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Minnova Inc. Vancouver, B.C.

Linda Lee January, 1990

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1.0 <u>SUMMARY</u>

The Rainbow 89 Group consists of eight mineral claims, located about three kilometres northwest of Midway, B.C. The claim group covers a large area of Tertiary volcanics, sediments and intrusives over a portion of the Toroda Creek Graben. Several mineral occurrences are known on the claims, the main ones being the Picture Rock Quarry and the Midway Mine. The Picture Rock Quarry is an example of epithermal chalcedonic veining within an east-west trending belt of Jurassic ultramafics. Anomalous, but sub-economic gold, arsenic and silver values are associated with this system, where tested by surface sampling. At the Midway Mine, economic gold and silver values occur in sulphide-rich shear zones within a quartz-feldspar porphyry intrusion of Cretaceous or Tertiary age. Heavy mineral sampling indicated strong gold, arsenic and antimony anomalies from this area of the claims. Neither of the above systems has been thoroughly explored and the potential for further discoveries is felt to be excellent. Further work on the property is recommended.

2.0 INTRODUCTION

2.1 Location, Access and Terrain

The Rainbow 89 group of mineral claims is located about 3 kilometres northwest of Midway, B.C.(see Figure 1). Access to the property is via a network of ranch and logging roads which lead northerly from Highway 3 up Murray Gulch and Ingram Creek.

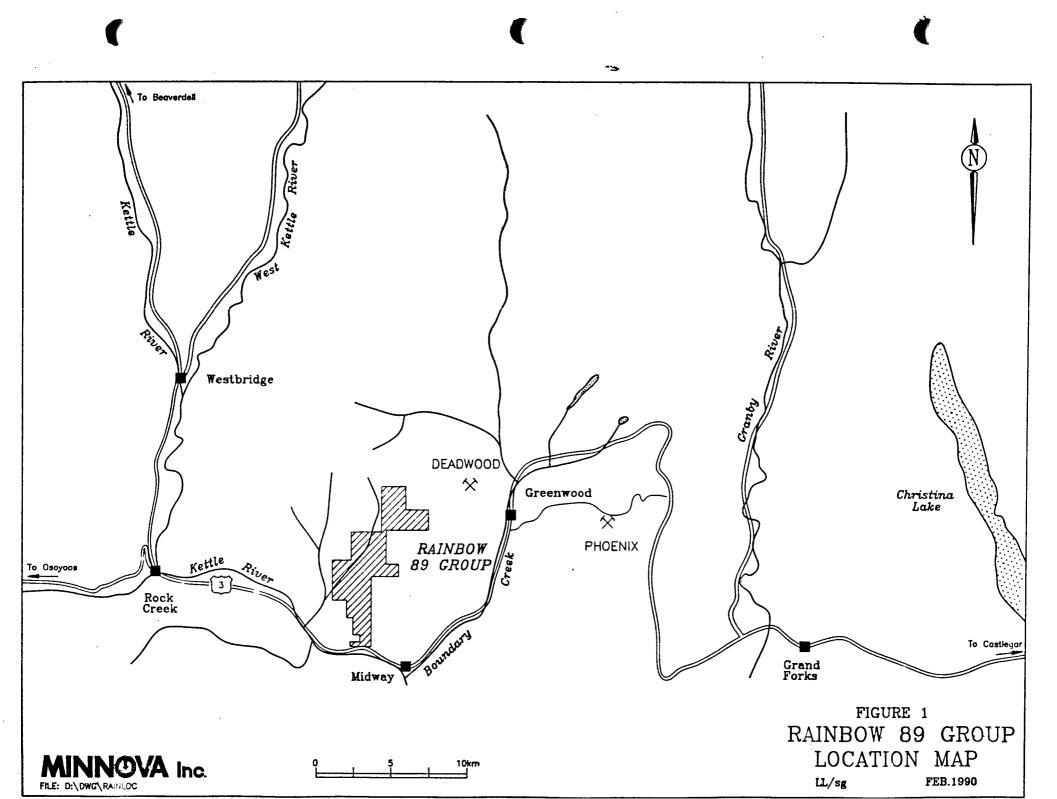
The property is situated on the south facing slope of the Kettle River valley and on the west facing slope of the Ingram Creek valley. Elevations range from 1470 metres in the north to 610 metres in the southern portion of the claim group. The terrain is hilly, but not generally steep, with open grassy slopes and moderate forest cover.

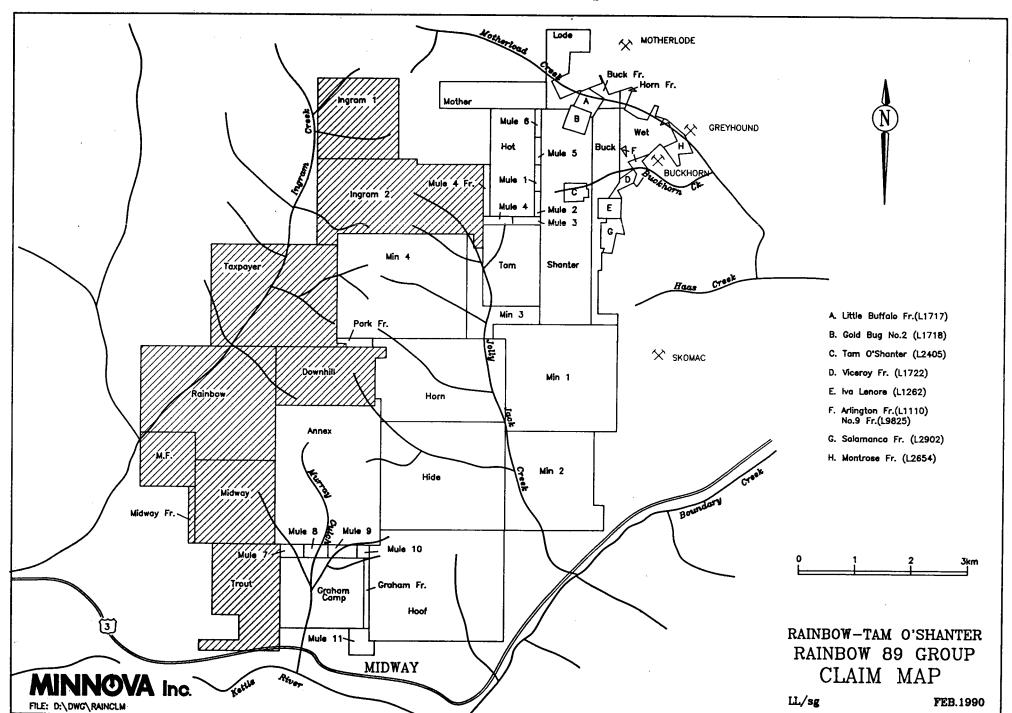
2.2 Property and Ownership

The Rainbow 89 Group consists of eight mineral claims, totalling 100 units as listed below and shown on Figure 2.

