THE URSUS CREEK PROJECT

Vancouver Island, British Columbia

Map Sheet No. 92F-5

for

BARON VENTURES LTD.

NOW CALLED: PACIFIC SENTINEL GOLD CORP.

by
J. R. Woodcock

J. R. Woodcock Consultants Ltd.
1226 - 510 W. Hastings Street
Vancouver, B. C. V6B 1L8

May 11, 1987

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THE URSUS CREEK PROJECT

SUMMARY

In 1986 Baron Ventures Ltd. acquired 15 claims including 208 units along Ursus Creek, a tributary of Bedwell River on western Vancouver Island. This is an area of steep topography and heavy timber. Access at present is by helicopter from Tofino or Nanaimo. Logging roads are approaching the area up the Bedwell River from the west and also along Taylor River from the east.

The Bedwell River batholith has a number of associated gold quartz veins which occur along fractures within the batholith. Those that have been explored most or exploited lie along the south side of Bedwell River and consist of very narrow quartz veins with very high grades in gold.

A few quartz veins (the Camp and Mid Pad showings) also occur along Ursus Creek. Only traces of gold occur on the Camp showing; gold values in the range of 0.2 oz. per ton occur on the Mid Pad showing.

The Junction showing is of a different geological type. It is a cataclastic zone which lies along Ursus Creek which itself reflects a major regional fault structure. Complexity of history is indicated by the quartz veins which have been brecciated and incorporated into the mylonite, by the foliation and siliceous nature of the mylonite, by the fracture set which may be superimposed on the mylonite, and by the disseminated pyrite mineralization and some associated gold values.

A program of stream geochemistry in the side drainages of Ursus Creek has also yielded a number of anomlies on which very little follow-up work has been done. Although outcrops are abundant along many of the streams there are extensive areas of no exposure.

Some geochemical and geophysical work has been done in the vicinity of Thunderbird Creek, a small tributary from the south. This included soil geochemistry, a magnetometer survey, and some VLF-EM work. The soil geochemistry is the most useful. It shows very irregular areas of anomalous values in the vicinity of the Camp showing. This is included within a large area of erratic anomalous values that extends along the south side of Ursus Creek and encompasses several of the quartz veins.

Further work has been recommended to include follow-up on the stream geochemical anomalies and some mapping and sampling on the geochemically anomalous Junction showing. Phase I of the recommended program including the geology and the geochemistry is estimated to cost $61,800 and Phase II of the program to include trenching and sampling is estimated to cost $38,200. Total of Phase I and Phase II is $100,000.

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INTRODUCTION

GENERAL

The Ureka and Opus claims along Ursus Creek were staked in November, 1986 to cover gold showings occurring mainly in altered granodiorite.

Claims were originally recorded in the Thunderbird Creek area of the Ursus Valley in May 1939 and, in the past, several owners have carried out small programs of prospecting and trenching on the gold showings along Ursus Creek. Considerable underground exploration was also completed on the nearby Musketeer, Buccaneer, Avon and Trophy groups and a small amount of gold production was obtained in the 1940's from narrow quartz veins at the Musketeer Mine.

Between December 3 and December 14, 1986, D. Forster, J. Shearer, D. Brown and S. Butler completed an initial geological appraisal along Ursus Creek. Concurrently Chase and Associates Ltd. established and carried out geophysical and geochemical surveys, based from a camp near Thunderbird Creek. Subsequent follow-up work was done under the direction of Mr. J. Shearer.

The present writer visited the property accompanied by Mr. J. Shearer on February 25, 1987 in order to examine some of the mineralized trenches and other aspects of the property.

The legal cornerpost for the Ureka 5, 6, 7, 8 claims was examined and the records checked. None of the other claim posts were examined; however the writer believes them to be as represented by the company personnel and as reported on Table II of this report.

The writer also visited the property with Mr. Shearer on March 6 to check the Mid Pad and Branch showings; however the Junction showing was not accessible due to high water. On April 20, the writer returned to the property with Mr. D. Forster to examine the Junction showing and other exploration targets.

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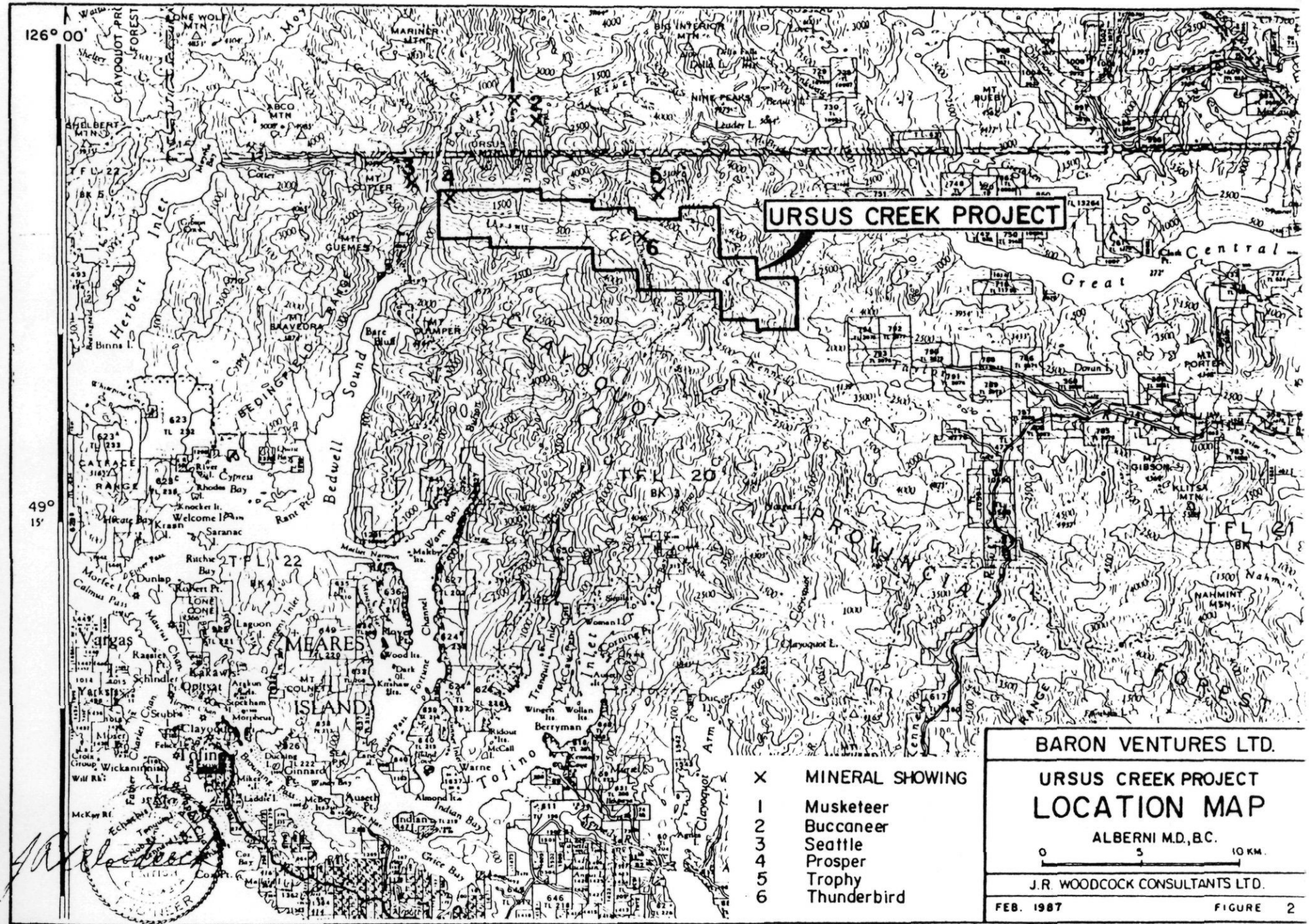
126° 00'
49° 15'
URSUS CREEK PROJECT
1
2
3
4
5
6
MINERAL SHOWING
1 Musketeer
2 Buccaneer
3 Seattle
4 Prosper
5 Trophy
6 Thunderbird
BARON VENTURES LTD.
URSUS CREEK PROJECT
LOCATION MAP
ALBERNI M.D., B.C.
0 5 10 KM.
J.R. WOODCOCK CONSULTANTS LTD.
FEB. 1987
FIGURE 2

