this has increased access, it has wiped out many old trails and workings.

The program did uncover the majority of targets mentioned in the proposal as well as others. Samples were taken wherever possible, but due to time restrictions several of the locations were mapped but not sampled. It became obvious early in the program that refurbishment of some of the old pits, trenchs, adits, etc. would prove too time consuming. It was decided to gain an over view of the property in the time available, possibly extending the program at a later date.

FINDINGS
Phase 1

This phase contained most locations sampled. These locations are shown on Map #1. Old claims found include: The Homestake, Colombia, Mcintosh, Shakespear, Badger, Wallinger, Apex, Teller, Rock of Ages, Excess, Excelsior, Red Mountain, Manhatten Bozeman, Big Horn, etc. prospects.

These old prospects have confirmed the persistance of the quartz ledge system through the Carol, Linda, Eclipse, Anna, Standard, Agnes, Pioneer, Oyster, Evening Star, and Luke claims. Given the general strike of the ledge through known exposures, it should also appear on the Mark and John claims. However these areas lie below 5000 feet elev. on the western slope of Perry creek where overburden can be deep. The best exposure of the big ledge can be found on the Apex, Rock of Ages and Mcintosh prospects. Here the ledge is approx. 30 to 40 feet wide, composed mainly of glassy white quartz. The strike conforms to that of the country rock being NNE, the dip is verticle to slightly eastward. The majority of work was concentrated in the footwall of the ledge. The quartz tends to become more discolored, from rusty red to green as it nears the footwall.

At some locations, grey to bluish grey quartz was found to contain pyrite. According to historic accounts, the best gold values were found near the pyrite. Assay of these samples could show anomylous values. Special attention was given to country rock on either side of the ledge in the search for "miners Porphrey". Samples of possible candidates were taken to try and determine the porphrey's true nature.

FINDINGS
Phase 2

This program was centered on the Lone Eagle and Quartz Creek reverted crown grants. The pits and trenchs found do show an area of mineralization above and below the large open pit.

During the height of development work in this area, the Rice Group encompased some 32 different claims. It is possible that these claims covered areas along the strike of the St. Marys fault. Location of this zone as it strikes through claims to the north east and south west of the two crown grants should be possible. It must be noted that these areas can be heavily covered by overburden in places.

In general, areas covered by phase two of the program did not uncover as many old prospects as hoped for. The areas sampled did show good mineralization where observed, thus raising possible interest in intervening ground.

DOCUMENTATION

There is a fairly large amount of historic documentation available on mining exploration on Perry Creek. However this information is spread throughout several reference sources. It became obvious through research that reports covering a particualr claim could pertain to the same piece of ground under another claim or group name. For example, The Homestake prospect, extensivly reported on in several MMAR's , began existance as the RED MOUNTAIN, and Badger mineral claims. These claims were located in August of 1895 by John Sherwood. This prospect grew to include the Perry Creek, Last Chance and Custer mineral claims between 1896 and 1900. They were reported on under the "Red Mountain Group", "The Colombia Workings", and The Homestake monikers. It is possible therfore to see that through 80 years of development work, claims in the area have been staked, sold, forfeited and restaked under different names by different owners. There is evidence that much of the original development work done has been altered by subsequent work done during the era of intensive deveopment in the area. Thus many of the prospects have had their true identity hidden.

In the following section are copies of documents that are pertinent to claims held by Gallant Gold Mines on Perry Creek. Also included is a map of approximate locations of claims held in the area at the turn of the century.

[Form B.] ✓ 440

C of W. 8303

BRITISH COLUMBIA

"MINERAL ACT, 1891."

RECORD OF MINERAL CLAIM.

Vol. E Vol. 4. Page 181
19 " 24
18 " 19 " 168 Shakspeare ..... Mineral Claim
4795 B ..... No of Certificate

FE 216
FE 873
FE 1415
FE 1836
FE 2173

Located by ..... Emil Banks .....

The claim is situate On left bank of Kerry Creek about five miles above the upper shaft and lies to the south of the Badger mineral claim 1100 feet to right of location line 400 " " left " " Discovery stake is on location line about 300 feet from No 1 Stake

The direction of the ~~centre~~ location line is South

The length of the claim is 1500 feet

The claim was located on the 19th day of October 1895

Recorded this 1st day of ~~September~~ November 1895

C. B. Edwards
Mining Recorder.

[Form B.]

394

BRITISH COLUMBIA

"MINERAL ACT, 1891."

RECORD OF MINERAL CLAIM.

Rec'd Vol. 4. Page 171.
" " 252
" 19 127
" " 225
F.E. 707
F.E. 1065
F.E. 1731
F.E 2109
F E 2377
F E 2500

Red Mountain ..... Mineral Claim

4761A ..... No of Certificate

Located by .....

C. J. Holley .....

The claim is situate On Perry Creek on left bank about five miles above the upper shaft 1400 feet to right of location line 100 " " left " " "

The direction of the ~~centre~~ location line is Southerly

The length of the claim is 1500 feet

The claim was located on the 28th day of August 1895

Recorded this 4th day of September 1895

C. J. Edwards

Mining Recorder.

596.

[Form B.]

British Columbia

"MINERAL ACT, 1891."

RECORD OF MINERAL CLAIM.

Vol. 4. P. 233.
" 19. P. 197.
" 19. 225
F.C. 723
1066.
1732
E 21 10

Perry Creek ..... Mineral Claim

23440 ..... No. of Certificate

Located by Mining Receipt No 39820.
John F. Sherwood F.M.C. 23440
$2 50/100

The Claim is situate On left bank of Perry Creek and adjoins the east of the Badger mineral claim.
1200 feet lie to right of location line
300 " " " left " " "
Discovery post is 750 feet north of N.E. post
This claim comprises the ground staked and recorded as the Excelsior mineral claim

The direction of the location line is North

The length of the claim is 1500 feet

The claim was located on the 7th day of August 1896

Recorded this 17th day of August 1896

C. M. Edwards
Mining Recorder.

595

[Form B.]

British Columbia

"MINERAL ACT, 1891."

RECORD OF MINERAL CLAIM.

Vol. 4 P. 233
" 19 P 197
" 19 225
FE 724
F 1067
FE 1733
FE 2073

Last Chance ..... Mineral Claim

23441 ..... No. of Certificate

Located by Mining Receipt No 39019
Eliza J. Holley F. M. C. 23441
$2.50

The Claim is situate On left bank of Berry Creek about five miles above the upper Shaft and joins the north of the Badger mineral claim

750 feet lie to right of location line
750 " " " left " " "
Discovery post is 100 feet north of No 1 post
This claim comprises the ground staked and recorded as the "Old Timer" mineral claim

The direction of the location line is Northerly

The length of the claim is 1500 feet

The claim was located on the 9th day of August 1896

Recorded this 17th day of August 1896

A. M. Edwards
Mining Recorder.

527

[Form B.]

Vol 4. P. 221

British Columbia

"MINERAL ACT, 1891."

RECORD OF MINERAL CLAIM.

Hordu Mineral Claim

23462 No. of Certificate

Located by June 29th 1896. Received from Wm Thomson No. 23462 the Sum of two 75/100 dollars in payment of the record of the Hordu mineral claim.

