

GEOCHEMICAL HEAVY MINERALS ASSESSMENT REPORT

on the

GOLDEN UNIVERSE MINERAL CLAIMS

New Westminster M.D.

Lat. 49 18'N

Long. 122 23'W

92G/8W

|              |     |
|--------------|-----|
| LOG NO: 0028 | RD. |
| ACTION:      |     |
| FILE NO:     |     |

For Owner

007 Precious Metals Inc.

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**19,710**

February, 1990  
Vancouver, B.C.

S. Zastavnikovich  
Geochemical Consultant

TABLE OF CONTENTS

|                                |   |
|--------------------------------|---|
| 1. Introduction & Description  | 1 |
| 2. Physiography                | 1 |
| 3. General Geology             | 2 |
| 4. Geochemical Survey          | 2 |
| 5. Conclusions                 | 4 |
| 6. References                  | 5 |
| 7. Statement of Expenditures   | 6 |
| 8. Statement of Qualifications | 7 |

APPENDICES

- Appendix I. Rock Sample Descriptions
- Appendix II. Analytical Procedures
- Appendix III. Certificates of Assay

MAPS

|  | After page |
|--|------------|
| 1. Index Map, Fig. 1 . . . . .   | 1          |
| 2. Claim Location Map, 1:50,000, Fig. 2 . . . . .  | 1          |
| 3. Geochemical Map, 1:10,000, with topography and<br>claim outlines, sample location numbers and<br>analytical results, Fig. 3 . . . . . | in pocket  |

## GEOCHEMICAL REPORT ON THE GOLDEN UNIVERSE MINERAL CLAIMS

New Westminster M.D., Southwestern B.C.

### INTRODUCTION & DESCRIPTION

THE GOLDEN UNIVERSE group of mineral claims contains 60 units and consists of the Golden Sun (16 units), the Golden Moon (20 units), the Golden Star (20 units), and the four one-unit Oro 1-4 claims, located within the Golden Moon claim, as shown on the claim locations map, Fig. 2, overleaf. The claim group is located 20km northeast of Haney in the New Westminster Mining Division, on map NTS 92G/8W.

The claim record numbers and the present claims status is as indicated below:

| <u>Claim Names</u> | <u>Units</u> | <u>Record No.</u> | <u>Expiry Date *</u> |
|--------------------|--------------|-------------------|----------------------|
| Golden Star        | 20           | 3058              | Nov 26, 1990*        |
| Golden Sun         | 16           | 3059              | Nov 26, 1990         |
| Golden Moon        | 20           | 3676              | June 1, 1991*        |
| Oro 1-4            | 4            | 2978-81           | Sep 22, 1990         |

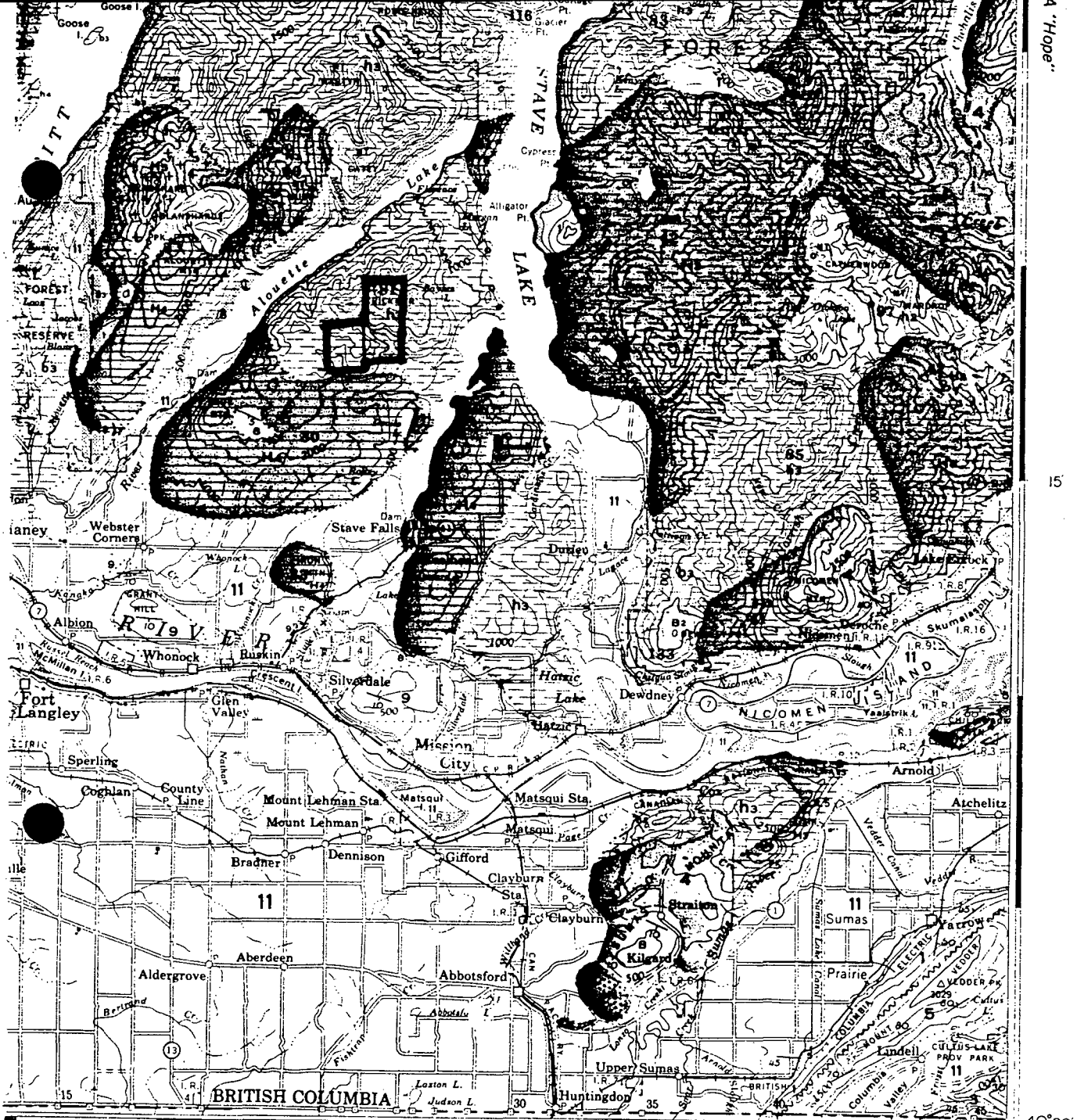
\* Upon approval of this Report.

From Nov 18th to the 23rd the writer visited the Golden Universe claim group to collect selective rock outcrop and float samples in order to help identify geochemical parameters best suited for geochemical evaluation of the claims mineral potential

Access to the claim group is by car or truck from Haney via paved Dewney Trunk Road to the Stave Lake Dam. The remaining four kilometers are serviced by a good allweather gravel logging road. Local access on the claim group is provided by 4-wheel drive spur roads along the north and south sides of Kearsley Creek, and across the ridge into the Seventynine Creek drainage, as shown on Fig. 3.

