SAWYER CONSULTANTS INC.

PRELIMINARY ASSESSMENT REPORT
AND RECOMMENDED WORK PROGRAM
ON THE SUNSHINE CREEK PROPERTY
Mayo Mining District, Yukon Territory

for

PACIFIC RIDGE RESOURCES CORPORATION

OCTOBER 20, 1981

Suite 1201, The Royal Bank Building, 675 W. Hastings Street, Vancouver, B.C. V6B 1N2 Phone: (604) 669-6363

SUMMARY

The Sunshine Creek property is located in an area of favourable host rocks for tin/tungsten mineralization. Known occurrences in the area include Clear Creek tin, Dublin Gulch tungsten, and Campbell Chibougamau tin occurrences. Anomalous values in drill holes on the Sunshine Creek property were encountered by Cominco in 1979. Values were up to 2.25% tin over 25 foot widths with recoverable values in silver. No serious exploration attempt was made to investigate the area for skarn/scheelite deposits.

Further assessment is required on the Sunshine Creek property. Areas of interest include the skarns around Zone B and tourmalinized breccia zones at Zones A, B, and C. Possible high tin concentrations are projected at depth in the granitic host below these breccia structures. Due to the high cost of drilling operations, especially in the Yukon, further indirect methods are recommended including geochemistry and geophysics over the area of interest. Positive results will be used in order to locate further drilling including deep holes into the granite body underlying Zones A and B. Approximately 50 kilometres of grid work have been recommended at a total estimated cost of $130,000 to be expended over a period of four months.

Knowledge of these Yukon tin deposits is not thorough and their exploration is a relatively new Canadian experience. This may result in higher exploration costs and longer lead time to production.

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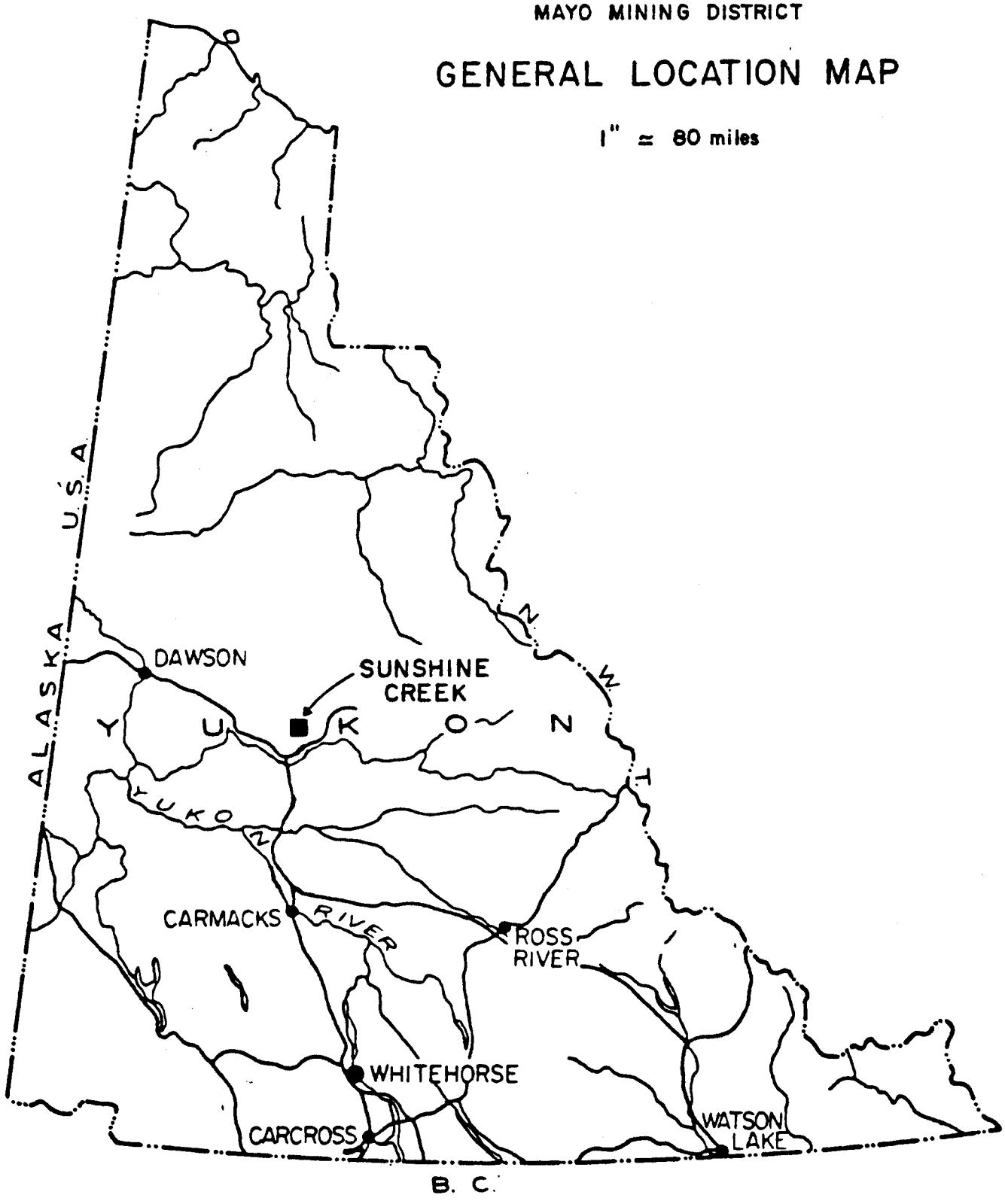
PACIFIC RIDGE RESOURCES CORP.

