093272

# ASSESSMENT REPORT on the TOG CLAIMS
# 1995

## TRENCHING AND SAMPLING



**Longitude 60 25'00"N**
**Latitude 133 33'20"W**
**NTS 105 c/5**

**Whitehorse Mining District**
**Yukon Territory**

**for**



**Dunvegan Exploration Ltd.**
**Box 4063, Whitehorse**
**Yukon, Y1A 3S9**

**by**
**M. P. Webster, B.Sc.,**
**January 5, 1995**

## TABLE OF CONTENTS

## INTRODUCTION

Exploration on the TOG property was continued by Dunvegan Exploration Ltd. during the 1994 field season. A number of trenches were hand drilled, blasted and sampled. A total of 466 lbs. of material was sampled and most of it milled. Sample sizes ranged from 5, 10 and 25 kilograms in addition to hand samples.

This report describes and summarizes the work supervised and carried out by Mr. Gordie McLeod and Mr. Peter Hildebrand during the months of January, May, August and September in 1994. Samples were also taken by Mr. Craig Hart of the Canada/Geoscience Office in Whitehorse, Yukon. Mr. Herman Liedtke, also of Whitehorse, carried out the milling of samples under the supervision of Mr. McLeod.

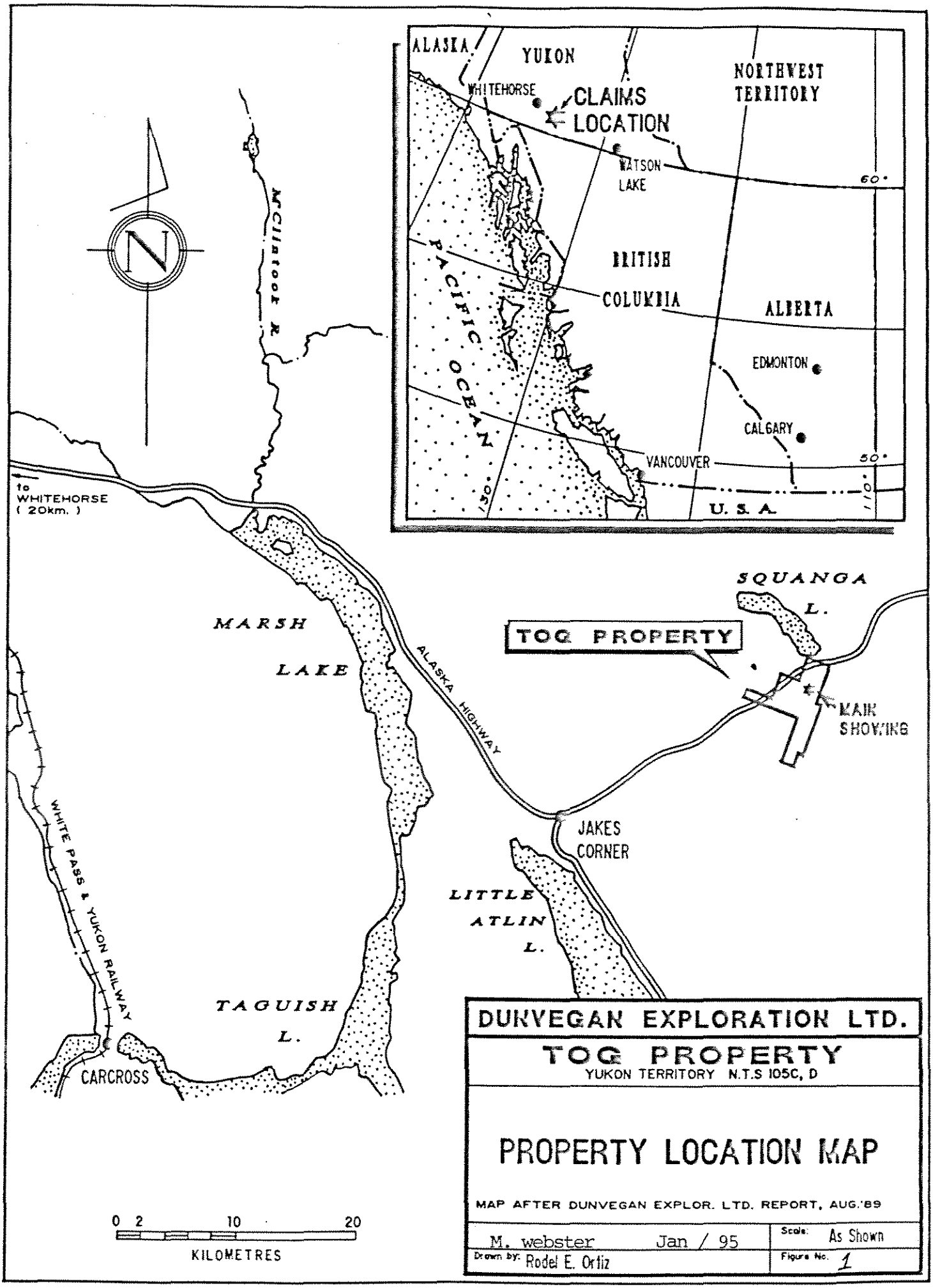
The gold values recovered from the sampling programs ranged from $<5$ ppb gold to 0.23 g/tonne gold from an eleven kilogram sample tested by Lakefield Research. Notably, the samples ranged in size from grab to 300 lb. and tested new zones and lithologies located distally and along strike to the Main Showing.

Although the author is familiar with the personnel that carried out the 1994 work program and the property, the author did not visit the property during the 1994 and herein presents data and the description of the work conducted during 1994 as described by the supervisors and others.

## LOCATION AND ACCESS

The TOG property is located on the Alaska Highway approximately 88 km. southeast from Whitehorse, Yukon. The claims extend south from Squanga Lake to Marsh Lake and across the Alaska Highway at the southernmost end of Summit Lake. The claims are located at latitude 60 25'00"N, longitude 133 37'20"W and NTS 105C/5.

Access to the property is by way of the Alaska Highway, an approximate distance of 100 km. southeast from Whitehorse, 24 km northeast from Jakes Corner, to a 4-wheel drive property road which exits southeast from the Alaska Highway. The property road extends an approximate distance of 5.5 km and terminates at the main showing of the TOG property. In 1990, a cat road was excavated parallel to and approximately 30 metres south of the main showing for drill pads and a cat trail was extended approximately 1.5 km north and west from the main showing to a small pond and water supply for the 1990 drill program. Access to the property during winter months is by snow mobile.




DUNVEGAN EXPLORATION LTD.

# TOG PROPERTY

YUKON TERRITORY N.T.S 105C, D

## PROPERTY LOCATION MAP

MAP AFTER DUNVEGAN EXPLOR. LTD. REPORT, AUG.'89

| | |
|---|---|
| M. webster Jan / 95 | Scale: As Shown |
| Drawn by: Rodel E. Ortiz | Figure No. 1 |

The property access road and claims are shown on Figures 1 and 2.

## PHYSIOGRAPHY AND VEGETATION

The physiography of the TOG property is comprised of a series of northwest trending ridges drained by northwest draining creeks. Overburden depths vary from a few centimetres along ridge crests to unknown depths in the valley bottoms. The ridges gradually flatten to gently sloped, flat and hummocky terrain near Seaforth Creek to the east and Marsh Lake to the south.

Vegetation comprises with moss covered outcrop on the ridges to dense Jack pine and poplar forests and buckbrush throughout the valleys.

