

MAP No.

105 D 8

ASSESSMENT REPORT   
PROSPECTUS   
CONFIDENTIAL   
OPEN FILE

DOCUMENT NO.: 091730  
MINING DISTRICT: WHITEHORSE  
TYPE OF WORK: TRENCHING, GEOLOGY

REPORT FILED UNDER: DUNVEGAN V.G. SYNDICATE

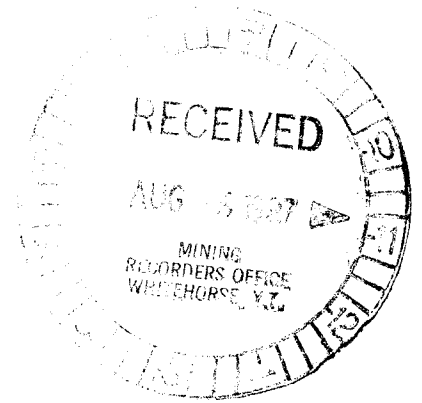
DATE PERFORMED: 14 May - 4 June 1987      DATE FILED: Aug. 6, 1987

LOCATION	LAT.	60°22'N	AREA: MARSH LAKE
	LONG.	134°12'W	

CLAIM NAME & NO.      BUG 120      YA87163-166, YA94879-886  
YA95186-189, YA97369-372

VALUE \$	7,200.00
WORK DONE BY:	G.S. DAVIDSON
WORK DONE FOR:	DUNVEGAN V.G. SYNDICATE
DATE TO GOOD STANDING	REMARKS:
	#63 MARSH

ASSESSMENT REPORT



**09 17 30**

**BUG 1-20 Claims**

YA87163-87166, YA94879-94886  
YA95186-95189, YA97369-97372  
NTS 105-D-8  
Whitehorse Mining District  
Latitude 60°22' N  
Longitude 134°12' W

For:

DUNVEGAN V. G. SYNDICATE  
Box 4063, Whitehorse, Y.T.

By:

G. S. DAVIDSON, P.Geol.

July 1987

**09 17 30**

This report has been examined by  
the Geological Evaluation Unit  
under Section 53 (4) Yukon Quartz  
Mine Act and is allowed as  
representation work in the amount  
of \$ 7200.00.

*NAEmond*

*fo* Regional Manager, Exploration and  
Geology for Commissioner  
of Yuk.

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## INTRODUCTION

The BUG 1-20 mineral claims are located at the southeastern end of Marsh Lake covering quartz breccia veins occurring in "listwaenite", felsic volcanic and sedimentary rocks. Previous exploration work outlined anomalous gold values (up to 750 ppb) in soil samples and in drill core (up to 2.0 g/ton).

This report, prepared at the request of G. MacLeod of Whitehorse, describes bulldozer trenching undertaken on the property from 14 May to 4 June, 1987.

The writer mapped and sampled the trenches described in this report.

## LOCATION AND ACCESS

The BUG claims are located 70 km southeast of Whitehorse, Yukon Territory and 5 km west of the Judas Creek campground on the Alaska Highway (approximately Mile 868), NTS Map Sheet 105-D-8. Approximate geographical co-ordinates are 60°22' north latitude and 134°12' west longitude. The property location is shown in Figures 1 and 2.

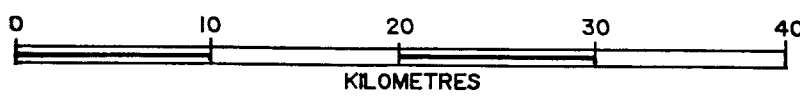
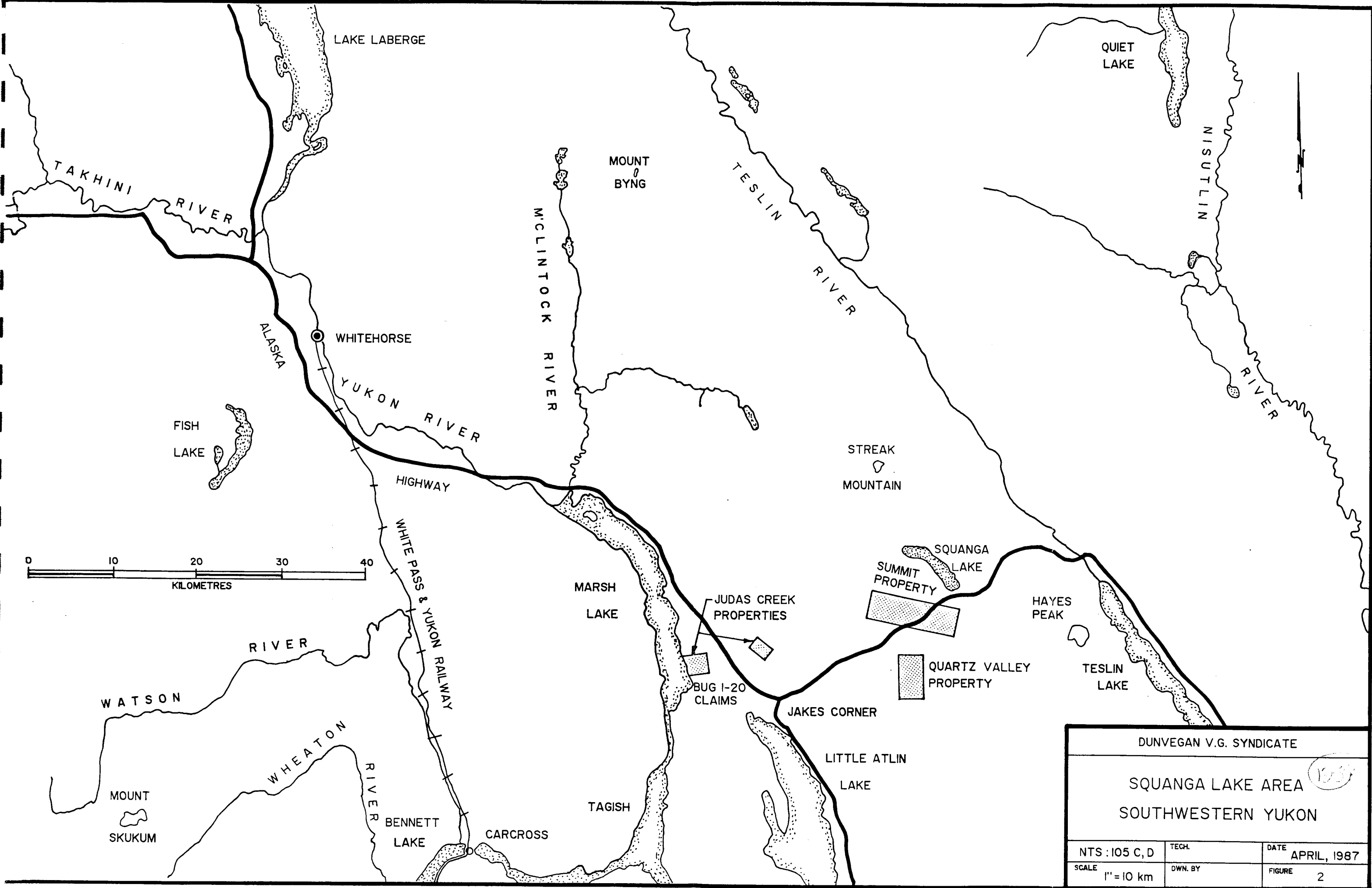
Access to the claims is via a two-wheel-drive road which branches off the Alaska Highway approximately 100 m south of Judas Creek. This road passes by the Judas Creek hay farm and then splits; the north fork accesses the trenches.



