PROSPECTING ASSESSMENT REPORT AND EXPLORATION PROPOSAL ON THE EMANCIPATION MINE

Longitude 121° 15'W and Latitude 49° 30'N NTS 92H/6W and 92H/11W

New Westminster Mining Division

Coquihalla Gold Belt

for

HOMEGOLD RESOURCES LTD.

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by

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GEOLOGICAL BRANCH ASSESSMENT REPORT

June 15, 1994 Vancouver B.

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1.0 SUMMARY

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The Emancipation Mine is located approximately 15 km northeast of the town of Hope in the Coquihalla area of south-central British Columbia. This gold mine was operated sporadically from 1913 to 1941 by extracting ore from high-grade shoots which were present along a narrow quartz vein which occurs in the hanging-wall of a much larger, lower-grade or barren vein, often referred to as the Boulder Vein, while the productive hanging-wall vein has been called the Dyke Vein. Recorded gold production was 2,847 troy ounces, making it the second largest producer in the Coquihalla Gold Belt after Carolin but much higher in grade.

After a long dormant period since 1941, Longbar Minerals Ltd., a subsidiary of Aquarius Resources Ltd., acquired the property by staking in 1971. Starting in 1976, soil geochemical and geophysical surveys were carried out followed by diamond-drilling on surface and underground in 1981. A limited diamond-drill program was completed in 1991 by Homegold Resources Ltd. as a follow-up of high-grade gold intersections just above 4 Level. Recently, a substantial part of the property has changed ownership. In 1993, a program of prospecting and core logging was completed as documented in this report.

A study of all available data indicates that a new program of exploration, including trenching and diamond-drilling, is warranted which, if successful, may be followed by a program of development and mining. The cost for the recommended program is \$135,000.

2.0 INTRODUCTION

The area covering the Emancipation Mine was restaked when the claims came open during mid-1993 and at the present time the outline of the property held is as shown in Figure 3.

The writer was retained by the claim owners and Homegold Resources Ltd. to review the past work on the property with the objective of deciding what future work, if any, should be carried out.

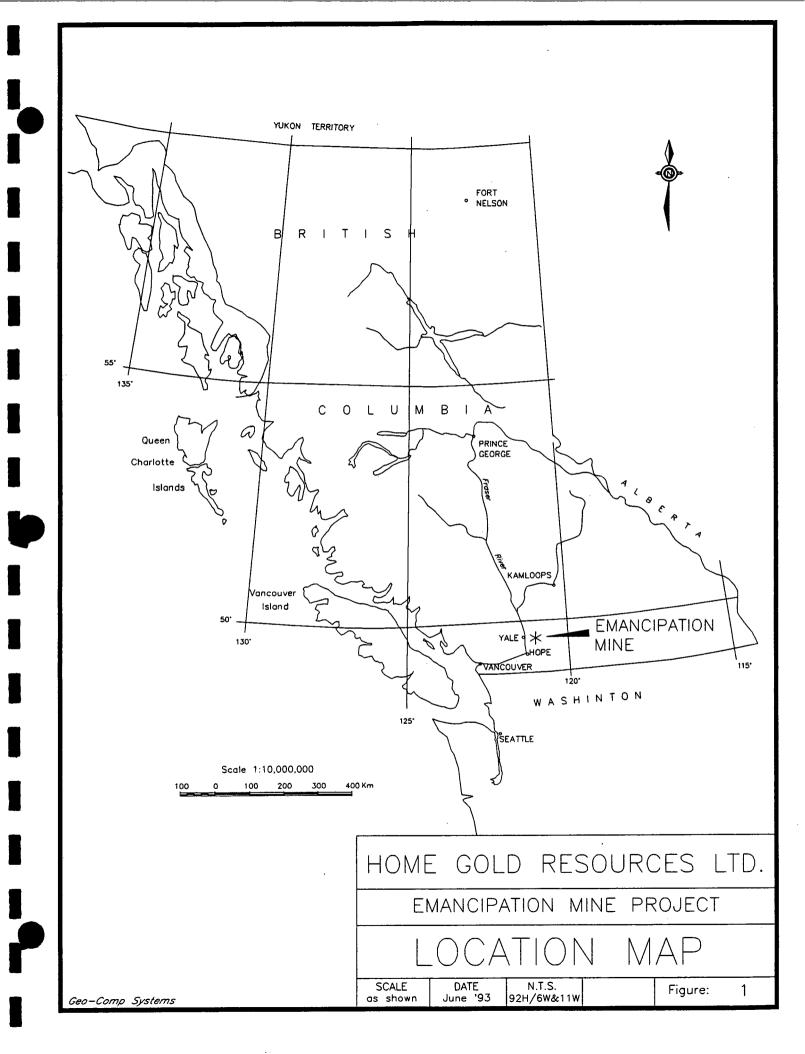
The writer wishes to acknowledge the past work and reports which are listed in the bibliography. This report is based on personal examinations and the professional reports of both the private and governmental sectors.

The Emancipation Mine operated intermittently between 1913 and the early 1930s and has a small recorded production (2,897 ounces) of gold from narrow, structurally controlled quartz veins carrying relatively high-grade gold values. A review of the work in the Emancipation Mine area indicates that structural controls are important in controlling the presence of ore shoots. Certain combinations of rock types, in particular talcose-altered andesite against serpentinite appear to localize the highest grade gold zones.

During the underground drill program in 1981, intersections of higher grade EU-15 mineralization (0.6 oz./ton Au over 5 feet, Hole EU-15-81). Both above to the north and below to the south adjacent to the small decline off 3 Level anomalous values were encountered. This suggests that some tonnage still exists in the upper workings before the vein starts to feather out. The old-timers stopped stoping where the distinct vein came to an end.

Of more interest to Homegold Resources Ltd. in 1993 is a series of high-grade intersections (up to 0.590 over 1.4 m, 0.98 oz./ton over 4.5 feet [check assays] found in a vertical down hole from 2 Level [EU-22-81]) which are 6 to 12 metres above 4 Level. A road was constructed down to the 4 Level portal and the workings opened.

Material which flowed into 4 Level from the raise to 3 Level has been mucked out. The high-grade intersection in the drill hole is 30 metres north of the raise. Three diamond drill holes were completed in 1991 with encouraging results. Prospecting and geological mapping was completed in 1994 as documented in this report.



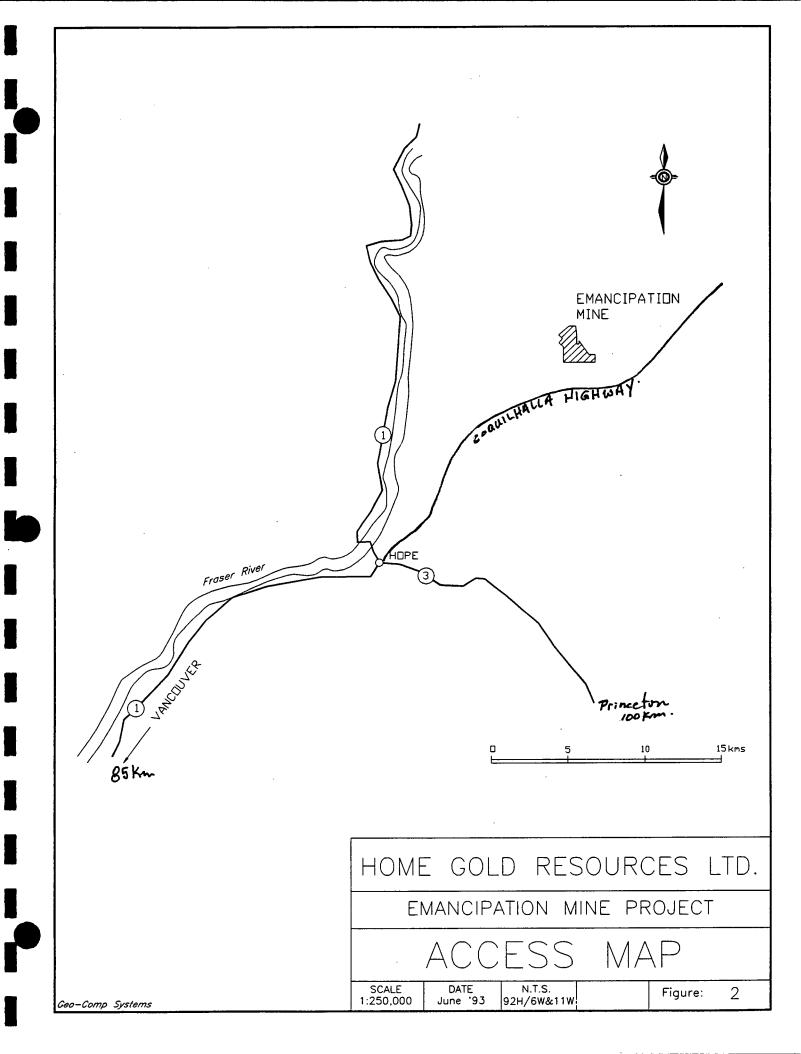
3.0 LOCATION AND ACCESS (Figures 1 and 2)

The Emancipation Mine and surrounding claims are situated 15 km northeast of the town of Hope (155 km east of Vancouver), Figure 1. The property is in the New Westminster Mining Division at Latitude 49° 30'N and Longitude 121° 15'W on NTS Map Sheets 92H/6W and 92H/11W.

Access to the claims is from Hope by the Coquihalla Highway (Highway 5) for 24 km to the Carolin Mine road exit. Then proceed approximately 2.7 km eastward on the Carolin Mine road, turning off to the left onto the Emancipation Mine road. Travel 1.6 km in an westward direction to the mine portals, Figure 2. The portals are located approximately 340 m above the Coquihalla River valley floor on the south-facing slope of an unnamed mountain.

The area is characterized by first and second growth fir and cedar forest. Overburden is generally thin with plentiful rock outcrops on the steep slopes. The minesite is drained by a small tributary of Tangent Creek. This creek sometimes dries out completely in the summer months. The minesite often receives accumulations of $1\frac{1}{2}$ to $2\frac{1}{2}$ m of snow in the winter. Experience at the Carolin Mine since the early 1970s suggests that exploration can easily be carried out during winter months.

A metal gate has been put in place just above the junction with the Carolin Mine road about 1.5 km east of the Emancipation portals.



