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istrict Geologist, Kamloops
Off Confidential: 90.06.12
ASSESSMENT REPORT 18838 MINING DIVISION: Clinton
    'ROPERTY: Edge
LOCATION: LAT 51 10 00 LONG 122 08 00
    UTM 10 5668497 560597
    NTS 092001E
CAMP: 035 Taseko - Blackdome Area
    :LAIM(S): Edge 1
UPERATOR(S): Brenwest Mining
AUTHOR(S): Adamec, J.D.;Lumley, W.E.
    :EPORT YEAR: 1989, 138 Pages
    'OMMODITIES
SEARCHED FOR: Gold
"EYWORDS: Cretaceous,Eocene,Kingsvale Group,Andesites,Basalts,Rhyolites
    Shear Zones,Malachite, Chalcopyrite,Arsenopyrite
    Argillic alteration
WORK
    IONE: Drilling,Geological,Geochemical
        DIAD 1426.5 m 16 hole(s);NQ
            Map(s) - 2; Scale(s) - 1:3333,1:10 000
                SAMP 453 sample(s) ;AU,AG,AS,CU,DI,AD,SB
            Map(s) - 2; Scale(s) - 1:2500
RELATED
REPORTS: 16049,17366
    IINFILE: 0920 091
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# DIAMOND DRILIING REPORT ON THE <br> EDGE PROPERTY, BIG BAR CREEK, B.C. <br> CLINTON MINING DIVISION 

Location
NTS 92-0/1
Latitude: $51^{\circ} 10^{\prime} \mathrm{N}$
Longitude: $122^{\circ} 08^{\prime} \mathrm{W}$

FOR
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### 1.0 SUMMARY

The Edge property consists of eight mineral claims located 40 km northwest of Clinton , B.C. The property is easily accessible by an all weather gravel road from Clinton to the Big Bar Ferry, which provides access to the west side of the Fraser River.

The 1987/1988 exploration program conducted by Hi-Tec Resource Management Ltd. between November 1987 and February 1988 and in May and June, 1988 consisted of the establishment of a surveyed grid, magnetometer and VLF-EM surveys, detailed geological mapping and prospecting. Trenching and sampling were then carried out over the geochemical and geophysical anomalies.

A total of 1425.65 metres of diamond drilling in 16 holes were completed on the property from May 24 to June 9, 1988 investigating the results found in the previous work.

An anomalous gold bearing quartz/carbonate chlorite shear zone up to 3 m in width has been identified and tested with 6 diamond drill holes over a stike length of 150 m and to a depth of 65 m . This zone assayed up to 1680 ppb Au and 52.1 ppm Ag over 1.0 m , with DDH-8813 running 1007 ppb Au and 45.9 ppm Ag over 3.0 m .

The geology underlying the property consists primarily of two different volcanic rock formations. The older is Upper Cretaceous Kingsvale volcanic rocks and are characterized by massive, green, grey or buff andesite and purple or dark brown basalt. The younger Eocene volcanics consist mainly of creamy rhyolitic and dacitic tuff, with some minor andesite and basalt
occurring as a polymictic breccia with volcanic arenite.

There are several quartz carbonate veins or vein systems on the property. They generally strike north and dip from $54^{\circ}$ west to $40^{\circ}$ east. Good precious metal metals of up to $.063 \mathrm{oz} /$ ton Au and $.44 \mathrm{oz} /$ ton Ag have been obtained from surface trenches. In addition, a large zone of argillically altered rhyolite tuff has been systematically sampled and found to be associated with anomalous silver values.

Very favourable geology for "epithermal type" precious metal mineralization exists on the property. In addition, the property is in a similar geographic setting to the Black Dome Mine, 28 km north of the property.

Additional work consisting of drilling and surface work is both warranted and recommended by both authors.

### 2.0 INTRODUCTION

### 2.1 Property and ownership

The Edge property consists of 8 mineral claims totalling 102 units and is situated in the clinton Mining Division.

The Sheep claims are owned by Brenwest Mining Ltd. and the Edge 1 claim is under option from Mingold Resources Inc.

Pertinent claim data is summarized below:

| Name | No. of Units | Record No. | Expiry Date |
| :---: | :---: | :---: | :---: |
| Edge 1 | 15 | 2022 | June 16, 1989 |
| Sheep 1 | 10 | 2462 | Nov. 16, 1989 |
| Sheep 2 | 20 | 2463 | Nov. 16, 1989 |
| Sheep 3 | 15 | 2464 | Nov. 16, 1989 |
| Sheep 4 | 10 | 2465 | Nov. 16, 1989 |
| Sheep 5 | 9 | 2466 | Nov. 16, 1989 |
| Sheep 6 | 20 | 2467 | Nov. 16, 1989 |
| Sheep 7 | 3 | 2573 | Jan. 4, 1990 |

The claim locations are shown on Figure 2.

### 2.2 Location and Access

The Edge property is located on the west side of the Fraser River approximately 40 km northwest of Clinton, British Columbia. The property lies on NTS map sheet 92-0/1 and is centered at latitude $51^{\circ} 10^{\prime} 00^{\prime \prime}$ North and longitude $122^{\circ} 08^{\prime} 00^{\prime \prime}$ West (Figure 1).

Access to the property is by a secondary, all weather gravel road from Highway 97 at Clinton to the Big Bar ferry which provides access to the west side of the

Fraser River. This government operated ferry generally runs from April to November and has a carrying capacity of two vehicles or 10 tons. During the winter months the Highways Department operates a 5 person tram-car across the river. An alternate route to the claims is by 4-wheel drive vehicle from Lillooet, British Columbia, on a network of logging and ranch roads. Driving time from Lillooet by this route is approximately $31 / 2$ hours (100 km).

### 2.3 Physiography

Local topographic relief varies from moderate to very steep. Elevations range from 300 m at the Fraser River to $1,615 \mathrm{~m}$ in the northwest corner of the sheep 2 claim. The property has a rugged terrain caused by deep gullies eroded by intermittent creeks draining into the Fraser River. The major creek is Ward Creek, draining the southern part of the property.

Trettin (1961) in his geological study of the area states "three major elements of the topography can be distinguished: Mid Tertiary and older mountain rages, Middle or Late Tertiary upland surfaces, and Pleistocene and Recent Valleys".

Although the area was covered by glaciers, glacial erosion is slight and till is very rare. Vegetation consisting of scrub grass, sage brush and small cactus are predominant below 800 m in elevation. Ash, sparse pine and fir trees occur at higher elevations. Overburden varies from nil to moderatly thick and consists mainly of alluvial deposits.

### 2.4 History and Previous Work

The Edge property was staked by Kerr Addison Mines Ltd. in 1979 as a result of a regional program searching for gold in stockworks, volcanic flows and volcanoclastic rocks. Kerr Addison conducted geological mapping, soil sampling and 10.3 km of dipole-dipole induced polarization survey. The geochemical survey did not yield significant results, possibly due to the type and depth of overburden encountered on the property. The IP survey outlined a northwest striking chargeability anomaly 950 m long and open in both strike directions.

In 1980 Kerr Addison completed 2,078 meters of percussion drilling in 29 holes which was followed by 616 m of diamond drilling in 4 holes. Thirteen of the percussion holes were aborted due to thick overburden. All drilling was confined to the part of the IP anomaly area where surface sampling had yielded gold values up to $3,480 \mathrm{ppb}$ in quartz-carbonate veins. The best drill intercept (PDH-13) was 4.49 ppm gold (approx. 0.13 oz/ton) across 3 m or $0.066 \mathrm{oz} /$ ton gold across 9 m . Diamond drilling near this intercept failed to duplicate this result.

The Edge claim was staked in 1986 by Mingold Resources to cover the old Kerr Addison property. Preliminary sampling over the property confirmed the gold anomalies in the quartz-carbonate veins and also outlined a goldmercury anomaly within bleached volcanics occurring east of the Edge fault.

Field work for the 1987-88 exploration program conducted by Hi-Tec Resource Management Ltd. from November 27 to December 16, 1987 and from January 13 to January


26, 1988, consisted of 53.5 km of surveyed grid and baseline, 49.5 km of magnetometer and VLF-EM surveys, detailed geological mapping ( $1: 5,000$ ) of the grid with geological mapping (1:10,000) and prospecting on the balance of the property. A total of 110 rock chip samples and grab samples were collected.

A trenching program was carried out from January 22 to February 3 and from February 9 to February 18, 1988, consisting of 144 m of backhoe trenching, drilling and blasting of the bedrock and the collection of 29 rock chip and grab samples.

An additional program of geological mapping, sampling and hand trenching was carried out between July 8 and July 19, 1988. A total of 16 hand trenches were dug over newly discovered showings in the northern portion of the grid. In addition, systematic rock sampling of intensively argillically altered rhyolitic tuffs was carried out. A total of 255 rock chip samples were collected from trenches and outcrops.

### 3.0 GEOLOGY

### 3.1 Regional Geology and Mineralization

The Edge property lies within the Intermontane Belt, which is bordered to the west by the coast Plutonic Complex and to the east by the Omineca Crystalline Belt.

Rocks of the Intermontane Belt in the property area comprise Upper Cretaceous volcanics of the Kingsvale Group, Eocene volcanics, Upper Miocene and/or Pliocene volcanic and sedimentary rocks, and Quaternary till and alluvial deposits. Tipper (1978) shows the area to be

underlain by a wedge of now weathered Kingsvale volcanics striking north and dipping to the east between 30-50 degrees. It is in fault contact with weathered Eocene volcanics with a northerly strike and random dips.

The Black Dome mine is located approximately 28 km northwest of the Edge property, in a similar geographic environment. The gold and silver mineralization at Black Dome occurs in epithermal quartz veins, most of which are hosted by rhyolite and dacitic andesite. Proven and probable ore reserves are 280,000 tonnes grading 23 grams gold per tonne and 74 grams silver per tonne (Preliminary Map 65).

### 3.2 Property Geology

The property is underlain primarily by two different volcanic rock formations which are separated by a major northwest trending fault structure (Edge Fault). The older are Upper Cretaceous Kingsvale volcanic rocks occurring west of the Edge fault and consisting mainly of massive, light green to grey-green to buff porphyritic andesite (Unit 1). This andesite weathers green, is magnetic and contains $5 \%$ ferromagnesian phenocrysts (Hornblende) up to 3 mm long. Andesitic flows form the highest peak on the Edge property.

Unit 2 is made up of purple or dark brown to black basaltic tuff which is hematitic, weakly porphyritic and slightly magnetic. The tuff is overall massive with sections weakly fractured and brecciated locally appearing to be water lain with thin alternating bands of dark and lighter soft tuffaceous mud. In addition the unit sometimes assumes the texture of a volcanic agglomerate or a flow breccia containing large clasts
of scoriaceous dark grey basalt and porphyritic andesite up to 14 cm . in diameter held within a hematitic tuffaceous matrix.

The contact between andesite and basaltic tuff strikes generally north with random dips from 50 degrees to the east to 30 degrees to the west. The exact stratigraphic relationship of these units is not known at present but there is indication that a light green siliceous porphyritic andesite flow appears to the the latest event to occur within these two units.

Unit 3 forms the southwest corner of the property and consists mainly of pale yellow, creamy rhyolitic, with less dacitic tuff with some andesitic and basaltic rocks outcropping throughout.

Unit 4 occurs on the northern part of the Sheep 6 claim and consists of polymictic breccia, partly altered with volcanic arenite. Siltstone is comparatively rare. In some parts, graded bedding and cross-bedding can be observed. The beds are generally grey but occasionally red.

Unit 5 occurs east of the Edge fault consists of two sub units: Unit $5 A$, the upper unit is a volcanic arenite characterized by angular to sub rounded clasts of porphyritic andesite and vesicular basalt up to 5.0 cm in diameter within a mudstone matrix. Unit 5B which underlies the arenite consists of varicoloured weakly to strongly argillically altered volcanoclastics which appear to be originally rhyolitic and dacitic tuffs. This unit is porous in nature making it more susceptible to hematitic alteration, silicification and kaolinitization.

One Quaternary sedimentary unit (6) has been mapped because of its extent over the property. It consists of unconsolidated gravel, sand, silt and till. The thickness may locally exceed more than 30 m .

Structure on the property consists of a set of northeast trending faults which dip at a shallow angle to the east at between 20 to 45 degrees (indicated from the drilling). Folding of the volcanics is seen but delineation of strike is difficult to determine; preliminary mapping and previous reports state that the fold axis on the east side of the property, that is, east of the Edge Fault, strike NE-SW whereas the west side stikes NW-SE.