CHONG

HISTORY

One of the earliest prospects located along the Bedwell River was the Seattle property lying west of the confluence of Bedwell River and Ursus Creek. This was located in 1896. Most of the gold prospects, however, were found and located in the years 1938 to 1940. The most important prospect, the Musketeer, was first discovered in 1938 and subsequently explored by a number of companies including Pioneer Gold Mines Ltd. The Buccaneer, also consisting of narrow high grade gold quartz veins, was originally located by Mr. Samuel D. Craig in 1939. The Prosper property, close to the present claim holdings of Baron Ventures Ltd., was also discovered in 1939.

The prospects near the junction of Thunderbird Creek and Ursus Creek were originally recorded in 1939 under a partnership agreement between G. A. Williams, B. H. Symons, J. W. Harvey, H. P. Martin, and D. V. Evans. This property was subsequently acquired by Mr. Sam Craig in about 1979. He optioned the property to Eldorado Minerals and Petroleum Ltd. and this company, in 1984, hired Virginia Kuran to conduct a program of exploration including trenching, sampling and soil geochemistry.

EXPLORATION WORK - BARON VENTURES

Exploration work by Baron Ventures Ltd. included a base line trending 104° with a 0 point near the trench area and cross lines at 25-meter intervals in the central parts and 50-meter intervals in the eastern and western extremities.

Soil samples were collected at 10-meter intervals along the lines with the usual sample depth from 1 to 20 centimeters. In addition stream sediment samples, some soil samples and some rock samples were collected in a reconnaissance survey along the lower parts of Ursus Creek, using a helicopter based in Ucluelet.

Geophysics included a ground magnetometer survey using a Sintrex MP-2 proton precession total field magnetometer and a VLF-EM survey using Phoenix Geophysics VLF-2 instrument.

Some trenching and stripping was accomplished using an Atlas Copco drill and the trenches were sampled.

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LOCATION, ACCESS, PHYSIOGRAPHY

The claims are centered at latitude 49° 22.5' N, longitude 125° 36.5' W on Map Sheet 92F-5. They extend easterly along Ursus Creek and southeasterly over the pass into the upper drainage of Taylor River. The claims are 1500 meters south of the southern boundary of Strathcona Provincial Park.

Ursus Creek drains westward and enters Bedwell River three kilometers north of its exit to Bedwell Sound. Thunderbird Creek flows northerly into Ursus Creek and the small TEH grid is at this junction, ten kilometers east of the junction of Ursus Creek and Bedwell River. This grid is also approximately ten kilometers west of the western extremity of the Taylor River logging access road. Another old logging road, now abandoned, follows the west side of Bedwell River.

Access at present must be by helicopter from Port Alberni, 60 kilometers to the southeast or from Nanaimo, 165 kilometers to the southeast. In the summer season temporary helicopter bases may be occupied at Tofino, 55 kilometers to the southwest. Helicopter access for any major transportation such as a drilling job should be from the end of the Taylor River road.

The property is in the West Coast region of heavy rainfall, heavy virgin timber, and steep topography. Although logging has been carried on along Bedwell River to the west and along the Taylor River to the east, the property at present is not accessible. However the claims are within Tree Farm Licence 20, Block 3 and extensive on-ground timber cruising was done in 1986 around the grid area. Hopefully this will lead to logging operations and access roads.

The property is covered by typical west coast rain forest vegetation, mainly mature western red cedar up to two meters in diameter mixed with large hemlock and a few Douglas fir. The open forest floor vegetation consists of salal, ferns and minor immature hemlock and yew trees. Parts of the main Ursus Creek valley bottom are a dense thicket of buck brush and devil's club.

PROPERTY STATUS

The Ureka 1 to 14 and Opus 1 to 2 claims are held in the name of Douglas B. Forster. The property includes 200 units in 15 claims, all recorded on December 1, 1986.

The claim data is given in Table I.