4.0 CLAIM STATUS (Figure 3)

There are several claim blocks comprising the Emancipation Mine property. The 1991–1993 exploration program on 4 Level adit was applied mainly off the Hope 2 Claim. The Hope 2 claim is recorded as to 90.1% ownership by Anglo Swiss Mining Corp. and Rupertsland Resources Co. Ltd. 9.9%. (Ownership consolidation is presently being negotiated but assessment credit may be in error.) The Hope 2 Claim covers the area between west of the workings along strike to the old Raymond Claim, Figure 3, now covered by Emancipation 10. The newly located Emancipation 1 to 10 claims cover the workings and east to the Gypsy Queen Adit. The Tax and N Claims owned by Border Resources Ltd. lie to the west of the area of interest. The claim status details are listed as follows, Figure 3:

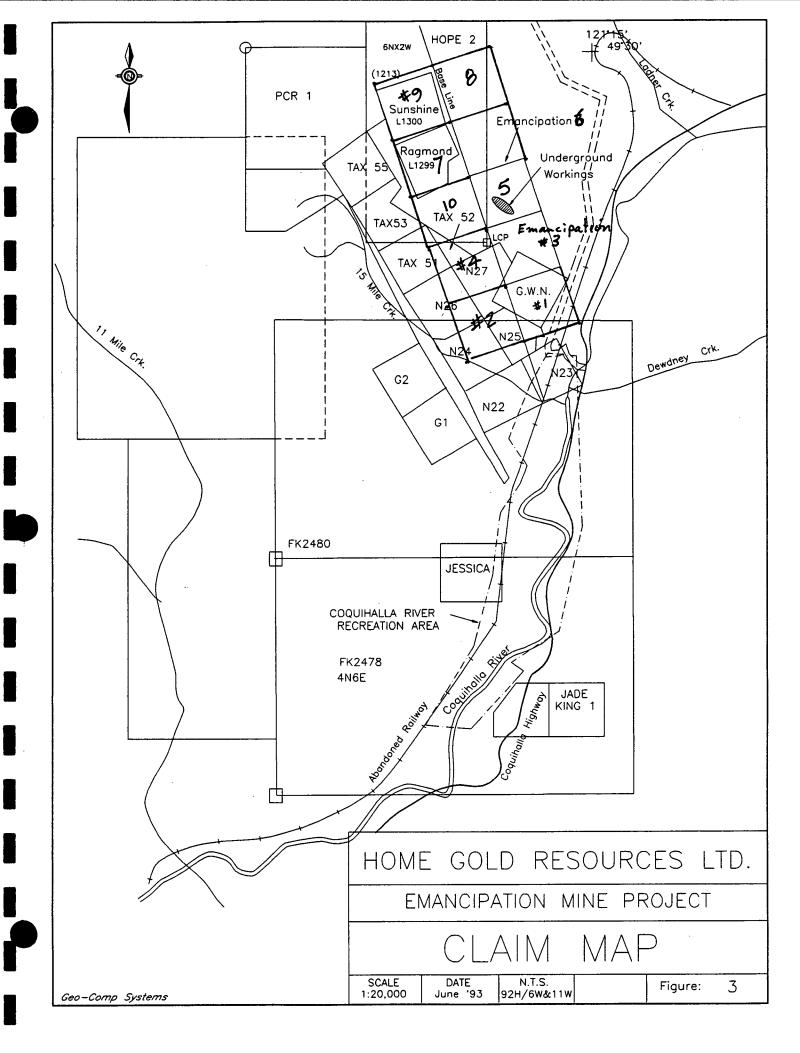
TABLE I EMANCIPATION MINE CLAIM STATUS

Claim Name	No. of Units	Tenure No.	Current Owner	Current Expiry Date		
Hope 2	12	1217	Anglo Swiss Mining Corp.	June 9, 2001		
Emancipation 1 Emancipation 2 Emancipation 3 Emancipation 4 Emancipation 5 Emancipation 6 Emancipation 7 Emancipation 8 Emancipation 9 Emancipation 10	1 1 1 1 1 1 1 1	318067 318068 318069 318070 318071 319122 319123 319124 319125 319126	A.E. Angus J.T. Shearer A.E. Angus J.T. Shearer J.T. Shearer S.E. Angus S.E. Angus A.E. Angus A.E. Angus J.T. Shearer	June 10, 1997* July 12, 1997*		
* with application of assessment work documented in this report						

An exhaustive summary of the complex claim history is contained in Handfield 1991 and upon investigation, the Mineral Tenure division of the Ministry of Energy, Mines and

Petroleum Resources has accepted this summary and the new claim maps have changed to reflect this sequence of events.

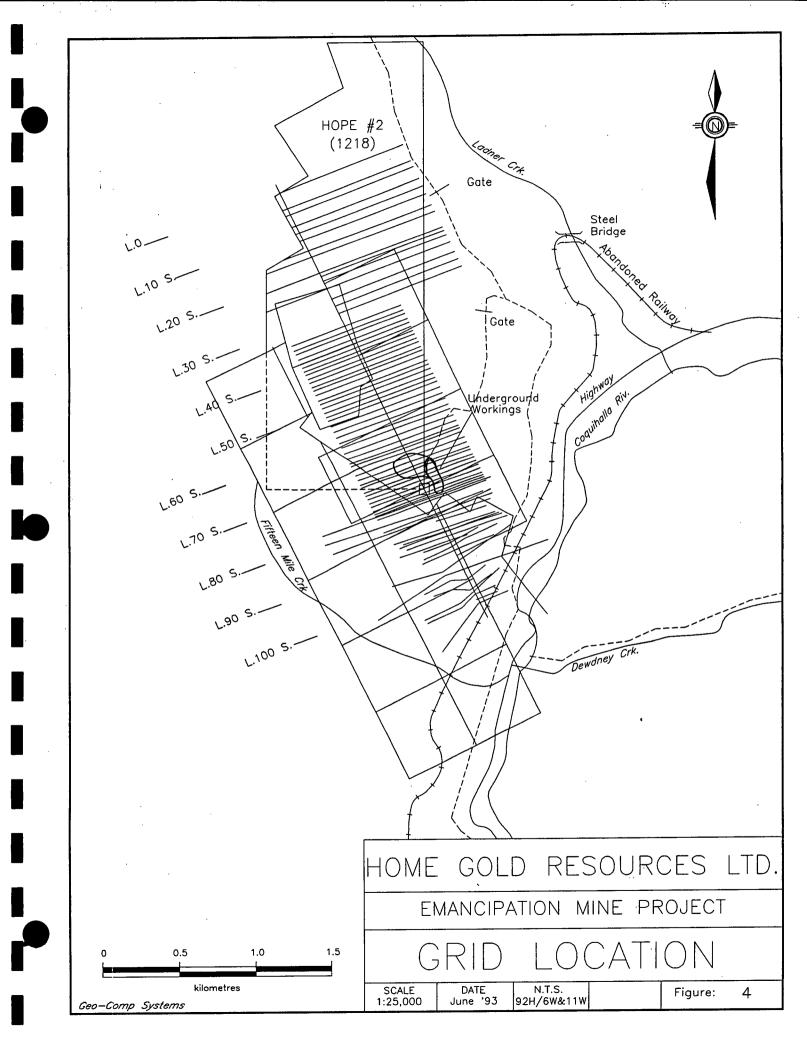
The area covered by the Hope 2 claim is not presently within the Emancipation claim package. Subject to the results of the recommended work program and the determination of the assessment credit errors, the three southeast units of the Hope 2 claim may be needed in the future of work at the Emancipation Mine.



5.0 HISTORY

In 1910, during the construction of the Kettle Valley railway (now abandoned) along the Coquihalla River valley, prospectors exploring the valley and its tributaries for gold found several gold prospects including the Emancipation discovery. Between 1913 and 1915, the Emancipation claims plus other adjoining claims were staked by Messrs. M. Merrick, Wm. Thompson and H. Beech to cover gold-bearing quartz veins. Since the discovery, the claims have experienced sporadic exploration and mining activity. During the early life of the Emancipation Mine, from 1916 to 1919, some 95 tons of ore was extracted, and returned over \$35,000 (averaging 15 oz./ton). By 1921, considerable amounts of underground development work had been carried out and a five-stamp mill installed with a production capacity of 12 tons per day. The operator was the Liberator Mining Company of Vancouver, B.C. During this period, approximately 118 tons of ore was shipped to Tacoma, Washington, U.S., again with a return of approximately \$35,000 and an additional 700 tons of sub-ore valued at \$15 per ton was stock-piled at the mill. Work at the mine was intermittent from 1922 through to 1933, during which time the property changed owners several times with Dawson Gold Mines Ltd. the major Limited work was done in 1937 by Kettle Valley Gold Mine Ltd. documented by the B.C. Department of Mines, production figures between 1916 and 1941 from the Emancipation were 2,897 oz. gold and 605 oz. silver; total tons of ore mined is unknown. From consideration of the volumes of drift and stoped ground in the underground workings, material produced has been possibly about 10,000 tons. The substantial waste dump at the No. 2 Portal indicates that only a part of production was considered mill feed.

The 1933 Minister of Mines report provides some interesting but limited information regarding the lower tunnel (4 Level) which until 1991 was inaccessible due to caving at the portal. It is described as 210 feet below No. 2 Level. During 1933, the drift was driven 570 feet with cross-cuts at intervals to east and west with the face at that time nearly directly under the ore body in No. 2 winze. The face at that time (1933) of the drift showed a vein zone of about 11 feet wide with intercalated country rock and some calcite. The central part was well mineralized with sulphide and chip sample over 8 feet assayed 0.40 oz./ton in gold and 0.10 oz./ton in silver. A picked sample from the face



at that time assayed 2.12 oz./ton in gold. Observations in 1992 suggest that this mineralized area appears to pinch out a short distance to the north along the drift. At that time, ore was being produced from stoping on No. 2 Level and this material was being transported to the mill lower down by the aerial tram. The mill operated at 25 tons per day. Operations by Dawson Consolidated Ltd. continued at least to 1938 but no quantities or grades of production are preserved.

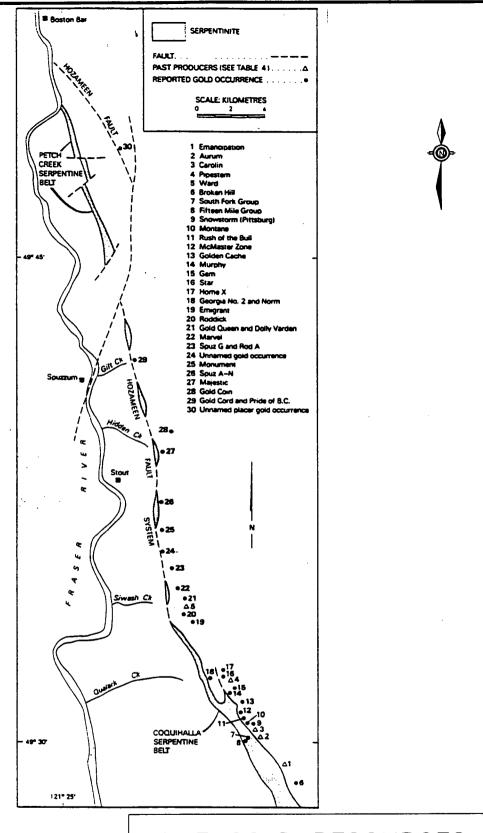
In recent years (1971 and later) due to the increase in price of gold, the Emancipation mine and adjoining claims experienced renewed exploration. In 1971, Aquarius Resources Ltd. acquired the existing claims and mineral leases (Sunshine and Raymond) and with additional staking, the claims were grouped and were collectively called the Hope Group. In 1972, A.R. Bullis surveyed, mapped and sampled the underground workings in the Emancipation mine and Dr. G.C. Stephens of Alrae Engineering in 1973 conducted general surface geological mapping on the entire Hope Group. From 1976-79, under the direction of Cochrane Consultants Ltd., an extensive surface exploration program on the claims was carried out which included detailed geochemical soil surveys and ground geophysical work. In 1980, an all-weather road was constructed to the Emancipation Mine and further underground mapping and sampling was performed by in-house Aquarius staff under the direction of D. Cardinal, P.Geo. The following season (1981), an aggressive surface and underground diamond-drilling program was conducted. Results from the drilling program were encouraging and demonstrated the need for continued underground exploratory drilling. No further work was conducted until the underground diamond drilling by Homegold Resources Ltd. in 1991-1992 under option from Anglo Swiss Mining Corp.