### 3.3 Mineralization and Alteration

Mineralization

Gold and silver mineralization occurs in epithermal brecciated and sheared quartz-carbonate veins, most of which are hosted by andesite. These veins usually occur at or near the contact between overlying andesite flows and basaltic tuffs with some veins located wholly within the tuff unit. The veins vary from a few centimeters to a few meters in width and locally carry a large amount of chlorite (up to 60-70\%) as shears with well developed slickensides. There are several quartz carbonate breccia veins or vein systems within the area showing a general strike of due north and dips of $54^{\circ}$ west to $40^{\circ}$ east. Two quartz-carbonate veins were exposed by trenching in early 1988. The No. 1 vein outcroping near the road at Trench \#4 and station $4+00 N, 2+00 E$ strikes $360^{\circ}$ and dips $23^{\circ}$ east. The average width of the vein is 1.5 m and it can be followed along strike for at least 100 m . The best

assay values from this vein were $2.17 \mathrm{~g} \mathrm{Au} / \mathrm{t}$ (0.063 $\mathrm{oz} / \mathrm{t})$ with $3.8 \mathrm{~g} \mathrm{Ag} / \mathrm{t}(0.11 \mathrm{oz} / \mathrm{t})$ across 1.4 m and $0.72 \mathrm{~g} \mathrm{Au} / \mathrm{t}(0.02 \mathrm{oz} / \mathrm{t})$ with $8.2 \mathrm{~g} \mathrm{Ag/t(0.24oz/t)}$ across 3.6 m . The No. 2 vein located near station $3+75 \mathrm{~N}, 1+10 \mathrm{E}$ is up to 5 m wide and has a strike of $157^{\circ}$. The vein appears to be dipping to the west and can be followed for at least 12 m . The best assay value is $0.90 \mathrm{~g} \mathrm{Au} / \mathrm{t}(0.026 \mathrm{oz} / \mathrm{t})$ with $3.0 \mathrm{~g} \mathrm{Ag} / \mathrm{t}$ (0.087 oz/t). The early 1988 diamond drilling failed to intercept the vein at depth.

The most persistent and best mineralized vein identified and explored by diamond drilling to date is the No. 3 vein, striking approximately 360 degrees and dipping 23 degrees west, located between $5-6+00 \mathrm{~N}$ and $0+50 \mathrm{E}$. The vein is approximately 2.0 m wide and can be followed along strike for at least 100 m to a depth of 65 m and is open on both ends.

All the veins are characterized by brecciated and vuggy quartz with calcite and locally contain 30-60\% chlorite as shears. The calcite content within the veins varies from minor to equivalent amounts to the quartz. The veins contain disseminated pyrite, arsenopyrite up to $3-5 \%$, as well as very minor chalcopyrite and sphalerite.

Mineralization is also found within faults on the property, with the actual fault plane and associated drag folds containing up to $3-5 \%$ pyrite, and equivalent arsenopyrite with trace amounts of chalcopyrite and sphalerite.

## Alteration

The most prominent outcroping on the property is varicoloured (white, yellow, green, and purple), argillically altered zones found mostly on the northeast part of the property. The alteration pattern in most cases displays an outer envelope of kaolinitization a few meters thick and some propylitic alteration. The alteration zones contain disseminated hematite, pyrite, calcite and iron staining. Rock samples taken from altered zones yielded anomalous mercury, including a sample of $1,550 \mathrm{ppb}$ associated with $0.22 \mathrm{~g} \mathrm{Au} / \mathrm{t}$ (sample 87051JA33).

### 4.0 1988 DIAMOND DRILLING PROGRAM

### 4.1 INTRODUCTION

The 1988 diamond drilling program was completed to explore the 3 major veins found in previous work performed by Hi-Tec Resource Management Ltd. The description and the results are summarized below in the Diamond Drill Log Synopsis.

### 4.2 DRIIL CORE MINERALIZATION AND ALTERATION

The mineralization found within the core to date consists mainly of disseminated pyrite and arsenopyrite with very minor chalcopyrite and sphalerite housed within quartz/carbonate chlorite shear zones and associated quartz veining. Minor ubiquitous pyrite is seen within the basaltic tuff unit but overall mineralization is minimal.

Alteration in the diamond drill holes consists mainly of zones of intense hematitization and argillic alteration associated with the basaltic tuff and shear zones that cut the tuff unit and the porphyritic andesites.

### 4.3 DIAMOND DRILL LOG SYNOPSIS

Diamond drill holes DDH-88-1,2 were located at $4+17 \mathrm{~N}$, $1+49 E$ to the east of Trench 13 in which Vein \#1 was tested and from which sample AS-44 was taken. This sample assayed 2.17 g Au/tonne ( $0.063 \mathrm{oz} / \mathrm{t}$ ), 3.8 g Ag/tonne ( $0.11 \mathrm{oz} / \mathrm{t}$ ) and 1902 ppm As across 1.4 m . The holes were orientated at -50 and -70 degrees respectively with an azimuth of 270 degrees (compass). Both were collared in a highly fractured and sheared andesite which appeared to be argillically altered. This andesite appears to be dipping east at approximately 25 degrees; it is bounded by a hematitic fault zone which occupies the gully immediately to the west of the trenches. A basaltic tuff and agglomerate were intersected on the other side of the fault. The entire section was sampled, returning no economic intersections.

Diamond drill holes DDH-88-3,4,5,15,16 were all drilled to test the high grade intersection that Kerr Addison had in percussion hole $\mathrm{PDH}-13$, of 4.44 ppm over 3.0 m . The attitude of the holes are summarized below:

| HOLE \# | ORIENTATION | DIP | LOCATION |
| :--- | :---: | :---: | :---: |
| DDH-88-3 | 250 | -50 | $5+74 \mathrm{~N}, 0+53 \mathrm{~W}$ |
| DDH-88-4 | 250 | -70 | $5+74 \mathrm{~N}, 0+53 \mathrm{~W}$ |
| DDH-88-5 | 310 | -50 | $5+79 \mathrm{~N}, 0+53 \mathrm{~W}$ |
| DDH-88-15 | --- | -90 | $5+76 \mathrm{~N}, 0+50 \mathrm{~W}$ |
| DDH-88-16 | 280 | -50 | $5+76 \mathrm{~N}, 0+50 \mathrm{~W}$ |

DDH-88-3 was collared north of the rich Kerr Addison Mines Ltd. percussion hole mentioned above with the purpose of exploring to find the source of the mineralization causing the high gold values. An anomalous gold bearing chloritic quartz/calcite shear zone was intersected at $69.75-79.00 \mathrm{~m}$, yielding .41 $\mathrm{g} /$ ton Au and $9.3 \mathrm{~g} /$ ton Ag over 4.0 m .

DDH-88-04 was drilled to try to determine structure and the dip of the shear zone intersected above. The zone was intersected at $50.70-55.15 \mathrm{~m}$ yielding $.74 \mathrm{~g} /$ ton Au and $6.3 \mathrm{~g} /$ ton Ag over 3.79 m .

DDH-88-05 was collared to ascertain structure and possible dip of the structure to the northwest. Unfortunately the drill hole with its flatter dip, appears to have gone over the shear zone intersected in the previous holes and therefore the shear zone was not found.

Diamond Drill Holes DDH-88-15, 16 were collared between DDH-88-3 and 4 and drilled at an azimuth of 280 degrees to try to intersect the shear zone missed by DDH-88-05. DDH-88-15 intersected the zone at 49.68-51.51 m, however, returned only anomalous values of . $155 \mathrm{~g} / \mathrm{ton}$ Au over 2.0 m .

DDH-88-16 intersected the zone at 79.40-84.28 m yielding only slightly anomalous readings of $.37 \mathrm{~g} /$ ton Au and $8.2 \mathrm{~g} /$ ton Ag over a length of 3.12 m .

Diamond drill Holes DDH-88-7,8 were collared in a gully at location $3+79 \mathrm{~N}, 1+49 \mathrm{E}$ and orientated at 240 degrees with dips of -45 and -65 degrees respectively. These holes were drilled to test the structure and
mineralization of Vein \#2 under trenches 5, 6, and 7. An attempt was made to build a drill platform on the west side of the trench locations to facilitate the testing of the proposed westerly dip of the structure, however, a large amount of outcrop halted the building of the road to the site.

Both of the drill holes were collared in highly fractured andesite which resulted in a large amount of core loss initially but then passed into a more competent andesite porphyry with drill hole 7 ending in a basaltic agglomerate. Good classic breccia zones were found in the area of drill hole 7 with a wide breccia zone intersected in drill hole 8 . The entire length of the holes returned no anomalous values.

Diamond drill hole DDH-88-9 was located at 7+00W, 1+50S to test the geophysical EM and MAG anomalies associated with the Edge Fault. The hole was orientated at 270 degrees (compass) with a dip of -50 degrees. The volcanic arenite was the first rock type encounted after 33.53 m (110') of overburden. This unit was barren of any mineralization. The Edge Fault was encountered at 49.68 m (163') resulting in a large amount of lost and broken core and an overall tightening of the drill hole. A porphyritic andesite unit was found on the other side of the fault but core recovery was only $45-50 \%$. The hole caved and broke rods which resulted in the abandonment of the hole at 71.63 m (235').

Diamond Drill Holes DDH-88-10 and 88-11 were drilled at locations $1+50 \mathrm{~S}, 2+76 \mathrm{E}$ and $1+07 \mathrm{~S}, 2+86 \mathrm{E}$ repectively, to test under the overburden for the source of the large amount of quartz/carbonate float found in the vicinity,
as trenching in 1987 had failed to reach bedrock. To summarize:
DDH-88-10 was orientated at 090 degrees ( compass) at a dip of -50 degrees. The hole was collared in a highly fractured andesite porphyry and continued in an alternating sequence of basaltic tuff and fresh andesite. Overall, the units were very fresh and weakly altered indicating that they are one of the youngest of the volcanics that were extruded in the area, certainly stratigraphically higher than the andesites and tuff units found near DDH's 1, 2, 3 and 4.

Similarly, DDH-88-11 which was orientated at 060 degrees (compass) at a dip of -65 degrees, continued in almost the same sequence of rocks as DDH-88-10. One small quartz rich shear zone was intersected but sampling revealed no economic or even anomalous readings.

DDH-88-12 was collared at grid location $2+88 \mathrm{~N}, 3+00 \mathrm{E}$ and orientated at 090 degrees (compass) with a dip of 60 degrees to test under the Reynolds Creek Fault and the rock geochemical sample locations $88-\mathrm{AS}-27,28$ which previously were assayed at .90 and $.05 \mathrm{~g} /$ ton Au and 3.0 and $1.8 \mathrm{~g} /$ ton Ag respectively. Examination of the sample location indicated a pyrite/arsenopyrite rich quartz breccia and drag folds associated with the Reynolds Creek Fault exposed in the creek bed. The hole intersected the fault at $38.60-40.60 \mathrm{~m}$ returning an overall grade of $.575 \mathrm{~g} /$ ton Au and $5.45 \mathrm{~g} / \mathrm{ton} \mathrm{Ag}$ over 2.0 m . The fault was characterized by a quartz/pyrite breccia zone with approximately $3 \%$ pyrite and arsenopyrite. No other potentially economic intersections were observed.

DDH-88-13,14 were collared at location 5+00N, 0+29W and orientated 090 degrees (compass) with a dip of -60 and -90 degrees respectively. Drill hole $88-13$ was drilled to explore the down dip extension of a fault zone from which rock geochemical samples 87-JA-24, 25 and 87-AS-6 were taken. These samples ran .65, . 76 and $.81 \mathrm{~g} /$ ton Au and $2.4,1.7$ and $5.7 \mathrm{~g} /$ ton Ag respectively. Diamond drill hole DDH-88-13 was the richest of all the holes intersected in the recent phase of drilling, returning $1.36 \mathrm{~g} /$ ton (.04 oz/ton) Au and $50.80 \mathrm{~g} /$ ton ( $1.48 \mathrm{oz} /$ ton) Ag over 3.0 m .

DDH-88-14 was drilled to test the westerly extension of the quartz/carbonate vein intersected in DDH-88-13. This vein was intersected at $50.29-52.86 \mathrm{~m}$ yielding .80 $\mathrm{g} /$ ton Au and $11.3 \mathrm{~g} /$ ton Ag over 3.75 m .

### 5.0 THE 1988 FOLLOWUP EXPLORATION PROGRAM

Field work for the 1988 exploration program was conducted from July 8, to July 19, 1988. This work consisted of detailed geological mapping (1:500) on the northern part of the existing grid, hand trenching and sampling of newly discovered showings, systematic rock sampling of intensively argillically altered rhyolitic tuffs and the completion of reclamation work on areas disturbed by cat work.

### 5.1 Trenching

A total of 16 hand trenches were dug (see Figure 6). The trenching was focused on the newly discovered showings in the northern portion of the grid. Trench 16 exposed fractured fine grained andesite cut by 10 cm wide quartz vein with strong malachite staining.

Trenches 17 and 18 uncovered a 20 cm thick, iron stained quartz carbonate vein at the porphyritic andesite-basaltic tuff contact. The vein is striking west and dipping $80^{\circ}$ south. Trench 19 exposed a hematite stained quartz-carbonate vein associated with a shear zone at the andesite-basalt contact. A newly discovered, brecciated quartz carbonate vein (No. 4), hosted by grey green porphyritic andesite, has been intercepted by trenches $20,21,22,23,24,25,26$, and 27. The vein is striking $360^{\circ}$, dipping $40^{\circ}$ west and plunging at $21^{\circ}$ east. It can be followed along strike for approximately 40 m and in some places is up to 1 m in width. Trenches 28,30 , and 31 exposed two quartzandesite breccia zones up to 1 m thick. The continuity of this zone is unknown at the present time because trench 29 failed to reach bedrock due to thick overburden.

A total of 31 rock chip samples were collected from trenches. Rock sample locations are on figure 7b.

### 5.2 Rock Sampling

Based on the recommendation by E. Yarrow (1987), systematic rock sampling was carried out over the argillically altered area, in the eastern portion of the grid. The cliff face was accessed and sampled by a team of experienced rock climbers. A total of 184 rock chip samples were collected on 11 lines with a 3 m sample interval (see Figure 7a).

