

REPORT ON STREAM SEDIMENT SURVEY

PYR 1 TO 4 CLAIMS

ATLIN MINING DIVISION

NTS 104J/4W

|               |     |
|---------------|-----|
| LOG NO: 07-01 | RD. |
| ACTION:       |     |
| FILE NO:      |     |

LAT 58°11'

LONG 131°49'

OWNER

CHRIS W. GRAF, P. ENG.

|  |     |
|--|-----|
| LOG NO: May 6/91                             | RD. |
| ACTION: Date received<br>back from amendment |     |
| FILE NO:                                     |     |

WORK PERFORMED FROM JULY 31st TO AUGUST 12th 1990

REPORT BY

M. WASKETT-MYERS  
GEOCHEMIST

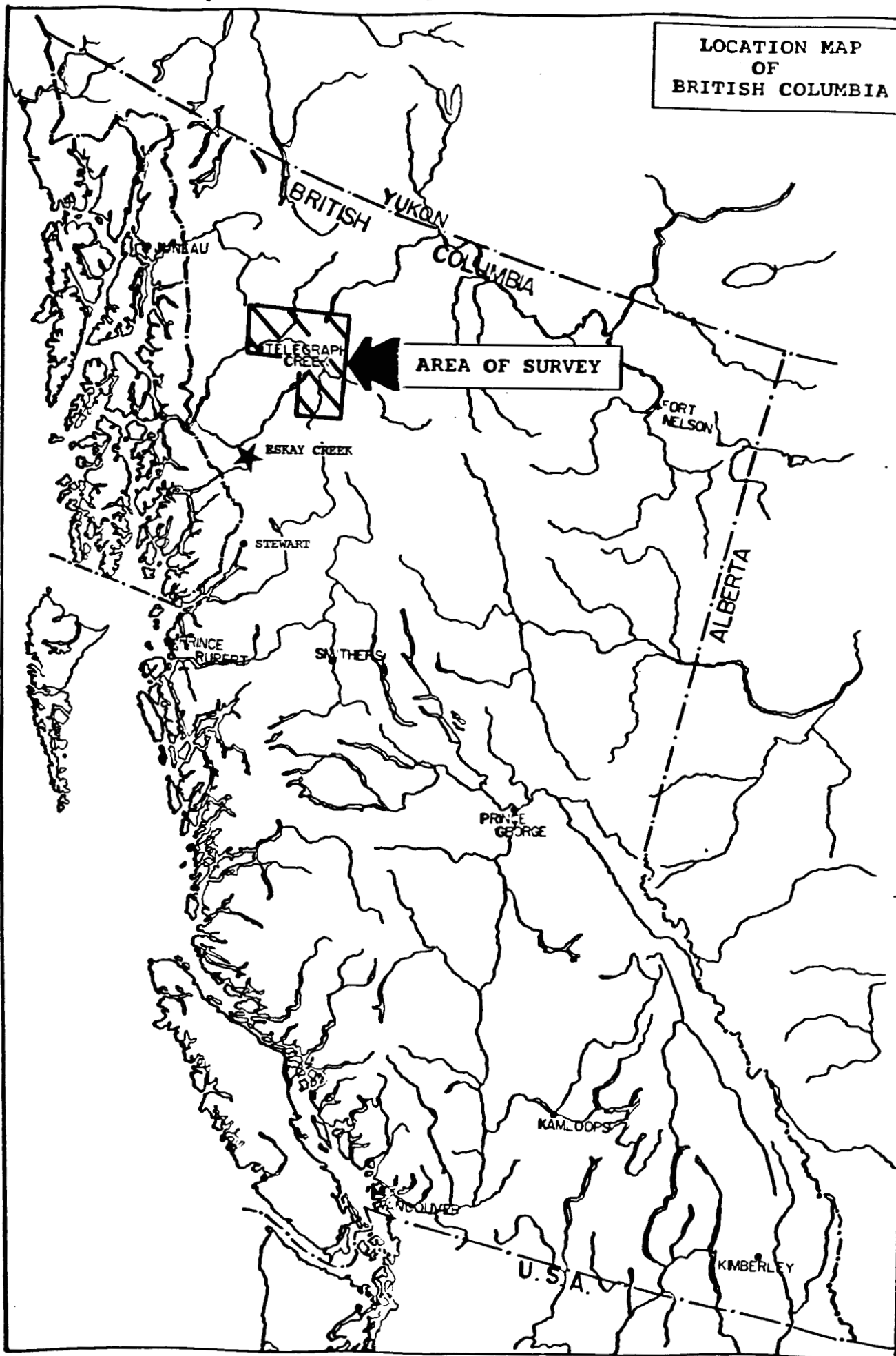
**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**20,761**