### PHYSIOGRAPHY

The Golden Universe claims lie equidistant between the Alouette and Stave Lakes, and straddle the steep slopes of Mt. Crickmer south to Kearsley Creek, while the Oro claims lie one km to the southwest in the headwaters of Seventynine Creek in the Coast Range mountains just above the Frazer Valley lowland. The rugged, often precipitous, slopes range in elevation from 350m in lower Kearsley Ck. to Mt. Crickmer Peak at 1,357m, for a total relief of 1,000m. Outcrop cliffs are present at the highest elevations and in the creek canyons, in between the area is mantled in extensive glacial debris cover.



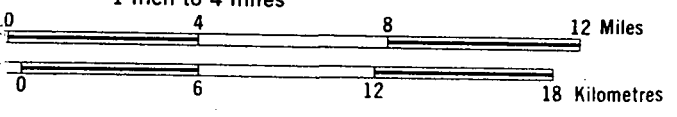
30' WASHINGTON 49°00' Scale: 1:253,440 1 in. = 4 mi. 122°00'

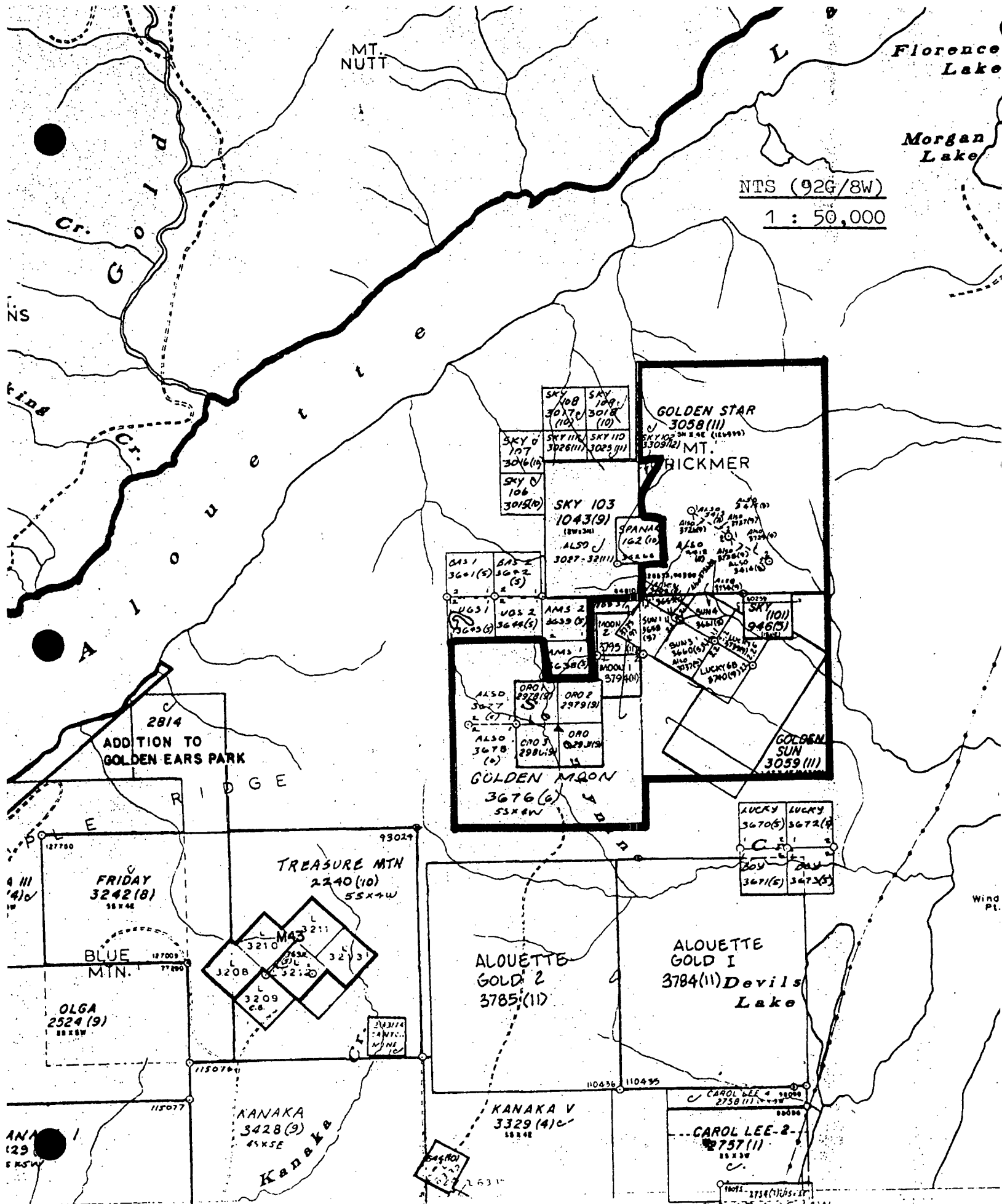
MAP 1151A  
GEOLOGY  
**PITT LAKE**  
(Vancouver, East Half)  
BRITISH COLUMBIA

**INDEX MAP**  
**GOLDEN UNIVERSE GROUP CLAIMS**  
NTS 92G/8w

Fig. 1

Scale 1:253,440  
1 inch to 4 miles





NTS (92G/8W)  
1 : 50,000

GOLDEN UNIVERSE GROUP  
New westminster N. D.

DEPARTMENT OF MINES AND PETROLEUM RESC

**FIG. 2**

The only geological mapping in the area was done by the GSC geologists in 1965 at a scale of 1:250,000 (Memoir 335 by J.A. Roddick) according to which the general claims area is underlain by medium-grained quartz diorite containing about 10% mafic minerals, with the more complex areas also containing medium- to fine-grained dark hornblende diorite (page 231). While previously sampling along the streams, basic volcanic float was observed by the writer in the Kearsley and Seventynine Creek drainages, suggesting the possibility of minor roof pendants in the claims area.

No known mineral occurrences exist on the Golden Universe claims, but several old workings are said to exist in the immediate vicinity of the claims, though no reports are known showing their locations.

#### GEOCHEMICAL SURVEY

Selective geochemical sampling of rock outcrops and float was conducted by the writer on Nov. 19th to Nov 23rd this fall on the Golden Universe mineral claims group in five separate areas, as shown on the 1:10,000 scale sample location map, Fig. 3, in pocket.

The purpose of the sampling surveys was to establish the presence of geochemically anomalous concentrations of gold and attendant trace elements values in the heavy mineral fraction in rock samples on the property, which in turn could indicate effective follow-up exploration methods for precious metals in the claims area.

The heavy mineral fraction was considered particularly useful at this reconnaissance-scale stage of exploration in order to enhance the detectability of geochemical precious metals values in as many as possible of the rock samples collected. Second purpose for using the H.M. fraction was to reduce the well-known 'nugget' effect created by sub-sampling procedures used on the regular whole-rock fractions in the laboratories. Where present, mineralization-enhancing features such as sulfides, secondary oxides, alteration, silicification and shearing in the rocks were selectively sampled, as described in the rock sample notes, Appendix I, and shown on the sample location map, Fig. 3.

