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1990 ASSESSMENT REPORT
ON THE
HARRISON GOLD PROPERTY

HARRISON LAKE, B.C.
NEW WESTMINSTER MINING DIVISION, B.C.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

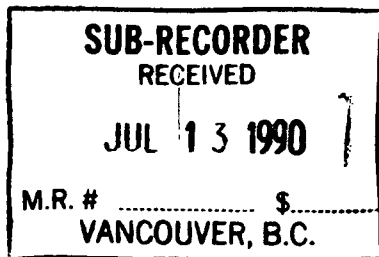
20,144

NTS: 92 H5
LATITUDE: 49 15' North
LONGITUDE: 121 42' West
CLAIMS: RN, MB-1, FF, Hot 1 - Hot 8, Cold 1 - Cold 15
OWNER: Bema Gold Corporation, Abo Resource Corporation
OPERATOR: Bema Gold Corporation
AUTHOR: G. Norman, Norman Geological
DATE: July 1990

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SUMMARY

A program of 2104.3 meters of NQ2 core diamond drilling was completed on the Harrison Gold Property of Bema Gold Corporation and ABO Resource Corporation from January to April 1990. This drilling was undertaken to follow up two specific targets developed by previous drilling on the Hill Stock and Breccia Zone.

Gold on the Harrison Gold Property occurs within quartz veins in association with small quartz diorite stocks (Jenner, Portal and Hill Stocks). The type of deposit sought would be similar to America Barricks' Clamflo Mine, near Val d'or, Quebec (5-6 million tons, average milling grade 1988 - of 3.0 g/tonne Au). Gold also occurs within a conspicuous Breccia zone associated with open space pyrrhotite-chalcopyrite-sphalerite fillings within a hydrothermally altered breccia pipe. The type of deposit sought would be similar to a low grade high tonnage Au-Ag-Zn-Cu breccia pipe deposit.

One drill rig operated by F. Boisvenue Drilling Ltd. was on site from January 24 - April 17, 1990 to complete the drilling program.

The purpose of this report is to document follow-up diamond drilling exploration work completed during the first quarter of 1990 on the Breccia Zone and Hill Stock Gold Zones located within the southern portion of the Harrison Gold Property.

The 1988 drilling program within the south grid portion of the Harrison Gold Property located significant gold-silver mineralization within the Hill Stock and the Breccia Zone. The intersection within the Hill Stock of 27 metres averaging 3.54 g/t Au and 6.3 g/t Ag, including 8 metres averaging 8.7 g/t Au and 14.2 g/t Ag represented a significant gold-silver discovery that had the potential to become a sizeable gold deposit in the range of several million tons of above similar grades. Gold-silver mineralization is associated quartz \pm carbonate pyrrhotite-pyrite, \pm molybdenite, \pm arsenopyrite veins which are not to dissimilar to vein textures within the Jenner Gold deposit. The addition of pyrite-arsenopyrite is definitely anomalous and might represent spatial mineral zoning within the district. Gold-silver mineralization was also located with a sulphide bearing (pyrrhotite-sphalerite-chalcopyrite) conspicuous Breccia Zone which is strongly sericitized, chloritized and silicified. Sulphides and alteration mineralization occur as open space fillings. A zone of 29 metres averaging 1.56 g/t Au, 4.4 g/t Ag, 0.56% Zn and 0.04% Cu including 7 metres averaging 3.5 g/t Au, 9.3 g/t Ag, 1.2% Zn and 0.049% Cu occurs at the margins of a Magmatic-Hydrothermal Breccia pipe which is spatially related to the Hill Stock. The Breccia zone with surface dimensions of 100 metres by 325 metres had the potential along its margins to contain a multi-million tonne gold deposit of above similar grades.

Results of the geological logging and gold-silver-zinc assaying from the 1990 Diamond Drill Program on the Breccia zone, has indicated that the strength of both hydrothermal alteration and grade of gold-silver-zinc mineralization has weakened down dip and laterally outward from the discovery of significant metallization and alteration within a hydrothermal altered breccia pipe where 7 metres of 3.5 g/t Au, 9.3 g/t Ag, 1.2% Zn or 29 metres of 1.56 g/t Au, 4.4 g/t Ag and 0.56% Zn were intersected.

Additional drilling on section to test the Hill Stock in an area lateral to a significant intersection (BX 88-130; 27 metres of 3.5 g/t Au and 6.3 g/t Ag) of gold-silver mineralization has indicated that the zone which weakens laterally outward is relatively flat lying and controlled by low angle veining similar to Jenner-Portal mineralization.

Further exploration work on the Breccia Zone and Hill Stock Gold Zone is subject to Bema Gold Corporation's overall exploration philosophy concerning the Harrison Gold Property.

INTRODUCTION

This report is written as a technical "Drilling Report" as follow up to assessment work filed on selected claims on the Harrison Lake Gold Property on July 12, 1990. This assessment report covers the drilling on the Hill Stock and Breccia Zone during the period January 18 to April 12, 1990. Costs incurred directly for geology, drilling and assaying have been submitted as expenditures in the filed assessment work.

A total of \$282,280.00 was expended on geology, drilling and assays on the property from January 18 to June 27, 1990. Of this, \$53,400.00 was filed for assessment on the HOT Group, \$10,600.00 was filed for assessment on the COLD Group and \$51,600.00 was filed for assessment on the COOL Group. Each statement of work was filed for specific claims within each group. The remaining funds were entered into Bema Gold Corporation's PAC account.

As all claims on the property are contiguous and cover similar geological units this report is submitted to cover requirements for the Hot, Cool, and Cold Groups. Drill core is stored in racks, on site.

1.1 LOCATION AND ACCESS

The Harrison Gold Property is located in the extreme southern portion of British Columbia, approximately 130 Kilometres east of Vancouver at the southeast corner of Harrison Lake (see Figure 1). The main showing, Jenner Stock Gold Zone, is situated 4.5 kilometres northeast of the village of Harrison Hot Springs. The mineral claims comprise a north trending block 11 kilometres in length by 3.5 to 6.5 kilometres in width, the geographic centre of which is 40° 15 north latitude and 121° 41 west longitude and N.T.S. map sheet is 92H5.

Access to the claims is via Trans Canada Highway #1, 130 kilometres east from Vancouver, and B.C. Highway 9 which leads north from the Trans Canada Highway at Agassiz and to Harrison Hot Springs. Access to various parts of the claims is by 4-wheel driveable gravel roads, which lead outward from a paved road that connects the village of Harrison Hot Springs to Sasquatch Provincial Park, approximately 4.0 kilometres north of the village.

Harrison Hot Springs, with a population of approximately 650, is a small resort community in which most services are available. B.C. Hydro power line follows along the aforementioned paved road north of Harrison Hot Springs within 500 metres of the Jenner Stock.

BEMA GOLD CORPORATION



HARRISON GOLD PROJECT LOCATION MAP

Fig. 1

1.2 MINERAL CLAIMS

The Harrison Gold Property consists of 26 mineral claims (including one fractional claim), comprising 236 units located within the New Westminster Mining Division, covering approximately 5900 hectares (see Figure 2). Table I lists the individual claims with present expiry dates. All claims are currently registered in the name of Bema Gold Corporation.

1.3 PHYSIOGRAPHY

The Harrison Gold Property is located in the B.C. Coast Range Mountain physiographic region. Elevations range from a base of 10 metres above sea level at Harrison Lake to over 1,000 metres above sea level on Bear Mountain, the highest point on the property. Elsewhere in the region, elevations of mountain tops exceed 2,000 metres.

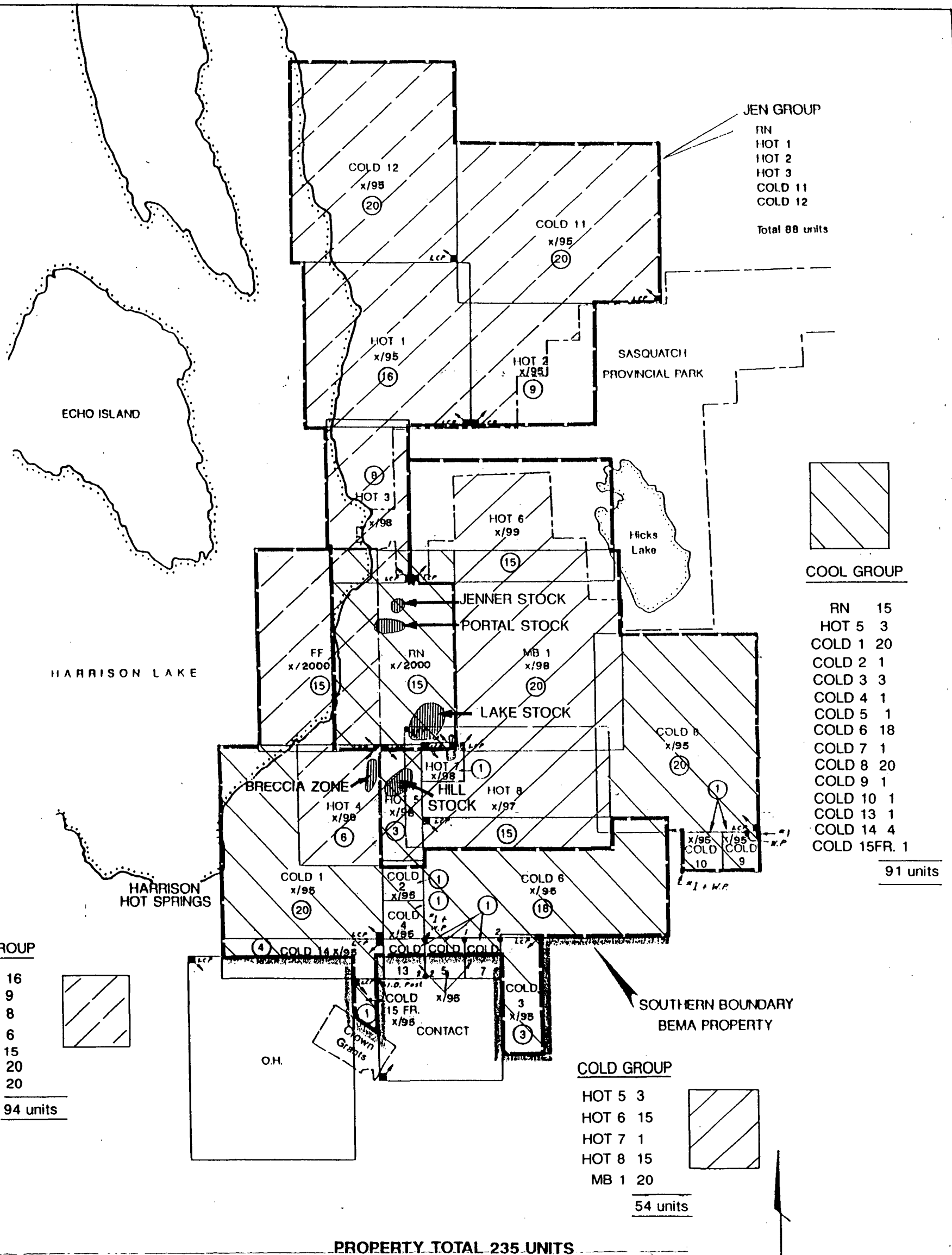
Slopes are steep, ranging from 10° to 40° with occasional short precipices. Most of the area has been previously logged, resulting in second growth evergreen and deciduous trees ranging up to 20 centimetres in diameter, with frequent dense undergrowth, including devils club. Mean annual precipitation in the area ranges from 150 to 200 centimetres.

