Whitewater, B.C.

GEOLOGICAL AND GEOCHEMICAL REPORT
on the
WHITEWATER PROPERTY
Lyle and Whitewater Claim Groups
Slocan Mining Division
Kaslo, British Columbia
N.T.S. 82-K/3 W
Latitude ~~54°43'10~~" North 50°03'30"
Longitude 10~~2°16'15~~" West
117°27'

October 23, 1989

on behalf of
PROLIFIC RESOURCES LTD.
Vancouver, British Columbia

by
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ABSTRACT

The Whitewater property consists of 12 converted Crown grants, 13 modified grid claims totalling 147 units, and a mining lease (ML 346), located 18 km southwest of Kaslo, British Columbia.

This area has had an exploration history dating back to the turn of the century which resulted in numerous gold and base metals discoveries, one of the largest being the deposit of the Whitewater Mine located 1 km south of the property. This mine produced 260,542 tons of ore containing 1,435 ounces of gold, 3,152,130 ounces of silver, 28,017,903 pounds of lead, and 36,260,370 pounds of zinc during the period 1892 to 1945. During the course of base metals exploration, gold was discovered on the existing Whitewater property. The Highland-Surprise Mine, which produced 1,617 ounces of gold grading 0.314 oz/ton from 5,151 tons of ore, operated on the property during the period 1937 to 1941. Numerous other mineral occurrences were discovered on the present property area during this period of exploration.

Pan Ocean Oil Ltd. conducted exploration in the immediate vicinity of the property from 1971 through 1973, focusing on the nickel mineralization within the ultramafic portion of the Kaslo Group which transects the property. The next exploration activity on the property concentrated on the gold potential within the Kaslo volcanics: 1979-1982 Amoco Canada Petroleum Co. Ltd.; 1983 Almine Resources Ltd.; 1986-1988 Abermin Corporation, from whom the present property is optioned.

The current exploration program was designed to investigate previously located gold mineralization associated with quartz veining and previously defined gold-in-soil geochemical anomalies with the primary objective of defining drill targets.

Numerous shear zones containing quartz veins were found to correspond with all the previously located gold-in-rock sample sites. These shear zones vary from 10 cm to 6 m wide. Any shear zones of potentially mineable width were systematically chip sampled across their width.

Most of the samples yielded low gold and silver values. Samples which yielded significant values correspond to selected grab or chip samples of narrow (up to 0.5 m wide) quartz veins within a barren sheared andesite.

Investigation of the previously delineated soil anomalies identified their source as weakly mineralized quartz veining, felsic dykes, or shears. One exception to this is the gold-in-soil anomaly located east of the Highland-Surprise Mine. The source of this anomaly may be due to either mineral concentrations within a gully coincident with the soil anomaly during spring runoff, or an underlying mineralized shear zone.

The exploration program did not succeed in identifying any viable drill targets other than possibly to investigate the depth extension of the Highland-Surprise Mine.

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INTRODUCTION

Taiga Consultants Ltd. was contracted by Prolific Resources Ltd. of Vancouver, British Columbia, to undertake a summer exploration program on the Whitewater property (Figure 1), located 18 km southwest of Kaslo, British Columbia. The exploration program was designed to investigate previously located gold mineralization associated with quartz veining and previously defined gold-in-soil geochemical anomalies with the primary objective of defining drill targets.

Property Status

The Whitewater property (Figure 2) consists of 12 reverted Crown grants, 13 modified-grid claims totalling 147 units, and a mining lease (ML 346), all in good standing until at least 1990. These claims are grouped into the Lyle and the Whitewater groups. Relevant claim data are tabulated in Table 1. By a letter agreement dated April 26, 1988, Prolific Resources may earn a 50% working interest in the property.

Location and Access

The property is located at the south end of the Goat Range in the Selkirk Mountains at the headwaters of Lyle and Whitewater Creeks. It lies immediately north of Highway 31A, approximately midway between New Denver and Kaslo (see Figure 1).

At Retallack, an abandoned mining community 18 km northeast of New Denver, a gravel road extends one kilometre north where it forks; the northeast branch extends 2 km up the Whitewater Valley and the eastern branch 2.7 km up the Lyle Valley to the old Highland Surprise Mine. Foot trails then lead for several kilometres to the heads of both valleys. In addition, a road extends up the

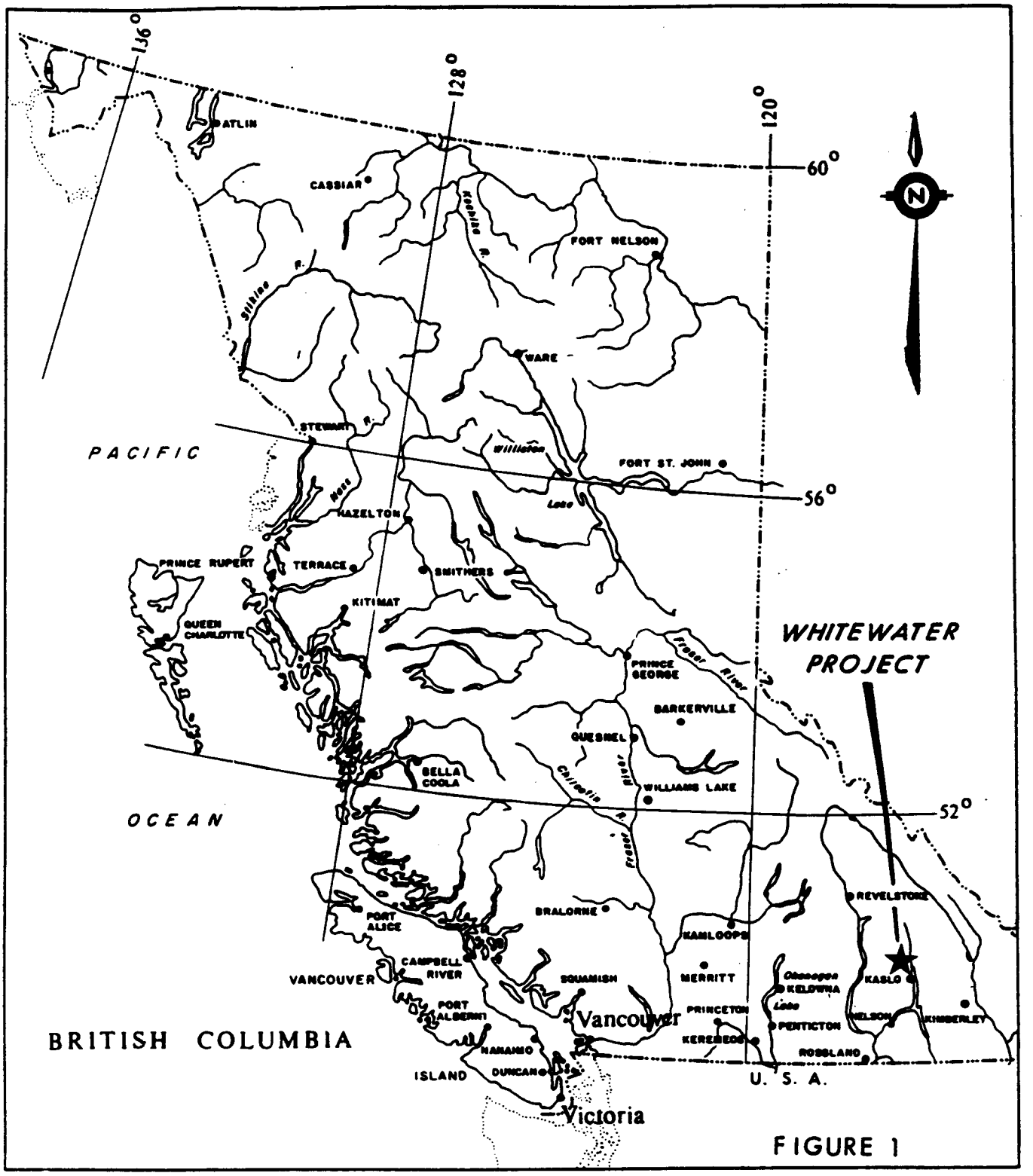
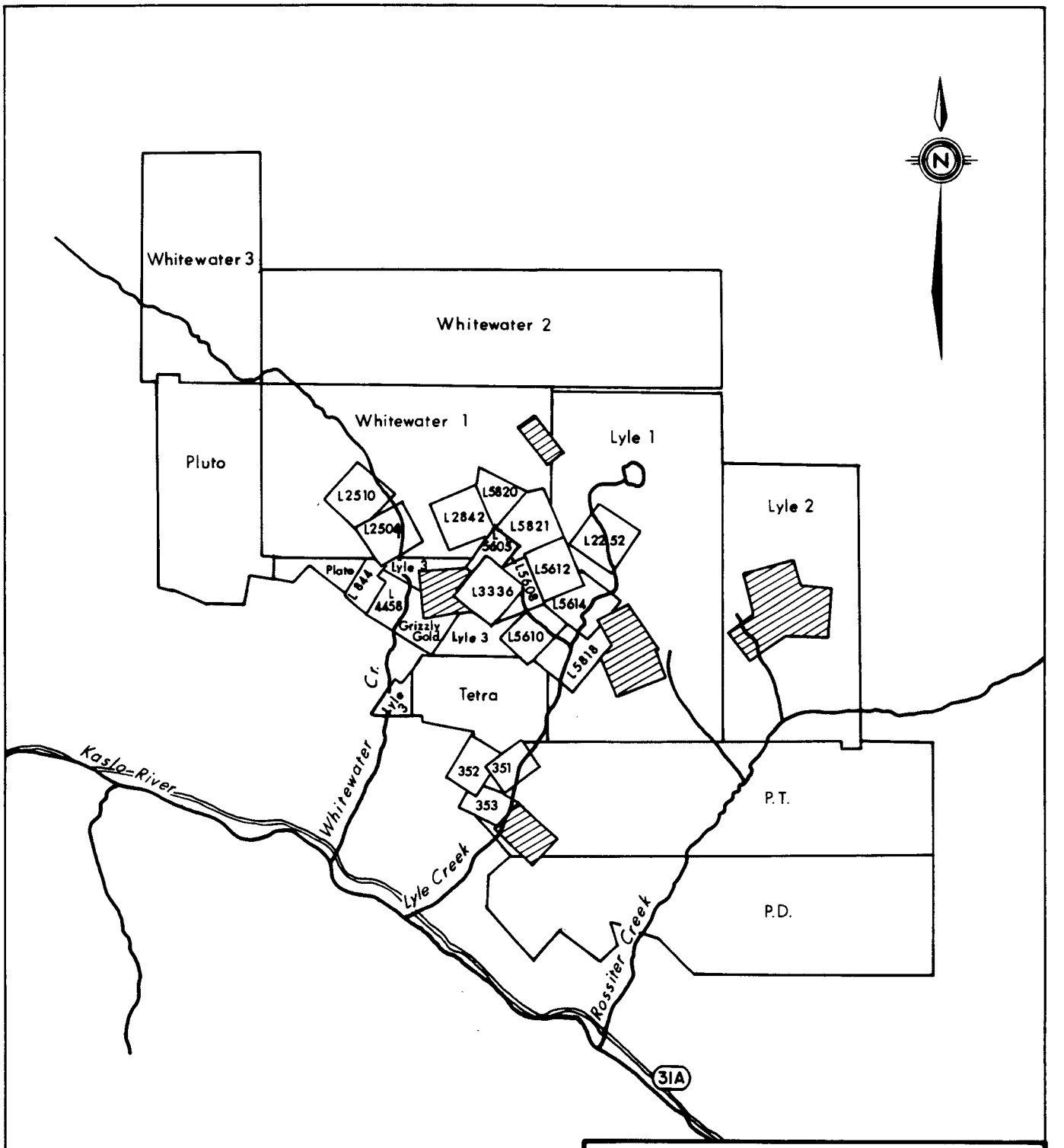


FIGURE 1

0 100 200 300 km

PROLIFIC RESOURCES LTD.	
WHITEWATER PROJECT	
GENERAL LOCATION MAP	
DATE	NTS
PROJECT BC-89-1	MAPPED/ DRAWN BY
SCALE 1:7,500 000	
TAIGA CONSULTANTS LTD.	FIG. 1



PROLIFIC RESOURCES LTD.	
WHITEWATER CLAIM GROUP Whitewater Creek Retallack, B.C.	
DATE AUGUST 1989	NTS 82 K/3
PROJECT BC-89-1	MAPPED/DRAWN BY C. AUSSANT
SCALE 1:50	
TAIGA CONSULTANTS LTD.	FIG. 2

eastern side of the claim group to the Eureka and Solo Workings. Some sections of these roads are only accessible by four-wheel-drive vehicles during the summer season.

Physiography

The property lies between elevations 1300 m and 2895 m ASL. The treeline lies at about 1650 m ASL. Slopes at lower elevations are in the order of 20° to 25° increasing to 50° or more near ridge crests. Vegetation above 1650 m ASL is generally sparse with abundant outcrop; below 1650 m, the area has a thick cover of spruce, alder, and pine. The area is at a juvenile stage of weathering and erosion, with actively accreting scree fans at the base of all slopes.

The property is generally snow free from June to October/November, with a snowfall in the order of 3 m annually.

TABLE 1 - WHITEWATER PROPERTY LAND SUMMARY

Claim Name	Lot	Record Number	No.of Units	Month of Record	Expiry Date
LYLE GROUP		Notice to Group #1703			
Lyle 1		1847	18	March	1991/03/25
Lyle 2		4992	15	May	1991/05/13
Lyle 3		5153	12	December	1991/12/16
Tetra		386	4	June	1991/06/09
PT		5116	16	October	1990/10/31
PD		5117	16	October	1990/10/31
Revenue	2826	351	1	March	1991/03/29
Defender	2827	352	1	March	1991/03/29
Howard	2828	353	1	March	1991/03/29
Paisley	5612	1659	1	January	1991/01/08
Whistler	5614	1660	1	January	1991/01/08
Cuba	5609				
& Ruby Fr.	5820	1661	1	January	1991/01/10
Emerald Fr.	5821	1662	1	January	1991/01/10
Garnett	2842	1674	1	January	1991/01/17
Connie 2 Fr.	5818	5231	1	September	1991/09/01
ML 346	3336		1	December	1990/12/31
	5608		1	December	1990/12/31
	5610		1	December	1990/12/31
WHITEWATER GROUP		Notice to Group #1702			
Whitewater 1		5078	15	September	1991/09/05
Whitewater 2		5079	16	September	1991/09/05
Whitewater 3		5080	8	September	1991/09/05
Grizzly Gold		843	1	September	1991/09/07
Grizzly Gold 1		844	1	September	1991/09/07
Plato		2750	2	October	1991/10/22
Pluto		2905	8	June	1991/05/11
Robin	2509	803	1	August	1991/08/23
Wild Swan	2510	804	1	August	1991/08/23
Mayflower	4458	1428	1	September	1992/09/10
			147 units		

REGIONAL GEOLOGY

(excerpted from Nov.1987 geological report for Abermin Corporation)

The property lies within the central Kootenay Arc, an arcuate structural zone which marks the transition from North American rocks of the Cordilleran miogeosyncline to the tectonic collage of allochthonous terranes that are accredited to it (Archibald, et al., 1983). North American rocks are locally represented by the Lardeau Group, a Lower Paleozoic sequence of metamorphosed clastic sediments and minor limestones. The younger allochthonous terrane is comprised of Late Paleozoic to Early Mesozoic sedimentary and volcanic assemblages. This terrane was accreted during a Mid-Jurassic/Early Cretaceous collisional event. A second collisional event during Late Cretaceous/Paleocene was accompanied by uplift, erosion, and intrusion of two-mica granites. Tertiary extensional faulting with lesser intrusive activity complete the geological history of the area.

Within the project area, three major rock groups are exposed. The oldest is the Upper Mississippian to Pennsylvanian Milford Group which regionally is divided into three assemblages but with only one, the McHardy, present on the property. This assemblage is comprised of basal limestones and calcareous sandstone overlain by tuffaceous sandstone and conglomerate. This in turn is overlain by a thick sequence of argillite with minor chert and volcanics (Klepacki and Wheeler, 1985). The limestones have yielded Upper Mississippian fossils (Orchard, 1985).

Conformably overlying the Milford Group is the Permian and possibly older Kaslo Group. This group is a sequence of tholeiitic volcanics with minor interbedded cherty tuff and tuffaceous greenstone intruded by syn- and post-volcanic diorites. Structural repetitions by thrust faulting have led to the group being divided into two units or plates, with the upper plate resting on an ultramafic base. Unconformably overlying the Kaslo volcanics is a greenstone conglomerate referred to as the Martin Conglomerate.