## CLIMATE

The property is located within the dry subarctic region of Southeastern Yukon and the property is largely free from snowfall beginning in May through October. Year round surface operations are feasible and the coldest temperatures should be anticipated during the months of January and February.

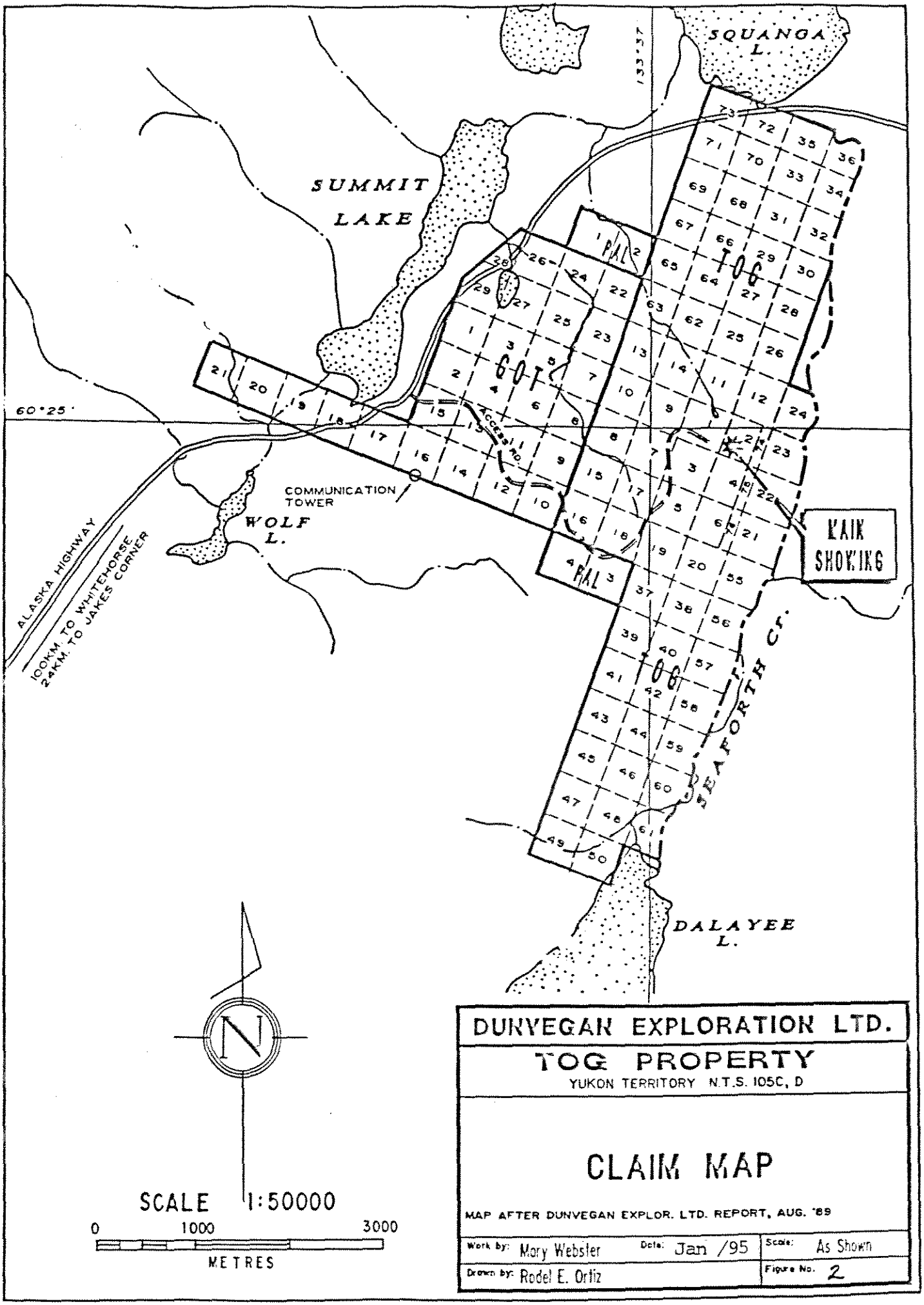
The annual rainfall is approximately 40 cm and water supply is available as surface runoff, springs and small ponds on the property. Squanga, Summit and Marsh Lakes may provide larger sources of water if required.

## THE TOG PROPERTY

The TOG Property is wholly owned by Dunvegan Exploration Ltd. and is comprised of 105 claims shown in Figure 2 and the property claims are listed in Table 1.

## REGIONAL GEOLOGY

The TOG property is located at the contact between the Mississippian - Upper Triassic Cache Creek oceanic volcanic-sedimentary group and the Upper Triassic - Lower Jurassic Lewes River sedimentary and arc volcanic assemblages. Oceanic ultramatic units of the Cache Creek group range from pods to lenticular bodies tens of kilometres in length and are considered to be related


SQUANGA L.
133°57'
SUMMIT LAKE
60°25'
COMMUNICATION TOWER
WOLF L.
ALASKA HIGHWAY
100KM. TO WHITEHORSE
24KM. TO JAKES CORNER
ACCESS RD.
PAL 2
PAL 3
TOG
TOG
TOG
KAIK SHOK'IKG
SETFORTH CR.
DALAYEE L.
N
SCALE 1:50000
0 1000 3000
METRES
DUNVEGAN EXPLORATION LTD.
TOG PROPERTY
YUKON TERRITORY N.T.S. 105C, D
CLAIM MAP
MAP AFTER DUNVEGAN EXPLOR. LTD. REPORT, AUG. '89
Work by: Mary Webster
Date: Jan /95
Scale: As Shown
Drawn by: Rodel E. Ortiz
Figure No. 2