1.4 HISTORY and PREVIOUS WORK

In the early 1970's, the Harrison Gold Property was known as the GEO claim. It was restaked as the RN claim in 1975. In 1979, the MB-1 claim was added to the east. The FF claim was added in 1983 and the HOT 1-8 claims were recorded in December 1984 and January 1985. In November 1988, the Cold 1-14 and Cold 15 Fractional claims were staked.

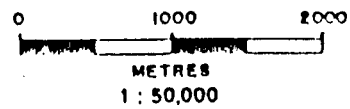
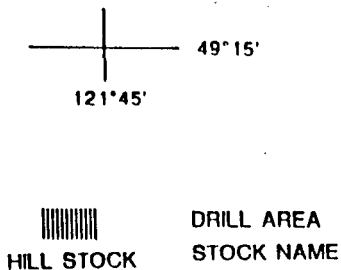
Between 1972 and 1982 a small tonnage was mined from the property and produced 30.44 kilograms gold, 10.14 kilograms silver and 616 kilograms copper from 643 tonnes of ore. This was mined from the Portal Stock Adit, which was 50 metres long and included four raises up to 15 metres long. The ore consisted of a quartz-pyrrhotite veins containing visible gold.

Abo Oil Corporation (later known as Abo Resource Corporation, "Abo") acquired the property in 1982 and, using A & M Exploration Services, explored the property in 1982 and 1983. Work consisted of geological mapping, soil sampling, and EM surveying. This was followed by a drilling program of 27 diamond drill holes totalling 2,588 metres. In March of 1982, Abo 1-7 claims were staked; then in May of 1983 the FF claim was staked.



LEGEND

- HOT 1 CLAIM NAME
- x/92 YEAR OF EXPIRY
- (20) NUMBER OF UNITS
- L.C.P. LEGAL CORNER POST
- W.P. WITNESS POST
- I INITIAL POST
- F.F. FINAL POST



BEMA GOLD CORP.
HARRISON GOLD PROJECT
CLAIM MAP

DATE: JULY, 1990 JOB NO.: 9010
 APPROVED BY: GEN FIG. NO.: 2

▲▲ BEMA INDUSTRIES LTD.

TABLE I

Claim Status

Claim Name	Record No.	# of Units	Recording Date	Expiry Date (Pre Nov 9, '89)	Years Work Filed	New Expiry Date
RN	46(8)	15	Aug. 26, 1975	Aug. 26, 1998	2 years	August 26, 2000
MB-1	592(5)	20	Sep. 20, 1979	Sep. 20, 1997	1 year	September 20, 1998
FF	2051(9)	15	May 3, 1983	May 3, 1998	2 years	May 3, 2000
HOT 1	2579(12)	16	Dec. 17, 1984	Dec. 17, 1992	3 years	December 17, 1995
HOT 2	2580(12)	9	Dec. 17, 1984	Dec. 17, 1992	3 years	December 17, 1995
HOT 3	2581(12)	8	Dec. 17, 1984	Dec. 17, 1995	3 years	December 17, 1998
HOT 4	2582(12)	6	Dec. 17, 1984	Dec. 17, 1995	3 years	December 17, 1998
HOT 5	2583(12)	3	Dec. 17, 1984	Dec. 17, 1995	3 years	December 17, 1998
HOT 6	2584(12)	15	Dec. 17, 1984	Dec. 17, 1998	1 year	December 17, 1999
HOT 7	2585(12)	1	Dec. 17, 1984	Dec. 17, 1995	3 years	December 17, 1998
HOT 8	2587(1)	15	Jan. 10, 1985	Jan. 10, 1996	1 year	January 10, 1997
COLD 1	3473	20	Nov. 15, 1988	Nov. 15, 1992	3 years	November 15, 1995
COLD 2	3474	1	Nov. 13, 1988	Nov. 13, 1992	3 years	November 13, 1995
COLD 3	3475	3	Nov. 20, 1988	Nov. 20, 1992	3 years	November 20, 1995
COLD 4	3476	1	Nov. 13, 1988	Nov. 13, 1992	3 years	November 13, 1995
COLD 5	3477	1	Nov. 21, 1988	Nov. 21, 1992	3 years	November 21, 1995
COLD 6	3478	18	Nov. 17, 1988	Nov. 17, 1992	3 years	November 17, 1995
COLD 7	3479	1	Nov. 17, 1988	Nov. 17, 1992	3 years	November 17, 1995
COLD 8	3480	20	Nov. 18, 1988	Nov. 18, 1992	3 years	November 18, 1995
COLD 9	3481	1	Nov. 18, 1988	Nov. 18, 1992	3 years	November 18, 1995
COLD 10	3482	1	Nov. 18, 1988	Nov. 18, 1992	3 years	November 18, 1995
COLD 11	3483	20	Nov. 18, 1988	Nov. 18, 1992	3 years	November 18, 1995
COLD 12	3484	20	Nov. 20, 1988	Nov. 20, 1992	3 years	November 20, 1995
COLD 13	3487	1	Nov. 21, 1988	Nov. 21, 1992	3 years	November 21, 1995
COLD 14	3485	4	Nov. 21, 1988	Nov. 21, 1992	3 years	November 21, 1995
COLD 15 Fr.	3486	1	Nov. 21, 1988	Nov. 21, 1992	3 years	November 21, 1995

In 1984, Sawyer Consultants of Vancouver, B.C. reviewed all data for Abo and made recommendations for further work. Abo drilled a further seven diamond drill holes in 1984, totalling 754 metres, including the extension of two previously drilled holes.

Gold was intersected in three of these (DDH 84-28, 84-29 and 84-30). The best intersection was a 64 metre interval in DDH 84-28 which averaged 3.77 g/t gold. This came from the newly indicated Jenner Stock Prospect, whereas original production and exploration work concentrated on the Portal Stock.

In late 1984, Kerr entered into a joint venture with Abo to continue exploration. The Abo 1-7 claims were restaked as the Hot 1-7 claims; the Hot 8 claim was added in January 1985.

In 1985, Kerr re-mapped the property and carried out substantial stream, soil and rock chip geochemical sampling. This was followed by a program of 834 metres of diamond drilling in four new holes as well as extensions of a previous Abo drill holes.

In 1986 Kerr completed a major exploration program on the property. Geological mapping, based on gold geochemical anomalies, indicated the presence of a number of newly located quartz diorite stocks located to the south and east of the Jenner Stock as well as a 1,000 metre long, 100 metre wide, north trending feldspar porphyry dyke.

On February 10, 1987, Kerr signed a letter of intent with Bema International Resources Inc. (BIRI) whereby BIRI could earn a 55% interest in Kerr's 60% interest in the property for a net of 35% equity. To earn this interest, BIRI was required to expend \$750,000 on exploration in 1987. BIRI could earn, at BIRI's option, an additional 5% equity interest by making further expenditures of \$250,000.

During 1987, a 1,000 tonne bulk sample was procured from the Jenner underground workings on the 187 level; extensive face, rib and muck sampling (1,500 samples) was also completed. The results from the underground sampling indicate that there is a significant upgrading with respect to the drill hole assays (as much as 50%). The results of the pilot mill test was deemed inaccurate by Kerr personnel as the gravity circuit did not live up to expectations, with only 14% (instead of an estimated 70%) of the gold being recovered by the jig and Wilfely table resulting in 51% collecting in the sulphide concentrate. Problems in obtaining an accurate assay from the sulphide concentrate as well as a 40% variation between feed assay and back calculated grades raised further uncertainties in the validity of the operation.

Kerr concluded from the 1987 sampling program that the assay average computed from the extensive underground sampling program was the most accurate as compared to drill assays (3.0 g/t Au -

calculated from all holes piercing footwall zone) and the pilot mill (2.2 to 2.5 g/t Au).

In estimating grade and tonnage of the Jenner Stock, Kerr made the general assumption that the average grade resulting from the underground workings would extend to surface and depth and that the footwall zones appeared to be the main target worth following up. A grade of 3.2 to 4.1 g/t Au was indicated from underground sampling and the inferred tonnage was 1.3 million tonnes between surface and 100 metres above sea level, and 2.2 million tonnes from surface down to sea level for the "Footwall Zone".