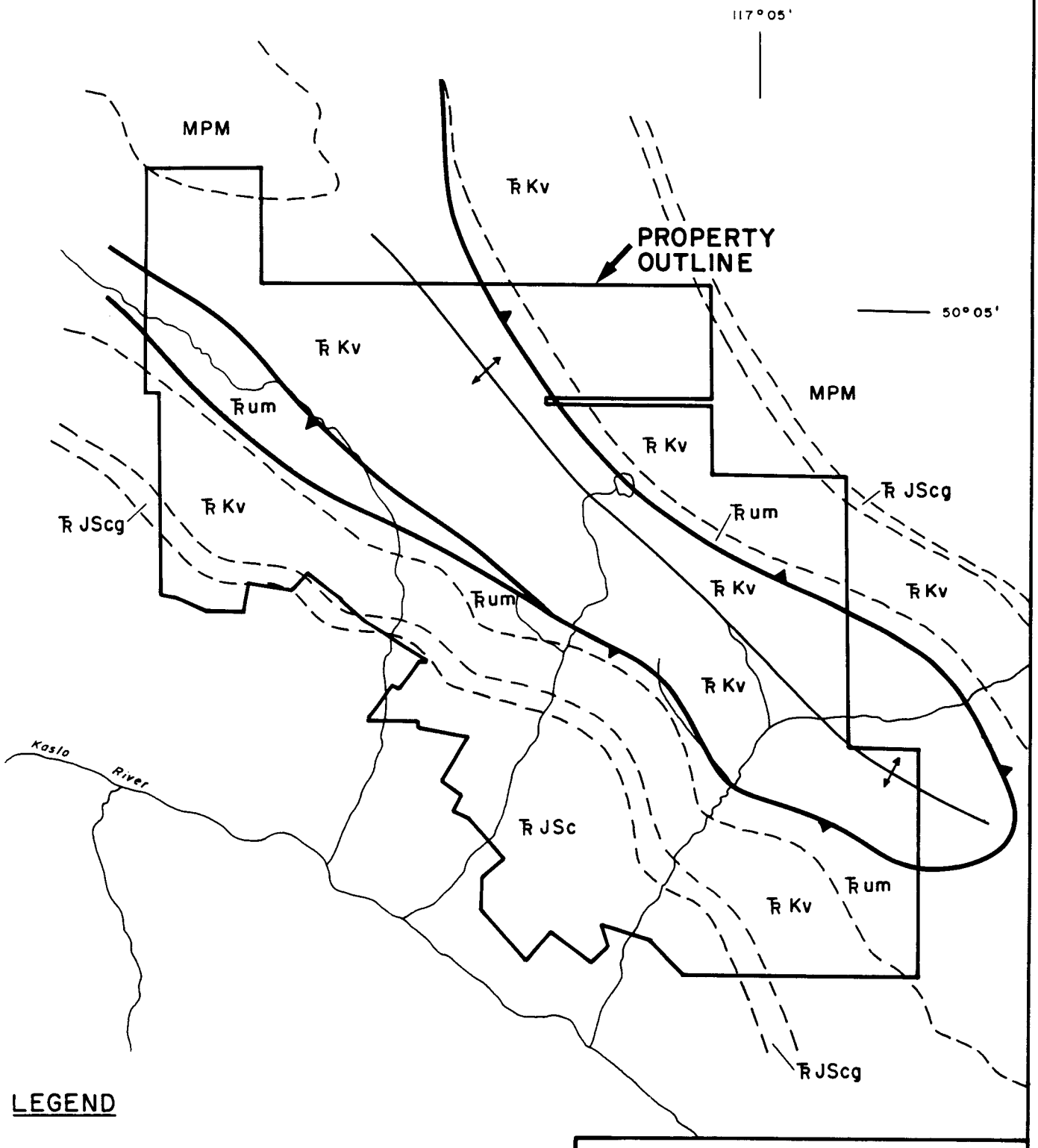
Completing the geological record is the Slocan Group, an Upper Triassic sequence of argillites locally interbedded with quartzites and limestones.

All three groups are intruded by felsic dykes and small stocks, part of the Jurassic plutonic event.

The tectonic history of the area is dominated by Permian thrusting and Jurassic folding, with normal faulting. These events overprint a pre-Mississippian deformation which affected the older Lardeau Group. The early thrusting event displaced the McHardy assemblage onto the other two Milford assemblages via the Stubbs Fault. It also generated the Whitewater Fault which formed the two Kaslo plates. Diorite intrusions predate and postdate the thrust faulting. Uplift and erosion of the Kaslo volcanics provided detritus for the Martin Conglomerate. Following Slocan Group sedimentation, the complete sequence including the early thrust faults was folded into the Dryden Anticline. This was accompanied by penetrative deformation and regional metamorphism, locally to amphibolite grade. This event also reactivated some of the early thrust faults. In addition, the normal Schroder Fault placed the Slocan Group adjacent to the Lardeau Group at that time. Major granitic intrusion took place concurrently, often plugging the major fault zones.

Two later poorly documented coaxial fold phases are also locally present. Small-scale faulting of the Jurassic intrusions and dykes may be related to a second collisional event in the mid-Cretaceous.

The regional geology is indicated on Figure 3. Table 2 summarizes the geological stratigraphy of the area.



LEGEND

Q	–	Quaternary alluvium and drift
Ti	–	Minor intrusions; mainly hornblende–feldspar and hornblende porphyries
ŦR JScg	–	SLOCAN GROUP; ls, arg., qtze., Martin congl.
ŦR um	–	Triassic; ultramafics
ŦR Kv	–	Kaslo Group; greenstone, breccia, tuff.
MPM	–	MILFORD Group; argillite, quartzite, chert, ls. MPMch; chert

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REGIONAL GEOLOGY MAP

DATE AUGUST 1989	NTS 82 K/3
PROJECT BC-89-1	MAPPED/DRAWN BY C. AUSSANT
SCALE 1:50	0 1 2km

TAIGA CONSULTANTS LTD. FIG. 3

TABLE 2 - TABLE OF FORMATIONS

ERA	PERIOD OR EPOCH	GROUP OR FORMATION	MAP SYMBOL	LITHOLOGY	THICKNESS (metres)
CENOZOIC	QUATERNARY			Till, sand, gravel, silt	
	EOCENE Middle	Coryell Intrusions	eTc	Syenite, quartz monzonite; minor granite, palaskite, and biotite-augite monzonite	
		INTRUSIVE CONTACT			
		Marron Formation	EM	Augite and/or hornblende and/or biotite andesite; trachyandesite	900+
		RELATIONSHIP UNKNOWN, BUT MAY BE FEEDER TO MARRON ANDESITE FLOWS			
		Map-unit Ti	Ti	Hornblende-feldspar and hornblende porphyrys	
		CONFORMABLE(?) CONTACT WITH MARRON FORMATION			
		Kettle River Formation	EKR	Tuffaceous arkose	100+
MESOZOIC	CRETACEOUS Upper	RELATIONSHIP UNKNOWN; UNCONFORMABLE ON HALL FORMATION			
		Sophie Mountain Formation	uKsm	Coarse conglomerate with minor interbeds of siltstone and arenaceous argillite	100+
	JURASSIC AND/ OR CRETACEOUS	RELATIONSHIP UNKNOWN; UNCONFORMABLE ON ELISE FORMATION			
		Map-unit Kqp	Kqp	Quartz-feldspar porphyry	
		RELATIONSHIP UNKNOWN; INTRUSIVE INTO ULTRAMAFIC INTRUSIONS			
		Nelson Intrusions	JN	Granodiorite; minor quartz diorite, and diorite	
		RELATIONSHIP CONTRADICTORY; SEEMS TO BE INTRUSIVE			
		Rossland Monzonite	JNmz	Biotite-hornblende-augite monzonite; mainly medium grained	
	JURASSIC Lower and Middle	INTRUSIVE RELATIONSHIP			
		Rossland Group — Hall Formation	lmJhs	Black, soft carbonaceous shale, buff to brown argillaceous sandstone; some siltstone and minor greywacke	300+
		CONFORMABLE(?) CONTACT			
		Rossland Group — Elise Formation	lJev	Flow breccia, massive andesites and basalts, agglomerate, tuff, breccia; black, laminated siltstone (lJes); augite porphyry (lJei)	2,150-3,000
		CONFORMABLE(?) AND INTERDIGITATED CONTACT; UNCONFORMABLE ON MOUNT ROBERTS FORMATION			
		Rossland Group — Archibald Formation	RJAY	Black, hard, brittle, laminated siltstone, commonly tuffaceous, and arenaceous argillite	900
PALEOZOIC	PENNSYLVANIAN(?)	INTRUSIVE RELATIONSHIP WITH ROSSLAND GROUP, BUT MAY BE COLD INTRUSION			
		Ultramafic Intrusions	mPum	Serpentinite; some dunite	
		INTRUSIVE CONTACT			
		Mount Roberts Formation	MPmR	Black siltstone and argillaceous quartzite, slate, greywacke, chert, pebble conglomerate, lava flows; limestone (Pmrl); paragneiss (Pmrgn)	1,200-1,500
	CARBONIFEROUS(?)	RELATIONSHIP UNKNOWN			
		Map unit Cs	MPM	Black argillite, slate, phyllite, minor chert and greenstone; grey to black limestone (Csl)	2,100
	AGE UNKNOWN	RELATIONSHIP UNKNOWN			
		Gneiss in Bonnington Pluton	ATRsm	Layered granitoid gneiss and amphibolite	
		RELATIONSHIP UNKNOWN			
		Porphyritic leucogranitic rocks	ATRsm lgd	Porphyritic leucogranite	
		RELATIONSHIP UNKNOWN			
		Castlegar Gneiss	ATRsm	Augen gneiss	
		GRADATIONAL CONTACT			
		Trail Gneiss	ATRsm	Amphibolite and grey biotite gneiss, hornblende gneiss, mica schist, aplite, and pegmatite; mylonitized gneiss (pCtgnm)	1,200

BASE NOT EXPOSED

PROPERTY GEOLOGY

(excerpted from Nov.1987 geological report for Abermin Corporation)

Stratigraphy

The oldest rocks on the property are in the core of the Dryden Anticline. These rocks crop out at upper Lyle Lakes, Rossiter Creek, and the upper reaches of South Copper Creek. This sequence is tentatively correlated with the McHardy assemblage of the Milford Group (Klepacki and Wheeler, 1985). The assemblage is mainly black argillite with subordinate chert, mudstone, and sandstone. Local occurrences of mafic volcanics and diorite are also present.

Most of the property is underlain by the Kaslo Group. As noted by Klepacki (1983), Klepacki et al (1985), and Klepacki & Wheeler (1985), the group has been divided into an upper and lower plate sequence. The upper plate lies west of the baseline, south of the Whitewater Fault on the southern limb of the Dryden Anticline. Flows, flow breccias, and pillows with fine-grained syn-volcanic diorite form the bulk of this plate. The andesites are slightly porphyritic with up to 5% hornblende phenocrysts, and locally feldspar crystals in a fine-grained chloritic groundmass. Lesser volcanic conglomerate and sediments are also present. The plate is floored by a peridotitic ultramafic section which now consists primarily of talc-carbonate schist and cataclastic breccia due to varying structural deformation. A conglomerate which immediately overlies the ultramafic contains clasts of volcanic, ultramafic, fine- and coarse-grained diorite, and rare granite.

The lower plate is comprised of at least 500 m of tholeiitic pyroxene porphyry volcanics and lesser sediments. Pillow breccia and pillows with variolitic texture are most common within the basal portion of the sequence. These are overlain by a thick sequence of andesitic flows and flow breccia which are in turn overlain by thin discontinuous lenses of chert, cherty tuff, argillite, and conglomerate. Two distinct types of conglomerate are observed. The most common contains clasts of volcanics and fine-grained diorite while the other also contains rare clasts of ultramafics and granite. This latter con-

glomerate may be correlated with the conglomerate found in the upper plate sequence.

The youngest sedimentary rocks in the project area belong to the Slocan Group. This thick unit of calcareous flysch disconformably overlies the Kaslo Group. It is dominated by dark grey phyllite with lesser interbedded limestone and sandstone.

Three major types of intrusive rocks occur in the area: synvolcanic fine-grained hornblende diorite, syntectonic coarse-grained hornblende diorite (Whitewater Diorite), and post-tectonic granitic rocks. Synvolcanic diorites (Kane Creek Diorite) are generally found in the McHardy assemblage and in the Kaslo Group, and appear to be feeders to the volcanic pile. The Whitewater Diorite is medium- to coarse-grained and equigranular, with a lower colour index than the feeder diorite. It often displays glomerophyric texture. Several large intrusive masses occur on the property, especially in the Gold Quartz and Eureka area. These intrusives are considered to be Early Permian or older (Klepacki, 1983; Klepacki et al, 1985).

Granitic rocks consist of hornblende-feldspar and feldspar (albite) porphyry dykes. The dykes post-date the major folding event, and appear to have been emplaced along the axial plane fabric of the Dryden Anticline.

Structure

Distribution of the major stratigraphic units in the project area is controlled largely by the Whitewater Fault and the Dryden Anticline. The Whitewater Fault is a major northwest trending structure which has divided the Kaslo Group into the two plates. The structure is a Permian thrust fault with later imbricate normal faulting during the Jurassic. As a result, it is a complex sliver zone containing various slices of the Kaslo Group. The presence of

felsic dyke rock in some of the fault slices indicates at least one major movement since the Jurassic.

The second deformational event in the Jurassic formed the Dryden Anticline. The fold generated a strong axial planar cleavage. The axial surface of the anticline is steeply to moderately inclined to the southwest and plunges 15°SE. Local variations occur due to the interference of younger structures.

Five structural trends were noted on the property. Trend I structures are oriented parallel to the regional foliation at 135° ±15° and are axial planar to the Dryden Anticline. Trend II structures are perpendicular to the regional foliation at 045° ±15°. Trend III and IV structures occur at 095° ±15° and 05° ±15°, while Trend V is subhorizontal.

Trend I and II structures appear to represent orthogonal fractures which formed during Jurassic northeast-directed compression, with Trend I parallel to the principal compressive stress and Trend II perpendicular to it. Trend III and IV appear to be conjugate shear fractures to the principal stress. Trend I, II, and V structures may be the result of a strongly anisotropic triaxial stress pattern often characteristic of a mesozonal environment (Linner and Williams-Jones, 1987). Several later episodes of fracture reactivation were noted but only minor displacements are evident. Trend II structures cut Trend I structures but are displaced by later reactivation of Trend I.

Trend I, II, and III structures are commonly mineralized. Trend IV and V are only weakly developed and may occasionally contain minor sulphides with very low precious metals values.

Major faults on the property mostly parallel Trend I at 135° ±15° and include the Whitewater Fault zone and the Ibex-Lyle Lake Fault. A number of Trend IV structures located on Mt. Brennan are evident in the field and on airphotos but they do not substantially displace the early Trend I structures. The Ibex-Lyle Lake Fault is in part responsible for exposing the McHardy assemblage at Lyle Lakes. It occurs in the crest of the Dryden Anticline.

Metamorphism

All rock units exposed on the property have undergone some degree of regional metamorphism. The most extensive metamorphism, locally to amphibolite facies, is tentatively correlated with the second deformation event which is responsible for northwesterly oriented folds (e.g., Dryden Anticline).

The Kaslo Group has been subjected to two periods of low-grade metamorphism. The first is an early spilitic alteration which albitized the Kaslo volcanic rocks. The second period is a regional event where the Kaslo volcanics were subjected to low-grade greenschist metamorphism during the Jurassic. The common mineral assemblage developed in these volcanic rocks is albite-epidote-actinolite ± chlorite. Additional alteration is evident on the property but it is thought to be of a hydrothermal origin related to the mineralizing process. This assemblage includes quartz, albite, iron carbonate, and biotite, and is commonly spatially associated with felsic dyking.

HISTORY OF EXPLORATION

This area has had an exploration history dating back to the turn of the century which resulted in numerous gold and base metals discoveries, one of the largest being the deposit of the Whitewater Mine located 1 km south of the property. This mine produced 260,542 tons of ore containing 1,435 ounces of gold, 3,152,130 ounces of silver, 28,017,903 pounds of lead, and 36,260,370 pounds of zinc during the period 1892 to 1945. During the course of base metals exploration, gold was discovered on the existing Whitewater property. The Highland-Surprise Mine, which produced 1,617 ounces of gold grading 0.314 oz/ton from 5,151 tons of ore, operated on the property during the period 1937 to 1941. Numerous other mineral occurrences were discovered on the present property area during this period of exploration.

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1989 EXPLORATION PROGRAM

The 1989 exploration program was designed to investigate previously located gold mineralization associated with quartz veining and previously defined gold-in-soil geochemical anomalies with the primary objective of defining drill targets.

Numerous shear zones containing quartz veins were found to correspond with all the previously located gold-in-rock sample sites. These shear zones vary in width from 10 cm to 6 m. Any shear zones of potentially mineable width were systematically chip sampled across their width.

Soil geochemical surveys were completed over portions of the property by previous exploration programs. These surveys delineated a number of gold-in-soil anomalies, most of which previously were not adequately investigated. These anomalies were evaluated as to their significance during the current program. A mini flag-and-compass soil grid was emplaced over an area marked by a strong gold-in-soil anomaly, immediately east of the Highland-Surprise Mine. The existing grid in the area was relocated and utilized wherever possible.

All samples collected were forwarded to TerraMin Research Labs Ltd. in Calgary and analyzed for gold and silver. Sample descriptions and analytical results are presented in the Appendix. Maps 1 and 2 (in pocket) depict the sample locations.