The heavy minerals fraction from both outcrop and float samples was processed and analyzed for 30 elements by ICP, plus mercury and gold, at the Min-En Laboratory in North Vancouver, using standard geochemical methods described in Appendix II. Complete analytical results are presented directly on the geochemical 1:10,000 scale sample location map, which also shows topographic contours and the claims group outline, Fig. 3, in pocket, and are also enclosed as Appendix III at the back of the Report.

#### Heavy Minerals Rock Geochemistry

Of the 30 rock samples collected, 18 are bedrock samples, prefixed by 'R', and 12 are float, 'F'. As the fieldwork was done during a peak flood which wiped out bridges and caused numerous mud slides, the float rock samples were relied upon for evaluation of the inaccessible areas. As shown on the sample location map, Fig. 3, samples were collected along access roads and tracks on both sides of the Kearsley Creek valley in the eastern portion of the claims, and along access roads to the Oro claims area to the west.

As indicated by the analytical results in Appendix III and map Fig. 3, two of the bedrock samples, R190W and R695NW, and two float samples, F060N and F130N, yielded values greater than 1,000 ppb gold in the H.M. fraction, namely, 2,655 ppb Au, 21,500 ppb Au, 1,850 ppb Au, and 5,970 ppb Au respectively. The bedrock samples are located one each side of Kearsley Creek, while the source of the two floats likely lies on the hill to the NW of the Oro claims. Lesser, though still highly anomalous geochemical gold values were obtained, as presented on the 1:10,000 scale sample location map, Fig. 3, in pocket.

Silver values, ranging up to 4.8 ppm Ag in sample F390N, correlate very well with the gold values, but are not always present, such as in sample F130N, due to the differing mobilities of the two precious elements.

Of the other trace elements analyzed, the analytical results indicate copper to be most closely associated with high gold values, ranging up to 838 ppm Cu in sample R190W. Elevated levels of mercury in RSH6 and R640NW of 125 and 120 ppb Hg are present at the periphery of high gold values, but do not coincide. Other useful tracers include arsenic, cobalt, and potassium-sodium ratios. Additional rock sampling in the anomalous areas identified in the present survey, and in the unsampled portions, is needed for proper geochemical evaluation of the claims group.

CONCLUSIONS

1. Strong geochemical gold values in the H.M. fraction in rock samples on the Golden Universe property have identified gold-enriched quartz veinlets on the north side of Kearsley Creek, and gold-rich altered shear zones on its south side in bedrock, and in float to the east of the Oro claims.
  
2. Strong gold-silver-copper association in analytical values is enhanced by presence of pyrite and silicification in the rocks, which is indicative of the type of mineralization to be expected on the property, namely, gold with pyrite and/or chalcopyrite located in silicified shears.
  
3. The anomalous analytical results obtained are encouraging for pursuit of gold mineralization on the property. Detailed rock sampling coverage of the whole claims area is required for complete geochemical interpretation of its precious metals mineralization potential.



BIBLIOGRAPHY

Roddick, J.A. - Vancouver North, Coquitlam and Pitt Lake Map Areas, British Columbia. G.S.C. Memoir 335 1963.

Ryback, Hardy V. - Geochemical and Geophysical Report on the Sky Mineral Claims for Skyrocket Exploration and Resources Inc., November 16, 1981. Assessment Report No. 10,040.

Sookochoff, L. - Geological Evaluation Report on the Golden Universe Claim Group, January, 1988.

Zastavnikovich, S. - Geochemical & Geophysical Assessment Report on the Golden Universe Group, December, 1986.

STATEMENT OF EXPENDITURES

Golden Universe Mineral Claims

Fieldwork - Nov 18 - Nov 23, '89.

|   |                       |
|---|-----------------------|
| Salaries, S. Zastavnikovich, Geochemist<br>5 days @ 275/day | 1,375.00              |
| Travel, 4x4 truck, 5 days @ 45/day                          | 225.00                |
| Gasoline  | 92.40                 |
| Mileage, 930km @ 10c  | 93.00                 |
| Fat-tired motorcycle  | 80.00                 |
| Field Expenses, supplies, maps,<br>Sample Delivery          | 65.00<br><u>35.00</u> |
|   | 1,965.40              |

Analysis -

|   |               |
|---|---------------|
| 30 Rock Samples for 30 element ICP, fire Au,<br>Hg, + prep. @ 21.25 | 637.50        |
| 30 Rocks for Heavy Mineral prep @ 25                                | <u>750.00</u> |
|   | 1,387.50      |

Report Preparation -

|  |              |
|--|--------------|
| Writing, drafting, filing<br>3 1/2 days @ 275.00 | 962.50       |
| Typing, Maps & Report Reproduction               | 160.00       |
| Mileage and Parking                              | <u>35.00</u> |
|  | 1,157.50     |

|                    |                    |
|--------------------|--------------------|
| Total Expenditures | <u>\$ 4,510.40</u> |
|--------------------|--------------------|

STATEMENT OF QUALIFICATIONS

I.- Sam Zastavnikovich, do hereby certify that:

1. I am a graduate of the University of Alberta with the Degree of B. Ed. in Physical Sciences, 1969.
2. I have been a practicing exploration geochemist with Falconbridge Ltd. of Toronto and Vancouver for thirteen continuous years as:  
  
1969-1975: Field geochemist, international.  
1975-1979: Project geologist-geochemist, B. C.  
1979-1982: Exploration geochemist, worldwide, where I was engaged in all aspects of geochemical exploration, including research and development of improved sampling techniques, and advanced geochemical interpretation, as well as the writing of final, budget, and assessment reports.
3. I am a voting member of the Association of Exploration Geochemists.
4. I am a consulting geochemist with offices at 5063 - 56th. St., Delta, B. C.

---

S. Zastavnikovich,  
Expl. Geochemist

APPENDIX I.

ROCK SAMPLE NOTES - Golden Universe Claim Group

Sample No. - (Outcrop samples are labeled 'R', and float, 'F')

F005W- limonite-stained, very red, coarse grained intrusive

F035W- red, Fe-stained feldspar porphury

R190W- rusty quartz blowouts, with chacopyrite? & coarse pyrite

F280W- rusty diorite with 1mm magnetite grains

F295W- epidotized 5cm shears in limonitic diorite

F360W- 2cm qtz-epidote veinlets in chloritized intrusive

F600W- 1-2cm quartz veinlets in diorite

F760W- coarse-grained quartz diorite with carbonated fractures

F960W- 1-2cm quartz veins in sheared chloritized granodiorite

R430NW-bleached, sheared aplite dyke with pyrite, E-W, vert.

