1984

## ASSESSMENT REPORT

ON THE

#### GEOCHEMICAL SURVEY

ON THE VITAL CREEK PROPERTY

OG/86

JO 12 - 14, 20 - 22, 27 - 29, 35 - 37 and 75

OMINECA MINING DIVISION, BRITISH COLUMBIA

55° 41' N, 125° 30'W N.T.S. 93N/11 AND 12

OWNER: ARKLATEX PETROLEUM CORPORATION
SILVER CREEK MINES LTD

OPERATOR: GOLDEN PORPHYRITE LTD.

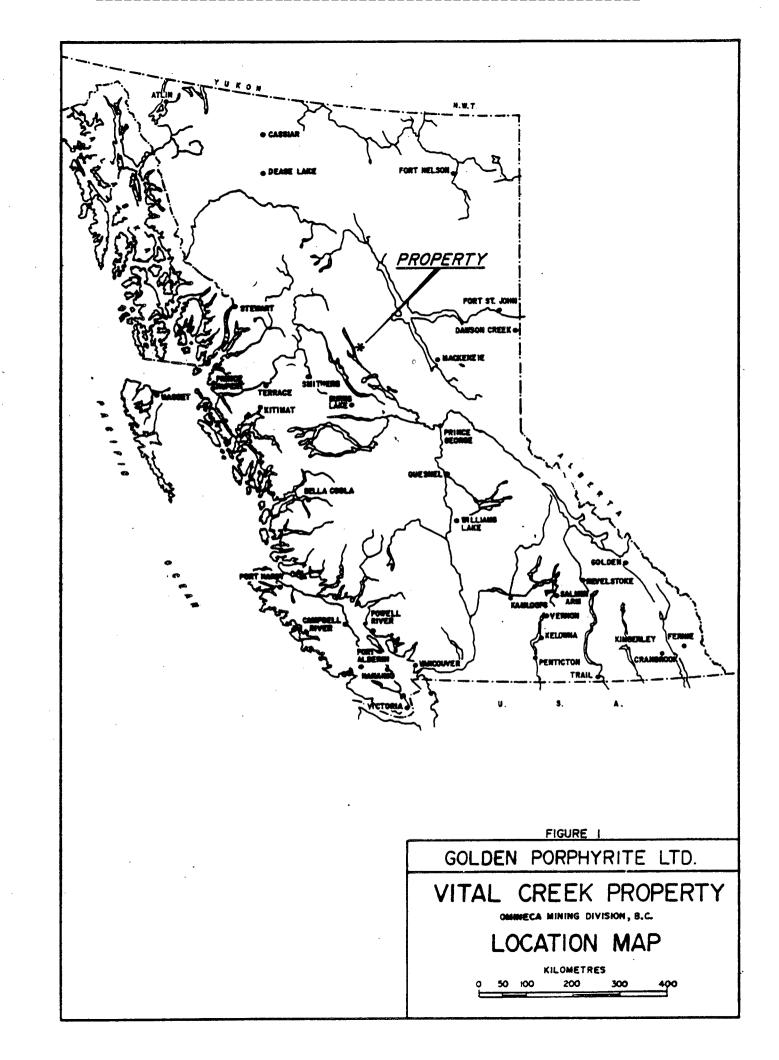
F. MARSHALL SMITH P. ENG.
Golden Porphyrite Ltd.

SEPTEMBER 1985



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#### INTRODUCTION

The Vital Creek property, consisting of claims Jo 12-14, 20-22. 27-29, 35-37 and 75 (212 units) is located 35 km northeast of Takla Landing and 145 km northeast of Smithers in the Omineca Mining Division. Its National Topographic Survey location is 93 N/12 E and 11 W at  $55^{\circ}$  41' north latitute and  $125^{\circ}$  30' west longitude, (fig 1).

The property is crossed by the Silver Creek four-wheel drive road from the nearest settlement, Takla Landing, located on the B.C. Rail line. The property was evaluated using a Hughes 500D helicopter based at Takla Landing, a return trip taking 28 minutes.

The property is characterized by an east-west trending ridge of high ground, to 1,783 m above sea level. To the south of this ridge creeks drain into the Kenny Creek Valley and to the north into the Vital Creek Valley. Kenny and Vital creeks are tributaries to Silver Creek, which flows north along the eastern margin of the property. Low lying ground, at approximately the 1,000 m elevation is concentrated along the eastern margin of the property. The treeline is at about the 1,600 m elevation with alpine vegetation above and mixed conferous vegetation, alpine fir and spruce, on valley sides and bottoms. Outcrop exposure is restricted to ridge crests, with maximum exposure present on north facing slopes.

The first placer gold found in this area was obtained from Vital Creek in 1869. The creek was worked intermittently until the 1920's - 1930's when a 285 m placer adit was driven along the bedrock contact. Hydraulic operations then took place briefly but were abandoned as result of the lack of dumping facilities. The recorded production is 4,602 oz of extremely coarse flakes of gold. Active operations continue to this day.