The work conducted on the Emancipation Mine commenced by Homegold Resources Ltd. during the fall of 1991 with the reopening of the 1.6 km access roads constructed by Aquarius Resources Ltd. in 1980 and 1981. The roads were overgrown with dense alder trees and brush. An excavator and D8 bulldozer were used to repair and ditch the roads and excavate sloughed material that had covered the 4 Level portal of the Emancipation Mine. A new access road was constructed ramping down from the 3 Level portal to the newly reopened 4 Level portal. The portal was re-timbered, washed out and the 4 Level drift was scaled. Upon completion of the scaling, the drift floor was mucked out, the

major obstacle being material from the raise up to 3 Level that had flowed into 4 Level. The narrow gauge (18 inch) track was repaired. A small ore car was set on the tracks and was used to carry the cave material out of the drift. Once the drift was cleaned up, drill stations were established by slashing out openings along the cross-cut and drift walls.

The drill program was designed to explore a possible replacement zone that had been intersected by Aquarius Resources Ltd. in the down-dip extension of the "Boulder" vein. Underground diamond drilling in 1980 and 1981 indicated that sulfide and silica replacement increased with depth and along strike below the 3 Level on the Boulder and subsidiary veins.

The underground workings were surveyed by transit and EDM (S. Nickel & Associates Surveying Ltd.) and accurate plans and sections prepared. A total of 3 holes were drilled in 1991-1992 for 267 feet of core. The mineralized intervals were split and assayed at Chemex Labs Ltd. In 1994, the area around the portals was prospected and the 1991-92 underground core was logged.



Location of the past—producing mines and minor occurrences comprising the Coquihalla gold belt.

After Ray, 1990

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PAST PRODUCERS

SCALE as shown DATE June '93 N.T.S. 92H/6W&11W WORK BY: JTS & SPB

Figure: 5

Geo-Comp Systems

6.0 GENERAL GEOLOGY

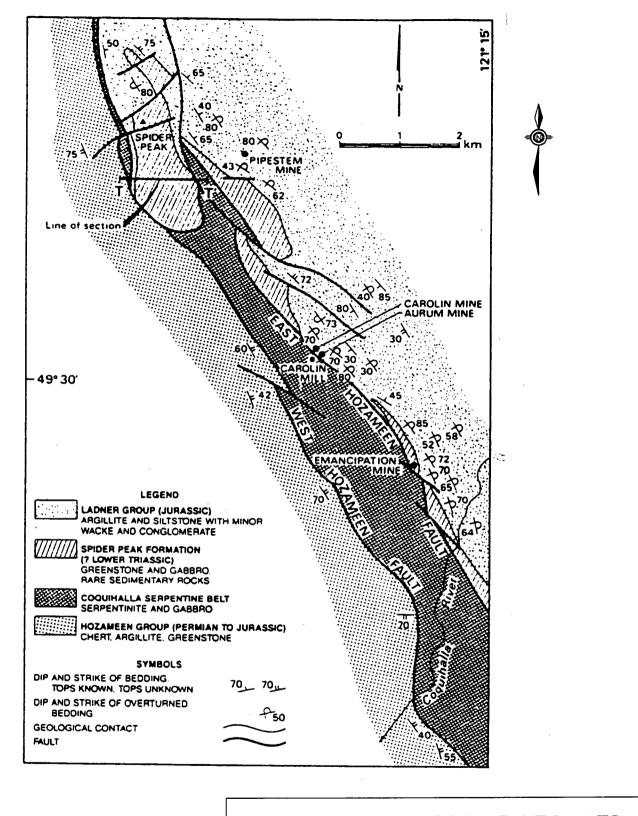
The Coquihalla Gold Belt has been extensively studied on a regional scale, notably by C.E. Cairnes (1924 and 1930) and G.E. Ray (1986–1990). C.E. Cairnes has mentioned the similarity in geology between the Mother Lode district of California and the Coquihalla Gold Belt (Cairnes, 1924).

Over 30 gold occurrences are known to occur in the Coquihalla Gold Belt in the area of Hope-Boston Bar-Coquihalla River area (see Figures 4 and 5). The gold occurrences are clustered close to the eastern margin of the Coquihalla serpentine belt, which is sharply delineated by the East Hozameen fault.

Gold often occurs in quartz veins within rocks adjacent to the eastern edge of the Coquihalla serpentine belt. Both the West Hozameen fault and the East Hozameen fault dip to the northeast and separate Jurassic to Cretaceous basinal deposits of the Pasayten trough to the northeast from Permian to Jurassic oceanic supracrustal rocks of the Hozameen Group which occur to the southwest.

The Pasayten trough, which lies east and northeast of the serpentine belt is made up of a sedimentary succession having a thickness of 9,000 metres. Unconformably underlying the trough and forming a basement to it is a volcanic greenstone sequence of possible Triassic age which has been named the Spider Peak formation (Ray, 1986A). This formation has been traced, somewhat discontinuously, for over 15 km along the eastern edge of the East Hozameen fault where it often forms a thin strip separating the serpentine belt from the Ladner Group of sediments in the Pasayten tough. Locally, the Spider Peak Formation provided the host rock for the previously mined gold at the Emancipation Mine.

The Ladner Group of early Jurassic age is made up of the oldest sedimentary rocks in the Pasayten trough. These rocks include slaty argillites and siltstones with lesser amounts of wacke, lithic wacke and conglomerate. The Ladner Group commonly has an unconformable steeply western-dipping contact with the Spider Peak formation. Often



Geology of area between Spider Peak and the Coquihala River showing locations of the Emancipation, Aurum, Carolin and Pipestem mines.

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EMANCIPATION MINE PROJECT

REGIONAL GEOLOGY

SCALE as shown DATE June '93 N.T.S. 92H/6W&11W WORK BY: JTS & SPB

Figure: 6

Geo-Comp Systems

sections of the Ladner Group have been overturned and intervals of Spider Peak formation occur to the east of the conglomeratic wacke units.

Sediments of the Ladner Group have provided the host rocks for most of the largest known gold deposits in the Coquihalla Gold Belt. This includes the gold produced and the reserves outlined at the Carolin property, which has been the largest producer to date in the district.

The sedimentary rocks of the Pasayten trough, including the Ladner Group, have been invaded by numerous small intrusive bodies varying from gabbro to diorite to syenite but their relationship to gold deposition, if any, has not been established. However, many of the northern gold showings (north of the forks of Siwash Creek) are hosted by dykes.

The Aurum mine, which was later absorbed into the Carolin property, ranks as a somewhat distant third (16.5 kg of gold) in production from the Coquihalla Gold Belt after Carolin and Emancipation. Here, spectacular gold was found in talcose shears within the East Hozameen fault which lies at the eastern edge of the Coquihalla Serpentine Belt. After the discovery in 1926, a flurry of activity occurred in the search for other talcose shears bearing gold in the district.

7.0 LOCAL GEOLOGY AND MINERALIZATION

The Emancipation Mine and surrounding claims are underlain by the complex and mineralogically important East Hozameen Fault Zone structure. In the vicinity of the mine, the steeply east-dipping fault separates a fault-bounded slice of Lower Triassic Spider Peak altered andesites to the east from the serpentinites of the Coquihalla serpentine belt, which is part of the regionally important Coquihalla Gold Belt (Figure 4). Further to the east, near the 2 Level Adit, the Spider Peak altered andesite is in contact with Ladner Group (Jurassic) sediments along a high-angle reverse fault (Ray 1990). The Ladner Group rocks are overturned and dip westerly with the tops towards the east. The known gold-bearing veins and replacement alteration occur primarily within the altered Spider Peak formation altered volcanics but may extend into the Ladner Group.

The Ladner Group in the vicinity of the Emancipation Mine is mainly comprised of altered argillites and siltstones. The lower units of the Ladner Group are only represented by a 1 to 2 m-thick unit of lithic wacke and siltstones containing clasts of chert and volcanic rock. This unit is adjacent to the faulted Spider Peak altered andesite. In the Carolin Mine area 3 km to the northwest, the coarse clastic units of the Lower Ladner Group reach a thickness of 200 m (Ray, 1990) (Figure 5) and contain the mineralization.

The underground development has been carried out on several levels by drifting on quartz veins. The levels are referred to according to the approximate floor level at the portal. They are briefly described as follows from the upper to the lower levels.