**Yukon Territory**  
 Area: 478,034 sq. km.  
 Population: 25,000  
 Capital: Whitehorse



FIGURE 1  
 LOCATION MAP  
 MARSH PROPERTY



DUNVEGAN V.G. SYNDICATE		
SQUANGA LAKE AREA <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">10/57</span>		
SOUTHWESTERN YUKON		
NTS: 105 C, D	TECH.	DATE
SCALE 1" = 10 km	DWN. BY	APRIL, 1987
		FIGURE 2

## PHYSIOGRAPHY, CLIMATE, VEGETATION

The BUG property is situated in the floor of the Whitehorse Trough where elevations range from 670 m (2200') to 793 m (2600'). A series of north-westerly trending rocky ridges separated by flat bushy areas rise from the Marsh Lake shoreline onto Judas Mountain. One small swampy stream flows southerly through the claims, emptying into Marsh Lake. Outcrop is common along the many ridges in the area. A prominent northerly trending 25 m high bluff passes through the eastern side of the claim block.

Southwestern Yukon has a dry subarctic climate with summer maximums of 25°C and winter minimums of -45°C. Annual precipitation averages 40 cm. Exploration can be conducted on a year-round basis on the property.

Vegetation in the Marsh Lake district consists of poplar, jackpine and spruce forest. Buckbrush ground cover is thick in swampy areas.

## PROPERTY

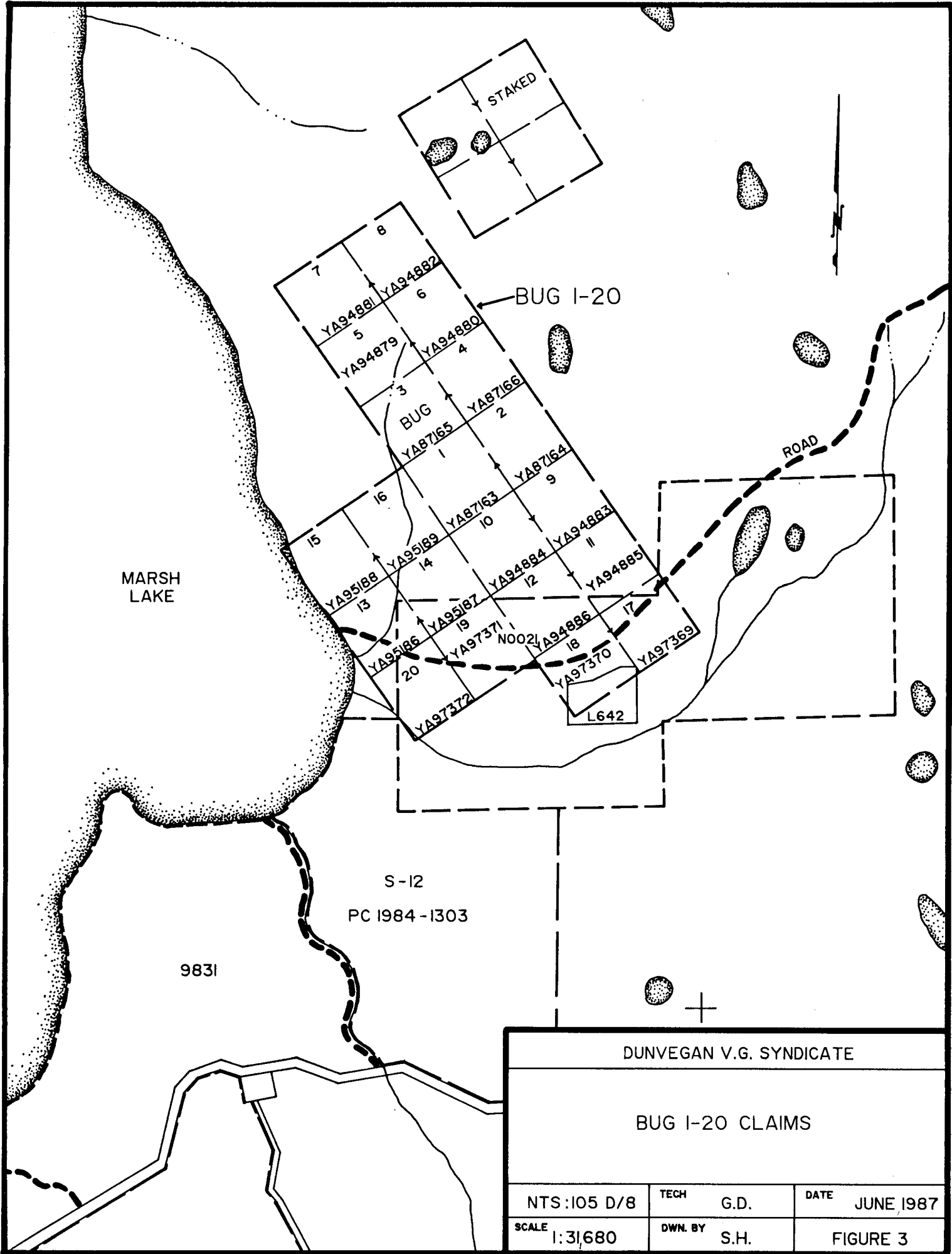
Twenty contiguous mineral claims (BUG 1-20) are recorded in the office of the Whitehorse Mining Recorder. Figure 3 shows the claim plan and property data is listed in Table I.