| <u>Claim Name</u> | <u>Units</u> | Record No. | Expiry Date* |
|-------------------|--------------|------------|-----------------------|
| Ingram 1 | 9 | 5334 | Jan 6, 1991 |
| Ingram 2 | 18 | 5335 | Jan 8, 1991 |
| Taxpayer | 20 | 5336 | Jan 10, 1991 |
| Rainbow | 20 | 3404 | Jan 14, 199 3 |
| Downhill | 8 | 3405 | Jan 14, 1993 |
| MF | 4 | 769 | May 16, 199 3 |
| Midway | 9 | 472 | Aug 16, 1993 |
| Trout | 12 | 5206 | July 15, 199 3 |
| | 100 | | |

* after acceptance of this report





- 34

The MF and Midway claims are owned by D. Moore of Greenwood, B.C. and are currently under option to Dentonia Resources and Kettle River Resources. All other claims are owned 50% by Dentonia Resources and 50% by Kettle River Resources.

2.3 <u>History</u>

Although several known showings occur on the property, exploration in the past has been limited. The following is a summary of the history of work done on the claims.

| pre 1950 | - | numerous pits are evidence of prospecting activity. | | | | | |
|-----------|---|---|--|--|--|--|--|
| 1960-1970 | - | D. Moore, of Greenwood, mines 19 tonnes of ore from Midway Mine. Recoverable grades are 14 g/t Au, 1506 g/t Ag, 15% Pb and 16% Zn. Underground development consists of 75 metres of drifting on 3 levels with 15 metres of raise and a small amount of open stoping. | | | | | |
| 1983 | - | Dentonia Resources/Kettle River Resources stake claims and option MF and Midway claims from D. Moore. Minor geological mapping, geochemistry and magnetometry done (Assessment Reports 11,466; 11,953). | | | | | |
| 1984 | - | Kerr Addison Mines options claims. Geological mapping and geochemistry done over a small part of property (Assessment Report 13,561). | | | | | |
| 1987 | - | BP Resources Canada Ltd. options claims and completes program of mapping, geochemistry and 160 metres of diamond drilling in 2 holes (Assessment Report 17,162). | | | | | |

- 1988 BP Resources Canada Ltd. continues work on claims. Detailed mapping done as well as geochemistry, Mag,VLF/EM and diamond drilling (302 metres in 2 holes). Only a small portion of the claims were tested by this program. (filed for assessment).
- 1989 BP Resources Canada Ltd. drops option. Minnova Inc. examines property and completes current program.

In addition to the above exploration for precious and base metals, over the years a small amount of ornamental chalcedony has been removed from the Picture Rock Quarry for lapidary purposes.

2.4 <u>Summary of Work Done, 1989</u>

Work done on the Rainbow 89 Group was limited. Seven rock samples were collected from the Midway Mine and Picture Rock Quarry areas by L. Lee, and the general geology of the area was confirmed. Seven heavy mineral samples were collected by W. Hindley and C. O'Neill to test drainages covering the claims. A total of nine man days was spent on the 1989 work program. All work was carried out between September 15 and October 30, 1989.

3.0 <u>GEOLOGY</u>

3.1 <u>Regional Geology</u>

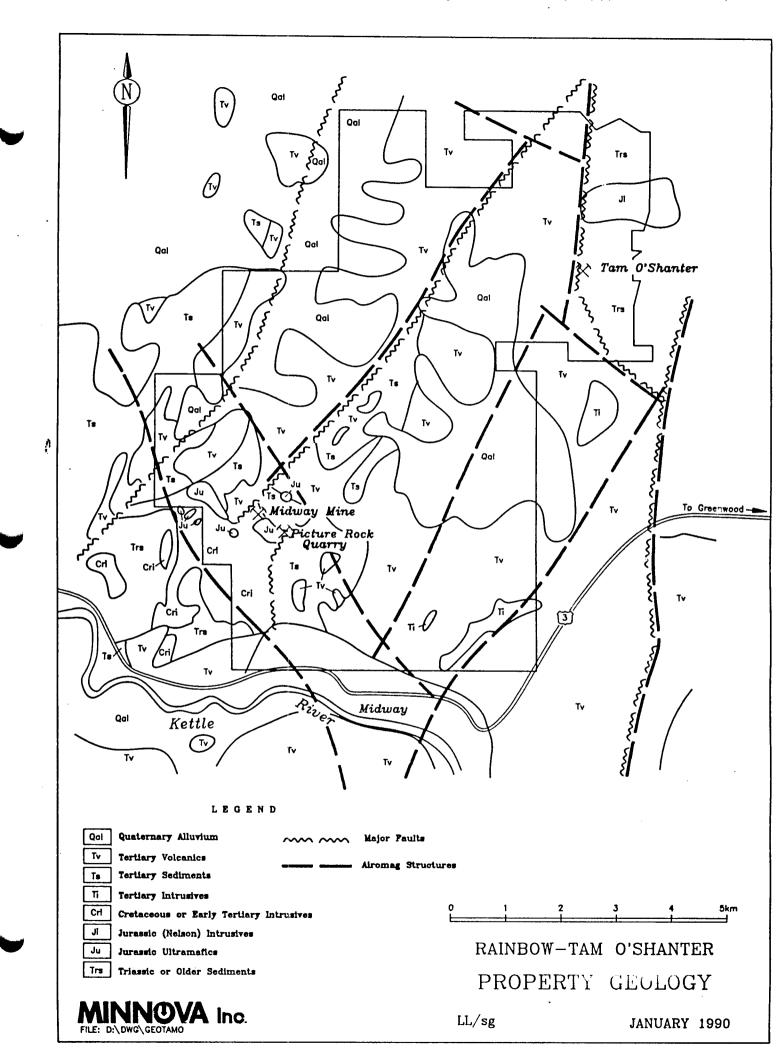
The Greenwood map area has been mapped on a regional basis by a number of people, most recently by Little (1983) and Church (1986). The Rainbow 89 Group covers a portion of the Toroda Creek graben and is largely underlain by mid-Eocene volcanics and sediments. In the southwest areas of the property, a large quartzfeldspar intrusion of Cretaceous or early Tertiary age occurs, bounded on the north by an east-west trending belt of Jurassic ultramafics. A number of major northeast trending structures are also known to occur.

