'81-#1033 #9801

ASSESSMENT REPORT

TRENCHING AND DIAMOND DRILLING

ON

GOLDSMITH CLAIM

AT

POPLAR CREEK, B. C.

50°28'N, 117°10'W

MINING DIVISION: SLOCAN

N.T.S.: 82K/6E

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PROJECT GEOLOGIST
WESTMIN RESOURCES LIMITED

DECEMBER 1981

Part 1 of 3

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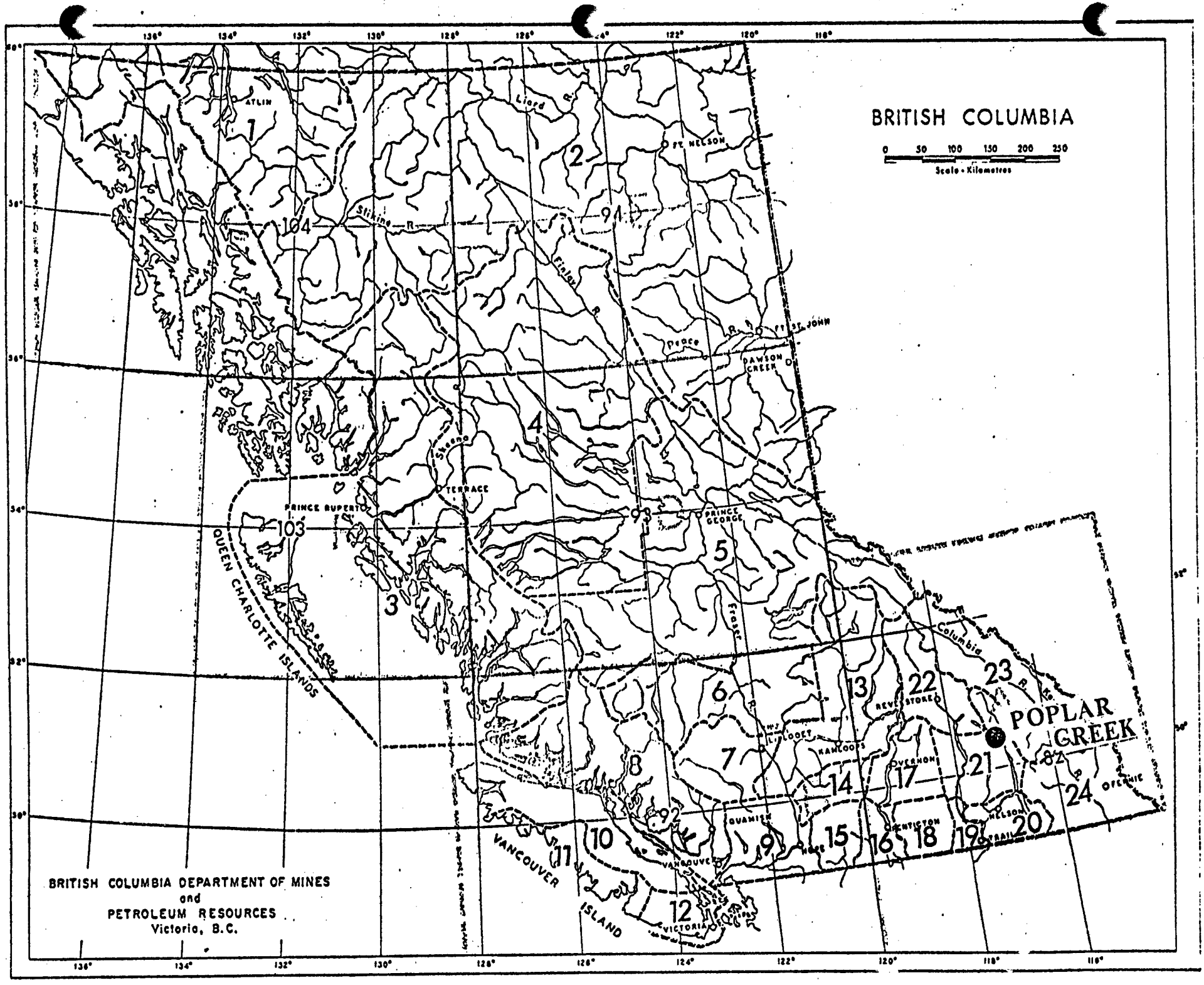
ATTACHMENTS