SUNSHINE CREEK PROSPECT

MAYO MINING DISTRICT

GENERAL LOCATION MAP

1" ≃ 80 miles



SAWYER CONSULTANTS INC. OCTOBER, 1981

FIGURE No. 1

INTRODUCTION

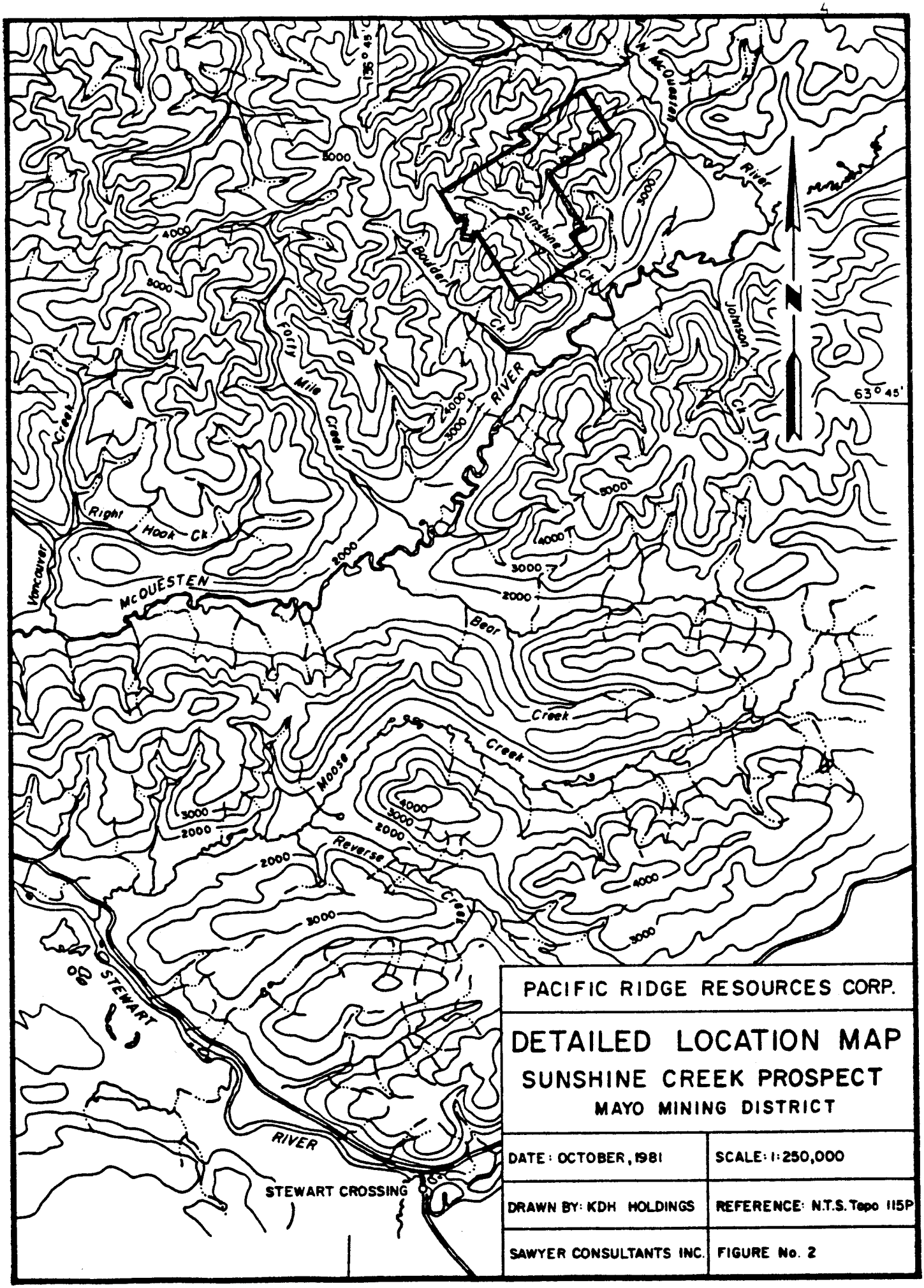
Following a brief property inspection on August 3rd, 1981, Sawyer Consultants Inc. agreed on August 13th, 1981 to provide geological consulting services on the Sunshine Creek prospect of Pacific Ridge Resources Corporation. In further written communication to Mr. Harry L. Williams, President of the Corporation, on August 27th, Sawyer Consultants Inc. agreed to provide a report on the property including recommendations for a 1982 work program. A preliminary discussion and review indicated need for geophysical surveys and a pan concentrate stream survey. It was agreed that the pan concentrate survey could proceed during the completion of the report in order that some further assessment could be made using the new data in conjunction with the past information during the 1981 season. This 33 sample survey was completed by Sawyer Consultants Inc. during the period September 6th to September 25th, 1981. A summary of the preliminary assessment with recommendations for the 1982 program are contained herein.