# TABLE 1

## GOOD STANDING QUARTZ CLAIMS OWNED BY Dunvegan Exploration Ltd.

| | GRANT | CLAIM NAME | LAPSE DATE |
|---|---|---|---|
| 1 | YA82536 | TOG 1 | 97.07.03 |
| 2 | YA82537 | TOG 2 | 99.07.03 |
| 3 | YA82538 | TOG 3 | 97.07.03 |
| 4 | YA82539 | TOG 4 | 97.07.03 |
| 5 | YA82540 | TOG 5 | 97.07.03 |
| 6 | YA82541 | TOG 6 | 97.07.03 |
| 7 | YA82542 | TOG 7 | 98.07.03 |
| 8 | YA82543 | TOG 8 | 98.07.03 |
| 9 | YA82544 | TOG 9 | 01.07.03 |
| 10 | YA82545 | TOG 10 | 98.07.03 |
| 11 | YB20446 | TOG 11 | 98.07.18 |
| 12 | YB20447 | TOG 12 | 98.07.18 |
| 13 | YB20448 | TOG 13 | 98.07.18 |
| 14 | YB20449 | TOG 14 | 98.07.18 |
| 15 | YB20450 | TOG 15 | 97.01.18 |
| 16 | YB20451 | TOG 16 | 97.07.18 |
| 17 | YB20452 | TOG 17 | 97.01.18 |
| 18 | YB20453 | TOG 18 | 98.07.18 |
| 19 | YB20454 | TOG 19 | 97.07.18 |
| 20 | YB20455 | TOG 20 | 97.07.18 |
| 21 | YB20456 | TOG 21 | 97.07.18 |
| 22 | YB20457 | TOG 22 | 97.07.18 |
| 23 | YB20458 | TOG 23 | 97.07.18 |
| 24 | YB20459 | TOG 24 | 97.07.18 |
| 25 | YB20460 | GOT 1 | 96.01.18 |
| 26 | YB20461 | GOT 2 | 97.01.18 |
| 27 | YB20462 | GOT 3 | 96.01.18 |
| 28 | YB20463 | GOT 4 | 96.01.18 |
| 29 | YB20464 | GOT 5 | 97.07.18 |
| 30 | YB20465 | GOT 6 | 96.01.18 |
| 31 | YB20466 | GOT 7 | 97.07.18 |
| 32 | YB20467 | GOT 8 | 96.01.18 |
| 33 | YB20468 | GOT 9 | 96.01.18 |
| 34 | YB20469 | GOT 10 | 96.07.18 |
| 35 | YB20470 | GOT 11 | 96.01.18 |
| 36 | YB20471 | GOT 12 | 96.07.18 |
| 37 | YB20472 | GOT 13 | 96.01.18 |
| 38 | YB20473 | GOT 14 | 96.07.18 |
| 39 | YB20474 | GOT 15 | 96.07.18 |
| 40 | YB20475 | GOT 16 | 96.07.18 |
| 41 | YB24638 | TOG 25 | 96.12 |
| 42 | YB24639 | TOG 26 | 96.12 |
| 43 | YB24640 | TOG 27 | 96.12 |
| 44 | YB24641 | TOG 28 | 96.12 |
| 45 | YB24642 | TOG 29 | 96.12 |
| 46 | YB24643 | TOG 30 | 96.12 |
| 47 | YB24644 | TOG 31 | 96.12 |
| 48 | YB24645 | TOG 32 | 96.12 |
| 49 | YB24646 | TOG 33 | 96.12 |
| 50 | YB24647 | TOG 34 | 96.12 |
| 51 | YB24648 | TOG 35 | 96.12 |
| 52 | YB24649 | TOG 36 | 96.12 |
| 53 | YB24650 | TOG 37 | 96.12 |
| 54 | YB24651 | TOG 38 | 96.12 |
| 55 | YB24652 | TOG 39 | 96.12 |

TABLE 1

GOOD STANDING QUARTZ CLAIMS OWNED BY Dunvegan Exploration Ltd.

| | GRANT | CLAIM NAME | LAPSE DATE |
|---|---|---|---|
| 56 | YB24653 | TOG 40 | 96.12 |
| 57 | YB24654 | TOG 41 | 96.12 |
| 58 | YB24655 | TOG 42 | 96.12 |
| 59 | YB24656 | TOG 43 | 96.12 |
| 60 | YB24657 | TOG 44 | 96.12 |
| 61 | YB25431 | TOG 45 | 96.02.28 |
| 62 | YB25432 | TOG 46 | 96.02.28 |
| 63 | YB25433 | TOG 47 | 96.02.28 |
| 64 | YB25434 | TOG 48 | 96.02.28 |
| 65 | YB25435 | TOG 49 | 96.02.28 |
| 66 | YB25436 | TOG 50 | 96.02.28 |
| 67 | YB25441 | TOG 55 | 96.02.28 |
| 68 | YB25442 | TOG 56 | 96.02.28 |
| 69 | YB25443 | TOG 57 | 96.02.28 |
| 70 | YB25444 | TOG 58 | 96.02.28 |
| 71 | YB25445 | TOG 59 | 96.02.28 |
| 72 | YB25446 | TOG 60 | 96.02.28 |
| 73 | YB25447 | TOG 61 | 96.02.28 |
| 74 | YB 25448 | TOG 62 | 96.02.28 |
| 75 | YB25449 | TOG 63 | 96.02.28 |
| 76 | YB25450 | TOG 64 | 96.02.28 |
| 77 | YB25451 | TOG 65 | 96.02.28 |
| 78 | YB25452 | TOG 66 | 96.02.28 |
| 79 | YB25453 | TOG 67 | 96.02.28 |
| 80 | YB25454 | TOG 68 | 96.02.28 |
| 81 | YB25455 | TOG 69 | 96.02.28 |
| 82 | YB25456 | TOG 70 | 96.02.28 |
| 83 | YB25457 | TOG 71 | 96.02.28 |
| 84 | YB25458 | TOG 72 | 96.02.28 |
| 85 | YB25459 | TOG 73 | 96.02.28 |
| 86 | YB25460 | GOT 17 | 96.02.28 |
| 87 | YB25461 | GOT 18 | 96.02.28 |
| 88 | YB25462 | GOT 19 | 96.02.28 |
| 89 | YB25463 | GOT 20 | 96.02.28 |
| 90 | YB25464 | GOT 21 | 96.02.28 |
| 91 | YB25465 | GOT 22 | 96.02.28 |
| 92 | YB25466 | GOT 23 | 96.02.28 |
| 93 | YB25467 | GOT 24 | 96.02.28 |
| 94 | YB25468 | GOT 25 | 96.02.28 |
| 95 | YB25469 | GOT 26 | 96.02.28 |
| 96 | YB25470 | GOT 27 | 96.02.28 |
| 97 | YB25471 | GOT 28 | 96.02.28 |
| 98 | YB25472 | GOT 29 | 96.02.28 |
| 99 | YB26873 | PAL 1 | 96.10.29 |
| 100 | YB26874 | PAL 2 | 96.10.29 |
| 101 | YB26875 | PAL 3 | 96.10.29 |
| 102 | YB26876 | PAL 4 | 96.10.29 |
| 103 | YB35441 | TOG 74 FR | 98.10.15 |
| 104 | YB35442 | TOG 75 FR | 98.10.15 |
| 105 | YB35443 | TOG 76 FR | 98.10.15 |

to gold mineralization in the Atlin Gold mining camp (Figure 3). The property lies within the Whitehorse Trough which is bounded on the east by the northwest trending Teslin Fault System. Regional tectonic lineaments trend northwest and a Mid-Cretaceous Hornblende granodiorite plug lies approximately 20 kilometres west of the property.

During 1994, Mr. Craig Hart of the Canada/Geoscience Offices in Whitehorse conducted regional mapping and compilation work on the region. A geologic report on the region is currently available through the same offices.

## PROPERTY HISTORY

Work completed on the TOG property includes prospecting, geological mapping, soil and rock geochemistry, geophysics, hand drill and blast trenching, road construction, bulk sampling and diamond drilling.

The claims were first staked in 1972 by Gordon McLeod to cover the discovery of a small pod of massive chromite within ultramafic rocks. In 1979, minor geological property mapping was conducted by Archer Cathro and Associates Ltd. At the same time, Michael Marchand the Whitehorse District Geologist, indicated the $Cr_2O_3$ content of the chromite be 49.4% through microprobe analysis. The gold potential of the property was reported by G. Yeo (Noranda Exploration Co. Ltd.) as visible gold was confirmed in siliceous rock retrieve from the property during a property visit in September 1982. In 1983, Jeff Foley reported 0.700 oz. per ton gold in a pan concentrate sample from Seaforth Creek (U.S. Bureau of Mines, University of Alaska).

The main TOG showing is exposed on surface and was discovered in 1984 by prospecting. During 1984, five pits were blasted and hand mucked to expose the main TOG vein structure and outcrop(Main Showing). S.B. Ballentyne of the Geological Survey of Canada visited and sampled the Main Showing in 1985. Ballentyne reported sample assays up to 0.262 oz. per ton, gold fineness of 939.7 (93.5% Au and 6% Ag) and suggested that the mineralization is comparable to the Motherlode or bonanza style of mineralization. In 1987, the Whitehorse District Geologist, Trevor Bremner sampled the main vein and reported values up to 0.244 oz. per ton gold and Newmont Exploration sampled some pits along the main vein but reported only low gold values. Also during 1987, the 5.5 km long access road was excavated.