INTRODUCTION

The Goldsmith claim is located south of Poplar Creek near its confluence with Lardeau River, 70 km north of Kaslo, B.C. (Figures 1, 2). Access is by Highway #33 (gravel surface) from Kaslo via Meadow Creek and by a 4-wheel drive road from the valley bottom at 2,150 feet to Goldsmith at 3,500 feet elevation.

Evidence of early gold prospecting on Goldsmith includes hand trenches, pits, open cuts, short adits and remains of log cabins, all believed to be pre-1930. Westmin Resources and Armco Ltd. optioned the Goldsmith claim from Pan-American Consultants in 1981 and carried out a grid soil survey and geological mapping of the area (described in an earlier assessment report). Cat and backhoe trenching, sampling, diamond drilling, core logging and splitting were carried out between September 18 and October 10, 1981 and is reported herein. Eighty-six gold assays are reported and seventy-seven geochemical gold determinations are also listed. A Case 1000 dozer and backhoe were used for trenching and moving the diamond drill, a Longyear Super 38. Six holes totalling 1,342 feet were drilled and the core is stored in a rack located in a clearing 200 m west of Hwy. #33, 300 m south of the Poplar Creek bridge.


BRITISH COLUMBIA
0 50 100 150 200 250
Scale - Kilometres
POPLAR CREEK
ATLIN
Liard R.
FT. NELSON
Stikine R.
Finlay R.
Peace R.
FT. ST. JOHN
DAWSON CREEK
Skeena R.
TERRACE
PRINCE RUPERT
PRINCE GEORGE
QUEEN CHARLOTTE ISLANDS
Fraser R.
Columbia R.
REVELSTOKE
KAMLOOPS
OKANAGAN
OVERNON
QUAMISH
PENTICTON
NELSON
TRAIL
OROVILLE
VANCOUVER
VANCOUVER ISLAND
VICTORIA
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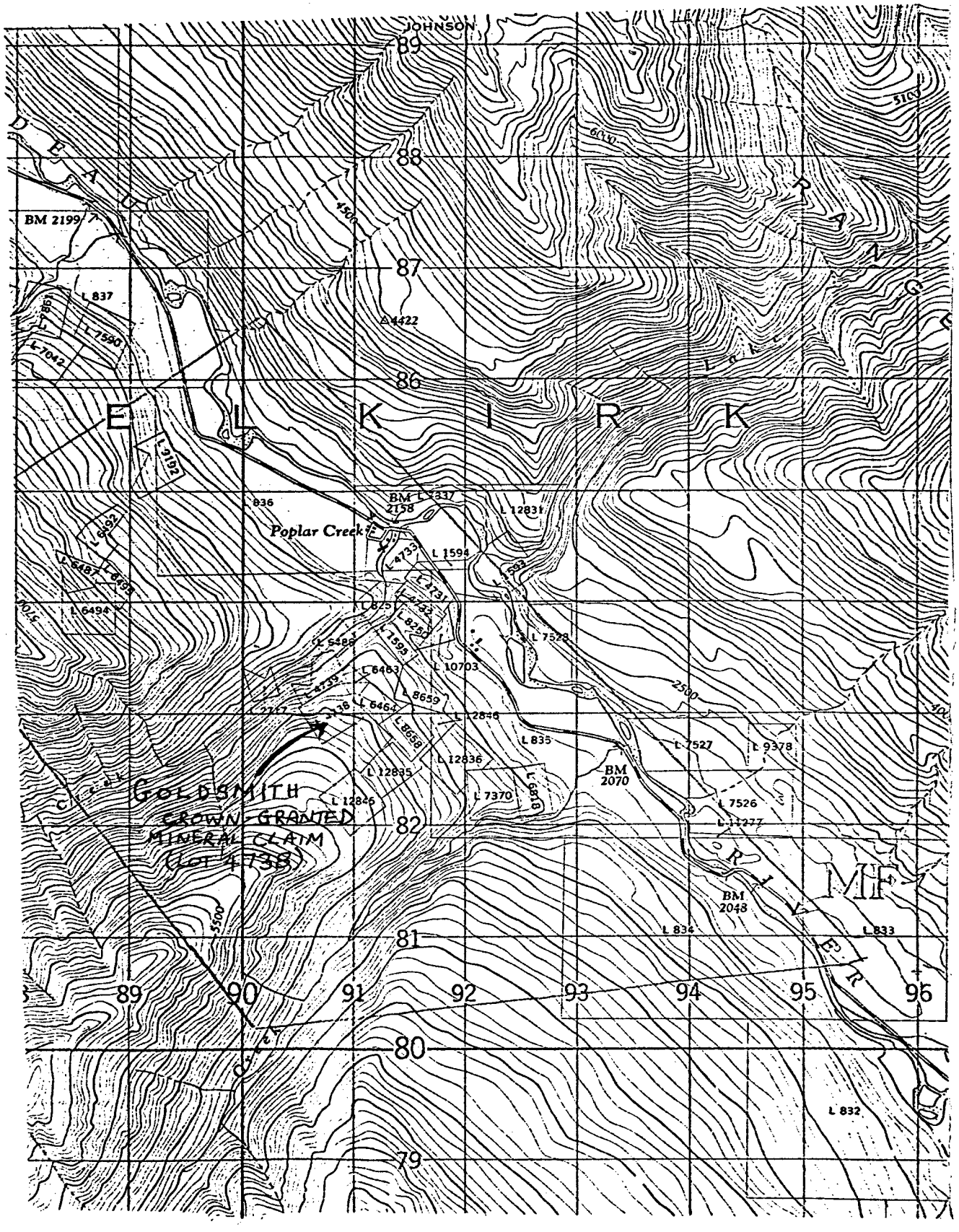
BRITISH COLUMBIA DEPARTMENT OF MINES
and
PETROLEUM RESOURCES
Victoria, B.C.