Table I  
Property Data

<u>Claim Name</u>	<u>Grant Numbers</u>	<u>Expiry Date*</u>	<u>Registered Owner</u>
BUG 1-4	YA87163-YA87166	25 May 1991	Dunvegan V.G. Syndicate
BUG 5-12	YA94879-YA94886	25 May 1991	Ditto
BUG 13-16	YA95186-YA95189	25 May 1991	Ditto
BUG 17-20	YA97369-YA97372	25 May 1991	Ditto

\*Expiry date applied for

A detailed description of regional and property geology and history of exploration was presented by M. Webster in an assessment report on the BUG 1-4 claims, dated June 1986. A brief summary is presented in the following sections.



DUNVEGAN V.G. SYNDICATE		
BUG I-20 CLAIMS		
NTS:105 D/8	TECH G.D.	DATE JUNE 1987
SCALE 1:31,680	DWN. BY S.H.	FIGURE 3

## REGIONAL GEOLOGY

The Marsh Lake area is underlain by stratified volcanic and meta-sedimentary units of the Whitehorse Trough and Atlin Terranes. Younger granitic rocks of the Coast Plutonic complex intrude the older sequences.

Table II  
Table of Formations

QUATERNARY	Glacial till, alluvial and glacial sands and gravel
LATE CRETACEOUS TO EARLY TERTIARY	Granite and quartz syenite intrusion; rhyolite dyke; andesite, basalt, dacite flows, tuffs, breccias and minor intrusions
LOWER-MIDDLE JURASSIC LABERGE RIVER GROUP	Conglomerate, siltstone, argillite, greywacke
UPPER TRIASSIC LEWES RIVER GROUP	Andesite, basalt, volcanic breccia, limestone
PENNSYLVANIAN(?) AND PERMIAN TAKU GROUP	Greenstone, limestone, breccia, chert, serpentized ultramafic rocks
PRECAMBRIAN YUKON GROUP	Quartz-mica and quartz chlorite schists, feldspathic gneiss, quartzite, amphibolite

Structurally strong north-south trending faults are associated with movements in the Whitehorse Trough.

## EXPLORATION HISTORY

The property was probably originally staked in 1898 as the Cooper Bell claim by J. A. Collins. More recently (1964-1985) the claims have been held by various owners. G. Macleod staked the BUG 1-4 claims on June 10, 1985.

Noranda Exploration Company ran a soil geochemical survey in 1986. They outlined a gold anomaly (750 ppb) located at grid station 1+75W on Line 1+00N. This anomaly was the primary target for the 1987 trenching program.

## PROPERTY GEOLOGY

The BUG claims are underlain by foliated sedimentary and volcanic rocks of the Paleozoic to Precambrian Taku Group. Lenses of serpentized peridotite occur in the schistose units. Altered quartz-carbonate rocks ("listwaenite") outcrop along a prominent northerly trending bluff and around ultramafic lenses. Quartz veins up to 1.5 m wide cut the foliated rocks.

T. J. Bremner of DIAND mapped the property in July, 1987; he reports: "The main listwaenite body trends 160° occupying a fault zone which separates greywacke, pebbly greywacke and slate of the Jurassic Laberge Group from massive green porphyritic to tuffaceous rocks of the Permo-Triassic Cache Creek Group (TAKU GROUP)."

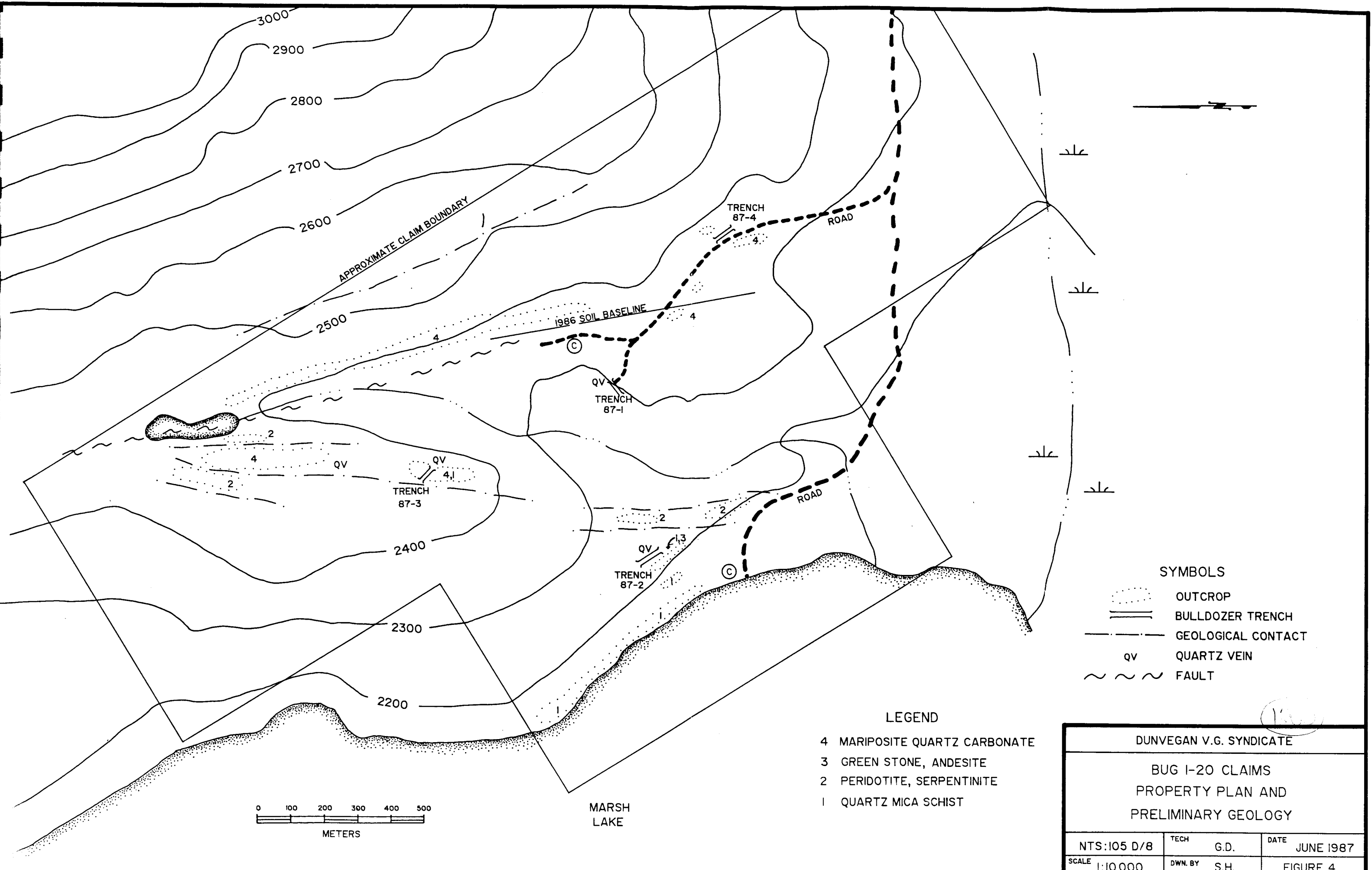
The preliminary property geology is shown in Figure 4.