By early 1988, BIRI had earned a total of 35% equity by expending \$1.0 million whereupon BIRI and Kerr spent an additional \$357,000 in mid 1988 to vest their combined interest in the property. In August 1988, BIRI purchased Kerr's remaining 25% equity in the property for shares and cash.

From July to October 1988, Bema Gold Corporation embarked on a rigorous program of property re-evaluation comprising detailed geologic mapping of the Jenner - Portal Stocks, including a structural study of underground workings, reconnaissance prospecting mapping and sampling of the Bear - Bluff and the Hill - Lake Stock areas, soil and rock geochemical magnetic surveys on all grided areas and various other test geophysical surveys including I.P. over the Jenner - Portal Stocks. As well a new core logging and splitting facility was built and approximately 3000 metres of core was split which was residual from the previous spring Kerr drilling program.

From October to December a comprehensive diamond drill program (7,145 metres) including detail underground drilling of the Jenner Stock and surface drilling of the Portal, Hill, and Lake stocks as well as a hydrothermal Breccia zone was completed.

From January to March 1988, Bema Gold Corporation, completed a comprehensive review of the previous and recently acquired data including sectional and level plan interpretation of Jenner and Portal Stocks and calculation of mineral reserves.

1.5 PRESENT WORK

During the period of December 1989 to June 1990 Bema Gold Corporation as operators of the Harrison Lake Gold Project completed diamond drilling, geological core logging, rock geochemistry, road building and repairs, drill site preparation, reclamation work, data compilation and geological report writing on the Hill Stock and Breccia Zones located within southern portion of the property.

The number of Bema Gold Personnel and or contractors on the site during the exploration program varied from 2 to 6 people.

Boisvenue Drilling Ltd. operated one rig and worked 2 - 8 hour drill shifts.

The NQ2 core was transported from each drill hole site via a 4x4 truck or Kubota tractor to a relatively new (1988) core facility located near the base of the mountain. There it was firstly measured for recovery and marked in metre intervals. The core was then geologically detail logged and tagged for sampling. A half split section of the core was bagged and shipped to Chemex Laboratories Ltd., North Vancouver for rock geochemical analyzes for gold-silver and copper-zinc-molybdenum values. The gold was analyzed via fire assay and standard Atomic Absorption Spectrometry (A.A.S.) whilst for silver-copper-zinc the sample underwent a HNO₃-aqua regia digestion then was analyzed by standard A.A.S. techniques. Every eighth sample was analyzed for 32 different elements using Induced Coupling Plasma (I.C.P.) procedures where the sample was digested initially with a nitric acid aqua regia and then injected into a hot plasma of ionized Argon gas. As the different elements of the sample become ionized they emit a distinct wave length. The intensity of the wave length quantifies the percentages of each element in the sample.

Geologic logs and assay data has been computerized using the Geolog system. D. Nowak, Consulting geologist was responsible for the computerization of the data as well as production of computer printed geologic and assay sections as well as drill hole locations and surface traces.

A summary breakdown of the various aspects of the program is given below:

1.	<u>DIAMOND DRILLING</u>	- Breccia Zone	4 holes	1274.7m	(4182 ft)
		Hill Stock	3 holes	829.7m	(2722 ft)
		Total	7 holes	2104.33m	(6904 ft)

2. ROAD BUILDING AND ROAD SET-UPS

- with D5 caterpillar
- 5 drill set-ups
- repair Bear Mountain Forest Service Road
- new road built - 460 metres

3. ROCK GEOCHEMISTRY

Gold Assay/Geochemical Analyses (Fire Assay & A.A.S.)
- 10 samples

Gold-Silver Assay/Geochemical Analyses (Fire Assay & A.A.S.)
- 1478 samples
(Note: some samples were geochemed then assayed)

Zinc-Copper/Geochemical Analyses (A.A.S.)
- 804 samples

Molybdenum Assay/Geochemical Analyses (A.A.S.)
- 416 samples

I.C.P. Analyses
- 220 samples

Samples Preparation-Pulverize and Crush
- 1465 samples

4. RECLAMATION WORK

- a) Water bar existing access roads
- b) Grass seed all drill sites, disturbed areas and abandoned drill roads
- c) Complete slashing of drill sites and drill roads
- d) Re-establish creek bed for tributary to Raymond Brook

5. COMPUTER STORAGE of all geologic log data and assay data on Geolog System (D. Nowak, Consulting Geologist).

6. DATA compilation and report writing.

2.0 REGIONAL GEOLOGY

The Harrison Gold Property lies near the junction of Coast Plutonic Complex and the Cascade Fold Belt (See Figure 3). The division between the two geological terranes is based partly on physiography with an arbitrary dividing line along the Fraser River (Holland 1964), and partly on the higher proportion of granitic rocks in the Coast Plutonic complex, although many rock units in this area are common to both (Monger, 1986).

The Cascade Fold Belt consists of a high grade metamorphic and granitic core flanked on the east and west by weakly metamorphosed folded and faulted sedimentary and volcanic sequences. To the north, the core forms the southeastern most part of the Coast Plutonic Complex; to the east is the Permian to Middle Jurassic Hozameen Group, and to the west and south of the Fraser River is the Paleozoic Chilliwack Group.

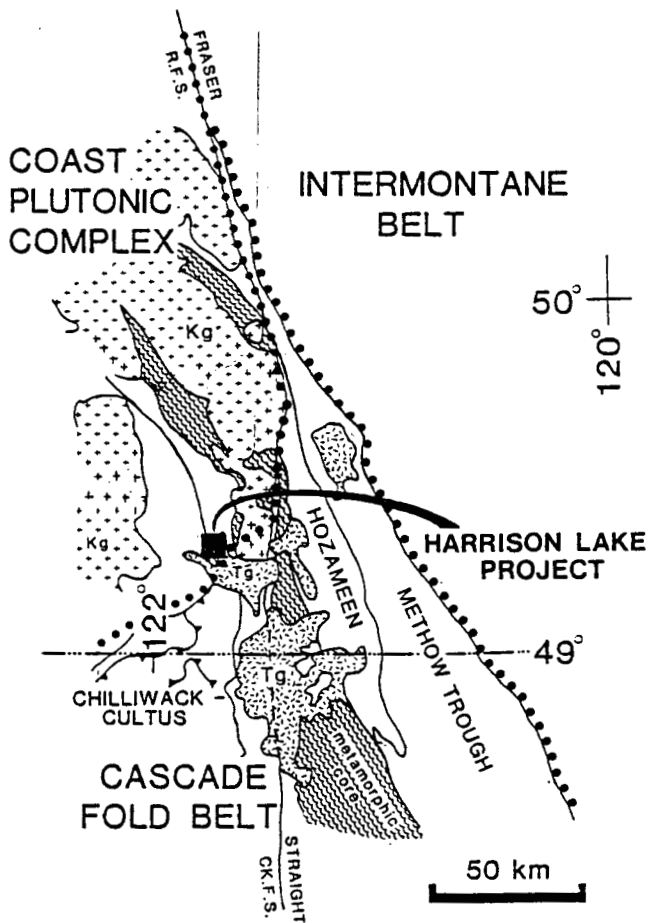
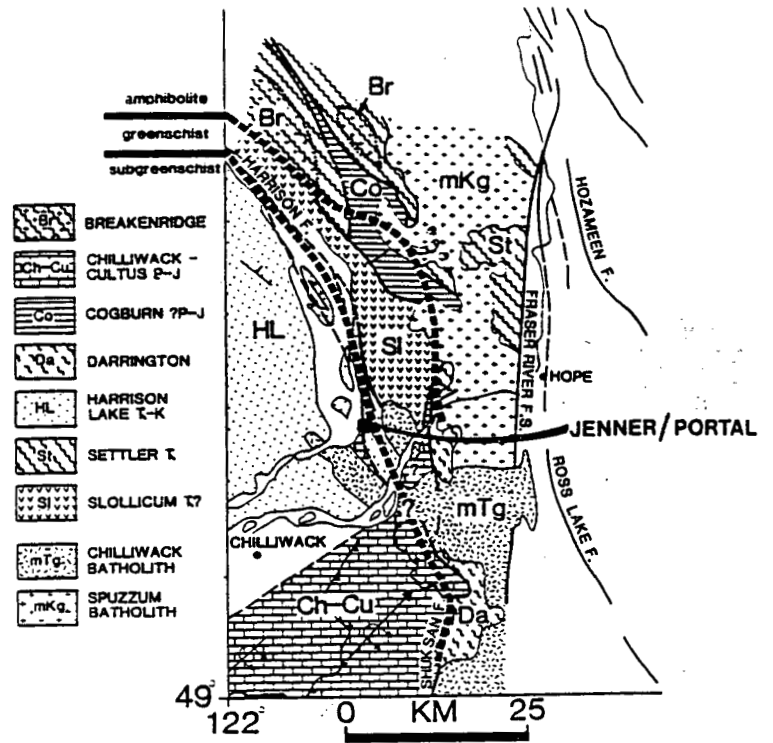
North of the core and the Fraser River and adjacent to Harrison Lake (area of Harrison Gold Project) are Middle to Triassic to Cretaceous strata. The regional north-northwest-trending fabric formed within these rocks in Cretaceous to earliest Tertiary time was offset 80 to 100 kilometres in the Eocene by north-trending Fraser River-Straight Creek dextral wrench fault system (Monger, 1985).

Within the above described area are five major lithostructural packages which, in order of increasing metamorphic grade are called: Harrison Lake, Slollicum, Cogburn and Settler packages (north of the Fraser), and the Chilliwack-Cultus and Darrington packages (south of the Fraser), see Figure 3.

The Harrison Gold Project lies within the Harrison Lake lithostructural package which comprises a stratigraphic succession of sedimentary and volcanic rocks which range from Middle Triassic to Early Cretaceous.

The Harrison Gold package is bounded on the east side by the major Harrison Fault, which is a one to two kilometre wide fracture zone with a well developed cleavage which dips 50° to 70° to the east but which has no marked linear fabric within it. The Jenner Prospect lies to the west of the Harrison fault but is cut by several possible splay faults including the fault along which the Jenner Creek flows.