R550NW-bleached, low angle N-S, and vertical E-W shears

R610NW-5cm wide E-W steeply dipping siliceous, carbonated,  
epidotized shears in granite

R640NW-20cm wide pyritized E-W shear in granite

R660NW-2-5cm vertical N-S shear with pyrite

R695NW-5cm aplite dyke in N-S vertical siliceous shear

F060N- 5cm wide quartz vein with rusty fractures

R110N- dark colored diabase, magnetic

F130N- rusty, sheared, altered diorite

R175N- black fine-grained dyke @ 105 deg., dipping 75deg NE  
with dissem. magnetite, and pyrrhotite? on fract.s

R310N- rusty, vuggy, altered greenish, sericitized rock

F390N- 2cm py blebs & dissem. py in green chloritized rock

F430N- siliceous rusty intrusive, malachite & dissem. pyrite

RM01 - rusty aplite dyke, fractured, with 1% dissem. py

RM01A- 2-3cm wide magnetite vein

RM02 - 5cm wide sheared, bleached aplite N-S dyke, dip. 50 E

RM03 - whitish sheared aplite with limonitic hairline fract.s

RSH1 - 1/2m wide vertical rusty shear in bleached granite

RSH2 - sheared granodiorite, limonitic fractures

RSH5 - bleached, rusty diorite with 1cm magnetite blebs

RSH6 - white, highly bleached, sheared intrusive in a  
carbonate-altered zone.

## APPENDIX II

Analytical Procedure - The samples were analyzed by Min-En Laboratories Ltd. of 705 West 15th St., N.Vanc, as follows:

The stream sediments were oven-dried in their original water-resistant kraft paper bags at 95°C and screened to obtain the minus 80 mesh fraction for analysis. The rock samples were crushed and pulverized in a ceramic-plated pulverizer.

A suitable weight of 5.0 or 10.0 grams is pretreated with  $\text{HNO}_3$  and  $\text{HClO}_4$  mixture.

After pretreatment the samples are digested with Aqua Regia solution, then taken up with 25%  $\text{HCl}$  to suitable volume and aliquot used for the 26 element ICP trace element analysis.

From the major remaining portion of the sample, Gold is preconcentrated by standard fire assay methods, then extracted with Methyl Iso-Butyl Ketone and analyzed by Atomic Absorption.

For Mercury analysis, 1 gram of sieved material is sintered at 90°C for 4 hours, then digested in  $\text{HNO}_3$  and  $\text{HCl}$  acids mixture, and analyzed by the Hatch and Ott flameless AA method.



# MINERAL ENVIRONMENTS LABORATORIES

SPECIALISTS IN MINERAL ENVIRONMENTS  
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

VANCOUVER OFFICE:  
705 WEST 15TH STREET  
NORTH VANCOUVER, B.C. CANADA V7M 1T2  
TELEPHONE (604) 980-5814 OR (604) 988-4524  
TELEX: VIA U.S.A. 7801067 • FAX (604) 980-9621

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

## Geochemical Analysis Certificate

OV-0018-HG1

Company: SAM ZASTAVNIKOVICH  
Project: STAVE  
Attn: SAM ZASTAVNIKOVICH

Date: JAN-15-90  
Copy 1. SAM ZASTAVNIKOVICH, DELTA, B.C.

We hereby certify the following Geochemical Analysis of 30 HEAVY MINERAL samples submitted JAN-09-90 by SAM ZASTAVNIKOVICH.

| Sample Number | AU-FIRE PPB | HM %  |
|---------------|-------------|-------|
| F-005W        | 2           | 4.55  |
| F-035W        | 1           | 3.44  |
| F-280W        | 1           | 17.24 |
| F-295W        | 3           | 20.62 |
| F-360W        | 1           | 46.22 |
| -----         |             |       |
| F-600W        | 2           | 4.38  |
| F-760W        | 1           | 3.52  |
| F-960W        | 3           | 2.62  |
| F-060N        | 1850        | 3.60  |
| F-130N        | 5970        | 2.18  |
| -----         |             |       |
| F-390N        | 825         | 47.92 |
| F-430N        | 645         | 1.80  |
| R-110N        | 2           | 24.22 |
| R-175N        | 1           | 41.99 |
| R-310N        | 432         | 7.80  |
| -----         |             |       |
| R-190W        | 2655        | 7.52  |
| R-430NW       | 3           | 1.26  |
| R-550NW       | 2           | 5.92  |
| R-610NW       | 2           | 5.77  |
| R-640NW       | 76          | 16.05 |
| -----         |             |       |
| R-660NW       | 3           | 2.54  |
| R-695NW       | 21500       | 3.03  |
| RM-01         | 43          | 5.07  |
| RM-01A        | 2           | 2.98  |
| RM-02         | 5           | 1.96  |
| -----         |             |       |
| RM-03         | 3           | .73   |
| RSH-1         | 48          | 1.87  |
| RSH-2         | 150         | .95   |
| RSH-5         | 127         | 5.69  |
| RSH-6         | 4           | 3.77  |

Certified by

MIN-EN LABORATORIES

COMP: SAM ZASTAVNIKOVICH  
 PROJ: STAVE  
 ATTN: SAM ZASTAVNIKOVICH

MIN-EN LABS — ICP REPORT  
 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2  
 (604)980-5814 OR (604)988-4524

FILE NO: OV-0018-RJ1  
 DATE: JAN-15-90  
 \* TYPE ROCK GEOCHEM \* (ACT:F31)