The zone within tertiary volcanics at the eastern portion of the Edge 1 claim, which produced values up to 465 ppb Au (Yarrow, 1987) was sampled as well. A total of 40 rock samples were collected from this zone (Figure 7a).

### 5.3 Rock Sample Mineralization

Iron staining is a characteristic feature of the quartz carbonate veins exposed on the property. The recognized mineralization in the rock samples consists of disseminated fine pyrite, chalcopyrite, hematite and malachite.

The best values were from rusty quartz carbonate veins associated with a shear zone (trench no. 19). Sample no. 14030 returned an assay value of $2.15 \mathrm{~g} \mathrm{Au} / \mathrm{t}$ (0.063 $\mathrm{oz} / \mathrm{t}), 12.2 \mathrm{~g} \mathrm{Ag} / \mathrm{t}(0.36 \mathrm{oz} / \mathrm{t})$ and 1061 As ppm across 18 cm while sample no. 14039 gave values of $0.91 \mathrm{~g} / \mathrm{t}$ $\mathrm{Au}(0.027 \mathrm{oz} / \mathrm{t}), 15 \mathrm{~g} \mathrm{Ag} / \mathrm{t}(0.44 \mathrm{oz} / \mathrm{t})$ and 538 ppm As across 25 cm .

The best values from newly discovered brecciated quartz carbonate veins were $1.06 \mathrm{~g} \mathrm{Au} / \mathrm{t}(0.031 \mathrm{oz} / \mathrm{t}), 21 \mathrm{~g} / \mathrm{t}$ Ag ( $0.06 \mathrm{oz} / \mathrm{t}$ ) and 338 ppm As across 0.70 m from rock chip sample no. 14035.

Intensively, argillically altered volcanic rocks are locally accompanied by significant amounts of quartz. Mineral assemblages within these zones include quartz, calcite, hematite and disseminated pyrite. High silver values are common and several values over $3 \mathrm{~g} / \mathrm{t}$ ( $0.087 \mathrm{oz} / \mathrm{t}$ ) were produced. The best values from brecciated quartz carbonate veins within argillically altered zones were sample no. 4148 assaying $0.1 \mathrm{~g} / \mathrm{t} \mathrm{Au}$


The results from the rock geochemistry can be found in Appendix III with anomalous values above $0.5 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ and $4 \mathrm{~g} / \mathrm{t}$ Ag plotted on Figures 7 a and 7 b .

### 5.4 Geochemistry

A total of 255 rock chip samples were collected from the property. All samples were sent to Min-En Laboratories Ltd. 705 West l5th Street, North Vancouver, B.C. for analysis. 31 samples were subjected to a gold, silver fire assay and six element ICP. 224 samples were analysed for six elements (Au, $\mathrm{Ag}, \mathrm{As}, \mathrm{Cu}, \mathrm{Pb}, \mathrm{Sb}, \mathrm{Zn}$ ) by ICP. Preparation and analytical procedures can be found in Appendix II.

Gold values ranged from the detection limit of 5 ppb to a maximum of 2150 ppb . The highest values come from samples collected from quartz carbonate veins. Silver values in rocks ranged from a low of 0.1 ppm to a high of 15 ppm in sample no. 14039, taken from a quartz carbonate vein associated with a shear zone. Arsenic values were recorded up to 6505 ppm .

Zinc values ranged from 9 ppm to 237 ppm and there is a moderate correlation with lead values which ranged from 3 ppm to 180 ppm . Copper values reached as high as 1538 ppm. Antimony values were generally very low, with a maximum value of 51 ppm .

### 6.0 CONCLUSIONS AND RECOMMENDATIONS

The Edge property consists of 8 mineral claims totalling 102 units and is situated in the clinton Mining Division of B.C. Prospecting, rock sampling and geophysical surveying, followed by trenching and diamond drilling have shown the presence of significant gold-silver mineralization on the property over a relatively large area. It is believed that the property shows excellent potential for finding more
precious metal mineralization with a good possiblity of higher grades.

Gold and silver bearing mineralization on the property generally consists of brecciated and sheared quartzcarbonate veins containing up to $60 \%$ chlorite with disseminated pyrite, arsenopyrite and minor chalcopyrite and sphalerite. The results of surface rock sampling and diamond drilling suggests that the overall grade of gold mineralization found to date ranges from 0.1 g to $2.17 \mathrm{~g} / \mathrm{t}$ with accessory silver, arsenic, mercury and very minor zinc, lead and copper. Currently, the most extensive vein is the No. 3 vein, approximately 3.0 m in width which extends over 150 m in strike length to a depth of 65 m and is open to the west and south. It appears that the vein may be enriched by cross cutting faults.

The other brecciated quartz-carbonate veins can be traced on the surface for up to 120 m with encouraging precious metal grades.

It is proposed that the source of the mineralized hydrothermal fluids lies at depth and down dip of the exposed shear zone. In addition, it is possible that the shear zone has been enriched by cross cutting fault structures. To explore this possibility, a series of deep diamond drill holes should be drilled 150 m west of the recent drilling location to test the down dip extension of the shear zones encountered. A diamond drill platform should be built to the west of trenches 5,6 and 7 and two short holes drilled to explore the possible westerly dip of Vein Number 2. In addition, the newly discovered showings in the northern and eastern portions of the property should be diamond drill tested.

An estimate of the cost of the proposed exploration program is given in Appendix VIII.

Respectfully submitted, HI-TEC RESOURCE MANAGEMENT LTD.

J.D.Adamec, Ph.D., F.G.A.C.

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## APPENDIX I

Statement of Qualifications

## STATEMENT OF QUALIFICATIONS

I, William E. Lumley, of the City of New Westminster, Province of British Columbia, here by certify that :

1. I am a geologist residing at 935 th street in the city of New Westminster, Province of British Columbia.
2. I obtained a Bachelor of Science Degree in Geology from the University of Waterloo, Waterloo, Ontario in 1974.
3. I have been practising my profession as a geologist in Canada and United States permanently since 1974.
4. The information contained in this report was obtained from field work conducted by myself and others in 1988.
5. I consent to the use of this report in the Prospectus or Statement of Material facts for the purpose of a private or public financing.

Dated in Vancouver, B.C., this /st day of October, 1988


William E. Lumley, B. Sc.

I, J. Duro Adamec, of 1154 Premier Street, North Vancouver, B.C. hereby certify:

1. I graduated in geology from Comenius University of Bratislava, Czeckoslovakia (1978) and I hold a Ph.D. in Engineering Geology (1982) from the same University.
2. I am a Fellow of Geological Association of Canada.
3. I have been practicing my profession in Europe and North America since 1978.
4. The information contained in this report was obtained from field work conducted by myself and others in 1988.
5. I consent to the use of this report in a Prospectus or statement of Material Facts for the purpose of a private or public financing.

Dated in Vancouver, B.C. this /st day of October, 1988.
D. Hhanue
J. Duro Adamic, Ph.D., F.G.A.C.


## APPENDIX II

Geochemical Preparation and Analytical Procedures

# MIN-EN Laboratories Ltd. <br> Specialists in Mineral Environments <br> Corner 15th Street and Bewicke 705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1 T2 

## Analytical Procedure Report for Assessment Work

## 31 Element ICP

Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cu, Fe, K, Li, $\mathrm{Mg}, \mathrm{Mn}, \mathrm{Mo}, \mathrm{Na}, \mathrm{Ni}, \mathrm{P}, \mathrm{Pb}, \mathrm{Sb}, \mathrm{Sr}, \mathrm{Th}, \mathrm{U}, \mathrm{V}, \mathrm{Zn}, \mathrm{Ga}, \mathrm{Sn}, \mathrm{W}$, Cr

Samples are processed by Min-En Laboratories Ltd., at 705 west 15 th Street, North Vancouver, employing the following procedures.

After drying the samples at $95^{\circ} \mathrm{C}$ soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed by a jaw crusher and pulverized by ceramic plated pulverizer or ring mill pulverizer.
1.0 gram of the sample is digested for 4 hours with an aqua regia $\mathrm{HClO}_{4}$ mixture.

After cooling samples are diluted to standard volume. The solutions are analysed by computer operated Jarrall Ash 9000 ICAP or Jobin Yvon 70 Type II Inductively Coupled Plasma Spectrometers. Reports are formatted and printed using a dot-matrix printer.

# MIN-EN Laboratories Ltd. <br> Specialists in Mineral Environments <br> Corner 15th Street and Bewickg 705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1 T2 

## GOLD GEOCHEMICAI ANALYSIS BY MIN-EN IABORATORIES ITD.

Geochemical samples for Gold processed by Min-En Laboratories Lta., at 705 W . 25 th St. . North Vancouver Laboratory employing the following procedures.

After drying the samples at $95^{\circ} \mathrm{C}$ soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed and pulverized by ceramic plated pulverizer.

A suitable sample weight 5.0 or 10.0 grams are pretreated with $\mathrm{HNO}_{3}$ and $\mathrm{HClO}_{4} \mathrm{mixture}$.

After pretreatments the samples are digested with Acaa Regia solution, and after digestion the samples are taken up with $25 \% \mathrm{HCl}$ to suitable volume.

Further oxidation and treatment of at leagt $75 \%$ of the original sample solutions are made suitable for extraction of gold with Methyl Iso-Butyl Ketone.

With a set of suitable standard solution gold is analysed by Atomic Absorption instruments. The obtained detection limit is $0.005 \mathrm{ppm}(5 \mathrm{ppb})$.

# MIN-EN Laboratories Ltd. <br> Specialists in Mineral Environments <br> Corner 15th Streot and Bewicke <br> 705 WEST 15TH STREET NORTH VANCOUVER, B.C. <br> CANADA V7M $1 T 2$ 

## FIRE GOLD GEOCHEMICAL ANALYSIS BY MIN-EN LABORATORIES LTD.

Geochemical samples for Fire Gold processed by Min-En Laboratories Ltd., at 705 W . 15 th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at $95^{\circ} \mathrm{C}$ soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed and pulverized by ceramic plated pulverizer.

A suitable sample weight 15.00 or 30.00 grams are fire assay preconcentrated.

After pretreatments the samples are digested with Aqua Regia solution, and after digestion the samples are taken up with $25 \% \mathrm{HCl}$ to suitable volume.

Further oxidation and treatment of at least $75 \%$ of the original sample solutions are made suitable for extraction of gold with Methyl Iso-Butyl Ketone.

With a set of suitable standard solution gold is analysed by Atomic Absorption instruments. The obtained detection limit is $l \mathrm{ppb}$.

## APPENDIX III

Analytical Data for Core Samples
(HCT:FIT FAGE 1 OF 1 FILE NO: $\mathrm{B}-598 / \mathrm{FI}+2$ (604)980-5914 0f $16041988-4524$ 4 TVFE FOCK GEDCHEM DETE:DNE 1: 199日 ATIENTIDN: PE SOREARA