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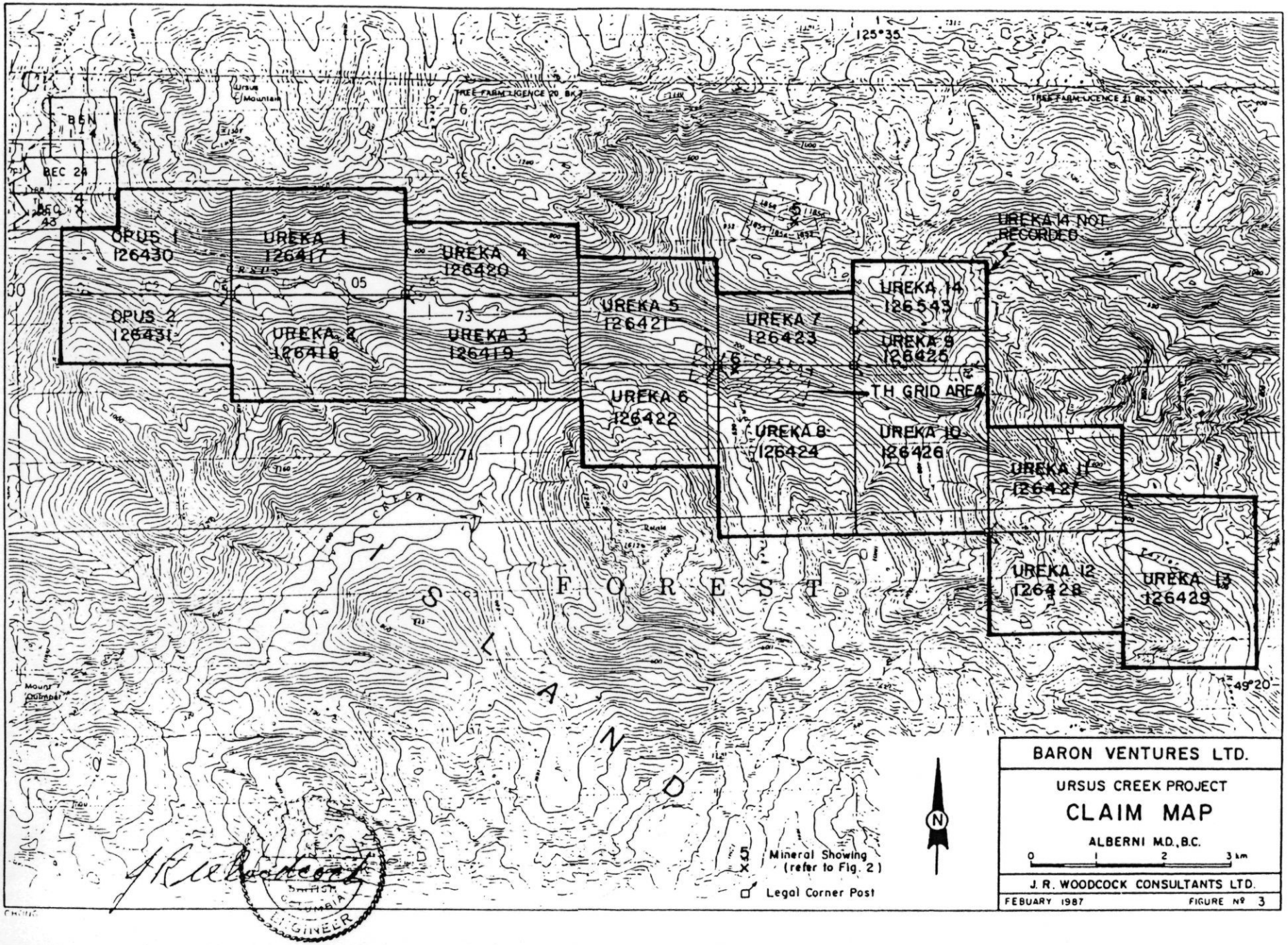
125°35'
49°20'
OPUS 1
126430
OPUS 2
126431
UREKA 1
126417
UREKA 2
126418
UREKA 3
126419
UREKA 4
126420
UREKA 5
126421
UREKA 6
126422
UREKA 7
126423
UREKA 8
126424
UREKA 9
126425
UREKA 10
126426
UREKA 11
126427
UREKA 12
126428
UREKA 13
126429
UREKA 14
126543
UREKA 14 NOT RECORDED
TH GRID AREA
TREE FARM LICENCE 20 BK 3
TREE FARM LICENCE 21 BK 3
Ursus Mountain
Mount Olympus
CREEK
F O R E S T
S L A N D
Mineral Showing (refer to Fig. 2)
Legal Corner Post
BARON VENTURES LTD.
URSUS CREEK PROJECT
CLAIM MAP
ALBERNI M.D., B.C.
0 1 2 3 km
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FEBUARY 1987
FIGURE Nº 3

GEOLOGY

REGIONAL GEOLOGY

Much of the central part of Vancouver Island is underlain by Triassic strata, including the Karmutsen basaltic volcanics and the overlying Quatsino limestone. These are intruded by irregular batholithic plutons of the Vancouver Island Intrusions, Middle Jurassic in age. Many of the irregularities in the distribution of the batholithic rocks are due to faulting, especially a northwest trending system of faults that are dominant in the vicinity of Ursus Creek. These offset and juxtapose batholithic rocks against Triassic rocks, mainly the Karmutsen volcanics.

REGIONAL MINERALIZATION

Several gold-bearing quartz veins, found in the Bedwell River batholith, have been explored in the past by trenches and/or underground workings. One of these, the Musketeer property, has produced gold.

Many of the characteristics of the gold-bearing quartz veins along Bedwell River may be of value in the exploration along Ursus Creek and therefore the geology of four of these properties, the Musketeer, the Buccaneer, the Trophy, and the Prosper will be briefly described.

The Musketeer Group

The veins, which occur within the batholith, are about a mile from its western margin and occur in two complementary sets of fractures along which there has been some shearing. The one group of fractures strikes 10^{o} to 30^{o} azimuth and dips steeply to vertical. In some places andesite dikes occur in fractures of similar attitude. The other group of fractures strikes northeast to east and dips northerly at angles from 45^{o} to 75^{o}.

At the Musketeer property, the Trail Vein strikes northerly and is offset by the fracture which contains the Musketeer Vein and which strikes easterly.

The quartz veins have sections which are ribboned and generally contain gouge along the walls. The veins are composed of quartz with some white carbonate and varying proportions of sulphides. The sulphides are distributed irregularly in the veins, comprising up to 15% combined sulphides including pyrite, galena, sphalerite, and chalcopyrite.

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Pyrite alone is not a reliable indicator of gold; galena and perhaps sphalerite are usually observed with pyrite in vein matter that assays well in gold. Also the gold appears to be independent of the chalcopyrite content.

One of the characteristics of these veins is their very narrow width and their good gold content. A number of samples from the 1000-level of the Musketeer Vein presented by Sargent (1941, p 40) shows that the highest gold values are generally with the banded vein material and that a weighted average of ten samples, disregarding whether or not they are within ore shoots, is 1.48 oz/ton Au across 5.4 inches (14 cm), with values up to 4.95 oz/ton across 4.5 inches. Silver values are generally slightly less than the gold values.

Buccaneer Mines Ltd.

Two parallel veins have been explored at the Buccaneer property and both of these veins occur in branching fractures which are largely in or at the sides of altered green andesite dikes. These dikes strike about N 25° E and dip steeply southeast. They have exposed widths of from a few centimeters up to 7 meters, generally averaging about 2.5 meters. The veins can occur along one side of a dike and cross to the other side for an interval and in places can also cross to an adjacent dike.

The vein filling generally consists of quartz, in veins from 5 to 50 cm wide and generally having gouge at the walls. The quartz veins contain fragments of wall rock that are generally partly replaced by ankerite and chlorite. Some of the vein matter is ribboned by closely spaced fractures parallel to the walls.

In places along the veins the quartz can replace sheared wall rocks forming lenticular masses or irregular stringer zones. These bodies are up to 1.3 meters wide but are generally barren of gold.

The primary sulphides include chalcopyrite, pyrite, galena and sphalerite, generally forming less than 1% of the vein. The gold distribution is irregular; it occurs in the gangue and in contact with or close to the sulphides. Although the gold values are highest where base metals are present, gold does also occur where no base metals are detectable by assays.

Widths of veins are again very narrow and gold values are quite high. A number of samples have been taken and presented by Sargent (1941, pp 56-60). The best values reported are from the 1600-level of the Craig Vein and 18 of these samples, regardless of sample locality, have a weighted average of 2.34 oz/ton Au across 8.2 inches (21 cm).

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The Trophy Property

The Trophy group of claims, originally recorded in 1939, is on the North Fork of Ursus Creek, approximately one kilometer north of Ureka 7 claim. Sargent (1940) reports that several cabins have been built and that development work has been done on the vein.

The rock is dominantly quartz diorite of the Bedwell River Batholith which includes some light fine-grained dikes and some remnants of volcanic rock. Alteration is intense enough in places to obscure the identity of the original rock.