Highland-Surprise Mine Area

Previous exploration programs in this area delineated a possible sub-parallel structure located immediately east of the Highland-Surprise Mine, marked by strong gold-in-soil anomalies up to 4100 ppb. Geophysical surveys completed in this area in 1987 by Abermin delineated a strong to moderate intensity I.P. anomaly to the east of the gold-in-soil anomaly.

These areas, as well as the quartz veining occurring near the Highland-Surprise Mine, were investigated as part of the present exploration program.

The grid covering the anomalous gold-in-soil samples was relocated and a small soil geochemical survey was completed along 50 m spaced lines at 12.5 m station intervals. The grid location is depicted on Map 1. Sample results are presented on the accompanying grid map (Figure 4) and in the Appendix.

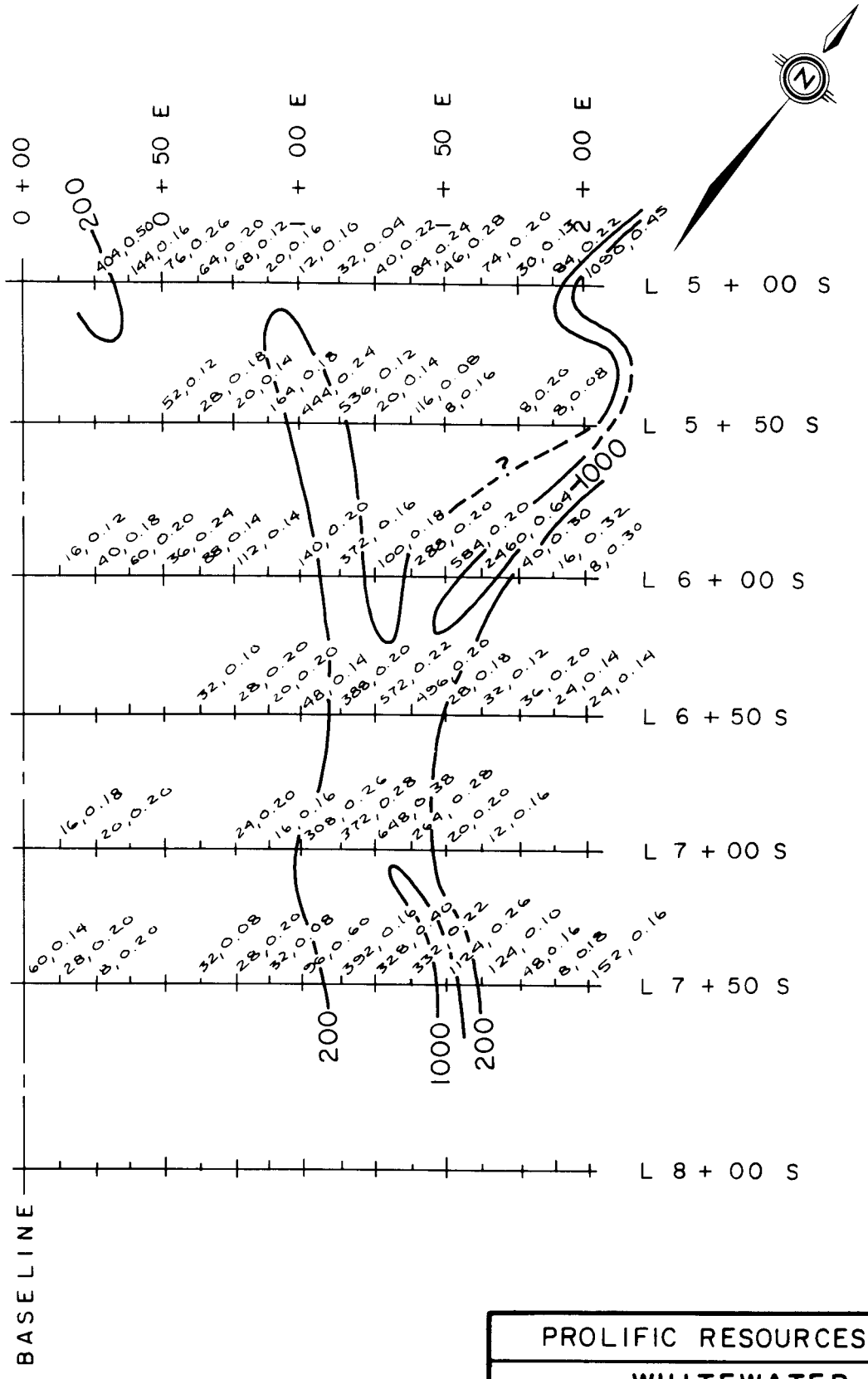
A strong gold-in-soil geochemical anomaly with results up to 2460 ppb Au was defined by the survey, coincident with the soil anomaly delineated by Abermin in 1987.

The 1987 report for Abermin mentioned a felsic dyke located at L.8+50S/ 1+00E and attributed this dyke as the possible source for the gold-in-soil anomaly. This dyke is 2.1 m wide, with up to 5% disseminated pyrite, minor chalcopyrite, and trace molybdenite. Systematic chip sampling across the dyke yielded negligible gold values. The location of the dyke and the lack of associated gold mineralization indicate that it is probably not the source of the soil anomaly.

While prospecting the area, another 2.1 m wide felsic dyke with associated quartz veining and flooding was located at L.6+60S/1+65E; however, systematic chip sampling across the dyke yielded negligible gold values.

Detailed investigation of this area indicates that this strong soil anomaly is coincident with a pronounced topographic depression. No outcrops were located within this depression. The linear nature of this gully may indicate that it marks the location of a recessively weathering, possibly mineralized shear zone.

The source of the gold-in-soil anomalies may be due to either mineral concentrations within the gully during spring runoff or an underlying mineralized shear zone.



SOIL SAMPLES:

GOLD - Au, ppb, SILVER - Ag, ppm

404 , 0.50

PROLIFIC RESOURCES LTD.	
WHITEWATER	
SOIL MINI - GRID	
DATE SEPT., 1989	NTS 82 K/3
PROJECT BC-89-1	MAPPED/ DRAWN BY
SCALE 1 : 2,500	50 0 50 metres
TAIGA CONSULTANTS LTD.	FIG. 4

Trenching would have to be completed across the gully to adequately determine the source of the gold-in-soil anomalies. These would have to be hand-dug trenches since the rugged topography in the area would hinder the use of a backhoe.

Investigation of the I.P. anomaly located a 7 m weak zone of rusty weathered, weakly sheared andesite tuff with trace to 2% disseminated pyrite, coincident with the northernmost part of the I.P. anomaly. This zone would give the I.P. response observed in this area. Panning of two soil samples collected from the zone yielded ten to fifty colours; however, systematic chip sampling across the zone yielded negligible gold values.

The quartz veins located near the upper adit at the old Highland-Surprise Mine from which previous exploration programs reported results of 1.673 and 1.862 oz/ton gold were examined as to their significance.

Samples MR-8 to MR-11 were collected from a quartz vein from which a 1.673 oz/ton gold assay was reported. The quartz vein was found to be 50 cm wide. Systematic chip sampling was completed across the vein and the adjoining sheared andesite. The sheared andesite yielded weakly elevated gold values (244 and 350 ppb) with the quartz vein yielded a value of 0.448 oz/ton gold over 0.5 m. A grab sample collected from the best looking vein material yielded a value of 1.60 oz/ton gold, comparable to the value recorded by Abermin.

Samples SH-3 to SH-5 were collected from a quartz vein from which a 1.862 oz/ton gold assay was reported. Systematic chip sampling across the vein and the adjoining sheared andesite yielded weakly elevated gold values (472 ppb) within the andesite and 0.527 oz/ton gold over 0.5 m from the quartz vein. A grab sample collected from the best looking vein material yielded a value of 1.208 oz/ton gold, again comparable to the value recorded by Abermin.

Whitewater Creek Area

Previous exploration programs in this area delineated a number of gold-in-soil anomalies. Also, diamond drilling was completed to test alteration/shear zones occurring adjacent to some of these soil anomalies. The results from the drilling are not available.

This area was investigated during the current exploration program to determine the significant of these anomalies. A number of small shears (up to 4 m wide) and felsic dykes were located in the area of the gold-in-soil anomalies. These shears and dykes frequently have elevated gold contents. Weathering of these probably produced the soil anomalies. Glaciation down the valley may have elongated these trends.

Chip and grab samples were collected from a number of the shears. The sheared andesite yielded negligible gold values. The associated quartz veining contained elevated gold. These quartz veins, however, are 45 cm or less wide.

Gold Quartz 'B' Zone

The Gold Quartz 'B' Zone is located on the northeast side of the Whitewater Creek valley. It consists of a weakly sinuous shear/alteration zone up to 5 m wide, with associated quartz veining. The quartz veins pinch and swell from 0.4 to 2.0 m massive grey-white quartz to quartz stockwork within the central portion of the shear. Mineralization consists of up to 5% pyrite, minor chalcopyrite and galena, generally concentrated along the vein walls. Occasionally a feldspar porphyry dyke was found adjacent to the shear. The shear strikes at 160°, dips steeply to the southwest, and is traceable over a strike length of at least 300 m.

A number of trenches were excavated across this zone during previous exploration programs. The sampling completed by Abermin in 1987 reported anomalous gold values along the entire length of the exposed shear. As part of

the present exploration program, systematic chip sampling was completed in seven locations across the shear zone. The gold mineralization was found confined to the quartz veining. values ranged from 0.04 oz/ton Au over 2.0 m to 0.231 oz/ton over 0.4 m. The sheared andesite contained only weakly elevated gold values.

Sample locations are indicated on Map 2; Figure 5 shows the areas sampled. Analytical results are presented on Map 2, Figure 5, and in the Appendix.

Gold Quartz Ridge Area

The Gold Quartz Ridge area is located along the southeast side of Mt. Brennan ridge (Map 2). Previous exploration programs described the area as "problematic", for despite significant precious metals values, the lack of continuity for the mineralization makes it difficult to outline linear zones warranting further work. The 1989 exploration program in the area consisted of extensive prospecting coupled with geological mapping and systematic chip sampling of any potentially mineralized zones of significant width.

The area is crisscrossed with numerous felsic dykes and shear zones with associated quartz veining.

The felsic dykes vary from 1 to 2 m in width, have trace to 4% disseminated pyrite (rarely as fine stringers), and contain minor amounts of quartz stringers. Trace amounts of chalcopyrite and galena were noted in well mineralized sections. The dykes are sometimes associated with shearing which is generally less than one metre in width. Two preferred orientations were noted: 90°-105° and 140°-160°, dipping steeply north-northeast.

Numerous shears occur throughout the area, generally between 10 cm and one metre in width. A few larger shears of variable width ranging from 1 to 4 m were located. These typically follow major topographic linears. Two preferred

shear orientations were recorded: 65°-75° rarely up to 90°, and 105°-120°, dipping steeply to the north-northeast.

The shear zones are more variable in width than the felsic dykes. They generally envelope a sinuous quartz vein which is also very variable in width, generally ranging from less than 1 cm to 50 cm in width.

Felsic dykes and shearing are essentially penecontemporaneous, based on the observation that shear zones both transect and stop abruptly at the dykes.

Gold mineralization is restricted to the quartz veining. The best results occur where the shears intersect the felsic dykes in which quartz flooding and sulphide content increase, thus giving rise to previously distorted claims of significant mineralized widths of up to 6 metres.

Gold Quartz Adit

The Gold Quartz Adit was emplaced at the south end of a major topographic lineament, striking 150° along the west side of the Gold Quartz Ridge area (see Map 2).

Numerous trenches and pits were excavated along this shear during previous exploration programs. Systematic chip sampling completed across a number of these trenched areas yielded negligible gold values.

The adit was driven into an area in which quartz stockwork development occurs over a 7 m width. Previous sampling (1987 - Abermin) yielded values of 0.08 oz/ton Au over 2.0 m, with single quartz veins yielding a best value of 0.63 oz/ton Au over 0.4 m.

Systematic chip sampling across the face of the adit during the current exploration program yielded a best value of 0.04 oz/ton Au over 2.0 metres.

The sampling completed along this shear indicates that although the shear zone is of significant width (5 to 7 m), it is only weakly mineralized, the mineralization again confined to the quartz veins.

Eureka Area

The Eureka area was originally developed in the course of exploration for lead/silver ore. The discovery of gold values in quartz veins led to additional work. Several adits were driven into either felsic dykes or shear zones with associated quartz veining (Map 1). Production in 1889, 1937, and 1938 from 273 tons of ore yielded 311 g gold; 697,080 g silver; and 166,050 kg lead.

During the current exploration program, the felsic dykes and shear zones in the area were examined. A number of old trenches and adits were located. Systematic chip sampling was completed at a number of locations on both the felsic dykes and the shear zones. Samples yielded negligible gold and silver contents. Previous exploration (1987 - Abermin) reported a 2.608 oz/ton Au result from a felsic dyke. This area was re-examined, but the 1989 sampling yielded negligible gold values.

Ibex Showing

The Ibex showing is located on the southeast ridge of Mt. Brennan west of Ibex Creek (Map 2). The area was originally worked in the course of exploration for lead/silver ore.

An extensive amount of trenching was completed on a sinuous quartz-rich shear zone striking 35° to 40°, dipping steeply to the northwest. The shear was examined over a strike length of 200 m. It is generally 0.5 to 1.0 m wide, with occasional small folds widening to 3.0 m over a 15 m strike length. The quartz

veins generally contain 1% disseminated chalcopyrite, galena, and pyrite, with occasional pockets of massive galena and minor chalcopyrite stringers.

Two feldspar porphyry dykes, 2 m wide, cut across the shear at 145° to 160°. A small shear of variable width occurs adjacent to one of these dykes, enveloping a 0.7 to 1.0 m wide quartz vein (Figure 6).

Systematic chip sampling across the shear and dyke yielded negligible gold values. One sample (C-7) across a 0.9 m hematitic quartz vein containing pockets of massive galena yielded a 9.92 oz/ton Ag value.

The 1987 report for Abermin reported 5.519 oz/ton Au and 41.66 oz/ton Ag values from massive pyrite in andesite. Re-examination of the area located siliceous andesite with 5% fine disseminated pyrite and occasional massive pyrite blebs. A representative grab sample collected from this area yielded a negligible gold value.

The extraordinary value reported by Abermin is apparently due to extremely selective sampling of the massive pyrite blebs. It is not representative of what can be expected from the area.

Cuba Showing

The Cuba showing is located to the northwest of the Highland-Surprise Mine on the ridge separating the Lyle and Whitewater drainages. Previous reports on the area described the showing as comprising several scattered arsenopyrite/ pyrite quartz veins in subcrop, possibly up to 1.0 m wide exposed over a 5 m strike length. Previous sampling of the area yielded impressive gold values.

The 1989 examination of the showing located a small area of rusty weathered subcrop, the rubble consisting of grey quartz fragments with 15% disseminated arsenopyrite and rusty weathered sheared andesite tuff. The width of the zone probably does not exceed one metre and the accompanying quartz

veins are probably narrow, judging from the fragments located. It is also probably of limited extent since 6 m downslope no quartz veining could be located in andesite outcrop. Fractures in the area are at 40°, the shear/quartz orientation is probably the same.

An old diamond drillhole located on the ridge probably examined this showing. Records are not available for the drilling. This showing was not re-sampled.

West of the Cuba showing, near the Whitewater Fault, two narrow (up to 25 cm) quartz-carbonate veins were located striking at 100°, traceable for 50 m. A sample collected from these veins yielded a value of 0.369 oz/ton gold. The narrow width of the veining does not indicate this area as a viable target.

CONCLUSIONS AND RECOMMENDATIONS

A total of 72 man days was spent exploring the Whitewater Creek property, located in southern British Columbia. The exploration program was designed to investigate previously located gold mineralization associated with quartz veining and previously defined gold-in-soil geochemical anomalies, with the primary objective of defining drill targets.

Numerous shear zones containing quartz veins were found to correspond with all the previously located gold-in-rock sample sites. These shear zones vary from 10 cm to 6 m wide. Any shear zones of potentially mineable width were systematically chip sampled across their width.

Most of the samples yielded low gold and silver values. Samples which yielded significant values correspond to selected grab samples or chip samples of narrow quartz veins up to 0.5 m wide within a barren sheared andesite.

Investigation of the previously delineated soil anomalies identified their source as weakly mineralized quartz veining, felsic dykes, or shears. Alpine glaciation may have elongated some of these anomalous trends.

One exception to this is the soil anomaly (up to 2600 ppb Au) located east of the Highland-Surprise Mine. The source of this soil anomaly may be due to either mineral concentrations within a gully coincident with the anomaly during spring runoff, or an underlying mineralized shear zone.

The exploration program did not succeed in identifying any viable drill targets, other than possibly to investigate the depth extension of the Highland-Surprise Mine.

CERTIFICATE

I, Claude Henry Aussant, of 31 Templebow Way N.E. in the City of Calgary in the Province of Alberta, do hereby certify that:

1. I am a Consulting Geologist with the firm of Taiga Consultants Ltd. with offices at Suite 400, 534 - 17th Avenue S.W., Calgary, Alberta.

2. I am a graduate of the University of Calgary, B.Sc. Geology (1976), and I have practised my profession continuously since graduation.