MIN-EN LABS ICP REPORT
705 HEST 15TH ST., NORTH VANCOUVER, B.C. V7H IT2
(604)980-5814 OR (604)988-4524

ATTENTION: PAUL SORBARA - NaL

| TENTION: PA |  |  |  | (604)980-5814 OR (604)988-4524 |  |  |  | 1 IYPE ROCK EEQCHEE - DATE: JUNE 10, 1988 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| WQALUES IN | ${ }^{\text {A }}$ | A5 | Cu | P9 | $5{ }^{\text {S }}$ | IN | AU-PP] |  |
| 16598 | 3.1 | 51 | 20 | 13 | 4 | 49 | 4 |  |
| 16599 | 3.3 | 70 | 11 | 14 | 4 | 41 | 19 |  |
| 16600 | 2.5 | 66 | 19 | 19 | 5 | 59 | 25 |  |
| 16601 | 1.0 | 23 | 35 | 14 | 4 | 53 |  |  |
| -16602 | 2.0 | 35 | 22 | 15 | 4 | 46 | 2 |  |
| 16603 | 1.4 | 30 | 34 | 20 | 6 | 67 | 4 |  |
| 16604 | 1.1 | 26 | 6 | 23 | 5 | 60 | 3 |  |
| 16605 | 1.2 | 25 | 11 | 18 | 5 | 68 | 2 |  |
| 16606 | 1.7 | 31 | 10 | 13 | 4 | 51 | 3 |  |
| -16-607 | 1.1 | 23 | 14 | 17 | 5 | 67 | 1 |  |
| 16608 | 1.5 | 50 | 43 | 21 | 5 | 65 | 2 |  |
| 16609 | 2.1 | 53 | 25 | 24 | 7 | 63 | 1 |  |
| 16610 | 2.3 | 65 | 45 | 20 | 6 | 65 | 1 |  |
| 16611 | 2.7 | 51 | 35 | 21 | 5 | 70 | 3 |  |
| -16 612 | 1.6 | 31 | 10 | 12 | 4 | 53 | 5 |  |
| 16613 | 2.6 | 30 | 30 | 19 | 5 | 64 | 4 |  |
| 16614 | 2.9 | 36 | 8 | 10 | 4 | 52 | 2 |  |
| 16615 | 2.0 | 30 | 12 | 25 | 6 | 62 | 3 |  |
| 16616 | 2.6 | 29 | 6 | 22 | 5 | 76 | 1 |  |
| -16617 | 2.8 | 33 | 12 | 22 | 6 | 80 | 2 |  |
| 16618 | 1.4 | 34 | 23 | 15 | 5 | 50 | 11 |  |
| 16619 | 2.2 | 40 | 17 | 17 | 5 | 63 | 9 |  |
| 16620 | 2.3 | 73 | 20 | 19 | 4 | 63 | 17 |  |
| 16621 | 2.3 | 72 | 17 | 17 | 4 | 49 | 29 |  |
| 16622 | 1.3 | 50 | 5 | 14 | 5 | 65 | 23 |  |
| -16623 | 1.1 | 30 | 1 | 21 | 5 | 85 | 11 |  |
| 16624 | . 9 | 18 | 27 | 17 | 5 | 89 | 5 |  |
| 16625 | 2.5 | 39 | 18 | 19 | 5 | 56 | 54 |  |
| 16626 | 4.1 | 1575 | 20 | 17 | 7 | 55 | 351 |  |
| -16627 | 6.8 | 3492 | 26 | 25 | 11 | 49 | 492 |  |
| -16628 | 1.6 | 116 | 29 | 15 | 5 | 63 | 15 |  |
| 16629 | . 9 | 34 | 21 | 22 | 6 | 65 | 3 |  |
| 16630 | 1.0 | 34 | 4 | 15 | 6 | 61 | 1 |  |
| 16631 | 2.7 | 476 | 26 | 22 | 6 | 50 | 94 |  |
| 16 632 | 2.9 | 228 | 46 | 20 | 4 | 50 | 170 |  |
| 16633 | 38.6 | 868 | 53 | 97 | 8 | 159 | 1680 |  |
| 16634 | 47.0 | 1008 | 94 | 81 | 5 | 143 | 702 |  |
| 16.635 | 52.1 | 711 | 155 | 107 | 5 | 120 | 640 |  |
| 16636 | 3.3 | 161 | 12 | 20 |  | 71 | 81 |  |
| -16637 | 3.1 | 20 | 12 | 14 | 4 | 64 | 11 |  |
| 16638 | 2.4 | 162 | 6 | 15 | 5 | 47 | 57 |  |
| 16639 | 1.6 | 44 | 12 | 18 | 5 | 107 | 38 |  |
| 16640 | . 9 | 13 | 23 | 17 | 5 | 109 | 6 |  |
| 16641 | . 8 | 4 | 2 | 14 | 5 | 99 | 18 |  |
| 16642 | . 5 | 30 | 6 | 12 | 5 | 114 | 22 |  |
| -16 643 | 1.0 | 27 | 28 | 17 | 5 | 101 | 19 |  |
| 883400701 | 1.4 | 77 | 1 | 27 | 6 | 86 | 22 |  |
| 883 A007 02 | 3.0 | 221 | 10 | 15 | 4 | 39 | 139 |  |
| 883400703 | . 3 | 26 | 24 | 6 | 2 | 15 | 84 |  |
| 889400704 | . 3 | 37 | 11 | 3 | 2 | 14 | 153 |  |
| 883 A007 05 | . 3 | 6 | 18 | 1 | 2 | 12 | 65 |  |

COMFANY: HI TEC RESOURCE MANAGEMENT PROJECT ND: EC 077

MIN-EN LABS ICP REPORT ATTENTION: P. SQRBARA

| ATIENTION: P.SO |  |  | (604)980-5814 OR (604)988-4524 |  |  |  |  | 1 TYPE ROCK GEQCHEM - DATE: JUNE 20 1988 |
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| 701 | 10.2 | 68 | 53 | 34 | 4 | 177 | 552 |  |
| 702 | 1.1 | 14 | 21 | 60 | 6 | 254 | 8 |  |
| 703 | 5.3 | 48 | 52 | 8 | 5 | 157 | 220 |  |
| 704 | . 8 | 8 | 21 | 76 | 6 | 112 | 49 |  |
| 705 | 19.5 | 16 | 66 | 126 | 10 | 513 | 1250 |  |
| 706 | 5.2 | 5 | 34 | 126 | 12 | 282 | 770 |  |
| 707 | 3.6 | 35 | 83 | 53 | 13 | 350 | 378 |  |
| 708 | 1.0 | 9 | 26 | 109 | 5 | 159 | 28 |  |
| 709 | 1.1 | 36 | 34 | 70 | 1 | 119 | 193 |  |
| 710 | 20.5 | 10 | 63 | 19 | 7 | 107 | 439 |  |
| 711 | . 8 | 9 | 62 | 44 | 7 | 216 | 339 |  |
| 712 | 4.3 | 5 | 43 | 76 | 12 | 256 | 382 |  |
| 713 | 1.3 | 20 | 27 | 27 | 11 | 363 | 3 |  |
| 714 | 1.6 | 20 | 34 | 109 | 11 | 204 | 1 |  |
| 715 | 1.1 | 19 | 27 | 50 | 17 | 150 | 1 |  |
| 716 | . 8 | 3 | 43 | 83 | 16 | 188 | 6 |  |
| 717 | 1.2 | 21 | 32 | 3 | 11 | 292 | 2 |  |
| 718 | 1.4 | 15 | 36 | 37 | 19 | 84 | 1 |  |
| 719 | 1.3 | 16 | 44 | 115 | 39 | 303 | 2 |  |
| 720 | 1.4 | 1 | 51 | 109 | 34 | 144 | 1 |  |
| 721 | 1.4 | 17 | 40 | 96 | 11 | 76 | 18 |  |
| 722 | . 7 | 8 | 35 | 30 | 45 | 20 | 162 |  |
| 723 | 1.0 | 5 | 16 | 41 | 55 | 196 | 7 |  |
| 724 | 1.8 | 15 | 32 | 107 | 6 | 276 | 2 |  |
| 725 | 1.8 | 14 | 29 | 121 | 60 | 192 | 28 |  |
| 726 | 1.2 | 1 | 43 | 62 | 7 | 196 | 154 |  |
| 727 | 2.0 | 16 | 43 | 93 | 29 | 20 | 155 |  |
| 728 | . 7 | 4 | 27 | 72 | 25 | 83 | 2 |  |
| 729 | . 4 | 2 | 42 | 67 | 7 | 108 | 1 |  |
| 730 | . 7 | 3 | 51 | 42 | 13 | 101 | 165 |  |
| 731 | 1.3 | 19 | 39 | 32 | 7 | 177 | 2 |  |
| 732 | 1.2 | 7 | 50 | 88 | 6 | 403 | 1 |  |
| 733 | 1.3 | 7 | 53 | 11 | 1 | 189 | 3 |  |
| 734 | 1.3 | 11 | 45 | 26 | 4 | 434 | 29 |  |
| 735 | 1.3 | 6 | 48 | 40 | 7 | 9 | 5 |  |
| 736 | 1.2 | 9 | 43 | 41 | 3 | 340 | 2 |  |
| 737 | 1.0 | 8 | 38 | 16 | 6 | 228 | 4 |  |
| 738 | . 6 | 3 | 9 | 27 | 1 | 262 | 2 |  |
| 739 | . 6 | 9 | 5 | 40 | 11 | 276 | 3 |  |
| 740 | . 7 | 13 | 14 | 67 | 3 | 153 | 28 |  |
| 741 | 1.4 | 3 | 175 | 8 | 7 | 163 | 77 |  |
| 742 | . 6 | 3 | 45 | 56 | 2 | 95 | 31 |  |
| 743 | 1.2 | 3 | 35 | 15 | 13 | 190 | 101 |  |
| 16645 | 1.2 | 7 | 25 | 25 | 11 | 19 | 2 |  |
| 16646 | 1.0 | 12 | 24 | 66 | 8 | 93 | 124 |  |
| 16647 | . 8 | 9 | 46 | 28 | 9 | 35 | 50 |  |
| 16648 | . 6 | 3 | 19 | 26 | 3 | 34 | 12 |  |
| 16649 | 1.5 | 2 | 31 | 36 | 14 | 200 | 4 |  |
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| 747 | . 9 | 41 | 16 | 10 | 1 | 35 | 29 |  |
| 748 | 1.1 | 15 | 4 | 13 | 2 | 58 | 21 |  |
| 749 | . 2 | 52 | 4 | 12 | 1 | 62 | 2 |  |
| 750 | . 5 | 46 | 49 | 11 | 3 | 52 | 10 |  |
| 14001 | . 5 | 27 | 45 | 15 | 1 | 60 | 3 |  |
| 14002 | . 9 | 21 | 22 | 12 | 1 | 58 | 1 |  |
| 14903 | . 4 | 1 | 12 | 13 | 2 | 57 | 2 |  |
| 14004 | 1.1 | 48 | 49 | 9 | 2 | 63 | 4 |  |
| 14005 | . 5 | 42 | 23 | 14 | 2 | 57 | 3 |  |
| 14006 | . 6 | 150 | 35 | 16 | 3 | 61 | 2 |  |
| 14007 | 1.4 | 14 | 28 | 21 | 1 | 55 | 1 |  |
| 14008 | . 5 | 62 | 26 | 14 | 2 | 76 | 2 |  |
| 14009 | . 3 | 1 | 46 | 13 | 2 | 66 | 1 |  |
| 14010 | . 3 | 13 | 30 | 12 | 3 | 68 | 38 |  |
| 14011 | 2.1 | 108 | 39 | 14 | 3 | 67 | 582 |  |
| 14012 | . 3 | 49 | 36 | 15 | 1 | 58 | 3 |  |
| 14013 | . 6 | 2 | 54 | 4 | 2 | 66 | 76 |  |
| 14014 | . 6 | 26 | 25 | 8 | 3 | 65 | 14 |  |
| 14015 | 77.4 | 1472 | 51 | 46 | 4 | 34 | 450 |  |
| 14016 | 1.0 | 80 | 23 | 7 | 3 | 70 | 5 |  |
| 14017 | . 2 | b | 56 | 9 | 2 | 46 | 16 |  |
| 888 CO | 1.0 | 122 | 13 | 10 | 2 | 11 | 79 |  |
| $886 C 02$ | 2.8 | 763 | 4 | 15 | 2 | 12 | 101 |  |
| 888603 | . 4 | 134 | 17 | 27 | 1 | 11 | 182 |  |
| 886004 | 1.2 | 27 | 26 | 3 | 3 | 70 | 3 |  |
| 888605 | 1.5 | 120 | 18 | 19 | 1 | 37 | 419 |  |
| 88 Cc 06 | . 2 | 19 | 4 | 19 | 2 | 昍 | 41 |  |
|  | 1.2 | 74 | 10 | 18 | 2 | 36 | 5 |  |

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SErtixicate of $A S S A Y$

| Company:HI-TEC RESOURCE MANAGEMENT | File:8-598/F1 |
| :--- | :--- |
| Froject:88-EC-OO7 | Date:JUNE 8/88 |
| Attention: F :SOFEARA | Type:FULF ASSAY |

He hereby certify the following results for samples submitted.

| Sample Number | AU G/TONNE | AU <br> OZ/TON |
| :---: | :---: | :---: |
| 16548 | . 86 | 0.025 |
| 16550 | . 34 | 0.010 |
| 16552 | . 40 | 0.012 |

# MIN-EN LAEDRATDRIEG LTD - <br> Specialists in Mineral Environments 705 West 15th Street North Vancouver, B.C. Canada V7M IT2 

## 

Company: HI-TEC FESOURCE MANAGEMENT
Proiect: $88 B C-007$
Attention: F SOREAFA

File:8-624/Fi
Date: JUNE 10/88
Type:FLLF ASSAY

We berety Eertify the following results for samples submitted.

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Number
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OZ/TON
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16566
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16 568
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16574
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$\qquad$

VANCOUVER OFFICE:
705 WEST 15TH STREET
NORTH VANCOUVER. B.C. CANADA V7M $1 T 2$ TELEPHONE (604) 980-5814 OR (604) 988-4524 LEX: VIA U.S.A. 7601067 • FAX (604) 980-962

COMpany:HT TEC FESDUFCE MANAGEIENT
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VANCOUVER OFFICE:
705 WEST 15TH STREET
NORTH VANCOUVER, B.C CANADA V7M $1 T 2$
TELEPHONE (604) 980-5814 OR (604) 988-4524
TELEX: VIA U.S.A. 7601067 •FAX (604) 980-962 1
TIMMINS OFFICE:
33 EASTIROQUOIS ROAD
P.O. BOX 867

SPECIALISTS IN MINERAL ENVIRONMENTS
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

## 

|  |  |  |  |  | File: F-823/Fi $^{\text {a }}$ |  |
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| Attertismip. Snfigh |  |  |  |  | TYee: Fun | ASSAY |
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$\qquad$

MIN

Company:HT-TEC RESOUFCES
Froiect: BeBC 007


File: $-1015 / F 1$
Dater July $27 / 8 \mathrm{~B}$
TYPE: ROCE ASSAY

He hereby efrify the followimg resulte for samples submittedn

Sample
Number

| tate | . S | ण. | 2. | ¢ |
| :---: | :---: | :---: | :---: | :---: |
| 1497 | . 2 | 9. OL | 1. 4 | . F |
| 14020 | . 2 | O. ¢¢ 1 | 4.0 | O. 12 |
| +402 | . 71 | O. 2 | $=3$ | \%. |
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| 1409 | . 6 | , ¢¢ | 2. | \% e |
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| 4 ¢S | : 3 | O.01 | \% 2 | 0.44 |