Distribution of lithostructural packages in the Cascade Fold Belt, southeastern Coast Belt, west of the Fraser River fault system. (Taken from Monger, 1986.)



Index map of Cascade Fold Belt and southeastern Coast Plutonic Complex, showing geological/physiographic belts, major structural elements and location of areas discussed here and in accompanying papers by Arthur (1986) and O'Brien (1986).

(Taken from Monger 1986.)

REGIONAL GEOLOGY

FIG. 3

The Harrison Fault, one of the major strike-slip faults in the region that largely governs the regional grain of the adjacent rocks, extends for more than one hundred kilometres north to south from the Lillooet River well into Washington State. The age of the fault appears to be Late Cretaceous and/or Early Tertiary and clearly post dates regional metamorphism and intrusion of the mid-Cretaceous Spuzzum batholith.

The Harrison Lake lithostructural package (on the west side of Harrison Lake) has been extensively studied by A.J. Arthur (1986) as part of M.Sc. research at U.B.C. A geologic map and a stratigraphic section, according to Arthur, is given in Figures 4 and 5 respectively. J. Monger (1989, personal conversation) believes this package of rocks, and specifically the Brokenback Hill formation, underlie the Harrison Gold Property.

The Chilliwack Group, oldest known layered rocks (Pennsylvanian-Permian), and the overlying Cultus Formation (Late Triassic-Early Jurassic) consist of pelite, carbonate, mafic to felsic flows and volcanoclastic rocks (Monger, 1970, 1977) are mainly exposed south of the Fraser River but also extend north of the Fraser River near the southern extremity of Harrison Lake, underlying the southern portion of the Harrison Gold Project claim block. Grey crinoidal limestone containing mid-Carboniferous conodonts (J. Monger, personal communication, 1989) form conspicuous cliffs in this area.

The Slollicum package of rocks includes rocks mapped as Chilliwack by Lowes (1972) east of Harrison Lake. Since there appears to be little similarity between the Chilliwack and these mainly schistose basic, intermediate and locally felsic flows and volcanoclastics Monger (1986) prefers the term "Slollicum". The age of the unit is not known although in general the package closely resembles the Upper Triassic Cadwallader Group (Rusmore, 1985).

The Cogburn package lies east of the Slollicum rocks forming a distinctive package of bedded chert, argillite, basic volcanics, ultramafics rocks, and minor marble. These rocks were originally included with the Chilliwack Group by Lowes (1972) but was extracted by Gabites (1985) as the Cogburn Group. The grade of metamorphism of these rocks grades from greenschist in the south to amphibolite grade in the north. The age of the Cogburn Group is not known but Monger (1986) suggests that the range of lithologies is similar to that of the Permian to Jurassic Hozameen and Bridge River groups.

The Settler Schist structurally overlies the Cogburn Group and is structurally interrelated with Late Cretaceous high pressure granodiorites of the Scuzzy and Spuzzum plutons.

The Settler Schist (Lowes 1972; Pigage, 1973, et al) comprises pelitic and quartzofeldspathic schist, amphibolite, minor quartzite and ultra mafic rocks.

Rb-Sr isochrons dated at 214 ± 32 Ma and 210 ± 27 Ma by Bartholomew (1979) and Gabites (1985) indicate either a Triassic-Jurassic deposition of the Settler package or partial resetting of the rocks by Mesozoic metamorphism (Gabites, 1985).

The rocks of the above packages have been intruded by Cretaceous and Tertiary granodiorite and quartz diorite stocks and batholiths including the Chilliwack batholith, Hicks Lake Batholith and the Spuzzum batholith.

3.0 LOCAL GEOLOGY

The Harrison Gold Property is underlain by sediments and volcanics of the Harrison Lake Lithostructural package (Monger, 1986) and more specifically the Brokenback Hill Formation (Monger, personal communication, 1989) of Jurassic - Upper Cretaceous Age. (See Figure 6, General Geology.) The Brokenback Hill Formation conformably overlies a Buchic coquina bed of the Peninsula Formation and is composed of green crystal tuff, volcanic conglomerate and tuffaceous sandstone in lower part of the section, which gives way to volcanic flows, pyroclastics argillite and sandstone in the upper reaches of the formation (Arthur, 1986). The formation covers the majority of the Harrison Gold Property and extends to the north up to Doctor's Point Pluton outcropping on the southwest shore of Long Island.

Previous reports by Kerr had considered the area to be underlain by the Mysterious Creek Formation which is mainly argillite with interbedded medium grained green sandstone beds near the top of the section with no volcanic component (Arthur, 1986). The volumetrically large component of volcanic flows tuffs and agglomerate within the Harrison Gold Property suggest a correlation with the Upper portions of the Brokenback Hill Formation.

Chilliwack Group rocks (Pennsylvanian-Permian) are in fault contact with the Brokenback Hill formation within the southern most part of the claim block (see Figure 4) and are composed of pelite, carbonate, mafic to felsic flows and volcanoclastic rocks (Monger, 1970, 1977); as well, grey cliff forming crinoidal limestone contain mid-Carboniferous Conodonts.

Sediments and Volcanics within the Harrison Gold Project area have been intruded by numerous quartz diorite stocks which are probable offshoots of the Hick's Lake-Chilliwack Batholith. The age of the Jenner Stock has been dated at 23 to 25 Ma. Several diorite stocks and a feldspar porphyry dyke also intrude the package.

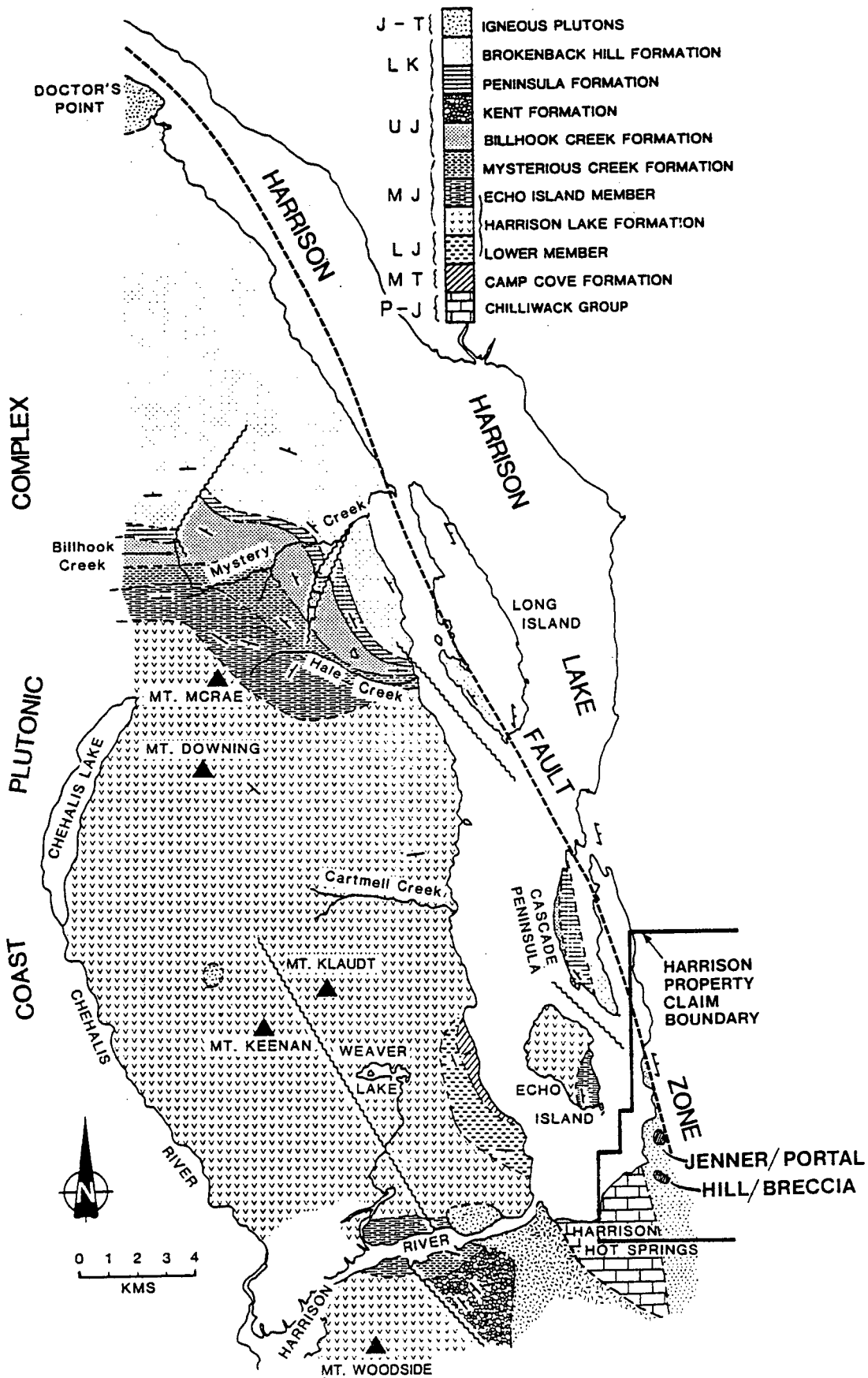


FIGURE 4 Geology of study area west of Harrison Lake (see Monger, 1986, for location map.) (Taken from Arthur, 1986. Modified after personal conversation with Monger, 1988.)