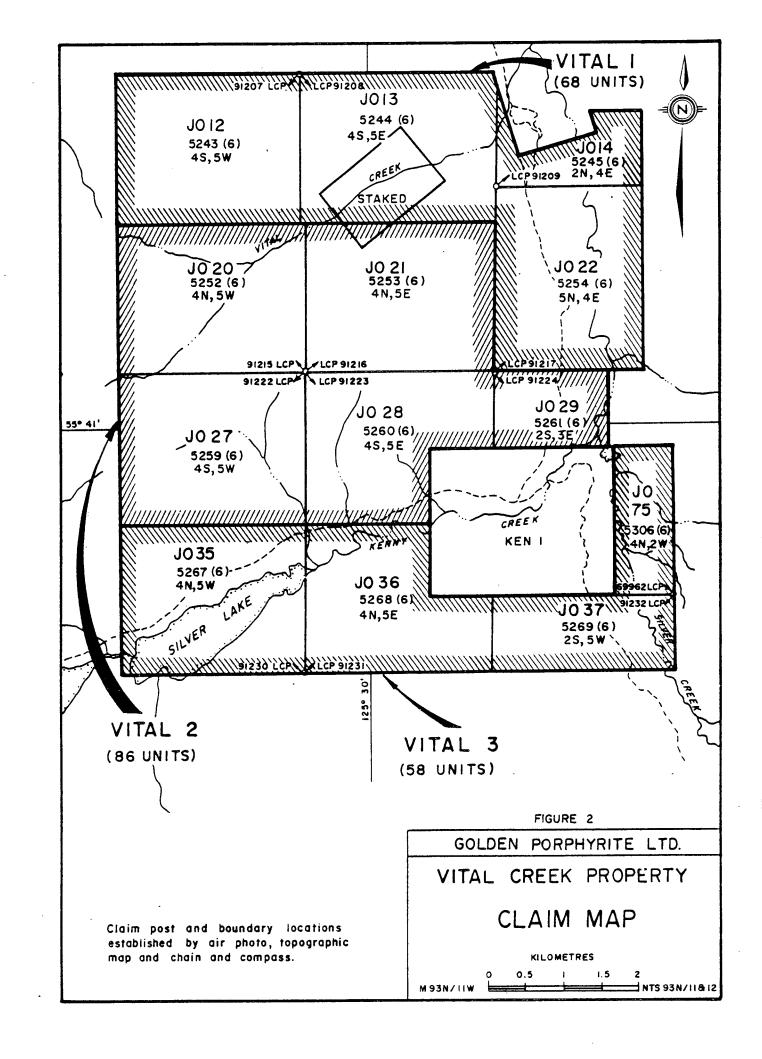
With the recent development of a new gold occurrence model involving large tonnage low grade deposits, the owner, Arklatex Petroleum Corporation, contracted Golden Porphyrite Ltd., to locate the source rocks of the placer gold found in many of the surrounding creeks. Rocks belonging to the Permo-Triassic Cache Creek Group outcrop within and around the claim block and conform to this model. This model and the gold found in Vital Creek make this property ideal for gold exploration.

The 1983 work program geologically mapped and prospected 53 km2. Atotal of 412 soil, 9 rock-chip and 4 heavy sediment samples were collected. Assays returned results of 665 ppb Au in one soil sample and a very high result (9.9 on a scale of 1 to 10) in the heavy sediment in Vital Creek below.

In 1983 the Vital Creek property was divided into three groups, Vital 1, Vital 2, and Vital 3 (fig. 2).

The 1984 work was done by Golden Porphyrite personnel supervised by Mr. H. MacFarlane and directed by Mr. F.M. Smith, P.Eng. The area was geologically prospected over an area of approximately 43 km2.

Work was performed equally in the three Vital groups.



### GEOCHEMICAL SURVEY

Geochemical survey consisted entirely of heavy sediment samples taken in areas outlined in the 1983 program of soil sampling.

## Heavy Sediment Sampling

Analysis for gold and silver was conducted at Chemex Labs, 212 Brooksbank Avenue, North Vancouver, B.C.

For each field processed sample approximately 0.5 m3 of material was processed and a 2-4 kg subsample was sent for analysis. The subsample was floated in Tetrabromoethane to isolate mineral with a specific gravity greater than  $2.93 \pm 0.1$  g/cm3. This fraction was then dried, magnetically separated and ring pulverized to -100 mesh.

Gold: 5.0 g samples were ashed @ 800 degrees C for one hour, digested with aqua regia to dryness and taken up in 25% HCl. The gold was then extracted as the bromide complex into MIBK and analyzed using atomic absorption techniques with a detection limit of 10 ppb.

<u>Silver:</u> A 1.0 g portion of sample was digested in aqua regia (3:1 HC1-HNO3) for approximately 2 hours. The digested sample was cooled and made up to 25 ml with distilled water. The solution was then mixed and solids allowed to settle. Silver was determined by atomic absorption techniques using background correction on analysis with a detection limit of 0.1 ppm.

The analytical results returned anomalous values of 200, 480 & 8200 ppb Au.