| SAMPLE NUMBER | AG PPM | AL PPM | AS PPM | B PPM | BA PPM | BE PPM | BI PPM | CA PPM | CD PPM | CO PPM | CU PPM | FE PPM | K PPM | LI PPM | MG PPM | MN PPM | MO PPM | NA PPM | NI PPM | P PPM | PB PPM | SB PPM | SR PPM | TH PPM | U PPM | V PPM | ZN PPM | GA PPM | SN PPM | W PPM | CR PPM | HG PPM |
|---------------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|-------|-------|--------|--------|--------|-------|--------|--------|
| F-005W        | .5     | 17030  | 6      | 1     | 42     | .4     | 4      | 4970   | .1     | 6      | 55     | 27440  | 510   | 1      | 4270   | 135    | 5      | 2430   | 1      | 240   | 8      | 1      | 15     | 1      | 1     | 23.0  | 27     | 1      | 1      | 2     | 209    | 5      |
| F-035W        | .5     | 12320  | 63     | 1     | 72     | .4     | 8      | 5150   | .1     | 7      | 15     | 29560  | 1620  | 4      | 6310   | 528    | 9      | 1370   | 2      | 320   | 6      | 1      | 10     | 1      | 1     | 53.3  | 35     | 1      | 1      | 2     | 186    | 15     |
| F-280W        | .6     | 29050  | 4      | 1     | 84     | .6     | 11     | 15150  | .1     | 14     | 29     | 38550  | 1650  | 3      | 9600   | 444    | 4      | 3700   | 1      | 430   | 5      | 1      | 22     | 1      | 2     | 155.1 | 45     | 2      | 1      | 2     | 117    | 5      |
| F-295W        | .8     | 29250  | 11     | 1     | 32     | .7     | 11     | 13090  | .1     | 23     | 128    | 45980  | 1390  | 6      | 15320  | 908    | 6      | 490    | 3      | 340   | 12     | 1      | 12     | 1      | 1     | 102.1 | 114    | 2      | 1      | 2     | 156    | 5      |
| F-360W        | 1.1    | 32630  | 14     | 1     | 7      | .7     | 13     | 24410  | .1     | 20     | 50     | 42580  | 110   | 2      | 14720  | 835    | 6      | 210    | 4      | 150   | 9      | 1      | 31     | 1      | 2     | 131.6 | 87     | 2      | 1      | 2     | 160    | 5      |
| F-600W        | .8     | 11940  | 9      | 1     | 3      | .3     | 4      | 7360   | .1     | 7      | 11     | 16390  | 60    | 1      | 6190   | 316    | 7      | 230    | 5      | 130   | 8      | 1      | 30     | 1      | 1     | 36.4  | 29     | 1      | 1      | 2     | 291    | 5      |
| F-760W        | .4     | 10430  | 6      | 1     | 35     | .3     | 6      | 4140   | .1     | 8      | 48     | 21550  | 650   | 2      | 5230   | 410    | 5      | 980    | 2      | 280   | 2      | 1      | 9      | 1      | 1     | 32.0  | 31     | 1      | 1      | 2     | 204    | 15     |
| F-960W        | .4     | 9410   | 5      | 1     | 70     | .2     | 6      | 5130   | .1     | 5      | 4      | 12050  | 1040  | 1      | 4830   | 208    | 6      | 610    | 3      | 360   | 2      | 1      | 17     | 1      | 1     | 18.2  | 22     | 1      | 1      | 2     | 222    | 5      |
| F-060N        | .7     | 7660   | 16     | 1     | 21     | .4     | 8      | 270    | .1     | 15     | 121    | 48930  | 1240  | 2      | 5580   | 232    | 9      | 90     | 1      | 120   | 3      | 1      | 1      | 1      | 1     | 87.7  | 42     | 1      | 1      | 3     | 322    | 5      |
| F-130N        | .6     | 13880  | 7      | 1     | 59     | .5     | 4      | 990    | .1     | 8      | 22     | 30100  | 1970  | 4      | 6400   | 218    | 7      | 630    | 1      | 190   | 2      | 1      | 13     | 1      | 1     | 43.7  | 28     | 1      | 1      | 2     | 197    | 5      |
| F-390N        | 4.8    | 29670  | 28     | 1     | 43     | 1.0    | 15     | 9510   | .1     | 60     | 117    | 158450 | 2240  | 11     | 18350  | 957    | 6      | 70     | 1      | 210   | 28     | 1      | 47     | 1      | 4     | 130.4 | 117    | 2      | 1      | 2     | 97     | 55     |
| F-430N        | .4     | 7000   | 4      | 1     | 119    | .3     | 7      | 1200   | .1     | 5      | 321    | 18800  | 2860  | 1      | 1740   | 105    | 12     | 610    | 2      | 340   | 2      | 1      | 4      | 1      | 1     | 10.9  | 22     | 1      | 1      | 2     | 311    | 25     |
| R-110N        | 1.1    | 43760  | 13     | 1     | 61     | .8     | 14     | 30940  | .1     | 24     | 76     | 44560  | 580   | 1      | 13740  | 368    | 5      | 6330   | 5      | 1300  | 8      | 1      | 97     | 1      | 5     | 160.6 | 46     | 2      | 1      | 2     | 96     | 50     |
| R-175N        | 1.2    | 51240  | 14     | 1     | 28     | .8     | 15     | 37130  | .1     | 32     | 230    | 60300  | 380   | 1      | 13710  | 380    | 4      | 3530   | 7      | 220   | 9      | 1      | 73     | 1      | 4     | 391.5 | 49     | 2      | 1      | 2     | 82     | 25     |
| R-310N        | .8     | 14380  | 24     | 1     | 9      | .7     | 8      | 770    | .1     | 97     | 102    | 83120  | 350   | 6      | 12680  | 1021   | 74     | 110    | 1      | 220   | 9      | 1      | 3      | 1      | 1     | 145.7 | 89     | 2      | 1      | 4     | 234    | 35     |
| R-190W        | 4.0    | 9050   | 56     | 1     | 34     | .5     | 2      | 1180   | .1     | 96     | 838    | 67290  | 820   | 1      | 3530   | 151    | 2      | 320    | 1      | 60    | 2      | 1      | 4      | 1      | 1     | 30.7  | 49     | 1      | 1      | 2     | 296    | 95     |
| R-430NW       | .4     | 6960   | 2      | 1     | 102    | .3     | 7      | 3070   | .1     | 7      | 45     | 13770  | 1060  | 1      | 1210   | 130    | 1      | 1360   | 1      | 690   | 4      | 1      | 8      | 1      | 1     | 26.1  | 10     | 1      | 1      | 1     | 90     | 65     |
| R-550NW       | .7     | 21430  | 13     | 1     | 48     | .5     | 10     | 16910  | .1     | 8      | 23     | 19830  | 740   | 3      | 6160   | 398    | 5      | 560    | 4      | 550   | 6      | 1      | 74     | 1      | 4     | 38.8  | 37     | 1      | 1      | 2     | 165    | 30     |
| R-610NW       | .4     | 32930  | 14     | 1     | 139    | 1.0    | 16     | 11110  | .1     | 15     | 27     | 53890  | 2860  | 7      | 15270  | 414    | 6      | 770    | 17     | 670   | 9      | 1      | 46     | 1      | 3     | 89.1  | 50     | 2      | 1      | 2     | 151    | 20     |
| R-640NW       | .8     | 14700  | 27     | 1     | 67     | .7     | 7      | 1550   | .1     | 47     | 142    | 117820 | 1370  | 2      | 5570   | 163    | 14     | 330    | 1      | 340   | 8      | 1      | 9      | 1      | 1     | 32.6  | 32     | 1      | 1      | 1     | 136    | 120    |
| R-660NW       | .8     | 21190  | 14     | 1     | 214    | .8     | 11     | 6880   | .1     | 18     | 14     | 58950  | 1650  | 4      | 9780   | 339    | 10     | 1120   | 1      | 750   | 2      | 1      | 74     | 1      | 4     | 65.9  | 29     | 2      | 1      | 2     | 121    | 40     |
| R-695NW       | 3.0    | 7560   | 27     | 1     | 83     | .4     | 3      | 1290   | .1     | 7      | 62     | 25160  | 2450  | 1      | 1980   | 429    | 2      | 340    | 1      | 190   | 2      | 1      | 7      | 1      | 1     | 11.8  | 16     | 1      | 1      | 2     | 220    | 50     |
| RM-01         | .7     | 11470  | 16     | 1     | 57     | .8     | 5      | 2410   | .1     | 129    | 73     | 101150 | 1690  | 4      | 4760   | 305    | 4      | 700    | 1      | 180   | 7      | 1      | 14     | 1      | 2     | 45.2  | 33     | 1      | 1      | 2     | 262    | 35     |
| RM-01A        | 2.0    | 11650  | 16     | 4     | 68     | .1     | 1      | 1440   | .1     | 113    | 23     | 452890 | 1860  | 6      | 5720   | 1739   | 1      | 270    | 1      | 90    | 26     | 1      | 56     | 1      | 13    | 159.8 | 64     | 4      | 1      | 1     | 1      | 35     |
| RM-02         | .4     | 7100   | 10     | 1     | 124    | .4     | 2      | 750    | .1     | 8      | 25     | 24580  | 2400  | 1      | 2220   | 363    | 4      | 650    | 1      | 160   | 2      | 1      | 8      | 1      | 1     | 11.4  | 19     | 1      | 1      | 2     | 266    | 45     |
| RM-03         | .2     | 4440   | 2      | 1     | 9      | .2     | 4      | 630    | .1     | 3      | 6      | 8690   | 280   | 1      | 2610   | 164    | 1      | 1370   | 2      | 140   | 2      | 1      | 3      | 1      | 1     | 18.5  | 10     | 1      | 1      | 1     | 145    | 40     |
| RSH-1         | .5     | 10270  | 9      | 1     | 59     | .4     | 4      | 1680   | .1     | 7      | 41     | 29800  | 1710  | 2      | 5310   | 327    | 5      | 640    | 1      | 520   | 4      | 1      | 8      | 1      | 1     | 19.1  | 41     | 1      | 1      | 2     | 178    | 60     |
| RSH-2         | .4     | 11710  | 10     | 1     | 40     | .4     | 7      | 1930   | .1     | 9      | 15     | 24970  | 1250  | 3      | 8120   | 409    | 21     | 740    | 3      | 530   | 2      | 1      | 6      | 1      | 1     | 28.7  | 48     | 1      | 1      | 2     | 170    | 55     |
| RSH-5         | .6     | 10030  | 15     | 1     | 48     | .8     | 4      | 1180   | .1     | 31     | 32     | 98190  | 1280  | 2      | 5460   | 284    | 4      | 450    | 1      | 280   | 4      | 1      | 6      | 1      | 1     | 53.7  | 43     | 1      | 1      | 2     | 170    | 95     |
| RSH-6         | .2     | 16390  | 20     | 1     | 28     | .7     | 7      | 10750  | .1     | 5      | 9      | 14630  | 830   | 1      | 2190   | 298    | 4      | 490    | 1      | 310   | 3      | 1      | 50     | 1      | 3     | 19.7  | 21     | 1      | 1      | 1     | 136    | 125    |