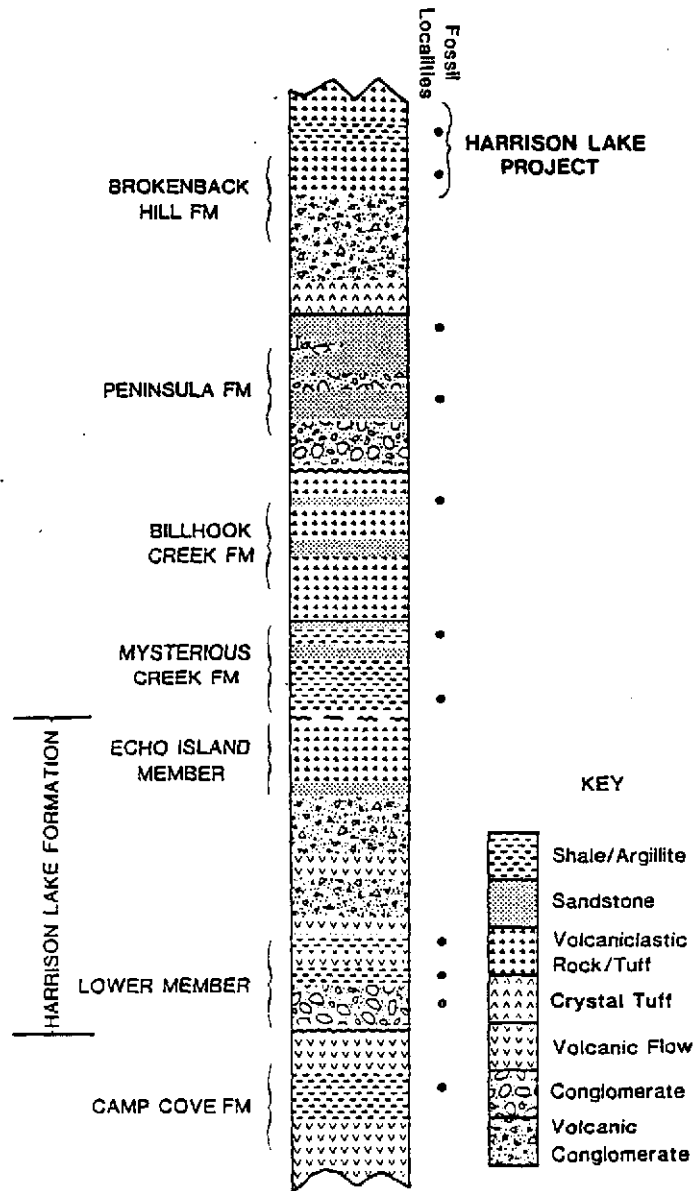


FIGURE 5

Stratigraphy of the Middle Triassic to Middle Albian section on west side of Harrison Lake with fossil locations. (Section not to scale.) (Taken from Arthur, 1986.)

4.0 DIAMOND DRILL PROGRAM

During the period of January 18 to April 12, 1990 a total of 6,904' (2,104.3m) of NQ2 diamond drilling was completed in seven drill holes on the Harrison Gold Project. A total of 4,182' (1,274.4m) in 4 holes (BX 90-141 to 144) was drilled on the Breccia Zone while 2,722' (829.7m) was drilled on the Hill Stock in 3 holes, HL 90-145 to 147. Boisvenue Drilling completed the drilling contract averaging 154.9 ft/day on the Breccia Zone and 209.4 ft/day on the Hill Stock. The difference in drilling averages is attributed generally to rock conditions but high accumulations of snow during the first phase of the program definitely hampered progress.

The following is a summary of results and a synopsis of individual holes drilled on the Breccia Zone and Hill Stock.

4.1 BRECCIA ZONE

The purpose of the drilling program on the Breccia Zone was to test for a large open space filling type deposit similar to mineralization encountered in BX 88-127 where 7 metres of 3.5 g/t Au, 9.3 g/t Ag, 1.2% Zn and 0.049% Cu or 29 metres of 1.56 g/t Au, 4.4 g/t Ag, 0.56% Zn were intersected. Gold is associated with massive pyrrhotite-sphalerite-chalcOPYrite open space fillings within a chlorite-sericite-silica altered breccia.

A summary of the drill results is given in Table II and in the following paragraphs summations of each hole. Detailed geologic logs of each hole are included in Appendix III. Drill hole collars as well as surface traces are plotted in plan, see Figure 6 and 7.

BX 90-141 (-70°, 290° Az, 281.64m) was drilled beneath the aforementioned Au-Ag-Zn mineralization intersected in BX 88-127. The hole was designed to test the breccia zone approximately 80 metres down dip. Breccia was intersected from 122.5m to 247.5m indicating that the Breccia zone dips easterly into the mountain at 30-40°. The hole intersected an upper mineralized zone from 127.0 to 159.0 metres (32.0m) which contains 0.6 g/t Au, 2.41 g/t Ag and 0.22% Zn. Although this intersection correlates well with BX 88-127 the grade of the zone has decreased appreciably. A lower zone 220-247m (28m) containing 1 - 3% PO, traces of CPY and 1/4 to 1% sphalerite contains weaker Au, Ag values with 0.22 g/tonne Au and 1.0 g/t Ag and L.15% Zn. This lower zone is somewhat narrower than in HL 88-127, the values are again weaker (HL88-127 - 206 to 242 (36m) of .38 g/t Au, 2.6 g/t Ag and 223 to 230 (7m) of 2.3 g/t Au, 13.0 g/t Ag).

BX 90-142 (-50, 270° Az, 288.34m) was designed to test for a possible lateral extension to the Breccia Zone approximately 40m to the southwest of HL 88-127 at a depth of 70 metres below surface. The drill hole intersected predominately sedimentary rocks including argillite, siltstone, quartzite and lesser tuffaceous units as well as minor quartz diorite dyking. Strong quartz veining as stockworks and irregular masses subparallel to bedding foliation as well as a very short section of unaltered Breccia (153.42-156.0) indicates the trace of the hole was just southerly from the main Breccia Zone. Anomalous values of sphalerite (up to 3,400ppm Zn) is contained within the quartz rich zones as well weak values of Au and Ag up to 400ppb and 1.0 ppm respectively.

Replacement of a limestone bed/calcareous sediments at 73.0-77.0 (4m) to semi-massive and massive sulphides with up to 70% pyrrhotite, 10% sphalerite and 3-4% chalcopyrite returned values of 1.86 g/t Au, 6.86 g/t Ag, 1.18% Zn and .14% Cu with 74.9-75.6 (.7m) of 8.64 g/t Au, 29.5 g/t Ag, 1.43 Zn and 0.33% Cu (massive sulphides). It is worthy of note that similar massive sulphide replacement of limestone beds in BX88-129 returned values from 63 to 67 (4m) of .38 g/t Au, 6.03 g/t Ag, .01 % Zn and .15% Cu showing an increase in gold and zinc content within the replaced zone to the south.

The hydrothermal alteration of the limestone beds also suggests a close proximity to the "Breccia System".

BX 90-143 (-50°, 270° Az, 312.72m) was designed to test the northward lateral extent of the gold-silver-zinc intercept intersected in BX 88-127 (previously stated). BX 90-143 was collared approximately 138 metres northeast of BX 88-127 at coordinates 7145N and 11185E. The drill hole intersected overburden from 0-12.19m, quartz diorite (Hill Stock) from 12.19-115.82m, breccia from 115.82-297.87m and sediments from 297.87 to 312.72m. The hole was a technical success in that the breccia was intersected at the approximate projected depth and location. The hole was not an economical success as the breccia was only moderately to weakly altered by sericite alteration and contained minor sphalerite-chalcopyrite as well as Au and silver values. Highest value within the breccia was from a massive pyrrhotite vein (223.0-224.0) which contains 21.4 g/t Au and 47ppm Ag with 2 metres from 222.0-224.0m averaging 14.0 g/t Au and 30.45 ppm Ag. Highest value for open space filling associated with quartz-chlorite-carbonate-sericite is .46 g/t Au and 1.8 g/t Ag.

Hydrothermal alteration intensifies near the lower breccia-sedimentary contact. Chlorite is contained as open space fillings up to 35% as well as the odd fragment is pervasively sericitized. Traces of sphalerite and pyrrhotite locally up to 3-5% is also present. No significant values of Au, Ag or Zn were returned in assays.

A zone of quartz-pyrite-black oxide (after pyrite - some coxcomb textures) veining within the upper portion of the Hill Stock from 18.0-24.0 (6m) averaged 1,550ppb Au and 3.26ppm Ag with 20.0-22.0 (2m) 3,955ppb and 8.8ppm Ag.

A conspicuous pseudo-breccia zone was intersected within the Hill Stock in close proximity to the breccia zone from 50.14-107.7 metres. The quartz diorite has been crackled and infilled by varying amounts of quartz-carbonate-chlorite and sulphides (pyrrhotite-chalcopyrite-sphalerite). The open space filling minerals include 10-25% quartz, about 5% carbonate, 1-5% chlorite and <1/2 - 2-3% pyrrhotite, traces chalcopyrite and minor traces of sphalerite. The highest value within the pseudo-breccia was 1,650 Au and 4.1 g/t Ag from 50.3-51.0 metres. Most values were below 100ppb Au and <0.2ppm Ag.

BX 90-144 (-70, 270° Azimuth, 391.97m) was collared at the same location as BX 90-143 and drilled beneath it at -70° dip to test for gold-silver-zinc mineralization associated with Breccia related open space gold-silver-zinc mineralization as per BX 88-127.

As hydrothermal alteration of the breccia intensifies near the lower portion of hole BX 90-143 (with up to 35% open space filling, pervasive sericitization, 3-5% pyrrhotite and traces of sphalerite), it was speculated that the zone of mineralization intersected in BX 88-127 could have a northeasterly rake, therefore warranting a deeper test of this area.

BX 90-144 intersected Hill Stock (quartz diorite) 9.39 to 173.4m with pseudo-breccia from 78.35m to 173.4m; mixed zone of breccia, sediment and quartz diorite 173.0-182.0m, Breccia from 182.0-374.9m and sediment/tuff from 374.9 to 391.97m. A zone of quartz veining within the upper portion of the Hill Stock (21-39m) includes a section from 21-28 (7m) that averages 3.52 g/t Au and 7.73 g/t Ag. One spectacular vein at 21.34-21.69m contains 8% PO, 1-2% arsenopyrite, 1-2% chalcopyrite, traces of Molybdenum and 3 counts of visible gold; assays are 18.0 g/t Au and 39.0 g/t Ag. This zone correlates well with a 6 metre zone intersected in BX 90-143 from 18.0-24.0m which contains 1,550ppb Au and 3.26ppm Ag; the zone has increased both in gold and silver content by 100%. The two intercepts are only 6 to 8 metres apart. This variance in grade appears to be typical of the general area.