3. I am a member in good standing of the Association of Professional Engineers, Geologists and Geophysicists of Alberta; and I am a Fellow of the Geological Association of Canada.

4. I am the author of the report entitled "Geological and Geochemical Report on the Whitewater Property, Slocan Mining Division, British Columbia", dated October 23, 1989.

5. I do not own or expect to receive any interest (direct, indirect, or contingent) in the property described herein nor in the securities of **PROLIFIC RESOURCES LTD.** in respect of services rendered in the preparation of this report.

DATED at Calgary, Alberta, this 23rd day of October, A.D. 1989.

GEOLOGICAL ASSOCIATION OF CANADA · C. H. AUSSANT · FELLOW ·

Respectfully submitted,

C. H. Aussant, B.Sc., P.Geol., F.GAC

PROFESSIONAL GEOLOGIST ALBERTA · CLAUDE H. AUSSANT

PERMIT TO PRACTICE
TAIGA CONSULTANTS LTD.
Signature
Date Nov. 9 1989
PERMIT NUMBER: P 2399
The Association of Professional Engineers, Geologists and Geophysicists of Alberta

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A P P E N D I X

Summary of Personnel
Rock Sample Locations
Rock Sample Descriptions
Certificates of Analysis
Analytical Techniques

Whitewater, B.C.

SUMMARY OF PERSONNEL

Name / Address	Position	Man Days
Claude H. Aussant Calgary, Alberta	Project Geologist	18
Brent Beattie Calgary, Alberta	Geologist	18
Marc Bowles Calgary, Alberta	Geologist	18
Solomon Hardlotte LaRonge, Saskatchewan	Prospector	18
	TOTAL MAN DAYS	72

Rock Sample Locations

Highland Surprise Area
BB-1, BB-2
MR-1 to MR-14, MR-65 to MR-71
SH-1 to SH-7, SH-57
TR#1, TR#2

Whitewater Creek area
BB-3 to BB-5
C-1, C-2
MR-15, MR-16, MR-59 to MR-64
SH-8 to SH-11, SH-68 to SH-79

Gold Quartz 'B' Zone
BB-6
C-4
MR-17 to MR-28
SH-12 to SH-24

Gold Quartz Ridge
BB-7 to BB-24
C-5, C-6
MR-29 to MR-46
SH-25 to SH-42, SH-60

Gold Quartz Adit
MR-52 to MR-58
SH-58, SH-59, SH-61 to SH-67

Eureka
BB-26 to BB-34
MR-47 to MR-51, MR-52A
SH-43 to SH-56

Ibex Showing
BB-35 to BB-40
C-7 to C-13

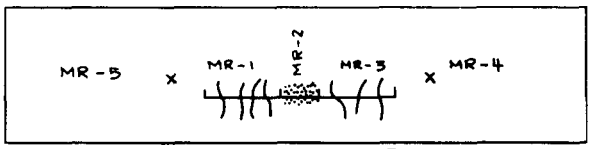
Cuba Showing
BB-41, BB-42
C-3

Highland Surprise Area

BB-1 & 2 same location, felsic dyke strike 118°

BB-1 grab, limonite stained, siliceous felsic dyke, 5% diss Py

BB-2 grab, massive white quartz, limonite stained, inclusions of felsic dyke material, blebs Py



MR-1 to MR-5

MR-1 1 m chip sample, 10-15% quartz veining, veins slightly irregular, grey-white quartz, average 1 cm wide, 1-10% diss euhedral sulphides primarily pyrite, minor chalcopyrite; hosted by light-coloured cherty fine-grained felsic to intermediate material, minor carbonate, veins strike 45°-60°

MR-2 0.5 m chip sample, 70-90% irregular quartz

MR-3 1.0 m chip sample, felsic dyke containing 10-15% fine quartz veins with several percent sulphides

MR-4 grab sample of wallrock to east side of the three above contiguous chips, andesite

MR-5 grab sample of wallrock to west side of the three above contiguous chips, andesite

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MR-6 grab sample of rusty subangular float, sheared, hematitic, medium-grained, >2% quartz veins, sheared andesite, Loc L5+88SE 1+15NE

MR-7 grab sample outcrop Loc L6+40SE 1+20NE, rusty weathered andesite with 1% quartz veins, 1-2% fine euhedral Py on shear planes

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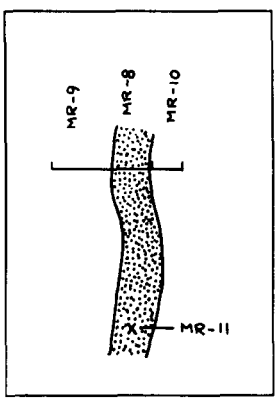
MR-8 to MR-11 all collected from quartz vein 25 m downslope from highest adit



MR-8 to MR-11

MR-8 0.5 m chip sample across main 45 cm wide vein which is curved and bent, pinches and swells, strikes ~145°, dip vertical; chip is 80% quartz vein material

MR-9 0.8 m chip sample of southwest wallrock, 10% quartz veins 1-10 cm wide, sheared green-grey schist, strike ~120°, dip vertical, 1% disseminated Py, hematitic

MR-10 0.4 m chip sample, sheared andesite; as MR-9

MR-11 grab sample of best-looking vein material, quartz vein, in places pock-marked by hematite, up to 5% sulphides, Py > Cpy > mag, sph?, little or no carbonate

---

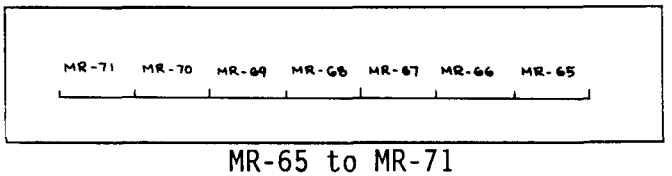
MR-12 grab sample, quartz vein ~1 m wide, hosted by rusty weathered andesite, strikes ~160°

MR-13 grab sample, representative sample of 7 m rusty weathered gossan zone; fine- to medium-grained grey-green andesite, 1-2% very fine-grained disseminated Py, grab of chips across gossan, minor quartz

MR-14 grab sample, chert, two bands ~70 cm wide, strike 145°, dip 70°N

MR-65 to MR-71

1 m chip samples across gossan coincident with I.P. anomaly near the Highland Surprise Mine; rusty weathered, weakly sheared andesite tuff, trace to 2% disseminated Py, occasional sections 5% Py, trend of chipping 72°, strike of rusty zone 118°, dip vertical



MR-65 to MR-71

SH-1 float, felsic dyke verging on quartz vein; quartz > plagioclase, very minor carbonate, well hematized, sulphides and hematite both as blebs and 2 to 3 mm ribbons that are parallel and *en echelon*; may be an area of quartz flooding in felsic dyke, 1-2% fine-grained euhedral Py

SH-2 float, quartz flooded felsic dyke, minor carbonate, 3-4% fine- to medium-grained euhedral Py, minor hematite

---

SH-3 and SH-4

SH-3 upper adit, chip sampled across 20 cm of wallrock to vein, slightly schistose, looks like a cherty quartzite, small 1-2 mm white quartz veins

SH-4 0.5 m chip sample across grey-white quartz vein, 1% Py, minor Cpy, minor carbonate, strike 140°, dip ~80°

SH-5 grab sample of best-looking vein material, 5% Py / Cpy as blebs and disseminations in quartz

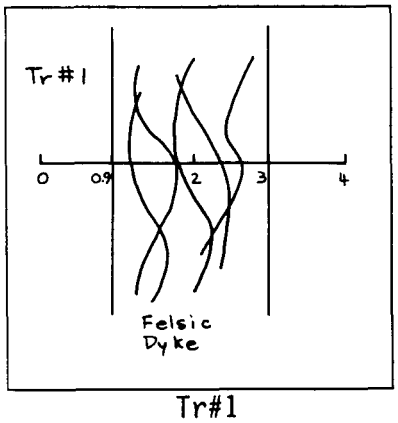
SH-6 grab sample of fine-grained chert, greenish grey, 1.5 m wide chert bed, minor Py and Cpy

SH-7 grab sample from 50 cm wide rusty shear zone with some quartz veining, Loc L6+80N 5+00E (possible source of old soil anomaly)

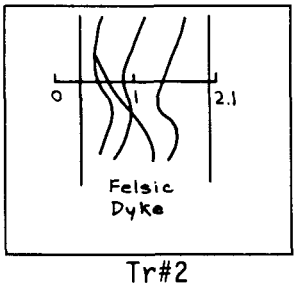
SH-57 grab chip across 2 m of a rusty gossan zone, Loc 5+35S 3+75E

Tr#1 felsic dyke, orientation 108°, slightly sinuous, generally dipping 70°N, pink, containing narrow quartz veinlets and quartz flooding, up to 5% disseminated Py, minor Cpy, contacts with wallrock sharp, wallrock is dark green mafic volcanic with minor disseminated Py

- 0.0-0.9 dark green mafic volcanic, minor disseminated Py, quartz stringers, contact flooded, chilled, 3% diss Py
- 0.9-2.0 pink felsic dyke, quartz flooded, 5% diss Py, minor Cpy
- 2.0-3.0 pink felsic dyke, quartz flooded, occasional quartz stringers, 5% diss Py, minor Cpy, minor blebs molybdenite
- 3.0-4.0 dark green mafic volcanics, minor quartz pods, minor diss Py



Tr#1



Tr#2

Tr#2 2.1 m wide felsic dyke, same location as BB-2, massive quartz float boulders one-foot square, 160°/60°NE

- 0.0-1.0 felsic dyke and altered andesite
  - 0.0-0.3 altered and sheared andesite, minor diss Py, occasional quartz stringers
  - 0.3-1.0 massive felsic dyke, pink, 3% diss Py, occasional quartz stringers
- 1.0-2.1 pink felsic dyke, 3% diss Py, occasional quartz stringers; contact with the andesite is sheared at 2.0-2.1

Whitewater Creek area

BB-3 grab, 5 cm quartz vein with minor diss Py, within tuffaceous andesite with 10% diss Py

BB-4 float, crystalline quartz, 5% diss Py, limonite stained

BB-5 grab, quartz flooded andesite(?), limonite stained, minor diss py

C-1 grab, talus, rusty quartz vein, 15 cm wide, 2% diss Py

C-2 grab, talus, massive white quartz, numerous boulders up to 1x1.5 m, trace Py, minor limonite staining

MR-15 grab sample, rusty weathered andesite, fine-grained, greyish green on fresh surface, 1-2% fine- to very fine-grained Py, no carbonate, area is well fractured, gossan zone poorly exposed ~1 m wide

MR-16 grab sample, 40 cm wide quartz vein in 1 m shear zone in andesite

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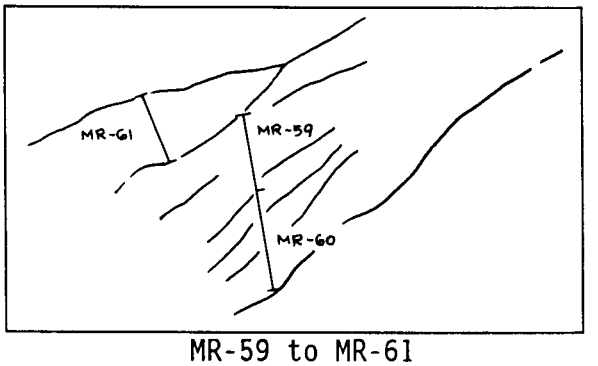
MR-59 to MR-61

MR-59 1.0 m chip sample

MR-60 1.3 m chip sample, sheared andesite, shear zone strike 89° dip vertical, rusty weathering, 1-2% 1 cm quartz stringers

MR-61 grab chip over 1 m, felsic porphyry dyke, 4-5% fine-grained pyrite



MR-59 to MR-61

MR-62 grab sample of quartz veining in old adit; adit driven in 4 m at 70°, emplaced on small stockwork of 6 veins 1 to 10 cm wide, strike 140° dip 45°NE; quartz veins barren of sulphides, wallrock contains up to 10% fine-grained disseminated Py

MR-63 1.2 m chip across quartz-flooded shear zone, strike 162° dip vertical

MR-64 grab chip across 1.0 m of shear zone, rusty, disseminated magnetite

SH-8 grab sample, outcrop, andesite, fine-grained, minor py, limonite stained, sheared

SH-9 grab sample from 4 m wide shear zone, strike 300° dip vertical, small quartz veins within sheared andesite, minor sulphides, limonite stained, collected from middle of shear zone

SH-10 grab sample, outcrop, 2 cm wide quartz vein with minor Py, in schistose limonite stained andesite, strike 236° dip vertical

SH-11 grab sample, outcrop, 30 cm wide clear quartz vein, host rock diffuse with Py and some blebs, sample has numerous quartz veinlets, strike 290°

SH-68 0.6 m chip sample, felsic dyke, diss sulphides, strike 114°

SH-69,70,71 three 1.0 m chip samples collected across a 3 m felsic dyke, sheared, frequent quartz-carbonate veins up to 10 cm wide with disseminated sulphides, strike 098°

SH-72 grab sample of best-looking quartz-carbonate material from SH-69,70, 71 dyke, vein 10 cm wide

SH-73,74,75 three 1.0 m chip samples across rusty shear zone, sheared andesite, strike 100°, occasional quartz-carbonate veinlets

SH-76 grab sample of best-looking material from above shear, quartz-carbonate with disseminated sulphides

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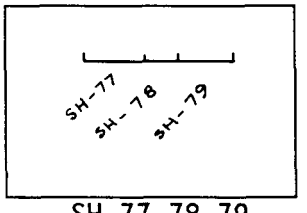
SH-77,78,79

SH-77 0.8 m chip samples, sheared andesite, rusty

SH-78 0.45 m chip sample, quartz vein, minor Py, strikes 104°

SH-79 0.7 m chip sample, sheared andesite, rusty



SH-77,78,79

Gold Quartz 'B' Zone

BB-6 grab, quartz stockwork in andesite(?), limonite stained, minor Py, strike 45° dip 70°NE

C-4 grab sample, near hanging wall, 10 cm wide quartz vein; area ~10 m wide extensively altered, consisting of pink to rusty brown feldspar porphyry, containing numerous quartz veinlets and veins up to 30 cm wide, generally 5 to 10 cm wide; some quartz veins with disseminated Py, strike 145° dip 70°NE; sections with 2% diss Py
=> old diamond drill hole site directly uphill, logs for the drilling if available should be located

Trench #2 MR-17 to MR-20

MR-17 0.8 m chip, sheared material, mostly clay, deeply weathered, strike 162° dip 66°SW, shear cut by fractures striking 244° dip vertical

MR-18 0.4 m chip, sampled across most mineralized part of quartz vein, very rusty, 2-3% Py, minor Cpy, minor carbonate, patchy chlorite, in places sulphides up to 10%, strike 160° dip 76°SW

MR-19 0.7 m chip, sampled across rest of quartz vein, minor sulphides, increase in sulphides towards footwall

MR-20 0.45 m chip, sheared material, 4-5% disseminated Py, fine-grained, dark greyish maroon material, minor secondary biotite, sheared andesite

Trench #1 MR-21 to MR-24

MR-21 0.4 m chip, sheared andesite, 1-2% fine-grained Py, slightly rusty, with granitic dykes

MR-22 1.4 m chip, quartz vein stockwork, 10% white quartz veins 6 cm to 0.5 m wide, strike 170° dip 80°SW, in sheared andesite

MR-23 0.7 m chip, quartz vein stockwork, ~4% quartz veining, in sheared andesite

MR-24 0.4 m chip, weakly sheared andesite, minor pyrite

Trench #7 MR-25 to MR-27 and SH-24

MR-25 1.1 m chip sample, 70% quartz vein in sheared andesite veins 0.5 to 40 cm, strike 146° dip 76°NE

MR-26 0.75 m chip, altered felsic porphyry dyke, speckled with hematite, 4-5% fine-grained disseminated Py, minor quartz veins

MR-27 0.8 m chip sample, sheared andesite

SH-24 1.2 m chip sample, sheared andesite, 2-3% fine disseminated Py;

shear - quartz vein system faulted off at creek; splinters of massive white quartz and alteration zone splays off the main shear system, pinches out and stops at the creek.