In October 1988, David Shaw of Resources Research Group examined the property and collected samples which returned values of 0.039 to 31.651 oz. per ton gold and outlined the exploration program for 1989. The 1989 work program included magnetometer and VLF/EM geophysical surveys, geological mapping and detailed sampling of the property and main showing. The main quartz main returned grab sample values up to 41.482 oz. per ton gold and up to 2.119 oz. per ton gold over 0.46 metres. Over a 26 metre strike length, visible gold was identified in 13 samples and coincident geophysical conductors suggested that the vein continued for at least 140 metres along strike. The geologic and structural setting of the deposit including listwaenitic alteration was

considered to be similar to Motherlode or bonanza style of mineralization also described in the Atlin Gold mining camp located 100 km to the south.

During June and July of 1990, bulk sampling was conducted on the main vein, a total of 250 lbs of material was selectively mined, hand cobbed and hand sorted into high grade visible gold bearing No. 1 ore and potentially auriferous No. 2. ore. A 80 kg. combined No. 1 and No. 2 ore sample submitted to Northern Analytical Laboratories for a bulk gold assay. This total assay returned 3.16 oz. per ton gold sample. A second bulk sample scoping cyanidation test was done on 26 kg. of No. 1 ore by Bacon Donaldson and Associates in Vancouver. The cyanidation test indicated a possible recovery of 70 - 80% gold by gravity concentration alone and returned an average metallic sieve assay of 56.81 grams per tonne gold and 112.58 grams per tonne silver.

In 1990, diamond drilling was done on the main showing in September and October. A total of 262.5 metres (860.8 ft.) was drilled in 8 HQ holes. This drill program confirmed the main vein to dip 25 to 30 degrees south, extend greater than 90 metres along strike and continue down dip a length of greater than 100 metres. Visible gold was noted in hole 5-90 and returned assays up to 1.547 oz. per ton gold over 0.18 metres (0.6 ft.).The deposit remains open at depth and along strike. The deposit may include series of sub-parallel veins as a second vein was intersected above the main vein.

## 1994 WORK PROGRAM of TRENCHING AND SAMPLING

Many property visits were made during 1994 for the purpose of prospecting along strike from existing showings, testing new targets and continuing the bulk sampling program on the property, within new and gold mineralization related lithologies along strike and new geologic/alteration zones.

### Blasting and Trenching

A total of 5 new trenches were excavated by hand blasting and mucking on the property in 1994. A total of 66 ft. were drilled in 33 holes.

The location, size and amount of sampling done on each trench is summarized in Table 2 and Table 3 of this report. Notably trenches 94-1 and 94-2 are located on TOG 2 and were excavated approximately 15 ft . apart with 94-1 lying to the east from 94-2.

TABLE 2

**Summary of 1994 Drilling & Trenching on the TOG Property**

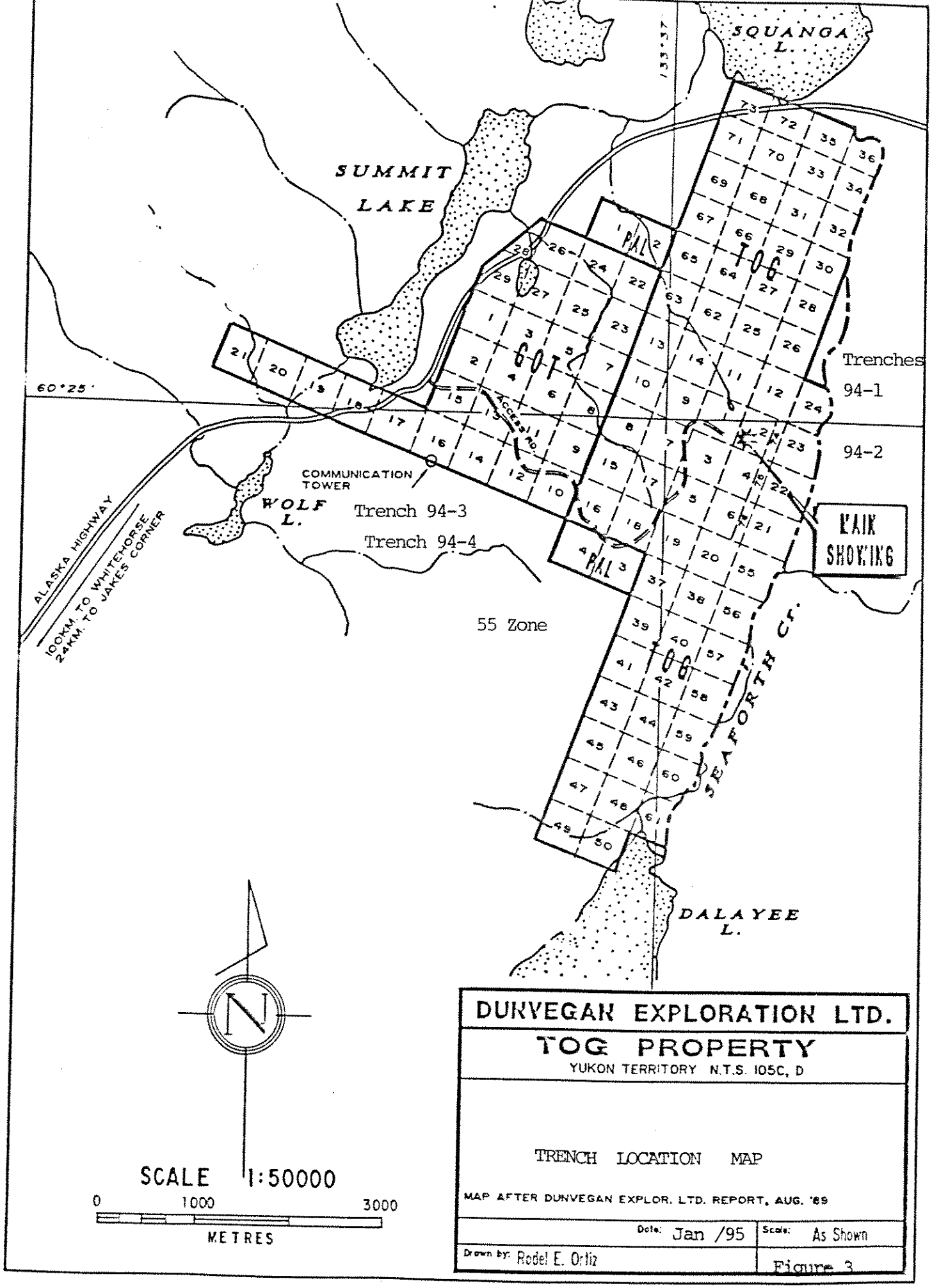
**Blasting and Trenching**

| Claim | Date | Trench Location | Trench No. | No. of Holes | Approx. Hole spacing ft. | Approx. Trench Length ft. | Approx. Trench Width ft. | Approx. Hole Depth ft. | Total Drilling by hand ft. | Cost per ft. $30.00 |
|---|---|---|---|---|---|---|---|---|---|---|
| TOG 2 YA82537 | Jan. 25/94 | 55 Zone | 55 Zone | 15 | variable 2 to 6 | 60 | 4 | 2 | 30 | $900.00 |
| TOG 2 YA82537 | Aug. 16/94 | 1200 ft S, 200 ft. E from No. 2 post of TOG 1 | 94-1 | 10 | 2 | 20 | 4 | 2 | 20 | $600.00 |
| TOG 2 YA82537 | Aug. 24/94 | 50 ft N. from 94-1 | 94-2 | 8 | 2 | 16 | 4 | 2 | 16 | $480.00 |
| TOG 9 YA82544 | Aug. 30/94 | 2600 ft. W from Main Showing | 94-3 | 10 | 3 | 30 | 5 | 4 | 40 | $1,200.00 |
| TOG 9 YA82544 | Sept. 12/94 | 2600 ft. W from Main Showing | 94-3 | 8 | 3 | 24 | 5 | 4 | 32 | $960.00 |
| Total | | | | 33 | | | | | 66 | $1,980.00 |