3.2 Property Geology

The geology of the Rainbow 89 Group has been mapped in part by a number of workers, including Fyles(1983), Chow (1985), Wong and Hoffman (1987) and Wong et. al. (1988). Most of this work has been directed at the Midway Mine - Picture Rock Quarry area, in the southern part of the property. Figure 3 shows the geology of the claims, from information gained during the current program combined with that given by the above workers and by Little (1983).

Wong et. al. (1988) describes the property geology as follows:

The southwestern portion of the Greenwood map-area, within which the Rainbow property occurs, is underlain predominantly by Middle Eccene sedimentary and volcanic rocks which have been preserved in a series of small north-northeast trending grabens. Limestone, sharpstone conglomerate and minor chert, sandstone and argillite of the Middle Triassic Brooklyn Formation, and chert and greenstone of the Permian Knob Hill Group bound and locally occur within the grabens. Several small bodies of serpentinized ultramafic rock comprise a crude eastwest-trending belt and are considered to be of Jurassic A number of high-level porphyritic diorite to age. quartz diorite intrusions, the largest of which lies partially within the RAINBOW claims form a subparallel



feature to the serpentinites and are of Late Cretaceous to Early Tertiary age. Feldspathic and lithic tuffaceous sandstone, and locally shale and conglomerate of the Kettle River Formation comprise the basal member of the Eocene succession, while sodic trachyte, andesite, trachyandesite, minor phonolite and tuff of the Marron Formation constitute the volcanic to subvolcanic upper member. These units are intruded by plutonic rocks (Coryell Intrusions) ranging from syenite to quartz monzonite in composition.

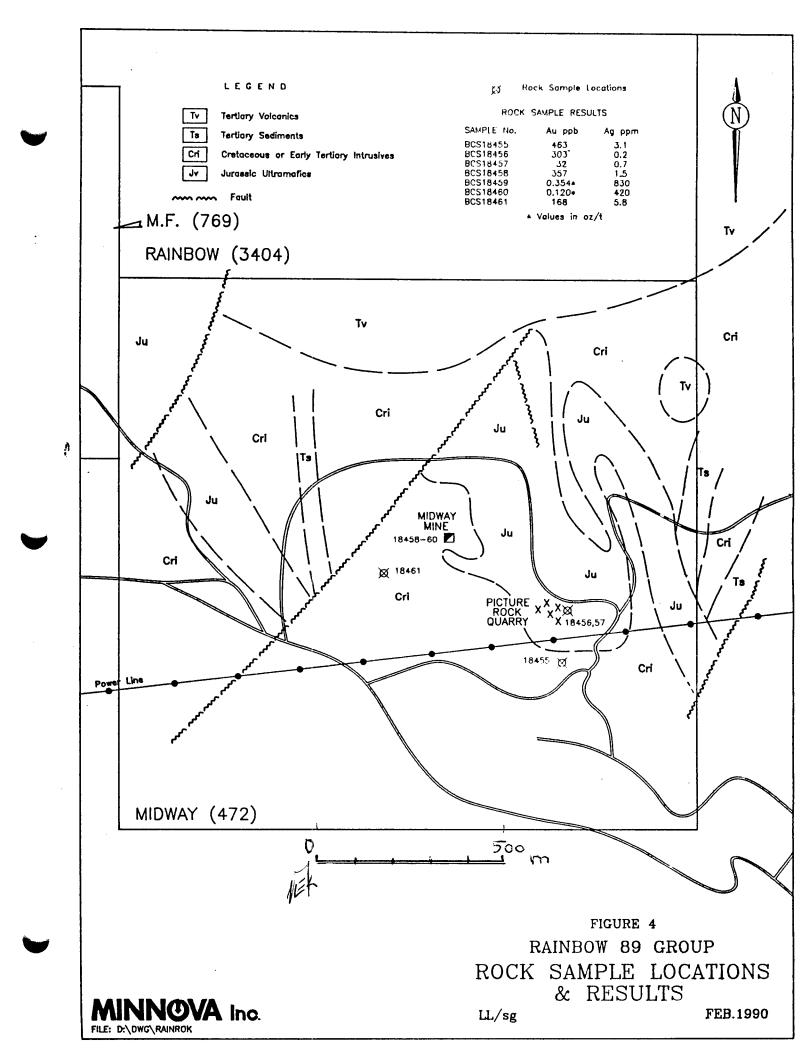
Known showings on the claims include the Picture Rock Ouarry area, where epithermal chalcedonic veining occurs along steep northeast trending structures and associated with a low angle east-west trending carbonate altered serpentine (listwanite) belt. About 200 metres east of this, massive sulphides (with associated precious metal values) occur in steep east-west shear zones within a highly altered Tertiary (?) guartz-feldspar porphyry intrusion (the Midway Mine). Detailed mapping in the Midway Mine area has shown that mineralization occurs entirely within an irregular shaped body of quartz feldspar porphyry which cuts the shallow north dipping listwanite belt (see Figure 5). A steep northeast fault and related Tertiary biotite monzonite dyke cut both the serpentine and porphyry and terminate the mineralization to the The eastern extent of the shear zones remains unexplored, west. as does the offset to the west.