TOPOGRAPHIC MAP OF POPLAR CREEK AREA (from 1:50,000 map 82K/6E)



REGIONAL SETTING

The Poplar Creek area is underlain by lower Paleozoic volcanic and sedimentary strata of the Lardeau Group. These have undergone polyphase deformation and biotite grade metamorphism. The Poplar Creek area geology has been studied in detail by Read (1973) and the regional context for this report is given by a preceding assessment report (Wojdak 1981). The main lithologies of the area are variably carbonated mafic volcanic rocks (chlorite schist, greenstone) and argillaceous metasediments.

GEOLOGY (Figure 3)

The Goldsmith claim is underlain mainly by basaltic strata that are variably altered and contain from 5-40% carbonate. The rocks are now chlorite ± sericite ± quartz-carbonate schists and range from light green to dark blue-green in colour. Locally, especially near quartz veins (as in trench GS-34), the chlorite schist contains minor disseminated pyrite resulting in deep oxidation. There are two distinct textural varieties of greenstone; most outcrops are schistose, soft and recessive but some conformable bands are semi-massive, hard and distinctly resistant, although they may be well carbonated. The former are probably thin flows and tuffs while the latter may be a thick flow or intrusive sill. Neither possess preserved primary textures.

Graphitic argillite, argillite and siltstone (or siltite) are interbedded with the mafic volcanic strata. These are thin bedded and were probably deposited in deep water, possibly as distal turbidites. Sediments and greenstone strike northwest and dip moderately (40-60°) northeast. Terrain slopes north-easterly but less steeply than stratigraphic dip. Some abrupt changes in slope and gullies transverse to slope strongly suggest strike faults but stratigraphic control is insufficient to define these probable faults. One such structure is shown on Figure 3.