$2 75/100 C. M. Edwards

Mining Recorder

The Claim is situate. On Perry Creek No. 1. post being about 1500 feet South of the No. 2 Post of the Shakespeare mineral claim.

1000 feet lie to the right of location line

500 " " " " left " " "

The direction of the location line is Southerly

The length of the claim is 1500 feet

The claim was located on the 16th day of June 1896

Recorded this 29th day of June 1896

C. M. Edwards

Mining Recorder.

528

[Form B.]

British Columbia

"MINERAL ACT, 1891."

Vol. 4. P. 221.

RECORD OF MINERAL CLAIM.

Dandy ..... Mineral Claim

23211 ..... No. of Certificate

Located by 29th June 1896. Received from Albert Banks No 23211. the sum of two 75/100 dollars in payment of the record of the Dandy mineral claim. C. N. Edwards Mining Recorder.

$2 75/100

1400 82

The Claim is situate on Kenny Creek. No 1 post being about 3000 feet South of No 2 post of the Shakespeare mineral claim.

1000 feet lie to the right of location line

500 " " " " Left " " "

Discovery stake is about 1300 feet west of No 1. post.

The direction of the location line is Westerly

The length of the claim is 1500 feet

The claim was located on the 15th day of June 1896

Recorded this 29th day of June 1896

C. N. Edwards

Mining Recorder.

[Form B.]

British Columbia

"MINERAL ACT, 1891."

RECORD OF MINERAL CLAIM.

Sour Dough Mineral Claim

23214 No. of Certificate

Located by Mining Receipt No 39857

D. S. Frizzell F. M. C. 23214

$2 75/100

The Claim is situate On Perry Creek and joins the "Dandy" on the south

1000 feet lie to right of location line

500 " " " left " " "

Discovery post is 400 feet east of No 1 post

The direction of the location line is Easterly

The length of the claim is 1500 feet

The claim was located on the 22 day of August 1896

Recorded this 26th day of August 1896.

C. M. Edwards.

Mining Recorder.

486.

[Form B.]

C of W. 8304.

BRITISH COLUMBIA

"MINERAL ACT, 1891."

RECORD OF MINERAL CLAIM.

Form 9. Vol. 4. P. 206.
19 " 24. ...... Snowshoe .... Mineral Claim

.... 23427 .... No of Certificate

Located by May 14th 1896. Received from

Gus. Thiess. No 23427. the sum of

two 75/100 dollars in payment of record of the

Snowshoe mineral claim. C. M. Edwards.

$2 75/100 .... Mining Recorder

The claim is situate on South side of Perry Creek,

and adjoins the "Red Mountain" on the west

and the "Excelsior" on the north ....

400 ft lie to the right of location line

1100 " " " " Left " " "

The direction of the ~~centre~~ location line is Northerly

The length of the claim is 1500 feet

The claim was located on the 7th day of May 1896

Recorded this 14th day of May 1896

C. M. Edwards

Mining Recorder.

[Form B.] 439

BRITISH COLUMBIA

"MINERAL ACT, 1891."

RECORD OF MINERAL CLAIM.

Old Timer Mineral Claim

47651 No of Certificate

Located by

J. C. McMillan

The claim is situate On the left bank of Kerry Creek and lies to the north of the Eyeclair mineral claim

~~1600 feet to right of location line~~ Error in location notice

~~100 " left~~ " "

750 feet lie on each side of location line

The direction of the ~~centre~~ location line is Northerly

The length of the claim is 1500 feet

The claim was located on the 26th day of Oct 1895

Recorded this 30th day of October 1895

C. F. Edwards

Mining Recorder.

Ent... ...o.B. ...ing Recorder at
Fort Stee... No. 1916 ...11.30 o'clock on
[Form B.] the 12 day of October A. D. 1896, and
Recorded in the book of Form B page 687d
British Columbia

"MINERAL ACT, 1891."

RECORD OF MINERAL CLAIM.

Rock of Ages Mineral Claim

23217 No. of Certificate

Located by F. H. LL. Fenwick F. M. C. 23217

$2.50

Mining Receipt No 75717

The Claim is situate On left-hand of Berry creek, and joins the Bander mineral claim on the west end. 750 feet lie to right of location line. 750 " " " left " " " Discovery post is about 800 feet east of No 1 post

The direction of the location line is East

The length of the claim is 1500 feet

The claim was located on the 26th day of September 1896

Recorded this 12th day of October 1896

C. M. Edwards
Mining Recorder.

Entered at the office of the Mining Recorder at 624
Fort Steele, as No. 1651 11.40 o'clock on
[FORM B.] the 7 day of September A. D. 1896, and
recorded in the book of Lone 16 page 624

British Columbia

"MINERAL ACT, 1891."

Fol. 4. P. 246.

RECORD OF MINERAL CLAIM.

Rory O'More Mineral Claim

67852 No. of Certificate

Located by Mining Receipt No 39871
George A. Petty F. M. C. 67852
$2 75/100

The Claim is situate On Berry Creek and lies
about 1500 feet northwest of the Bonanza
Lode.
1000 feet lie to right of location line
500 " " " left " " "
~~[illegible]~~
~~[illegible]~~

The direction of the location line is Southerly
The length of the claim is 1500 feet
The claim was located on the 30th day of August 1896.
Recorded this 7th day of September 1896

C. M. Edwards

Mining Recorder.

Filed at the office of the ...ecorder at 623.
Fort Steele, as N. 1649 11.40 o'clock on
the 7 day of September A. D. 1896, and
[Form B.] recorded in the book of Form B. page 623.

British Columbia

L.A.R. 247

"MINERAL ACT, 1891."

RECORD OF MINERAL CLAIM.

Evil Jemus ..... Mineral Claim

65924 ..... No. of Certificate

Located by Mining Receipt No 39870.
Russel T. Stevens F. M. C. 65924
$2 75/100.

The Claim is situate N. Kerry Creek and is a northern extension of the "Mary O'Rourke" mineral claim
500 feet lie to right of location line
1000 " " " left " " "

The direction of the location line is Northerly

The length of the claim is 1500 feet

The claim was located on the 30th day of August 1896.

Recorded this 7th day of September 1896.

C. M. Edwards.
Mining Recorder.

Copy of the

RECORD

of the Pioneer Mineral Claim.

Located by John D. McLeod
agent D. A. McIntosh 81575 B

Free Miner's Certificate No. 79657 B

The claim is situated on west slope of Perry Cr.
between Liverpool & Shorty Cr.

Copy of the

RECORD

of the Oyster Mineral Claim.

Located by Anna E. McIntosh
agent D. E. McIntosh 81575 B

Free Miner's Certificate No. 81574 B.

The claim is situated on west slope of Perry Cr.
adjoining Pioneer on North, between
Liverpool & Shorty Creeks

Copy of the

RECORD

of the Evening Star Mineral Claim.

Located by C. L. Crisp.
Agent D. A. McIntosh 80150 B

Free Miner's Certificate No. 53016

The claim is situated Between Shorty & Liverpool
Creek, adjoining the Eclipse on North

Copy of the

RECORD

of the Agnes Mineral Claim.