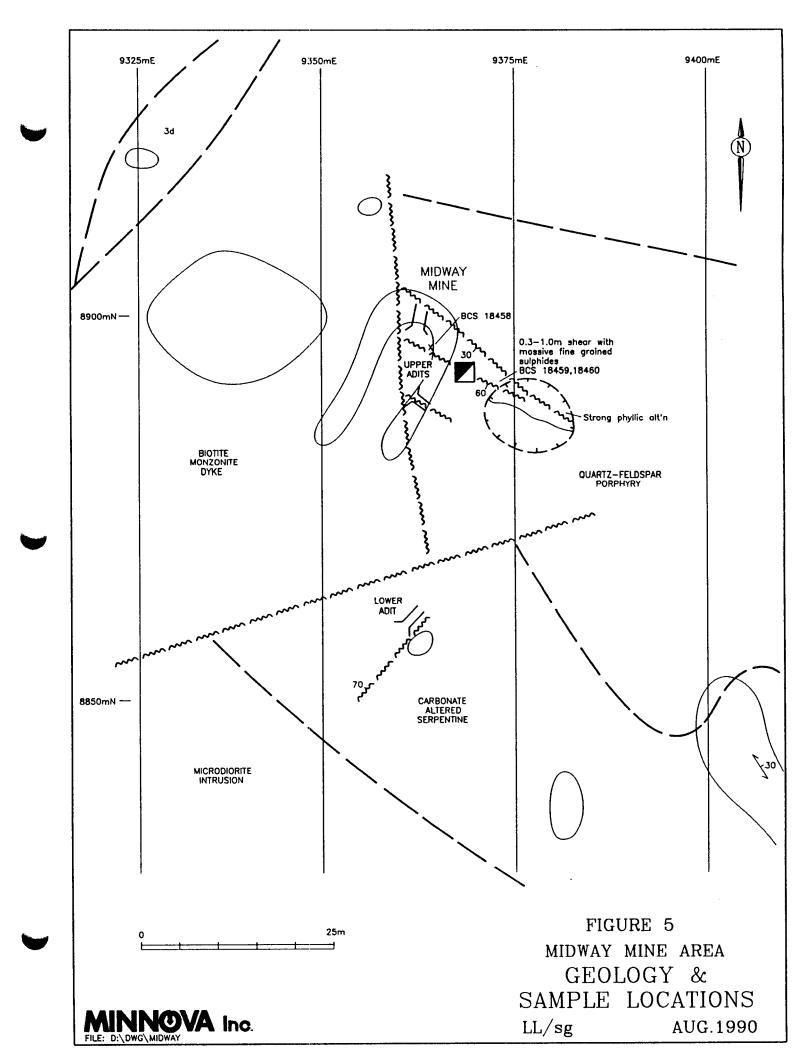
4.0 <u>GEOCHEMISTRY</u>

4.1 Rock Sampling

Seven rock samples were collected from outcrops in the Picture Rock Quarry and Midway Mine areas. Samples were shipped to Min-En Laboratories in North Vancouver for preparation and analysis. All samples were analysed for Cu, Pb, Zn, Ag, Au, Ag, As and Sb by standard geochemical methods. Samples with over 1000 ppb Au were then assayed (for Au only). Sample locations and results are shown on Figure 4 and complete analytical results and sample descriptions are contained in Appendix I. Geology and sample locations in the Midway Mine area are shown in more detail in Figure 5.

Samples of epithermal chalcedonic veining collected in the Picture Rock Quarry and Midway Mine areas were anomalous in gold, silver, arsenic and antimony (to 463 ppb, 3.1 ppm, 600 ppm and 14 ppm respectively). At the Midway Mine, mineralization consists of massive sulphides (pyrite, galena, sphalerite, arsenopyrite) and strong clay alteration in shear zones within a quartz-feldspar porphyry intrusion. Values to 0.354 oz/t Au, 830 g/t Ag, 3.3% Zn and 2.1% Pb (along with very high As and Sb) were obtained from a channel sample across a 30 centimetre wide massive sulphide shear zone. Adjacent to the shear zone, a two metre channel of altered wallrock ran 0.120 oz/t Au and 420 g/t Ag. Previous workers did not recognize the fact that the wallrock could carry values at the Midway Mine; more detailed sampling should be done of the altered porphyry to test this. Another fact previously unnoted was the "epithermal" signature of the mineralization at the Midway Mine. This, combined with detailed mapping in the mine area, suggest that this mineralization is Tertiary in age, perhaps related to the same event as the Picture Rock Quarry veining.





4.2 <u>Heavy Mineral Sampling</u>

Seven heavy mineral samples were collected from drainages covering the Rainbow 89 Group as shown on Figure 6. With the exception of sample RCG-20, all samples were collected from the Rainbow property. The drainage basins tested by the samples are shown on Figure 7; it can be seen that in every case the heavy mineral samples test areas covered by the Rainbow 89 Group.

At each sample site approximately eight kilograms (20 pounds) of minus -20 mesh material were collected. Samples were delivered to C.F. Mineral Research Ltd. in Kelowna, B.C. for preparation. The samples were dried, weighed and sieved into four different fractions as follows:

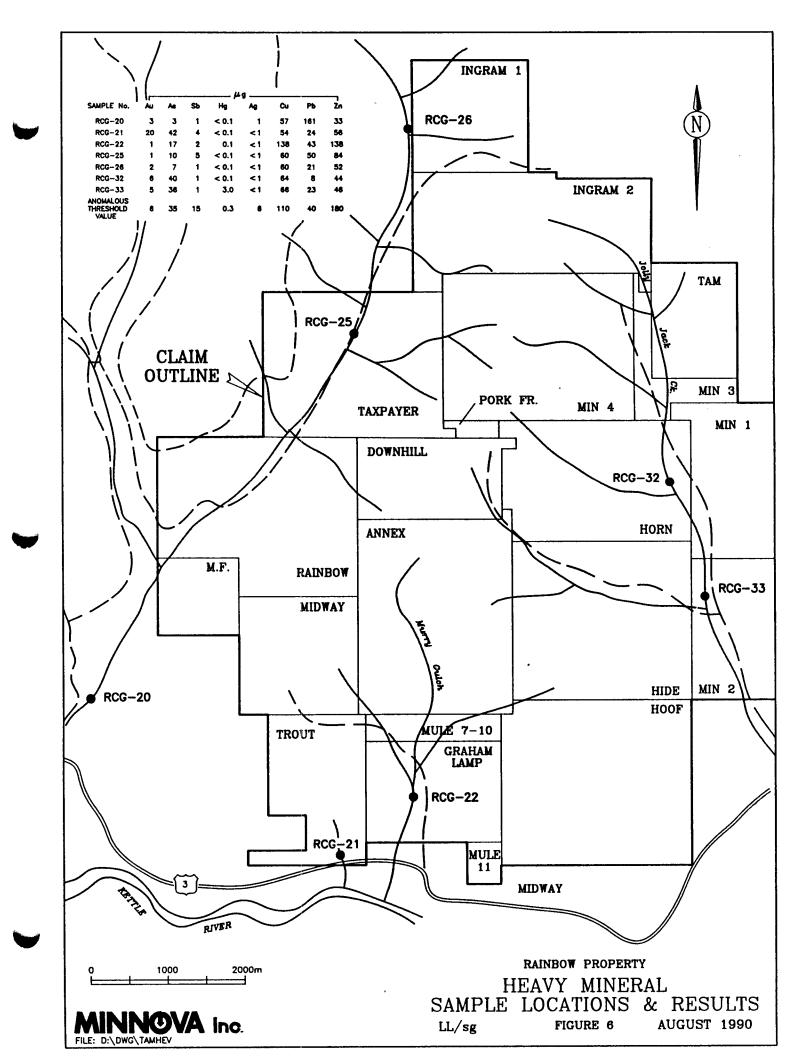
+ 20 mesh

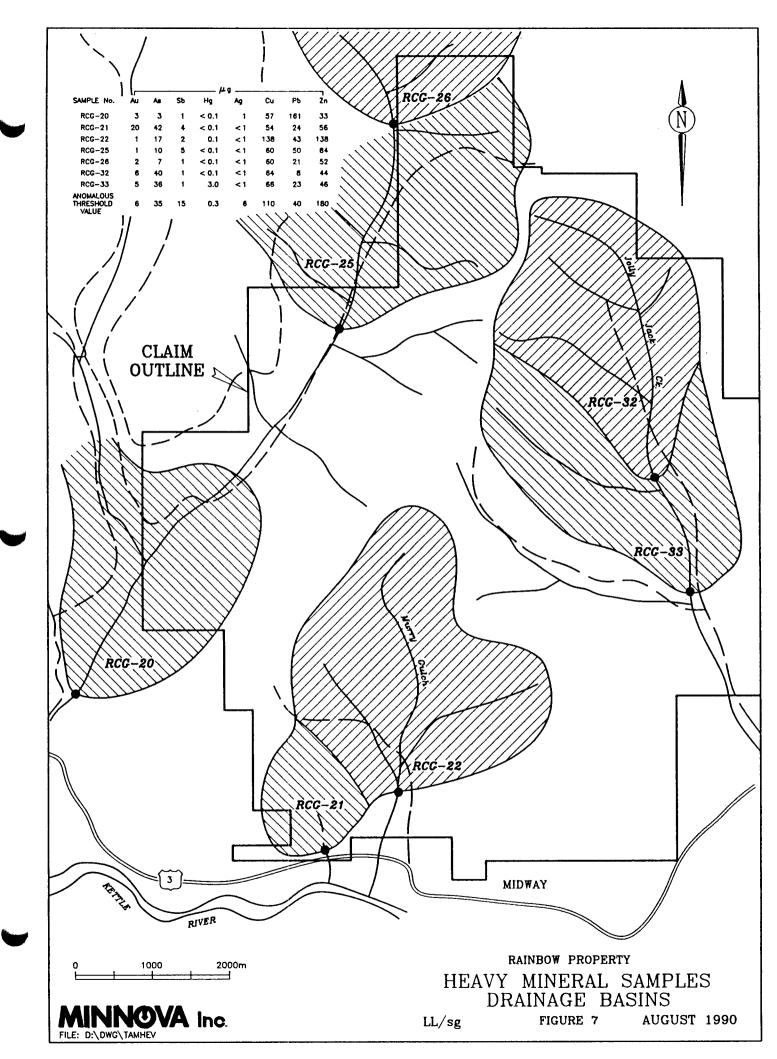
- 150 mesh heavy magnetic fraction (HM)
- 150 mesh heavy non-magnetic fraction (HN)
- 150 mesh heavy paramagnetic fraction (HP)

The weights of each of these fractions was also determined. Only the - 150 mesh, heavy non-magnetic fraction was submitted for analysis. Samples were shipped to Activation Laboratories Ltd. in Brantford, Ontario for analysis of gold and trace elements, and then to Barringer Laboratories in Calgary, Alberta for analysis of copper, lead, zinc and silver. Complete listings of the analytical results are included in Appendix I.

Since the size of the sample varies considerably, values reported as parts per billion or parts per million should be converted into weights normalized to a standard sample weight. This calculation can be done using the following formula:

| X * Y 100 Z | = | μ gm Au in -150 HN, normalized to 10 kg sample |
|--------------------|---|--|
| where | | X = Au in ppb in - 150 HN Y = weight (gm) of - 150 HN Z = weight (kg) of - 20 mesh |





The following is a tabulation of the converted results (for selected elements) for the heavy mineral samples. Regional heavy mineral sampling programs have identified the anomalous threshold values included in the table.

| Sample | Au | As | Sb | Нд | Ag | Cu | Pb | Zn |
|----------------------------------|----|----|----|-----|----|-----|-----|-----|
| RCG-20 | 3 | 3 | 1. | <.1 | 1 | 57 | 161 | 33 |
| RCG-21 | 20 | 42 | 4 | <.1 | <1 | 54 | 24 | 56 |
| RCG-22 | 1 | 17 | 2 | .1 | <1 | 138 | 43 | 138 |
| RCG-25 | 1 | 10 | 5 | <.1 | <1 | 60 | 50 | 84 |
| RCG-26 | 2 | 7 | 1 | <.1 | <1 | 60 | 21 | 52 |
| RCG-32 | 6 | 40 | 1 | <.1 | <1 | 64 | 8 | 44 |
| RCG-33 | 5 | 36 | 1 | 3 | <1 | 66 | 23 | 46 |
| Anomalous Threshold Values | 6 | 35 | 15 | 0.3 | 6 | 170 | 40 | 180 |

* all values in μ gm

Values indicated in bold type in the above table exceed the anomalous threshold value for that element. The most significant result is a coincident gold-arsenic anomaly (sample RCG-21) from a creek draining the southern portion of the claim group, near the Picture Rock Quarry. Other anomalies include weak to moderate lead in the Ingram Creek and Murray Gulch areas, and moderate to strong gold, arsenic and mercury in Jolly Jack Creek. Follow-up of these anomalies by a more detailed heavy mineral sampling program and by geological mapping should be done to identify the source areas.

5.0 <u>SUMMARY AND CONCLUSIONS</u>

- 1.0 The Rainbow 89 Group covers a portion of the Toroda Creek Graben, north of Midway, B.C. The claims are underlain predominantly by Eocene volcanics and sediments and lesser Tertiary (?) intrusives.
- 2.0 Several areas of mineralization and alteration occur on the property. At the Picture Rock Quarry, chalcedonic veining is associated with a low angle east-west trending belt of altered serpentine and with steep north-south trending fault zones. Anomalous gold, silver, arsenic and antimony values are associated with this alteration. Nearby at the Midway Mine, massive sulphides occur in narrow, steeply dipping shear zones within a highly altered Tertiary(?) quartz-feldspar porphyry intrusion. Economic gold, silver and base metal values occur not only in the shear zones but also in the adjacent altered wall rock, a fact that was previously unrecognized.
- 3.0 Heavy mineral sampling appears to be effective in outlining anomalous areas, however follow-up of the current program is necessary to locate the sources of the anomalies. This follow-up should include additional heavy mineral samples, as well as geological mapping and contour soil traverses.