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| Plate 2 - Stream Silt Geochem Map.....   | Attached     |
| Plate 3 - Heavy Mineral Geochem Map..... | Attached     |
| Plate 4 - Regional Geology               | "            |

LOCATION MAP  
OF  
BRITISH COLUMBIA



REPORT ON STREAM SEDIMENT GEOCHEMISTRY

PYR MINERAL CLAIMS

ATLIN MINING DIVISION

1.00 SUMMARY

A helicopter supported, silt and heavy mineral sampling program was carried out on creeks flowing on and around the property.

A total of 7 sites were sampled, at which a silt and a heavy mineral sample were taken in each case for a total of 14 samples.

The heavy mineral results showed no anomalous values, the silts however showed elevated values for some base metals and one high gold.

The Pyr claims were staked on Pyrrhotite Creek to cover a roof pendant of Triassic age volcanics poorly exposed between the south contact of the main Kaketsa Mountain granitic body on the north, and a smaller satellite body to the south.

Total expenditure for this survey was \$2453.50.

2.00 INTRODUCTION

2.10 Property definition

The Pyr property is 100% owned by Chris W. Graf of Vancouver, British Columbia and consists of 80 units, 4,942.40 acres. The work was performed by M. Waskett-Myers and N. Leach.

| <u>Claim Name</u> | <u>Record No.</u> | <u>Number of Units</u> | <u>Expiry Date</u> |
|-------------------|-------------------|------------------------|--------------------|
| Pyr 1             | 4118              | 20                     | March 06, 1991     |
| Pyr 2             | 4119              | 20                     | March 05, 1991     |
| Pyr 3             | 4120              | 20                     | March 06, 1991     |
| Pyr 4             | 4121              | 20                     | March 05, 1991     |

2.20 Location and access

The Pyr property is located to the east of the Shesley River, 100 kilometres west-south west of Dease Lake. Access is by helicopter.

2.30 Topography and Vegetation

The property is in an area of high relief, with elevations ranging from 850 to 1740 metres. There are swamp conditions at the lower elevations. The vegetation varies from swamp grassland to dense forest of jack pine, alder, birch and scrub brush.

#### 2.40 Objectives

The geochemical survey was undertaken to assess the potential for base and precious metal mineralization within the survey area.

### 3.00 **GEOCHEMISTRY**

#### 3.10 Sampling Procedure

Sample sites were preselected in the office and 7 silt samples and 7 heavy samples were taken in the field. At the sample site a sample of the stream silt was collected and put into a kraft paper bag. The heavy mineral sample was collected by screening, to -20 mesh, enough material to give a 3-5 kg sample. The heavy mineral samples were collected from parts of the stream where the water flow tended to slow down i.e. from high to low energy. Once collected, the heavies sample was put into a 6 mil plastic bag.

#### 3.20 Heavy Mineral Concentration

To eliminate sample prep and reduce transportation costs; the heavies were concentrated at the helicopter base in Dease Lake. The concentration was carried out by use of a Gold Genie spiral concentrator. The resulting concentrate was sieved to - 40 mesh, dried, the magnetics were removed and the remaining sample placed in a plastic vial.

#### 3.30 Analytical Procedure

All samples were sent to Min-En Labs in North Vancouver for analysis.

The samples were analyzed for gold by means of fire assay with atomic absorption finish. Following the gold assay the samples were run for 12 elements (Ag,As,Cd,Co,Cu,Fe,Mn,Ni,Pb,Sb,Zn,Sn) using inductively coupled plasma (I.C.P.).

### 4.00 **CONCLUSIONS**

The heavy mineral samples did not indicate any significant mineralization.

The silt samples on the other hand showed three samples high in copper (375, 316, 112 ppm), sample DS15 was high in Zn (273 ppm), As (5 ppm), Cd (34 ppm) and Cu (316 ppm) and there was also one elevated value for gold (17 ppb) and one high in silver (26 ppm). The samples with high values were collected from the east side of the property and represent a relatively large area. Since the heavy mineral samples did not show any response for the base metals it would suggest that the high silt values are a result of hydro-morphic transportation, and could come from a fair distance, probably off the property. Further work is probably warranted on this property, but before this is carried out, further claims should be staked at the south boundary of the Pyr claim group.