The Trophy Vein strikes N 70° E and dips 80° southerly. At the time of Sargent's visit, it was exposed in the canyon and in trenches for a total distance of 175 feet. Apparently subsequent to his visit an adit was driven southerly to cross-cut the vein and drift along it.

The vein filling consists of banded quartz containing small amounts of sulphides irregularly distributed or white unbanded quartz. Gouge occurs along the walls and in places forms thin partings within the quartz. In the latter case it has been highly altered to sericite. Pyrite is the dominant sulphide; however galena, sphalerite and chalcopyrite are also present and free gold occurs in small grains in the white quartz.

Sargent selected a grab sample of the white quartz, rejecting any that had visible gold and this sample assayed 0.02 oz/ton Au and trace Ag. He also a selected a sulphide-bearing sample which assayed 2.70 oz/ton Au and 0.7 oz/ton Ag. He took three samples across the width of the vein and reported 9.5 inches assaying 0.3 oz/ton Au and trace Ag, 14 inches assaying 0.08 oz/ton Au and trace Ag, and 16 inches assaying 0.58 oz/ton Au and 0.6 oz/ton Ag.

The Prosper Property

The Prosper property, lying near the northwest corner of Opus 1 mineral claim, is presently covered by the Bess claim (Record Number 43). The Bess claims were acquired in June of 1975 by Mr. Walter Guppy of Tofino and transferred on September 30, 1985 to Bermuda Resources Ltd.

The property is an old one; some old adits and open cuts were made about 1903. In 1939 a group of people, including Walter Guppy, recorded the Prosper 1 to 8 claims.

The mineral showings exposed by and near the workings occur in the Karmutsen volcanics close the the Penny Creek batholith. Mineralization is associated with fractures that strike about N 70° E and dip 65° to 70° northerly. Shearing

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and chloritization has occurred along these fractures and at some points quartz stringers with disseminated pyrite have been formed. The quartz is mineralized with pyrite and chalcopyrite and some free gold. Sargent (1940, p 24) reports a number of samples taken in trenches over a length of about 200 feet (60 m). The weighted average of five sample sites is 0.39 oz/ton Au over 13.6 inches (35 cm).

PROPERTY GEOLOGY

Rock Units

Two main units occur on the property including batholithic rocks and the Triassic volcanic strata of the Karmutsen Group. Shearer has divided the batholithic rocks into granodiorite and a contact phase of quartz diorite.

Shearer's granodiorite is a light grey to buff-weathering, greenish grey hypidiomorphic rock with biotite and hornblende identified in the field. Until the ratio of potash feldspar to plagioclase feldspar is determined, only the field name can be used.

The quartz diorite is a dark green transition rock in which coarse quartz grains occur in a chlorite-rich matrix with some slight foliation. Relic feldspars are evident in most specimens and these are generally veined by very thin hair-line veins of calcite.

Karmutsen volcanics on Vancouver Island are generally aphanitic but can be fine-grained phaneritic. Colour is dark green and the rocks are generally considered to be oceanic basalts. In some places where running water has polished the surface, the pyroclastic nature is evident. These have only been mapped along the south part of the grid area.

Structure

The maps of the Geological Survey of Canada (Muller, 1971 and Douglas, 1979) indicate a west-northwest trending fault that extends from the west end of Sproat Lake to the head of Herbert Inlet. This follows the drainage of Ursus Creek and, along the upper part of the creek, juxtaposes batholithic rocks on the north against Karmutsen volcanics on the south. Other sub-parallel regional faults lie about three kilometers to the north and five kilometers to the south of Ursus Creek.

MINERALIZATION ON THE PROPERTY

The Thunderbird property includes four showings of quartz mineralization, some of which carry gold values. These have been named the "Main" or "Camp Creek" showing which is at

Line 0 + 00 (Trench 1); the "Mid Pad" showing which is along Line 4 + 50 E and occurs on the cliffs immediately south of Ursus Creek; the "Junction" (East) showing which occurs along the south side of Ursus Creek between Lines 7 + 00 E and 7 + 50 E, and the "Dike" showing which is about one km downstream from the "Main" showing.

Main Showing

The Main showing occurs adjacent to the strong shear zone that marks Camp Creek. The shallow overburden and moss were removed from this showing by previous workers. Trenching done in 1986 enlarged the exposure of the mineralized rock.

Quartz mineralization has two dominant attitudes, almost at right angles. A quartz vein with some associated stringers is exposed on top of a little knoll where it has a variable strike in a northwesterly direction and a dip of about 40° southeast. This vein can be traced about ten meters in the exposure; it appears to pinch to the northwest and merge with the easterly-striking vein to the southeast. The easterly vein system, comprised of a number of thin veins and lenses which anastomose to form a high quartz stringer zone, is exposed in the face of a small cliff. The thickest quartz in this area is seven centimeters. Strike varies from northerly to N 73° E and dip is steep, about 80° northwesterly. The quartz veins expand at the intersection of the two systems.

The thickest (up to 7 cm) veinlets have bluish grey quartz with disseminated chalcopyrite and pyrite. The smaller white and grey quartz veins are barren of sulphides.

Mr. Doug Forster took twelve grab samples from the NW vein; the numerical average is 920 ppb Au. Mr. Joe Shearer, after additional trenching, did a more detailed sampling program. His results averaged 550 ppb Au for five samples from the NW vein and 450 ppb for twelve samples from the easterly vein. The present writer took two chip samples across the northwesterly striking vein, some of which had abundant chalcopyrite. These samples, both 20 centimeters long and one meter apart, returned assays of 245 ppb (.007 oz/ton) and 780 ppb (.02 oz/ton).

The vein has insufficient gold or size to be of economic importance.

The Mid Pad Showing

The Mid Pad showing includes a lensy quartz vein with associated quartz stringers that strikes 118° and dips 90°. It is exposed on the south side of Ursus Creek and can also be

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seen in the cliffs along the north side of the creek, about 20 meters away. However, the creek could not be crossed at the time of the visit and so this exposure on the north side of the creek could not be sampled.

Three sets of samples have been taken and reported for this showing. Samples reported by Virginia Kuran in Assessment Report 12,623 have been taken across the narrow quartz vein and the adjacent rock in three sites. Values and widths obtained are as follows.

Sample	Width (inches)	Au (oz/ton)
95606	20	0.027
95607	60	0.023
95605	18	0.001
95603	26	0.02
91336	6	0.015

A number of samples were taken by Mr. Doug Forster on December 4, 1968 and analyzed in the same laboratory. The results are considerably higher, with assays of selected mineralization up to 0.849 oz. per ton.

The present writer, using a hammer and moil, took four samples across the quartz vein area. The westerly sample, (W13), taken over 53 centimeters, included mainly quartz vein but also some adjacent altered wall rock with a few quartz stringers. A second set of samples was taken 4.3 meters to the east of this. This included a 38-cm lens of quartz (W16) and a continuous 1-meter sample of wall rock to the south (W16). In addition a small lens or knot of quartz within a pinched part of the vein system was sampled (W15) across five centimeters. The results are as follows.