6.0 RECOMMENDATIONS

Further work on the Rainbow 89 Group is definitely warranted based on the results of this program. A more detailed heavy mineral program should be done to follow-up anomalous heavy mineral samples. This, combined with detailed geological mapping and contour soil sampling should help in locating the source of the anomalies and should identify areas in need of more detailed work (geochemistry, geophysics). Airborne geophysics would be a good mapping tool on the property because of the local heavy overburden. 7.0 <u>REFERENCES</u>

- Chow, F., 1985. Report on the Rainbow Group of Mineral Claims. Assessment Report 13,561.
- Church, B. N., 1986. Geological Setting and Mineralization in the Mount Attwood-Phoenix Area of the Greenwood Mining Camp. BCDM Paper 1986-2.
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- Wong, R. H. and S. J. Hoffman, 1987. Geological, Geochemical and Diamond Drilling Report on the Rainbow Group, Midway, B.C. Assessment Report 17,162.
- Wong, R. H., S. J. Hoffman and W. D. Harris, 1988. Geological, Geophysical, Geochemical and Diamond Drilling Report on the Rainbow Group, Midway, B.C. Submitted for Assessment.

APPENDIX I

SAMPLE DESCRIPTIONS AND ANALYTICAL RESULTS

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AMPLE DESCRIPTIONS AND RESULTS:

- -- ----

| | | Au ppb | Ag ppm | As . ppm | Sb ppm |
|-----------|--|-----------|-----------|-------------|-----------|
| BCS 18455 | Outcrop near MDH-88-4 Chalcedonic veining in | | | | |
| DOG 1045C | alt'd serp | 463 | 3.1 | 75 | 1 |
| BCS 18456 | Picture Rock Quarry Banded, white chalc. | 303 | 0.2 | 51 | 1 |
| BCS 18457 | Picture Rock Quarry | | | | |
| | Pale blue, massive chalc with 10% alt'd | | • | | • |
| | serp bx clasts | 32 | 0.7 | 19 | 1 |
| BCS 18458 | Midway Mine -1m channel | | | | _ |
| BCS 18459 | across clay gouge zone Midway Mine -30 cm | 357 | 1.5 | 62 | 3 |
| BC3 18459 | poddy mass. sulfide shear | | | | |
| | from upper pit | 0.354* | 830 | 18750 | 725 |
| BCS 18460 | Midway Mine -2m channel across py, kaol alt'd | | | | |
| | qtz-feldsp porphyry | 0.120* | 420 | 2450 | 205 |
| BCS 18461 | 150m SW of Midway Mine | | | | |
| · | Chalc veining in serp. | 168 | 5.8 | 600 | 14 |

* values are in oz/t



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TIMMINS OFFICE: 33 EAST IROQUOIS ROAD P.O. BOX 867 TIMMINS, ONTARIO CANADA P4N 7G7 TELEPHONE: (705) 264-9996

General Analysis Certificate 9V-1474-RG1

Company: MINNOVA INC. Project: 658 Attn: I.PIRIE/L.LEE Date: NOV-08-89 Copy 1. MINNOVA INC., VANCOUVER, B.C.

He hereby certify the following Geochemical Analysis of 11 ROCK samples submitted NOV-04-89 by L.LEE.

| Sample | CU | PB | ZN | AG | AU-FIRE | HG | AS | SB |
|--------|-----|-----|-----|-----|---------|-----|-----|-----|
| Number | PPM | PPM | PPM | PPM | PPB | PPB | PPM | PPM |

| ar - o ⁿ € common and the high 2 − a − f | | | | | | | | |
|---|---------|-------|--------|-------|-------|--------|--|--------|
| ###################################### | | | | | | | | |
| 80040450 | | | | | | | | مراسعه |
| BCC104EZ | 1705 | | _2000 | 0.7 | 275 | 110 | | |
| 90818181 | | | | | | | n an | |
| BCS18455 | 17 | 24 | 18 | 3.1 | 463 | 35 | 75 | 1 |
| BCS18456 | 5 | 32 | | 0.2 | 303 | 20 | 51 | 1 |
| BCS18457 | 2 | 11 | 10 | 0.7 | 32 | 35 | 19 | 1 |
| BCS18458 | 8 | 51 | 69 | 1.5 | 357 | 40 | 62 | 3 |
| BCS18459 | 564 | 21000 | 33000 | 830.0 | 11100 | 4500 | 18750 | 725 |
| BCS18460 | 189 | 4100 | 8200 | 420.0 | 3580 | 1500 | 2450 | 205 |
| BCS1 ~ 141 | 1 4 | 49 | 50 | 5.8 | 168 | 65 | 600 | 14 |

NOV 7 1000

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MIN-EN LABORATORIES



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TIMMINS OFFICE: 33 EAST IROQUOIS ROAD P.O. BOX 867 TIMMINS, ONTARIO, CANADA P4N 7G7 TELEPHONE: (705) 264-9996

Assay Certificate

9V-1474-RA1

Company: MINNOVA INC. Project: 658 Attn: I.PIRIE/L.LEE Date: NOV-08-89 Copy 1. MINNOVA INC., VANCOUVER, B.C.