## 1987 EXPLORATION PROGRAM

### Introduction

The 1987 work program was undertaken to evaluate gold geochemical anomalies produced by Noranda and to better expose several quartz veins. The initial phase of the work program (May 14 - June 4, 1987) is documented in the following sections. A second phase of bulldozer and blast trenching is currently in progress.

A D8K caterpillar bulldozer began operating on the property on May 14. Existing roads were upgraded and four kilometers of new road were developed to access the trenches. Trenches 87-1 to 87-4 locations are shown in Figure 4 and individual trench plans are presented in Figures 5, 6, 7 and 8.



**SYMBOLS**

	OUTCROP
	BULLDOZER TRENCH
	GEOLOGICAL CONTACT
qv	QUARTZ VEIN
	FAULT

- LEGEND**
- 4 MARIPOSITE QUARTZ CARBONATE
  - 3 GREEN STONE, ANDESITE
  - 2 PERIDOTITE, SERPENTINITE
  - 1 QUARTZ MICA SCHIST

DUNVEGAN V.G. SYNDICATE		
BUG 1-20 CLAIMS PROPERTY PLAN AND PRELIMINARY GEOLOGY		
NTS: 105 D/8	TECH G.D.	DATE JUNE 1987
SCALE 1:10000	DWN. BY S.H.	FIGURE 4

## 1987 EXPLORATION PROGRAM (cont'd)

### Trenching

Trench 87-1 (Figure 5) was excavated on a 750 ppb Au soil anomaly. The trench exposed a pyrite rich (up to 5%) pebble unit with flow features that probably formed as a turbidite or tuffaceous flow. This unit lies in contact with Laberge Group sediments, mainly slates on the east side of the trench. A felsic dyke intrudes the sediments along the contact. The west side of the trench exposes serpentinite and talc schist (T. Bremner). Brecciated quartz veins cut the pebble unit, trending in a northerly direction.

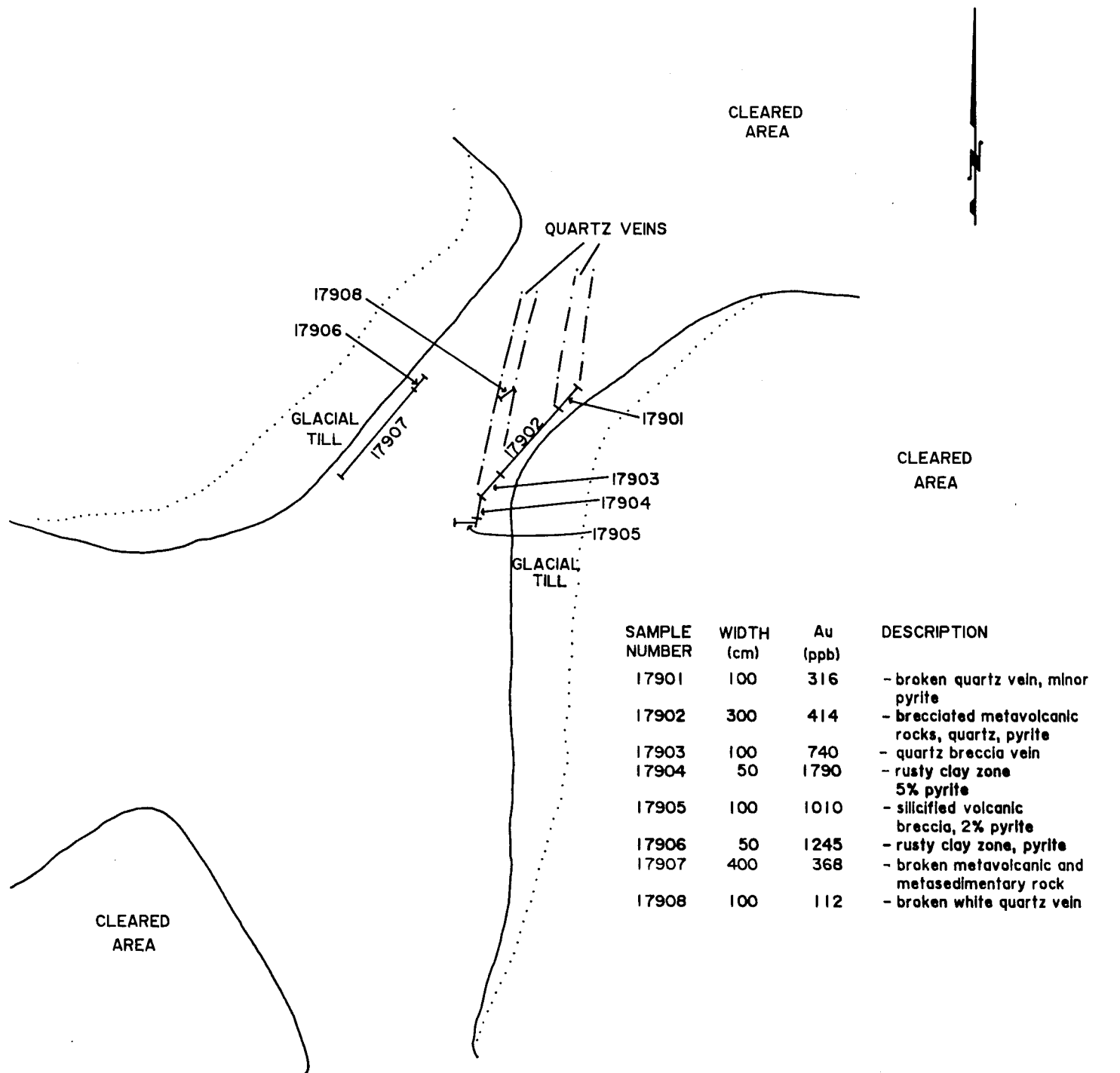
Chip samples were collected on the trench floor and a rusty clay zone (sample 17904) containing 5% pyrite returned the strongest gold value: 1790 ppb (over 50 cm). Brecciated pyrite rich sections of the pebble unit recorded a gold value of 500 ppb over four meters (samples 1902 and 1903) and a felsic dyke (sample 17905) returned 1010 ppb Au over one meter. The white quartz veins with no visible sulphides returned low gold values.