TABLE 3

**Summary of 1994 Sampling and Milling**

| | No. of Samples | Sample Size lbs. | Total lbs. | Location |
|---|---|---|---|---|
| Oct. 10/93 | 5 | 20 | 100 | Main Showing |
| | 5 | 2 | 10 | Main Showing |
| May 27/94 | 6 | 50 | 300 | 55 Zone, 94-1, 94-2 |
| | 5 | 50 | 250 | Every 50 ft took a 50 lb sample goin west from 55 Zone |
| | 3 | 2 | 6 | |
| Total | 24 | | 666 | |


SQUANGA L.
SUMMIT LAKE
60°25'
Trenches
94-1
94-2
COMMUNICATION TOWER
WOLF L.
Trench 94-3
Trench 94-4
ALASKA HIGHWAY
100KM. TO WHITEHORSE
24KM. TO JAKES CORNER
55 Zone
K'AIK SHOK'IK'G
DALAYEE L.
N
SCALE 1:50000
0 1000 3000
METRES
DUNVEGAN EXPLORATION LTD.
TOG PROPERTY
YUKON TERRITORY N.T.S. 105C, D
TRENCH LOCATION MAP
MAP AFTER DUNVEGAN EXPLOR. LTD. REPORT, AUG. '89
Date: Jan /95
Scale: As Shown
Drawn by: Rodel E. Ortiz
Figure 3

## Milling

Detailed work was conducted on mineral claims TOG 2 and 9. The purpose of the 1994 work program was to test graphitic and altered lithologies and faults located distally and along strike from the Main Showing. Samples were taken from each site and ranged in size from 5 to 25 kg. The samples were milled by Mr. Herman Liedtke in either a small 5 lb. mill or, during the summer months in a larger, 1 horsepower, 25 lb ball mill.

## Sampling and Analyses

Analyses of the samples were conducted by Northern Analytical Laboratories Ltd. (Appendix 1), International Plasma Laboratories Ltd. (Appendix 2), Lakefield Research (Appendix 3), and Bondar Clegg (Appendix 4). The testing procedures and results are appended to this report accordingly.

The first new test site named the 55 Zone is located on TOG 2 approximately 1200 feet South and 200 feet East from the No. 2 post of Tog claim No. 1. The results of testing hand, 6 lb and 20 lb samples ranged between 0.019 and 1.085 mg Au. as reported by Northern Analytical Laboratories Ltd.(Appendix 1). The tested material included altered argillite with alteration, minor faults and minor quartz stringers.

A bulk sample was also collected from trenches 94-1 and 94-2 located on TOG 2 approximately 50 ft. north from the Main Showing to continue tests of gold recovery. Results of this testing program are reported by Mr. Craig Hart of the Canada/Yukon Geoscience Office and International Plasma Laboratory Ltd. (Appendix 2). International Plasma Laboratory Ltd. ran a total of seven samples ranging in size from hand specimen to 20 lbs. The results of analyses ranged from 9 to 113 ppb Au. Notably, it was reported to the author that visible gold was observed in the samples during the milling process but gold values of any significant grade were not recovered in these analyses.

The gold recovery by gravity methods and gold content of samples taken from 94-1 and 94-2 were also tested by Lakefield Research (Appendix 3). An 11 kilogram sample returned an average value of 0.23 g/tonne gold with a 31.8% recovery of gold by gravity. These results contrast significantly with the gold values obtained in 1990 by Bacon Donaldson and Associates of total assay value of 3.16 oz./tonne gold with an estimated recovery of 70% to 80% of the gold using gravity methods.

A third new test zone located on TOG 9, approximately 1500 feet west from the Main Showing was also drilled, blasted and bulk sampled. Five samples, R2 1994-TOG-1,2,3,4 &5 returned $<5$ ppb gold to 19 ppb gold from Bondar Clegg (Appendix 4). The material that was sampled included fault gouge, altered argillite and minor quartz veins.

## CONCLUSIONS AND RECOMMENDATIONS

Most of the 1994 work was conducted distally to the Main Showing and known occurrences on the property. Sampling was done over broad distances as well as simply collecting and milling smaller hand samples. Overall the results confirm small amounts to 0.23 g/tonne gold in larger samples. Although visible gold was reported to have been observed in many of the samples by Mr. McLeod, Mr. Hart and Mr. Liedtke it appears that the results of milling and analyses does not confirm the gold recoveries attained during other sampling programs. Notably, the methods of gold recovery as carried out by Bacon Donaldson in 1990 yielded much higher gold values and gold recoveries.

The author recommends that investigation of optimum gold recovery methods be undertaken on known gold occurrences. The 1994 site may warrant retesting once gold recovery methods are known.

Much of the 1994 work was conducted distally from the Main Showing and possibly confirms the association of coarse gold with pervasive structures within the large alteration halo that exists on the property.

## CERTIFICATE OF QUALIFICATIONS

I, Mary P. Webster, of the City of Toronto, Ontario, do hereby certify that

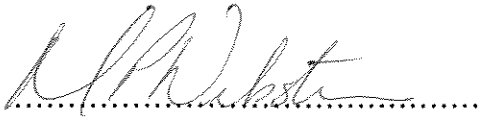
1. I am a graduate in Geology with a Bachelor of Science from the University of McMaster, Ontario, in 1983.

2. Since graduation I have been engaged in mining exploration in Canada.

3. I am a director of Dunvegan Exploration Ltd. and have a vested interest in the company through direct ownership of common shares of Dunvegan Exploration Ltd.

4. I did not plan, supervise, carry out nor witness any of the work conducted during 1994.

5. I submit this letter for inclusion in assessment report material forms only.



Mary P. Webster
January 5, 1995

**DUNVEGAN EXPLORATION LIMITED**
**TOG PROPERTY**
**NTS 105 C/5**

## STATEMENT OF COSTS

| | | | |
|---|---|---|---|
| **WAGES** | No. of man days | 40 | |
| | Rate per Day | $50.00 | |
| | (Mucking, Sampling, Milling etc.) | | |
| | | | $2000.00 |
| **TRANSPORTATION** | | | |
| | No of Days | 10 | |
| | Rate per Day | $50.00 | |
| | | | $500.00 |
| **ASSAYS** | Lakefield Research | $962.50 | |
| | NAL | $522.16 | |
| | IPL and Bondar Clegg | nil | $1484.16 |
| **MILLING** | Herman Liedtke | | $500.00 |
| | Mill Restoration | 1HP Motor | $234.00 |
| | | Misc. Repairs | $100.00 |
| **DRILLING** | 66 ft. at $30.00 per ft | | $1980.00 |
| | Powder, steel, caps | | $233.00 |
| | Jack Hammer Rental | | $500.00 |
| | Skidoo Rental | | $100.00 |
| | Gas & Meals | | $447.00 |
| | Office & Telephone | | $100.00 |
| | Truck Rental | | $650.00 |
| | Sample Shipment | | $85.00 |
| **REPORT PREPARATION** | | | |
| | Typing, copying and supplies | | $145.00 |
| | Wages | | $500.00 |
| Total | | | $9,558.16 |

# APPENDIX 1

Northern Analytical Laboratories ltd.