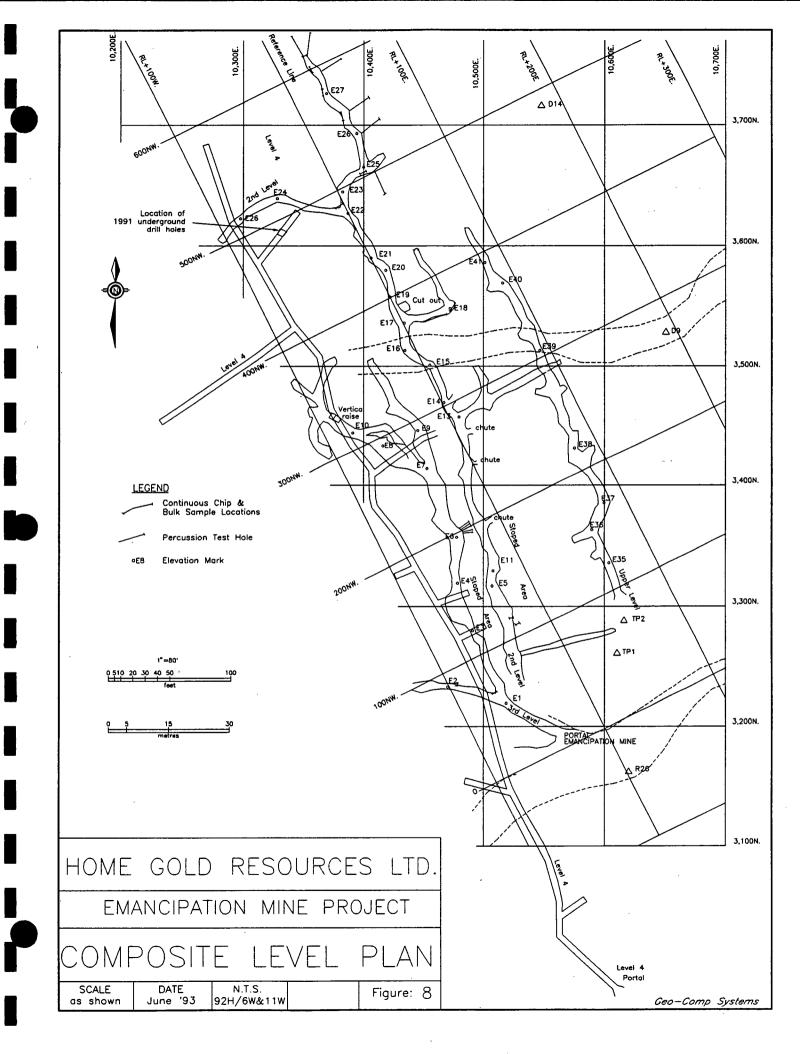
1 Level (Elevation 2725)

This drift has followed a major quartz vein which is from 2 feet to 10 feet in width for 340 feet in a North 26 degree West direction. The portal is on the immediate hanging wall, or southwest wall of the vein, which is inclined to the west at from 55 degrees to 65 degrees from the horizontal. Some narrow veins occur above the large vein for the first 50 feet, but drift swings to the right and follows the larger vein for the rest of its length. The hanging wall or west wall of the vein is andesite and the footwall is bedded

argillite with bedding close to the vein in strike, but with a steeper dip, beds being truncated by the vein. The andesite is slightly schistose at its contact with the vein. No assays are available, but apparently previous operators did not get much encouragement, as to stoping was attempted, although a raise was connected through from below to handle production from the drive.

2 Level (Elevation 2650)

This level had the most development, and it may be the earliest tunnel driven. A description of the exposure before tunnelling began in 1914, which is contained in the 1915 Minister of Mines Report, resembles this level. The present portal is now accessible with difficulty across a steep rock face on the surface. A quartz vein which was exposed about 50 feet from the large vein has been followed for about 560 feet by the drift. Several crosscuts into the hanging wall and footwall rocks were driven. The large vein was explored by crosscuts and limited drifting for about 230 feet, being 6 feet to 10 feet in width with a slope of 65 degrees to the west. Some stoping was carried out on the hanging wall vein above the level for the first 80 feet of the drift. Stoping from below has broken into the floor for about 100 feet from a point 30 feet inside the portal. The drift is conveniently entered through this opening from the drift below. A major vein about 1 foot in width branches from the vein being followed, with an easterly dip and several minor veinlets occur in the footwall side of the drift. A short winze, now partly covered and inaccessible, has been driven down on the reverse dipping vein which is at 68 degree slope, but it was not accessible for mapping. A crosscut into the footwall nearby intersected the reverse dipping vein and the large vein, but it could not be entered without clearing away backfilled muck. Six raises were started, to follow the vein upward from the drift, but while the vein persisted to the faces, widths were narrow and no stoping was done from the raises. The hanging wall of the main drift is andesite at the start, but from 180 feet to 420 feet, it is serpentine. At that point a transverse fault brings in andesite which is proven by a crosscut to extend for at least 120 feet to the west. The vein of the main drift gradually approaches the large vein and shows some increased width and gold values at Section 500 NW. Gold values occur throughout the first 250 feet of the drift. The rock between the drift and the large vein is fractured



andesite and the large vein marks the contact with the argillites which lie at a steeper slope than the vein, and are truncated by it.

3 Level (Elevation 2620)

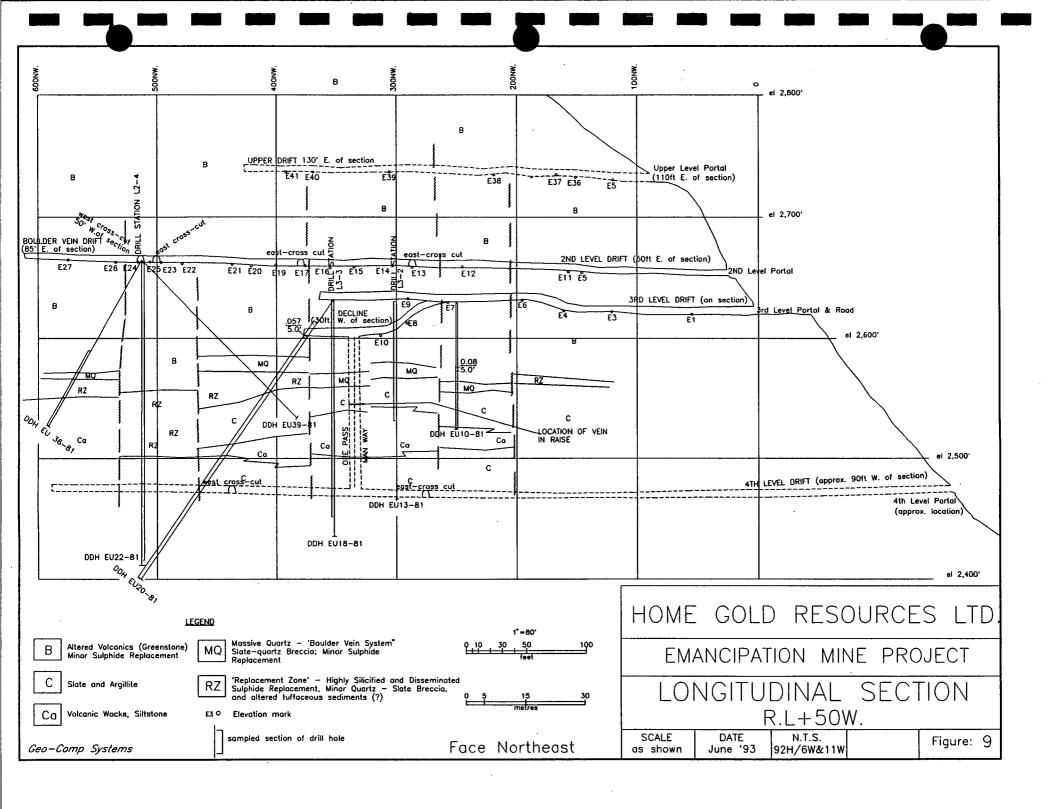
This drift started near the outcrop of the large vein, and was driven toward the hanging wall vein through fractured andesite. It was continued for 130 feet until it encountered the vein which had flattened in dip and was picked up the vein in about 100 feet after meeting several reverse dipping and flat dipping veinlets which must have been mineralized as a section of about 100 feet of the roof, was sloped from Section 100 NW to 200 NW. The drift followed the vein to 360 feet NW with scattered good gold assays in the vein and in the fractured andesite of the footwall. The hanging wall is serpentine. No crosscuts test the large vein at this level.

Decline (Elevation 2597)

At Cross Section 250 NW in Level 2620 tunnel, an incline was driven at a downward slope of about 20 degrees to follow down the intersection of the main reverse vein with the hanging wall vein. A short drift followed back along the reverse vein, and this section was sloped out. The main hanging wall vein flattens and thins out. It is enclosed on both sides with serpentine. A vertical raise from a lower drift occurs near the bottom of the incline. It is open, but timbering and ladders are rotten, and it was not entered.

4 Level (Elevation 2440)

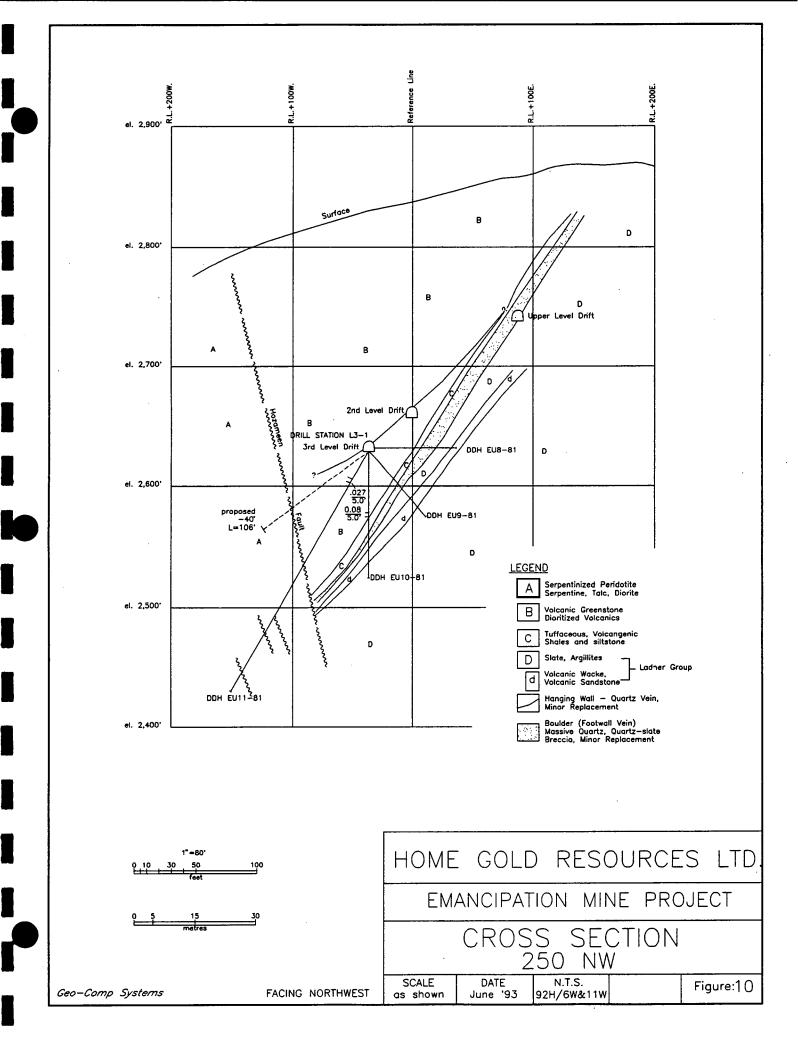
This drift was opened in 1991. Descriptions of good gold grade at that elevation in an 11 foot vein in the Minister of Mines report of 1933 proves interesting, and opening the tunnel might be considered. A 1940's report indicates some good gold values about halfway up the raise to Level 2597.