He hereby certify the following Assay of 2 ROCK samples submitted NOV-04-89 by L.LEE.

| Sample | AU | AU |
|----------|---------|--------|
| Number | G/TONNE | OZ/TON |
| BCS18459 | 12.15 | .354 |
| BCS18460 | 4.13 | .120 |

NOV · 1 5 1389

Certified by

MIN-EN LABORATORIES

C.F.MINERAL RESEARCH LTD. 263 LAKE AVENUE KELOWNA, BRITISH COLUMBIA CANADA V1Y 5W6

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- - - -

MINNOVA INC. PROJECT:

- -

C.F.M. 89-752

17/10/89

| SAMPLE NUMBER | ORIGINAL WEIGHT (KG) | FRACTION | WEIGHT (GMS) |
|---------------|----------------------------|----------|-------------------------------|
| RCG-020 | 9.200 | | |
| RCG-020 | 5.200 | -150HM | 0 10 |
| RCG-020 | | -150HP | 2.43 |
| RCG-020 | | -150HP | 2.17 1.20 |
| RCG-021 | 15.700 | | |
| RCG-021 | | +20 | 4300.00 |
| RCG-021 | | -150HM | 4300.00 9.15 |
| RCG-021 | | -150HP | 16.84 |
| RCG-021 | | -150HN | 3.84 |
| RCG-022 | 7.600 | | |
| 🚩 RCG-022 | | +20 | 0.00 |
| RCG-022 | | -150HM | 6.08 |
| RCG-022 | | -150HP | 5.94 |
| RCG-022 | | -150HN | 6.57 |
| | 12.000 | | |
| RCG-025 | 12.000 | 150004 | 8.07 |
| RCG-025 | | -150HM | 5.37 |
| RCG-025 | | -150HP | |
| RCG-025 | | -150HN | 6.02 |
| RCG-026 | 9.000 | | |
| RCG-026 | | -150HM | 4.63 |
| RCG-026 | | -150HP | 3.09 |
| RCG-026 | | -150HN | 3.19 |
| RCG-032 | 9.400 | | |
| RCG-032 | 5.400 | 15000 | |
| RCG-032 | | -150HM | 3.44 |
| RCG-032 | | -150HP | 11.72 |
| | | -150HN | 3.75 |
| RCG-033 | 13.000 | | |
| RCG-033 | | +20 | 1800.00 |
| RCG-033 | | -150HM | 8,44 |
| RCG-033 | | -150HP | 24.00 |
| RCG-033 | | -150HN | 4.29 |
| | | | |

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| | Invoice No.: 1370 Work Order: 1360 Invoice Date: 06-NOV-89 Date Submitted: 25-OCT-89 Your Reference: 89-753 Account Number: M-1 |
| MINOVA INC. 311 WATER ST. VANCOUVER, B.C. CANADA V6B 1B8 ATTN: I. PIRIE | NOV 15 1989 Ans'd |
| INAA package, elements a | CERTIFICATE OF ANALYSIS |
| AU 5. PPB AG BR 5. PPM CA CS 2. PPM FE IR 40. PPB MO 2 RB 50. PPM SB SR 0.2 % TA W 4. PPM ZN 10 ND 10. PPM SM | 5. PPM AS 2. PPM BA 200. PPM . % CO 5. PPM CR 10. PP11 0.02 % HF 1. PPM HG 5. PPM 0. PPM NA 500. PPM NI 200. PPM 0.2 PPM SC 0.1 PPM SE 20. PPM 0.2 PPM SC 0.1 PPM SE 20. PPM PPM TH 0.5 PPM U 0.5 PPM |
| | CERTIFIED BY : |
| NOTE* - SAMPLES RCG-019 SHIPMENT | AND RCG-021 WERE DAMAGED AND CONTAMINATED DURING |

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| | Act | iva | tio | n La | abor | rate | ori | es l | _td | • | Woi | rk (| Ord | er: | 13 | 70 F | Repr | ort | 13 | 985 | |
|--|--------------------|-------------------|-----------|----------------------------|--------------------------|----------------|---------------------|-------------------|-----------------------|------------------------|-------------------|------------|--------------------------|-----------------------|------------------------------------|-----------------------------|--------------------------|--------------------|----------------|------------|-----------------------------|
| Sample description | AV PPB | AS PPH | as PPH | ea PPM | er PPM | CA X | CO PPH | (R PPM | CS PP M | FE | HF | HS PPH | IR PPB | K) PPM | na Pph | NI PP M | RB PPM | 58 PPM | SC PPH | SE PPM | SU SU SU |
| RCG-020-150HN | 2119 | <5 | <2 | ⟨200 | 21 | 10 | 18 | 510 | <2 | 3.71 | 6% | <5 | (40 | INT | 8449 | <219 | (59 | θ.7 | 46 | (29 | <i>₹</i> |
| | 405 | | | | | | T | | | | | | | | | | | | | | |
| RCG-025-150HN RCG-025-150HN RCG-021-150HN | 135 662 8030 | (5) (5) (5) | | <u>399</u> (200 1990 | 20 41 | 10 17 (2 | 9 13 25 22 | 200 390 900 | <2 <2 4 | 3.99 4.92 | 310 750 150 | {5 | <u>(49</u> (49 (40 | INT | 78 00 12500 11800 | <u>{200</u> {200 {200 | <u>(50</u> (50 (50 | 1.0 (0.2 1.7 | 19 35 50 | (20 (20 | <u>(0.2</u> (0.2 (0.2 |
| RCG-022-150HN RCG-033-150HN | 75 1430 | (5 (5 | <2 11 | 560 699 | 15 (5 | 15 19 | 22 24 | 490 770 | <2 <2 | 4.94 4.66 | 140 350 | (5 (5 | (40 (40 | (20 (20 | 7950 7580 | <200 <200 | (50 (50 | (0.2 (0.2 | 49 55 | (20 (20 | ₹0.2 <0.2 |
| RCG-032-150HN | 1430 | <5 | 19 | (200 | 23 | <2 | 23 | 1399 | 7 | 4.16 | 289 | ∢ 5 | { 49 | (29 | 6830 | < 200 | (50 | (0 .2 | 55 | <u>(20</u> | <0.2 |
| | Acti | vat | ion | La | bor | ato | rie | es L | td. | | Wor | k 0 | rde | er: | 137 | 0 R | 2P0 | rt: | 13 | 85 | |
| Sample description | TA PPM | th PPM | U PPM | u PPH | ZN PPM | la Ppm | ce PPM | ND PPH | SH PPH | ev PPH | tb PPM | YB PPH | LV PP 11 | Mass g | | | | | | | |
| | 3 | 189 | 59 | | (2 00 | | 1100 | 499 | 74 | 13.7 | 6 | 25.4 | 5.1 | 1.163 | | | | | <u> </u> | | |
| RCG-020-150HN | | <u> </u> | 191 22 | √5 {4 | (000 (2 00 | 339 | 4 <u>99</u> | 410 229 | 75 27 | 14.0 5.2 | | 12.7 | | 5.955 | | | | | | | |
| | 2 | 82 | | | 1000 | 740 | 940 | 350 | 45 | 9.0 | | | | 3.135 | | | | | | | |
| RCG-020-150HN RCG-025-150HN RCG-025-150HN RCG-021-150HN | 2 15 4 | 82 189 119 | 57 | | (209 (200 | _550 | <u></u> | 439 | _51_ | 8.6 | 5 | 10.2 . | | <u>4</u> 389 6,569 | | | | | | - | |