The upper and lower Breccia contacts noted in BX 90-143 and 144 confirm an easterly dip (-64°) to the Breccia Zone. The system is dipping more steeply into the mountain than at the BX 90-141 location (-30°-40°). The width of the zone has also increased from 120 metres wide to 160 metres wide. The presence of a 35-50 metre crackled pseudo-breccia zone within the Hill Stock adjacent to the Breccia widens the zone of brecciation further.

The overall hydrothermal alteration and sulphide content of the Breccia zone within BX 90-144 is dramatically stronger than BX 90-143; the amount of gold-silver content is also appreciably higher. A zone from 246-263 (17.0m) averages 1.1 g/t Au and 2.5 g/t Ag. Although the breccia is relatively strongly altered from 263 to 374.9 only 1-2 metre spot anomalous gold-silver sections are contained with values of Au and Ag ranging from 710ppb to 4.35 g/t and 1.8 to 7.2 g/t respectively. In general, although the size of Breccia Zone has widened to the north the intensity of sericite alteration is not as strong as BX 88-127 and percentages of pyrrhotite and sphalerite are appreciably lower.

TABLE II

SUMMARY OF DRILL RESULTSBRECCIA ZONE

DRILL HOLE	LOCATION ELEVATION	DIP	AZ	M/FT LENGTH	SIGNIFICANT RESULTS FROM-TO (LENGTH M)	
					Au g/t or ppb	Ag g/t or ppm*
BX 90-141	7018N 11132E 709m	-70°	295°	281.64/ 924 ft	29.0-30.0	(1) 1.7 / 13.2*
					59.0-59.8	(.8) 3.26 / 7.0*
					76.0-77.0	(1) 4.11 / 13.0*
					116.45-117.45	(1) 6.7 / 20.0*
					127.0-159.0	(32) .61 / 2.40 .22% Zn
					127-172	(45) .51 / 1.96 .16% Zn
					219-247.5	(28.5) .24 / 1.0 <.15% Zn
BX 90-142	6990N 11106E 722m	-50°	270°	288.34 946	22.0-23.0	(1) 1000 ppm Zn
					73.0-73.9	(.9) .38 / 2.5 3.8% Zn, .14% Cu
					73.9-74.9	(1) .96 / 4.0 .1% Cu, .26% Zn,
					74.9-75.6	(.7) 8.64 / 29.5 1.43% Zn, .33% Cu
					73.0-77.0	(4) 1.86 / 6.86 1.18% Zn, .14% Cu
					126.0-127.0	(1) 165 / .7* 3400 ppm Zn
					210-211	(1) 1300 ppm Zn
					221-222	(1) 290 / 1.0 580 ppm Zn
BX 90-143	7145N 11185E 688m	-50°	270°	312.76m 1026 ft	18.0-24.0	(6) 1550 / 3.26*
					20-22.0	(2) 3955 / 8.8*
					44.0-45	(1) 2030 / 5.1*
					50.3-51	(.7) 1650 / 4.1
					142-143	(1) 1.37 / 3.5
					191-192	(1) .46 / 1.8
					222-223	(1) 6500 / 13.9*
					223.0-224	(1) 21.4 / 47*
222-224	(2) 14.0 / 30.45*					
309.4-309.45	(.05) 1550 / 2.9*					
BX 90-144	7145N 11185E 688m	-70°	270°	391.97m 1286 ft	21-28	(7) 3.52 / 8.33
					21.0-22	(1) 18.0 / 39.4
					27-28	(1) 0.86 / 3.1
					38.0-39.0	(1) 1770 / 3.5*
					79-80	(1) 1310 / 1.8*
					131.87-132.87	(1) 2620 / 8.0*
					146-148	(2) 465 / 1.1*
					154.6-155	(.4) 5240 / 16.0* 3000 ppm Cu
167-168	(1) 1420 / 3.3*					

4.2 HILL STOCK

The purpose of the diamond drill program on the Hill Stock was to test the extent of Jenner Style gold mineralization associated with pyrrhotite rich quartz veins intersected in HL 88-130. Three drill holes were drilled on the same section at 143° Azimuth. HL 90-145 and 146 were collared at the same location as HL 88-130 at dips of -60° and -81° respectively. HL 90-147 was drilled 40 metres to the southeast (143° Az) and 40 metres higher in elevation. See plan maps, Figures 6 and 7.

A summary of the drill results is given in Table III and in the following paragraph summations of each hole. Detailed geologic logs for each hole are included in Appendix IV.

HL 90-145 (-60°, 143° Az, 337.4m) was designed to test the lateral extent of gold bearing pyrrhotite rich veins intersected in HL 88-130 from 153.0 metres to 183.0 metres which averages 3.5 g/t Au and 6.3 g/t Ag over 27 metres. HL 90-145 was drilled beneath HL 88-130 at -60° to test the zone 30 metres to the northeast. HL 90-145 intersected an upper quartz diorite zone from 7.32 to 53.5 metres, a mixed zone of Hybrid - Hornfels and Quartz diorite from 53.5 to 126.0 a thick section of Quartz diorite from 126.0 to 242.38 and mixed Hornfels, Quartz diorite and hybrid from 242.38 to 337.41. Two gold bearing veins were intersected near the upper portion of the hole at 30-31.0 metres and 48-49.0 metres. The first vein is pyrite bearing and contains 23.0 g/tonne Au and 6.0ppm Ag. The second vein at 48-49.0 metres contains 3-5% arsenopyrite 4.56 g/t Au and 9.0 g/t Ag. A Zone of Jenner style veins containing quartz - pyrite - arsenopyrite is located from 121.0m to 158.0 metres. Poorly veined sections within the zone tends to weaken the overall grade which is relatively low at 1.0 g/tonne Au and 2.09 g/tonne Ag. Shorter sections of higher grade within the zone are 121.0-139 (15m) of 1.23 g/tonne Au and 2.09 g/tonne Ag; 130-139 (9m) of 1.84 g/tonne Au and 3.72 g/tonne Ag; and 153.0-158.0 (5m) 2.75 g/tonne Au and 4.4 g/tonne Ag.

The mineralized zone in HL 90-145 correlates well with the mineralized zone in HL 88-130 (both zones have a 50° angle to the core axis) and probably with a narrower weaker zone intersected in HL 90-146. Assuming a low angle orientation to the Hill Stock Vein System the overall zone dips at 10° from the horizontal to the south. This is a very simplistic interpretation as there could be several vein sets as per the Jenner System.

HL 90-146 (-81, 143° Az, 305.7) was drilled beneath HL 90-145 to test the northern margin of the Hill Stock in an area of projected low angle quartz -po veining. HL 90-146 intersected Quartz diorite from 3.05m to 81.75, a mixed zone of Hybrid - Quartz Diorite - Hornfels from 81.75 to 137.9 and Quartz diorite from 137.9 to 305.7. The hole was terminated in Quartz diorite due to budget

restraints. A zone of Jenner Style veining is located within the upper quartz diorite from 51.0 to 58.0m (7m). This zone averages 2.28 g/tonne Au and 6.19 g/tonne over 7 metres or 4.68 g/tonne Au and 13.65 g/tonne Ag over 2 metres.

High grade veins including a Jenner style vein and a massive Po vein at 113-114m (6.72 g/t Au, 14.7 g/t Ag) and 123-124m (13.4 g/t Au, 17.8 g/t Ag) respectively appear to correlate with high grade veins intersected in BX88-130 and as such appear to be the extension of the zone previously mentioned. The zone 113-124 (11m) averages 1.6 g/t Au and 3.12 g/t Ag. Several short zones of Jenner Style veining are located from 172.0-300m. The veins typically contain pyrrhotite - pyrite, MoS₂ and a majority contain a significant amount of arsenopyrite (up to 5,100ppm As). The addition of arsenopyrite is anomalous when compared to the Jenner Vein System.

A mineralized zone containing weak but anomalous gold-silver values located from 175-190 metres (15m) averages 0.74 g/tonne Au and 1.87 g/tonne Ag over 15 metres. Within this interval 10 metres average 0.99 g/tonne Au and 2.5 g/tonne Ag. Visible gold was observed in two veins at 179.1 and 182.43 metres with 5 counts and 1 count of gold respectively. A second zone of Jenner style veining containing PO-PY with minor arsenopyrite is located from 246.0m to 268m. The 22 metre zone averages 0.79 g/tonne Au and 2.2 g/tonne Ag. As well within this zone, 1 metre from 250-251 contains 5.1 g/tonne Au, 1.85 g/tonne Ag, 3 metres from 255-258 averages 3.2 g/tonne Au and 6.03 g/tonne Ag and 2 metres from 255-257 averages 4.75 g/tonne Au and 8.55 g/tonne. Note that in one vein a visible gold count of 3 grains was observed at 256.7m.

As well as the above mentioned zones an impressive Jenner Style vein was intersected between 235-237 metres. The 2 metre interval assayed 11.86 g/tonne Au and 24.95 g/tonne Ag. A vein at 236.2 containing 25-30% PO; 15-20%PY and 10 counts of gold was observed.

HL 90-147 (-45°, 143° Az, 186.5m) was drilled above HL 88-130 to test for possible gold bearing veins near the apex and southern margin of the Hill Stock, above the gold zone intersected in HL 88-130. HL 90-147 failed to intersect a substantial thickness of quartz diorite and appeared to skim over the top of main stock.