Roads Above Workings

A steep road has been put in above the portals. At several points a contact between the andesite of the hanging wall and the argillites was uncovered. There is from 2" to 4" of sheared schist suggesting a fault contact, but there is no quartz. The large vein is exposed some 70 feet to the east at elevation 2890 where it is entirely enclosed in argillites. The vein dip has flattened to about 40 degrees. Some gold is reported in footwall branches. A vein outcrop at about elevation 2950 which is reported to carry visible gold, but which has now been covered by the road construction, lies about 280 feet east of the andesite contact fault. The vein termination is possibly a fault displacement. The offset of a band of thinly-bedded argillite suggests that the vein will be picked up in its displaced position above the road. The road provides access for a drill program to locate the vein and test rocks adjacent to it.

Two (2) bulk samples obtained by Aquarius from a brecciated slate/quartz zone on section EM/67S ran values of 0.298 oz/ton and 0.104 oz/ton gold. Approximately 600 feet (183 m) north of the old Emancipation Mine (EM Zone) a prominent geochemical Au anomaly, identified as the North EM Anomaly (North EM Zone) was outlined during the 1977 field season. At the North EM Zone soil samples collected from the "B" horizon at 50 feet (15.2 m) intervals outlined a geochemical anomaly (Figure 8) with values up to 2,200 ppb gold which proved to be a good case history for previous (1977) geochemical work done at 100 feet (30.5 m) spacings.



8.0 GEOCHEMISTRY AND PROSPECTING

Geochemical soil surveys have been completed over the Emancipation Area. In 1981, detail soil surveys were conducted in the immediate area of the Emancipation portals.

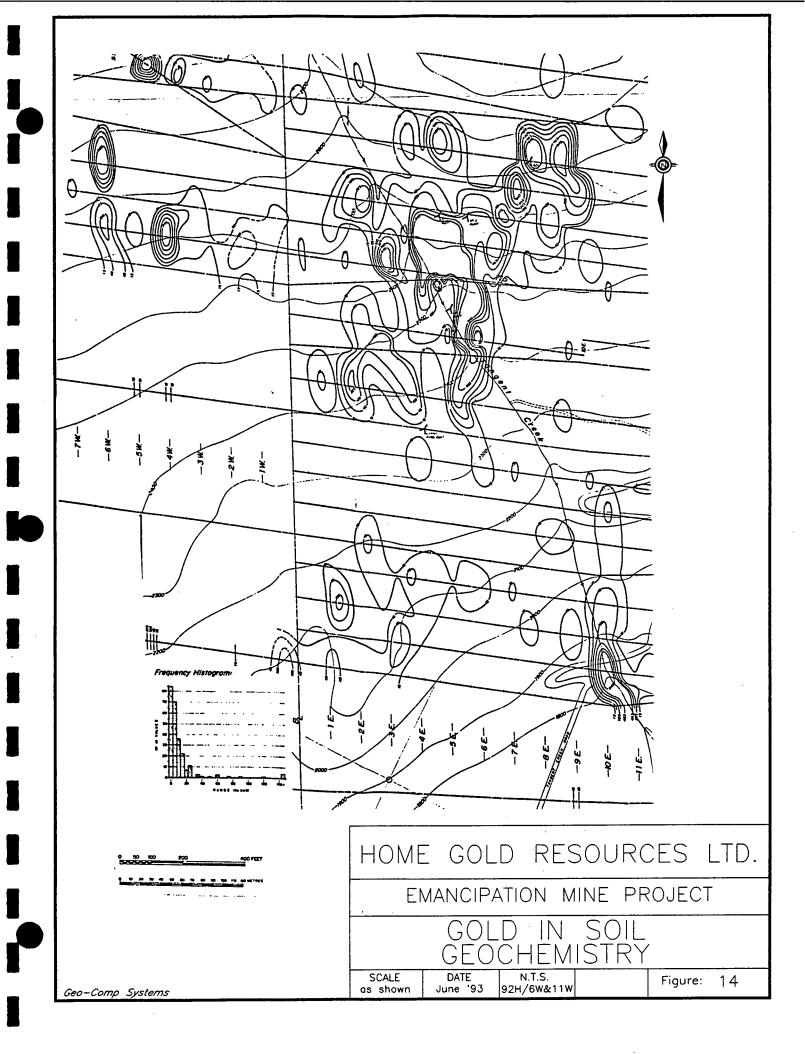
In 1981 crews extended and re-blazed and flagged the existing baseline and crosslines using compass and chain. In 1981, soil samples were obtained at 15 m (50 feet) intervals and a total of 26 line kilometres were completed with 1,677 samples collected. The soils were collected, where possible, from the upper "B" soil horizon although in some cases only the residual "C" soil was present. In steep slopes the soil cover was thin, constituting a shallow "B" and "C" profile with some evidence of down slope movement. In low relief terrain the soil was usually thicker (2-4 m and greater) with glacial gravels and boulder clay making up much of the soil profile.

The geochemical contour intervals used were based on geostatistical and profile studies carried out on the property some years ago by consultant D.R. Cochrane (1977). His study found that values from 15 to 45 parts per billion (ppb) gold were to be considered as weakly anomalous; from 45 to 75 ppb gold as moderately anomalous; and 75 ppb and greater as highly anomalous. Based on these intervals at least three anomalous areas were outlined south of the Emancipation mine and one large anomaly about 300 m northwest of the mine.

The anomalies occur along a major structural and geological trend. Two local anomalous zones located at L86S-100E and L91S-100W suggest some relationship to the Hozameen Fault and occur within the volcanics. The L86S anomaly may also partly reflect the altered dioritized volcanics found in the area. The other major anomalous zone with its centre located at L96S-700W trails off to the southwest. This probably in part reflects the old Emancipation mill site and tailings stock pile, found just to the north. This should not be entirely ignored due to its location, which occurs at the volcanic and sedimentary contact, as such contact horizons along the belt are known to be auriferous, i.e. Idaho Zone. Other anomalous zones are along Tangent Creek and may reflect bedrock geology but could also reflect localized placer gold.

Prospecting in 1994, Figure 7, encountered rock types from east to west starting with:

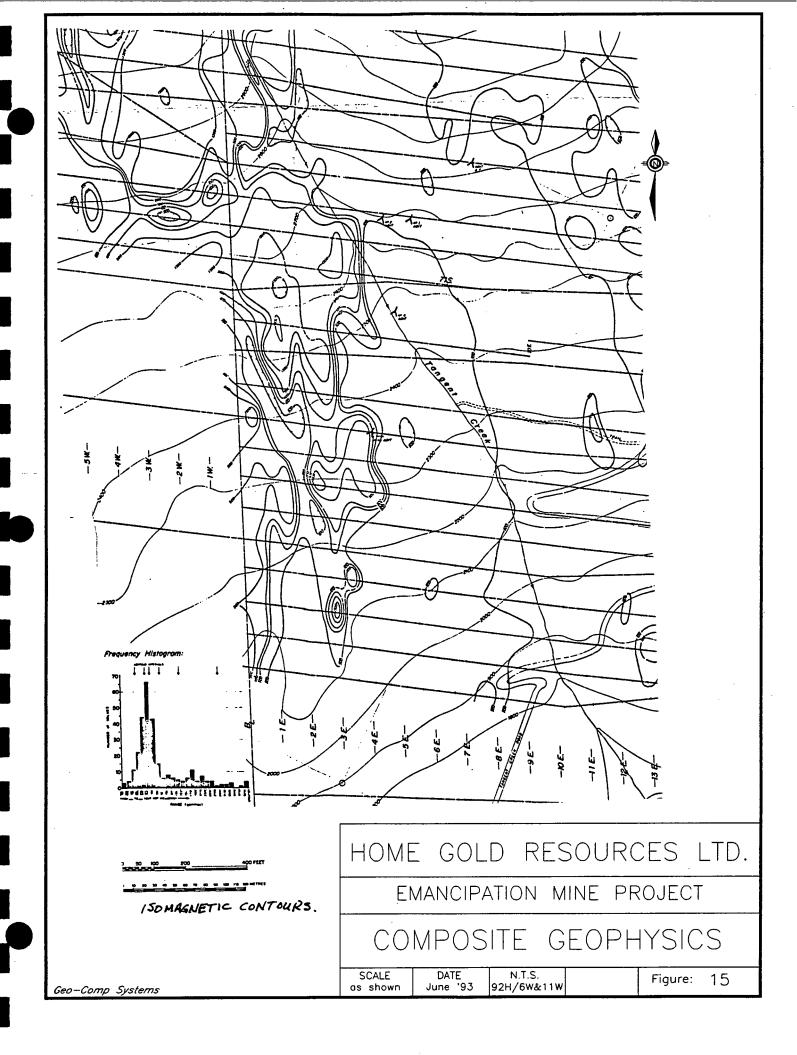
- (a) Unaltered grey to black slate and slatey argillite of the Ladner Group with bedding oriented at 335°/75SW. Cleavage is generally parallel to bedding. Finely laminated, silicified slate and minor cherty quartz pebbles and green clasts of possible volcanic origin occur near the Spider Peak Formation contact.
- (b) Replacement alteration of highly siliceous/sulfide-carbonate occur at the volcanic/slate contact. The sulfides make up 3% to 5% and include pyrite, pyrrhotite, arsenopyrite and chalcopyrite.
- (c) Less altered fine-grain sheared andesite/basalt with elongated sheared clasts is found between the volcanics and Ladner Slate. This is characteristic of the contact zone along the belt.
- (d) Faulted, fine-grained massive volcanics occur immediately to the east of the Hozameen Fault.
- (e) Dark green, brittle serpentinite and talc shear mark the west contact of the Hozameen Fault.



9.0 GEOPHYSICS

Limited ground geophysical surveys were conducted in 1981, primarily to test the response of the instruments to bedrock geology and known mineralization.

An Induced Polarization (IP) depth prove test was carried out over drill section 500 N located 152 m north of the Emancipation portal (Cardinal (1981)), where drilling intersected a zone of mineralized replacement. The Wenner Array system was employed with electrode spacings of 366 m (1200 feet), 183 m (600 feet), and 91 m (300 feet) respectively. At each of these spacings, resistivity, chargeability and self-potential readings were recorded. IP response obtained corresponded well within the known mineralization. The metal factor, chargeability over self-potential readings was plotted and superimposed onto geological cross-section 500 N which also reflected the disseminated sulphide replacement zone.



10.0 DIAMOND-DRILLING AND UNDERGROUND WORK

Between May 19, 1981 and October 28, 1981 a total of 2,078 m (6,618 feet) of diamond drilling was completed in the Emancipation mine area by Aquarius Resources Ltd. The drilling was in two (2) phases, the underground phase and the surface phase. The underground drill holes were located and oriented to intersect proposed potential target sites as determined from previous underground mapping and sampling programs. During this period a total of thirty-one (31) AQ size underground holes were completed for a total of 1,177 m (3,862 feet) of drilling. This core is presently available for examination at the old Aquarius campsite stored in a covered core rack.