Located by Donald A. McIntosh

Free Miner's Certificate No. 37485

The claim is situated on Perry creek, on Right hank, on Shorty Creek.

Copy of the

RECORD

of the Standard. Mineral Claim.

Located by D. A. McIntosh
agent for himself & J. W. Rolledge G7434

Free Miner's Certificate No. 78311

The claim is situated on Right side of Perry Creek on Shorty Creek & adjoining Agnes M.C.

Copy of the

RECORD

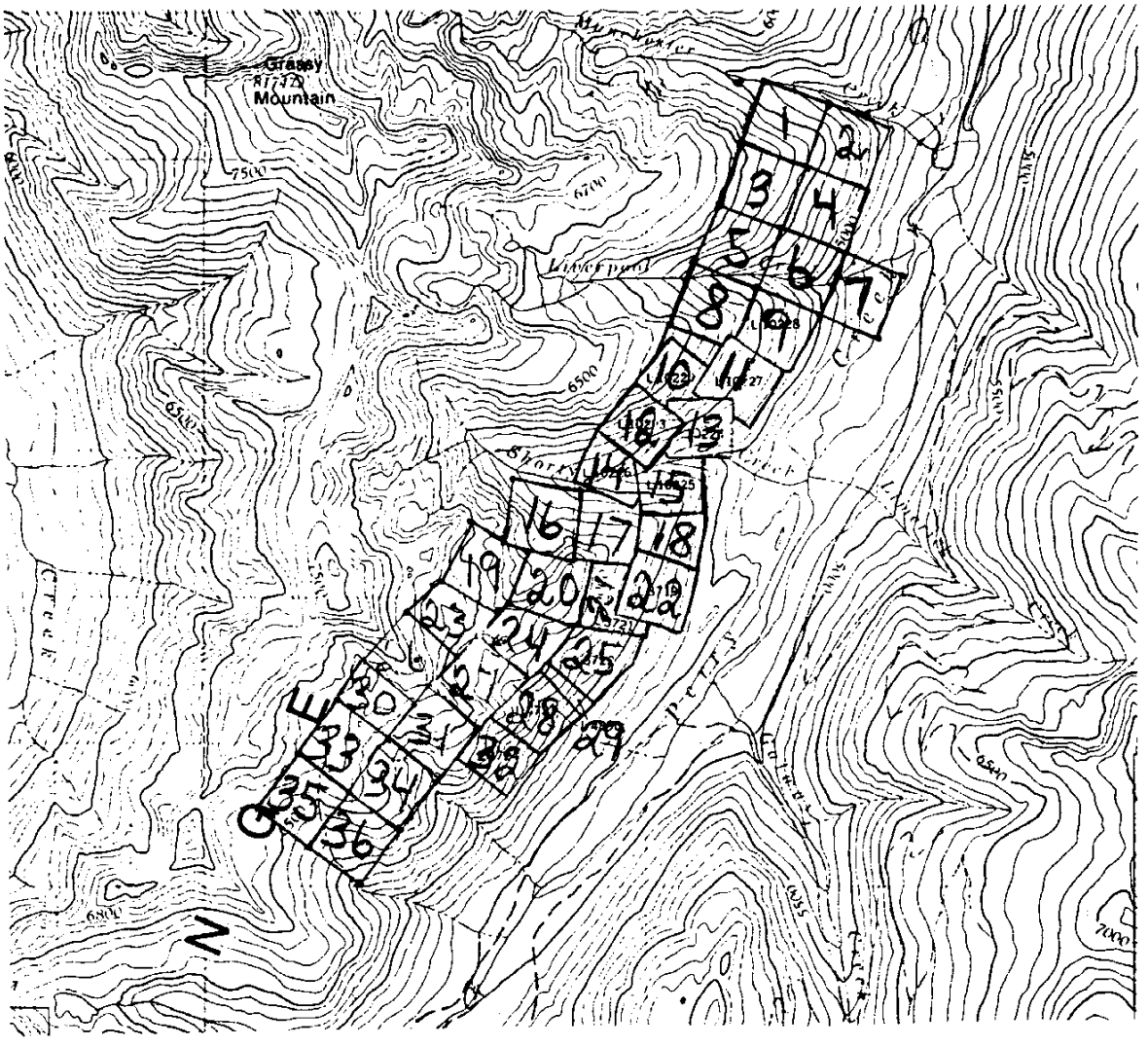
of the Anna Mineral Claim.

Located by D. A. McIntosh
agent for himself and J. W. Rolledge G7434B

Free Miner's Certificate No. 78311

The claim is situated on Right side Perry Creek on Shorty Cr. adjoining the Eclipse MC on The East

Approximate Locations of Mineral Prospects Circa. 1898



1- Old Timer
2-
3- Excelsior
4- Red Mountain
5- Snow Shoe
6- Badger
7- Perry Creek
8- Porcupine
9- Shakespear
10- Jubilee
11- Houdou
12-

13- Dandy
14-
15- Sour Dough
16- Evil Genious
17- Bonanza Lode
18- Eva
19-
20- Rory O Moore
21- Southern Girl
22- Maybe
23-
24- Excess

25- Gold Bug
26-
27- Teller
28- Bozeman
29- Dot Fraction
30= Rock of Ages
31- Banker
32- Manhatten
33- Buck Horn
34- Cashier
35- Big Horn
36- Apex

SAMPLES

Rock samples were collected at every location where a fresh exposure of the zone could be obtained in a reasonable amount of time. Due to the age of these workings severe sloughing and collapsing of overburden made sampling impossible at some locations.

Samples are recorded in numerical order with reference to prospect names and shown on the maps at the back of this report.

SAMPLE 1- Small iron stained quartz vein near Rock of Ages shaft .

" 2- Rock of Ages shaft, pyrite in quartz 30-40 ft. wide strike- NN/E dip- verticle.

" 3- Apex trench #2 big ledge, cross cut on footwall, rusty quartz with some mineralization

" 4- Apex trench #1 same as above except trench follows footwal

" 5- British America Corp. Manhatten prospect, lower ledge, vein approx 3 ft. wide, strike N30E dips to the east.

" 6- B.A. Corp./ Excess claim/ cross cut trench on lower ledge/ quartz breccia

" 8- B.A. Corp./ pit on same ledge/ Creston sediments close to ledge contacontact.

" 7- B.A. Corp. / lower ledge/caved shaft/quartz with limonite.

" 9- B.A.Corp. / cross cut trench/lower ledge/stained quartz quartz breccia.

" 10- B.A.Corp./ cross cut trench on lower ledge/

" 11- B.A.Corp./ cross cut trench on lower ledge.

" 12- Sour Dough claim/ quartz-quartzite/ lower ledge.

" 13- Mcintosh prospect/ cross cut trench/quartz ledge/20 ft./ strike NN/e dip verticle/ quartz with pyrite.

" 14- Mcintosh prospect/ cross cut trench#2/ quartz quartzite near ledge contact.

" 15- Mcintosh prospect/ cross cut trench#3/ quartz with pyrite.