Trench 87-2 (Figure 6) exposes a quartz vein occurring in foliated Laberge Group sedimentary rocks. The vein uncovered over 80 meters is 0.3 to 1.2 m wide. Low gold values were recorded in six samples collected from the trench. Altered limestone uncovered at the northern end of the trench contains up to 1.5% scheelite.

Trench 87-3 (Figure 7) exposes quartz veins occurring in listwaenite and talc schist. Serpentinite lies at the western edge of the trench. No samples were collected from this trench.

Trench 87-4 (Figure 8) contains listwaenite cut by black and orange clay seams. Samples returned trace gold values.

The four trenches have been expanded and deepened after the period described in this report. T. J. Bremner of the Department of Indian and Northern Development has compiled a more recent geological description of the trenches in a report dated July 1987.

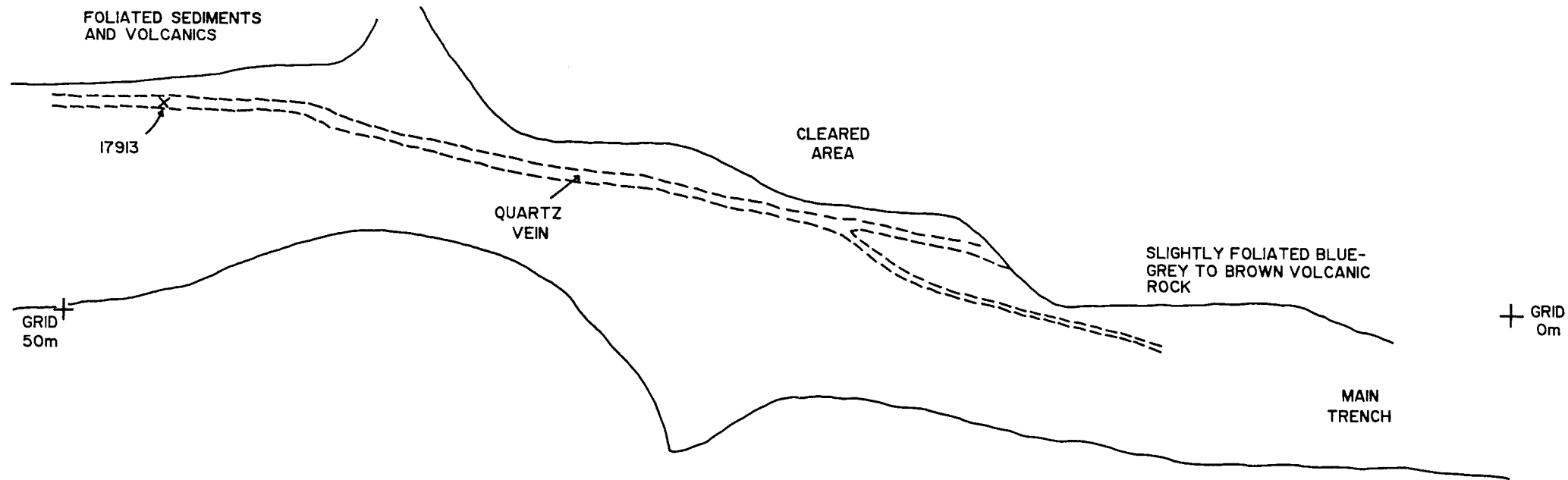


SAMPLE NUMBER	WIDTH (cm)	Au (ppb)	DESCRIPTION
17901	100	316	- broken quartz vein, minor pyrite
17902	300	414	- brecciated metavolcanic rocks, quartz, pyrite
17903	100	740	- quartz breccia vein
17904	50	1790	- rusty clay zone 5% pyrite
17905	100	1010	- silicified volcanic breccia, 2% pyrite
17906	50	1245	- rusty clay zone, pyrite
17907	400	368	- broken metavolcanic and metasedimentary rock
17908	100	112	- broken white quartz vein