COMP: SAM ZASTAVNIKOVICH  
77031 STAVE  
SITE: SAM ZASTAVNIKOVICH

MIN-EN LABS — ICP REPORT  
705 WEST 18TH ST., NORTH VANCOUVER, B.C. V7M 1T2  
(604)980-5814 OR (604)988-4524

FILE NO: 0V-0018-RJ1  
DATE: JAN-15-90

\* TYPE ROCK GEOCHEM \* (ACT-F31)

| SAMPLE NUMBER | AG  | AL    | AS    | B   | BA  | RE  | BI  | CA    | CO   | CU  | FE  | K      | LI    | MG   | MN    | MO   | NA  | NH   | P    | PB   | SB  | SR  | TH  | U   | V     | ZN    | GA  | SM  | U   | CR  | HG  |     |
|---------------|-----|-------|-------|-----|-----|-----|-----|-------|------|-----|-----|--------|-------|------|-------|------|-----|------|------|------|-----|-----|-----|-----|-------|-------|-----|-----|-----|-----|-----|-----|
|               | PPM | PPM   | PPM   | PPM | PPM | PPM | PPM | PPM   | PPM  | PPM | PPM | PPM    | PPM   | PPM  | PPM   | PPM  | PPM | PPM  | PPM  | PPM  | PPM | PPM | PPM | PPM | PPM   | PPM   | PPM | PPM | PPM | PPM | PPM | PPM |
| F-005W        | 5   | 17030 | 6     | 1   | 42  | 4   | 4   | 4970  | 1    | 6   | 55  | 27440  | 510   | 1    | 4270  | 135  | 5   | 2430 | 1    | 240  | 8   | 1   | 15  | 1   | 23.0  | 27    | 1   | 1   | 2   | 209 | 5   |     |
| F-035W        | 5   | 12320 | 63    | 1   | 72  | 4   | 8   | 5150  | 1    | 7   | 15  | 29540  | 1620  | 6    | 6310  | 528  | 9   | 1370 | 2    | 320  | 6   | 1   | 10  | 1   | 153.3 | 35    | 1   | 1   | 2   | 186 | 15  |     |
| F-280W        | 5   | 29050 | 4     | 1   | 94  | 6   | 11  | 15150 | 1    | 14  | 29  | 38530  | 1650  | 3    | 9640  | 444  | 4   | 3700 | 1    | 430  | 5   | 1   | 22  | 1   | 2     | 155.1 | 45  | 2   | 1   | 2   | 117 | 5   |
| F-295W        | 5   | 29250 | 11    | 1   | 32  | 7   | 11  | 13090 | 1    | 23  | 188 | 45980  | 1390  | 6    | 15320 | 908  | 6   | 490  | 3    | 340  | 12  | 1   | 12  | 1   | 102.1 | 114   | 2   | 1   | 2   | 156 | 5   |     |
| F-360W        | 1   | 52630 | 14    | 1   | 7   | 7   | 13  | 24410 | 1    | 20  | 50  | 42580  | 110   | 2    | 12720 | 835  | 6   | 210  | 4    | 190  | 9   | 1   | 31  | 2   | 2     | 131.6 | 87  | 2   | 1   | 2   | 160 | 3   |
| F-600W        | 8   | 11940 | 9     | 1   | 3   | 3   | 4   | 7560  | 1    | 7   | 11  | 16390  | 60    | 1    | 6190  | 316  | 7   | 230  | 5    | 130  | 8   | 1   | 30  | 1   | 1     | 36.4  | 29  | 1   | 1   | 2   | 291 | 5   |
| F-760W        | 4   | 10430 | 6     | 1   | 35  | 3   | 6   | 4140  | 1    | 9   | 68  | 21530  | 650   | 2    | 5230  | 410  | 5   | 980  | 2    | 680  | 2   | 1   | 9   | 1   | 1     | 32.9  | 31  | 1   | 1   | 2   | 254 | 15  |
| F-960W        | 4   | 9410  | 6     | 1   | 70  | 2   | 6   | 5130  | 1    | 9   | 4   | 12050  | 1040  | 1    | 4830  | 208  | 6   | 410  | 5    | 1300 | 2   | 1   | 17  | 1   | 1     | 19.2  | 22  | 1   | 1   | 2   | 252 | 15  |
| F-130N        | 7   | 7660  | 16    | 1   | 21  | 4   | 8   | 270   | 1    | 15  | 121 | 48930  | 1240  | 2    | 5550  | 232  | 9   | 90   | 1    | 120  | 3   | 1   | 13  | 1   | 1     | 87.7  | 42  | 1   | 1   | 3   | 322 | 15  |
| F-130N        | 6   | 13880 | 7     | 1   | 59  | 5   | 4   | 990   | 1    | 8   | 22  | 30190  | 1970  | 4    | 6400  | 218  | 7   | 650  | 1    | 190  | 2   | 1   | 1   | 1   | 1     | 43.7  | 28  | 1   | 1   | 2   | 197 | 15  |
| F-390N        | 4   | 20670 | 28    | 1   | 43  | 1.0 | 15  | 9510  | 1    | 60  | 117 | 158450 | 2240  | 11   | 18350 | 957  | 6   | 70   | 1    | 210  | 28  | 1   | 47  | 1   | 4     | 130.4 | 117 | 2   | 1   | 2   | 97  | 55  |
| R-430N        | 7   | 7000  | 4     | 1   | 119 | 3   | 7   | 1200  | 1    | 5   | 321 | 18890  | 2860  | 1    | 1740  | 105  | 12  | 610  | 2    | 340  | 2   | 1   | 4   | 1   | 1     | 10.9  | 22  | 1   | 1   | 2   | 311 | 25  |
| R-110N        | 1   | 43760 | 13    | 1   | 61  | 8   | 16  | 30940 | 1    | 24  | 76  | 44560  | 580   | 1    | 13740 | 568  | 5   | 6350 | 5    | 1300 | 8   | 1   | 97  | 1   | 5     | 160.6 | 46  | 2   | 1   | 2   | 96  | 50  |