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BARRINGER BARRINGER Laboratories (Alberta) Ltd. - Laboratories (NWT) Ltd. 42008 - 10 STREET N.E., CALGARY, ALBERTA, CANADA T2E 6K3 P.O. BOX 854, YELLOWKNIFE, NWT, CANADA, X1A 2115 PHONE (403) 920-1500 --- PHONE: (403) 250-1901 32-DEC-89 FAGE: 1 OE 5 AUTHORITY:1. PIRIE COPY: 2 OF 2 MINNOVA INC. **311 WATER STREET** VANCOUVER, B.C. VGB 188 WORK ORDER: 6438D-89 *** FINAL REPORT *** GEOCHEMICAL LABORATORY REPORT -----SAMPLE TYPE: PULP CU PB ZH AG NUMBER PPM PPM PPH PPI SAMPLE -150HN: 800-020 0.8 -127T 45.0 26.0 128.0 -150HN:RCG-021 -153T 22.0 10.0 23.0 <0.2 -150HN:RCG-022 -154T 16.0 5.0 16.0 <0.2 -150HN:RCG-025 -129T 12.0 10.0 17.0 <0.2 -130T 17.0 6.0 15.0 <0.2 -150HN:RCG-026 -150HN:RCG-032 -136T 16.0 <0.2 2.0 11.0 50HN; &CG-033 -155T 7.0 14.0 <0.2 20.0

| BARRINGER Laboratories (Alberta 42008 - 10 STREET N.E., CALGARY, ALBERTA, PHONE: (403) 250-1901 AUTHORITY: I. PIRIE | BARRINGER Laboratories (NWT) I.td. CP.O. BOX 864. YELLOWKNIFE, NWT, CANADA X1A 2N6 PHONE (403) 920-4570 22-DEC-89 PAGE: 3 OF 5 COPY: 2 OF 2 | | | | | |
|---|---|---|--|--|--|--|
| MINNOVA INC. 311 WATER STREET VANCOUVER, B.C. VGB 188 (Geochemica | L LABOR | WORK ORDER: 64380-89 *** FINAL REPORT *** RATORY REPORT | | | | |
| SAMPLE TYPE: PULP SAMPLE NUMBER | HG PPB | | | | | |
| -150HN:RCG-020 -127T -150HN:RCG-021 -153T -150HN:RCG-022 -154T | <5.0 <5.0 14.0 | | | | | |
| -150HN:RCG-025 -129T | <5.0 | | | | | |
| -150HN:RCG-026 -130T | <5.0 <5.0 | | | | | |
| -150HN:RCG-033 -155T | 783.0 | | | | | |

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APPENDIX II

COST STATEMENT

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COST STATEMENT

| 1. | Fees and Wages | 5 | | |
|----|------------------------|--|--------|-------------------------------------|
| | Geologist Assistant | 3 days @ \$250/day 6 days @ \$150/day | | \$ 750.00 \$ 900.00 |
| | | | | \$1650.00 |
| 2. | Analytical Cos | sts | | |
| | | s @ \$20/sample Ag, Au, Hg, As, Sb) | | \$ 140.00 |
| | 7 heavy minera | al samples @ \$150/sa | mple | \$1050.00 |
| | | | | \$1190.00 |
| 3. | <u>Transportatio</u> | n and Accommodation | | |
| | | 9 man days @ \$40/d 6 days @ \$50/day lies | lay | \$ 260.00 \$ 300.00 \$ 200.00 |
| | | | | \$ 860.00 |
| 4. | <u>Report Prepar</u> | ation | | |
| | Drafting Typing | | | \$ 100.00 <u>\$ 100.00</u> |
| | | | | \$ 200.00 |
| | | | TOTAL: | <u>\$3900.00</u> |

APPENDIX III

STATEMENT OF QUALIFICATIONS

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STATEMENT OF QUALIFICATIONS

I, Linda J. Lee certify that:

- 1. I am an exploration geologist residing at 536 East 7th Street, North Vancouver, B.C.
- I obtained a BASc. in Geological Engineering (Honours) 2. in the Mineral Exploration Option, from the University of B.C. (1985).
- I graduated with an MSc. in Geology and Geophysics from 3. the University of Calgary (1988).
- I have practised my profession continually since 1987 4. and have worked in the mineral exploration industry since 1980.
- I am currently employed by Minnova Inc. on a contract 5. basis and have personally carried out or supervised the work covered in this report.

FEB 19/90 Date:

<u>f. her</u> Linda Lee



Minnova Inc. Mining Innovation 3rd. Floor 311 Water Street Vancouver, British Columbia V6B 1B8 Telephone (604) 681-3771 Telecopier (604) 681-3360

August 12, 1990

Mr. T.E. Kalnins, Mineral Resources Division Ministry of Energy, Mines and Petroleum Resources Parliament Buildings Victoria, B.C. V8V 1X4

Dear Mr. Kalnins,

Re: Assessment Report # 19,718 - Rainbow 89 Group

Enclosed please find two amended copies of Assessment Report 19,718. From your letter and from discussions between yourself and Ian Pirie, I understand that your main concerns with the report are:

1) the lack of new information contained, and

2) that some of the heavy mineral samples were collected off the property.

I have added several new figures to the report and have made some changes to the text to clarify these points, as detailed below.

Regarding the first of your concerns, I have included an additional figure, showing in more detail the geology and sample locations in the Midway Mine area. I believe our most significant discovery from this program was the fact that not only did the narrow shear zones at the Midway Mine carry good precious metal values, but the altered wall rock was also mineralized. This significantly changes the exploration target and philosophy in the area and indicates the potential for a bulk tonnage type system. Hopefully, the amendments I have made to the report will clarify this. With regard to your second concern, I have again added an additional figure, this time showing the drainage basins tested by each heavy mineral sample. While one sample is off the property and several more are outside the Rainbow 89 Group (but within the Rainbow property), in every case the drainage basin tested covers a portion of the Rainbow 89 Group. No heavy mineral samples have previously been filed for assessment on the property, so all this information is new.

Finally, I would like to point out that, while this was a fairly minimal program and the total cost was only \$3900, only \$3615 of this was filed for assessment.

I hope that this clarifies any confusion and that you find the amended report satisfactory.

Yours truly,

f. pu

Linda Lee Project Geologist

Encl.