Sample No.	Width (cm)	Au Geochem (Fire Assay) (ppb)	Equivalent oz/ton
W87-13 R	53	1950	.057
W87-14 R	100	85	trace
W87-15 R	5	6700	0.197
W87-16 R	38	7350	0.216

The Junction (East) Showing

About two kilometers above the mouth of Thunderbird Creek is a major junction in Ursus Creek. The Junction showing is about 50 meters up the north branch from this junction and is exposed in the cliffs along the south side of the creek.

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Natural scaling along major fractures that trend sub-parallel to the creek bed has created a cliff in which major fracture faces are interspersed with sharp small vertical steps or reentrants. The fractures strike 120° azimuth and dip about 80° NE.

The rock is a hard greenish cataclastic, probably a mylonite, containing numerous subangular, elongate fragments of quartz ranging in size from five centimeters down to microscopic. Considerable calcite occurs in much of it. The hardness may be due to the fine-grained nature of the mylonite or due to some later silicification. The matrix is composed of quartz and sericite. The green colour may be imparted by a bright green muscovite and/or chlorite. The rock is probably a tectonically crushed granodiorite.

Fine-grained pyrite is dispersed in varying portions throughout much of this rock and assays indicate the presence of gold; although its association within the rock has not been determined. In places the fine-grained pyrite is of sufficient quantity to product limonite on oxidation and this is quite apparent in the reentrant at the discovery point.

Selected samples by D. F. Forster on his first examination of the property returned gold values of 0.169, 0.496 and 0.778 oz/ton. On April 19 and 20, D. Forster took more closely controlled chip samples. These included one moiled channel sample (DF-123) across 1.2 meters which assayed 0.162 oz/ton Au. Other samples taken by Forster include a second chip sample about one meter above the first, that assayed 0.132 oz/ton over 0.5 meters; two additional chip samples extending continuously further north that assayed 0.115 ounces over 0.5 meters and 0.065 ounces over 0.5 meters; several grab samples of the scaled rock debris that assayed 0.169, 0.142, 0.026, and 0.142 oz/ton and three chip samples were taken three to six meters easterly along the base of the cliff that returned values of 0.027, 0.014, and 0.015 oz/ton.

The present writer took a chip sample with a hammer across the site of DF-123 and got 1590 ppb (equivalent to 0.045 oz/ton). The reason for the difference is not apparent; possibly the gold occurs in scattered thin pyritic seams. Three specimens were also submitted for assays. A piece of spalled rock with abundant quartz fragments and fine disseminated pyrite assayed 5600 ppb (0.165 oz. per ton) gold; a high sericite rock with scattered pyrite crystals but no quartz fragments assayed 365 ppb gold; and a silicified rock with scattered pyrite and a few quartz fragments assayed 435 ppb.

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In addition, the writer took a rough grab sample from two outcrops of similar rock, about 200 meters further to the east. This sample assayed 415 ppb Au.

The fractures may be superimposed on the foliation at a very acute angle; however additional field work will be necessary to verify this. In any case there are several definite stages in a complex geological history. Certain structures had to be present for the initial quartz mineralization which was subsequently brecciated and drawn out into parallel elongated fragments in a cataclastic zone. The slight foliation may be related to this stage of the history. The fracturing was possibly superimposed on the mylonite. The gold mineralization was also superimposed on the mylonite, possibly controlled by the fracture zones.

The Dike Showing

At the Dike showing, an exposure of buff-weathering granodiorite occurs on the south side of Ursus Creek. A fracture zone, that strikes 116° azimuth and dips 80° N, is silicified and cut by a few quartz stringers. This is mineralized with sparse disseminated pyrite and a few scattered specks of galena. A small grab sample of this altered rock analyzed 16 ppb Au.

The alteration lies north of a vertical basic dike that is ten meters wide and strikes 130° azimuth. A grab sample of the altered rock adjacent to the dike has 0.025 oz/ton Au. Fresh granodiorite occurs on the south side of the dike.