## LEGEND FOR GEOCHEMICAL MAPS

### HEAVIES

▲ Au Greater than 20 ppb

■ As Greater than 10 ppm

● Zn Greater than 200 ppm

### SILTS

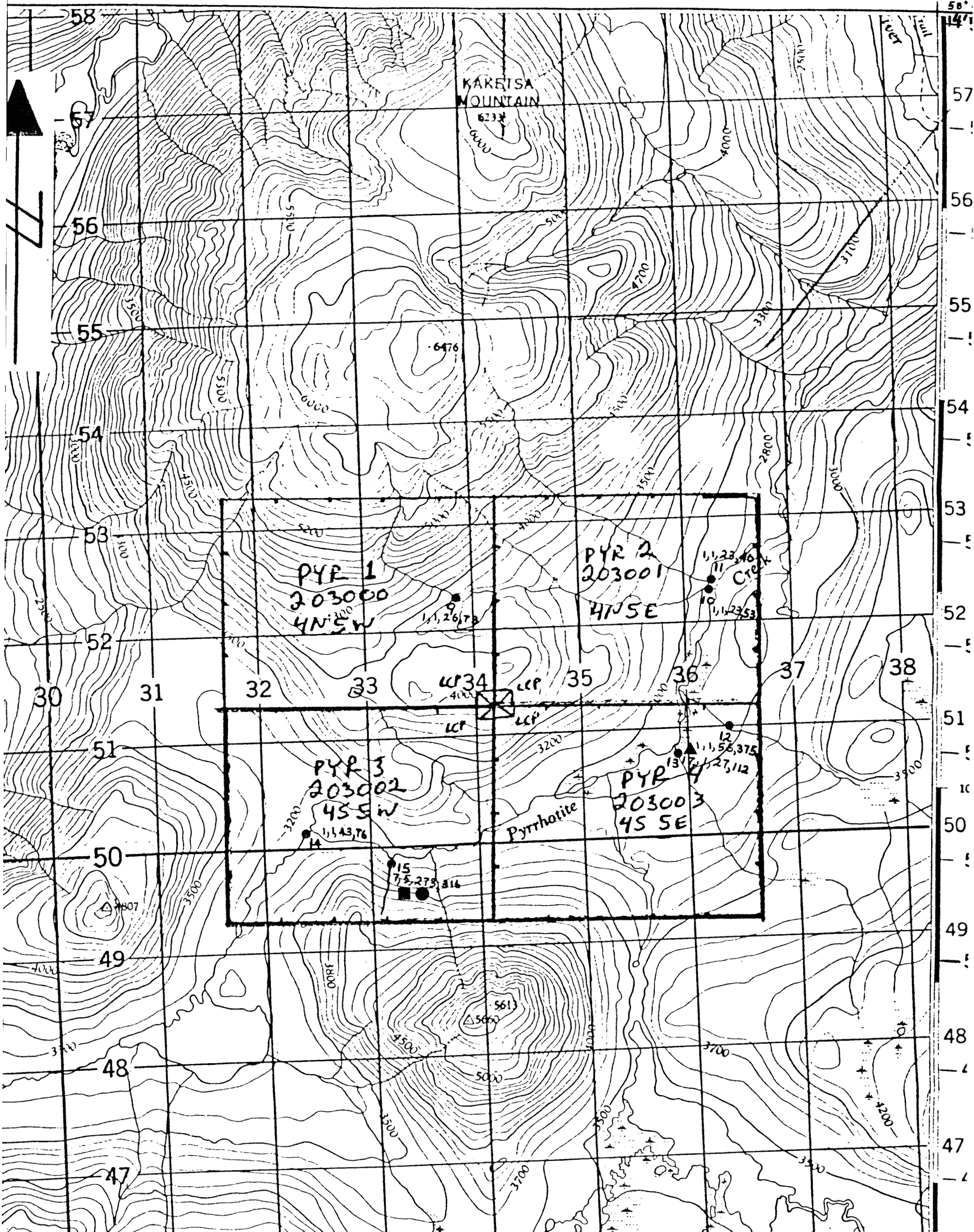
▲ Au Greater than 10 ppb

■ As Greater than 4 ppm

● Zn Greater than 200 ppm



Alienated claims



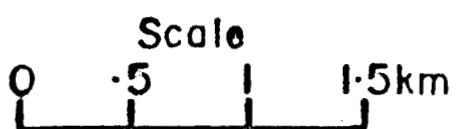
• Sample site Au, As, Zn, Cu