SAMPLE 16- Mcintosh prospect/ cross cut trench #4/ quartz stained rusty red/ some visible pyrite.

" 17- Mcintosh prospect/ cross cut trench # 5/ stained quartz with a small amount of visible pyrite.

" 18- Mcintosh prospect/ cross cut trench# 6 / quartz with some pyrite near ledge contact.

" 19- Mcintosh prospect/ cross cut trench # 6/ sediments contacting quartz ledge.

" 20- Cross cut trench on big ledge/ 40 ft. wide/ rusty quartz with pyrite.

" 21- Cross cut trench on big ledge/ weathered rusty vuggy quartz with pyrite..

" 22- Open cut on big ledge/possible Shakespear working/ stained quartz with pyrite.

" 23- Badger claim/ trench #1/ stained quartz with limonite and some pyrite.

" 24- Badger claim/ possible old adit/ rusty quartz/quartzite.

" 25- Badger claim/ cross cut trench/ rusty quartz with pyrite some talcose material.

" 26- Small pit on same level as Homestake/ altered sediments?

" 27- Homestake shaft/ quartz with pyrite.

" 28- Homestake trench or adit/ quartz with pyrite.

" 29- Colombia shaft/ contact sediments with pyrite.

" 30- Colombia shaft/ stained vuggy quartz.

" 31- Scorgi Tunnel/ ore from dump/ quartz with pyrite.

" 32- Pit near Liverpool creek/ altered sediment-dyke??

" 33- Material contacting large exposure of quartz/dyke-like appearance.

" 34- Sawmill Creek/ trench #1/quartz with sediments and pyrite

" 35- Sawmill Creek/ Trench #2/ sediment with some quartz.

" 36- Sawmill creek/trench #5/ sheared,altered sediments with an igneous intrusive.

" 37- Sawmill creek/ Trench #6/ altered sediments with intrusiv

SAMPLES CONTINUED

SAMPLE 38- Sawmill creek/ Trench # 7/ mineralized sediments with an igneous intrusive.

" 39- Sawmill creek/ trench # 8/ sheared talcose sediments some mineralization in one piece of intrusive.

" 40- Sawmill creek/ trench # 9/ rusty stained sediments.

" 41- Sawmill creek/ trench # 10/ sediments with sheared quartz and some mineralization.

" 42- Sawmill creek/ sample from exposure in road cut below open pit/ altered mineralized sediments.

FUTURE EXPLORATION

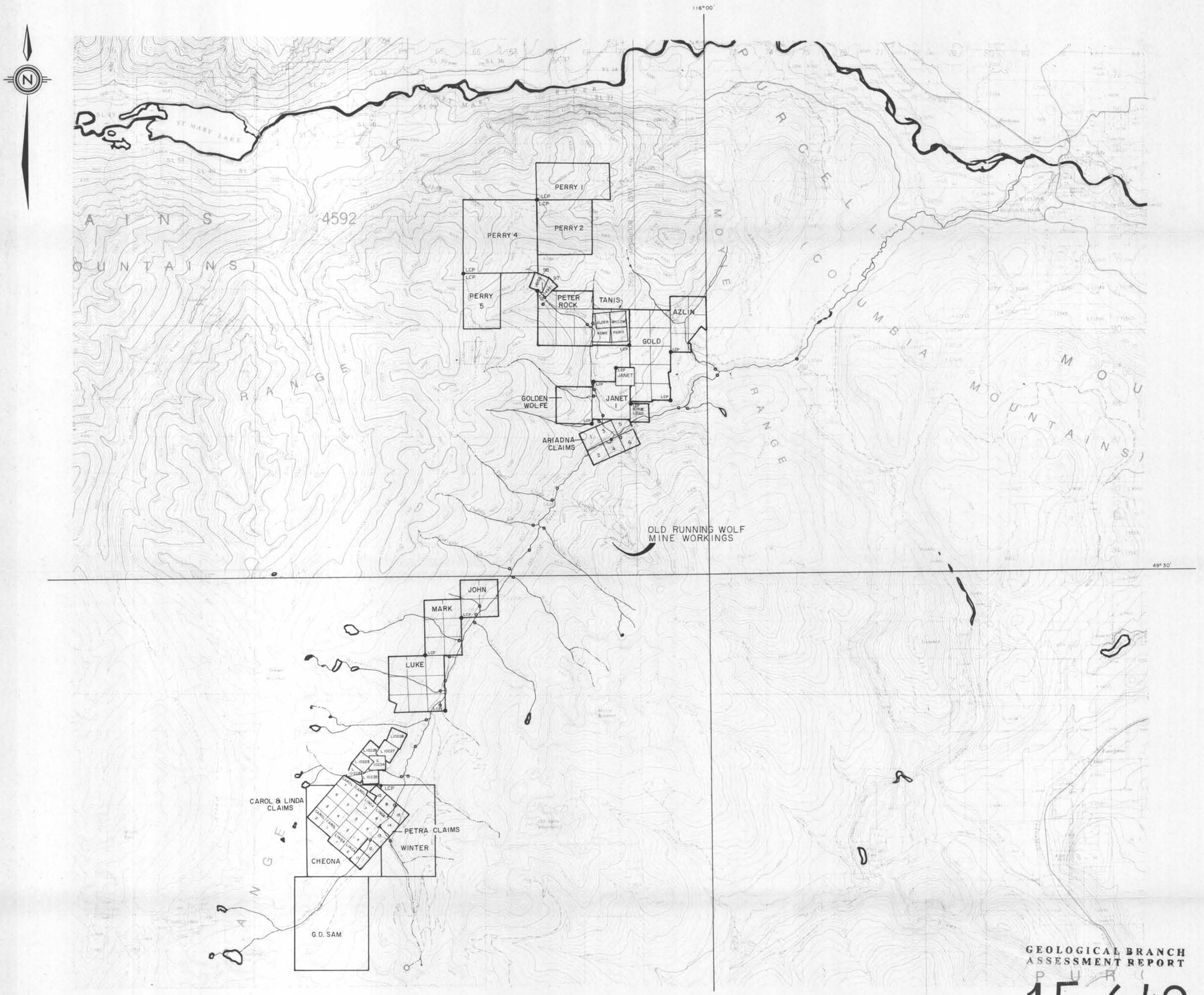
It is doubtfull that any major work has been done to prove or disprove gold values along the ledge system since the first rush of activity around the turn of the centruy. With its large holdings of this zone within its claims, Gallant Gold Mines Ltd. is in a position to develope this area to its fullest potential.

Upon assay of samples collected, interpretation can begin. If any anomylous zones are encountered, these areas could be subjected to a program of geochemical soil grids, trenching, rock sampling, or possible diamond drilling. In all the research conducted,no reports of any diamond drill exploration on the ledge system of south Perry creek were apparent.

It is possible that economic tonnages of gold ore are to be found deeper in the structure of the ledges, thus no large deposite was found in the sub-surface work done to date.

The occurance of an igneous dyke in proximity with the ledge system may prove to be the source of gold in the ledges, or associated country rock. If so, tracing of this dyke may lead to an economic deposit along the strike of the zone.

The potential for an economic deposit in this area holds many possibilities. It is hoped that the program done by CPS Exploarations has helped with the expansion of available data on the area, and opened up an avenue for future exploration.



GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,649

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

CLAIM MAP

0 1000 2000 3000 4000 5000
1:50,000

NTS 82-F-8,9,G-5,12
DATE: Dec. 4/81 By: C.W /r.w.r Figure 1.3

REV. MAY 28, 1986
REV. FEB. 3, 1986

15,649

GEOLOGICAL BRANCH
ASSESSMENT REPORT

LEGEND

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

MESOZOIC OR(?) CENOZOIC
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

PROTEROZOIC
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 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
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
CREEK
Paris Cr.
Rome
France
Dublin Cr.
Glasgow
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
Walsh Cr.
Wahan Cr.
HOMESTAKE
Liverpool Cr.
Shorty Cr.
Limerick Cr.
SHAKESPEAR
GD SAM
LCP
Hc1
Hc2
Hc3
Hk

LEGEND

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.

PALEOZOIC
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.

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.
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 characterised by irregular pinching and swelling of beds, ripple cross-lamination, mud-cracks, minor cut and fill features; green siltstone with thin interbeds of argillite.
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 Rev. J.L.H. Nov., 1986
DATE: Dec. 17, 1983 By: J.C.F, A.G.T. FIGURE 2-1

LEGEND:

HELIKIAN

PURCELL SUPERGROUP

Hm — MOYIE INTRUSIONS: SILLS AND DYKES OF VARIABLY FRESH Hb DIORITE TO Hb QUARTZ DIORITE.

Hk — KITCHENER FORMATION: VARIABLY GREY/BLACK CALCAREOUS MUDSTONE TO SILTSTONE, PHYLLITIC IN PLACES.

CRESTON FORMATION

HC_3 — UPPER CRESTON: DARK GREEN QUARTZITE TO SILTSTONE WITH THINLY LAMINATED GREEN/GREY SILTSTONE TO MUDSTONE, PURPLE IN PLACES.

HC_2 — MIDDLE CRESTON: VARIABLY GREEN/GREY-GREEN/GREY MUDSTONE TO SILTSTONE, LESSER FINE GRAINED QUARTZITE; MAY BE PURPLE LAMINATED; TYPICALLY PHYLLITIC.

HC_1 — LOWER CRESTON: THIN BEDDED, OFTEN EARTHY WEATHERING LIGHT GREY TO BROWN TO GREENGREY MUDSTONE TO SILTSTONE, COMMONLY LIMONITIC ON JOINT FACES.

- OUTCROP
- SMALL OUTCROP
- FLOAT
- INFERRED GEOLOGICAL CONTACT
- INFERRED FAULT
- BEDDING STRIKE AND DIP
- FRACTURE/CLEAVAGE STRIKE AND DIP
- VEIN ORIENTATION
- 01650H • ROCK CHIP SAMPLE LOCATION
- MAJOR SHOWING/WORKINGS

GEOLOGICAL BRANCH
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JOHN
MARK
LUKE
LCP
L10228
L10229
L10227
L10223
L10224
L10226
L10225
HOMESTAKE
COLUMBIA
SHAKEPEARE
DIORITE
DIORITE FLOAT
AREA OF DETAILED MAPPING SEE FIGURE
CAROL 1
CAROL 2
CAROL 3
CAROL 4
CAROL 5
CAROL 6
CAROL 7
CAROL 8
LINDA 1
LINDA 2
LINDA 3
LINDA 4
LINDA 5
LINDA 6
LINDA 7
LINDA 8
PETRA CLAIMS
WINTER
CHEONA
G.D. SAM
GREY MUDSTONES, MINOR SILTSTONES
GREEN-GREY MUDSTONES, MINOR SILTSTONES
DIORITE FLOAT
01644H
01645H
01646H
01647H
01648H
01649H
01650H
01643H
28169
28170
28171
28172
28173
28174
28175
LITHOS 3 & 4 LCP
LCP CHEONA
CHEONA 5S
CHEONA 5SE
LDM 15
6500
6700
6900
7000
7100

N

GALLANT GOLD MINES LTD.

PERRY CREEK PROPERTY

FORT STEELE M.D. - NTS 82F/8

GEOLOGICAL MAP

SOUTH AREA

0 200 400 600 800 1000 metres

SCALE: 1:10000 DRAWN: J.H./t.w.t.

DATE: OCT. 1984 FIGURE 3

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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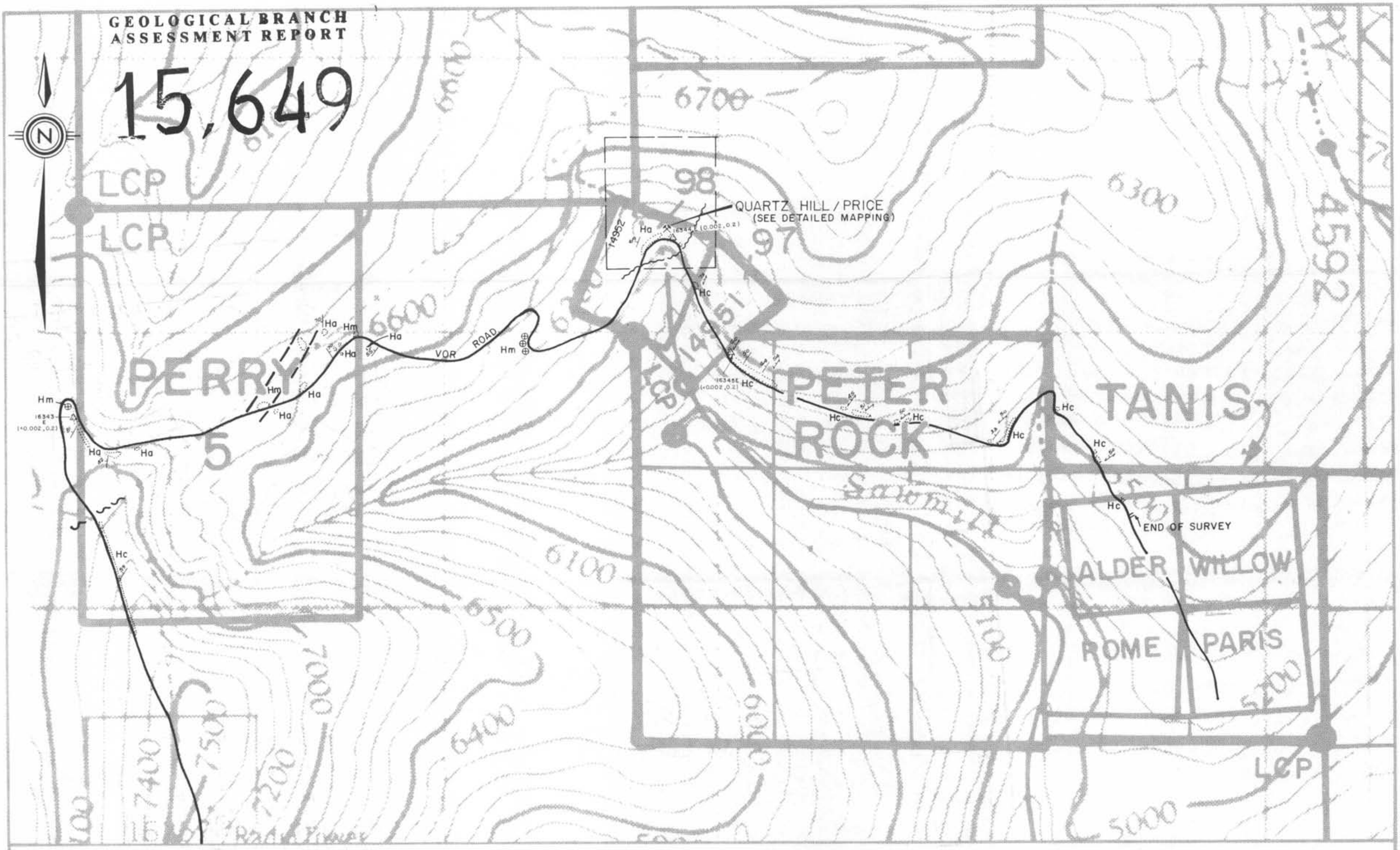