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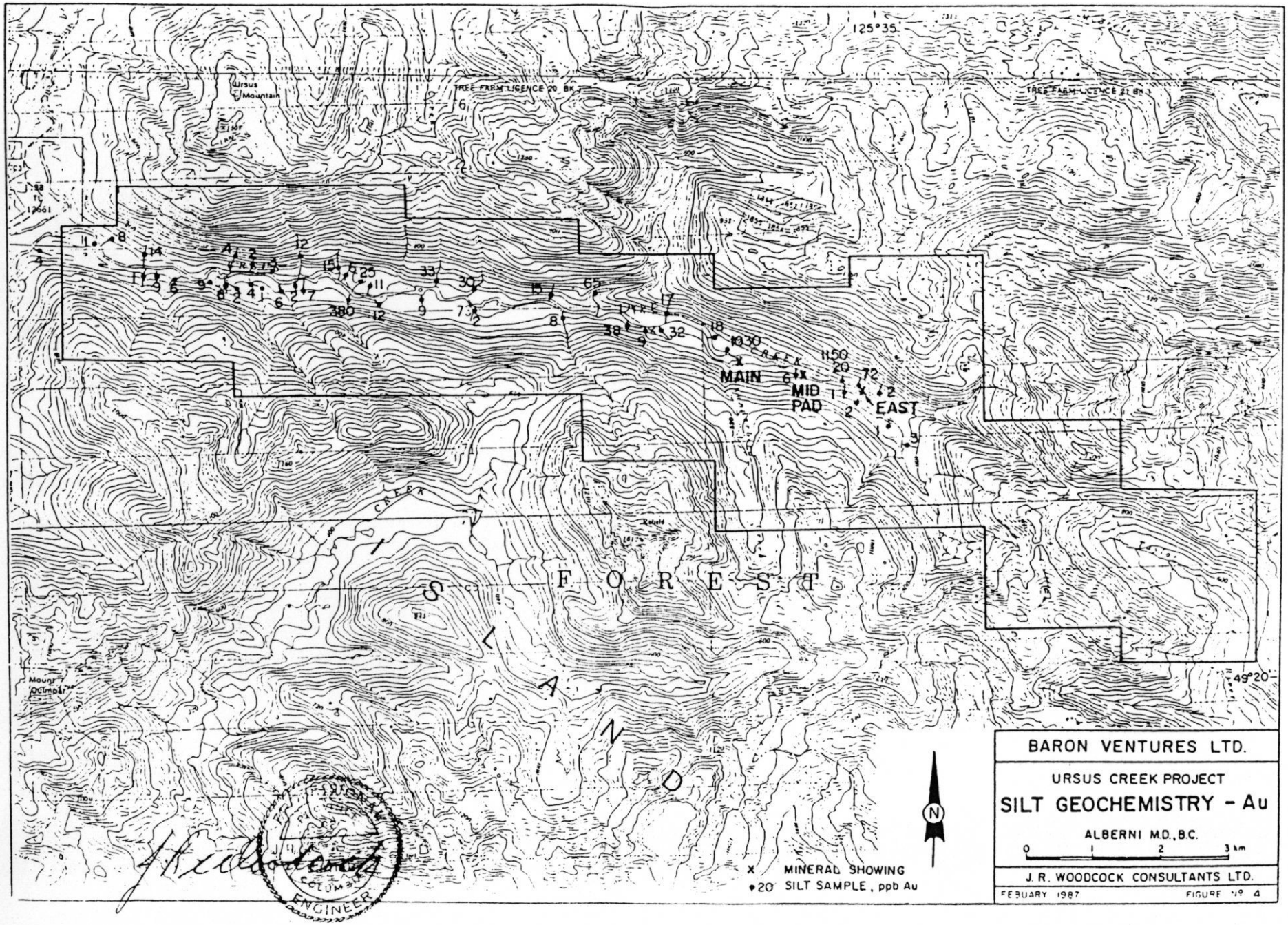
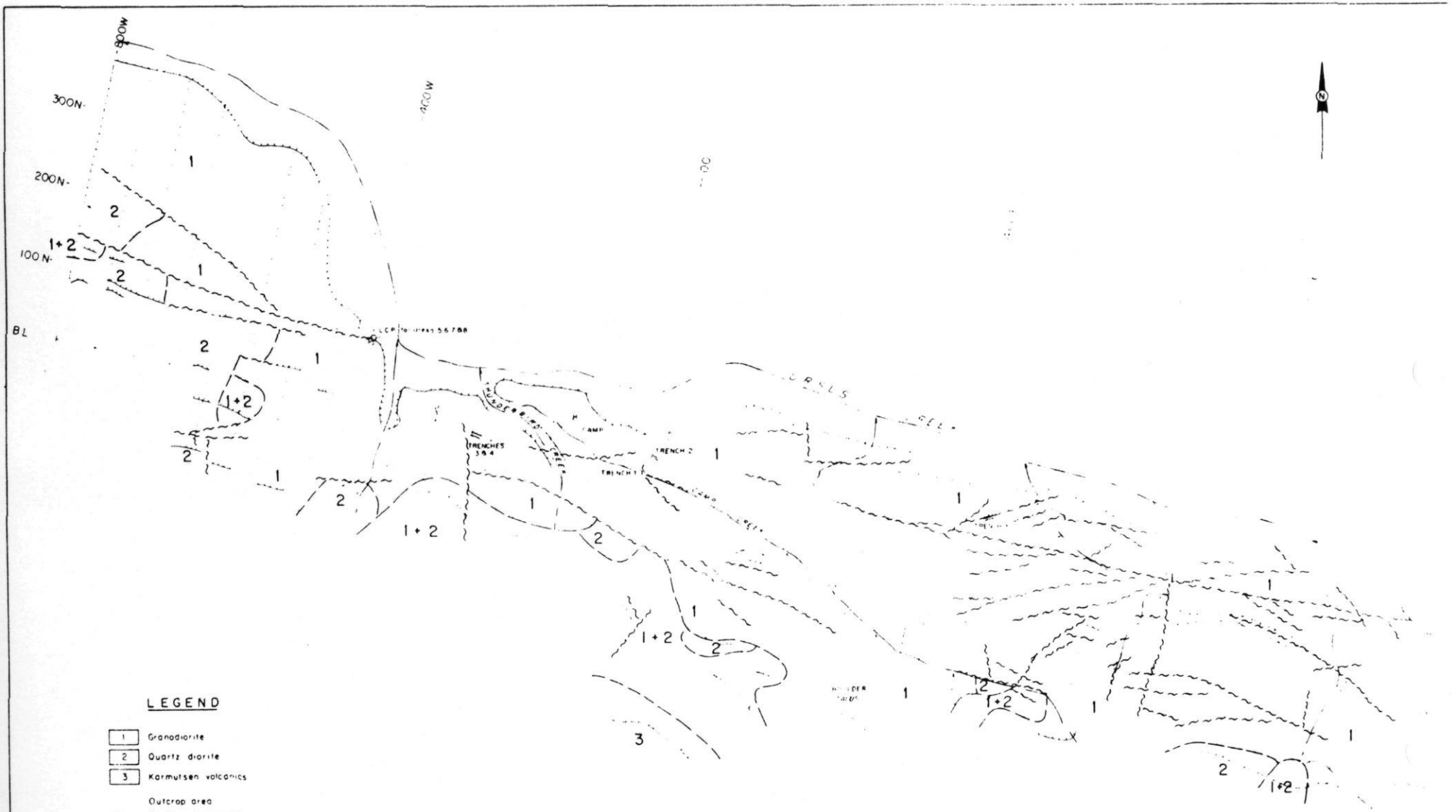

125°35'
49°20'
Ursus Mountain
TREE FARM LICENCE 20 BK
TREE FARM LICENCE 21 BN
MAIN
MID
PAD
EAST
CREEK
S L A N D
F O R E S T
Mount Octopus
X MINERAL SHOWING
•20 SILT SAMPLE, ppb Au
BARON VENTURES LTD.
URSUS CREEK PROJECT
SILT GEOCHEMISTRY - Au
ALBERNI M.D., B.C.
0 1 2 3 km
J. R. WOODCOCK CONSULTANTS LTD.
FEBUARY 1987
FIGURE No. 4



LEGEND

- 1 Granodiorite
- 2 Quartz diorite
- 3 Karmutsen volcanics

Outcrop area
Fault or lineament
Steep cliff
Trench
Altered rock

Mapping by S. Butler, J. Shearer, D. Forster, Dec. 1986

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA

BARON VENTURES LTD.