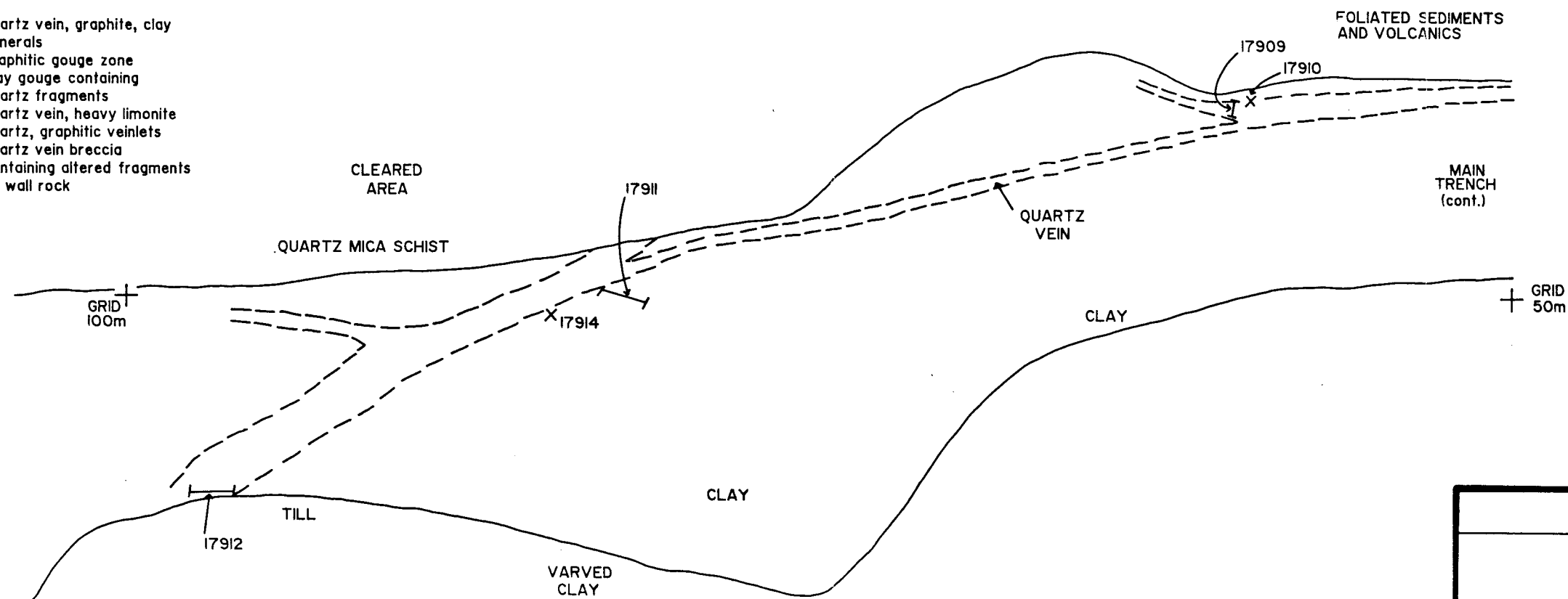
CLEARED AREA

Volume of material moved  
 main trench 5m x 5m x 15m  
 side trench 4m x 10m x 15m  
 cleared area 1m x 50m x 40m  
 Total  $\bar{a}$  3000m<sup>3</sup>

DUNVEGAN V.G. SYNDICATE		
BUG I-20 CLAIMS		
TRENCH 87-1		
NTS: 105 D/8	TECH G.D.	DATE JUNE 1987
SCALE 1:200	DWN. BY S.H.	FIGURE: 5



SAMPLE NUMBER	WIDTH (cm)	Au (ppb)	DESCRIPTION
17909	50	10	- quartz vein, graphite, clay minerals
17910	GRAB	50	- graphitic gouge zone
17911	70	25	- clay gouge containing quartz fragments
17912	80	<5	- quartz vein, heavy limonite
17913	GRAB	<5	- quartz, graphitic veinlets
17914	GRAB	10	- quartz vein breccia containing altered fragments of wall rock

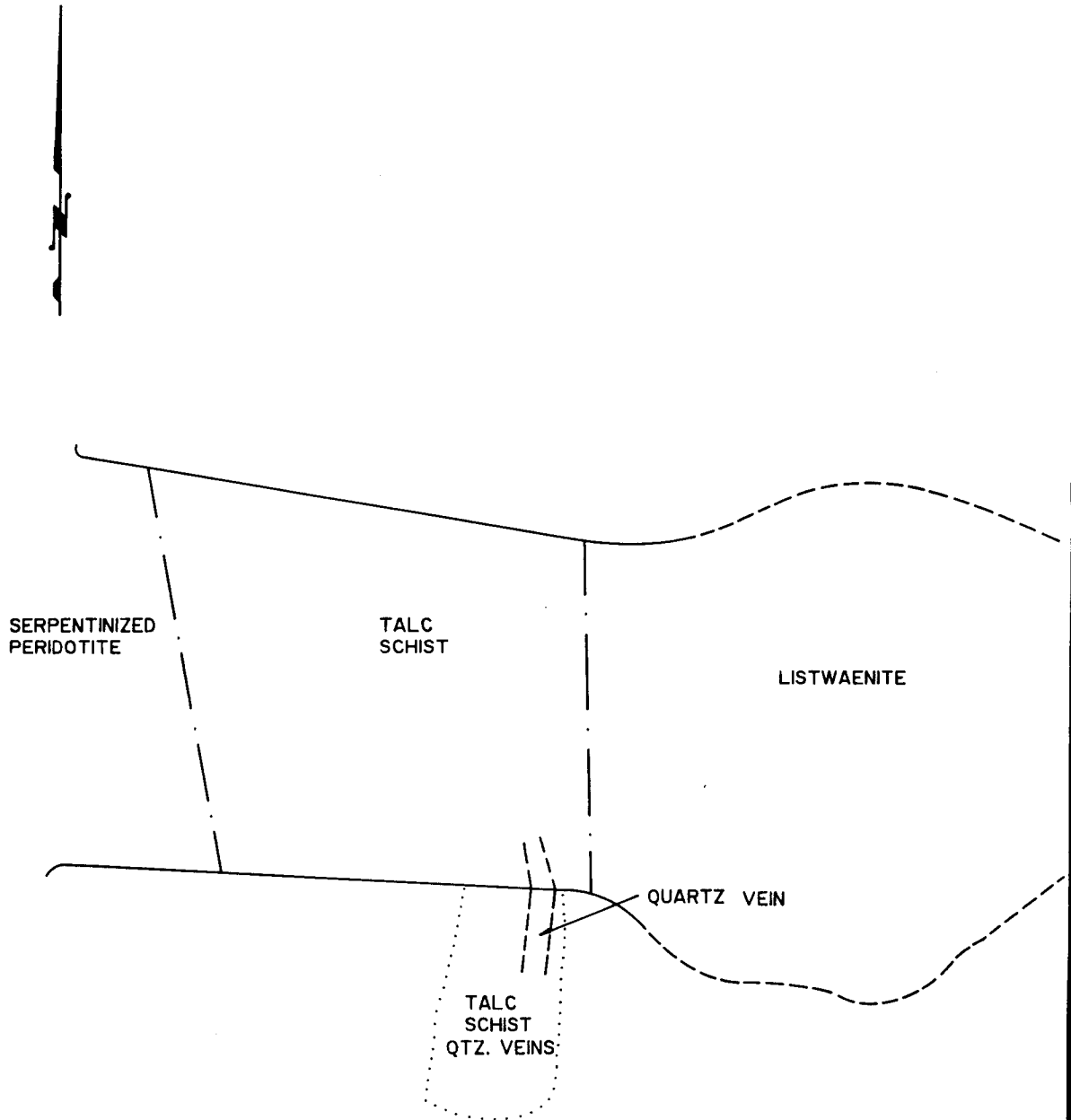


VOLUME OF MATERIAL MOVED

Main Trench	125m x 6m x 2.5m
Cleared Area	130m x 10m x 1.0m
TOTAL	= 3175m <sup>3</sup>