The surface drilling phase was undertaken primarily to define the structure, quartz veins and geochemical highs that occur north of the Emancipation mine. The drilling consisted of ten (10) BQ size surface holes for a total of 901 m (2,956 feet) of drilling.

One deeper hole (EU-38) intersected slates structurally underlying the serpentine partially (about 2 m in thickness) replaced by sulfides. The majority of the sulphide mineralization intersected occurs along the contact boundaries of the boulder vein system, predominantly on the hanging wall side. The sulfides consist of, in decreasing abundance, disseminated pyrrhotite, pyrite, chalcopyrite and arsenopyrite. The boulder vein system changes character down-dip and along strike from a more massive quartz vein type up-dip to a more quartz stringer and pervasive siliceous replacement type at depth or down-dip. The sulfide also increase with the system down-dip and change to a more siliceous-sulfide replacement zone. The tuffaceous sediments located on the hanging wall side of the boulder vein also become more replaced with sulfides down-dip and appear to host much of the mineralized replacement.

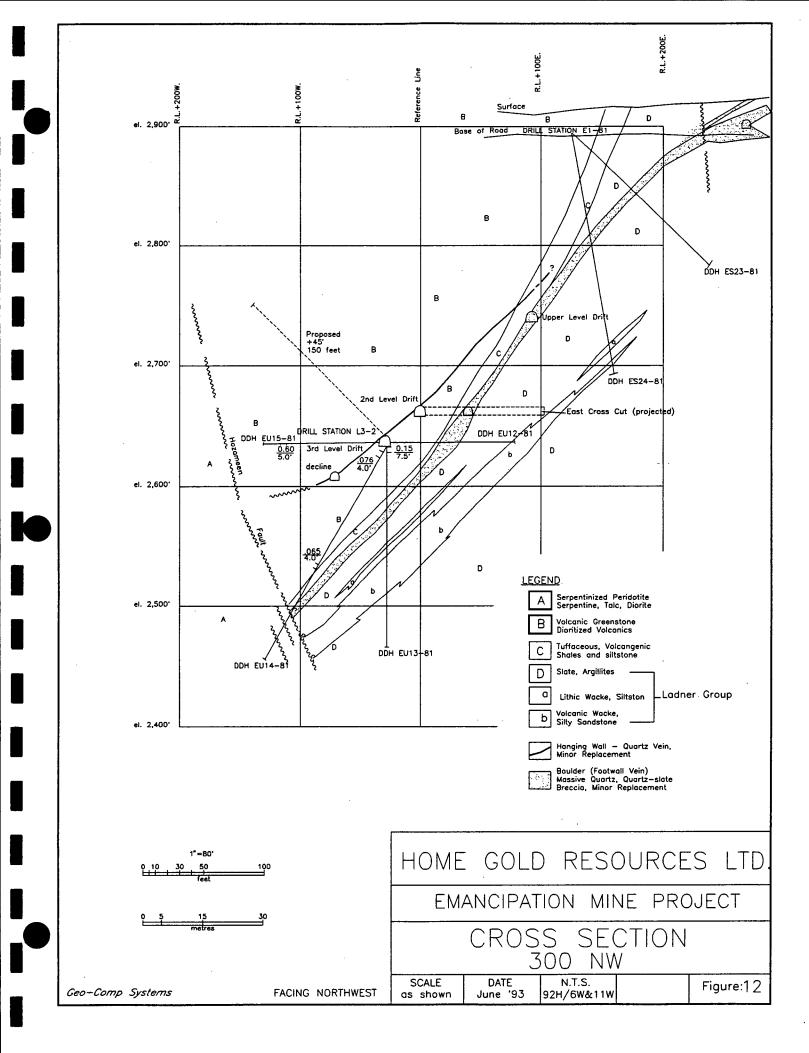
During the logging of the drill holes visible gold was noted in at least three separate areas associated with the above replacement. The gold appears to be directly related to the arsenopyrite. Coarse grained arsenopyrite (1 cm in size) hosting coarse gold, was observed in one instance. In other sections very fine gold found in quartz or siliceous replacement occurs with fine arsenopyrite crystals resembling "steel cuttings". In most cases an increase in arsenopyrite reflects an increase in the grade of gold as indicated by

some of the assays. Sporadic or isolated gold quartz stringers also occur in the volcanic greenstone suggesting local remobilization for the gold from its probable source, the greenstone.

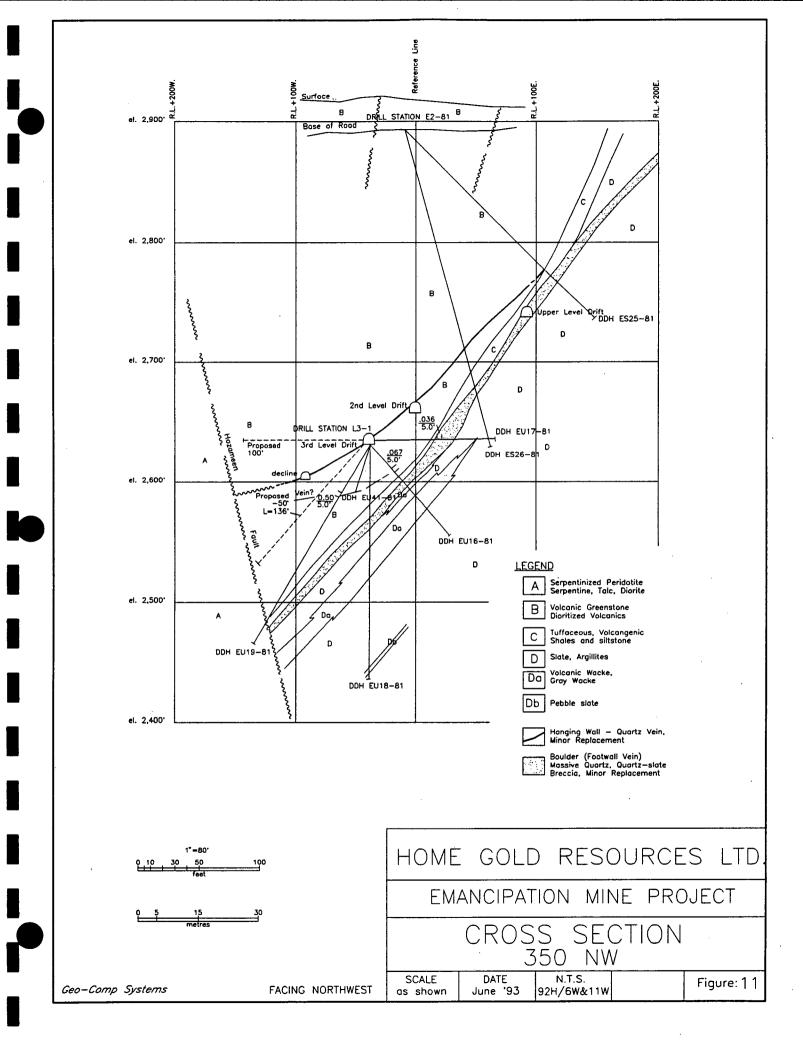
Surface drilling north of the Emancipation mine was conducted to delineate geological contacts, structures, quartz veins and mineralization, as those found in the Emancipation mine and to attempt to define the gold anomalous highs associated with the bedrock. The drill holes intersected similar structures and rock types as discussed above with only limited quartz veining and mineralization, accompanied with low gold values. The surface holes outlined northwest trending structures and geological contacts favourable for sulphide replacement zones but no significant altered or mineralized sections were encountered during drilling.

TABLE II SUMMARY OF 1981 DIAMOND DRILLING

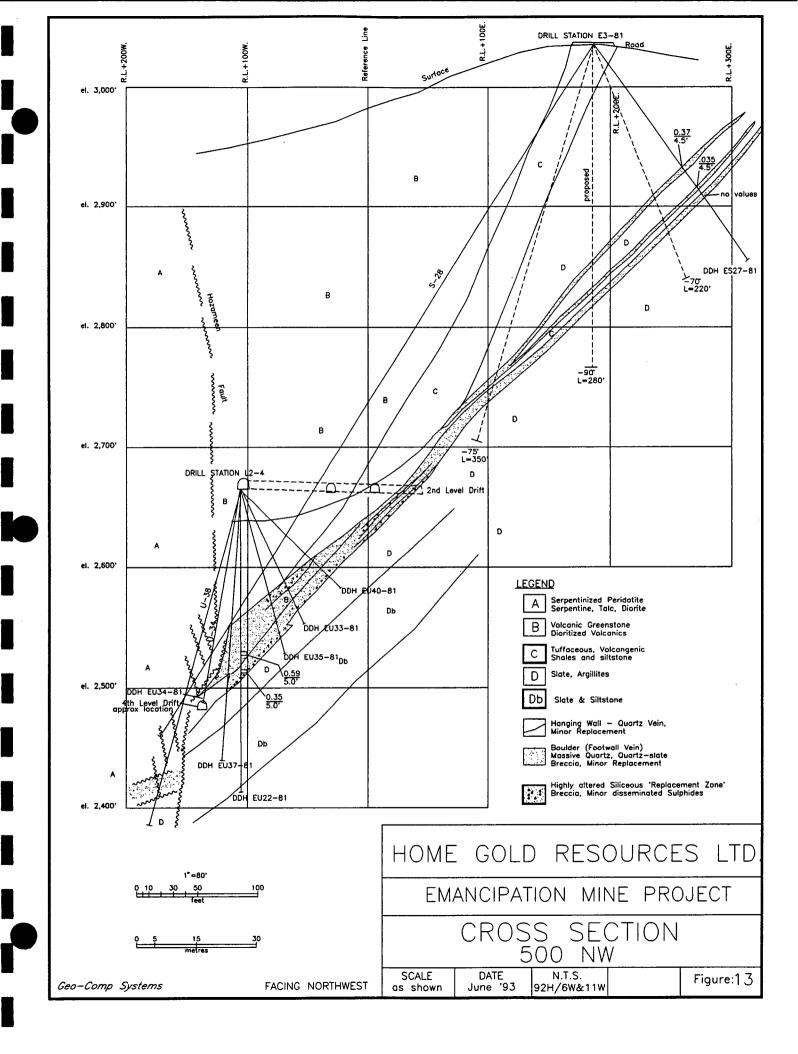
11	_	d Hole (AQ) es gold per to				Hole (BQ) 0.02 opt. or	m = metres	
No.	Lat.	Dep.	Brg.	Dip	Elev.	Depth	Section	Remarks
U-8	3410N	10,462E	N63E	0°	2625	66' 21.1 m	250NW	28.0-50.0' (8.5-15.2 m) Boulder Vein. No values.
U-9	3408N	10,460E	N63E	-50°	2629	72' 21.9 m	250NW	34.5-41.0' (10.5-12.5 m) Boulder Vein. No values.
U-10	3407N	10,457E		90°	2629	105' 32 m	250NW	Quartz Stringers 48.0-53.0' (14.6-16.2 m) 0.08 opt./5.0' 67.0-72.0' (20.4-21.9 m) Boulder Vein. No values.
U-11	3406N	10,455E	S63W	-60°	2629	231' 70.4 m	250NW	25.0-26.0' (7.6-7.9 m) Quartz-Carbonate Vein 0.027 opt. over 5.0' (1.5 m) Reverse Vein. [?] 105.0-145.0' (32.0-44.2 m) Hozameen Fault - Talc Zone.
U-12	3458N	10,447E	N63E	0°	2629	100' 30.5 m		39.5-43.5' (12.0-13.3 m) Boulder Vein. No values. 53.0-55.2' (16.2-16.8 m) Quartz Vein. No values.