URSUS CREEK PROJECT

TH GRID

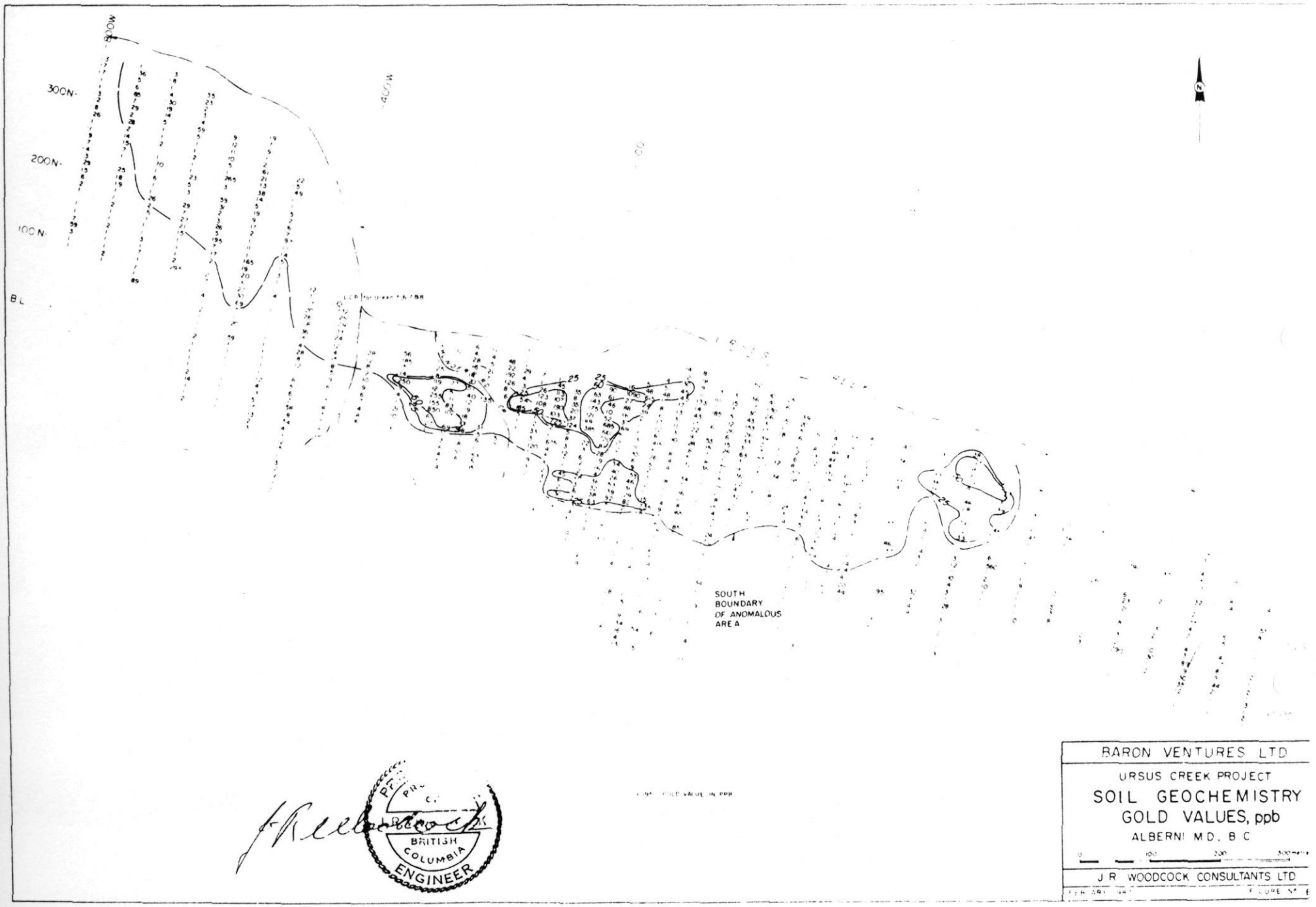
DETAIL GEOLOGY

ALBERNI M.D., B.C.

0 100 200

J.R. WOODCOCK CONSULTANTS LTD.

FEBRUARY 1987 FIGURE NO. 5



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URSUS CREEK PROJECT

SOIL GEOCHEMISTRY

GOLD VALUES, ppb

ALBERNI M.D., B.C.

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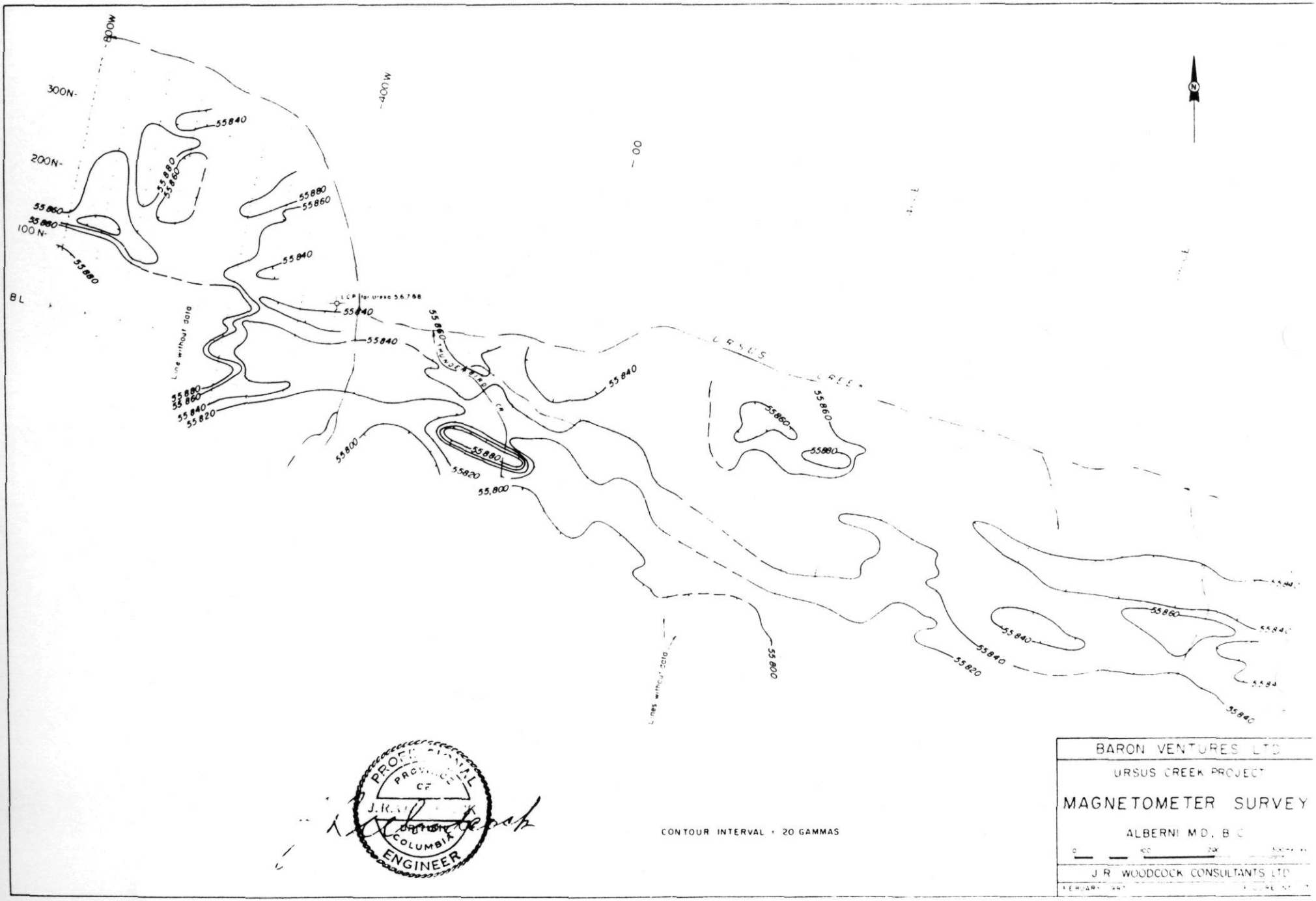
FIGURE No. 6

PROFESSIONAL ENGINEER
BRITISH COLUMBIA
ENGINEER



CONTOUR INTERVAL = 20 GAMMAS

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URSUS CREEK PROJECT

MAGNETOMETER SURVEY

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GEOCHEMISTRY

SILT GEOCHEMISTRY

Small streams entering Ursus Creek from the south and the north have been silt sampled from the confluence with the Bedwell River to the forks near the head of the creek. This takes in about three-quarters of the length of the property. Many of the little streams are very steep and swiftly flowing and therfore obtaining fine silts is very difficult.

The silts were analyzed for traces of gold and the results for 45 silts are presented in Figure 4. Perusal of the results shows that most of the silts, especially those near the lower parts of Ursus Creek, have background values of 15 ppb or less.