A relatively thick (145 metres) zone of quartz diorite rich dyking was intersected from 4 to 148.95 with the thickest dyke being 16.75 metres. No significant veining was intersected within the quartz diorite dykes. Within hornfels and near the bottom of the hole significant amounts of pyrrhotite has been introduced as fracture fills and veining from 160.0 to 164.0 and 170.0 to 178.0. A Jenner Style vein with 15% PO and vein breccia (30cm thick) with 20% fine arsenopyrite is located at 170.69 and 173.3 respectively. The vein breccia with finely disseminated arsenopyrite contains 1.27 g/tonne Au and 1.05 g/tonne Ag from 173.0-174.0m and 0.58 g/tonne Au from

174.0-175.0m. The quartz-PO Jenner Style veins from 170-172.0m contain very weak Au with 0.14 g/tonne Au and 1.05 g/tonne Ag.

The above veining and anomalous amounts of pyrrhotite and arsenopyrite could be the extension of the gold zone intersected in HL 88-130. As these vein systems pass into the sedimentary units, the amount of gold and strength of veining generally decreases substantially and finally dies out within a short distance of the host quartz diorite.

**SUMMARY OF DRILL RESULTS
HILL STOCK**

DRILL HOLE	LOCATION			M/FT LENGTH	SIGNIFICANT RESULTS	
	ELEVATION	DIP	AZ		FROM-TO (LENGTH M)	Au g/t or ppb/Ag g/t or ppm*
HL 90-145	7126N 11311E 753m	-60°	143°	337.4m	30-31	(1) 23.0 / 57.0
				1107 ft	48-49	(1) 4.56 / 9.0
					121-158	(34) 1.0 / 2.09
					121-139	(15) 1.23 / 2.63
					130-139	(9) 1.84 / 3.72
					147-148	(1) 2.5 / 1.3
					153-158	(5) 2.75 / 4.4
					153-156	(4) 3.27 / 5.34
					167-168	(1) .48 / 1.0
					227-228	(1) .75 / 1.0
					267-268	(1) 1.65 / 4.8
					290-291	(1) 0.72 / 1.0
					295-296	(1) 1.27 / 3.4
				HL 90-146	7126N 11311E 753m	-81°
1003 ft	14-15	(1) 500 / 1.8*				
	23-25	(2) 420 / 1.2*				
	27-28	(1) 440 / 1.0*				
	37-38	(1) 1.54 / 3.4				
	51-58	(7) 2.28 / 6.19				
	51-54	(3) 3.52 / 10.1				
	52-54	(2) 4.68 / 13.65				
	113-114	(1) 6.72 / 14.7				
	123-124	(1) 13.4 / 17.8				
	113-124	(11) 1.8 / 3.12				
	175-190	(15) .74 / 1.87				
	175-186	(11) .922 / 2.3				
	175-185	(10) .99 / 2.5				
	188-190	(2) .42 / .75				
	215-216	(1) 1.0 / .45				
	222-223	(1) 1.0 / .58				
	235-237	(2) 11.86 / 24.95				
	246-258	(12) 1.38 / 3.17				
	246-257	(11) 1.49 / 3.3				
	246-247	(1) 10.6 / 4.8				
	246-268	(22) .79 / 2.2				
	250-251	(1) 5.1 / 1.85				
	255-258	(3) 3.2 / 6.03				
	255-257	(2) 4.75 / 8.55				
	264-266	(2) .15 / 3.0				
	289-291	(2) .33 / 1.9				
HL 90-147	7095N 11337E 777m	-45°	143°	186.5m	12-13	(1) 330 / .2
				612 ft	29-30	(1) 245 / .6
					30-31	(1) 430 / .8
					169-170	(1) .03 / 1.4
					170-171	(1) .14 / .7
					173-174	(1) 1.27 / <.5
					174-175	(1) .58 / 1.0

5.0 CONCLUSIONS AND RECOMMENDATIONS

Drilling on the Harrison Gold Project within the first quarter of 1990 has shown that gold-silver-zinc mineralization has weakened downdip and laterally outward from significant metallization and alteration within a hydrothermally altered breccia pipe where 7 metres of 3.5 g/t Au, 9.3 g/t Ag, 1.2% Zn or 29 metres of 1.56 g/t Au, 4.4 g/t Ag and 0.56% Zn was intersected in 1988. As well, additional drilling on section to test the Hill Stock in an area laterally to a significant intersection (BX 88-130; 27 metres of 3.5 g/t Au and 6.3 g/t Ag) of gold mineralization has indicated that the zone which weakens laterally outward is relatively flat lying and controlled by low angle veining similar to Jenner-Portal style mineralization.

Further exploration work on the Breccia Zone and Hill Stock Gold Zone is subject to Bema Gold's overall exploration philosophy concerning the Harrison Gold Property.

APPENDIX I

STATEMENT OF COST

STATEMENT OF COSTS

- 1) Diamond Drilling Cost (Direct Cost)
F. Boisvenue Diamond Drilling
6904 ft \$23.019/ft = \$158,921.98
- 2) Core Racks 2 racks \$1139.70/rack = \$ 2,279.42*
- 3) 4x4 Truck Rental
 - a) Boisvenue Rental
- 3 mo. 17 days @ 1200/mo = \$ 4,270.65*
 - b) Norman Geological
- 3 mo. 12 days @ 1200/mo = \$ 4,140.00¹
 - c) Exploration Services & Fuel
- 13 days @ 76.92/day = \$ 1,000.00
- 4) Generator Rental
- 3 mo. 17 days @ 800/mo = \$ 2,847.10*
- 5) Core Boxes
- 300 boxes @ 6.53/box = \$ 1,952.35*
- 6) Apartment Rental
P. Delleman - 4.35 mo @ 425/mo = \$ 1,850.81
- 7) Motel - 5 days @ 64.80/day = \$ 324.00¹
- 8) Meals & Groceries
- 150 man days @ 15.74/day = \$ 2,360.58¹
- 9) Camp Costs & Supplies
- 4.5 mo. @ \$2,284.46 = \$ 10,280.07

(Includes truck fuel, camp supplies, expediting generator fuel, heating fuel, hydro)

10) GEOCHEMISTRY - Rock Analysis

CHEMEX LABORATORIES LTD.

Au Gold Fire Assay	10 samples @ \$14.02 = \$	140.20
Au-Ag Fire Assay & AAS	456 samples @ \$10.60 = \$	4,833.60
Au-Au Geochem. AAS	1052 samples @ \$ 9.40 = \$	9,888.80
Zn/Cu Geochem. AAS	656 samples @ \$.80 = \$	528.80
Zn/Cu Assay	150 samples @ \$ 5.78 = \$	867.25
Mo Geochem AAS	416 samples @ \$.80 = \$	332.80
ICP	220 samples @ \$ 5.40 = \$	1,188.00

Samples Preparation 1465 samples @ \$ 4.00 = \$ 5,860.00

ACME ANALYTICAL LABORATORIES LTD.

Check Au-Ag-Assay 49 samples @ \$12.00 = \$ 588.00
Check Au-Ag Geochem. 74 samples @ \$ 8.25 = \$ 610.50

\$24,837.95

11) Computer Services - D. Nowak

Convert logs to Geolog 2104 metres
Input assay day Au, Ag, Zn, Cu, Mo
Computer Plot - 4 sections

10 days @ \$300.00/day = \$ 3,000.00

12) Pajar Instrument Rental (Pothier Enterprizes Ltd)
(Diamond drill hole survey)

2.63 mo @ \$530.00/mo = \$ 1,392.60

13) Core Splitter Rental (Pothier Enterprizes Ltd)

3 mo. @ \$142.95/mo = \$ 428.84

14) Shipping Costs (Riggers Industrial Sale)

6 trips @ \$111.37/trip = \$ 668.21¹

15) Personnel

Project Geologist

George Norman - Norman Geological (Corelogging, Report
Writing, Data Compilation)

128.65 days @ \$285.00/day = \$ 36,665.25¹

Geological Consultants

Barney Bowen - Corelogging

11.8 days @ \$269.27(ave)/day = \$ 3,177.35

Geological Technicians

Denis Byrne

92.01 days @ \$102.05/day = \$ 9,389.95

Phil Small

35.77 days @ \$93.60/day = \$ 3,348.07

Core Splitters

Dave Morris

83 hours @ \$10.40/hr = \$ 863.20

Mark Rasmussen

38 hours @ \$10.40/hr = \$ 395.20

Draftsperson Linda Connor	15.5 hours @ \$22.90/hr	= \$	355.00
Computer Work - Drafting Wendy Matheson	5.5 days @ \$133.00/day	= \$	731.50
Exploration Services Ltd.	34 man days @ \$200.00/day	= \$	6,800.00
Build core racks - 4 man days			
Reclamation - 30 man days			
	GRAND TOTAL		<u>\$ 282,280.08</u>

Note: * Included in Boisvenue Drilling Invoices
 1 Included in Norman Geological Invoices

SUMMARY COST FOR HILLSTOCK AND BRECCIA ZONE
FOR GROUPING PURPOSES

Overall Project Drilling Meterage Cost

Average cost per metre = $\frac{\$ 282,280.00}{2104.3 \text{ metres}}$ = \$ 134.14/metre

Overall Breccia Zone Drilling Cost (HOT 4 CLAIM)

Total meterage drilled = 1274.6m

Total cost = 1,274.6m x \$134.14/m = \$ 170,980.42

Overall Hill Stock Drilling Cost (HOT 5 CLAIM)

Total meterage drilled = 829.7m

Total cost = 829.7m x \$134.14/m = \$ 111,299.58

TOTAL PROJECT COST = \$ 282,280.00

APPENDIX II

STATEMENT OF QUALIFICATION

NORMAN GEOLOGICAL

Geological Consulting, Mineral Exploration
12252 North Park Crescent, Surrey, B.C. V3W 0G1
Telephone: (604) 597-7077

CERTIFICATE

The author of the foregoing report hereby qualifies:

- (a) the author's name, address and occupation are as follows:

G. Norman, P.G.
12252 North Park Crescent
Surrey, B.C.
V3W 0G1

Geological Consultant (Geologist).