		d Hole (AQ) s gold per to		S = Surface Hole (BQ) m = metres No values = 0.02 opt. or less				
No.	Lat.	Dep.	Brg.	Dip	Elev.	Depth	Section	Remarks
U-13	3455N	10,442E		-90°	2633	167.5' 50.9 m		0-7.5' (0-2.3 m) Quartz-Carbonate 0.15 opt./7.5'. 51.5-59.0' (15.7-18.0 m) Boulder Vein. No values.
U-14	3455N	10,441E	S63W	-60°	2633	205' 62.5 m	300NW	7.0-11.0' (2.1-3.4 m) Quartz Stringers 0.076 opt./ 4.0'. 108.0-112.0' (32.9-34.1 m) Sheared, Quartz-Carbonate Veinlets 0.065 opt./4.0'.
K _{U-15}	3455N	10,440E	S63W	0°	2629	100' 30.5 m	300NW	78.5-83.0' (23.9-25.3 m) 4" Quartz Vein <u>0.60 opt./4.5'</u> .
U-16	3497N	10,413E	N63E	-50°	2633	100° 30.5 m	350NW	25.0-30.0' (7.6-9.1 m) 24" Quartz Vein 0.067 opt./ 5.0.' 40.5-46.0' (12.3-14.0 m) Boulder Vein. No values. 46.0-52.0' (14.0-15.8 m) Quartz Stringers, well mineralized. No values. 77.0-79.0' (23.5-24.1 m) Brecciated Quartz Vein. No values.
U-17	3497N	10,414E	N63E	0°	2629	100' 30.5 m	350NW	50-67' (15.2-19.8 m) Boulder Vein. Best assay 0.036 opt. over 5 feet.
U-18	3496N	10,412E	_	∸90°	2633	196' 59.7 m	350NW	59.0-70.5' (18.0-21.5 m) Boulder Vein. No values.
₩U-19	3495N	10,410E	S63W	-60°	2633	192' 58.5 m	350NW	48.0-53.0' (14.6-16.2 m) Brecciated Quartz 0.50 opt./5.0'.
U-20	3497N	10,411E	N10W	-55°	2633	281' 8.6 m	350NW	36.0-41.0' (11.0 - 12.5 m) 12" Vein 0.057 opt./5.0'.
U-21	3608	10,288E	N63E	12°	2671	250' 76.2 m	500NW	158.0-162.5' (48.2-49.6 m) 30" Brecciated Quartz. No values.



		d Hole (AQ) es gold per to				Hole (BQ) 0.02 opt. or		m = metres
No.	Lat.	Dep.	Brg.	Dip	Elev.	Depth	Section	Remarks
U-22	3606N	10,283E		–90°	2665	251' 76.5 m	500NW	109.5-160' (33.4-48.8 m) Mineralized and Quartz Veining. 132.0-136.5' (40.2-41.6 m) 0.59 opt./4.5'. 151.0-156.0' (46.0-47.5 m) 0.35 opt./5.0'.
S-23	3526N	10,575E	N63E	-45°	2888	154' 46.9 m	300NW	69.5-80.0' (21.2-24.4 m) Boulder Vein. No values.
S-24	3526N	10,575E	N63N	-80°	2888	202' 61.6 m	350NW	90.5-102.5' (27.6-31.2 m) Boulder Vein. No values. 163.0-164.5' (49.7-50.1 m) Quartz Vein. No values.
S-25	3521N	10,459E	N63E	-45°	2888	220' 67.1 m	350NW	169.5-176.0' (51.7-53.7 m) Boulder Vein. No values.
S-26	3519N	10,455E	N63E	-75°	2888	270' 82.3 m	350NW	219.0-225.0' (67.8-68.6 m) Boulder Vein. No values.
S-27	3745N	10,572E	N63E	–55°	3035	220' 67.1 m	500NW	124.5-129.0' (37.9-39.3 m) 30" Quartz 0.37 opt./4.5'. 143.5-148.0' (43.8-45.1 m) 24" Quartz 0.035 opt./4.5'. 151.5-155.3' (46.2-47.3 m) Boulder Vein. No values.
S-28	3741N	10,565E	S63W	60°	3035	680' 207.3 m	500NW	429.0-434.0' (130.8-131.4 m) Sheared Quartz-Carbonate. No values. 557-585' (169.8-178.3 m) Abundant Quartz-Carbonate. No values. 585'-end (178.3 m-end) Talc-Serpentine. Hozameen Fault Zone.
S-29			N63W [?]	-50°		400' 121.6 m	600NW	Volcanic Greenstones. No values.
S-30				-90°		360' 109.8 m		Vocanic Greenstones. No values.
S-31				-90°		300' 91.4 m	1150NW	Volcanic Greenstones. No values.
S-32			N63E	-60°		150' 45.7 m	1150NW	Volcanic Greenstones. No values.



		d Hole (AQ) s gold per to				Hole (BQ) 0.02 opt. or		m = metres
No.	Lat.	Dep.	Brg.	Dip	Elev.	Depth	Section	Remarks
U-33	3607N	10,285E	N63E	-65°	2665	123' 37.5 m	500NW	90.5-94.0' (27.6-28.7 m) Boulder Vein. No values.
U-34	3606N	10,282E	S63W	-80°	2665	179' 54.6 m	500NW	Volcanic Greenstones. No values.
U-35	3607N	10,284E	N63E	-75°	2665	140' 42.7 m	500NW	96.0-102.0' (29.3-31.1 m) Boulder Vein. No values.
U-36	3608N	10,281E	N30W	-60°	2665	157' 47.9 m	500NW	107.5-112.5' (32.8-34.3 m) Boulder Vein. No values.
U-37	3605N	10,282E	S63W	-86°	2665	225' 68.6 m	500NW	153.0-160.0' (46.6-48.8 m) Highly Siliceous, Abundant Sulphides. No values. 160.0-184.0' (48.8-56.1 m) Tectonic Breccia.
U-38	3605N	10,281E	S63W	-75°	2665	289° 88.1 m	500NW	75.0-79.0' (22.9-24.1 m) Abundant Quartz-Carbonate. No values. 79.0-272.0' (24.1-82.9 m) Serpentine-Talc Zone. 272.0'-end (82.9 m-end) Volcanic Greenstone.
U-39	3666N	10,405E	\$30E	-45°	2633	183' 55.8 m	500NW	0-98' (0-29.9 m) Volcanic Greenstones. 98'-end (29.9 m-end) Serpentinized Diorite and Serpentine with Talc.
U-40	3608N	10,286E	N63E	-45°	2665	116' 35.4 m	500NW	35.0-37.0' (10.7-11.3 m) Quartz Vein in Volcanic Greenstones. Not Assayed. 90-106' (27.4-32.3 m) Brecciated Boulder Vein. No values.
U-41	3495N	10,412E	S63W	-73°	2633	32' 9.8 m	350NW	Drill machine seized up and program terminated 27 Oct. 81

11.0 CONCLUSIONS

The principal structure which has been identified in the geology is the contact between the andesites on the southwest and the argillites on the northeast. This contact is evidently a fault contact, since it truncates beds of the argillites. From the lower workings up to about elevation 2750 the large vein follows the line of this fault plane and carries limited and small gold values.

Below 2750 elevation, a branch vein with a dip to the west of about 45 degrees leaves the 65 degree dipping large (Boulder) vein with a small strike difference, so that the intersection line which is at above the portal of drift plunges gently to the northwest to occur at the extreme northwest end of Level 2650 drift, giving it a plunge of about 12½ degrees to the northwest. This intersection appears to control the mined gold occurrence.

Near the intersection of the hanging wall vein with the Boulder vein, widths increase and some gold values occur as illustrated at the portal and at the inner end of Level 2650. This linear zone was not reached by raises driven up from Level 2650.

Within the volcanic rocks of the mine area there appears to be at least one, and possibly several, changes from andesitic, hard, dark, fine-grained rock to soft serpentinized volcanics. This change appears to follow an almost horizontal plane. From outcroppings in the road cuts down to about Level 2650, the rock is hard and dark coloured. At this elevation it changes to greenish serpentinized volcanics, except in the wedge between the hanging wall vein and the large vein. In this wedge the floor of the harder volcanic rock is about at Level 2597.

Where the hanging wall vein has two andesite walls, it is narrow and continuous with very low gold values.

Where the hanging wall vein has serpentinized volcanics above it and hard andesite below it, there are good gold values with many branches and reverse dipping veins throughout the zone between the hanging wall vein and the big vein.

The geological situations in the raise are not known, but values reported may be related to other strata of more rigid rocks in the serpentinized volcanics which occur below Level 2597.

A limited program of underground core drilling has been designed to explore the portion of fractured volcanics which lies under the serpentine wall between Elevation 2597 and Elevation 2650, and test for gold content. Downward trending holes will verify the position of the floor of the favourable fractured volcanics, and will test the serpentinized volcanics for other layers of harder formation in which gold-bearing vein structures might be found.

Four gold-bearing structures are present:

- 1. The upper part of the Boulder vein entirely within the argillites.
- 2. The wider lense at the junction of the hanging wall vein and the Boulder vein: This linear structure may be too small to present a target for surface drill holes.
- 3. The fractured lower part of the andesite wedge between the hanging wall and the big vein as well as the big vein in that section: The strike convergence of the hanging wall and the big vein, together with the flat floor to the fractured andesite formation, gives this body of rock the slope of a long tapered pyramid on its side with maximum size at the outcrop and a limit somewhere beyond the end of present workings.
- 4. The reports of good assays in the raise below Level 2597 and at Level 2440: The limited drilling in 1991 and 1992 provides information for more detailed follow-up.

The proposed drilling to investigate these structures is shown on geological plans and sections recently prepared.

12.0 RECOMMENDATIONS

The following program is suggested as a minimum with further exploration and development to follow if this program is successful:

1. <u>2 or 3 Level</u>

A flat hole should be drilled to the east at some point on the 2 or 3 Level. This should be done as far as possible (minimum 100 feet) from the portal. This hole will check the footwall of the Boulder vein for additional veins. Only limited footage (up to 120 feet) has been drilled into the footwall formerly. Suggest drill N63°E (true), on section direction, for 400 feet. Being well away from the portal, it should ensure good ground and be spatially related to known ore shoots.