Trench #6 SH-21 to SH-23 and MR-28

SH-21 1.0 m chip across rusty quartz vein, strike 68°, malachite staining, minor Py, old trench

SH-22 0.2 m chip across north wallrock of SH-21, 5% sulphides

SH-23 grab sample of best-looking material at SH-21 quartz vein

MR-28 0.8 m chip, sheared andesite, 40% quartz veining

Trench #4 SH-12 to SH-15

SH-12 chip sample across 0.7 m rusty quartz vein, minor sulphides, minor malachite stain, old trench, strike 012°

SH-13 grab sample of best-looking material of SH-12 quartz vein

SH-14 chip sample of 0.4 m rusty quartz vein, old trench, strike 152°, same vein as SH-12

SH-15 grab sample of best-looking material of SH-14 quartz vein

Trench #3 SH-16 to SH-17

SH-16 chip sample 0.4 m rusty quartz vein, strike 340° dip vertical; galena, Py, Cpy; same vein as SH-12 and SH-14

SH-17 grab sample of best-looking material of SH-16 quartz vein

Trench #5 SH-18 to SH-20

SH-18,19 two 1.0 m chip samples across a 2.0 m wide quartz vein, minor diss Py, galena, strike 340°, old trench

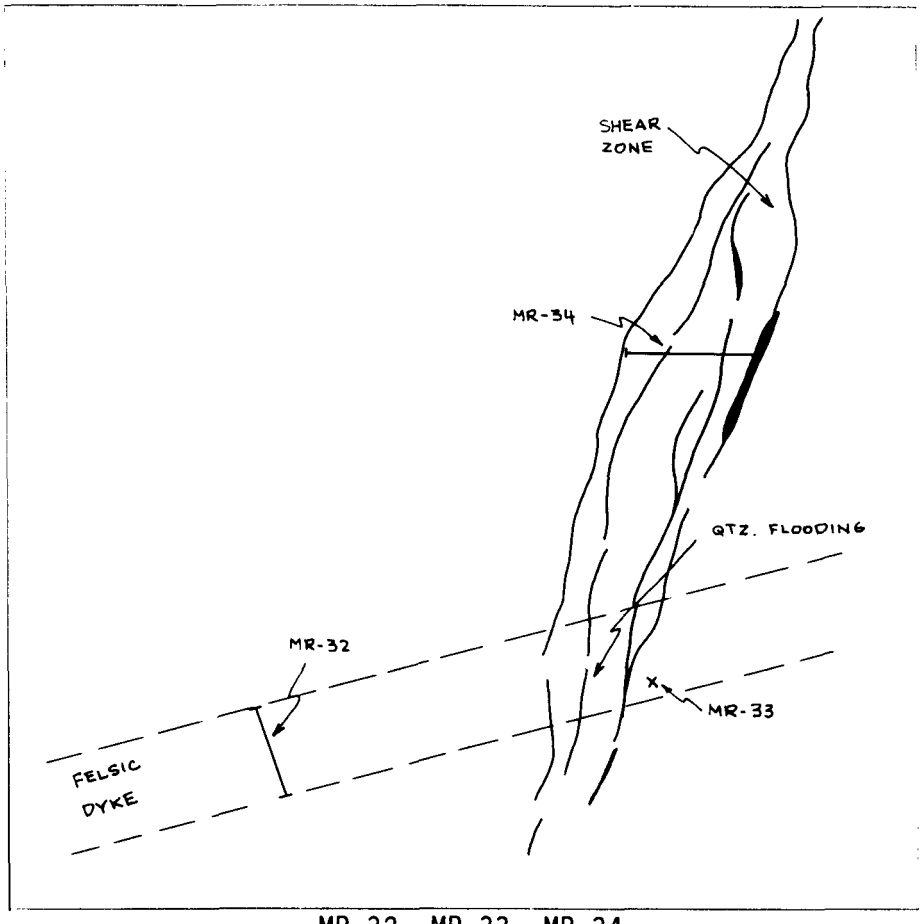
SH-20 1.0 m chip across east wallrock of SH-18,19 vein, diss and blebs Py with quartz-carbonate stringers, 5% diss sulphides

Gold Quartz Ridge

MR-29 0.4 m chip, rusty weathered quartz-carbonate vein, 1% Py > galena > chalcopyrite, strike 38° dip 80°SE, exposed for 5 m strike length, sinuous, irregular, drusy cavities

MR-30 grab, altered and sheared andesite adjacent to MR-29, quartz vein, alteration zone 40 cm

MR-31 1.2 m chip (old sample site 001), felsic dyke, traceable along strike for at least 20 m, strike 90° dip 70°N, porphyritic, speckled with hematite, 2-3% fine- to medium-grained disseminated Py, minor quartz veining



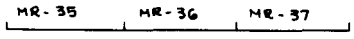
MR-32, MR-33, MR-34

MR-32 1.0 m chip, felsic dyke traceable for 30-60 m, strike 100° dip N

MR-33 representative grab of felsic dyke where quartz vein intersects dyke

MR-34 1.7 m chip, sheared andesite with 20% quartz veining, shear and quartz vein pinch out at either end, traceable for 20 m

MR-35,36,37 three 1.5 m chip samples across a shear zone trending ~44°; shear zone contains pyrite, galena, chalcopyrite; shear intermittently exposed up through a gully, similar zone 20 m to the west



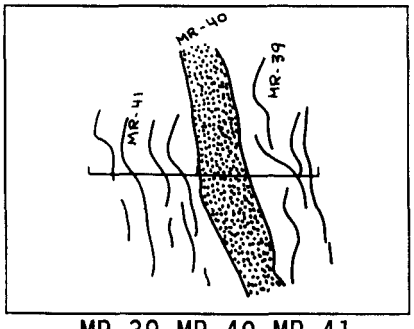
MR-35,MR-36,MR-37

MR-38 1.0 m chip across quartz vein; galena, pyrite; traceable over 20 m, strike 90° dip S

MR-39 0.9 m chip, irregular stockwork of quartz veins in weakly altered andesite, 50% quartz, minor Py and Cpy, previous sample 2395

MR-40 0.7 m chip, massive, slightly rusty weathered quartz vein, strike 100° dip 70°N, minor Py and Cpy

MR-41 1.4 m chip, sheared, silicified andesite, 40% quartz, minor Py and Cpy, shear traceable for 40 m



MR-39,MR-40,MR-41

MR-42 0.8 m chip, felsic dyke, diss hematite, minor Py, strike 105° dip S

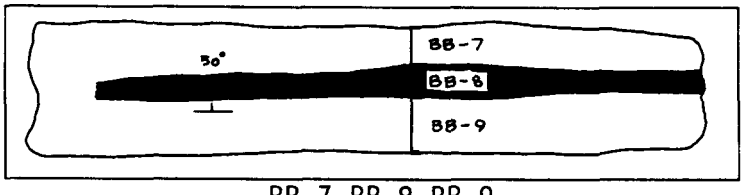
MR-43 0.8 m chip, shear zone, may be 4 m at its widest, dies out at felsic dyke cutting across shear, strike 80° dip vertical, 40% quartz veins 0.5 to 20 cm wide

MR-44 1.3 m chip, shear zone, 20% quartz veins, sheared chloritic andesite, strike 102°

MR-45 0.7 m chip, massive quartz vein, trace sulphides

MR-46 1.0 m chip, sheared andesite, with numerous quartz veinlets, strike 100° dip S, same vein as BB-24 sample

BB-7,BB-8,BB-9 samples collected across an old trench; 1.6 m shear zone with an 0.4 m associated quartz vein



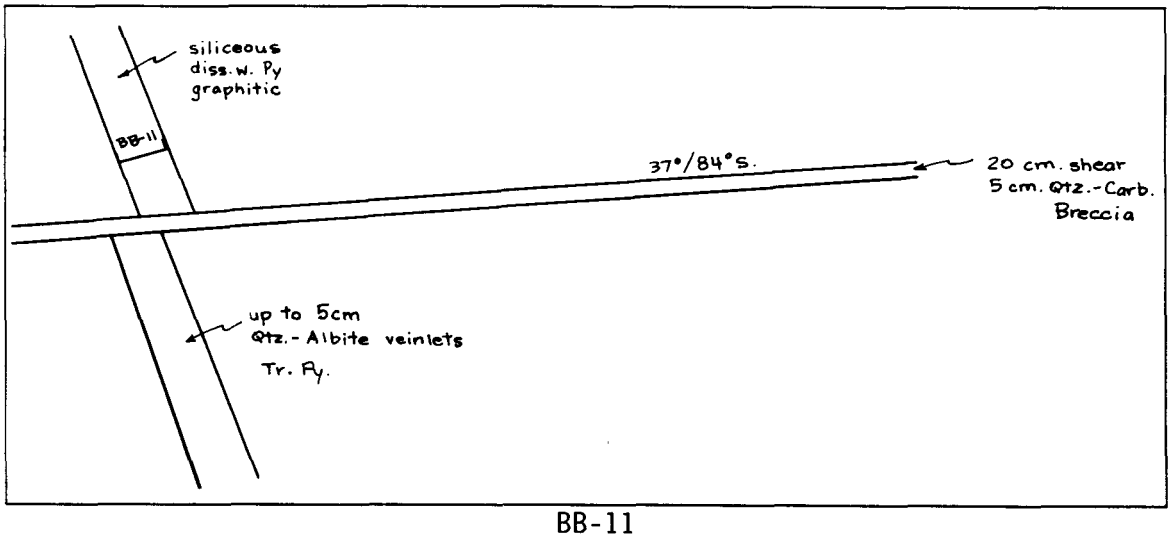
BB-7,BB-8,BB-9

BB-7 0.5 m chip, lt grey sheared andesite tuff, with numerous quartz stringers randomly oriented; adj to the quartz vein a 0.2 m interval with 5% diss Py

BB-8 0.4 m chip, quartz vein, rusty weathering, occasional Py blebs and crystals, minor galena, strike 70° dip 50°N

BB-9 0.7 m chip, light grey sheared andesite tuff, a 0.1 m interval adjacent to the quartz vein with 5% disseminated Py

BB-10 1.0 m chip, shear zone with enclosed 5 to 20 cm quartz vein which is rusty weathered, minor disseminated Py, occasional 2 cm blebs; sheared andesite containing numerous quartz stringers, minor disseminated Py; strike 100° dip 76°N, trace Cpy



BB-11

BB-11 0.7 m chip sample, siliceous andesite tuff, 5-7% disseminated Py and stringers, graphitic in sections

BB-12, BB-13, BB-14, BB-15, C-5, C-6 (sketch next page)

BB-12 0.7 m chip, shear zone, sheared andesite, edges of shear with minor diss Py; Py content and quartz veining increasing towards centre of shear; numerous quartz-carbonate veinlets have Py concentrated along margins

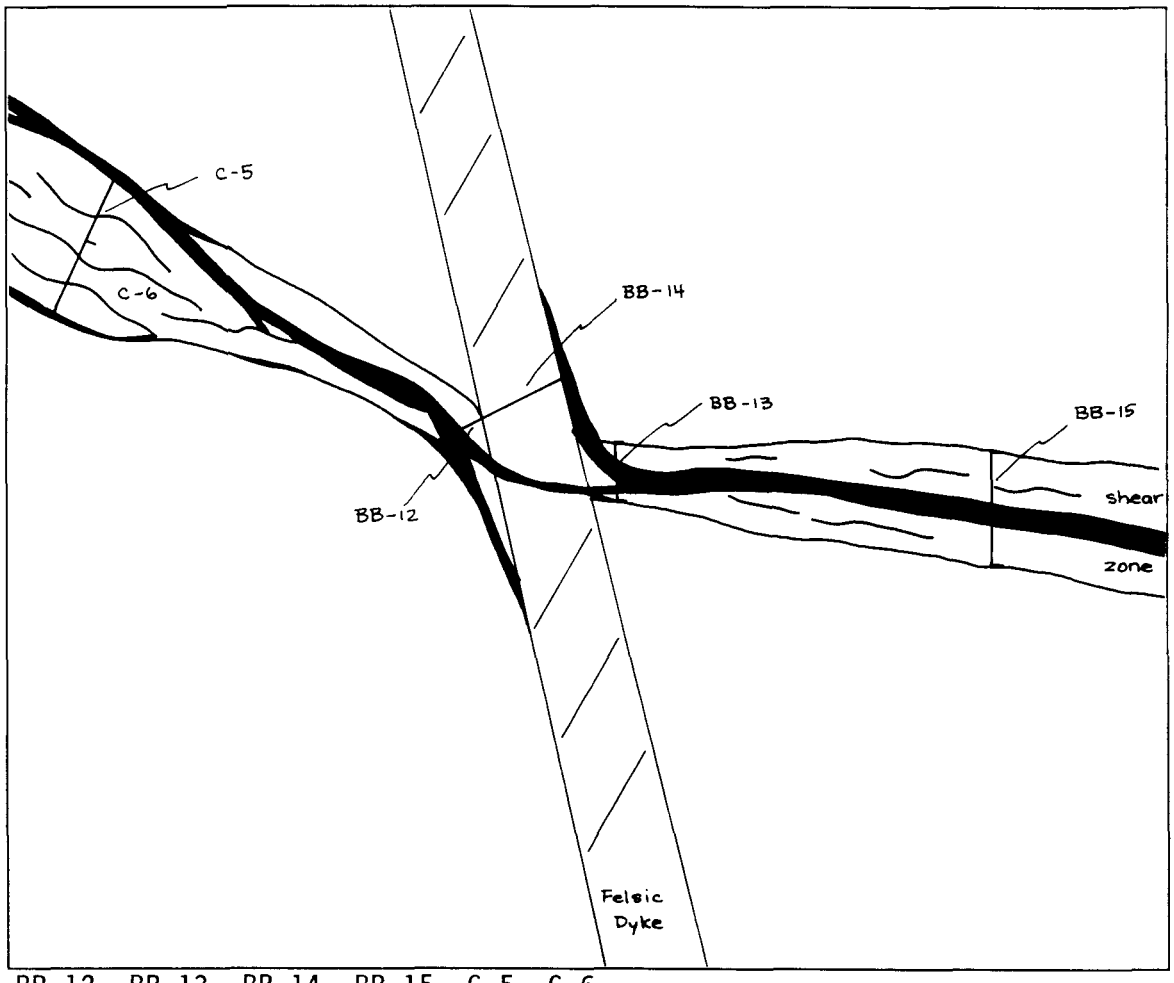
BB-13 0.7 m chip, shear zone, sheared andesite, shear zone containing extensive quartz veining, 3% Py, occasional concentrations of Py, minor Cpy, malachite, galena

BB-14 1.2 m chip, felsic dyke, occasional quartz stringers, 1% diss Py, occasional Py stringers

BB-15 1.5 m chip, shear zone, 15 m west along strike of shear, dark to medium grey andesite, 1% diss Py, Py content increasing towards centre of shear zone, as quartz vein is approached up to 3% Py; quartz vein 35 cm wide, numerous quartz stringers in the sheared andesite

C-5 1.0 m chip, 0.25 m quartz vein along hanging wall of shear, sheared andesite with diss Py, Py content 1-3% surrounding the quartz vein, minor diss Py in the quartz vein

C-6 1.0 m chip, sheared andesite, occasional quartz stringers, with diss Py, strike 68° dip 55°N



BB-12, BB-13, BB-14, BB-15, C-5, C-6

General Comments

The felsic dyke is 1 to 1.5 m wide, beige porphyry dyke, with minor disseminated pyrite, occasional quartz stringers cutting across the dyke; strike 160° dip 30°E.

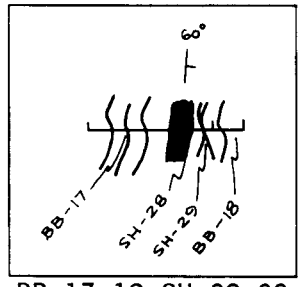
The quartz-shear zone strikes 64° dips 85°N, consists of dark grey to red grey sheared andesite enveloping one sinuous quartz vein with numerous quartz stringers within the remaining shear. Sheared material with 5-7% diss Py; quartz vein up to 0.5 m wide with diss Py, occ Py concentrations, minor galena, Cpy, malachite.

Shear zone-quartz vein assemblage traceable for 400 m north and 100 m south, width of shear variable 1 to 2 m; shear zone assemblage only is 0.5 m wide on northern extension; quartz vein discontinuous 0.1 to 0.5 m wide.

Previous sampling completed at junction of shear-quartz vein assemblage and felsic dyke where there is an increase in sulphide content and a widening in the quartz veining.

BB-16 grab, felsic dyke 1 m wide, strike 160° dip 40°NE, <1% diss Py, minor galena in quartz veinlets

BB-17, BB-18, SH-28, SH-29



BB-17,18 SH-28,29

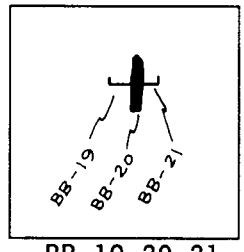
BB-17 1.0 m chip, quartz flooded andesite, minor Py in the quartz veinlets

BB-18 0.4 m chip, sheared andesite, quartz flooded, limonite stained, diss Py

SH-28 0.3 m chip, across rusty vuggy quartz vein, strike 060°; 1% Py, Cpy

SH-29 0.3 m chip, north wallrock, andesite

BB-19, BB-20, BB-21 samples collected across narrow shear with associated quartz vein which varies from 10 to 60 cm wide; exposed for 50 m



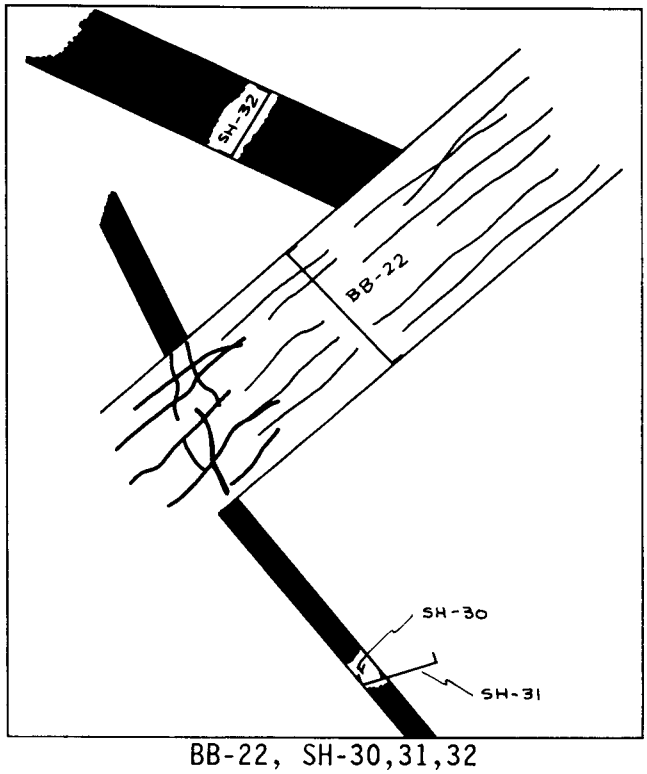
BB-19,20,21

BB-19 0.25 m chip, sheared andesite, minor Py

BB-20 0.15 m chip, quartz vein, vuggy, Py blebs, diss Py and galena, trace malachite and Cpy

BB-21 0.20 m chip, sheared andesite, minor Py

BB-22, SH-30, SH-31, SH-32



BB-22, SH-30,31,32

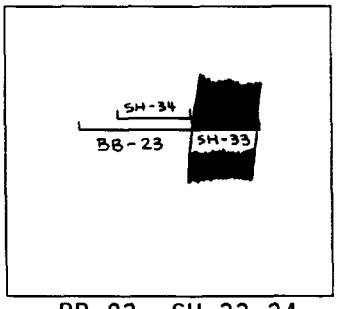
BB-22 2.0 m chip, porphyritic felsic dyke, strike 166° dip 34°; numerous quartz veinlets; dyke crosses two quartz veins 90°/70°N and 60°/?