Sample HS 0217, 200 ppb Au taken in a tributary of Kenny Creek located in JO 35.

Sample HS 219, 8200 ppb Au taken in a tributary of Kenny Creek just above the road, near 1983 sample # 19, located in the north west corner of JO 36.

Sample HS 0217 found in JO 14 returned a good value of 480 ppb Au. This sample was taken in the fast water of Vital creek.

Sample HS 0205 returned a value of 1.4 ppm Ag up stream from HS 0217.

#### CONCLUSTONS

The 1984 reconnaissance program revealed the presence of two areas with major anomalous gold values.

Sample HS 0217 (200 ppb Au) taken in JO 35 togeather with HS 219 (8200 ppb Au) in JO 36 define an area approximately 1.5 km by 2.0 km as being an highly anomalous area.

The anomalous heavy sediment (HS 0205) taken in Vital Creek requires further investigation.

A detailed program of additional heavy mineral sampling, soil sampling and detailed geological traverses are required during the next field season together with detailed investigations, trenching, and possibly geophysics and diamond drilling in the vicinity of the highly anomalous gold soil sample near the northern Property boundary, found in 1983.

#### RECOMMENDATIONS

A two phase program is recommended.

PHASE I heavy sediment sampling of all tributaries of Vital Creek and Kenny Creek. Soil sampling and detailed geological traverses. Trenching and possibly geophysics. The estimated cost for this phase is \$50,000.

PHASE II, is dependent on PHASE I and would consist of diamond drilling. The estimated cost for this phase would be \$50,000.

AKHURST, K BUNKER, D CHOMACK, B COFFIN, D CROCKFORD, B DEBOCK, E FRENCH, L FRENCH, M GUNNING, M HOLOPAINEN, C MACFARLANE, H NELLES, D SANDHU, P SAUNDERS, B	4.74 4.78 12.33 3.55 2.08 4.00 24.00 2.77 8.00 24.00 22.2	\$12.50 \$10.50 \$15.63 \$15.63 \$17.50 \$11.00 \$11.00 \$11.00 \$11.00 \$11.00 \$11.00 \$15.63	\$54.19 \$78.03 \$83.00 \$52.54 \$135.60 \$39.02 \$22.89 \$332.32 \$0.00 \$26.01 \$100.00 \$469.48	Field Work
		Setup Total Oct. Field BENIFITS Wage Total		
BILLITS BILLIT/DAYS ROOM & BOARD		-	TOTAL R & B	\$1412.67
ASSAYING DRAFTING EQ. RENT EQ. REP.	0	O ROCKS \$9.68 1 Uhaul Tir. 1	8 H.S. \$18.90 11 Light plant	\$441.72 \$2795.12 \$1007.41
SUPPLIES TRANSPORT HELICOPTER FUEL OFFICE MOB/DEMOB	0.70	\$420.00	HR.	\$25.82 \$1072.42 \$760.75 \$294.00 \$219.53 \$1079.40 \$526.03
		Ç	Total Report	\$15357.84 \$450.00
			Add Overhead	\$15807.84 \$1580.78
		,	1984 Total	\$17388.62

#### **CERTIFICATE**

Ι, Ι	F.	Marshall	Smith,	do	hereby	certif	y tha	t:
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- 1. I am a consulting geologist and geochemist with offices at 218-744 West Hastings Street, Vancouver, British Columbia.
- 2. I am a graduate at the University of Toronto with a degree of B.Sc., Honors Geology.
- 3. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
- 4. I have practiced my profession continuously since 1967.
- 5. This report is based on reports by personel working under my direction for the owners and operators of the property and two examinations of the claims in 1984.
- 6. I have no interest in the shares of the named company or in any of the companies with contiguous property to the property described in this report but I do have an interest in Golden Porphyrite Ltd.

F. Marshall Smith, P.Eng. September 12, 1985.

# SILVER CREEK MINES LTD

## GEOCHEM RESULTS

# 1984 WORK PROGRAM

W.O. #		:	A8417555	
Sample			Ag ppm	Au-AA
descrip	tion		Aqua R	ррb
T/O1 HC	0120		0 0	400
	0128		0.2	<20
T401 HS	0129		0.6	20
T401 HS	0203		0.2	< 20
T401 HS	0204		0.2	< 20
T401 HS	0205		1.4	<20
T401 HS	0217		0.2	200
T401 HS	0218		0.2	< 20
T401 HS	0219		0.2	8200
T401 HS	0220		0.2	<20
T401 HS	0221		0.2	480
T401 HS	0222		0.2	<20



# LEGEND

HS 0217 HEAVY SEDIMENT
 M0066 ROCK CHIP SAMPLE
 120/ 0.1 PPB Au/PPM Ag

NOTE Only values >20 ppb shown on map

Contour Interval - 20 m
Photo date - Sept 1973
m 0 500 1.0 Km

VITAL CREEK
SILVER MASTER PROPERTY

ROCK CHIP & HEAVY SEDIMENTS
LOCATION & RESULTS

SILVER CREEK MINES