LEGEND:

HELIKIAN
PURCELL SUPERGROUP

Hm MOYIE INTRUSIONS: DYKES/APOPHYSES OF VARIABLY FRESH, MASSIVE EQUIGRANULAR, COARSE TO MEDIUM GRAINED, HORNBLENDE DIORITE

Hc CRESTON FORMATION: LIGHT/DARK, GREY/GREEN SILICEOUS SILTSTONE, PHYLLITIC MUDSTONE, AND MINOR, FINE GRAINED QUARTZITE.

Ha ALDRIDGE FORMATION: WHITE/GREY/GREEN, MEDIUM/FINE GRAINED QUARTZITE, GREY/GREEN, SILICEOUS SILTSTONE, AND GREY/LIGHT GREEN PHYLLIYIC MUDSTONE.

- OUTCROP
- ⊕ FLOAT
- INFERRED GEOLOGICAL CONTACT
- INFERRED FAULT
- BEDDING STRIKE AND DIP
- FRACTURE/CLEAVAGE STRIKE AND DIP
- 16345 (0.002, 0.2) △ ROCK CHIP SAMPLE LOCATION (Au oz/t, Ag ppm)

GALLANT GOLD MINES LTD.

PERRY CREEK PROPERTY

FORT STEELE M.D. - NTS 82F9

QUARTZ HILL AREA GEOLOGICAL MAP ALONG VOR ROAD

0 200 400 600 800 1000 metres

SCALE: 1:10000 DRAWN: D.M./r.w.r.

DATE: OCT. 1986 FIGURE 4

LEGEND:

HELIKIAN
PURCELL SUPERGROUP

- **Hm** MOYIE INTRUSION: DYKES/APOPHYSES OF VARIABLY FRESH, EQUIGRANULAR, MEDIUM GRAINED HORNBLENDE DIORITE.
- **Hc** CRESTON FORMATION: LIGHT/DARK, GREY/GREEN, SILICEOUS SILTSTONE, PHYLLITIC MUDSTONE AND MINOR, FINE GRAINED QUARTZITE.
- **Ha** ALDRIDGE FORMATION: WHITE/GREY/GREEN, MEDIUM/FINE GRAINED QUARTZITE; GREY/GREEN, SILICEOUS SILTSTONE, AND GREY/LIGHT GREEN PHYLLITIC MUDSTONE.

OUTCROP

⊕ FLOAT

BEDDING STRIKE AND DIP

FRACTURE/CLEAVAGE STRIKE AND DIP

QUARTZ VEIN

16336E (0.002, 0.2) △ ROCK CHIP SAMPLE LOCATION (Au oz/t, Ag ppm)

REVISED AFTER F.HOLCAPEK, 1982

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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GALLANT GOLD MINES LTD.

PERRY CREEK PROPERTY

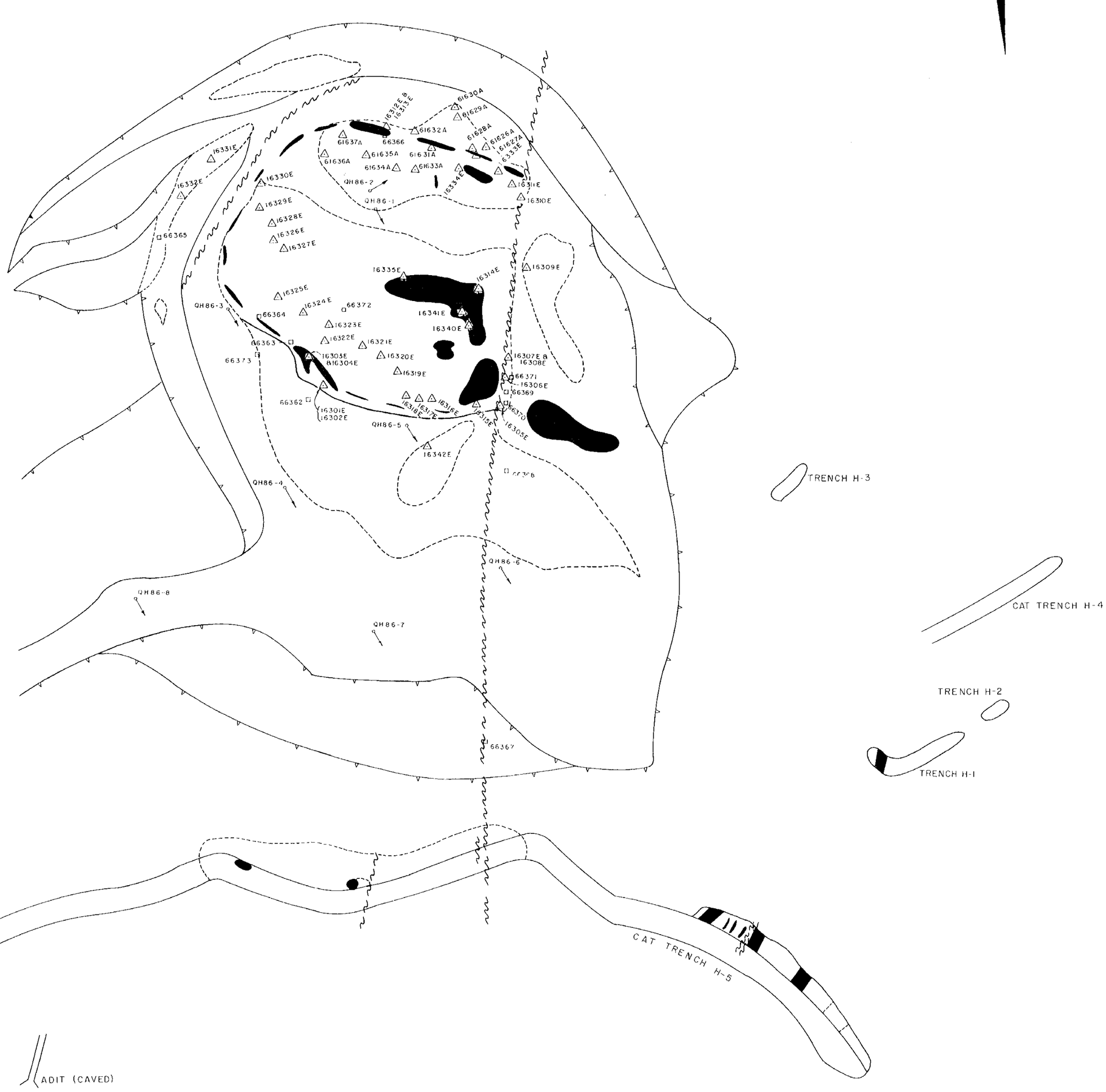
FORT STEELE M.D. - B.C. NTS:82F/8

AREA OF QUARTZ HILL GEOLOGICAL MAPPING

0 100 200

SCALE 1:2500 DRAWN: D.M./rwr

DATE: OCT.,1986 FIGURE: 5



LEGEND:

- TOPOGRAPHIC SLOPE
- QUARTZ VEIN
- QH86-6 — DRILL HOLE LOCATION
- 1986 SAMPLE SITE
- 1985 SAMPLE SITE

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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GALLANT GOLD MINES LTD.

PERRY CREEK PROPERTY

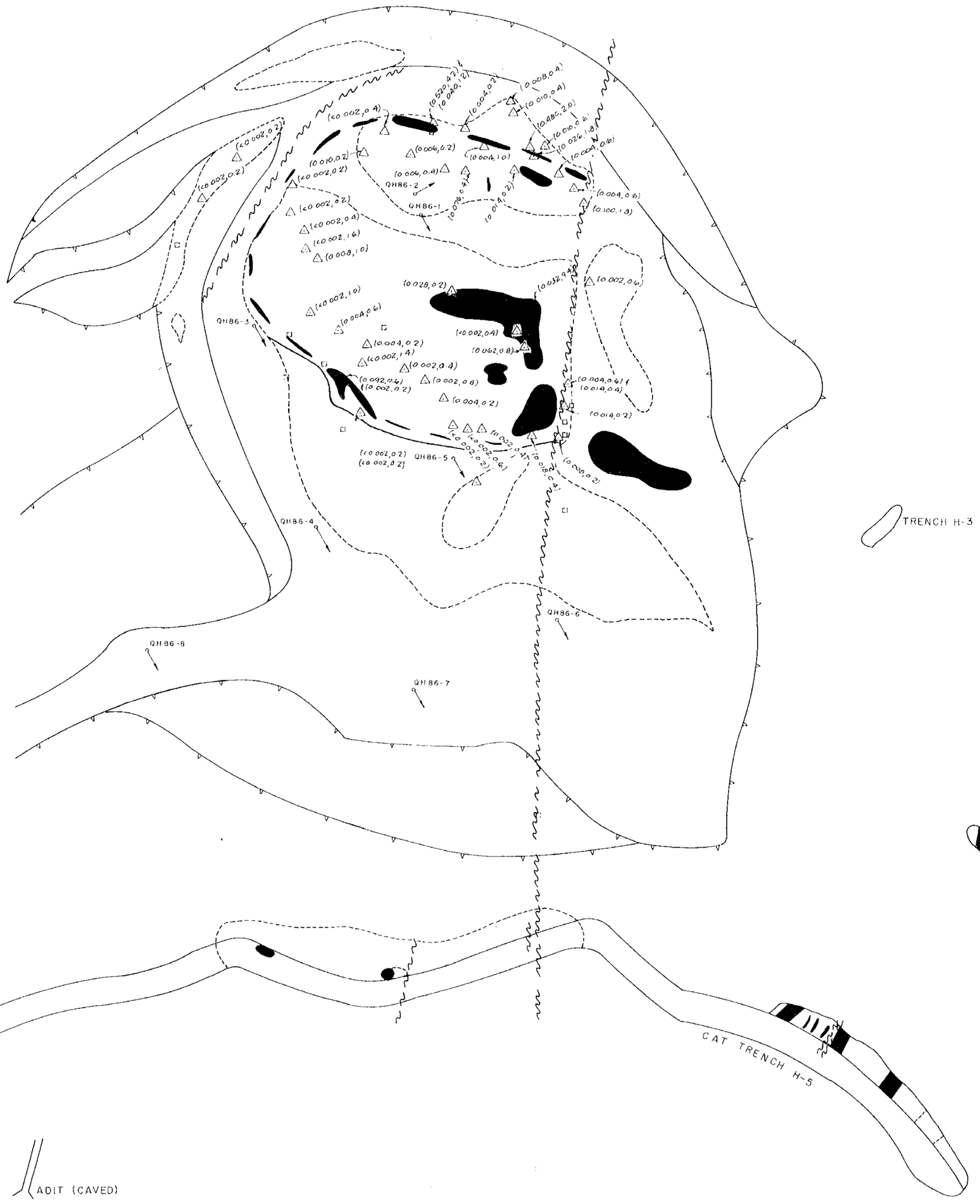
FORT STEELE MINING DISTRICT
QUARTZ HILL

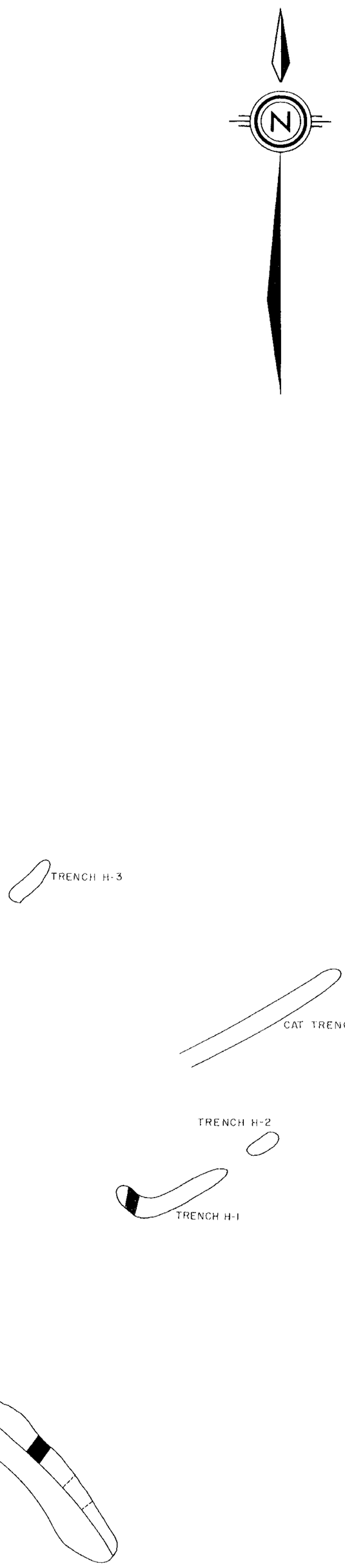
ROCK CHIP SAMPLE LOCATIONS

0 5 10 15 20 25 30 METRES

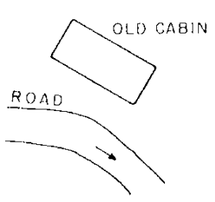
NTS 82-F-8-9 SCALE: 1:500

DATE: OCT. 1986 DRAWN: D.M./rwr FIGURE: 1





ADIT (CAVED)



LEGEND:

TOPOGRAPHIC SLOPE

QUARTZ VEIN

DRILL HOLE LOCATION

(0.004,0.2) 1986 SAMPLE RESULT (Au oz/t, Ag ppm)

1985 SAMPLE SITE

GALLANT GOLD MINES LTD.