- (b) that the author's qualifications are as follows:


B.Sc (Honours, Geology)
University of Alberta, 1973

- (c) the author has been a registered member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta since 1975 and is a Registered Fellow with Geological Association of Canada.

- (d) that the foregoing report is based on personal examination of the field operations.

- (e) that the date of such examinations was over the months of December, 1989 and January to June, 1990.

- (f) the author is not a Director, Officer or employee of the Company, or an affiliate of the Company, is not a partner, employer or employee of any such Director, Officer or employee and is not an associate of any Director or Officer of the Company or of an affiliate of the Company.



G. Norman, P.G.
Norman Geological

July 12/90

APPENDIX III

DETAILED GEOLOGIC LOGS

See separate
binder

BRECCIA ZONE

APPENDIX IV

DETAILED GEOLOGIC LOGS

See separate
binder

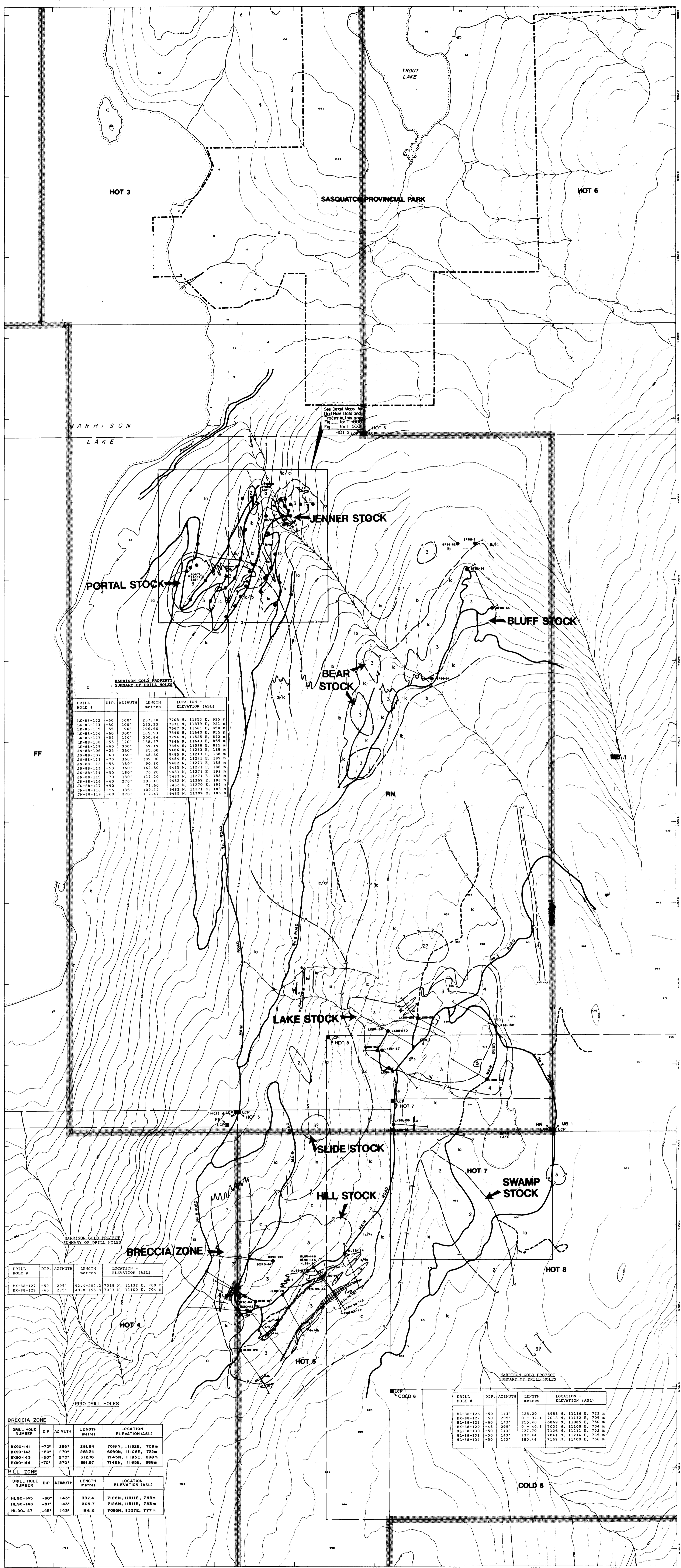
HILL STOCK ZONE

APPENDIX V

CHEMEX ASSAY SHEETS

See separate
binder

ACME CHECK ASSAYS



HARRISON GOLD PROJECT
SUMMARY OF DRILL HOLES

DRILL HOLE #	DIP	AZIMUTH	LENGTH metres	LOCATION - ELEVATION (ASL)
LK-88-132	-60	300°	257.20	7705 N, 11853 E, 925 m
LK-88-133	-50	300°	243.25	7871 N, 11879 E, 921 m
LK-88-134	-55	90°	196.60	7567 N, 11561 E, 850 m
LK-88-136	-60	300°	185.93	7846 N, 11644 E, 850 m
LK-88-137	-55	120°	309.84	7704 N, 11505 E, 837 m
LK-88-138	-55	120°	188.37	7846 N, 11644 E, 855 m
LK-88-139	-60	300°	69.19	7854 N, 11544 E, 825 m
JN-88-106	-25	360°	85.00	9486 N, 11243 E, 188 m
JN-88-107	-60	360°	68.60	9486 N, 11243 E, 189 m
JN-88-111	-70	360°	189.00	9484 N, 11271 E, 189 m
JN-88-112	-55	180°	90.80	9482 N, 11271 E, 188 m
JN-88-113	-50	360°	162.50	9485 N, 11271 E, 188 m
JN-88-114	+50	180°	76.20	9483 N, 11271 E, 188 m
JN-88-115	-70	180°	117.30	9483 N, 11271 E, 188 m
JN-88-116	-60	230°	298.40	9482 N, 11269 E, 188 m
JN-88-117	+90	0	71.60	9482 N, 11270 E, 192 m
JN-88-118	-55	135°	109.12	9482 N, 11271 E, 188 m
JN-88-119	-60	230°	112.47	9485 N, 11309 E, 188 m

HARRISON GOLD PROJECT
SUMMARY OF DRILL HOLES

DRILL HOLE #	DIP	AZIMUTH	LENGTH metres	LOCATION - ELEVATION (ASL)
BX-88-127	-50	295°	92.4-282.2	7018 N, 11132 E, 709 m
BX-88-128	-45	295°	50.8-155.8	7033 N, 11100 E, 704 m

BRECCIA ZONE

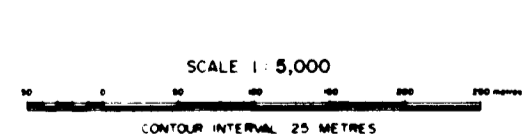
DRILL HOLE NUMBER	DIP	AZIMUTH	LENGTH metres	LOCATION - ELEVATION (ASL)
BX90-141	-70°	295°	281.64	7018 N, 11132 E, 709 m
BX90-142	-50°	270°	288.54	6990 N, 11066 E, 722 m
BX90-143	+50°	270°	312.76	7145 N, 11185 E, 688 m
BX90-144	-70°	270°	391.97	7145 N, 11185 E, 688 m

HILL ZONE

DRILL HOLE NUMBER	DIP	AZIMUTH	LENGTH metres	LOCATION - ELEVATION (ASL)
HL90-145	-60°	143°	337.4	7126 N, 11311 E, 753 m
HL90-146	-81°	143°	305.7	7126 N, 11311 E, 753 m
HL90-147	-45°	143°	186.5	7095 N, 11371 E, 777 m

HARRISON GOLD PROJECT
SUMMARY OF DRILL HOLES

DRILL HOLE #	DIP	AZIMUTH	LENGTH metres	LOCATION - ELEVATION (ASL)
HL-88-126	-50	143°	325.20	6988 N, 11116 E, 723 m
BX-88-127	-50	295°	0 - 92.4	7018 N, 11132 E, 709 m
HL-88-128	-60	143°	255.40	6849 N, 11085 E, 759 m
BX-88-129	-45	295°	0 - 40.8	7033 N, 11100 E, 704 m
HL-88-130	-50	143°	227.70	7126 N, 11311 E, 753 m
HL-88-131	-50	143°	237.44	7041 N, 11214 E, 735 m
HL-88-134	-50	143°	180.44	7129 N, 11408 E, 746 m



20144 Part 1

- 7 HYDROTHERMAL BRECCIA
 - 6 BASIC DYKE
 - 5 FELSIC DYKE
 - 4 CONTACT PHASES
 - 4c DYKE ZONE
 - 4b BRECCIA ZONE
 - 4a HYBRID ZONE
 - 3 QUARTZ DIORITE
 - 3a FELDSPAR PORPHYRY
 - 2 DIORITE
 - 1
 - 1c HORNFELS
 - 1b VOLCANIC TUFFS & FLOWS
 - 1a SEDIMENTS
- 500 TOPOGRAPHIC CONTOUR (10 metre intervals)
 - 180 ELEVATION MARKER IN METRES
 - CREEK
 - ROAD
 - HOT 7 CLAIM BOUNDARY, LEGAL CORNER POST & CLAIM NAME
 - FAULT
 - GEOLOGIC CONTACT
 - OBSERVED
 - APPROXIMATE
 - POSSIBLE
 - DRILL HOLE COLLAR LOCATION & TRACE, with HOLE NUMBER
 - SIGNIFICANT INTERSECTION FROM DRILL HOLE DATA
 - GROUP BOUNDARY

BEMA GOLD CORPORATION

HARRISON GOLD PROJECT

GENERAL GEOLOGY

DATE: FEBRUARY 1989	JOB NO: 8910	FILE NO: 10-1042-89GEO	FIG NO:
DRAWN BY: LGC		REVISOR: GEN JULY 1990	
SCALE: 1:5000			

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