PROPERTY LOCATION, ACCESS, TITLE

The Sunshine Creek property of Pacific Ridge Resources Corporation lies 42 kilometres west of the town of Mayo, Yukon Territory on the McQuesten map sheet, NTS 115P, at longitude 63°15'N, latitude 136°30'W. It lies within the Mayo Mining District. Access to the property is approximately twenty minutes by helicopter from Mayo. Road access to within five miles of the property and to the south side of the McQuesten River is via the Highet Creek road which services placer operations at Johnson Creek. The condition of this road is not presently known although seasonal placer operations took place in 1981. The claim group is comprised of 216 units as follows:

Claim Name	No. of Claims	Record Nos.	Expiry Date
BIX 1-24	24	YA38290-YA38313	Sept. 20, 1982
A 1-128	128	YA30393-YA30520	May 29, 1984
SP 1-40	40	YA39308-YA39347	May 28, 1984
SP 42	1	YA39349	May 28, 1984
SP 53-62	10	YA39360-YA39369	May 28, 1984
SP 64	1	YA39371	May 28, 1984
SP 73-84	12	YA39380-YA39391	May 28, 1984
	216		

All of the above claims are registered to Mr. Gordon F. Dickson of Whitehorse. On May 1st, 1981 Pacific Ridge Resources Corporation signed an option agreement with Mr. Dickson whereby the Corporation acquired the right further to explore the property in return for a cash consideration.


PACIFIC RIDGE RESOURCES CORP.
DETAILED LOCATION MAP
SUNSHINE CREEK PROSPECT
MAYO MINING DISTRICT
DATE: OCTOBER, 1981
SCALE: 1:250,000
DRAWN BY: KDH HOLDINGS
REFERENCE: N.T.S. Topo 115P
SAWYER CONSULTANTS INC.
FIGURE No. 2
McQUESTEN
Vancouver
Right Hook Ck
Forty Mile Creek
Boulder Ck
Sunshine Ck
Johnson Ck
Bear Creek
Moose Creek
Reverse Creek
STEWART
STEWART CROSSING
RIVER
63° 45'
5000
4000
3000
2000

HISTORY

Wood tin and crystal cassiterite have been known to occur in placer gold black sands of the Klondike in the Mayo-McQuesten area since the early 1940's, (Bostock 1942, 1951). Aho (1949, 1964) reported that heavy mineral concentrates contained up to 25% tin at Clear Creek and Arizona Creek, 30.8% at Haggart Creek, and numerous quartz pebbles and cobbles at Dublin Gulch contained 80%-90% cassiterite. A lode deposit at Dublin Gulch was also found in 1943, (Mulligan 1975). It has been stated that tin recoveries are very sporadic and consistent economic concentrations are non-existent in the placers.