# ACTIVE MINERALS LTD

## STIKINE GOLD PROJECT

### PYR CLAIMS

### STREAM SILT GEOCHEM

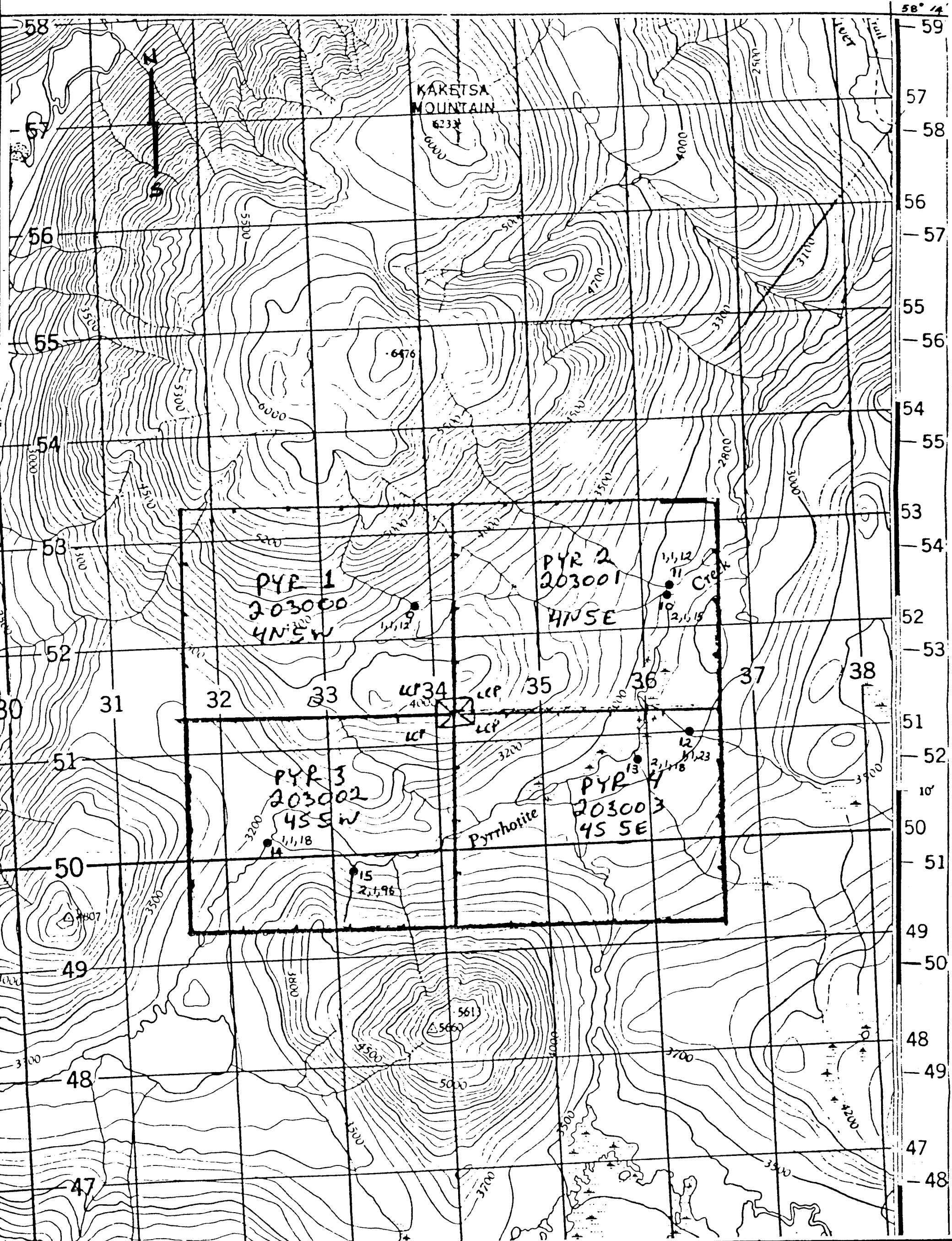


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Date: SEP. 1990

Plate: 2





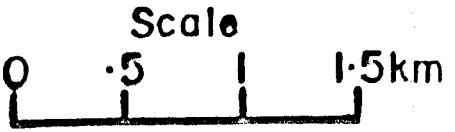
• Sample site Au, As, Zn

# ACTIVE MINERALS LTD

## STIKINE GOLD PROJECT

### PYR CLAIMS

## HEAVY MINERAL GEOCHEM



Scale: ~~1:50,000~~

Date: SEP. 1990

Plate:

3



STREAM SILT ASSAY RESULTS

PYR CLAIMS

| SAMPLE<br>NAME | AG<br>PPM | AS<br>PPM | CD<br>PPM | CO<br>PPM | CU<br>PPM | FE<br>PPM | MN<br>PPM | NI<br>PPM | PB<br>PPM | SB<br>PPM | ZN<br>PPM | SN<br>PPM | AU<br>PPB |
|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| DS009          | 1         | 1.0       | 0.1       | 12.0      | 73        | 26160     | 329       | 25        | 21        | 1.0       | 26        | 1.0       | 1         |
| DS010          | 0.4       | 1.0       | 0.1       | 14.0      | 53        | 38140     | 569       | 33        | 24        | 1.0       | 23        | 1.0       | 1         |
| DS011          | 0.4       | 1.0       | 0.1       | 12.0      | 40        | 32430     | 568       | 16        | 22        | 1.0       | 23        | 1.0       | 1         |
| DS012          | 2.6       | 1.0       | 0.1       | 11.0      | 375       | 31970     | 366       | 15        | 26        | 1.0       | 56        | 1.0       | 1         |
| DS013          | 0.6       | 1.0       | 0.1       | 10.0      | 112       | 34240     | 292       | 12        | 21        | 1.0       | 27        | 1.0       | 17        |
| DS014          | 0.2       | 1.0       | 0.1       | 17.0      | 76        | 32790     | 1192      | 65        | 22        | 1.0       | 43        | 1.0       | 1         |
| DS015          | 0.9       | 5.0       | 3.4       | 37.0      | 316       | 50730     | 545       | 78        | 37        | 1.0       | 273       | 1.0       | 7         |

HEAVY MINERAL ASSAY RESULTS

PYR CLAIMS

| SAMPLE<br>NAME | AG<br>PPM | AS<br>PPM | CD<br>PPM | CO<br>PPM | CU<br>PPM | FE<br>PPM | MN<br>PPM | NI<br>PPM | PB<br>PPM | SB<br>PPM | ZN<br>PPM | SN<br>PPM | AU<br>PPB |
|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| DH9            | 0.8       | 1         | 0.1       | 8         | 11        | 20700     | 208       | 14        | 22        | 1         | 12        | 1         | 1         |
| DH10           | 0.4       | 1         | 0.1       | 11        | 23        | 33820     | 267       | 22        | 21        | 1         | 15        | 1         | 2         |
| DH11           | 0.6       | 1         | 0.1       | 14        | 18        | 54190     | 425       | 1         | 17        | 1         | 12        | 1         | 1         |
| DH12           | 0.5       | 1         | 0.1       | 12        | 48        | 43280     | 366       | 2         | 23        | 1         | 23        | 1         | 1         |
| DH13           | 0.8       | 1         | 0.1       | 10        | 26        | 33180     | 295       | 4         | 22        | 1         | 18        | 1         | 2         |
| DH14           | 0.2       | 1         | 0.1       | 10        | 17        | 25530     | 373       | 30        | 21        | 1         | 18        | 1         | 1         |
| DH15           | 0.6       | 1         | 0.1       | 13        | 54        | 18870     | 166       | 28        | 19        | 1         | 96        | 1         | 2         |