SH-30 0.2 m chip across vuggy rusty weathered quartz vein, strike 70°, minor sulphides

SH-31 0.7 m chip across north wallrock, rusty sheared andesite, no sulphides

SH-32 1.0 m chip across rusty quartz vein strike 050°, intersected by a 2 m wide felsic dyke strike 140°, minor Py and galena; location 0.5 m east of SH-30,31, different vein

BB-23,SH-33,SH-34



BB-23, SH-33,34

BB-23 1.5 m chip, weakly sheared andesite, minor Py, occasional quartz veinlets (same location as SH-34)

SH-33 0.75 m chip across rusty vuggy quartz vein, strike 078°

SH-34 1.0 m chip, sheared andesite, 2% diss Py, frequent quartz veinlets

BB-24 0.2 m chip sample across quartz vein within a shear zone, only the quartz vein sampled

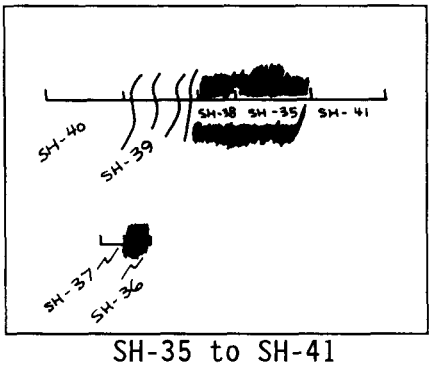
SH-25, SH-26, SH-27

SH-25 1.2 m chip, quartz stockwork, strike 105°; Py, Cpy, galena

SH-26 0.6 m chip, south wallrock, andesite, minor sulphides

SH-27 0.3 m chip, north wallrock, andesite, rusty weathered

SH-36,SH-37 elevation 2420 m
SH-35,SH-38,SH-39,SH-40,SH-41 elevation 2480 m



SH-35 to SH-41

SH-36 0.35 m chip, quartz vein within shear zone strike 085° with disseminated galena, Cpy, Py

SH-37 0.30 m chip, sheared andesite, south wallrock of SH-36

SH-35 1.0 m chip across rusty quartz vein strike 095°

SH-38 0.5 m chip across quartz-carbonate vein adjacent to south of SH-35

SH-39 1.0 m chip, south wallrock, sheared andesite, occasional quartz veinlets, with disseminated Py throughout

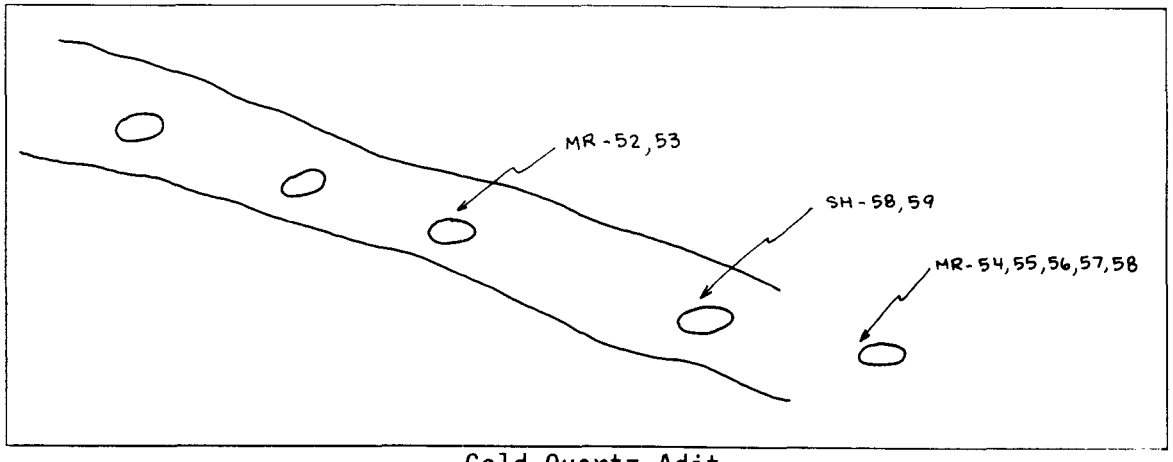
SH-40 1.0 m chip, sheared andesite

SH-41 1.0 m chip, sheared andesite

SH-42 1.5 m chip across felsic dyke strike 160°

SH-60 1.0 m chip across rusty shear zone strike 068°, sheared andesite

Gold Quartz Adit



Gold Quartz Adit

MR-52,53
collected from pit above Gold Quartz adit, 12 trenches placed along shear trend, traceable for 150 m, pits excavated to uncover massive white quartz vein

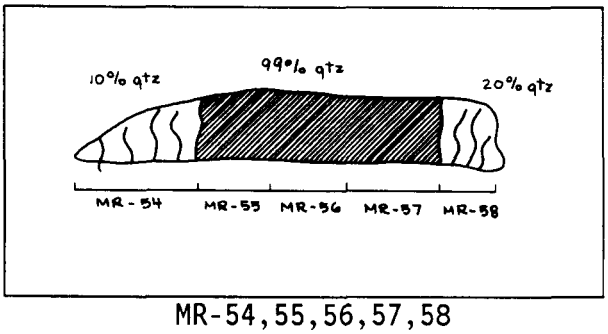
MR-52 0.35 m chip, quartz vein, milky white, strike 160° dip 08°W

MR-53 0.80 m chip, footwall of sheared andesite

SH-58 1.0 m chip across shear zone

SH-59 1.0 m chip across shear zone

MR-54,55,56,57,58
chip samples from trench below SH-58 and SH-59, quartz veining 3.2 m wide, widest exposure of shears.



MR-54,55,56,57,58

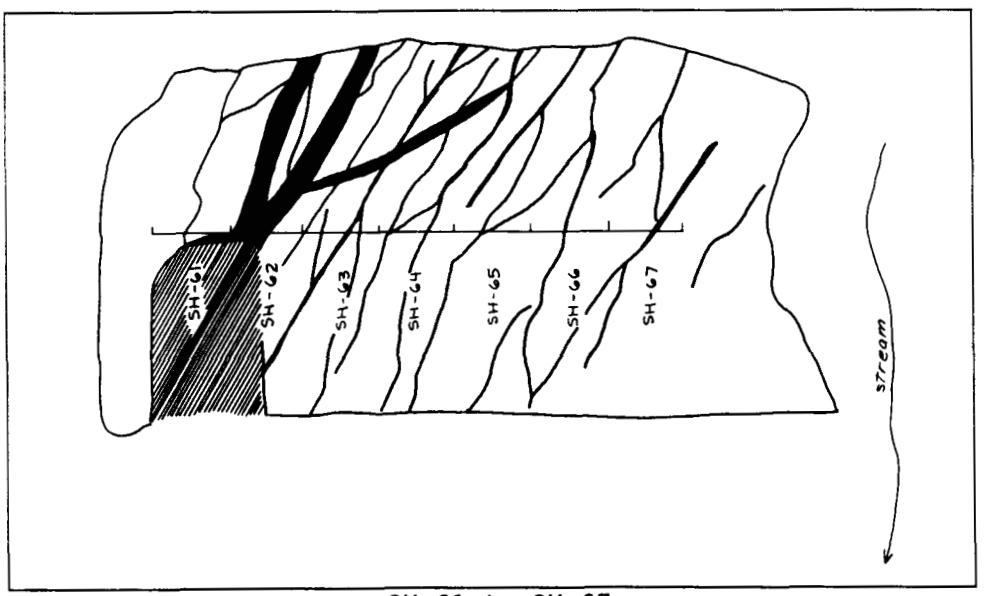
MR-54 1.6 m chip, semi-massive andesite, fine-grained, 4% sulphides, coarse-grained euhedral pyrite crystals, 40% quartz stringers

MR-55 1.0 m chip, massive white quartz, two generations of quartz, trace to 1% fine-grained Py, open cavities with quartz crystal intergrowths, minor hematite staining

MR-56 1.0 m chip; same as above

MR-57 1.2 m chip; same as above

MR-58 0.7 m chip, weakly sheared andesite, jointing at 65° dip 80°SE; shearing 160° dip 85°NE



SH-61 to SH-67

SH-61 to SH-67

All 1.0 m chip samples collected across exposure beside the Gold Quartz adit; adit is in good condition, but has a shallow stream in it; adit goes back ~20 m at 10° then veers to the west; appears to have been previously chip sampled at ~1.2 m intervals all the way back.

Veins strike 78° dip 68°N. Whole sampled interval ~35% quartz, biggest veins ~0.3 m wide; two 0.3 m wide veins join at the portal. Minor sulphides (trace to 1%), Py and Cpy in the west portion of shear, with isolated spot highs of 2-3% sulphides. Sheared andesite with quartz stockwork development.

Eureka

BB-26,BB-27,BB-28

BB-26 0.6 m chip, sheared andesite, limonite stained, minor Py

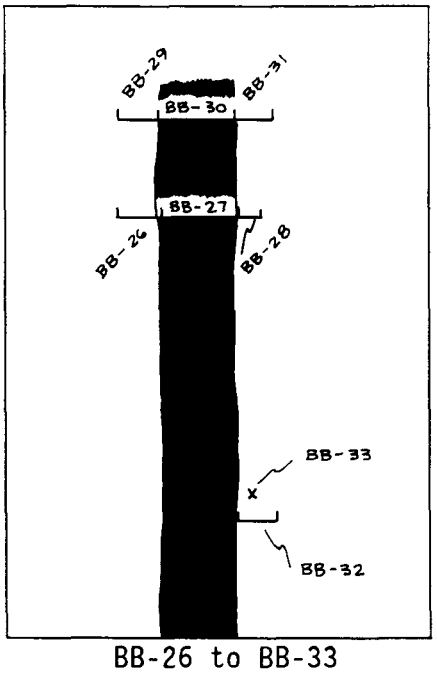
BB-27 1.0 m chip, felsic dyke, strike 140° dip 48°NE, traceable for 70 m to the north and 50 m to the south, minor Py, numerous quartz stringers and veinlets

BB-28 0.3 m chip, sheared andesite, trace Py

BB-29 to BB-33 sampled across same felsic dyke and associated shearing as BB-26,27,28

BB-29 0.5 m chip, sheared andesite, pyritic; Py content increasing as felsic dyke contact is approached

BB-30 1.0 m chip, felsic dyke, up to 5% Py, Py content increasing along margins of dyke



BB-26 to BB-33

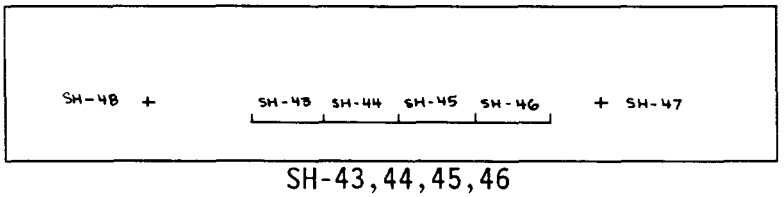
BB-31 0.5 m chip, sheared andesite, minor Py

BB-32 sheared andesite, limonite stained, quartz veinlets, Py stringers and disseminations

BB-33 grab of quartz occurring within the sheared andesite

BB-34 grab, 5 to 10 cm wide limonitic quartz vein, strike 160° dip vertical, minor Py and galena

SH-43 to SH-46
1 m chip samples across porphyritic felsic dyke just up from the Eureka Showing adit, strike 138° dip south, hematitic, minor disseminated Py



SH-43,44,45,46

SH-47 grab, hanging wall, andesite

SH-48 grab, footwall, andesite

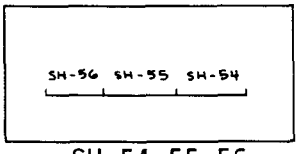
SH-49, SH-50 two 1.0 m chip samples across quartz-porphyry dyke, strike 140°

SH-51, SH-52 two 1.0 m chip samples across a rusty shear zone containing associated quartz-carbonate veinlets;a few metres south of SH-49,50

SH-53 1.1 m chip, quartz-porphyry dyke, strike 355°, below Eureka adit

SH-54,55,56
shear zone in chert, limonitic, friable, very altered, second trench/adit at the Eureka showing

SH-54	0.9 m chip
SH-55	0.9 m chip
SH-56	0.8 m chip



SH-54,55,56

MR-47 grab from 1 m shear zone strike 150° dip 64°E, cherty grey-green, very fine-grained andesite, trace carbonate, limonite stained

MR-48,49 1 m chip samples across porphyry dyke, minor Py, hematitic

MR-50 1.2 m chip across shear zone strike 10° dip 80°W, very rusty, 5-10% quartz-carbonate veining

MR-51 1.5 m chip across trench, poorly exposed, chert, greenish grey, strike 180°

MR-52A grab chips across 2 m porphyry dyke, strike 128° dip 65°S

Ibex Showing

C-7 to C-9

Sinuous shear, hematitic, goethic quartz veins, shear averages 50 cm wide, consisting essentially of subparallel quartz veins up to 20 cm wide, general strike 35°-40°, dip variable to the NW; quartz with disseminated Cpy, galena, and Py <1%.

Feldspar porphyry dyke cutting across the shear, sinuous, strike 160°, with numerous 1 to 10 cm quartz veinlets occurring across the dyke at ~60° to the dyke wall.

Shear zone widens to 3 m for a distance of 15 m; small fold part of the sinuous nature of the shear; occasional narrow 2 to 20 cm wide quartz veins intersecting shear at 160°.

The shear continues for another 75 m in a northeast direction beyond the sampling completed, then disappears under talus.

C-7 0.9 m chip, shear zone and goethic quartz, quartz veins vuggy with quartz intergrowths, hematitic, shear zone consists of a series of parallel up to 1 cm quartz veins with pockets of massive galena, minor Py and Cpy stringers; strike 58° dip 70°NW

C-8 0.6 m chip, shear zone, deeply weathered, hematitic, goethic; sheared andesite, deeply weathered with hematitic quartz veins, vuggy with quartz intergrowths, occasional galena blebs, trace Py and Cpy

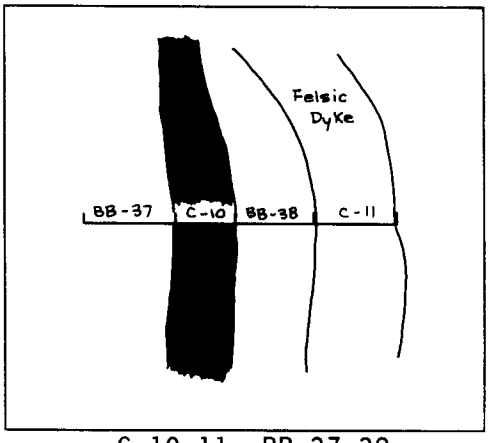
C-9 0.5 m chip, shear zone, hematite, goethite, deeply weathered andesite with hematitic quartz veins, trace Py and Cpy, quartz vuggy with quartz intergrowths

C-10,11, BB-37,38

0.7 to 1.0 m quartz vein in a ~3 m shear zone occurring adjacent to a feldspar porphyry dyke, strike 145° dip vertical; quartz vein sinuous with fairly consistent widths, shear width variable; occasionally the dyke occurs adjacent to the quartz vein with sheared wall-rock on either side; occasional narrow 2 to 5 cm quartz veins within the shear zone and surrounding the main shear zone

C-10 0.8 m chip, quartz vein, massive, white, rusty weathered, occasional Py crystals up to 1 cm diameter

C-11 1.0 m chip, feldspar porphyry dyke, massive, 1% disseminated Py

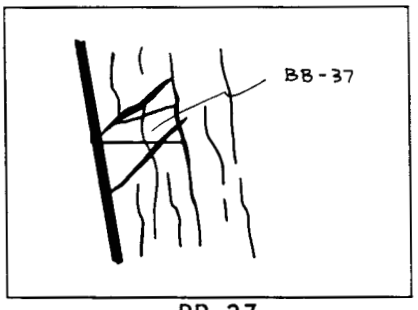


C-10,11, BB-37,38

BB-37 1.2 m chip across SW portion of shear, andesite is sheared and siliceous with numerous quartz veinlets up to 8 cm on the edges of the shear and 1-2% diss Py; quartz vein contains diss Py and galena; collected near previous sample 44085

BB-38 1.1 m chip, sheared andesite, 1% diss Py, numerous quartz veinlets and stringers

BB-39 grab sample of siliceous andesite tuff, up to 5% disseminated Py



BB-37

C-12 grab, very fine-grained andesite tuff, rusty weathered, light greyish green, 5-7% very fine diss Py, minor diss magnetite, pyritic band ~5 m wide exposed along strike for ~150 m, strike 130°.