| R-175N        | 1   | 51240 | 14    | 1   | 28  | 8   | 15  | 37130 | 1    | 32  | 230 | 60300  | 380   | 1    | 13710 | 380  | 4   | 3330 | 7    | 220  | 9   | 1   | 73  | 1   | 4     | 391.5 | 69  | 2   | 1   | 2   | 82  | 25  |
| R-310N        | 5   | 14380 | 24    | 1   | 9   | 7   | 8   | 770   | 1    | 97  | 162 | 83120  | 350   | 6    | 2680  | 1021 | 74  | 110  | 1    | 220  | 9   | 1   | 3   | 1   | 1     | 145.7 | 89  | 2   | 1   | 4   | 234 | 35  |
| R-190W        | 4   | 9050  | 56    | 1   | 34  | 5   | 2   | 1180  | 1    | 96  | 838 | 67290  | 820   | 1    | 3530  | 151  | 2   | 320  | 1    | 60   | 2   | 1   | 4   | 1   | 30.7  | 49    | 1   | 1   | 2   | 296 | 95  |     |
| R-430W        | 4   | 6950  | 2     | 1   | 102 | 3   | 7   | 3070  | 1    | 7   | 45  | 13770  | 1060  | 1    | 1210  | 130  | 1   | 1360 | 1    | 690  | 4   | 1   | 4   | 1   | 1     | 26.1  | 10  | 1   | 1   | 1   | 90  | 65  |
| R-550W        | 7   | 21450 | 13    | 1   | 48  | 5   | 10  | 16910 | 1    | 8   | 23  | 19830  | 740   | 3    | 6160  | 398  | 5   | 550  | 4    | 550  | 6   | 1   | 74  | 1   | 4     | 38.8  | 37  | 2   | 1   | 2   | 165 | 30  |
| R-610W        | 4   | 32930 | 14    | 1   | 139 | 1.0 | 16  | 11110 | 1    | 15  | 27  | 53890  | 2860  | 7    | 15270 | 414  | 6   | 770  | 17   | 670  | 9   | 1   | 44  | 1   | 3     | 89.1  | 30  | 2   | 1   | 2   | 169 | 30  |
| R-640W        | 8   | 14760 | 27    | 1   | 67  | 7   | 7   | 1550  | 1    | 47  | 142 | 117820 | 1370  | 2    | 5570  | 163  | 14  | 330  | 1    | 340  | 8   | 1   | 9   | 1   | 1     | 32.6  | 32  | 1   | 1   | 1   | 136 | 120 |
| R-660W        | 8   | 21190 | 14    | 1   | 214 | 8   | 11  | 6880  | 1    | 18  | 14  | 58950  | 1650  | 4    | 9780  | 339  | 10  | 1120 | 1    | 750  | 2   | 1   | 74  | 1   | 4     | 65.9  | 29  | 2   | 1   | 2   | 121 | 40  |
| R-695W        | 3   | 0     | 7520  | 27  | 1   | 83  | 4   | 3     | 1290 | 1   | 7   | 62     | 25160 | 2450 | 1     | 1980 | 429 | 2    | 340  | 1    | 190 | 2   | 1   | 1   | 1     | 11.8  | 16  | 1   | 1   | 2   | 220 | 50  |
| RH-01         | 2   | 0     | 11650 | 16  | 4   | 68  | 1   | 1     | 1440 | 1   | 129 | 73     | 10130 | 1690 | 6     | 4700 | 305 | 4    | 700  | 1    | 180 | 1   | 1   | 1   | 1     | 45.2  | 33  | 1   | 1   | 2   | 262 | 95  |
| RH-01A        | 2   | 0     | 11650 | 16  | 4   | 68  | 1   | 1     | 1440 | 1   | 113 | 63     | 43290 | 1860 | 6     | 3750 | 179 | 1    | 210  | 1    | 90  | 26  | 1   | 1   | 1     | 159.8 | 64  | 1   | 1   | 2   | 262 | 95  |
| RH-02         | 4   | 7100  | 10    | 1   | 124 | 4   | 2   | 750   | 1    | 8   | 25  | 24580  | 2400  | 1    | 2220  | 363  | 4   | 650  | 1    | 160  | 2   | 1   | 8   | 1   | 1     | 11.4  | 19  | 1   | 1   | 2   | 266 | 45  |
| RH-03         | 2   | 0     | 11650 | 16  | 4   | 68  | 1   | 1     | 1440 | 1   | 3   | 9      | 5690  | 980  | 1     | 2610 | 164 | 1    | 1370 | 2    | 140 | 2   | 1   | 3   | 1     | 18.5  | 10  | 1   | 1   | 1   | 145 | 40  |
| RSH-1         | 5   | 10270 | 2     | 1   | 59  | 2   | 4   | 1680  | 1    | 4   | 41  | 29800  | 1710  | 2    | 5310  | 327  | 5   | 640  | 1    | 520  | 4   | 1   | 8   | 1   | 1     | 19.1  | 41  | 1   | 1   | 2   | 178 | 60  |
| RSH-2         | 4   | 11710 | 10    | 1   | 40  | 4   | 7   | 1930  | 1    | 9   | 15  | 24970  | 1250  | 3    | 8120  | 499  | 21  | 740  | 3    | 530  | 2   | 1   | 6   | 1   | 1     | 28.7  | 48  | 1   | 1   | 2   | 170 | 55  |
| RSH-5         | 4   | 10030 | 15    | 1   | 48  | 8   | 4   | 1180  | 1    | 31  | 32  | 98190  | 1281  | 2    | 5460  | 284  | 4   | 450  | 1    | 280  | 1   | 1   | 6   | 1   | 1     | 33.7  | 43  | 1   | 1   | 2   | 175 | 55  |
| RSH-6         | 2   | 16390 | 20    | 1   | 28  | 7   | 7   | 10750 | 1    | 5   | 9   | 14830  | 830   | 1    | 2190  | 298  | 4   | 490  | 1    | 310  | 3   | 1   | 50  | 1   | 3     | 19.7  | 21  | 1   | 1   | 1   | 156 | 125 |