EXHIBIT "A"  
STATEMENT OF EXPENDITURES  
STREAM SEDIMENT GEOCHEMISTRY  
PYR 1-4 CLAIMS  
ATLIN MINING DIVISION

|                    |   |                          |
|--------------------|---|--------------------------|
| Salaries           | M. Waskett-Myers  | \$ 213.29                |
|                    | N. Leach  | 109.31                   |
| Transportation     | Air Fare  | 83.37                    |
|                    | Helicopter  | 1,549.82                 |
|                    | Car (incl. Gas)   | 59.86                    |
| Room and Board     | Motel, Food   | 63.69                    |
| Analysis           | Heavies (Prep., Gold, I.C.P.)<br>7 samples @ \$16.75/sample | 117.25                   |
|                    | Silts (Prep., Gold, I.C.P.)<br>7 samples @ \$13.00/sample   | 91.00                    |
|                    | Field Supplies  | Sample Bags, Vials, etc. |
| Miscellaneous      | Radios, Maps, Cab Fares, etc.                               | 27.72                    |
| Report Preparation | Chris Graf  | 54.70                    |
|                    | M. Waskett-Myers  | 71.75                    |
|                    | Supplies, Photocopying                                      | <u>4.33</u>              |
|                    | <b>TOTAL</b>  | <b><u>\$2,453.50</u></b> |

M. WASKETT-MYERS, Geochemist

IN THE MATTER OF THE  
B.C. MINERAL ACT  
AND  
IN THE MATTER OF A SOIL GEOCHEMISTRY PROGRAM  
CARRIED OUT ON THE PYR 1 - 4 MINERAL CLAIMS  
in the Atlin Mining Division of the  
Province of British Columbia

AFFIDAVIT

I, M. Waskett-Myers, of Delta in the Province of British Columbia, make oath and say:

1. That I am a Consultant Geochemist and as such, have a personal knowledge of the facts to which I hereinafter depose;
2. That annexed hereto and marked as Exhibit "A" to this my Affidavit is true copy of expenditures incurred on a Soil Geochemistry program, on the Pyr mineral claims.
3. That the said expenditures were incurred between the 31st day of July, 1990 and the 12th day of August, 1990, for the purpose of mineral exploration on the above-noted claims.

*M. Waskett-Myers*

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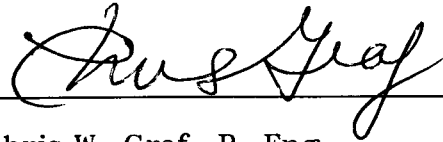
M. WASKETT-MYERS  
Geochemist

ACTIVE MINERALS LTD.