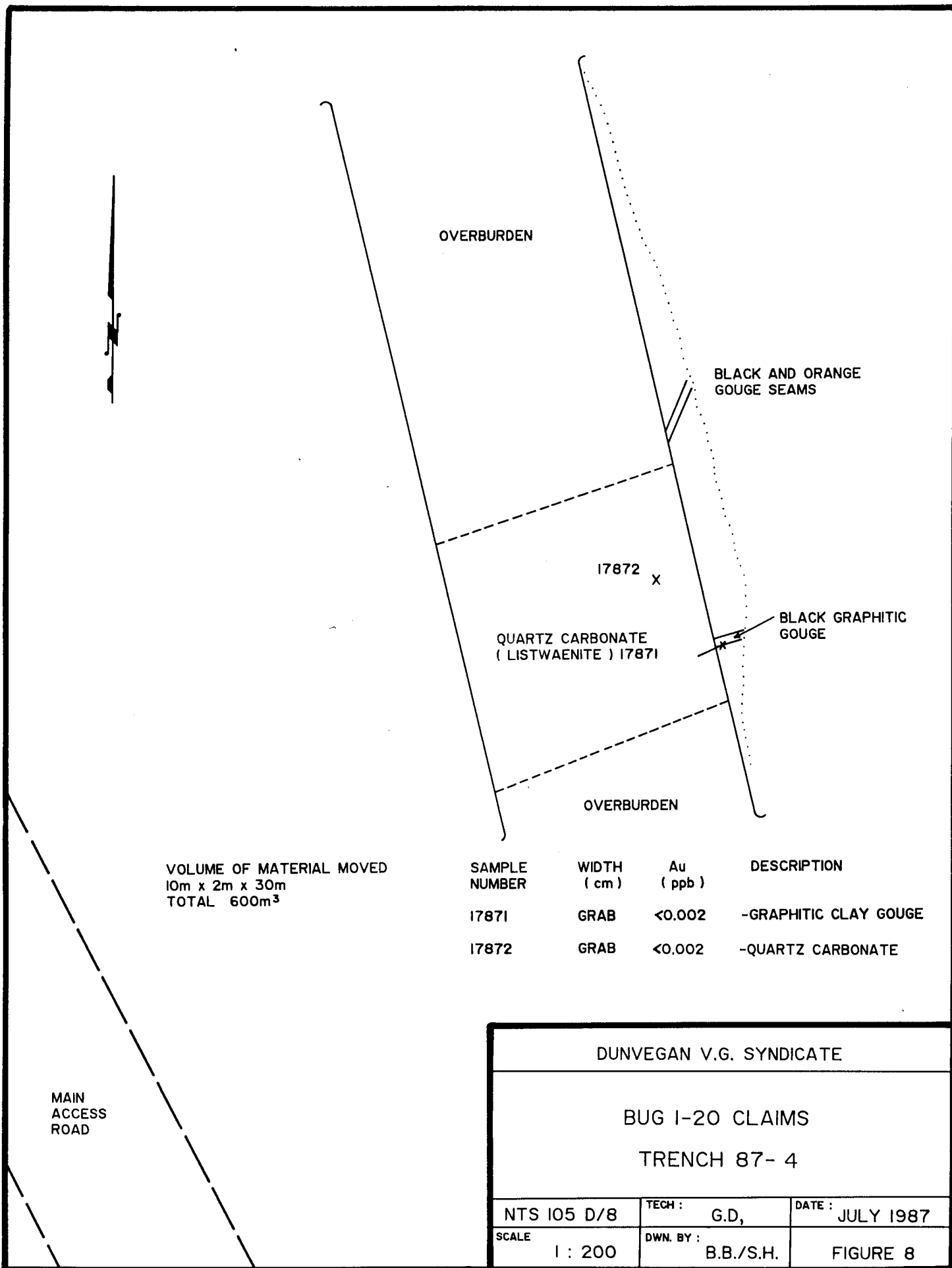
QUARTZ FLOAT

DUNVEGAN V.G. SYNDICATE		
BUG I-20 CLAIMS		
TRENCH 87-2		
NTS I05 D/8	TECH G.D.	DATE JUNE 1987
SCALE 1:200	DWN. BY S.H.	FIGURE 6



VOLUME OF MATERIAL MOVED  
 10m x 15m x 2m  
 TOTAL 300m<sup>3</sup>

DUNVEGAN V.G. SYNDICATE		
BUG 1-20 CLAIMS		
TRENCH 87-3		
NTS 105 D/8	TECH: G.D.	DATE: JULY 1987
SCALE 1: 200	DWN. BY: B.B./S.H.	FIGURE 7



VOLUME OF MATERIAL MOVED  
 10m x 2m x 30m  
 TOTAL 600m<sup>3</sup>

SAMPLE NUMBER	WIDTH ( cm )	Au ( ppb )	DESCRIPTION
17871	GRAB	<0.002	-GRAPHITIC CLAY GOUGE
17872	GRAB	<0.002	-QUARTZ CARBONATE

DUNVEGAN V.G. SYNDICATE		
BUG I-20 CLAIMS		
TRENCH 87- 4		
NTS 105 D/8	TECH : G.D,	DATE : JULY 1987
SCALE 1 : 200	DWN. BY : B.B./S.H.	FIGURE 8

DISCUSSION

Gold mineralization in Trench 87-1 occurs in felsic volcanic rocks and the pebble rock unit. Gold values appear to increase as pyrite content increases. Brecciation, silicification and mineralization of the pebble unit probably occurred during felsic dyke emplacement. The dyke was emplaced along the contact between serpentinite and Laberge Group sediments.