14/07/94 Assay Certificate Page 1

Gord McLeod WO#25256

| Sample # | Sample wt. grams | Au mg | |
|---|---|---|---|
| D. Core A-B | 0.025 | 4.203 | ≈ 2.1 GRAMS |
| D. Core C | 0.062 | 1.382 | 1.3 GRAMS |
| 6lb Bulk — #1 | 0.140 | 1.085 | .4 GRAMS |
| 20 lb Bulk — #1 | 0.194 | 0.019 | |
| 80% Quartz — #1 | 0.089 | 0.826 | .2 GRAMS |

Certified by

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph: (403) 668-4968 Fax: (403) 668-4890

# APPENDIX 2

INTERNATIONAL PLASMA LABORATORY LTD.

# CERTIFICATE OF ANALYSIS
# iPL 94B2305

2036 Columbia Street
Vancouver, B.C.
Canada V5Y 3E1
Phone (604) 879-7878
Fax (604) 879-7898

## Canada/Yukon Geoscience Office

Out: Mar 03, 1994 Project: None Given
In : Feb 23, 1994 Shipper: Craig Hart
PO#: Shipment: ID=C031000
Msg: Au(FA/AAS 30g) Au(FA/Grav 1 AT)
Msg: Au(CN/AAS) Au(Metallic)

## Document Distribution

| | EN | RT | CC | IN | FX |
|---|---|---|---|---|---|
| 1 Canada/Yukon Geoscience Office | 1 | 2 | 2 | 2 | 1 |
| Box 2703 (F-3) | DL | 3D | 5D | BT | BL |
| Whitehorse | 0 | 0 | 0 | 1 | 0 |
| YT Y1A 2C6 | | | | | |
| ATT: Craig Hart | Ph:403/667-8519 | | | | |
| | Fx:403/667-7074 | | | | |

## 1 Samples

1= Rock 0= Soil 0= Core 0=RC Ct 0= Pulp 0=Other [006109:10:39:49030394]

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Raw Storage: | 03Mon/Dis | -- | -- | -- | -- | -- | Mon=Month Dis=Discard |
| Pulp Storage: | 12Mon/Dis | -- | -- | -- | -- | -- | Rtn=Return Arc=Archive |

## Analytical Summary

| ## | Code | Method | Title | Limit Low | Limit High | Units | Description | Element | ## |
|---|---|---|---|---|---|---|---|---|---|
| 01 | 802M | Spec | Total | See Data Pg | | mpl g | Weight (2 Decimal) | Wt | 01 |
| 02 | 802M | Spec | +150M | See Data Pg | | mpl g | Weight (2 Decimal) | Wt | 02 |
| 03 | 802M | Spec | -150M | See Data Pg | | mpl g | Weight (2 Decimal) | Wt | 03 |
| 04 | 362MFAGravAu+150 | | | See Data Pg | | mg | Au FA/Grav One Assay Ton | Gold | 04 |
| 05 | 362MFAGravAu-150 | | | See Data Pg | | oz/st | Au FA/Grav One Assay Ton | Gold | 05 |
| 06 | 362MFAGravAu Ttl | | | See Data Pg | | oz/st | Au FA/Grav One Assay Ton | Gold | 06 |
| 07 | 313MFA/AAS | FA | Au | 2 | 10000 | ppb | Au FA/AAS finish 30g | Gold | 07 |
| 08 | 361MFAGrav | FA | Au | See Data Pg | | oz/st | Au FA/Grav 1/2 Assay Ton | Gold | 08 |
| 09 | 361MFAGrav | CN | Au | See Data Pg | | oz/st | Au FA/Grav 1/2 Assay Ton | Gold | 09 |

EN=Envelope # RT=Report Style CC=Copies IN=Invoices FX=Fax(1=Yes 0=No)
DL=DownLoad 3D=3-1/2 Disk 5D=5-1/4 Disk BT=BBS Type BL=BBS(1=Yes 0=No)

Totals: 2=Copy 2=Invoice 0=3-1/2 Disk 0=5-1/4 Disk

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# CERTIFICATE OF ANALYSIS
## iPL 94B2304

Client: Canada/Yukon Geoscience Office  iPL: 94B2304  Out: Mar. 03, 1994  Page 1 of 1  Section 1 of 1
Project: None Given  7 Rock  In: Feb 23, 1994  [006013:14:42:49030394]  Certified BC Assayer: David Chiu

| Sample Name | | Au ppb | Ag ppm | Cu ppm | Pb ppm | Zn ppm | As ppm | Sb ppm | Hg ppm | Mo ppm | Tl ppm | Bi ppm | Cd ppm | Co ppm | Ni ppm | Ba ppm | W ppm | Cr ppm | V ppm | Mn ppm | La ppm | Sr ppm | Zr ppm | Sc ppm | Ti % | Al % | Ca % | Fe % | Mg % | K % | Na % | P % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T-47 182494 | L | 28 | < | 34 | 40 | 80 | 17 | < | < | 2 | < | < | 0.2 | 20 | 28 | 727 | < | 100 | 115 | 446 | 5 | 135 | 26 | 12 | 0.28 | 4.11 | 1.28 | 2.88 | 1.58 | 0.48 | 1.07 | 0.04 |
| CH93 48-1 | R | 9 | 0.1 | 1 | 9 | 10 | 7 | < | < | 2 | < | < | < | 1 | 2 | 374 | < | 101 | 8 | 55 | 5 | 59 | 10 | 1 | 0.02 | 2.36 | 0.13 | 0.51 | 0.16 | 0.54 | 0.89 | 0.01 |
| CH93 48-3 | R | 12 | 0.1 | < | 2 | 12 | 6 | < | < | < | < | < | < | 1 | 2 | 35 | < | 192 | 14 | 49 | < | 3 | 1 | < | < | 0.41 | 0.08 | 0.45 | 0.13 | 0.12 | 0.02 | < |
| J 93 42-3 | R | 113 | 0.1 | 2 | 13 | 184 | 12 | < | < | 4 | < | < | 0.8 | 12 | 7 | 175 | < | 73 | 87 | 379 | < | 78 | 7 | 9 | 0.11 | 1.85 | 1.87 | 1.88 | 0.99 | 0.67 | 0.01 | 0.01 |
| JUBE-3 (5.00g) | R | 36 | 0.4 | 39 | 37 | 141 | 9 | 8 | < | 2 | < | < | 0.2 | 22 | 61 | 871 | 6 | 196 | 86 | 515 | 29 | 396 | 113 | 11 | 0.31 | 3.45 | 2.48 | 2.69 | 2.09 | 1.08 | 1.27 | 0.11 |
| JUBE-4 (8.00g) | R | 65 | 0.4 | 35 | 21 | 65 | < | 7 | < | 1 | < | < | 0.1 | 22 | 46 | 1412 | < | 160 | 87 | 467 | 24 | 300 | 99 | 13 | 0.30 | 3.17 | 2.65 | 2.61 | 2.35 | 1.16 | 0.96 | 0.10 |
| JUBE-5 | R | 64 | 0.6 | 46 | 25 | 194 | 30 | 10 | < | 11 | < | < | 0.4 | 14 | 139 | 1738 | < | 202 | 107 | 205 | 9 | 43 | 40 | 7 | 0.05 | 3.13 | 0.37 | 2.14 | 1.12 | 1.45 | 0.24 | 0.03 |