PERRY CREEK PROPERTY

FORT STEELE MINING DISTRICT
QUARTZ HILL
ROCK CHIP SAMPLING RESULTS

0 5 10 15 20 25 30 METRES

NTS 82-F-8-9 SCALE: 1:500

DATE: OCT. 1986 DRAWN: D.M./rwr FIGURE:

HELIKIAN
PURCELL SUPERGROUP

Hm MOYIE INTRUSIONS: DYKES/APOPHYSES OF VARIABLY FRESH, EQUIGRANULAR, MEDIUM GRAINED HORNBLENDE DIORITE

Ha ALDRIDGE FORMATION: WHITE/GREY/GREEN, MEDIUM TO FINE GRAINED QUARTZITE; GREY/GREEN, SILICEOUS SILTSTONE AND GREY/LIGHT GREEN, PHYLLITIC MUDSTONE.

OUTCROP/SUBCROP

INFERRED FAULT

NOTE: TRENCHES H-1 TO H-5 ARE PRE-1985 TRENCHES

MINERAL LINEATION

TOPOGRAPHIC SLOPE

QUARTZ VEIN

FLOAT

BEDDING STRIKE AND DIP

FRACTURE/CLEAVAGE STRIKE AND DIP

DRILL HOLE LOCATION

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,649

REVISED AFTER F.HOLCAPEK, 1982

GALLANT GOLD MINES LTD.

PERRY CREEK PROPERTY
FORT STEELE MINING DISTRICT

QUARTZ HILL GEOLOGY MAP

0 5 10 15 20 25 30 METRES

NTS 82-F-8-9 SCALE 1:500

DATE OCT 1986 DRAWN DM/rwr FIGURE

SPI ROAD

"MAIN TRAIL" TO MCINTOSH

Hk

Hm

HC_2

L 2+00 S

LCP CHEONA

L 3+00 S

PETRA Nº 9 / PETRA Nº 10 FINAL POST Nº 2

DRILL HOLE PTR 86-2 -45°, 110°

DRILL HOLE PTR 86-1

TRENCH

1985 5m, 0.110 oz./t. Au

1985 - 5.0 m, 0.120 oz./t Au

1985 HMC 11,000 ppb Au

L 4+00 S

TRENCH

L 5+00 S

PETRA 10 CLAIM

HC_3

2 Km

BRA ROAD

LITHOS 3,4 FINAL POST

L 6+00 S

LEGEND:

HELIKIAN
PURCELL SUPERGROUP

Hm MOYIE INTRUSIONS: SILLS AND DYKES OF VARIABLY FRESH Hb DIORITE TO Hb QUARTZ DIORITE.

Hk KITCHENER FORMATION: VARIABLY GREY/BLACK CALCAREOUS MUDSTONE TO SILTSTONE, PHYLLITIC IN PLACES.

CRESTON FORMATION

HC_3 UPPER CRESTON: DARK GREEN QUARTZITE TO SILTSTONE WITH THINLY LAMINATED GREEN/GREY SILTSTONE TO MUDSTONE, PURPLE IN PLACES.

HC_2 MIDDLE CRESTON: VARIABLY GREEN/GREY-GREEN/GREY MUDSTONE TO SILTSTONE, LESSER FINE GRAINED QUARTZITE; MAY BE PURPLE LAMINATED; TYPICALLY PHYLLITIC.

HC_1 LOWER CRESTON: THIN BEDDED, OFTEN EARTHY WEATHERING LIGHT GREY TO BROWN TO GREENGREY MUDSTONE TO SILTSTONE; COMMONLY LIMONITIC ON JOINT FACES.

OUTCROP

DIORITE FLOAT

INFERRED GEOLOGICAL CONTACT

INFERRED FAULT

BEDDING STRIKE AND DIP

FRACTURE/CLEAVAGE STRIKE AND DIP

ROCK CHIP SAMPLE LOCATION

AREA OF HEAVY MINERAL SAMPLING

GALLANT GOLD MINES LTD.

PERRY CREEK PROPERTY

FORT STEELE M.D. - B.C. NTS:82F/9

PETRA CLAIMS
DETAIL GEOLOGICAL MAP

0 20 40 60 80 100 metres

SCALE 1:1000 DRAWN: J.H./rwr

DATE: OCT., 1986 FIGURE: 8

6500

6000

6500

TRANSMISSION LINE

QUARTZ HILL PIT

38 37 35 36 39 40 41 42

KIMBERLEY GOLD FIELDS LTD. RICE PROSPECT

SAWMILL CREEK

L 14951

L 14952

6000

5500

LEGEND

- TRENCH
- PIT
- SHAFT
- LOGGING ROAD
- TRAIL

250 0 500

METRES

GALLANT GOLD MINES LTD.

PERRY CREEK PROPERTY FORT STEELE M.D., B.C.

ROCK SAMPLES AND TRENCH LOCATIONS NORTH AREA

NTS 82 F/9E

DATE AUG. 1986

BY B.D.S.

FIGURE 10.1

Manchester Creek

TO PERRY CREEK

7500

7000

6500

6000

5500

5000

SAMPLE 33

EXCELSIOR M.C.

SAMPLES 29,30

COLOMBIA SHAFT

31

SCORGE TUNNEL

SAMPLES 27,28

HOMESTAKE PROSPECT

RED MOUNTAIN M.C.

SAMPLES 23-26

WALLINGER TUNNEL

BADGER M.C.

Liverpool Creek

LARGE EXPOSURE OF BIG LEDGE

SHAKESPEAR M.C.

SAMPLE 32

SAMPLE 22

SAMPLE 21

MacINTOSH PROSPECT

SAMPLES 13-19

SAMPLE 20

Creek

Shorty Creek

Limerick Creek

EXPOSURES OF BIG LEDGE

SAMPLE 1

ROCK OF AGES M.C.

SAMPLE 2

BRITISH AMERICA CORP.

EXCESS CLAIM SAMPLES 6-12

12 SOURDOUGH

TELLER M.C.

MANHATTAN (BRITISH AMERICAN) SAMPLE 5

APEX SAMPLE 3, 4

TO BOCK HORN, & BIG HORN M.C.'s

TO YELLOW METAL M.C.'s

Perry Creek

Galway Creek

250 0 500

METRES

LEGEND

- TRENCH
- PIT
- SHAFT
- ADIT
- QUARTZ LEDGE EXPOSURE
- OLD CABIN
- LOGGING ROAD
- TRAIL

GALLANT GOLD MINES LTD.

PERRY CREEK PROPERTY FORT STEELE M.D., B.C.

ROCK SAMPLES AND TRENCH LOCATIONS SOUTH AREA

NTS 82 F/9E BY B.D.S.

DATE AUG. 1986 FIGURE 10.2