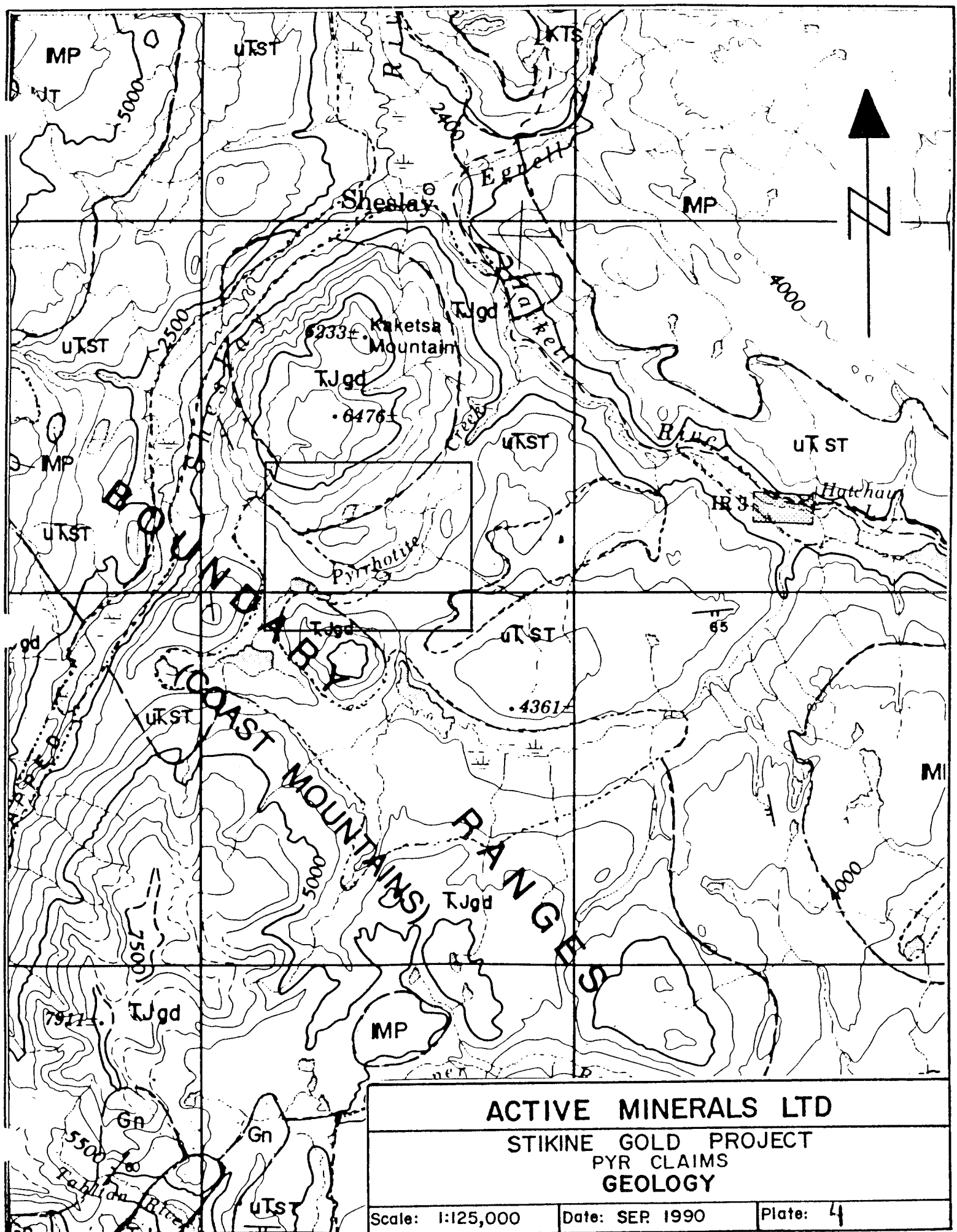
STATEMENT OF QUALIFICATIONS

M. D. Waskett-Myers has worked in Mineral Exploration for the past twenty five years, principally in the field of geochemistry.

I consider him qualified to prepare this report.

A handwritten signature in cursive script, reading "Chris W. Graf", written over a horizontal line.

Chris W. Graf, P. Eng.  
President



|                             |                |          |
|-----------------------------|----------------|----------|
| <b>ACTIVE MINERALS LTD</b>  |                |          |
| <b>STIKINE GOLD PROJECT</b> |                |          |
| <b>PYR CLAIMS</b>           |                |          |
| <b>GEOLOGY</b>              |                |          |
| Scale: 1:125,000            | Date: SEP 1990 | Plate: 4 |

**LEGEND: DEASE LAKE (104J) MAP-AREA (1:125,000)**

**PLEISTOCENE AND RECENT**

**[ ]** Glacial and glacio-fluvial deposits, stream deposits, felsenmeer, talus, soil

**MIOCENE TO PLEISTOCENE AND(?) RECENT**

**[MP]** Alkali olivine basalt; minor trachyte and rhyolite; **MP**, may include considerable areas of underlying Mesozoic and minor Paleozoic rocks

**CRETACEOUS TO PALEOCENE AND(?) LATER**

**UPPER CRETACEOUS TO PALEOCENE AND(?) LATER**

**[KT]** Nonmarine sandstone, siltstone, conglomerate, and tuff; contains coalified wood and local coal seams; **KT<sub>SU</sub>**, SUSTUT GROUP

**[KT<sub>s</sub>]** SLOKO GROUP: rhyolite, dacite and trachyte flows, dykes, breccia

**CRETACEOUS**

**MID TO LATE CRETACEOUS**

**[Kqm]** Biotite quartz monzonite, medium to coarse grained

**JURASSIC**

**MID TO LATE JURASSIC (?)**

**[Jgd]** Biotite and biotite hornblende granodiorite, monzodiorite, diorite; **Jqm**, megacrystic hornblende-biotite quartz monzonite; **J<sub>sy</sub>**, syenite, syenite porphyry

**JURASSIC, UNDIVIDED**

**[J<sub>s</sub>]** Greywacke, shale; pebble conglomerate with granitic clasts

**LOWER JURASSIC**

**[IJT]** TAKWAHONI FORMATION: greywacke, shale, minor pebble conglomerate; **IJT<sub>m</sub>**, hornfelsed equivalents of **IJT** and including abundant sills and dykes of quartz-feldspar porphyry

**[IJI]** INKLIN FORMATION: penetratively foliated phyllitic slate, greywacke, pebble and cobble conglomerate **IJl<sub>cg</sub>**, diamictite