BULK SAMPLE

DIKE
DIKEMARGIN ] DDH#3 @ 80'

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Min Limit | 2 | 0.1 | 1 | 2 | 1 | 5 | 5 | 3 | 1 | 10 | 2 | 0.1 | 1 | 1 | 2 | 5 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Max Reported* | 9999 | 99.9 | 20000 | 20000 | 20000 | 9999 | 9999 | 9999 | 9999 | 999 | 999 | 99.9 | 999 | 999 | 9999 | 999 | 9999 | 999 | 9999 | 9999 | 9999 | 999 | 99 | 1.00 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 5.00 | 5.00 |
| Method | FAAA | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP |

--=No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate

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# CERTIFICATE OF ANALYSIS
## iPL 94B2305

Client: Canada/Yukon Geoscience Office  iPL: 94B2305  Out: Mar 03, 1994  Page 1 of 1  Section 1 of 1
Project: None Given  1 Rock  In: Feb 23, 1994  [006109:10:43:49030394]  Certified BC Assayer: David Chiu

| Sample Name | | Total Smpl g | +150M Smpl g | -150M Smpl g | Au+150 mg | Au-150 oz/st | Au Ttl oz/st | FA Au ppb | FA Au oz/st | CN Au oz/st |
|---|---|---|---|---|---|---|---|---|---|---|
| JUBE - 5 | R | 251.93 | 0.41 | 251.52 | 0.001 | 0.002 | 0.002 | 64 | 0.003 | 0.001 |
| Min Limit | | 0.01 | 0.01 | 0.01 | 0.001 | 0.001 | 0.001 | 2 | 0.002 | 0.001 |
| Max Reported* | | 99999.00 | 99999.00 | 99999.00 | 1000.000 | 1000.000 | 1000.000 | 10000 | 1000.000 | 1000.000 |
| Method | | Spec | Spec | Spec | FAGrav | FAGrav | FAGrav | FA/AAS | FAGrav | FAGrav |

—=No Test  ins=Insufficient Sample  S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined  m=Estimate/1000  %=Estimate %  Max=No Estimate

# APPENDIX 3

An Investigation to

# DETERMINE THE GOLD CONTENT

of a sample
submitted by

## DUNVEGAN EXPLORATION LTD.

Progress Report No. 1

Project No. L.R. 4370-076

NOTE:

This report refers to the samples as received.



**LAKEFIELD RESEARCH**
**A DIVISION OF FALCONBRIDGE LIMITED**
185 Concession Street, Lakefield, Ontario, K0L 2H0
Tel: (705) 652-2000
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May 26, 1994

# ABSTRACT

Laboratory tests were conducted on an ore sample submitted by Gord McLeod of Dunvegan Exploration Ltd.

The objective of the testwork was to determine the total gold content of the sample as received. The total gold content of the ore sample as received was determined to be 0.23 g/tonne Au.

# INTRODUCTION

Instructions were received from Gord McLeod of Dunvegan Exploration Ltd. in a letter confirming the telephone conversation with Mr. Steve Williams, Manager - Mineral Processing, at Lakefield Research.

The purpose of the testwork was to determine the total gold content of the sample as received.

**LAKEFIELD RESEARCH**

R.G. Irwin
Senior Metallurgist

S.R. Williams
Manager - Mineral Processing

Experimental testwork: J. Hughes
Report preparation: B.J. Scobie

# SUMMARY

## 1. Sample Description

A rock sample, total weight 11 kg, was received at Lakefield Research by parcel post, and given our reference no. LR9444946.

## 2. Metallurgical Results

### 2.1 Metallurgical Procedure

The standard procedure for the determination of gold using gravity concentration was followed. The objective of the procedure is to concentrate free gold into a small weight gravity concentrate all of which is fire assayed. This eliminates any sampling problems, nugget effect, which occurs with samples of this type.

The entire sample is treated by first jaw, cone and roll crushed to minus 10 mesh (1700 µm) as feed to a 10 kg ball mill. All of the sample was then ground to 56% passing 200 mesh (74 µm). The ground product was fed by hand to an eighth size deck Wilfley shaking table to produce a table gravity concentrate and the table gravity tail. The table gravity concentrate was further upgraded using a Mozley mineral separator. The purpose of this stage is to produce a high grade gold concentrate containing the free gold at a concentrate weight of approximately 10 grams. This final concentrate is visually inspected under a binocular microscope and then the entire sample fire assayed for gold content.

The Wilfley table gravity tabling and the Mozley separator gravity tailing were combined, filtered and dried.

Four individual assay samples were removed from the tailing for fire assay. These four samples are assayed to determine if inconsistencies exist which would indicate poor tabling results. The reason for multiple assaying of tail is in case of a "nugget" effect there.

The average of the four tailing gold assays are used to calculate the total gold content of the sample.

## 2.2 Metallurgical Results

The overall gold content of the sample as received was 0.23 g/t Au, 31.8% of the gold was recovered in the gravity concentrate which weighted 8.53 grams and contained 95.4 g/t of gold. 68.2% of the gold remained in the combined gravity tail. The analyses of the four gravity tailing samples were 0.23, 0.14, 0.14 and 0.13 g/t Au for an average value of 0.16 g/t Au.

## 3. Mineralogical Results

Before fire assay analyses for gold, the Mozley concentrate was examined under a binocular microscope to determine the presence of visible free gold. No visible free gold was found. The concentrate contained some coarse rock fragments 100 μm in diameter, finer silver white sulphide (arsenopyrite), pyrite and other silicates.

The recovery of the sulphides indicates that gravity separation was successful.

# DETAILS OF TESTS

**Project No. 4370 - 076** Date: March 03/94
**Test No. 1** Technician: JH

**Purpose:** To determine the gold content of an ore sample by a gravity process.

**Procedure :** The sample was tabled on the Wilfley table. The concentrate was upgraded on the Mozley table. The Mozley table concentrate was assayed for Au. The table tails were sampled in duplicate and assayed for gold.