Recent exploration in the Yukon and Alaska has developed an interesting number of tin/tungsten prospects in the alkaline intrusives north of the Tintina Trench from Watson Lake to beyond Fairbanks. In the area around Mayo-McQuesten a number of prospects have been developed by Canada Tungsten Corporation, Campbell Chibougamau Mines Ltd. and Cominco.

Canada Tungsten Corporation has been working in the Dublin Gulch and Clear Creek areas. Dublin Gulch has potential for a high grade tungsten property, and it will likely be developed in the near future. Present work in the Clear Creek area has indicated high grade but sporadic tin values in greisen (Canada Tungsten Corporation - personal communication).

In 1979 Campbell Chibougamau Mines Ltd. announced values up to 1% tin in core lengths in excess of 4 metres (George Cross News Letter October 4th, 1979). Their property lies on the opposite or south

side of the McQuesten River from the Pacific Ridge Resources Corporation Sunshine Creek property.

1979 drilling and grid work by Cominco on the Pacific Ridge Sunshine Creek property have indicated at least three zones of anomalous high grade tin values. Approximately 20 kilometres of detailed grid work were completed over zones A and B (Figure 5). This included mapping, geochemistry and drilling on two main breccia structures adjacent the Sunshine Creek intrusive. Drill holes SC79-1 and SC79-2 in Zone B intersected anomalous values in tin, silver, copper, lead and zinc. Holes SC79-3 to SC79-5 provided more encouraging results especially in hole SC79-4 which assayed 0.28% tin over 25 feet. DDH SC 79-5 produced two 5 foot intersections of 0.28% tin and 0.26% tin. The option was dropped in 1980.

GEOLOGY

Regional Geology (Figure 3)

The Sunshine Creek area is characterized by numerous high level intrusions. They are Cretaceous Coast Range bodies of variable composition ranging from "moderately alkaline and mafic to felsic and acidic types" (Bostock, 1949, 1964). These intrude the Yukon Group which consists of sedimentary, volcanic and metamorphic rocks of Precambrian(?) age.

Intrusives

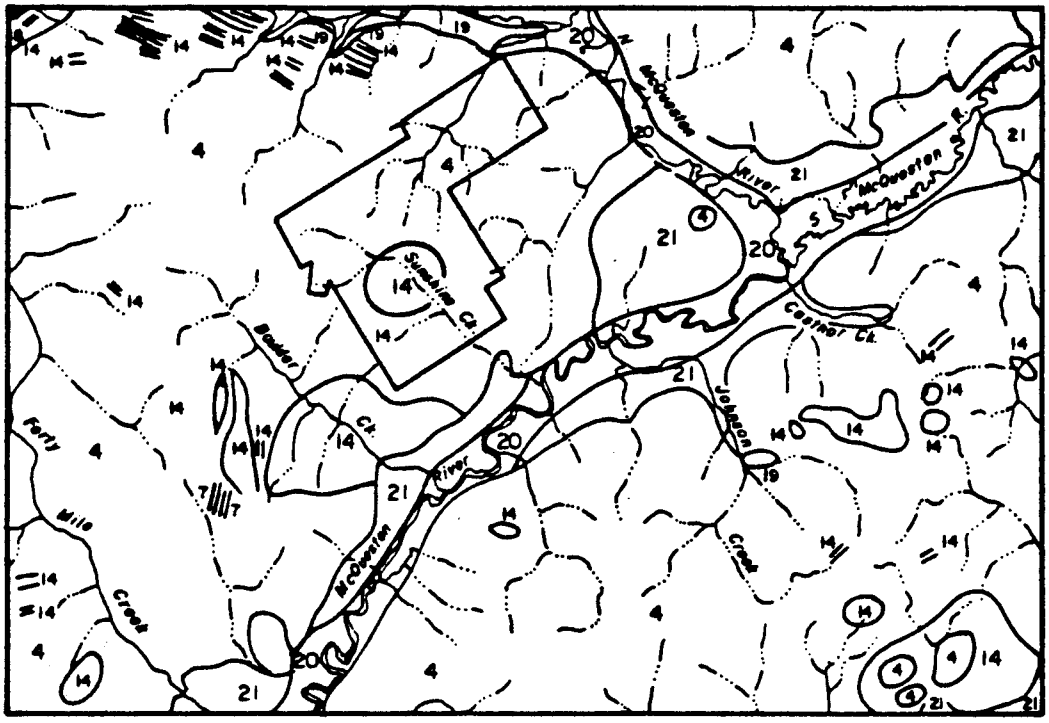
The extrusive/intrusive rocks represent a series of Cretaceous/ Jurassic phases of magmatic differentiation. The following table gives some comparison between the Yukon tin occurrences and other tin provinces of the world.