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| 1402 | . 1.1 | . e E | - 6 | O. |
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| 4 AT | - 28 | \%, 0 | 2.1 | 0.0 |
| 14084 | - 24 | O.007 | 2.2 | O. $0^{\circ}$ |
| 1.4\%5 | 1.0t | -9t | 2.1 | - 6 |
| 140 E | - | ○○l | 1. 6 | O. |
| 1497 | . 11 | 9.001 | 2.0 | ¢, |
| 14036 | . O | O. 01 | 1.6 | 9. |
| 1496 | - 91 | 9.027 | 15.0 | 0.44 |
| 14940 | - 21 | O.0¢ | 2 Z | O. $^{\text {\% }}$ |
| 14 at | 18 | 0, 0¢ | 1.4 | \%.04 |


| 1494 | .07 | O. $\mathrm{O}_{2}$ | 1.0 | ¢ |
| :---: | :---: | :---: | :---: | :---: |
| 14045 | ${ }^{\circ} \mathrm{Q}$ | , e\%t | -2 | \% |
| 14046 | . O | O. 0 l | . 6 | \% 2 |
| 4,47 | - 20 | O. 08 | 1.0 | \%. |
| 4498 | - | O. O¢? | 4.2 | ¢ 12 |
| 1.40 | . O | , 0\% | 1.7 | ¢ |
| 14.42 | 1.45 | 0.042 | 4.0 | - 2 |
| 14.49 | . 04 | 0.001 | 1.7 | . ए |
| 14.45 | . O | \%. | 1. 2 | 9, 4 |
| 14147 | . 2 | \%.01 | 4.0 | O. E |

Getaytor

VANCOUVER OFFICE:
705 WEST 15TH STREET
NORTH VANCOUVER, B.C. CANADA V7M 1 T2 TELEPHONE (604) 980-5814 OR (604) 988-4524
TELEX: VIA U.S.A. 7601067 •FAX (604) 980-9621
TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
SPECIALISTS IN MINERAL ENVIRONMENTS
P.O. BOX 867

CHEMISTS • ASSAYERS - ANALYSTS - GEOCHEMISTS

## 

| Company: $\mathrm{HI}-\mathrm{TEC} \mathrm{FES}$.Proiectabe oot |  |  |  |  | Firene-1015/P2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Dete:July | 27/e8 |
| Attention: J.ADAMEC/V. RURAN |  |  |  |  | Typeratock | ASBAY |
| Hehereby centify the followng results for samples sumitted. |  |  |  |  |  |  |
| Semple | AU | A | AS | AB |  |  |
| Number | GTONME | Oz/TOn | G/tonde | Oz/TOM |  |  |
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| COMPANY: HI-TEC RESDURCE MANAGEMENT PROJECT NO: 88BC 007 |  |  | MIN-EN LABS ICP REPORT |  |  |  |  | (ACT:FJI) PAEE 1 OF 1 <br> FILE NO: $8-1015 /$ P1 $1+2$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 705 WEST | 15 TH ST. | RTH | OUVER, E.C. |  |  |
| ATTENTION: J. ADAMECN. KURAN |  |  |  | (604)980 | 4 OR | 1988-4524 | TIYPE ROCK GEOCHEM | - DATE:JULY 27, 1988 |
| (VALUES IN PPH) | AS | Cu | FE | PB | S8 | IN |  |  |
| 14018 | 21 | 756 | 25720 | 3 | 1 | 36 |  |  |
| 14019 | 50 | 596 | 21570 | 8 | 1 | 30 |  |  |
| 14020 | 9 | 1538 | 18650 | 12 | 1 | 27 |  |  |
| 14021 | 94 | 186 | 7780 | 17 | 5 | 15 |  |  |
| 14022 | 80 | 38 | 22520 | 19 | 1 | 34 |  |  |
| 14027 | 362 | 44 | 16050 | 30 | 10 | 20 |  |  |
| 14028 | 279 | 107 | 26260 | 39 | 8 | 77 |  |  |
| 14029 | 6505 | 202 | 26800 | 33 | 51 | 34 |  |  |
| 14030 | 1061 | 186 | 42490 | 46 | 20 | 20 |  |  |
| 14031 | 319 | 13 | 28080 | 18 | 2 | 44 |  |  |
| 14032 | 352 | 4 | 32450 | 14 | 1 | 47 |  |  |
| 14033 | 285 | 21 | 20670 | 17 | 1 | 27 |  |  |
| 14034 | 300 | 19 | 24800 | 12 | 4 | 35 |  |  |
| 14035 | 338 | 52 | 16030 | 14 | 4 | 15 |  |  |
| 14036 | 146 | 17 | 12770 | 12 | 7 | 18 |  |  |
| 14037 | 139 | 21 | 12360 | 17 | 3 | 18 |  |  |
| 14038 | 181 | 12 | 22190 | 14 | 3 | 30 |  |  |
| 14039 | 538 | 395 | 51640 | 29 | 10 | 22 |  |  |
| 14040 | 278 | 22 | 25540 | 15 | 5 | 32 |  |  |
| 14041 | 218 | 11 | 21010 | 10 | 6 | 27 |  |  |
| 14043 | 143 | 16 | 20550 | 12 | 8 | 20 |  |  |
| 14045 | 37 | 20 | 16520 | 13 | 5 | 41 |  |  |
| 14046 | 81 | 27 | 6100 | 8 | 8 | 9 |  |  |
| 14047 | 236 | 17 | 18270 | 10 | 6 | 23 |  |  |
| 14049 | 380 | 10 | 26650 | 39 | 5 | 32 |  |  |
| -14050 | 109 | 12 | 15710 | 7 | 3 | 26 |  |  |
| 14142 | 474 | 40 | 15240 | 17 | 8 | 33 |  |  |
| 14143 | 31 | 28 | 31450 | 9 | 1 | 44 |  |  |
| 14145 | 306 | 22 | 16490 | 15 | 10 | 16 |  |  |
| 14147 | 141 | 41 | 12170 | 180 | -11 | 237 |  |  |
| -14148 | 86 | 13 | 11520 | 17 | 11 | 14 |  |  |



COMPANY: HI-TEC RESOURCE MANAGEMENT PROJECT ND: 88BC 007 ATIENTION: J. ADAMECN. KURAN

MIH-EN LABS ICP REPORT
705 WEST $15 T H$ ST., NORTH VANCOUVER, B.C. V7H 172
(604)980-5814 OR (604)988-4524 \& TYPE RRCK EEOCHEM \&

PAGE I OF FILE NO: $8-1015 / P 3+4$ DATE: JULY 28. 1988



JUL 28 ' 88 11:52
CDAPANY: HI-TEC RESOURCE HANAGEMENT

MIN-EN LABS LTD
HIN-EN LABS ICP REPORT
705 WEST 15TH ST., NORTH VARCOWUER, B.E. V7M IT2
(604)980-5814 0 (604)988-4524

1 TYPE RPCK EEOCHEM : RATE: JULY 28, 1988

## APPENDIX IV

## Diamond Drill Logs



| Depth | Description | Sample no. | Interval (m) |  | ASSAY RESULTS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | from | to | Au(ppb) | Agjppm | As(ppm) | Cul pprd | Znppm) | Pippm) | Sblppn) |
| $\left\lvert\, \begin{aligned} & 0.0- \\ & 3.05 \\ & 3.05- \\ & 32.31 \end{aligned}\right.$ | Casing <br> Andesite |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | Yedium to dark green gray; locaily hematitic aphanitic and highly Eractured magnetic characterized by what appears to be hornblend crystals $1-2 \mathrm{~mm}$ in length throughout the matrix. This section overall is quite highly fractured and weakly argillitic locally sheared and brecciated. |  |  |  |  |  |  |  |  |  |  |
|  | 3.05- 5.18 broken core hematitic fractures at $30^{\circ}$ to col <br> 5.18-16.61 weatherea zone - 1 ight grey in colour (argillitic?) with numerous fractures coated by hematite and minor chlorite. <br> Broken core at: 7.47-7.77, 11.73- | 16501 | 16.60 | 17.60 | 2 | 1.0 | 2 | 40 | 84 | 17 | 6 |
|  | 13.115 cm wide shear zone at $30^{\circ}$ to core axis. | 16502 | 17.60 | 18.60 | 1 | . 7 | 9 | 30 | 84 | 10 | 8 |
|  | 15.70 vuggy 2 cm wide quartz filled fracture at $10^{\circ}$ | 16503 | 18.60 | 19.60 | 2 | 1.5 | 8 | 31 | 79 | 9 | 18 |
|  | o core axis. | 16504 | 19.60 | 20.60 | 1 | 1.0 | 45 | 40 | 86 | 15 | 16 |
|  | $\begin{aligned} & \text { 18.59-20.42 } \text { Zone of intense shear- } \\ & \text { ing \& brecciation-- } \\ & \text { section characterized }\end{aligned}$ | 16505 | 20.60 | 21.60 | 3 | 1.3 | 7 | 43 | 91 | 22 | 8 |
|  | by chloritic shears at $20^{\circ}$ to $50^{\circ}$ to core axis | 16506 | 21.60 | 22.60 | 2 | 1.0 | 10 | 45 | 91 | 20 | 8 |
|  | combined with a large amount of quartz/car- | 16507 | 22.60 | 24.20 | 1 | . 3 | 3 | 44 | 79 | 17 | 7 |
|  | bonate veining. | 16508 | 24.20 | 25.20 | 6 | 1.0 | 44 | 27 | 85 | 17 | 6 |


of 3
MHEE
RESOUACE MURACSMEMT UTL


Comments:

## overburden

3.05 medium to dark green grey aphanitic andesite

### 14.60 intense shearing

$-19.80$
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| Scale of Summary log | $1: 500$ |
| :--- | :--- |







| Company | Brenwest Mining Ltd. |
| :---: | :---: |
| Project No. | 88-BC-007 |
| Drill hole no. | 88-03 |
| Area/Township | Big Bar Creek, B.C. |
| Mining Division | Clinton |
| Claim Name | Edge 1 |
| N.T.S. | 92 0/1 |
| Grid Reference | $5+74 \mathrm{~N} 0+53 \mathrm{~W}$ |
| Angle/Orientation | $-50 \% 250^{\circ}$ |
| Length | (111.86m) (367') |
| Core size | NQ |
| \% Recovery | 96\% |
| Depth to Bedrock | 6.11 m (20') |
| Lithology Fm Top | Hematitic basaltic tuff |
| Lithology Fm Base | Andesite |
| Date collared | May 25, 1988 |
| Date completed | May 26, 1988 |
| Dip Tests | N/ A |
| No. of Samples | 26 |
| Sample Interval | 1.0 m |
| Sample No's | From:16536 <br> 14012To:16559 <br> 14013 |
| Drilling Company | Frontier Drilling |
| Logged by | W. E. Lumley |



| Scale of Summary log | $1: 500$ |
| :--- | :--- |


| Depth | Description | Sample no. | Interval (m) |  | ASSAY RESULTS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | from | to | Aubpb) | Ag(ppm) | As(ppsin) | Cubpm) | Znppm) | Pbopm 1 | Sb(ppn) |
| $\begin{aligned} & 0.00- \\ & 6.10 \end{aligned}$ | Casing |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 6.10- \\ & 11.40 \end{aligned}$ | Hematitic basaltis tuff. Aphanitif massive. |  |  |  |  |  |  |  |  |  |  |
| $\left\lvert\, \begin{aligned} & 11.40 \\ & 12.00 \end{aligned}\right.$ | Bright red soft nematitic fault. gouge. |  |  |  |  |  |  |  |  |  |  |
| 12.00- | Andesite |  |  |  |  |  |  |  |  |  |  |
| 30.10 | Medjum to dark green grey weathered locally fractured \& brecciated weakly poryhyritic. Practures are heaied with quartz $\pm$ carbcrate, overall argillitic altered with large amount of broken core. | 16536 | 25.01 | 26.01 | 1 | . 6 | 33 | 25 | 66 | 16 | 5 |
|  | 12.00-15.90 highly fractured section - large amount of broken core. | 16537 | 28.06 | 29.06 | 13 | . 7 | 2 | 30 | 73 | 21 | 5 |
|  | 19.00-19.90 broken core hematite <br> lined fractures. <br> 20.10-21.80 broken core, 1.3 m <br> lost core. | 16538 | 29.06 | 30.06 | 3 | . 5 | 34 | 41 | 76 | 27 | 5 |
| $\begin{aligned} & 30.10 \\ & 33.80 \end{aligned}$ | Fault gouge and fault breccia hematitia gougy shesring at $45^{\circ}$ to core, some chioritic shearing. |  |  |  |  |  |  |  |  |  |  |
| . 8 | Basaltic Tufin |  |  |  |  |  |  |  |  |  |  |
| 39.25 | Soft hematitic dark red in colour very similar to tuff unit seen in DDH's $1 \& 2$. Some minor clasts but overall appears uniform. Upper contact at $45^{\circ}$ to core axis Lower contact at $55^{\circ}$ to core axis |  |  |  |  |  |  |  |  |  |  |