The Goldsmith claim lies 500 m along strike northwest of a ferroan dolomite-fuchsite-quartz exhalite. Quartz veins occur over a 150 m width extending onto Goldsmith. These have a similar strike to the host rocks but their dip varies from 45° SW to 45° N. Dumps containing massive arsenopyrite (with high gold content) were found beside old hand trenches at what is now trench GS-18, GS-18 East and GS-20. A soil geochemical survey located strong arsenic and gold anomalies (see previous assessment report, Wojdak 1981). These anomalies, arsenopyrite-bearing dumps and quartz vein locations were the basis of the trenching program.

TRENCHING AND SAMPLING (Figure 3)

Six bulldozer trenches were dug on the Goldsmith zone, named GS-18, 19, 20, 22, 30 and 34 (the numbers do not designate the sequence of trenching). Continuous chip samples were taken from the trenches with a 2½ lb. hammer and moil. All analyses were performed by Chemex Labs in North Vancouver. A complete list of sample widths, results and concise description is given in Table 1, sample sites are shown in Figure 3.

Trench GS-20 was dug beside a pile of massive arsenopyrite and immediately exposed a 10-25 cm vein within argillite. It is the only Au-bearing vein discovered to date within meta-sediments. Assays range from 0.058 to 0.370 oz Au/ton across 0.24 to 2.1 m. Cat-road exposures and very high soil geochem values at site JE 25 (>1000 ppb Au, 1900 As) trace the vein for 100 m along strike although it becomes a narrow quartz vein with arsenopyrite odour but very sparse visible arsenopyrite.

Trench GS-19 aimed to better expose an old hand-dug open cut in argillite that was sampled and returned 0.05 oz Au/ton across 4.0 m (sample GS-11). The follow-up sampling (GS-19A to 19E) confirmed the original value with 19E returning 0.052 oz Au/ton over 4.1 m.

Trench GS-30 was dug above a soil sample site that gave 200 ppb Au. A 10-15 cm wide southwest dipping quartz vein was exposed that possesses a strong arsenopyrite odour but no visible sulphide. Four 1.0 m samples across the vein, spaced 2.5-3.0 m apart, ranged from trace to 0.418 oz Au/ton, dramatically demonstrating the gold sampling problem.

Prospecting follow-up of the soil anomaly at JE-21 (250 ppb Au, 340 ppm As) located an arsenopyrite-bearing quartz vein in a small hand trench. Cat trench GS-34 and three backhoe cuts exposed two parallel quartz veins in deeply weathered pyritic (and arsenopyritic?) chlorite schist. An early sample, prior to the backhoe trenches, gave 0.164 oz Au/ton but subsequent sampling gave low results (all less than 100 ppb gold). Minor galena occurs at the eastern end of the exposed vein and sample 34E gave 0.42 oz Ag/ton, the only significant silver assay from the entire Goldsmith area.

Trench GS-18 East was located on the basis of dump arsenopyrite beside a sloughed open cut. A narrow, flat to very gently north dipping quartz-arsenopyrite vein was exposed. Gold values are 100 to 1000 ppb (the latter assayed 0.036 oz Au per ton) over about one metre (see Table 1). The main part of trench GS-18 exposed three close spaced quartz veins with sporadic pockets of massive arsenopyrite. The sampling (GS-18A to 18I) gave consistent low anomalous values (30-420 ppb Au). The trench has been located on the basis of poorly exposed veins and an old dump of massive arsenopyrite. Two samples of the latter assayed 0.068 oz Au/ton (GS-15) and 0.674 oz Au/ton (DR-45). An apparently barren vein was exposed on the steep sidehill between trench GS-18 and 18 East. A sample of this 15-25 cm vein gave a surprising 0.510 oz Au/ton over 1.6 m.

A quartz vein with sporadic arsenopyrite was exposed while preparing drill site 6. This was designated trench GS-22. A sample of the vein returned only 0.003 oz Au/ton.

DIAMOND DRILL PROGRAM

A complete description of hole orientation, depth, rocks encountered and assays is given in the logs and are only summarized below.