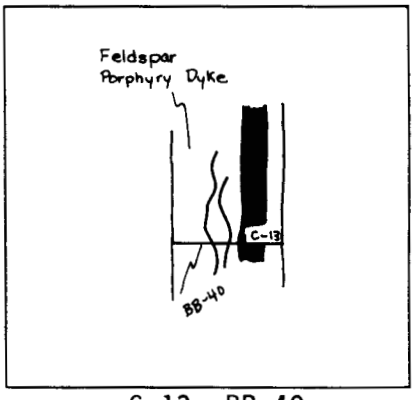
Sample site which yielded 5.15 oz/ton Au not re-located; however, found 2 cm pyrite crystals in andesite adjacent to narrow quartz veins; this may be what was referred to as "massive pyrite".

C-13, BB-40

sample collected from adit drifted into shear zone/felsic dyke; adit goes at least to the previous sampled trenches; continuation of shear zone sampled by C-10,11, BB-37,38

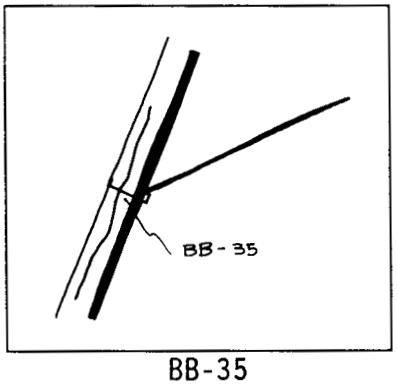
C-13 0.5 m chip, 30 cm of massive white, rusty weathered quartz, minor pyrite and galena, 20 cm of sheared andesite with 1% diss Py, occasional quartz stringers

BB-40 0.9 m chip, quartz flooded felsic dyke, numerous quartz veinlets and stringers, diss Py, limonite stained



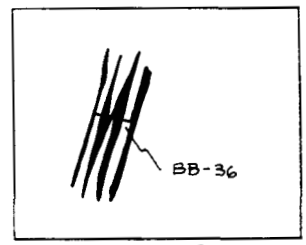
C-13, BB-40

BB-35 0.5 m chip across sheared andesite where two small (10 cm) quartz veins join, veins trend 023°/85°NW and 065°/80°NE and contain quartz crystal intergrowths, minor Py and galena



BB-35

BB-36 0.5 m chip across sheared andesite containing numerous quartz veinlets consisting essentially of quartz intergrowths



BB-36

Cuba Showing

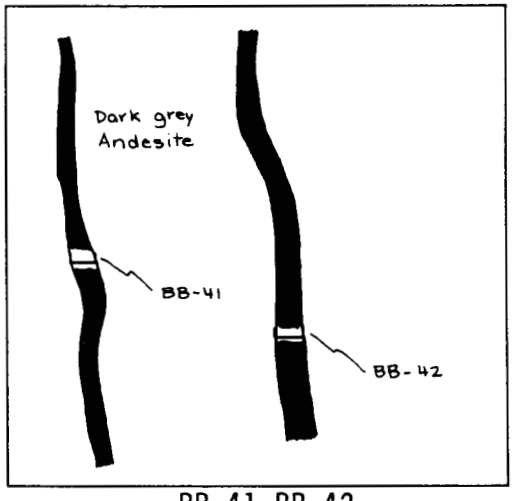
Probable location marked with flag RG-41 (previous sample); exposure poor - rubble; consists of rusty weathered grey quartz with bands of up to 15% disseminated Aspy, and rusty weathered sheared andesite tuff.

Width of zone not determined due to poor exposure; quartz veins probably narrow, judging from fragments located, and probably of limited extent. There is no expression of quartz veining in andesite outcrop 6 m downslope.

BB-41,BB-42
samples collected from two quartz veins on wall of cliff ~100 m downslope from BL/0+00, strike 098° dip 78°N

BB-41 0.25 m chip, 25 cm quartz vein, limonite stained, Py blebs and stringers

BB-42 0.25 m chip, 25 cm quartz vein, diss Py



BB-41,BB-42

C-3 grab, pink felsic dyke, containing numerous quartz veins with 3% diss Py; dyke and vein assemblage ~2.5 m wide; sample collected of intermixed quartz and dyke material

TERRAMIN RESEARCH LABS Ltd.

Job#: 89-239

Project: BC-89-1

Sample Number	Au ppb	Au oz/ton	Ag ppm
BB 1	6		0.11
BB 2	8		0.12
BB 3	10		1.04
BB 4	508		3.90
BB 5	18		0.04
BB 6	88		3.10
C 1	10860	0.317	4.00
C 2	42		0.04
C 3	20		0.26
C 4	746		11.4
MR 1	40		0.27
MR 2	30		0.45
MR 3	20		0.25
MR 4	12		0.06
MR 5	42		0.14
MR 6	54		0.05
MR 7	312		0.12
MR 8	15360	0.449	6.70
MR 9	350		0.31
MR 10	244		0.39
MR 11	54800	1.60	44.0
MR 12	1680		0.44
MR 13	12		0.17
MR 14	6		0.09
MR 15	4		0.11
MR 16	98		0.69
MR 17	204		1.47
MR 18	7920	0.231	83.0
MR 19	724		5.30
MR 20	730		6.80
MR 21	176		1.46
MR 22	794		7.20
MR 23	344		3.40
MR 24	108		0.76
MR 25	1888		22.0
MR 26	142		0.95
MR 27	14		0.24
MR 28	336		2.70
SH 1	484		0.22
SH 2	24		0.18

TERRAMIN RESEARCH LABS Ltd.

Job#: 89-239

Project: PC-89-1

Sample Number	Au ppb	Au oz/ton	Ag ppm
SH 3	472		0.28
SH 4	18060	0.527	9.70
SH 5	41400	1.21	17.9
SH 6	84		0.20
SH 7	1744		3.60
SH 8	6		0.09
SH 9	1138		1.14
SH 10	6		0.12
SH 11	18		0.62
SH 12	3520	0.103	1.54
SH 13	328		4.00
SH 14	628		6.60
SH 15	260		5.50
SH 16	2500		27.0
SH 17	1068		18.6
SH 18	1082		5.60
SH 19	1314		2.70
SH 20	1550		10.1
SH 21	260		1.57
SH 22	74		0.49
SH 23	5840	0.171	81.0
SH 24	48		0.66
TR #1 0-0.9	10		0.13
0.9-2	14		0.36
2-3	14		0.42
3-4	6		0.06
TR #2 0-1	14		0.12
1-2.1	12		0.12

TERRAMIN RESEARCH LABS Ltd.

Job#: 89-259

Project: BC-89-1

	Sample Number	Au ppb	Ag ppm
Rock			
BB	24	96	1.81
	26	10	0.13
	27	18	0.13
	28	2	0.05
	29	4	0.05
	30	4	0.09
	31	2	0.07
	32	244	0.19
	33	696	1.69
	34	40	43.0
	35	52	15.3
	36	278	67.0
	37	80	0.87
	38	32	0.16
	39	4	0.06
	40	20	0.32
	41	12640	1.85
	42	310	4.10
C	7	856	340.0
	8	72	36.0
	9	24	12.9
	10	130	0.86
	11	8	0.30
	12	6	0.17
	13	474	5.60
MR	47	12	0.10
	48	12	0.87
	49	8	0.55
	50	18	0.71
	51	6	0.36
	52 A	10	0.16
	52 B	32	0.16
	53	10	0.11
	54	374	3.10
	55	46	0.85
	56	140	1.35
	57	48	0.49
	58	80	0.93
	59	8	0.45
	60	12	0.24
	61	12	0.47
	62	282	1.65
	63	566	3.40
	64	16	0.10

Job#: 89-259

Project: BC-89-1

	Sample Number	Au ppb	Ag ppm
MR	65	2	0.08
	66	4	0.05
	67	4	0.03
	68	6	0.05
	69	4	0.09
	70	6	0.06
	71	10	0.03
SH	43	10	0.10
	44	12	0.59
	45	10	0.34
	46	6	0.51
	47	4	0.04
	48	2	0.05
	49	6	0.04
	50	6	0.07
	51	4	0.03
	52	6	0.03
	53	4	0.02
	54	30	1.00
	55	8	0.10
	56	36	0.18
	57	8	0.10
	58	28	0.11
	59	76	0.86
	60	10	0.29
	61	732	8.10
	62	312	3.20
	63	176	1.05
	64	262	2.70
	65	1232	11.7
	66	1236	11.3
	67	200	1.49
	68	12	0.04
	69	12	0.08
	70	10	0.06
	71	6	0.06
	72	10	0.04
	73	66	0.83
	74	160	0.78
	75	10	0.06
	76	152	7.40
	77	202	0.20
	78	1484	0.71
	79	270	0.15

Job#: 89-259

Project: BC-89-1

Sample Number	Au ppb	Ag ppm
L 5+00 S 0+25 E	404	0.50
0+37.5	144	0.16
0+50	76	0.26
0+62.5	64	0.20
0+75	68	0.12
0+87.5	20	0.16
1+00	12	0.10
1+12.5	32	0.04
1+25	40	0.22
1+37.5	84	0.24
1+50	46	0.28
1+62.5	74	0.20
1+75	30	0.13
1+87.5	84	0.22
2+00	1090	0.45
L 5+50 S 0+50 E	52	0.12
0+62.5	28	0.18
0+75	20	0.14
0+87.5	164	0.18
1+00	444	0.24
1+12.5	536	0.26
1+25	20	0.14
1+37.5	116	0.08
1+50	8	0.16
1+75	8	0.20
1+87.5	8	0.08
L 6+00 S 0+12.5 E	16	0.12
0+25	40	0.18
0+37.5	60	0.20
0+50	36	0.24
0+62.5	88	0.14
0+75	112	0.14
1+00	140	0.20
1+12.5	372	0.16
1+25	100	0.18
1+37.5	288	0.20
1+50	584	0.20
1+62.5	2460	0.64
1+75	40	0.30
1+87.5	16	0.32

Lab#: 89-259

Project: BC-89-1

Sample Number	Au ppb	Ag ppm
L 6+00 S 2+00 E	8	0.30
L 6+50 S 0+62.5 E	32	0.10
0+75	28	0.20
0+87.5	20	0.20
1+00	48	0.14
1+12.5	388	0.20
1+25	572	0.22
1+37.5	496	0.20
1+50	28	0.18
1+62.5	32	0.12
1+75	36	0.20
1+87.5	24	0.14
2+00	24	0.14
L 7+00 S 0+12.5 E	16	0.18
0+25	20	0.20
0+75	24	0.20
0+87.5	16	0.16
1+00	308	0.26
1+12.5	372	0.28
1+25	648	0.38
1+37.5	264	0.28
1+50	20	0.20
1+62.5	12	0.16
L 7+50 S BL	60	0.14
0+12.5 E	28	0.20
0+25	8	0.20
0+62.5	32	0.08
0+75	28	0.20
0+87.5	32	0.08
1+00	96	0.60
1+12.5	392	0.16
1+25	328	0.40
1+37.5	332	0.22
1+50	1124	0.26
1+62.5	124	0.10
1+75	48	0.16
1+87.5	8	0.18
2+00	152	0.16

Job#: 89-272

Project: BC-89-1

Sample Number	Au ppb	Ag ppm
BB 7	48	0.31
BB 8	10740	103.0
BB 9	48	0.73
BB 10	934	15.7
BB 11	200	4.10
BB 12	340	4.40
BB 13	1484	18.0
BB 14	24	0.38
BB 15	270	3.70
BB 16	18	0.31
BB 17	72	1.25
BB 18	40	0.39
BB 19	246	4.00
BB 20	806	20.0
BB 21	26	0.32
BB 22	64	0.45
BB 23	50	0.60
C 5	432	4.90
C 6	24	0.32
MR 29	4160	26.0
MR 30	414	4.30
MR 31	36	0.30
MR 32	24	0.11
MR 33	84	1.62
MR 34	168	2.50
MR 35	50	0.29
MR 36	60	0.58
MR 37	84	0.55
MR 38	882	14.9
MR 39	134	3.70
MR 40	242	8.40
MR 41	20	0.32
MR 42	10	0.04
MR 43	76	0.83
MR 44	152	2.70
MR 45	30	0.45
MR 46	254	2.10
SH 25	1052	14.3
SH 26	24	0.31
SH 27	10	0.14

Job#: 89-272

Project: BC-89-1

Sample Number	Au ppb	Ag ppm
SH 28	1740	43.0
SH 29	72	1.72
SH 30	328	4.30
SH 31	14	0.23
SH 32	186	14.2
SH 33	100	3.50
SH 34	64	0.73
SH 35	1696	21.0
SH 36	716	17.1
SH 37	14	0.16
SH 38	64	0.82
SH 39	82	1.03
SH 40	20	0.18
SH 41	20	0.15
SH 42	22	0.21

TERRAMIN RESEARCH LABS LTD.
14-2235 - 30th Avenue N.E. Calgary, Alberta T2E 7C7
(403) 276-8668

SAMPLE PREPARATION

Soil and sediment samples are dried and sieved through 80 mesh nylon screen (maximum particle size 200 microns).

Rock or drill core samples are crushed to approximately 1/8" in a jaw crusher, riffled to obtain a representative sample, and pulverized to 100 mesh (180 micron particle size).

TERRAMIN RESEARCH LABS LTD.
14-2235 - 30th Avenue N.E. Calgary, Alberta T2E 7C7
(403) 276-8668

FIRE ASSAY/AA METHOD FOR GOLD AND SILVER
PLATINUM AND PALLADIUM

Approximately 1 assay ton of prepared sample is fused with a litharge flux charge to obtain a lead button. The button is cupelled down to a precious metal prill which is then dissolved in aqua regia. The resulting solution is analysed by atomic absorption spectrophotemetry to determine the precious metals.

SUMMARY OF EXPENDITURES

Lyle Group

Notice To Group # 1703

Pre-Field

Logistics, assembly of personnel and gear, maps, reproduction
data compilation (pro rata) — 959.45

Field Personnel

Project Geologist	7 man days @ 375/day	2625
Assistant Geologists	7 man days @ $275/day	1925
Prospectors	7 man days @ 265 /day	1855
Labourers/Junior Geologist	7 man days @ 240 /day	1680

8085

Camp & Accomodation — 28 man days @ 65 /day — 1820.