**Feed:** Sample crushed to - 10 mesh

**Grind:** 10 minutes /10kg at 50% solids
Product 56 % passing 74 µm

**Metallurgical Balance:**

| Product | | Amount grams | Assays Au g/tonne | % Dist,r Au |
|---|---|---|---|---|
| Gravity Conc. | | 8.53 | 95.4 | 31.8 |
| Gravity Tail | Sple 1 | | 0.23 | |
| | Sple 2 | | 0.14 | |
| | Sple 3 | | 0.14 | |
| | Sple 4 | | 0.13 | |
| | Avg. | 10905 | 0.16 | 68.2 |
| **Feed Sample (calc)** | | **10914** | **0.23** | **100.0** |

**Company** Lakefield Research **4370-076**

(Deposit) **Size Distribution Analysis**

**Sample:** Table Tail **Test No.:** 1

| Size | | Weight | % Retained | | % Passing |
|---|---|---|---|---|---|
| Mesh (Tyler) | µm | grams | Individual | Cumulative | Cumulative |
| 28 | 589 | 0.0 | 0.0 | 0.0 | 100.0 |
| 35 | 417 | 0.0 | 0.0 | 0.0 | 100.0 |
| 48 | 295 | 7.8 | 5.1 | 5.1 | 94.9 |
| 65 | 208 | 12.4 | 8.1 | 13.2 | 86.8 |
| 100 | 147 | 15.3 | 10.0 | 23.2 | 76.8 |
| 150 | 104 | 17.6 | 11.5 | 34.7 | 65.3 |
| 200 | 74 | 14.8 | 9.7 | 44.4 | 55.6 |
| 270 | 53 | 12.2 | 8.0 | 52.3 | 47.7 |
| 400 | 37 | 9.4 | 6.1 | 58.5 | 41.5 |
| Pan | -37 | 63.6 | 41.5 | 100.0 | 0.0 |
| **Total** | - | **153.1** | **100.0** | - | - |
| **K80** | **166** | | | | |

# APPENDIX 4

REPORT: V94-01170.0 ( COMPLETE )

DATE PRINTED: 24-OCT-94
PROJECT: NONE GIVEN PAGE 1A

| SAMPLE NUMBER | ELEMENT UNITS | Au30 PPB | Ag PPM | Cu PPM | Pb PPM | Zn PPM | Mo PPM | Ni PPM | Co PPM | Cd PPM | Bi PPM | As PPM | Sb PPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| R2 1994-TCG-1 | | <5 | <0.2 | 55 | 23 | 44 | 71 | 100 | 17 | <1.0 | <5 | <5 | <5 |
| R2 1994-TCG-2 | | <5 | <0.2 | 432 | 7 | 45 | 1 | 247 | 38 | <1.0 | <5 | 67 | <5 |
| R2 1994-TCG-3 | | <5 | <0.2 | 423 | 7 | 72 | <1 | 264 | 35 | <1.0 | <5 | 62 | <5 |
| R2 1994-TCG-4 | | <5 | 1.6 | 1923 | 17 | 96 | <1 | 65 | 18 | <1.0 | <5 | <5 | <5 |
| R2 1994-TCG-5 | | 19 | 0.9 | 1447 | 6 | 62 | 2 | 56 | 17 | <1.0 | <5 | <5 | <5 |
| | | | 1.2 | 1685 | 14 | 95 | <1 | 60 | 18 | <1.0 | <5 | <5 | <5 |

# TOG - Property Assessment

**Craig J.R. Hart**

The TOG (Tons of Gold) mineral occurrence near Squanga Lake in southern Yukon is owned by Gordie McLeod and Dunvegan Exploration of Whitehorse, Yukon. This deposit type represents a style of gold-vein mineralization that has only recently been recognized in the Yukon. Visible gold, high gold grades (up to 41 ounces per ton) and the free-milling nature of the gold, highlights the potential of this deposit-type, and this occurrence in particular. The geology and mineralization at the TOG property have similarities to deposits of the Mother Lode district in California, the Bridge River and Cariboo/Barkerville camps in British Columbia. Deposits similar to the TOG are the likely source of the coarse placer gold in the Atlin area. As a result, the TOG property has the potential to host gold in economically significant quantities and grades.

While prospecting for nickle in 1972, local prospector Gordie McLeod discovered chromite in ultramafic rocks and staked claims in the area. Additional prospecting in 1982 around the chromite occurrence resulted in the discovery of chrome micas (mariposite/fuchsite) and visible gold in altered basic rocks. Additional prospecting in1984 resulted in the discovery of a quartz vein along which further exploration (trenching and sampling) was concentrated. This was followed up with CAT trenching and road building in 1988. Magnetometer and VLF-EM surveys were perfomed in 1989. In 1990, eight HQ diamond drill holes totalling 263 metres were drilled from three drill stations. All drill holes intersected the vein.

The property is underlain by basic volcanic rocks and ultramafic rocks of the Cache Creek Group. Most of the units are altered and all contacts between them are faulted or sheared. The volcanics are dominated by massive, chloritic basalt or greenstone. The ultramafic rocks are mainly serpentinized peridotite. At the TOG the ultramafic rocks and the volcanics are faulted together along a shear zone. The shearing has resulted in a graphitic schist zone that is commonly greater than ten metres thick. The fault zone is intensively altered and replaced by a silica-carbonate assemblage known as ***listwaenite*** that is characterized by vivid green chromium micas.

**The Vein**

The quartz vein is continuous throughout the zone and its true width varies from 1.8 to 2.9 metres. It strikes approximately 140° and dips to the southwest at 25° to 33°. Drill hole intersections indicate that the vein is continuous over a strike length of at least 80 metres and continues down-dip at least 30 metres. The vein remains open at depth and in both directions. The veins are dominantled by massive white waxy quartz, but may be banded along their margins. Thin, black, graphitic ribbons separate 0.5-10 cm wide bands of quartz. There are two phases of quartz. The earlier phase is dominant and comprises most of the vein. It is composed of massive, white, structureless, waxy bull quartz. The younger phase is compsed of thin stringers of grey, transucent, locally cockade and vuggy quartz. Sulphide minerals in the vein are sparse (<0.5%) and include spahlerite, tetrahedrite, chalcopyrite and galena.

## Gold

High gold grades are associated with the quartz veins and not with the listwaenitic alteration. Gold values within the quartz veins range from spectacularly high (>10 opt) to non-existant. Gold occurs as native gold and is often visible in clusters or along planes. In surface exposures, the distribution of gold within the quartz veins is not homogeneous throughout the vein but appears to be locallized along a narrow (6") zone along the footwall. The gold is generally coarse-grained and metallurgical tests indicate that it is free-milling and not tied up in the sulphide fraction. Although this characteristic results in high recovery and low milling costs, the downside is in sampling and analyses. Conventional channel sampling and fire-assay analyses do not give meaningful results since the gold may locally occur in high grade shoots and the coarse nature of the gold generally erratic, and generally low results. In order to properly assess the grade of this occurrence, it is strongly recommended that a systematic sampling program using large (5-10 kg) samples and that gold be determined using the metallics process. Alternatively, fewer bulk samples (25-500 kg) could be used to evaluate the grade.

## An appraisal

The TOG property has the potential to become a gold producer. This potential can only be realized with additional exploration. The nature of veins of this sort is that gold occurs in high-grade shoots or pockets. Samples from surface exposures and drill-core intersections locally return high-grades but over narrow widths. Although additional drilling on the property could confidently determine the width, extent and geometry of the vein, the sample size and sparse distribution of intersections may not be capable of adequatly defining the resource. In my opinion, a small, but aggressive underground exploration effort may be the best method to adequatly determine the economic viability of this property.

If an average grade of four ounces per ton over a width of six inches can be maintained while mining a 3 foot wide adit, then a grade of 0.666 opt should be obtained.

In addition to the vein, there are indications that a stockwork quartz zone in the graphitic footwall may carry elevated gold grades. This zone is much wider than the vein and could provide significantly more tonnage, although at a lower grade, than the vein. This zone however, could be tested with a surface drilling program.

**This report was writen for the exclusive use of Gordie McLeod and is not intended for general distribution or inclusion in other reports.**

**Craig J.R. Hart**
**Project Geologist**
**Canada/Yukon Geoscience Office**
**Whitehorse, Yukon**
**30 November 1994**