

**GEOCHEMICAL  
ASSESSMENT REPORT**

on a

**SOIL SAMPLING PROGRAM**

on the

**SAPPHO PROPERTY**

**SAPPHO 1 - 6 MINERAL CLAIMS**

**GREENWOOD AREA**

**GREENWOOD MINING DIVISION, B.C.**

NTS: 082E/02E  
Latitude: 049°00' 20" N  
Longitude: 118°42' 00" W  
Owner: K.L. Daughtry  
Operator: Discovery Consultants  
Author: T.H. Carpenter, P.Geo.  
Date: September 9, 1999

**GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT**

**26,025**

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## SUMMARY

On the Sappho property alkali porphyry copper-silver-platinum gold mineralization occurs in intensely altered and brecciated mafic alkalic plutons and surrounding country rocks.

Exploration work has been carried out intermittently on the property since 1909 and assays of 0.7 and 2.1 grams per tonne platinum have been reported.

In 1999 a program of soil sampling was carried out on the Sappho claims. This program was an extension of a program carried out in 1994 which detected platinum and palladium values in soils of 210 ppb and 1160 ppb respectively. The soil sampling was conducted over a grid established with hip-chain and compass.

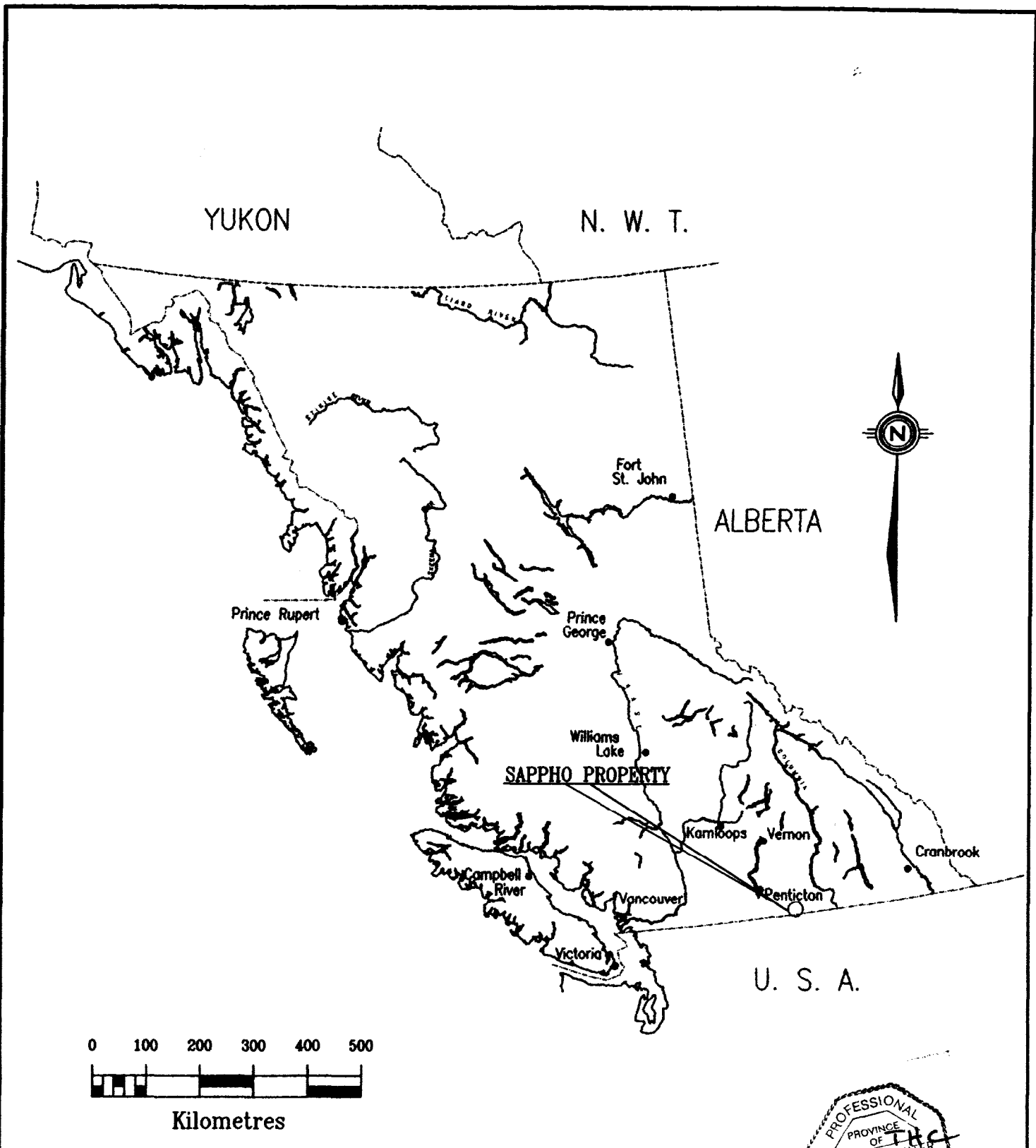
## **LOCATION AND ACCESS**

The Sappho property is centred at latitude 049°00'20"N and longitude 118°42'00" W. The property is located 5.5 km east of the town of Midway and extends north from the Canada - U.S.A. border to the junction of Hyppolite and Norwegian Creeks (Figure 1).

Access to the property can be gained via a gravel road up Norwegian Creek. This road crosses Boundary Creek off Highway 3 two kilometres northeast of Midway.

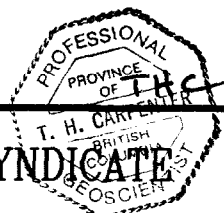
## **TOPOGRAPHY**

The Sappho claims are located at the headwaters of Norwegian Creek in hilly terrain ranging from 3000 feet (915 metres) to 3900 feet (1200 metres). Forest cover is moderate and comprises second growth pine, fir and larch forest and minimal under-brush.