| Depth | Description | Sample no. | Interval (m) |  | ASSAY RESULTS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | from | to | Au( ppb | Ag(ppm) | Asppm) | Cu(ppri) | Zn (ppm) | Pb (ppm) | Sbppm ) |
| $\left.\begin{array}{\|c} 39.25 \\ -41.20 \\ \\ \\ \\ \\ \end{array} \right\rvert\,$ | Andesite |  |  |  |  |  |  |  |  |  |  |
|  | Weakly porphyritic but highly fractured at 1 low angles to core | 16539 | 39.13 | 40.13 | 2 | . 9 | 33 | 18 | 47 | 26 | 2 |
|  | $0-35^{\circ}$ to core axis. Fractures hematitic lined very minor quartz carb. | 16540 | 40.13 | 41.13 | 1 | . 7 | 26 | 31 | 52 | 29 | 1 |
|  | Basaltic Tuff |  |  |  |  |  |  |  |  |  |  |
| $\begin{array}{r} 41.20 \\ -46.70 \end{array}$ | More compotent tuff unit. Identical to unit found at 33.80-39.25 but not as soft. | 16541 | 43.81 | 44.81 | 2 | . 5 | 1 | 39 | 72 | 21 | 4 |
| $\begin{array}{r} 46.70 \\ -47.15 \end{array}$ | Andesite |  |  |  |  |  |  |  |  |  |  |
|  | Weakly porphyrtti: uprer contact quartz vein at $30^{\circ}$ to core axis. Lower contact $45^{\circ}$ to core. | 16542 | 46.00 | 47.15 | 2 | . 6 | 48 | 43 | 78 | 13 | 2 |
| 47.15 <br> -54.70 | Basaltic Agglomerate |  |  |  |  |  |  |  |  |  |  |
|  | Jnit characterized by large clasts of porphyritic andesite and what | 16543 | 52.00 | 52.40 | 29 | . 6 | 21 | 542 | 65 | 9 | 1 |
|  | in a hematitic tuff matrix. | 16544 | 54.00 | 54.20 | 129 | . 1 | 35 | 116 | 75 | 9 | 3 |
| $\begin{array}{r} 54.60 \\ -\quad 56.75 \end{array}$ | Andesite |  |  |  |  |  |  |  |  |  |  |
|  | Weakly porphyritic upper contact is a breccia zone with angular pieces of andesite in a quartz $\pm$ carbonate matrix 6 em in width. Unit overall is weakly fractured. |  |  |  |  |  |  |  |  |  |  |


|  | 4 | DRill hole log No. |  |  | 88-03 |  |  | Sheet |  | 3 of | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Depth | Description | Sample no. | Interval (m) |  | ASSAY RESULTS |  |  |  |  |  |  |
|  |  |  | from | to | Auppb) | Ag(ppm) | As(opm) | Cu(ppord | Zn(ppnd | $\mathrm{Pb}(\mathrm{ppn})$ | Sbppm) |
| 56.75 <br> -64.36 <br>  <br> $64.36-$ <br> 66.80 <br> $66.80-$ <br> 68.60 <br>  <br> $68.60-$ <br> 103.20 | Basaltic Tuff |  |  |  |  |  |  |  |  |  |  |
|  | Uniform section with minor quartz carbonate healed fractures. <br> 62.5-63.0 3 cm wide quartz healed fracture parallel to core, <br> 63.0-63.60broken core. <br> Andesite Porphyry | 16545 | 62.00 | 62.50 | 2 | 1.3 | 27 | 51 | 66 | 5 | 4 |
|  |  | 16546 | 62.65 | 63.65 | 1 | 1.3 | 31 | 38 | 70 | 10 | 4 |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | Section characterized by large quartz phenocrysts up to 20 cm in width. | 16547 | 64.40 | 65.20 | 123 | . 9 | 275 | 57 | 76 | 16 | 6 |
|  | Hematitic Zone - volcanic basaltic tuff. minor quartz veins dendritic in nature. | 14012 | 67.85 | 68.85 | 3 | . 3 | 49 | 36 | 58 | 15 | 1 |
|  | Andesite |  |  |  |  |  |  |  |  |  |  |
|  | Upper Section - quartz $\pm$ carbonate chloritic shear zone. <br>  | 14013 | 68.85 | 69.85 | 76 | . 6 | 2 | 54 | 66 | 4 | 2 |
|  | brecciated section characterizad by | 16548 | 69.85 | 70.85 | 855 | 35.1 | 509 | 81 | 76 | 51 | 4 |
|  | chloritic shear planes and slickensifes at $35-45^{\circ}$ to core axis. | 16549 | 70.85 | 71.85 | 191 | . 5 | 115 | 25 | 77 | 5 | 4 |
|  | 69.75-72.40 chlorite content 45$50 \%$ of section min- | 16550 | 71.85 | 72.85 | 328 | 3.7 | 180 | 31 | 69 | 13 | 6 |
|  | eralization. $1-3 \%$ <br> pyrite, minor aspy | 16551 | 72.85 | 73.85 | 270 | . 8 | 319 | 25 | 79 | 9 | 5 |
|  | \& very minor cpy. <br> 72.40-77.00 section with numercus | 16552 | 73.85 | 74.85 | 402 | 6.5 | 804 | 48 | 80 | 30 | 1 |
|  | quartz $\pm$ carboriate veins $60-70 \%$ of core. | 16553 | 75.04 | 75.94 | 155 | 3.0 | 148 | 43 | 46 | 31 | 3 |
|  | Mineralized with py 2-3\% minor arsenopyrite \& tract cpy. | 16554 | 75.94 | 77.00 | 6 | . 5 | 28 | 46 | 55 | 16 | 4 |




| Company | Brenwest Mining Ltd. |
| :---: | :---: |
| Project No. | 88-BC-007 |
| Drill hole no. | 88-04 |
| Area/Township | Big Bar Creek, B.C. |
| Mining Division | Clinton M.D. |
| Claim Name | Edge |
| N.T.S. | $920 / 1$ |
| Grid Reference | 5+74N 0+53W |
| Angle/Orientation | $-70^{\circ} / 250^{\circ}$ |
| Length | 133.50m (438') |
| Core size | NQ |
| \% Recovery | 98 |
| Depth to Bedrock | $9.14 \mathrm{~m}\left(30^{\prime}\right)$ |
| Lithology Fm Top | Highly frac. andesite |
| Lithology Fm Base | basaltic tuff |
| Date collared | May 26, 1988 |
| Date completed | May 27, 1988 |
| Dip Tests |  |
| No. of Samples | 21 |
| Sample Interval | Approx 1 meter |
| Sample No's | $\begin{array}{\|l\|l\|} \hline \text { From: } \begin{array}{cc} 16560 \\ 743 \\ & 14014 \end{array} & \text { To: } \\ & 140575 \\ \hline \end{array}$ |
| Drilling Company | Frontier Drilling |
| Logged by | W. E. Lumley |



| Scale of Summary log | $1: 1000$ |
| :--- | :--- |








## DRILL HOLE LOG SUMMARY

HI-TEC
RESOURCE MANAGEMENT LTD.

Comments:

| Company | Brenwest Mining |
| :--- | :--- |
| Project No. | $88-$ BC-007 |
| Drill hole no. | $88-05$ |
| Area/Township | Biq Bar Creek, B.C. |
| Mining Division | Clinton |
| Claim Name | Edge |
| N.T.S. | 92 0/1 |
| Grid Reference | $5+74 \mathrm{~N}$ 0+52W |
| Angle/Orientation | $-45^{\circ} / 310^{\circ}$ |
| Length | $105.77 \quad\left(347{ }^{\prime}\right)$ |
| Core size | NQ |
| \% Recovery | 97 |
| Depth to Bedrock | 6.10 m (20') |
| Lithology Fm Top | Andesite |
| Lithology Fm Base | Basaltic agglomerate |
| Date collared | May 27, 1988 |
| Date completed | May 28, 1988 |
| Dip Tests | N/A |
| No. of Samples | 10 |
| Sample Interval | Approx 1.0 meters |
| Sample No's | From:16577 To: 16586 |
| Drilling Company | Frontier Drilling |
| Logged by | W. E, Lumley |


| Scale of Summary log | $1: 500$ |
| :--- | :--- |





| Depth | Description | Sample no. | Interval (m) |  | ASSAY RESULTS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | from | to | Au(ppb) | Ag(ppm) | Asppm ) | Cu(ppm) | Zn (ppm) | Pb(ppm) | Sb (ppm) |
| $\begin{gathered} 73.61 \\ 78.49 \\ \\ 78.49- \\ 87.17 \end{gathered}$ | Andesite |  |  |  |  |  |  |  |  |  |  |
|  | Appears more compotent than andesite unit above with one small shear zone at $74.68-75.29 \mathrm{~m}$ and one quartz vein at $76.50 \mathrm{~m}, 2 \mathrm{~cm}$ wide at $10^{\circ}$ to core. |  |  |  |  |  |  |  |  |  |  |
|  | Volcanic Basaltic Agglomerate |  |  |  |  |  |  |  |  |  |  |
|  | Very uniform and weakly fractured very similar to above mauve in colour. Large clast of altered porphyritic andesite up to 6 cm in diameter. Where fractured fractures paralle1 to core. Very minor py. |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 87.17 \\ & 94.13 \end{aligned}$ | Andesite |  |  |  |  |  |  |  |  |  |  |
|  | Porphyritic very compotent, fractured parallel to core. <br> Volcanic Basaltic Agglomerate |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 94.13- \\ & 105.77 \end{aligned}$ | Unit same as above but clasts appear more altered whitish in colour with argillic alteration. |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |

Comments:

| Company | Brenwest Mining |
| :--- | :--- |
| Project No. | $88-\mathrm{BC}-007$ |
| Drill hole no. | $88-06$ |
| Area/Township | Big Bar Creek, B.C. |
| Mining Division | Clinton |
| Claim Name | Edge 1 |
| N.T.S. | $920 / 1$ |
| Grid Reference | $4+14 \mathrm{~N} 1+49 \mathrm{E}$ |
| Angle/Orientation | $-55^{\circ} / 360^{\circ}$ |
| Length | 69.19 m (227') |
| Core size | NQ |
| \% Recovery | $95 \%^{\prime}+$ |
| Depth to Bedrock | $3.05 \mathrm{~m} \quad\left(10^{\prime}\right)$ |
| Lithology Fm Top | Andesite |
| Lithology Fm Base | Volcanic Agglomerate |
| Date collared | May 29, 1988 |
| Date completed | May 29, 1988 |
| Dip Tests | N/A |
| No. of Samples | 2 |
| Sample Interval | 1.0 m |
| Sample No's | Fromi: 16587 To: 16588 |
| Drilling Company | Frontier Drilling |
| Logged by | W. E. Lumley |


| Scale of Summary log | $1: 500$ |
| :--- | :--- |

Mrse


|  |  | DRILL HOLE LOG NO. |  |  | 88-06 |  |  | Sheet 2 |  | of 2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Depth | Description | Sample no. | Interval (m) |  | ASSAY RESULTS |  |  |  |  |  |  |
|  |  |  | from | to | Au(ppb) | Ag(ppnd | As(ppm) | Culopm) | Znopm) | Pbopm) | Sb(ppm) |
| $\left\|\begin{array}{l} 50.75-1 \\ 51.66 \\ 51.66- \\ 69.19 \end{array}\right\|$ | 34.44-34.59) Quartz breccia zone 35.20-35.50) upper contacts at 36.88-38.34) $30-40^{\circ}$ to core. $39.93-40.08$ ) $46.02-46.17$ ): :uartz fracture zones. <br> *A11 the quartz in above fractures appear weakly argillically altered with very little mineralization. <br> Red hematitic fault gouge. <br> Volcanic Basaltic Agglomerate <br> Overall compotent and uniformly hematitically stained. Ruby red to dark red in colour with angular to sub-rounded fragments of andesite in an earthy red matrix. <br> 57.91-58.82 Fracturing parallel to core $3-4 \mathrm{~cm}$ wide. <br> 64.31-64.77 Fracturing parallel to pore <br> 69.19 END OF HOLE | $\begin{aligned} & 16587 \\ & 16588 \end{aligned}$ | $\left\lvert\, \begin{aligned} & 36.60 \\ & 48.77 \end{aligned}\right.$ | $\begin{aligned} & 37.25 \\ & 49.68 \end{aligned}$ | $\begin{aligned} & 3 \\ & 2 \end{aligned}$ | $\begin{aligned} & 2.5 \\ & 2.6 \end{aligned}$ | $\begin{aligned} & 42 \\ & 33 \end{aligned}$ | $\begin{aligned} & 27 \\ & 46 \end{aligned}$ | $\begin{aligned} & 59 \\ & 61 \end{aligned}$ | $\begin{aligned} & 22 \\ & 26 \end{aligned}$ | $6$ |

## Comments:

| Company | Brenwest Mining |
| :---: | :---: |
| Project No. | 88-BC-007 |
| Drill hole no. | 88-07 |
| Area/Township | Big Bar Creek, B.C. |
| Mining Division | Clinton |
| Claim Name | Edge |
| N.T.S. | 92 0/2 |
| Grid Reference | $3+79 \mathrm{~N}$ |
| Angle/Orientation | -45 $/ 240^{\circ}$ |
| Length | 87.47 m (287') |
| Core size | NQ |
| \% Recovery | 70 |
| Depth to Bedrock | 3.66 m (12m) |
| Lithology Fm Top | Andesite |
| Lithology Fm Base | Basaltic Agglomerate |
| Date collared | May 29,1988 |
| Date completed | May 30,1988 |
| Dip Tests | N/A |
| No. of Samples | 1 |
| Sample Interval | 1.0 m |
| Sample No's | From: 16597 To: |
| Drilling Company | Frontier Drilling |
| Logged by | W.E. Iumley |



| Scale of Summary $\log$ | $1: 500$ |
| :--- | :--- |





Comments:

## overburden

3.05 weakly porphyritic dark green grey andesite
-17.37 shear zone
42.37 very dark red basalt
-47.24 fractured and brecciated andesite
66.75 fault gouge
67.32 porphyritic andesite EOH 70.4lm (231')

| Scale of Summary $\log$ | $1: 500$ |
| :--- | :--- |



| Depth | Description | Sample no. | Interval (m) |  | ASSAY RESULTS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | from | to | Au(ppb) | Ag( ppth | As(ppri) | Cu(ppm) | Zn(ppm) | Pb(ppm) | Sb(ppm) |
| $\begin{aligned} & 0.00- \\ & 3.05 \\ & 3.05- \\ & 42.37 \end{aligned}$ | Casing <br> Andesite <br> Weakly porphyritic, dark grey greep in colour, fractured with quartz/ carb healed veins $5 /$ metre, $1-2 \mathrm{~cm}$ in width. <br> Locally section is brecciated and sheared resulting in lost core. <br> 3.05-11.28 Broken core: andesite weathered and fractured hematite. <br> lined fractures orientated at $20-40^{\circ}$ to core axis. <br> 9.14-9.75 Quartz/carb healed breccia zone. Angular pieces of andesite in a quartz/carb matrix. <br> 9.75-11.28 . 7 m 1ost core. <br> 12.80-14.63 Large amount of shearing at paralle1 to $40^{\circ}$ to core axis. <br> 14.63-17.37 1 m lost core. <br> 17.37-17.98 Quartz/carbonate chlor itic shear zone @ $25^{\circ}$ to core <br> 17.98-19.20.7 meters of lost core 22.25-23.47 Lost core. <br> 25.60-27.13 Section characterized by large amount of quartz carbonate veining and breccia healin Orientation: random quartz/carbonate 40$50 \%$ of section. |  |  |  |  |  |  |  |  |  |  |




| Depth | Description | Sample no. | Interval (m) |  | ASSAY RESULTS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | from | to | $\mathrm{Au}(\mathrm{ppb})$ | Ag( ppm) | As(ppm) | Cu ( ppid | Znopm) | Pbopm) | Sbbpm) |
| $\begin{aligned} & 66.75- \\ & 67.82 \\ & 67.82- \\ & 70.41 \end{aligned}$ | 61.57-66.75 Large amount of broken core via fracturing $40-60^{\circ}$ to core axis. .7 m lost core. <br> Hematitic fault gouge - soft clay. <br> Porphyritic andesite. <br> Upper section clay altered. Overall quite highly fractured with large amount of broken core. Hole tightening up. <br> 70.41 END OF HOLE |  |  |  |  |  |  |  |  |  |  |

Comments:

| Company | Brenwest Mining |
| :--- | :--- |
| Project No. | BC-007 |
| Drill hole no. | $88-09$ |
| Area/Township | Big Bar Creek B.C. |
| Mining Division | Clinton |
| Claim Name | Edge |
| N.T.S. | $920 / 1$ |
| Grid Reference | l+50S 7+50E |
| Angle/Orientation | $-50^{\circ} / 270^{\circ}$ |
| Length | 71.63 m (235') |
| Core size | NQ |
| \% Recovery | $50-55 \%$ |
| Depth to Bedrock | 33.53 m (110') |
| Lithology Fm Top | Volcanic Arenite |
| Lithology Fm Base | Fractured Por. Andesit |
| Date collared | May 31, 1988 |
| Date completed | June 1, 1988 |
| Dip Tests | None |
| No. of Samples | None-_ |
| Sample Interval | None |
| Sample No's | From: -- To: -- |
| Drilling Company | Frontier Drilling |
| Logged by | W. E. Lumley |

## Scale of Summary log

Prexic muxawiun


Comments:

| Company | Brenwest Mining |
| :---: | :---: |
| Project No. | 88-BC-007 |
| Drill hole no. | 88-10 |
| Area/Township | Big Bar Creek, B.C. |
| Mining Division | Clinton |
| Claim Name | Edge |
| N.T.S. | $920 / 1$ |
| Grid Reference | $1+50 \mathrm{~S} 2+76 \mathrm{E}$ |
| Angle/Orientation | -50/090 |
| Length | 121.92 m ( $400 \cdot$ ) |
| Core size | NQ |
| \% Recovery | 99\% |
| Depth to Bedrock | $9.14 \mathrm{~m}\left(30^{\prime}\right)$ |
| Lithology Fm Top | Highly frac. andesite por. |
| Lithology Fm Base | Andesite tuff |
| Date collared | June_2, 1988 |
| Date completed | June 3, 1988 |
| Dip Tests |  |
| No. of Samples | 14 |
| Sample Interval | 1.0 m |
| Sample No's | From: 16598 To: 16611 |
| Drilling Company | Frontier Drilling |
| Logged by | W.E. Lumley |


| Scale of Summary log | $1: 1000$ |
| :--- | :--- |



| Depth |
| :--- | :--- |

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline  \& \[
0
\] \& \multicolumn{4}{|c|}{DRILL HOLE LOG NO.} \& \multicolumn{2}{|l|}{88-10} \& \multicolumn{2}{|r|}{Sheet 3} \& of \& 4 \\
\hline \multirow[b]{2}{*}{Depth} \& \multirow[b]{2}{*}{Description} \& \multirow[b]{2}{*}{Sample no.} \& \multicolumn{2}{|l|}{Interval (m)} \& \multicolumn{7}{|c|}{ASSAY RESULTS} \\
\hline \& \& \& from \& to \& Au(ppb) \& Agppm ) \& As(ppm) \& Cuppm) \& Znppm) \& Pb ( ppnd \& Sbppm) \\
\hline \[
\begin{aligned}
\& 68.58- \\
\& 100.28
\end{aligned}
\] \& \begin{tabular}{l}
Volcanic Basaltic Tuff/Agglomerate Hematitic, more fractured and sheared than agglomerate unit found above. \\
68.58-72.85 Agglomerate section large clasts of porphyritic andesite set in a tuffaceous matrix. Contains large amount of dendritic fractures of quartz/ca1cite. \\
72.85-100.28 Tuff Section - very few clasts appears laip in water environment thin bands of alternating light \& darker: tuff showing slumping, etc. \\
80.00-90.00 \\
This section is high1y sheared and brecciated as evidenced by sheared zones light green in colour with up to . \(5 \%\) py. Overall mineralization is low however Appears like a large amount of folding has occurred in this section. \\
A summary of breccia \& shear zones are as follows:
\end{tabular} \& \[
\begin{aligned}
\& 16602 \\
\& 16603
\end{aligned}
\] \& \[
\begin{array}{r}
70.12 \\
\\
75.00
\end{array}
\] \& \[
\begin{array}{r}
70.30 \\
\\
\\
75.50
\end{array}
\] \& 2

4 \& 2.0

1.4 \& 35

30 \& 22

34 \& 46

67 \& 15

20 \& 4

6 <br>
\hline
\end{tabular}



Comments:

| Company | Brenwest Mining Ltd. |
| :--- | :--- |
| Project No. | $88-$-BC-007 |
| Drill hole no. | $88-11$ |
| Area/Township | Big Bar Creek, B.C. |
| Mining Division | Clinton |
| Claim Name | Edge |
| N.T.S. | $920 / 1$ |
| Grid Reference | $1+07 \mathrm{~S}$ 2+86E |
| Angle/Orientation | $-65^{\circ} / 060^{\circ}$ |
| Length | 89.61 m (294') |
| Core size | NQ |
| \% Recovery | $94 \%$ |
| Depth to Bedrock | $6.10 \mathrm{~m} \mathrm{(20')}$ |
| Lithology Fm Top | Highly frac. andesite |
| Lithology Fm Base | Andesite porphyry |
| Date collared | June 3, 1988 |
| Date completed | June 4, 1988 |
| Dip Tests |  |
| No. of Samples | 11 |
| Sample Interval | 1.0 m |
| Sample No's | From:16612 To:16621 |
| Drilling Company | Frontier Drilling |
| Logged by | W. E. Lumley |


| Scale of Summary log | $1: 500$ |
| :--- | :--- |


| Depth | Description | Sample no. | Interval (m) |  | ASSAY RESULTS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | from | to | Au(ppo) | Ag(ppm) | As(pan) | $\mathrm{Cu}(\mathrm{ppm})$ | Zn(pam) | Pb(ppnd | Sbform) |
| 0.00 | Casing |  |  |  |  |  |  |  |  |  |  |
| 6.10 |  |  |  |  |  |  |  |  |  |  |  |
| 6.10 | Highly fractured andesite |  |  |  |  |  |  |  |  |  |  |
| 17.68 | 9.75-11.58 1.0 m lost core 11.58-12.50 . 4 m lost core 12.50-14.33 1.2 m lost core 14.33-17.37 2.5 m lost core |  |  |  |  |  |  |  |  |  |  |
| 17.68 | Quartz/carbonate chloritic shear zone - chlorite $20-30 \%$ of section. | 16620 | 17.47 | 18.37 | 17 | 2.3 | 73 | 20 | 63 | 19 | 4 |
|  | Quartz/carbonate $70-80 \%$ of section | 16621 | 18.47 | 19.47 | 29 | 2.3 | 72 | 17 | 49 | 17 | 1 |
|  | Possible source of samples taken on surface AS-3,4 | 16619 | 19.95 | 21.95 | 9 | 2.2 | 40 | 17 | 63 | 19 | 4 |
| 19.35 | Andesite Tuff | 16618 | 22.50 | 22.86 | 11 | 1.4 | 34 | 23 | 50 | 15 | 5 |
| 36.12 | Dark green grey in colour, similar to unit found in DDH-88-10 at $40.54-53.95 \mathrm{~m}$. Characterized by tuffaceous dark \& lighter coloured bands at $50^{\circ}$ to core. Where fractured fractures are at $50^{\circ}$ to core axis. | 14007 | 24.85 | 25.70 | 1 | 1.4 | 14 | 28 | 55 | 21 | 1 |
|  | Fracture zones with numerous <br>  at $50^{\circ}$ to core are found 20.7122.86 and $27.74-28.05 \mathrm{~m}$. | 16612 | 27.70 | 28.00 | 5 | 1.6 | 31 | 10 | 53 | 12 | 4 |
| 36.12 | Hematitic fault gouge. |  |  |  |  |  |  |  |  |  |  |
| 37.80 |  | 16615 | 37.00 | 38.00 | 3 | 2.0 | 30 | 12 | 62 | 25 | 6 |
| 37.80 | Andesite | 16616 | 38.00 | 39.00 | 1 | 2.6 | 29 | 6 | 76 | 22 | 5 |
| 56.08 |  | $16617$ | 39.00 | $40.00$ | 2 | 2.8 | 33 | 12 | 80 | $22$ | 6 |
|  | lower section 41.61-56.08, upper section - highly fractured in | 16613 | 40.63 | 41.63 | 4 | 2.6 | 30 | 30 | 64 | 19 | 5 |
|  | stockwork breccia with numerous fractures. | 16614 | 44.55 | 45.05 | 2 | 2.9 | 36 | 8 | 52 | 10 | 4 |



Comments:

| Company | Brenwest Mining |
| :--- | :--- |
| Project No. | $88-\mathrm{BC}-007$ |
| Drill hole no. | $88-12$ |
| Area/Township | Biq Bar Creek, B.C. |
| Mining Division | Clinton |
| Claim Name | Edge |
| N.T.S. | 92 0/1 |
| Grid Reference | $2+88 \mathrm{~N}$ 3+00E |
| Angle/Orientation | $-60 / 090^{\circ}$ |
| Length | $96.01 \mathrm{~m} \mathrm{(315')}$ |
| Core size | NQ |
| \% Recovery | $98 \%$ |
| Depth to Bedrock | $25.60 \mathrm{~m} \mathrm{(84')}$ |
| Lithology Fm Top | Basaltic Tuff |
| Lithology Fm Base | Andesite porphyry |
| Date collared | June 4, 1988 |
| Date completed | June 5, 1988 |
| Dip Tests | None |
| No. of Samples | 10 |
| Sample Interval | $10 m$ |
| Sample No's | From: 16622 To: 16631 |
| Drilling Company | Frontier Drilling |
| Logged by | W.E. Lumley |


| Scale of Summary $\log$ | $1: 500$ |
| :--- | :--- |





Comments:

| Company | Brenwest Mining Itd. |
| :---: | :---: |
| Project No. | 88-BC-007 |
| Drill hole no. | 88-13 |
| Area/Township | Big Bar Creek, B.C. |
| Mining Division | Clinton |
| Claim Name | Edge |
| N.T.S. | 92 0/1 |
| Grid Reference | 500N/29W |
| Angle/Orientation | $-60^{\circ} / 090^{\circ}$ |
| Length | 73.46 m (241') |
| Core size | NQ |
| \% Recovery | 87 |
| Depth to Bedrock | $18.90 \mathrm{~m}\left(62^{\prime}\right)$ |
| Lithology Fm Top | Red andesite |
| Lithology Fm Base | Volcanic agglomerate |
| Date collared | June 6, 1988 |
| Date completed | June 7, 1988 |
| Dip Tests | None |
| No. of Samples | 16 |
| Sample Interval | Approx 1.0m |
| Sample No's | From: $\begin{array}{ll}16632 \\ 14008\end{array}$ To: $\begin{aligned} & 16643 \\ & 14011\end{aligned}$ |
| Drilling Company | Frontier Drilling |
| Logged by | W. E. Lumley |



| Scale of Summary log | $1: 500$ |
| :--- | :--- |





Comments:

## overburden

24.38 altered andesite (argillic)
32.61 basaltic conglomerate
37.19 brecciated quartzandesite py l-2\%
47.40 shear zone
-49.23 hematitic fault gouge
50.29 andesite