Drill holes 1 and 2 tested the arsenopyrite vein exposed in trench GS-20. Because of some uncertainty regarding vein dip in the incompetent host argillites, the vein was tested by drilling in both directions. Although numerous thin quartz veins were intersected no arsenopyrite was observed and all assays were very low. The only interesting result was identification of abundant andalusite and coexisting biotite, thereby better defining the metamorphic grade.

Hole 3 was intended to test trench GS-30 quartz vein. Predominantly sediments were intersected although chlorite schist is present in the trench. Either an abrupt facies change or, more likely, a fault intervenes between the trench and drill hole. A vein was intersected at the anticipated depth of 23 m but assays are very low.

Hole 4 represented a final test of the trench GS-20 vein on soil line 41+00 NW. Interbedded chlorite schist and argillite were cored, with numerous quartz veins,but low assays.

Hole 5 tested the quartz-arsenopyrite veins in trench GS-34. It intersected mainly greenstone with quartz-arsenopyrite vein zones intersected at 15.6-19.3 m, 43.2-45.5 m and at 50 and 57 m. The quartz veins are narrow, usually a few centimetres but with bleached vein envelopes extending from 0 to 20 cm out from the vein. Arsenopyrite may occur

in the vein but is more common as disseminated (0-15%), coarse, euhedral crystals in the altered vein halo. The best vein-arsenopyrite section gave only 0.018 oz Au/ton (540 ppb). However, a 2 cm quartz-carbonate vein at 57.1 m with a wide altered halo containing pyrrhotite gave an astounding 1.404 oz Au/ton following a geochem value of only 1200 ppb. A re-assay returned 0.996 oz Au/ton.

Drill hole 6 was planned to test veins in trench GS-18. It cored interbedded greenstone and argillite with numerous quartz veins but none bearing arsenopyrite or alteration envelopes comparable to hole 5. Assay values are low.

CONCLUSIONS

Gold mineralization at Goldsmith occurs associated with arsenopyrite-bearing quartz veins hosted by interbedded carbonated mafic volcanic strata and argillaceous metasedimentary rocks. Although there is a broad correlation of gold with arsenopyrite, in detail high gold values may occur with or without arsenopyrite and high arsenopyrite content does not guarantee more than geochemically anomalous gold. Detailed trench sampling demonstrates pronounced variability in gold grades and despite sporadic high values (up to 1.4 oz Au/ton over 0.9 m) the average gold content is sub-economic.

Paul J. Wojdak
Project Geologist

December 1981

BIBLIOGRAPHY

Read, P.B. (1973); Petrology and Structure of Poplar Creek Map-Area, B.C.; G.S.C. Bulletin 193.

APPENDIX 1

STATEMENT OF EXPENDITURES

ON

GOLDSMITH MINERAL CLAIM

WORK PERIOD

SEPTEMBER 18 - OCTOBER 10, 1981

Salaries

Jim Eenkooren (trench sampling, core rack construction, core splitting)	
20 days @ $43	$ 860.00
Alex Marr (geological mapping, surveying roads and drill sites, supervising diamond drill, core logging and drafting)	
20 days @ $71	1,420.00
Paul Wojdak (geological mapping, locating trench and drill sites, supervising drilling and sampling, core logging, drafting, overall supervision)	
20 days @ $158	3,160.00

Analyses

86 Au assay @ $6.00	516.00
21 Ag assay @ $2.50 when analyzed with gold	52.50
77 Au geochem @ $4.50	346.50
35 Ag geochem @ $1.75 when analyzed with Au	63.00

APPENDIX 1 (cont'd)

Diamond Drilling	
Contracted to J.K. Drilling and Candrill Enterprises, Delta, B.C.; prorated on basis of 1,342 feet of 2,447 total footage	$33,253.18
Drill access roads, sites, drill moves contracted to KEMEM Earth Moving, Argenta, B.C.	4,487.00
Trenching	
Contracted to KEMEM Earth Moving	1,720.00
Transportation	
Four-wheel drive truck, fuel	700.00
Sample shipping	300.00
Camp Costs	
20 days x 3 men x $16 per day	960.00
	$47,838.18