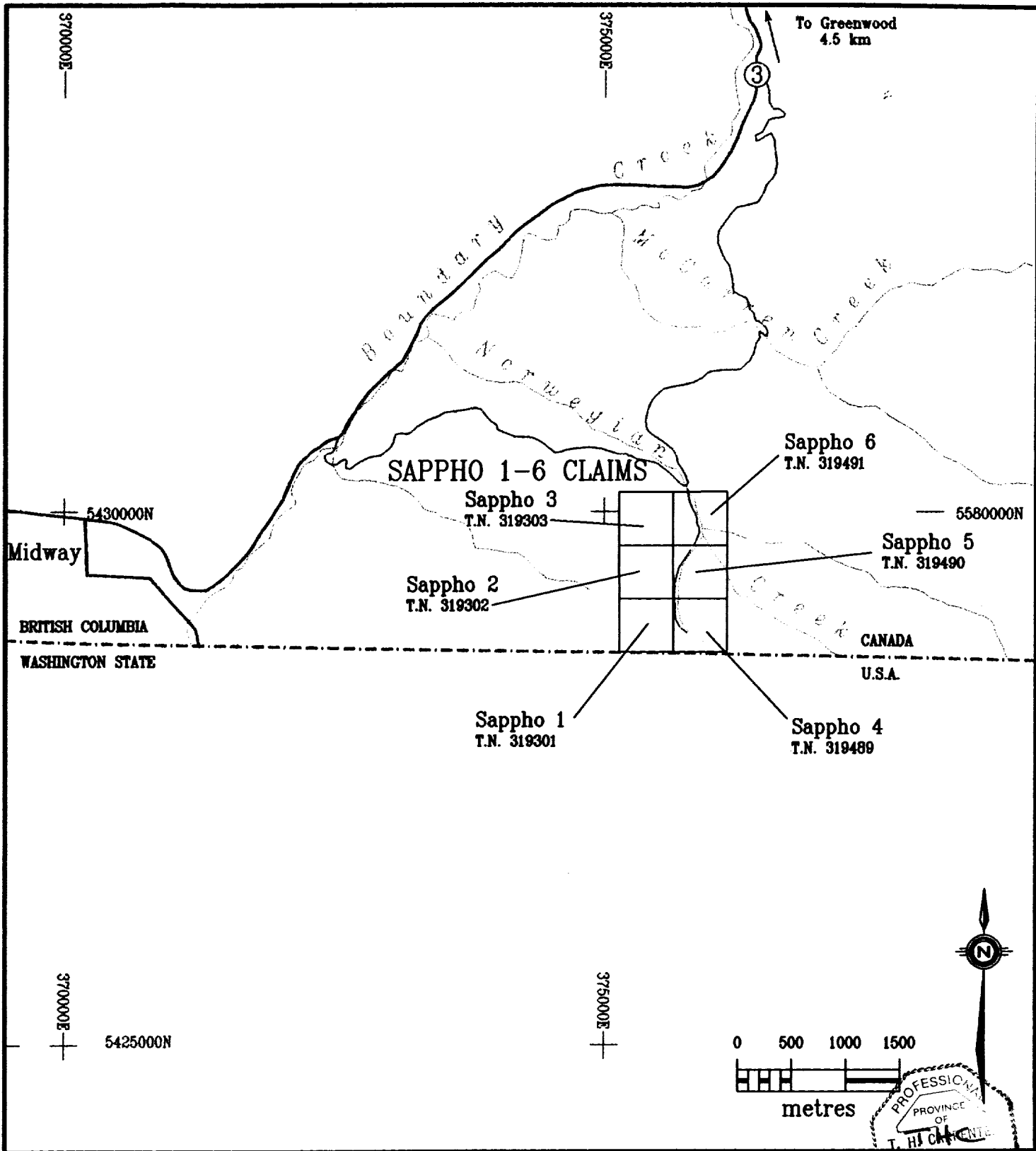
**DISCOVERY** Consultants

PREDATOR SYNDICATE



SAPPHO PROPERTY

LOCATION MAP



**DISCOVERY** Consultants

PREDATOR SYNDICATE

Sappho Property

Claim Location Map

## PROPERTY

The Sappho property comprises six two-post claims, designated Sappho 1-6 inclusive (Figure 2), located by John Beggs on July 9 and July 20, 1993 and recorded in Vernon, B.C. on, July 20 and July 28, 1993.

<u>Claim Name</u>	<u>Record #</u>	<u>Owner of Record</u>	<u>Anniversary Date</u> *
Sappho 1	319301	K.L. Daughtry	July 09, 2002
Sappho 2	319302	K.L. Daughtry	July 09, 2002
Sappho 3	319303	K.L. Daughtry	July 09, 2002
Sappho 4	319489	K.L. Daughtry	July 20, 2002
Sappho 5	319490	K.L. Daughtry	July 20, 2002
Sappho 6	319491	K.L. Daughtry	July 20, 2002

The claims are owned by K.L. Daughtry on behalf of the Predator Syndicate.

\* Pending acceptance of this report.

## HISTORY

The first reported work on the Sappho occurred in 1909 when small pits, cuts and shafts were excavated.

Sporadic mining was carried out between 1916 and 1928 by various operators.

Between 1963 and 1964, Triform Mining Ltd. and Coast Exploration Ltd. conducted geophysical surveys, 2300 feet (700 metres) of trenching and 1580 feet (482 metres) of diamond drilling.

In 1967, Silver Standard Mines Ltd. conducted geological mapping, rock sampling and magnetometer surveys and completed 1800 feet (549 metres) of trenching.