Travel Expenses — (mob & demob) — 1798.50

Equipment Rental

Prospecting Equipment	7 days @ $5/day	35.00
4x4 3/4ton Truck	7 days @ 55/day	385.00
Passenger Car	7 days @ 35/day	245.00

665.00

Aircraft Support

Helicopter — 3970.70

Geochemical Analyses

78 50.1 samples (A_0, A_9)	663	
75 rock samples (A_1, A_9)	912.70	1577.70

Miscellaneous

Disposable Field Supplies and Lumber — 86.33

Expediting and Freight — 42.88

129.21

Post Field

Data compilation, report writing, drafting, secretarial
maps, reproductions — 1009.66

Administration — 2001.52

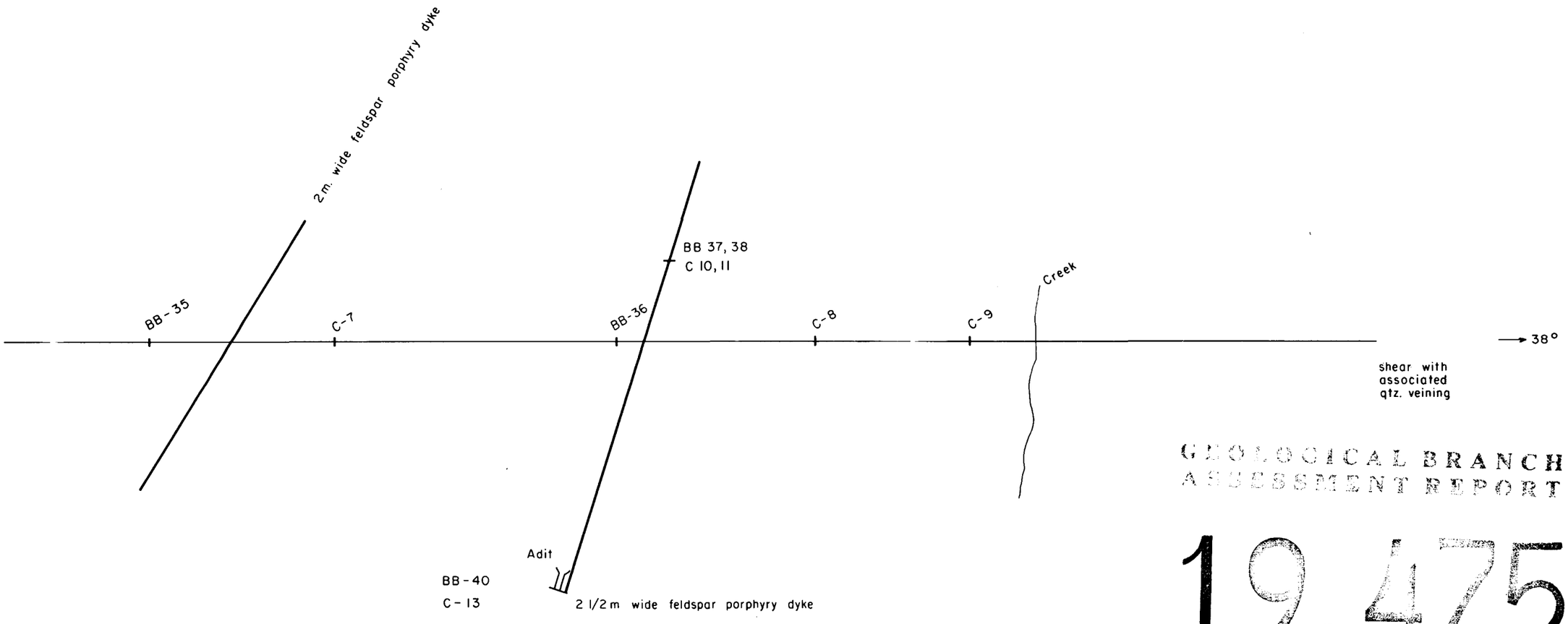
TOTAL EXPENDITURES

22,016.74

SUMMARY OF EXPENDITURES

wh. Tenwater Group
Notice To Group # 1702.

Pre-Field			
Logistics, assembly of personnel and gear, maps, reproduction data compilation (pro rata)			1781.85
Field Personnel			
Project Geologist	11 man days @ 375 /day	4125	
Assistant Geologists	11 man days @ $275/day	3025	
Prospectors	11 man days @ 265 /day	2915	
Labourer/Geologist	11 man days @ 244 /day	2640	
			12,705.00
Camp & Accomodation	44 man days @ 65 /day		2860.00
Travel Expenses	(mob & demob)		1408.52
Equipment Rental			
Prospecting Equipment	11 days @ $5/day	55.00	
4x4 3/4 Ton Truck	11 days @ 55 /day	605	
Passenger Car	11 days @ 35 /day	385	
			1045.00
Aircraft Support			
Helicopter			7374.15
Geochemical Analyses			
	136 rock samples (A_3, A_1)		1655.10
Miscellaneous			
Disposable Field Supplies and Lumber		160.33	
Expediting and Freight		79.62	239.95
Post Field			
Data compilation, report writing, drafting, secretarial maps, reproduction (pro rata)			1875.06
10% Administration			3094.46
		TOTAL EXPENDITURES	34,039.09



PROLIFIC RESOURCES LTD.

IBEX SHOWING

DATE AUGUST 1989	NTS 82 K/3
PROJECT BC-89-1	MAPPED/DRAWN BY C. AUSSANT
SCALE 1:1000 (0 20 40m)	
TAIGA CONSULTANTS LTD.	FIG. 6

HIGHLAND SURPRISE MINE

EUREKA

IRON CROWN

ROSSITER

UGLY JIM

SOLO BEST

HARRIS

KEYSTONE

COLORADO

OHIO

LYLE GRID

WHITEWATER MINE
(Sidorite, qtz, py, gn, sph, cpy)

RETALIACK

Whitewater Mill

Whitewater Creek

Lyle Creek

Forrest (Beast) Creek

KASLO RIVER

HWY 31

← To New Denver

To Kaslo →

SURETHING

LITHOLOGY

JR. OR LATER
- Hbd fps and dyke
- Porphyritic fps dykes, —— Shear with associated quartz veining

TR. SLOCAN GP 4
- Undifferentiated seds., ls, sts, sh, ss

MARTIN CONG.

3
- A — Ultramafic undifferentiated
- B/C — Cataclastic Bx/ Talc-carbonate schist
- D — Whitewater and related Diorite - fine to coarse grained

PERM. KASLO GP 2
- A — Undifferentiated
- B — Porphyritic andesite
- C — Basalt
- D — Chert
- E — Conglomerate (+ intrusive frags, ^ ultramafic frags) + diorite, + granite qtz eye
- F — Seds., argillite, ss, sts

MISS. 1
- MILFORD GROUP

- (A) Alterations (chloritization, carbonatization, sulphidization)
- Q Qtz veining
- (F) Heavy fracturing

SYMBOLS

- Property Boundary
- Fault
- Geologic contact
- Mineralization
- Adit
- Trench
- Drill site
- LCP
- x Rock sample site - oz/ton Au

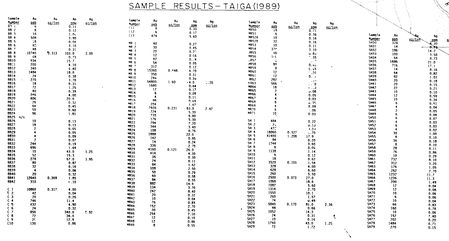
GEOCHEM

- AMOCO(1979) - >200 ppb Au + 1000 - High soil values (ppb Au)
- ABERMIN (1987) - >200 ppb Au + 2600 - High soil values (ppb Au)
- PAN OCEAN (1980) - > 200 ppb Au + 4100 - High soil values (ppb Au)

Excluded from Property Area

Axis IP Anomaly

SAMPLE RESULTS - TAIGA (1989)



GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,475

TO ACCOMPANY REPORT NO 13-87 BY G.F.M.

KEY
1
MAP 2

0 100 200 300 400 500 metres

PROLIFIC RESOURCES LTD.

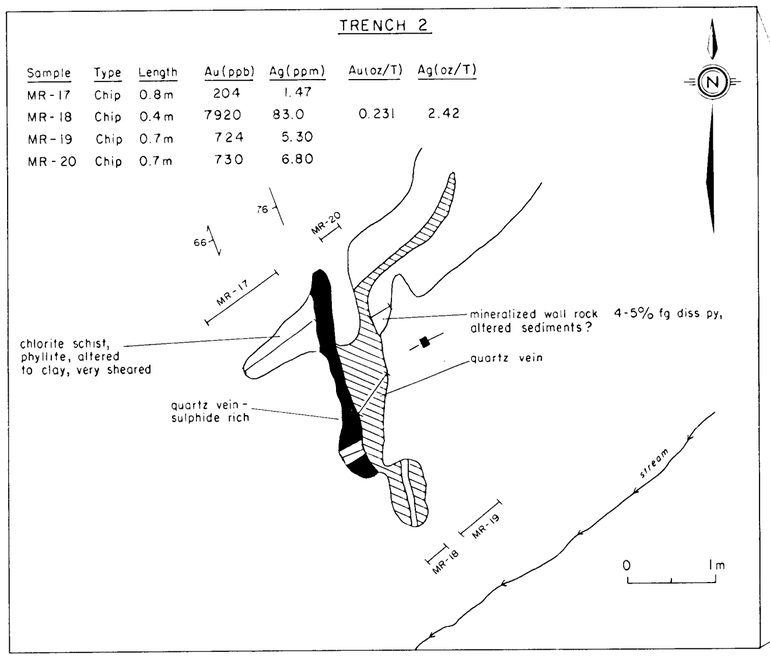
WHITEWATER PROJECT

COMPILATION MAP
and 1989 Sample Locations and Results
SOUTH HALF

DATE	SCALE	NTS	
1987.	1 : 5000	82 K / 3	MAP I

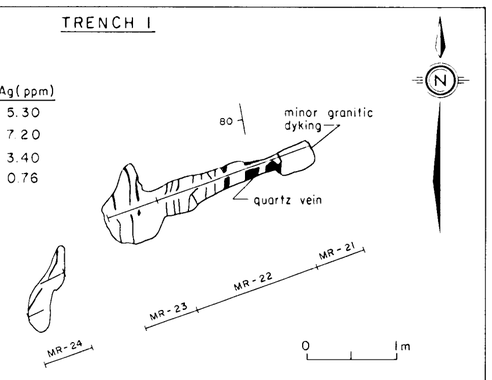
TRENCH 2

Sample	Type	Length	Au(ppb)	Ag(ppm)	Au(oz/T)	Ag(oz/T)
MR-17	Chip	0.8m	204	1.47		
MR-18	Chip	0.4m	7920	83.0	0.231	2.42
MR-19	Chip	0.7m	724	5.30		
MR-20	Chip	0.7m	730	6.80		



TRENCH 1

Sample	Type	Length	Au(ppb)	Ag(ppm)
MR-21	Chip	0.4 m	176	5.30
MR-22	Chip	1.4 m	794	7.20
MR-23	Chip	0.7m	344	3.40
MR-24	Chip	0.4m	108	0.76



1 0.4m of 0.231 oz/T Au Q.V.

2 stream

3 0.4m of 0.073 oz/T Au Q.V.

4 0.6m of 0.103 oz/T Au Q.V.

5 2.0m of 0.04 oz/T. Au Q.V.

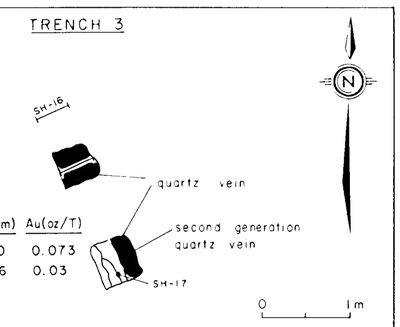
6 Grab 0.170 oz/T. Au

7 1.1m of 0.056 oz/T. Au Q.V. shearing

stream

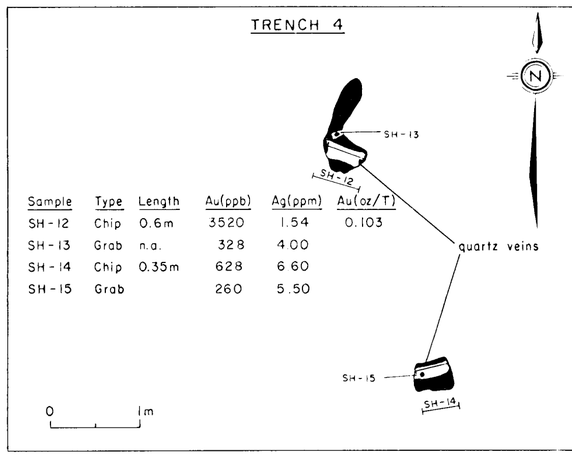
TRENCH 3

Sample	Type	Length	Au(ppb)	Ag(ppm)	Au(oz/T)
SH-16	Chip	0.4m	2500	27.0	0.073
SH-17	Grab		1068	18.6	0.03



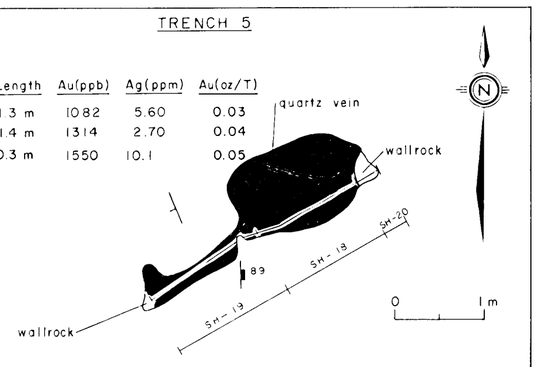
TRENCH 4

Sample	Type	Length	Au(ppb)	Ag(ppm)	Au(oz/T)
SH-12	Chip	0.6m	3520	1.54	0.103
SH-13	Grab	n.a.	328	4.00	
SH-14	Chip	0.35m	628	6.60	
SH-15	Grab		260	5.50	



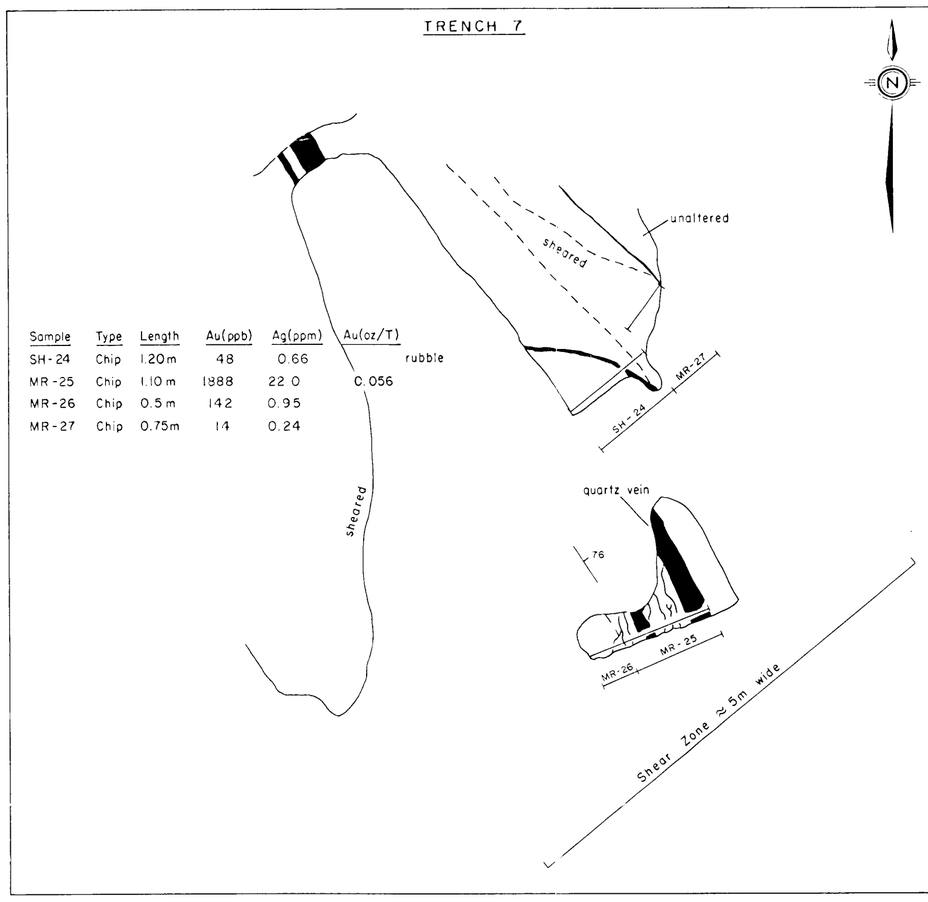
TRENCH 5

Sample	Type	Length	Au(ppb)	Ag(ppm)	Au(oz/T)
SH-18	Chip	1.3 m	1082	5.60	0.03
SH-19	Chip	1.4 m	1314	2.70	0.04
SH-20	Chip	0.3 m	1550	10.1	0.05



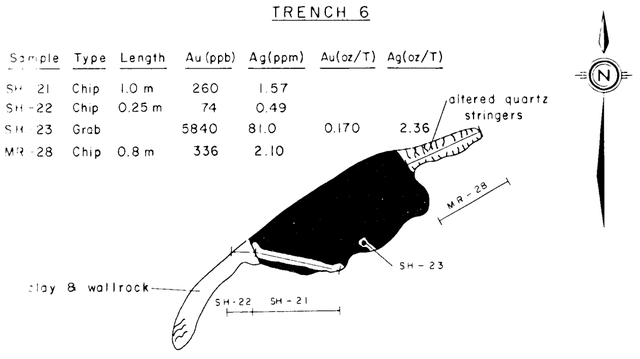
TRENCH 7

Sample	Type	Length	Au(ppb)	Ag(ppm)	Au(oz/T)
SH-24	Chip	1.20m	48	0.66	
MR-25	Chip	1.10m	1888	22.0	0.056
MR-26	Chip	0.5m	142	0.95	
MR-27	Chip	0.75m	14	0.24	



TRENCH 6

Sample	Type	Length	Au(ppb)	Ag(ppm)	Au(oz/T)	Ag(oz/T)
SH-21	Chip	1.0 m	260	1.57		
SH-22	Chip	0.25 m	74	0.49		
SH-23	Grab		5840	81.0	0.170	2.36
MR-28	Chip	0.8 m	336	2.10		



PROLIFIC RESOURCES LTD.

GOLD QUARTZ "B" ZONE TRENCH DIAGRAMS

DATE August, 1989	NTS 82 K/3
PROJECT BC-89-1	MAPPED/ DRAWN BY M.W. BOWLES
SCALE 1:1000	20 0 20 40 m
TAIGA CONSULTANTS LTD	FIG. 5

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WHITEWATER PROJECT

COMPILATION MAP
and 1989 Sample Locations and Results

NORTH HALF

DATE	SCALE	NTS	MAP II
1987.	1 : 5000	82 K/3	