EOH 54.86 m ( $180^{\prime}$ )

| Scale of Summary log | $1: 500$ |
| :--- | :--- |

WhEt



Comments:
overburden
9.14 highly fractured andesite
14.33 basaltic tuff
17.22 fault gouge
19.20 porphyritic andesite
24.90 volcanic basaltic agglomerate
34.14 andesite porphyry 36.27 volcanic basaltic tuff
45.11 quartz carbonate shear zone
46.21 shear zone
51.51 fractured andesite
62.64 quartz carbonate vein 63.09 py l-3\%
75.74 dark red fault gouge 76.66
volcanic basaltic tuff

EOH 99.67m (327)


| Depth | Description | Sample no. | Interval (m) |  | ASSAY RESULTS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | from | to | Au(ppb) | Ag(ppm) | As( Ppm | $\mathrm{Cu}(\mathrm{PPm})$ | Zn (ppm) | Pb(ppm) | Sb(ppm) |
| $\begin{aligned} & 0.00- \\ & 9.14 \end{aligned}$ | Casing |  |  |  |  |  |  |  |  |  |  |
| 14.3.34- | Highly Fractured Andesite. <br> Medium to dark green grey, highly fractured. Same unit as seen in DDH's 3,4,5. |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 14.33- \\ & 17.22 \end{aligned}$ | Basaltic Tuff. |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 17.22 \\ & 19.20 \end{aligned}$ | Red Hematitic Fault Gouge. |  |  |  |  |  |  |  |  |  |  |
| 19.20- | Andesite Porphry. |  |  |  |  |  |  |  |  |  |  |
| 24.90 | Fractured weathered porphyritic identical to unit 64.36-66.80 m. 23.47-24.69 . 9 m lost core. |  |  |  |  |  |  |  |  |  |  |
| 24.90- | Volcanic Basaltic Agglomerate |  |  |  |  |  |  |  |  |  |  |
| 34.14 | Appears more clasts in tuff matrix similar to unit found in $\mathrm{DDH}-88-3$ 33.80-39.25 \& at 66.80-68.60. |  |  |  |  |  |  |  |  |  |  |
| 34.14- | Andesite Porphyry |  |  |  |  |  |  |  |  |  |  |
| 36.27 | Porphyritic \& highly fractured fractures hematite lined, very broken resulting in lost core. 34.14-36.27 1.52 m lost core. |  |  |  |  |  |  |  |  |  |  |
| 36.27- | Volcanic Basaltic Tuff |  |  |  |  |  |  |  |  |  |  |
| 45 | Identical to unit in DDH-88-3 at $41.20-46.70 \& 56.75-64.36 \mathrm{~m}$. |  |  |  |  |  |  |  |  |  |  |




Comments:

| Company | Brenwest Mining Ltd. |
| :--- | :--- |
| Project No. | $88-\mathrm{BC}-007$ |
| Drill hole no. | DDH-88-16 |
| Area/Township | Big Bar Creek, B.C. |
| Mining Division | Clinton |
| Claim Name | Edge |
| N.T.S. | $920 / 1$ |
| Grid Reference | $576 \mathrm{~N} / 52.5 \mathrm{~W}$ |
| Angle/Orientation | $280^{\prime} /-50^{\circ}$ |
| Length | 93.57 m (307') |
| Core size | NQ |
| \% Recovery | 99 |
| Depth to Bedrock | 6.10 m |
| Lithology Fm Top | andesite highly |
| fractured |  |
| Lithology Fm Base | basaltic agglomerate |
| Date collared | June 10,1988 |
| Date completed | June 11, 1988 |
| Dip Tests | N/A |
| No. of Samples | 15 |
| Sample Interval | 1.0 m |
| Sample No's | From: $707 \quad$ To: 721 |
| Drilling Company | Frontier Drilling |
| Logged by | W. E. Lumley |


overburden
6.10 highly fractured andesite
8.08 hematitic fault gouge 10.82
weathered, fractured andesite
28.65 basaltic breccia
32.31 andesite porphyry
35.66 volcanic basaltic agglomerate
57.61 shear zone at $30^{\circ} \mathrm{C} / \mathrm{A}$
71.35 green shear zone
79.40 quartz carbonate shear zone at $30-40^{\circ} \mathrm{C} / \mathrm{A}$
84.28 volcanic basaltic breccia hole abandoned
EOH 93.57m (307')

| Scale of Summary $\log$ | $1: 500$ |
| :--- | :--- |





## APPENDIX $v$

Diamond Drill Cross Sections




Drill site 3-414N/149E
El. 609 m
610 m

600 m

590 m


| BRENWEST MINING LTD |  |  |  |
| :---: | :---: | :---: | :---: |
| EDGE PROPERTY |  |  |  |
| CROSS SECTION DDH-88-6 |  |  |  |
|  |  |  | (1ane mom |

Comments:

| Company | Brenwest Mining |
| :--- | :--- |
| Project No. | $88-\mathrm{BC}-007$ |
| Drill hole no. | $88-01$ |
| Area/Township | Big Bar Creek, B.C. |
| Mining Division | Clinton |
| Claim Name | Edge |
| N.T.S. | $920 / 1$ |
| Grid Reference | $4+1.7 \mathrm{n}$ 1+5nF |
| Angle/Orientation | $-50^{\circ} / 270^{\circ}$ |
| Length | $69.19 \mathrm{~m} \mathrm{(227')}$ |
| Core size | NQ |
| \% Recovery | $98 \%$ |
| Depth to Bedrock | 3.05 m (10') |
| Lithology Fm Top | frac \& sheared andesite |
| Lithology Fm Base | basaltic tuff |
| Date collared | May 24, 1988 |
| Date completed | May 24, 1988 |
| Dip Tests | N/A |
| No. of Samples | 20 |
| Sample Interval | 1.0 m |
| Sample No's | From:16501 To: 16520 |
| Drilling Company | Frontier Drilling |
| Logged by | W.E. Lumley |

Scale of Summary log 1:500








## APPENDIX VI

Rock Sample Descriptions

## Rock Sample Descriptions

| Sample No. | Width (cm) | Rock Chip Description |
| :---: | :---: | :---: |
| 14018 | 35 | Brecciated quartz with minor malachite. |
| 14019 | 25 | Brecciated quartz with minor malachite and chalcopyrite. |
| *14020 | - | Brecciated quartz with minor malachite and chalcopyrite. |
| 14021 | 10 | Quartz vein with minor iron staining. |
| 14022 | 18 | Moderately iron stained quartz vein. |
| 14023 | 20 | Purple basaltic tuff, weakly porphyritic. |
| 14025 | 20 | Dark breccia with large andesite clasts. |
| 14027 | 15 | Iron stained, quartz vein at the andesite/basalt contact. |
| 14028 | 18 | Same as 14027. |
| 14029 | 10 | Iron stained quartz-carbonate vein. |
| 14030 | 18 | Rusty, quartz-carbonate vein, shear zone. |
| 14031 | 60 | Rusty, brecciated quartzcarbonate vein. |
| 14032 | 20 | Same as 14031. |
| 14033 | 45 | Same as 14031. |
| 14034 | 50 | Same as 14031. |
| 14035 | 70 | Same as 14031. |
| 14036 | 40 | Brecciated quartz-carbonate vein with minor, very fine pyrite, < $2 \%$. |
| 14037 | 100 | Same as 14031. |


| Sample No. | Width (cm) | Rock Chip Description |
| :---: | :---: | :---: |
| 14038 | 150 | Brecciated quartz-carbonate zone. |
| 14039 | 25 | Rusty, hematitic quartzcarbonate vein. |
| 14040 | 100 | Same as 14031. |
| 14041 | 20 | Same as 14031. |
| 14043 | 30 | Rusty quartz vein. |
| 14045 | 20 | Grey-green porphyritic andesite. |
| 14046 | 20 | Chalcedony vein. |
| 14047 | 30 | ```Brecciated quartz-carbonate vein.``` |
| 14048 | 40 | Same as 14047. |
| 14049 | 40 | Rusty quartz-carbonate vein. |
| 14050 | 100 | ```Brecciated quartz-carbonate vein.``` |
| 14142 | 30 | Quartz-carbonate vein. |
| 14145 | 20 | White quartz-carbonate vein with minor fine pyrite. |
| 14147 | 15 | Smoky quartz with minor pyrite. |
| 14148 | 20 | Rusty quartz-carbonate vein with pyrite < $2 \%$. |

*This sample is a select rock sample, whereas all the other samples are rock chip samples.

## APPENDIX VII

## Statement of Costs

STATEMENT OF COSTS
BRENWEST MINING LTD.
EDGE PROPERTY PROJECT 88BCøØ7
Field Work Period: May 18 - June 16,1988 PHASE I
(2 days mob/demob, 28 project days)
Salaries
B. Lumley, Project Geologist
30 man days @ $\$ 300 /$ day\$ 9,00ø.0ø
J. Adamec, Assistant (For period of drillprogram J. Adamec acted as assistant andwas charged at the appropriate rate of anassistant) 30 man days @ $\$ 200 /$ day$6,000.00$
Project Expenses
Supervision
J.P. Sorbara 4 days @ $\$ 400 /$ day $\$ 1,600.00$V.M. Kuran 1.25 days @ $\$ 325 /$ day 406.25

2,006.25
5,245.00
3,900.00 1,920.00, 020.00
Project PreparationTruck Rental and Fuel 30 days @ $\$ 130 /$ dayDomicile 24 man days @ $\$ 80 / \mathrm{man} / \mathrm{day}$
(36 man days provided by drill camp)
Diamond Drilling
546 feet casing @ \$18.50/foot ..... \$10,101.004134 feet core @ $\$ 18.50 /$ foot $76,479.00$Field Cost Charges 24,768.00Supplies and Services 13,020.08
Geochemistry
198 samples- preparation,
6 element ICP for Ag As Cu
Pb Sb Zn , gold fire-AA
$148 @ \$ 15.75 /$ sample $\$ 2.331 .00$
50 @ $\$ 15.25 /$ sample 762.50
$\$ 3.093 .50$
geochem supplies
18.37
FAX charges 2.90
7 fire assays for gold
@ $\$ 8.5 \emptyset /$ sample
59.50
Helicopter Support and Fuel 3.2 hours @ $\$ 554.56 / \mathrm{hr}$1,774.60
Field Supplies and Equipment ..... $1,697.05$
Core Storage ..... 150.00
Communications, Accounting, Freight ..... 698.33
Report - Data Compilation and Drafting ..... 7,000.90
Reclamation Permit and Assessment Requirements ..... 929.0815\% Project Management FeeTOTAL PHASE I:$\frac{21,724.39}{189,586.15}$


Field Work Period: July 8 - July 19, 1988 PHASE III
(2 days mob/demob, 10 project days $\mathrm{Hi}-\mathrm{Tec}$ crew, 2 project days climbers)
Salaries
J. Adamec, Project Geologist 12 days @ $\$ 3 \emptyset \emptyset /$ day $\$ 3,600.0 \emptyset$
Samuel Chase, Assistant
12 days @ $\$ 200 /$ 2,40y 0 . 0
Shane Wolf, Assistant 12 days @ $\$ 2 \theta 0 /$ day $2,400.0 \emptyset$
David McCashin, Rock Climber 4 days @ $\$ 3 \emptyset \emptyset /$ day $1,2 \emptyset 0 . \emptyset \emptyset$
R.D. McGregor, Rock Climber 4 days @ $\$ 3 \emptyset \emptyset /$ day $1,200.0 \emptyset$

## Field Expenses

Project Preparation
Truck Rental and Fuel 16 days @ $\$ 130 /$ day Domicile 44 man days @ $\$ 80 / \mathrm{man} / \mathrm{day}$
837.50

2,080.00
3,520.00
Geochemistry
224 samples- preparation,
6 element ICP- Ag, As, Cu,
$\mathrm{Pb}, \mathrm{Sb}$ and Zn , gold-wet@ \$13.50/sample\$ 3,024.00
31 samples- preparation,6 element ICP- Ag, As, Cu,$\mathrm{Pb}, \mathrm{Sb}$ and Zn , silver andgold fire assay @ \$23.75/sample 736.25
FAX charges
4.50
Eield Supplies3,764.75
801.23AccountingReport Compilation and Drafting325.00
15\% Project Management Fee
TOTAL PHASE III:$2,500.00$$\frac{1,899.90}{\$ 26,528.38}$
TOTAL PROJECT COST: $\$ 219, \emptyset 54.5 \emptyset$

## APPENDIX VIII

Estimated Cost of Proposed Drill Program
3,500 ft drilling @ $\$ 30.00 /$ foot ..... $\$ 105,000.0$
Cat - 10 days @ \$800.00/day24,000.00
Geologist - 30 days @ $\$ 275.00 /$ day ..... $8,250.00$
Assistant - 30 days @ $\$ 175.00 /$ day ..... 5,250.00
Room and Board

$$
3,000.00
$$

Assays$5,000.00$
Vehicles4,000.00
Mobilization/Demobilization10,000.00
Project Preparation ..... $1,500.00$
Accounting and Communications

$$
1,500.00
$$

Field Supplies$2,500.00$
Report Compilation and Drafting $5,000.00$$\$ 178,600.0$
$15 \%$ Contingency ..... $26,500.00$
Project Management Fee ..... $20,000.00$
TOTAL: $\$ 225,100.00$