**MINERAL ENVIRONMENTS LABORATORIES**

VANCOUVER OFFICE:  
705 WEST 18TH STREET  
NORTH VANCOUVER, B.C. CANADA V7M 1T2  
TELEPHONE (604) 980-5814 (800) 988-4524  
TELEX VIA U.S.A. 7601087 \* FAX (604) 980-5821

TIMMINS OFFICE:  
SLEIGHT PRODUCTIONS ROAD  
P.O. BOX 687  
TIMMINS ONTARIO CANADA P4N 707  
TELEPHONE: (709) 264-9998

SPECIALISTS IN MINERAL ENVIRONMENTS  
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

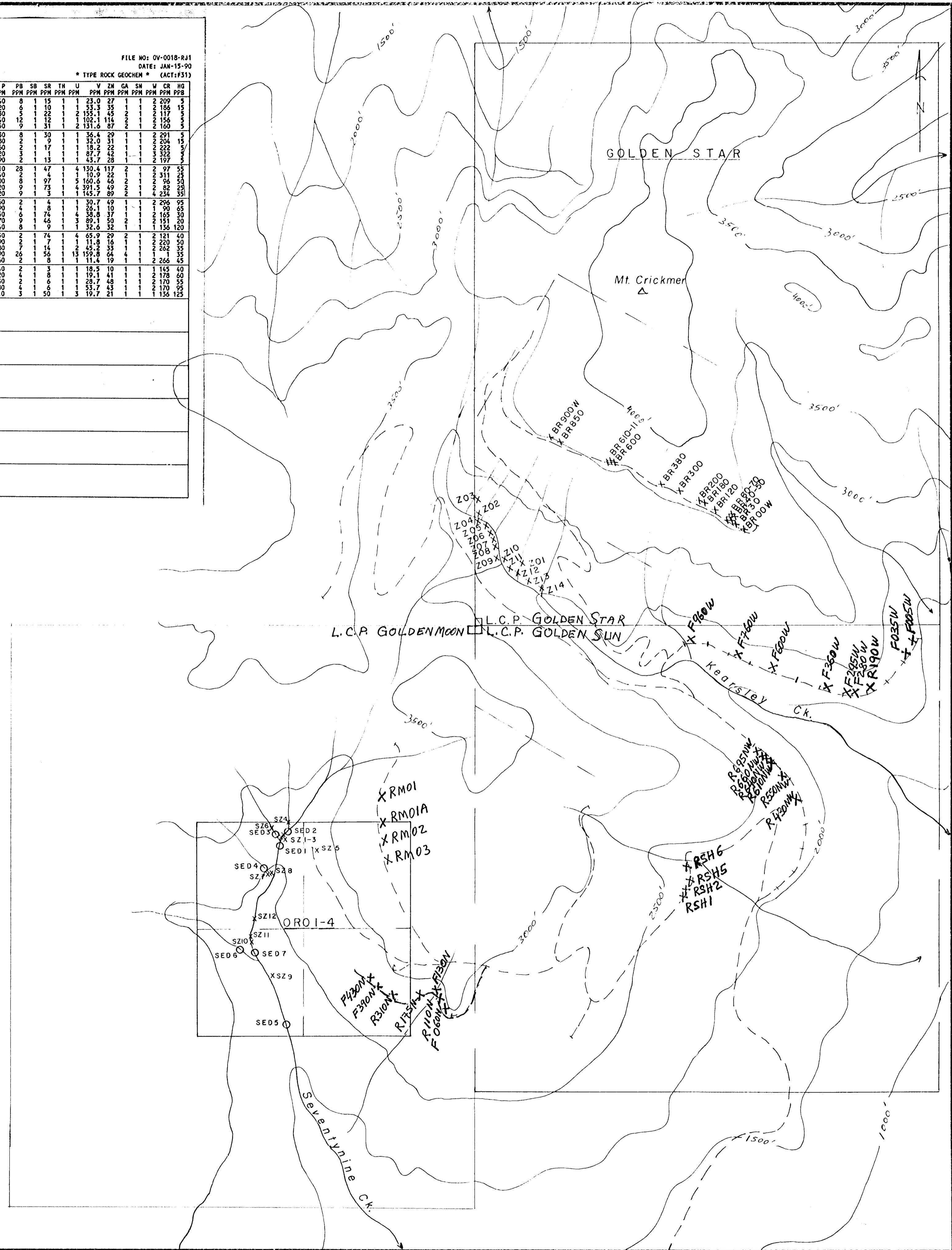
**Geochemical Analysis Certificate** 0V-0018-HG1

Client: SAM ZASTAVNIKOVICH Date: JAN-15-90  
Project: STAVE LAKE Copy 1, SAM ZASTAVNIKOVICH DELTA, B.C.  
Analyst: SAM ZASTAVNIKOVICH

We hereby certify the following Geochemical Analysis of 30 HEAVY MINERAL samples submitted JAN-09-90 by SAM ZASTAVNIKOVICH.

| Sample Number | APFIRE | HR    |
|---------------|--------|-------|
|               | PPM    | %     |
| F-005W        | 2      | 4.55  |
| F-035W        | 1      | 3.44  |
| F-280W        | 1      | 17.24 |
| F-295W        | 3      | 20.62 |
| F-360W        | 1      | 46.22 |
| F-600W        | 2      | 4.38  |
| F-760W        | 1      | 3.52  |
| F-960W        | 3      | 2.62  |
| F-130N        | 1850   | 3.60  |
| F-130N        | 5970   | 2.18  |
| F-390N        | 825    | 47.92 |
| F-430N        | 648    | 1.80  |
| R-110N        | 2      | 24.22 |
| R-175N        | 1      | 41.99 |
| R-310N        | 432    | 7.80  |
| R-190W        | 2658   | 7.52  |
| R-430W        | 3      | 1.26  |
| R-550W        | 2      | 5.92  |
| R-610W        | 2      | 5.77  |
| R-640W        | 76     | 16.03 |
| R-660W        | 3      | 2.54  |
| R-695W        | 21500  | 3.03  |
| RH-01         | 43     | 5.07  |
| RH-01A        | 2      | 2.98  |
| RH-02         | 3      | 1.96  |
| RH-03         | 3      | .73   |
| RSH-1         | 48     | 1.87  |
| RSH-2         | 150    | .95   |
| RSH-5         | 127    | 5.69  |
| RSH-6         | 4      | 3.77  |

Certified by *[Signature]*  
MIN-EN LABORATORIES



- LEGEND**
- SED 07 - Sediment Sample No.
  - Z09x - Rock Sample No.
  - - - Road
  - (3500) - Elevation
  - R280N X - HEAVY MINERAL ROCK

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**19,710**

200 100 0 200 400 600 M.  
SCALE: 1 : 10,000

PROPERTY: **GOLDEN UNIVERSE GROUP**

LOCATION: **STAVE LAKE**

TYPE OF MAP: **GEOCHEMICAL**

WORKING PLACE:

BASED ON:

DATE OF WORK: \_\_\_\_\_ MAP REF. NO.: \_\_\_\_\_ FIG. NO.: \_\_\_\_\_

DRAWN BY: **S. Z.** DATE: **NOV. 1989** N.T.S. NO.: **92G/8W**

3

MAP REF. NO.: N.T.S.