Several anomalous samples were obtained and these include a stream from the south on Ureka 2 claim with 380 ppb, a stream from the north (opposite the TH grid) with 130 ppb, and a stream from the north on the Ureka 7 claim with 1150 ppb. This latter site was re-checked and a subsequent sample ran at 20 ppb. It is noteworthy that an adjacent stream is also moderately anomalous with 72 ppb. The great change in values of two samples from the same stream is characteristic of gold geochemistry and is generally attributed to nugget effect within the stream itself or within the laboratory portions selected from the sample.

Another anomalous value (65 ppb) occurs in a stream on the north side of Ursus Creek on the Ureka 5 claim. This is the stream that drains the Trophy gold prospect; the anomalous value may be attributed to this prospect.

Four additional somewhat anomalous values (30 to 38 ppb) occur in two streams on the north side of Ursus Creek on the Ureka 4 claim and on the south side of Ursus Creek on the Ureka 5 claim. Although these are not high values their significance is enhanced by the fact that, in both cases, the high values occur in adjacent streams.

SOIL GEOCHEMISTRY

The grid area, centered near Thunderbird Creek, includes a central part where the line spacing is 50 meters and the east and west parts where the line spacing is 100 meters. Soil samples were taken at 25 meters along the cross lines and analyzed for gold at Acme Analytical Laboratories Ltd. Soil samples include some from the B horizon in glacial till, some of C-horizon in glacial till, and some of disintegrated bedrock. Results of this work are presented on Figure 6.

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The threshold for anomalous values is selected at 25 ppb Au; high anomalous values would be those that exceed 200 ppb Au. Values range up to 1090 ppb.

In general the map presents a picture of background gold values containing scattered anomalous values. In places the anomalous values are abundant enough to create continuous anomalous zones and these have been marked with contours at 25 ppb and 50 ppb. Most of these contoured anomalies occur in the vicinity of Thunderbird Creek and the largest one marks the little knoll that contains the Main showing. Outside of these contoured highs, the area has been divided into two geochemical zones including a southern zone in which most values are less than 5 ppb but which contains scattered anomalous values up to 790 ppb. North of this background area and generally surrounding and enlarging the contoured targets is an area in which most background values are above 5 ppb and up to 25 ppb. This "anomalous area" also has a greater abundance of scattered anomalous values between 25 ppb and 885 ppb.

The above technique of treating the geochemical values seems to give the most useful picture. Contouring individual anomalous values leaves an almost meaningless picture.

There are several factors which would attribute to the erratic nature of the geochemical map:

1. The highly anomalous values should be related to auriferous quartz veins and lenses.

2. The magnitude of the value will depend on the depth of the overburden. In places on high little knolls the weathered and disintegrated granitoid rock occurs at the surface just under the moss and, where this contains little quartz lenses or quartz veins, anomalous values can occur. In places where the depth of overburden is quite deep such as in the bottom of Ursus Creek valley and Camp Creek, one should expect a much lower geochemical value.

3. A contribution of the little streams to the Ursus Valley would create erratic conditions if some of the soil samples were taken on the debris from these little streams.

4. Glacial movement in the area would also redistribute any auriferous rock or vein material. The glacial ice at this place would have been down this sharp little valley in a westward direction.

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GEOPHYSICS

MAGNETOMETER SURVEY

A ground magnetometer survey was done on the grid area by Bill Chase & Associates Ltd. and the results have been computer plotted by Shangri-La Minerals Ltd. The present writer has used the numerical results presented by Bill Chase & Associates Ltd. and simplified the contour map as presented in Figure 7. The data for three of the lines has been omitted for the purposes of this simplified contour map.

This map shows that the contours have a general trend in a southeasterly direction somewhat parallel to the base line. However, in the northwest part of the grid, over a width of seven cross lines, the values are generally higher and the southeasterly fabric is not apparent. Along the south edge of this higher west area is a magnetic high which has not been fully outlined.

In attempting to fit this magnetic picture with the geology one should note that, except for this western high area, there is a general decrease in magnetic intensity southerly along the grid lines and that the lowest values (< 55,800 gammas) occur at the south end of the grid lines, generally in areas of mixed quartz diorite and granodiorite. This would also be in the area approaching the regional fault that separates the batholithic rocks from the Karmutsen volcanics to the south.

The reason for the western high is not apparent from the geological mapping to date; however the positive magnetic anomaly along the south side of this western high may correspond to areas of quartz diorite.

There is no apparent correlation of the magnetic picture with the geochemical map or the known mineralization.

VLF-EM SURVEY

Parts of the grid have been surveyed by VLF-EM. The results add very little to the present picture.

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

1. The Bedwell River batholith has a number of associated gold quartz veins which occur along fractures within the batholith. The most interesting ones explored in the past are those along the south side of Bedwell River where mineralization occurs in narrow quartz veins with associated gouge and often andesite dikes. Widths have been very narrow, but grades have been very high.

The quartz veins found to date along Ursus Creek have been less spectacular. The Main showing appears to be of limited size and of sub-economic grades. The Mid Pad showing, where exposed, is of limited width and of moderate gold values. Whether or not increased widths or grade will be obtained along strike is not known.

2. The interesting Junction showing is a different geological type. It is not the usual conspicuous quartz vein. It is a cataclastic zone which lies along Ursus Creek, a major regional fault structure. Complexity of history is indicated by the pre-cataclastic quartz veins which have been brecciated and incorporated into the mylonite, by the foliation and siliceous nature of the mylonite, by the fracture set which may be superimposed on the mylonite, and by the disseminated pyrite mineralization and associated gold which may be controlled by the fracture sets.

This is a somewhat unique geological type of gold showing and it warrants additional exploration.

3. A program of stream geochemistry in the side drainages of Ursus Creek has yielded a number of anomalies on which very little follow-up work has been done. The area is of very steep topography and heavy forest with exposures largely limited to the sharp creek drainages. Although outcrops are abundant, there are extensive areas with no exposure.

RECOMMENDATIONS

1. The Junction showing should be mapped, trenched and sampled in detail with a good base control. It appears to be extensive and its distance to the north is obscured by overburden. Surrounding unaltered outcrops should also be included in the map to establish the permissive extent of the mylonite zone.

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2. It is important to determine the gold association. If it is with the disseminated pyrite, induced polarization could be used to locate concentrations. A comparison of gold analyses with sulphur analyses should give the required information.

3. Further prospecting and maping are necessary to determine the cause of the small stream anomalies. Detailed silt sampling along these drainages, possibly samples at 100-meter intervals, will help pinpoint their sources.

4. Additional targets found in the prospecting, mapping, and detailed silt sampling should be explored by soil geochemistry and, if mineralized exposures are found, by trenching and sampling.

5. Because of the steep topography and the heavy mature timber, access is difficult and any drill program using a standard drill machine, would involve costly drill site preparation and mobilization. Therefore sufficient surface work should be done before mobilizing a drill for exploration Stage II.

BUDGET

Phase I

Geologist and helper	$15,800	
Grid lines and soil sampling	20,000	
Helicopter mob, demob, supply trips	5,000	
Transportation and freight	3,000	
Supplies and equipment	5,000	
Travel	1,000	
Assays and geochem analyses	3,000	
Report	4,000	
Contingency	5,000	$ 61,800

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