Trenching and rock geochemistry carried out in 1975 confirmed earlier assay results of 0.02 to 0.06 ounces per tonne platinum.

Kettle River Resources obtained the property in 1981 and carried out geological mapping and sampling.

From 1982 to 1988 the property was part of a joint venture agreement between Kettle River and Noranda Inc. Noranda carried out geological mapping, geochemical surveys, heavy mineral sampling and magnetometer and VLF/EM surveys.

In 1990 and 1991 Kettle River Resources carried out prospecting, geological mapping and geochemical surveys.

In 1993 Discovery Consultants carried out a limited soil sampling program over a portion of the Sappho claims. A co-incident Au, Pt and Pd anomaly was defined during this survey.



## **GENERAL GEOLOGY**

In the area of the Sappho claims, the oldest rocks are believed to be the Knob Hill Group, a metasedimentary and metavolcanic package of presumed Permian or Carboniferous age.

Within this package is included serpentinite and altered serpentinite (listwanite).

Overlying the Knob Hill Group are greenstones and interbedded argillites of the Triassic Brooklyn Formation.

Intruding the Knob Hill Group and Brooklyn Formations are Jurassic quartz-feldspar porphyry intrusives and rare intermediate dykes of the Cretaceous Nelson Intrusives.

Intruding these rocks are Tertiary dykes of the Marron Formation.

## **WORK COMPLETED**

Work carried out on the Sappho 1, 2, 4 and 5 claims in 1999 comprised a soil sampling survey. Details of this survey are discussed below.