2. <u>3 Level, Section 300NW</u>

Drill at +45°, on section, S63°W, to check continuity of 0.60 over 4.5 feet in flat hole ELI 15-81. Drill from the same station as before, L3-2. Length of hole 150 feet.

3. Section 500NW

The values in EU 22-81 can best be checked by a short raise (50 to 60 feet) from 4 Level. The values appear to be too sporadic in this area to continue to drill without specific information.

4. <u>Line 40S on Former M-35</u>

Surface geochemical and geophysical surveys indicate much the same profiles as those at the Emancipation production area. A trench at 0+40 feet from the baseline and continuing easterly for 100 feet on line, but the results of this excavation are unknown. In any case, the work was inadequate to check the potential and it appears that trenching by back-hoe or bulldozer should be carried

out at specific points of interest along Line 40S. If results are encouraging, a program of diamond-drilling can then be carried out.

Under the proposed program, a total of about 2,000 feet of diamond-drilling, 50 to 60 feet of raising and several hundred feet of surface trenching will be required, after which additional work may be considered. The proposed holes are listed below:

		REC	COMME	NDED 1	DIAMO	ND DR	ILLING
Hole No.	Location	Lat.	Dep.	Brg.	Dip	Length	Remarks
1.	Surface 500NW	3745N	10,572E	N63E	-70°	220'	To check H.W. veins and continuity of 0.37 opt. in Ladner sediments, DDH ES-27
2.	Surface 500NW	3745N	10,572E		-90°	280'	As preceding
3.	Surface 500NW	3745N	10,572E	563W	-75°	350'	As preceding but at junction of two H.W. veins
4.	3 Level 350NW	3497N	10,413E	563W	0°	130'	To check continuity of 0.60 opt. over 5.0' on X-section 300NW in vicinity of Hozameen Fault in DDH EU-15
5.	3 Level 350NW	3497N	10,413E	563W	-50°	136'	To check F.W. of H.W. vein in vicinity of intersection of 0.50 opt. over 5.0' in DDH EU-19
6.	3 Level 250NW	3406N	10,455E	563W	-40°	106'	To check F.W. of H.W. vein in vicinity of .027 opt. over 5.0' in DDH EU-11
7.	3 Level 300NW	3455N	10,441E	563W	+45°	150'	To check the H.W. for possible other veins and for continuity of 0.60 opt. over 5.0' in DDH EU-15
8.	2 Level Face East X-C 300NW	3503N	10,564E	N63E	0°	400'	To explore F.W. of Boulder vein in Ladner Group sediments

RECOMMENDED DIAMOND DRILLING

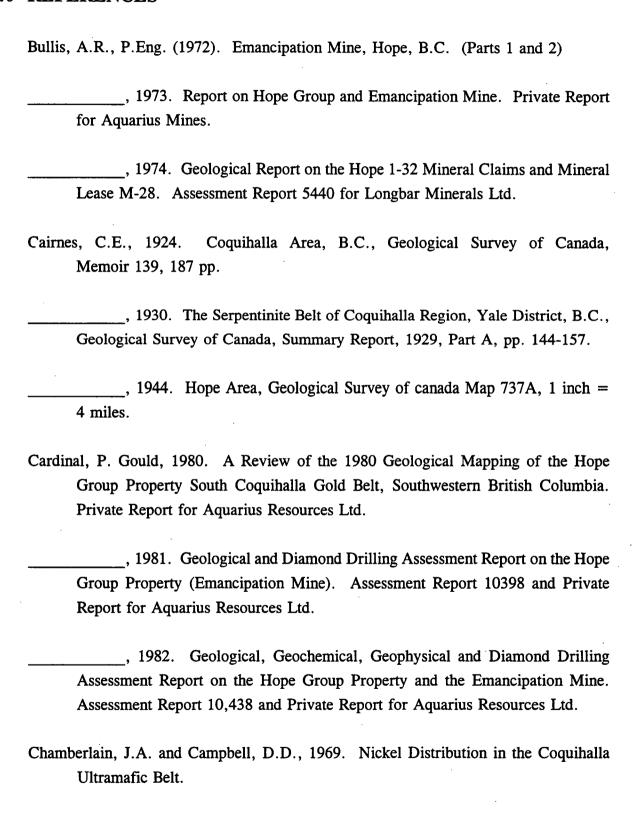
Hole No.	Location	Lat.	Dep.	Brg.	Dip	Length	Remarks
9.	4 Level Drift 400NW				+90°	100'	This hole will be collared where drift wall gives 333 ppb in gold and will check continuity of vein from raise and two recent vertical holes in 1991-92
10.	4 Level N. Face 600NW				+90°	100'	This hole will collared near face which gives 206 ppb in gold and will check on general plunge of ore shoot



13.0 ESTIMATE OF COSTS FOR FUTURE WORK

\$ 8,500.00
6,000.00
4 #00 00
4,500.00
82,000.00
82,000.00
10,000.00
1,200.00
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5,000.00
5,000.00
2,500.00
2,500.00
3,000.00
5,000.00
<u>\$ 135,000.00</u>

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APPENDIX I

STATEMENT OF QUALIFICATIONS

J.T. Shearer, P.Geo.

STATEMENT OF QUALIFICATIONS

I, JOHAN T. SHEARER, of 1817 Greenmount Avenue, in the City of Port Coquitlam, in the Province of British Columbia, do hereby certify:

- 1. I am a graduate of the University of British Columbia (B.Sc., 1973) in Honours Geology, and the University of London, Imperial College (M.Sc., 1977).
- 2. I have over 20 years of experience in exploration for base and precious metals and industrial mineral commodities in the Cordillera of Western North America with such companies as McIntyre Mines Ltd., J.C. Stephen Explorations Ltd., Carolin Mines Ltd. and TRM Engineering Ltd.
- 3. I am a fellow in good standing of the Geological Association of Canada (Fellow No. F439) and I am a member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia (Member No. 19,279).
- 4. I am an independent consulting geologist employed since December 1986 by New Global Resources Ltd. at 548 Beatty Street, Vancouver, British Columbia.
- 5. I am the author of a report entitled "Prospecting Assessment Report and Exploration Proposal on the Emancipation Mine" dated June 15, 1994.
- 6. I have visited the property on May 15 to 21, 1994. I have examined the surface exposures and collected systematic surface samples. I am familiar with the regional geology and geology of nearby properties. I have become familiar with previous work conducted in the Emancipation claim area by examining in detail the available reports, plans and sections and have discussed previous work with persons knowledgeable of the area.
- 7. I do own an interest in the property described herein.
- 8. I consent to authorize the use of the attached report and my name in the company's Statement of Material Facts or other public document.

Dated at Vancouver, British Columbia, this 15th day of June,

T. Shearer, M.Sc., F.G.A.C., P.Geo.

APPENDIX II

STATEMENT OF COSTS

1994

STATEMENT OF COSTS

Emancipation Claims 1993-1994

Wages and Benefits		
J.T. Shearer, M.Sc., P.Geo., Geologist May 15, 16, 17 and 21, 1994		
• • • • • • • • • • • • • • • • • • • •	4 days @ \$350	\$ 1,400.00
A.E. Angus, Prospector May 15 and 16, 1994		
•	2 days @ \$250	500.00
S.E. Angus, Prospector May 15, 16, 17 and 21, 1994	·	
Subtotal	4 days @ \$250	1,000.00 _2,900.00
G.S.T. on wages		203.00
WAGES TOTAL		3,103.00
Transportation, Truck rental	4 days @ \$53.50	214.00
Camp Costs	6 man days @ \$50	300.00
Report Preparation		1,376.00
Drafting, Geo Comp		450.00
Word Processing and Reproduction		400.00
GRAND TOTAL		\$ 5,843.00

To file 3 years on Emancipation 1-10

APPENDIX III

PREVIOUS ASSAYS AND RESULTS

1991

PREVIOUS ASSAYS AND RESULTS

A total of at least fifty-four (54) rock samples both bulk and chips were collected from the old Emancipation underground workings (see accompanying compilation assay map) over the last several years. Samples were initially obtained by A.R. Bullis (1972), No. 401-423 inclusive; D.R. Cochrane (1977), E1-E9 inclusive; and subsequently by D.G. Cardinal (1980), EM1-EM23 inclusive. Assay results were tabulated and weighted averages calculated for all the samples.

Below is a brief summary of the weighted averages and includes:

- West dipping vein (18 rock samples)
 Wt. avg. gr. = 0.233 oz/ton (7.9 gm/metric ton)
 Avg. width = 1.19 ft. (0.36 m)
- 2. Reverse dipping veins = (6 rocks samples)

 Wt. avg. gr. = 1.52 oz/ton (51.7 gm/metric ton)

 Avg. width = 0.90 ft. (0.27 m)
- 3. Boulder vein (7 rock samples)

 Wt. avg. gr. = 0.013 oz/ton (0.44 gm/metric ton)

 Avg. width = 4.64 ft. (1.41 m)
- Wall Rock (23 rock samples)
 Wt. avg. gr. = 0.043 oz/ton (1.5 gm/metric ton)
 Avg. sample length = 5.17 ft. (1.6 m)
- 5. 3rd level Zone 100 ft. portion of the 3rd level drift which covers part of the mineralized replacement zone mentioned above.
 - Samples include portion of the quartz veins (1 and 2) and wall rock samples.

Wt. avg. gr. = 0.22 oz/ton (6.82 gm/metric ton) over a length of 100 ft. (30.5 m)

Sample width - 0.5 ft. to 7.0 ft. (0.15 to 2.1 m)

The third level zone includes part of the west dipping and reverse dipping veins and sheared wall rock which are mineralized and is recommended as a target for additional ore extraction and drilling.

APPENDIX IV

PREVIOUS ANALYTICAL PROCEDURES
AND ASSAY CERTIFICATES

1991 Diamond Drilling (included in this report for completeness)



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers 212 Brooksbank Ave., North Vancouver British Columbia, Canada V7J 2C1 PHONE: 604-984-0221 To: NEW GLOBAL RESOURCES

548 BEATTY ST. VANCOUVER, BC V6B 2L3

Project : Comments: Page Number 1
Total Pages 2
Certificate Date:13-NOV-91
Invoice No. I-9124370
P.O. Number :
Account :

N. C.													
					ı	CERTIFICATE OF ANALYSIS				24370			
SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Au FA oz/T							·			
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Project : Comments: Page Number 2
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Certificate Date: 3-NOV-91
Invoice No. I-9124370
P.O. Number :
Account :

						CERTIFIC	ATE OF A	NALYSIS	A91	24370	
SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Au FA OZ/T								
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