A series of trenches along this contact is recommended to evaluate the mineralized felsic dyke and pebble unit.

STATEMENT OF COSTS

Period: 14 May to 4 June 1987

D8K caterpillar bulldozer rental @ \$14,000/month - cost for 22 days =	<u>\$9,935.50</u>
---	-------------------

CERTIFICATE

I, **GRAHAM DAVIDSON**, of the City of Whitehorse in the Yukon Territory,  
HEREBY CERTIFY:

1. That I am a consulting geologist and that I supervised and participated in the work program described in this report.
2. That I am a graduate of the University of Western Ontario (H.B.Sc., Geology, 1981).
3. That I am registered as a Professional Geologist by the Association of Professional Engineers, Geologists and Geophysicists of Alberta (#42308).
4. That I have been engaged in mineral exploration on a full and part time basis for seven years, of which five have been spent in the Yukon, Northwest Territories and British Columbia.

SIGNED at Whitehorse, Yukon, this 30th day of July, 1987:



G. S. Davidson, P.Geol.

REFERENCES

Webster, M.P., 1986: Assessment Report for the BUG 1-4 Claims.

Wheeler, J.O., 1961: Whitehorse Map Area, Yukon Territory. G.S.C.  
Memoir #312.

Bremner, T.J., 1987: Geological Report on the MARSH Property.

Ballantyne, S.B. and MacKinnon, H.F., 1985: Gold in the Atlin Terrane.

APPENDIX I

CERTIFICATES OF ANALYSES



4200B - 10 STREET N.E.  
 CALGARY, ALBERTA  
 T2E 6K3  
 PHONE: (403) 250-1901

09-JUN-87  
 PAGE: 3 OF 3  
 COPY: 1 OF 2

AUTHORITY: RON ROBERTSON

PROJECT:

**DUNVEGAN SYNDICATE**  
 BOX 4063  
 WHITEHORSE, YUKON  
 ATTN: R. ROBERTSON


WORK ORDER: 4143D-87

\*\*\* FINAL REPORT \*\*\*

**GEOCHEMICAL LABORATORY REPORT**

SAMPLE TYPE: ROCK

SAMPLE NUMBER	FIRE ASSAY		
	AU	PPB	
17901	316.0	}	Samples collected by G. Davidson from Trench 87-1
17902	414.0		
17903	740.0		
17904	1790.0		
17905	1010.0		
17906	1245.0	}	Samples collected by prospectors from Trench 87-2
17907	368.0		
17908	112.0		
1	30.0	}	
2	60.0		
3	76.0	}	
4	54.0		
5	88.0		

SIGNED:   
 C. Douglas Read,  
 LABORATORY MANAGER

FOOTNOTES:  
 P=QUESTIONABLE PRECISION; \* = INTERFERENCE; TR=TRACE; ND=NOT DETECTED;  
 IS=INSUFFICIENT SAMPLE; NA=NOT ANALYZED; MS=MISSING SAMPLE



# Certificate of Analysis

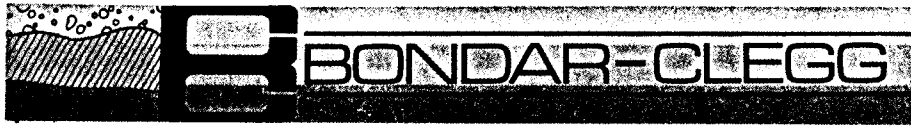
TO Graham Davidson  
TRENCH 87-2

REPORT NO. 47-3564

DATE June 16, 1987

I hereby certify that the following are the results of analyses made by us upon the herein described rock samples

MARKED	oz/ton								
	Au								
17909	L0.01								
17910	L0.01								
17911	L0.01								
17912	L0.01								
17913	L0.01								
17914	L0.01								



REPORT: 127-3564

PROJECT: 87-2

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au PPB
---------------	---------------	--------

R2 17909		10
R2 17910		50
R2 17911		25
R2 17912		<5
R2 17913		<5

*Samples collected by G. Davidson from Trench 87-2*  
Samples collected by G. Davidson from Trench 87-2

R2 17914		10
----------	--	----



# Gnemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,  
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To: DUNVEGAN V-G SYNDICATE

14 REDWOOD ST.  
WHITEHORSE, YT  
Y1A 4B3

Project: BUG CLAIMS

Comments:

Trenches 87-2 and 87-4 : taken by G. Davidson

\*Page No: 1  
Tot. pages: 1  
Date: 06-JUL-87  
Invoice #: I-8716989  
P.O. #: NONE

## CERTIFICATE OF ANALYSIS A8716989

SAMPLE DESCRIPTION	PREP CODE	Au FA oz/T									
17867	207	--	0.030								
17868	207	---	0.026								
17869	207	---	0.026								
17870	207	---	0.012								
17871	207	---	< 0.002								
17872	207	---	< 0.002								
17873	207	---	0.026								

ALL ASSAY DETERMINATIONS ARE PERFORMED OR SUPERVISED BY B.C. CERTIFIED ASSAYERS

CERTIFICATION : W. Ben Amadori



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,  
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

T. INVESTIGATIVE - G. ANALYTICAL

14 REDWOOD ST.  
WHITEHORSE, YT  
Y1A 4B3

Project : BUG Claims

Comments: Samples collected by prospectors from Trenches 87-1 & 87-2

\*P. No. :  
Tot. Pages: 1  
Date : 06-JUL-87  
Invoice # : I-8716911  
P.O. # : NONE

## CERTIFICATE OF ANALYSIS A8716911

SAMPLE DESCRIPTION	PREP CODE		Ag FA	Au FA							
			oz/T	oz/T							
0001	214	227	< 0.01	< 0.002	} Trench 87-2						
0002	214	227	< 0.01	< 0.002							
0003	214	227	0.02	< 0.002							
0004	214	227	0.02	< 0.002							
0005	214	227	0.01	< 0.002							
0006	214	227	0.01	< 0.002	} Trench 87-1						
R-1987-1	214	227	0.05	0.142							
R-1987-3	214	227	< 0.01	0.004							
R-1987-4	214	227	< 0.01	0.004							

ALL ASSAY DETERMINATIONS ARE PERFORMED OR SUPERVISED BY B.C. CERTIFIED ASSAYERS

CERTIFICATION : *W. Ben Ammanini*