APPENDIX 2

STATEMENT OF QUALIFICATIONS

I, PAUL J. WOJDAK of the Municipality of Delta, Province of British Columbia, hereby certify:

1. That I am a geologist residing at 11405 85th Avenue, Delta, British Columbia with a business address at Suite 904, 1055 Dunsmuir Street, P.O. Box 49066, Four Bentall Centre, Vancouver, British Columbia V7X 1C4.
2. That I graduated with a B.Sc. (Honours) in Geology and Chemistry from McMaster University, Hamilton, Ontario in 1971 and with a M.Sc. in Geology from the University of British Columbia in 1974.
3. That I am a member of the Geological Association of Canada.
4. That I have practised geology with Cominco Limited and Westmin Resources Limited from 1974 to 1981.

Dated this 17 day of December 1981 at Vancouver, British Columbia.

Signed P. J. Wojdak

P. J. Wojdak, M.Sc.

TABLE 1 GOLDSMITH TRENCH SAMPLING

TRENCH	SAMPLE #	WIDTH	LITHOLOGY	Au (ppb)	Au (oz/t)	Ag (oz/t) or ppm when stated
GS-1	72213	2.5 m grab	quartz vein in argillite		0.090	0.02
GS-2	72214	1.5 m	quartz carbonated veins		0.058	0.01
GS-3	72215	3.0 m	argillite		0.062	0.01
GS-4	72216	0.8 m	quartz vein in adit #3		<0.003	0.05
GS-5	72217	2.0 m	chlorite carbonate schist in adit #3		0.010	0.10
GS-6	72218	2.3 m	quartz vein		0.003	0.02
GS-7	72219	0.8 m	quartz vein		<0.003	0.01
GS-8a	72220	1.2 m	quartz vein		<0.003	0.01
GS-8b	72221	1.3 m	quartz vein		0.004	0.02
GS-8c	72222	1.0 m	quartz vein		0.005	0.01
GS-9	72223	1.0 m	quartz vein		<0.003	0.01
GS-10	72224	1.5 m	carbonated chlorite schist		<0.003	0.01
GS-11	72225	4.0 m	argillite		0.050	0.07
GS-15	72226	grab	trench arsenopyrite		0.068	0.28
DR-45	72067	grab	trench arsenopyrite		0.674	.55
GS-20	72227	1.7 m	quartz veins in chlorite schist in adit #3		0.004	0.07
GS-21	72228	1.3 m	quartz vein in chlorite schist in adit #3		<0.003	0.01
GS-22	72229	1.1 composite grab	quartz vein in adit #3		0.003	0.02
GS-23	72230	grab	quartz vein, adit #1 dump		0.005	0.01
GS-24	72231	grab	chlorite schist, adit #1 dump		0.005	0.03

TABLE GOLDSMITH TRENCH SAMPLING (cont'd)

TRENCH	SAMPLE #	WIDTH	LITHOLOGY	Au (ppb)	Au (oz/t)	Ag (oz/t) or ppm when stated
DR-44	72067	grab	quartz vein schist, adit #1 dump		.032	.17
GS-30	72314	1.0 m	trench GS-30 10 cm quartz vein with arsenopyrite odour, in chlorite schist	>10,000	0.418	0.9 ppm
GS-31	72315	0.9 m		3,100	0.006	0.1 ppm
GS-32	316	1.0 m		560	0.090	0.1 ppm
GS-33	317	1.0 m		20		0.1 ppm
GS-34	318	0.75 m	pyritic chlorite schist (no quartz veins)	4,400	0.164	1.2 ppm
GS-34A	334	1.3 m	rusty, carbonated chlorite schist	40		0.1 ppm
GS-34B	335	1.4 m	(20 cms) quartz vein and carbonated chlorite schist	100		0.8 ppm
GS-34C	336	2.0 m	(40 cm) quartz vein, rusty, carbonated, chlorite schist	40		1.0 ppm
GS-34D	72337	1.3 m	rusty, carbonated chlorite schist	20		0.2 ppm
GS-34E	338	3.4 m	rusty, carbonated chlorite schist and 60 cm quartz vein	80		0.42 oz/t 20.0 ppm
GS-34F	339	2.4 m	20 cm quartz vein & rusty carbonated chlorite schist	20		0.01 oz/t 0.7 ppm
GS-34G	340	1.8 m	30 cm quartz vein & rusty carbonated chlorite schist	70		0.1 ppm
GS-18A	341	1.6 m	3 small quartz veins (3 cm, 5 cm, 8 cm) & rusty carbonated chlorite schist	260		0.6 ppm
GS-18B	342	2.0 m	30 cm quartz vein, rusty, carbonated chlorite schist	160		0.2 ppm
GS-18C	343	1.6 m	rusty, carbonated chlorite schist	360		0.1 ppm
GS-18D	344	1.9 m	3 cm quartz vein, & rusty, carbonated chlorite schist	90		0.1 ppm