**TRIASSIC AND JURASSIC**

**LATE TRIASSIC AND EARLY JURASSIC**

**[KJgd]** Biotite-hornblende quartz diorite, granodiorite, quartz monzonite, diorite **KJd**, hornblende diorite, **KJdg**, diorite and gabbro; **KJpy**, zoned ultrabasic with margin of pyroxenite containing abundant magnetite and apatite grading through pyroxenite-syenite agmatite and pyroxene syenite to a core of altered leucocratic syenite; **KJqm**, quartz monzonite

**UPPER TRIASSIC**

**[uKS]** SINWA FORMATION: limestone, commonly argillaceous and fetid

**[uKSH]** SHONKTAW FORMATION: augite andesite

**[uKN]** NAZCHA FORMATION: volcanic sandstone, argillite tuff, conglomerate; **uKN<sub>c</sub>**, limestone

**[uKST]** STUHINI FORMATION: augite and coarse bladed plagioclase porphyry, breccia and flows; tuff, volcanic sandstone and conglomerate; minor siltstone, greywacke, shale; **uKST<sub>d</sub>** diabase

**[uKK]** 'KUTCHO FORMATION': dacitic breccia, tuff; foliated quartz porphyry, conglomerate, may include Cache Creek Group

**PERMIAN (South of Atlin Terrane)**

**[P]** **P<sub>c</sub>**, pale grey and orange cherty limestone; argillaceous limestone  
**P<sub>s</sub>**, grey and green phyllite, grey ribbon chert  
**P<sub>s</sub>**, biotite-chlorite schist, age uncertain

**PERMIAN**

CACHE CREEK GROUP (includes **PT**, **PH**, **PFR**, **MPK**, **MPu**)

**[PTPH]** **PT**, TESLIN FORMATION; **PH**, HORSEFEED FORMATION: limestone, dolomitic limestone

**[PFR]** **PFR**, FRENCH RANGE FORMATION: altered basic volcanic flow rocks; **PFR<sub>l</sub>**, lithic tuff, agglomerate cherty tuff and metamorphosed equivalents

**MISSISSIPPIAN TO PERMIAN**

**[MPK]** KEDAHA FORMATION: cherty argillite, argillaceous chert, locally graphitic, metamorphosed equivalents; chert and argillite; very minor volcanic rocks and metamorphosed equivalents; **MPK<sub>c</sub>**, limestone; **MPK<sub>s</sub>**, same as **MPK** but includes greywacke and local conglomerate similar to that in the Inklin Formation

**[MPu]** Serpentinite, peridotite, pyroxenite; **MP<sub>g</sub>**, gabbro, **MP<sub>ug</sub>**, undivided

**METAMORPHIC ROCKS**

**[Gn]** Diorite gneiss, amphibolite, migmatite; age uncertain

**[IIPn]** Biotite-muscovite quartz gneiss and schist; minor crystalline limestone, quartzite; probably metamorphosed lower Paleozoic strata



## S Y M B O L S

|  |  |  |
|--|--|--|
|  |  | Geological boundary, defined, approximate and assumed      |
|  |  | Drift boundary   |
|  |  | Limit of geological mapping                                |
|  |  | Fault solid circle on downthrown side                      |
|  |  | Fault, thrust, teeth on upthrust side                      |
|  |  | Bedding, inclined, vertical                                |
|  |  | Bedding, direction of dip known, upper side of bed unknown |
|  |  | Schistosity, gneissosity, inclined vertical                |
|  |  | Syncline   |
|  |  | Anticline  |
|  |  | Glacial striae   |

### GEOLOGY BY

H. Gabrielse, J.W.H. Monger, S.L. Leaming, R.G. Anderson, and H.W. Tipper on 'Operation Dease', 1977 and 1979; H. Gabrielse 1961 and 1967; J.G. Souther, 1961; J.W.H. Monger, 1966; H. Gabrielse, J.G. Souther and E.F. Roots on 'Operation Stikine', 1956 and 1958. Includes information from Hotailuh Range by B.W. Downing and C.H. Leitch, Falconbridge Nickel Mines Ltd., from the Grand Canyon of the Stikine River by P.B. Read, from the Level Mountain area by T.S. Hamilton and on the distribution of several plutons by G.W. Mannard. Compiled by H. Gabrielse