### **Soil Sampling**

#### **a) Program Parameters**

Forty-six soil samples were collected on the Sappho claims on grid lines established using hip-chain and compass. Samples were collected largely as in-fill samples in the area of previously defined soil anomalies. The samples were collected by shovel from the "B" horizon, placed in 9 cm x 25 cm kraft sample bags and sent to Chemex in Vancouver, B.C.

At Chemex, analyses were carried out for Au, Pd and Pt. Results are listed in Appendix

1. Sample locations are shown on Figure 3.

#### **b) Program Results**

Anomalous Au, Pt and Pd values were detected in the soil sampling program. Maximum values obtained in the 1999 sampling were 56 ppb Au, 42 ppb Pd and 60 ppb Pt. These values contrast with values of 174 ppb Au, 1160 ppb Pd and 210 ppb Pt obtained in 1994 sampling. Complete 1994 and 1999 Au, Pt and Pd values are plotted and contoured on Figures 4, 5 and 6, respectively.

These values outline an area at the southwest corner of the Sappho 2 claim and the northwest corner of the Sappho 1 claim containing anomalous gold, platinum and palladium.

## CONCLUSIONS

Anomalous Au, Pt and Pd values, with gold values to 178 ppb, platinum values to 210 ppb and palladium to 1160 ppb, were detected in soil samples on the Sappho claims.

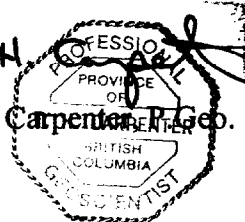
The anomalous Au, Pt and Pd values form a discrete, co-incident anomaly in the southwest quarter of the Sappho 2 claim and the northwest corner of the Sappho 1 claim.

## RECOMMENDATIONS

Detailed mapping is recommended in the area of the Au, Pt and Pd anomaly. Further sampling, including soil and stream sediment sampling is recommended to the south and west respectively to define additional mineralization on and adjacent to the Sappho claims. Sampling and mapping of old trenches in the area of the soil anomaly are also recommended.

Respectfully submitted,

T. H. Carpenter  
T.H. Carpenter, P. Geo.

A circular professional seal for a geologist in the Province of British Columbia. The seal contains the text "PROFESSIONAL GEOLOGIST", "PROVINCE OF BRITISH COLUMBIA", and "REGISTERED". The name "T.H. Carpenter" is written across the seal, and there is a signature over it.

Vernon, B.C.  
September 9, 1999

## REFERENCES

British Columbia Ministry of Energy, Mines and Petroleum Resources (BCMEMP)

1918 - Annual Report, p. 211

1927 - Annual Report, p. 234

1928 - Annual Report, p. 250

1964 - Annual Report, p. 110

1967 - Annual Report, p. 226

1975 - Geology, Exploration and Mining in British Columbia, p. E13

1984 - Exploration in B.C., p. 8-9

1985 - Exploration in B.C., p. C8-C9

1987 - Exploration in B.C., p. C18

1988 - Exploration in B.C., p. C15

Assessment Reports #3335, 12924, 13913, 13932, 17617

Little, H.W. (1983) Geological Survey of Canada, Paper 79-29; Geology of the Greenwood Map Area, British Columbia.

Fyles, J.T. 1990

Geology of the Greenwood - Grand Forks Area, British Columbia, NTS 82E/1,2. B.C. Geological survey Branch Open File 1990-25.

## STATEMENT OF COSTS

1	<i>Professional Services</i>		
	T. Carpenter (P.Geo.)		
	Planning & Reporting		
	1.5 days @\$350/day	\$ 525.00	
			\$ 525.00
2	<i>Field Personnel</i>		
	R.Mitchell (June 23, 24, 25)		
	Travel, Grid Establishment, Soil		
	Sampling		
	3.0 days @\$283.20/day	849.60	
		-----	849.60
3	<i>Office Personnel</i>		
	Drafting	100.00	
	Secretarial	75.00	
	Data Compilation	35.40	
		-----	210.40
4	<i>Expenses</i>		
	Analysis		
	(Au, Pt, & Pd analyses)		
	50 soil samples @\$14.48/sample	\$ 724.00	
	Field Supplies	35.06	
	Equipment Rental	19.00	
	Freight	45.00	
	Lodging & Meals	136.23	
	Maps & Publications	12.00	
	Communications, Report & Map printing	80.00	
		-----	1,051.29
			-----
		<b>Exploration Costs :</b>	<b>\$2,636.29</b>
5	<i>Transportation</i>		
	a) 4x4 Truck	\$ 120.00	
	3 days @\$40/day		
	474km @30¢/km	142.20	
	gas	47.18	
		-----	
		\$ 309.38	
	b) @20% of Exploration Costs of \$2,636.29	527.258	
	a or b whichever is less	-----	309.38
			-----
	<b>Total Exploration Costs :</b>		<b>\$2,945.67</b>
			=====