TABLE 1 GOLDSMITH TRENCH SAMPLING (cont'd)

TRENCH	SAMPLE #	WIDTH	LITHOLOGY	Au (ppb)	Au (oz/t)	Ag (oz/t) or ppm when stated
GS-18E	345	2.0 m	10-15 cm quartz vein & rusty carbonated chlorite schist	30		0.1 ppm
GS-18F	346	1.7 m	rusty carbonated chlorite schist	100		0.1 ppm
GS-18G	347	2.7 m	15 cm quartz vein, strongly carbonated, hard chlorite schist	140		0.1 ppm
GS-18H	348	1.2 m	15 cm quartz vein, strongly carbonated, hard chlorite schist	400	0.004	0.1 ppm
GS-18I	349	1.5 m	15 cm quartz vein, strongly carbonated, hard chlorite schist	420	0.003	0.1 ppm
GS-18J	350	1.6 m	15 cm quartz vein, chlorite schist	>10,000	0.510	2.4 ppm
GS-18K	351	1.3 m	3 cm arsenopyrite vein in carbonated chlorite schist	300		4.0 ppm
GS-18L	352	0.8 m	3 cm arsenopyrite vein in carbonated chlorite schist	260		0.2 ppm
GS-18M	353	0.7 m	3 cm arsenopyrite vein in carbonated chlorite schist	1,000	0.036	0.1 ppm
GS-18N	354	1.2 m	3 cm arsenopyrite vein in carbonated chlorite schist	160		0.1 ppm
GS-18O	355	1.1 m	3 cm arsenopyrite vein in carbonated chlorite schist	100		0.1 ppm
GS-19A	356	3.0 m		230		0.1 ppm
GS-19B	357	3.7 m		20		0.1 ppm
GS-19C	358	3.9 m		< 10		0.1 ppm
GS-19D	359	4.6 m		80		0.1 ppm
GS-19E	360	4.1 m		1,600	0.062	0.5 ppm

TABLE 1 GOLDSMITH TRENCH SAMPLING (cont'd)

TRENCH	SAMPLE #	WIDTH	LITHOLOGY	Au (ppb)	Au (oz/t)	Ag (oz/t) or ppm when stated
GS-20A	361	2.1 m	10-25 cm arsenopyrite vein, in argillite	2,500	0.104	0.5 ppm
GS-20B	362	1.7 m	10-25 cm arsenopyrite vein, in argillite	2,000	0.07[illegible]	0.2 ppm
GS-20C	363	1.1 m	10-25 cm arsenopyrite vein, in argillite	>10,000	0.370	1.0 ppm
GS-20D	364	0.24 m	10-25 cm arsenopyrite vein, in argillite	1,800	0.058	0.1 ppm

Footnote - Sample sites not shown on Figure 2 were taken prior to cat trenching. These are GS-9, 10, 15 and DR-45 now in trench 18 and GS-11, now in trench 19.

Part 1 of 3

TRENCH GS-22
Aspy in quartz vein
DDH-6
PM-1419
GOLDSMITH ADIT No. 2
BASELINE 315°
SAMPLES GS-8A,B,C
Old hand trench
TRENCH GS-18
SAMPLES GS-18 A,B,C
PM 1420
pyritic unit 4
silicified unit 4
aspy
SAMPLES GS-18 G,H,I
SAMPLES GS-18 D,E,F
SAMPLE GS-18J
Sill ?
TRENCH GS-18 EAST
SAMPLES GS-18 K,L,M,N,O
Qtz-aspy vein
possible qtz vein
old hand trench
Narrow gully, probable fault
old Hand-dug trench
PM-1423
Hard resistant greenstone, possible intrusive
JE-79B
SAMPLE GS-6
GOLDSMITH ADIT No. 3
SAMPLES GS-4,5,20,21,22
PM-1428
Massive resistant Greenstone intrusive ?
SAMPLES GS-1,2,3
PM-1425
DDH-5
SAMPLES GS-23,24 DR-84
JE-19
(portal) sloughed
OLD CABIN
GOLDSMITH ADIT No. 1
TRENCH GS-19
SAMPLES GS-19A-E
PM-1426
TRENCH GS-20
SAMPLES GS-20A-D
DDH-1
msv. aspy vein
JE-20
PM-1427
42°+00 NW
TRENCH GS-34
5-10% py in GM schist
Aspy in QV
JE-21
SAMPLES GS-34 F-G
SAMPLES GS-34 A,B,C
trace galena
SAMPLES GS-34 D,E
TRENCH GS-30
SAMPLES GS-30 to 33
JE-22
GOLDSMITH CROWN KING
JE-188
DDH-2
JE-178
DDH-3
DDH-4
JE-24
very pyritic
thin tuff beds (4b) in argillite
JE-25
old hand trenches
JE-26
JE-27
41°+00 NW
GOLDSMITH RUSTY 7
CROWN KING

LEGEND

LARDEAU GROUP, Cambrian to Devonian

Jowett Formation - units represent an approximate lithologic sequence and may not be a stratigraphic succession. Some units may be equivalent and related by folding or faulting.

11 - Argillaceous greywacke, minor graphitic argillites grey.

10 - Feldspar porphyry andesites, ranges from dark green massive, well jointed, with lens shaped mafic inclusions to grey or black, well foliated, crystal fragments and tuff appearance.

9, 9a - Limestone, dolcaite, laminated chlorite-sericite-phyllitic limestone, numerous quartz veins; 9b chert; 9c lime black phyllites. Associated with unit 7.

8 - Quartzites, grit, minor argillites may be facies equivalent of unit 6.

7 - Carbonated mafic volcanic, medium to light green limy chlorite schist, commonly with distinctive limestone lenses.

6 - Siltstone, argillite, intercalated with limey chlorite schist, (mafic tuffs(?)).

5 - Carbonate Rabbitts (?), 5a massive coarse grained, ferroan dolomite - fuchsite - quartz rock to schistose ferroan dolomite - sericite - chlorite - quartz schist. Deep rust weathering, minor pyrite, arsenopyrite, very numerous quartz veins. 5b pyritic chert. 5c graphitic argillite.

4, 4a - Carbonated mafic volcanics, light green chlorite schist. 4b mafic tuff.

3, 3a - Argillite, graphitic argillites intercalated with limy chlorite schist similar to unit 6 and where unit 5 is absent distinction of unit 3 and 6 is uncertain. 3b with intercalated chlorite schist.

2 - Felsic volcanics, light coloured, rusty, quartz - sericite schist, with quartz eyes and amygdular near Mobb workings. Stratigraphic position variable.

1 - Mafic Volcanics, dark green pillow basalt, chlorite schist.

A - Quartz - (feldspar) grit.

SYMBOLS

- Bulldozer / backhoe / hand trench
- Geologic contact, observed, approximate, inferred
- Bedding
- Foliation
- Quartz vein
- Joint
- Minor fold axis
- Fault
- Locally derived float

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POPLAR PROJECT
GEOLOGY
GOLDSMITH ZONE

10 5 0 10 20 30 metres
SCALE 1:500

Date: DEC. 1981 | Drawn by: H.H. | FIGURE: 3