## STATEMENT OF QUALIFICATIONS

I, THOMAS H. CARPENTER of 3902 14th Street, Vernon, B.C., V1T 3V2, DO  
HEREBY CERTIFY that:

1. I am a consulting geologist in mineral exploration associated with Discovery Consultants, Vernon, B.C.
2. I am a 1971 graduate of the Memorial University of Newfoundland with a Bachelor of Science degree in geology.
3. I have been practicing my profession continually since graduation.
4. I am a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of British Columbia.
5. This report is based upon knowledge of the Sappho property gained from supervision.
6. I hold no interest either directly or indirectly in the Sappho property.



Vernon, B.C.  
September 9, 1999

***APPENDIX 1***

Project 642

Sappho

file: 642geodata\Soil\_99.wk4

Soil Sample Analyses  
1999

Reference : a9925121

Sample ID	Lab report #	30g FA/ICP Au ppb	30g FA/ICP Pt ppb	30g FA/ICP Pd ppb
298N 400W	a9925121	4	<5	2
298N 375W	a9925121	<2	<5	2
298N 350W	a9925121	<2	<5	4
275N 425W	a9925121	<2	<5	<2
275N 400W	a9925121	<2	<5	4
275N 375W	a9925121	<2	<5	2
275N 350W	a9925121	2	10	<2
275N 325W	a9925121	<2	25	12
250N 400W	a9925121	8	60	10
250N 375W	a9925121	2	30	16
250N 325W	a9925121	4	10	8
235N 425W	a9925121	8	50	42
225N 405W	a9925121	14	10	14
225N 350W	a9925121	<2	<5	4
225N 325W	a9925121	<2	<5	<2
225N 300W	a9925121	<2	5	4
200N 425W	a9925121	20	5	6
200N 375W	a9925121	56	15	28
200N 325W	a9925121	<2	<5	6
175N 425W	a9925121	14	10	10
175N 400W	a9925121	28	<5	6
175N 375W	a9925121	10	<5	8
175N 350W	a9925121	6	<5	10
150N 425W	a9925121	6	15	8
150N 375W	a9925121	<2	<5	<2
125N 425W	a9925121	10	<5	10
125N 400W	a9925121	24	<5	4
125N 375W	a9925121	<2	<5	<2
125N 350W	a9925121	2	5	6
100N 425W	a9925121	10	10	6
100N 375W	a9925121	<2	<5	<2
100N 350W	a9925121	10	<5	4
050N 450W	a9925121	<2	<5	2
050N 425W	a9925121	<2	<5	<2
050N 400W	a9925121	52	<5	2
050N 375W	a9925121	4	<5	<2
050N 350W	a9925121	<2	<5	<2
025N 025W	a9925121	2	<5	<2
025N 000W	a9925121	<2	<5	2
025N 025E	a9925121	<2	<5	<2
000N 425W	a9925121	10	10	14
000N 375W	a9925121	6	<5	4
000N 325W	a9925121	2	<5	2
000N 025W	a9925121	<2	10	10
000N 025E	a9925121	<2	<5	<2
025S 025W	a9925121	<2	<5	<2
025S 000W	a9925121	<2	<5	4
025S 025E	a9925121	6	<5	<2
050S 425W	a9925121	2	<5	2
050S 400W	a9925121	4	<5	2
050S 375W	a9925121	2	<5	2



# ANALYTICAL PROCEDURES

## Geochemical Analysis

by Chemex Labs Ltd.

ELEMENT		LOWER DETECTION LIMIT	EXTRACTION	METHOD
Au	Gold	2 ppb	fire assay	Ind. Coupled Plasma
Pt	Platinum	5 ppb	fire assay	Ind. Coupled Plasma
Pd	Palladium	2 ppb	fire assay	Ind. Coupled Plasma