Table 1

Tin Granite Sequence of Intrusion

Yukon/McQuesten	Nigeria Plateau (Generalized)
Volcanic Cycle:	
- porphyritic volcanic flows, breccias, agglomerates, trachyte, gabbro, peridotite, diabase.	- rhyolite, explosion breccias, early basic dykes (hornblende micro-gabbro).
- aplite?	- quartz porphyries.
Granitic Cycle:	
- alkaline mafic syenite, monzonite.	- felsic, acidic granites, granite, granodiorite, quartz monzonite.
- quartz feldspar porphyry. [evidence of further differentiation at depth(?)]	- granite porphyry stage - hornblende, biotite granite - biotite granite - hornblende granite - granite porphyry.
- late stage dykes.	- late dolerites.

Reference (Cominco 1979; MacLeod 1971; Bostock 1942)



LEGEND

ORDOVICIAN (?) OR EARLIER

YUKON GROUP

4	Schist, quartzite, phyllite, limestone
7	Varicoloured slate

ORDOVICIAN (?) OR LATER

8	Limestone, slate, phyllite, quartzite

JURASSIC AND/OR CRETACEOUS

COAST INTRUSIONS

14	Granite, granodiorite, quartz monzonite

TERTIARY AND LATER

PLIOCENE (?) AND LATER

19	Stream deposits, alluvium; 19 a, "White Channel gravel"

QUATERNARY

POST-GLACIAL

20	Stream deposits, alluvium
21	Surficial deposits, undivided

Sunshine Creek Prospect Property boundary

PACIFIC RIDGE RESOURCES CORP.

REGIONAL GEOLOGY MAP

SUNSHINE CREEK PROSPECT

MAYO MINING DISTRICT

DATE: OCTOBER, 1981	SCALE: 1:253,440
DRAWN BY: KDH HOLDINGS	REFERENCE: G.S.C. Map 1143A
SAWYER CONSULTANTS INC.	FIGURE No. 3

Tasmanian tin tungsten deposits are generally associated with acidic granitoid rocks ranging from two-mica granites to quartz feldspar porphyries, (Solomon 1981). Complex differentiation in the Nigerian granites is probably better known due to the greater exposure and more extensive weathering. Ten to fifteen phases of granitic intrusions are identified in the numerous granitic complexes of the Plateau geological province. They are believed to be weathered up to two kilometres below the cupola or roof of the initial intrusions. In the Tasmanian case, however, the degree of weathering has not been as extensive and the exposure of this complex may not be in evidence at surface. In the Mayo-McQuesten area weathering is even less intense and only initial indications or "cupolas" (Mulligan, 1979) of differentiated granites and ring dyke structures have been exposed. Relative degrees of tin production in the three areas may also be evidence of the fact that the final and key phase of the tin bearing differentiates have yet to be exposed especially in the Yukon case.

Stratabound Basement Rocks

The Palaeozoic/Proterozoic basement host is similar in all previously mentioned tin areas. These rock types host deposits related to the chemistry of late stage differentiation and structural features that intersect them. The Sunshine Creek area is underlain by the upper Yukon Group basement consisting of schist, quartzite, phyllite and limestone. The package is characterized by generally uniform mica schist and micaceous quartzite. Occasional massive lenses of crystalline limestone are interbedded with the micaceous granites.

Structure

The most prominent local structure of the Mayo-McQuesten area is an east trending anticline the axis of which cuts through the centre of the Sunshine Creek property. This uplift or "doming" may be the result of a large extrusive event that is expressed at surface by numerous small plugs. "Transverse and oblique secondary faults are probably of major importance to mineralization" (Mulligan, 1975). The other major feature is the Tintina Trench, a regional tectonic feature that traverses the Yukon Territory and Alaska. Both Tasmanian and Nigerian tin provinces are spatially related to similar continental margin or failed rift systems.

Local Geology (Figure 5)

The local geology has been mapped by Butrenchuk of Cominco Ltd. (1979). His work outlined in more detail the Sunshine Creek intrusive and the sedimentary stratigraphic units into which it was emplaced. The main intrusive body which is in the centre of the claim group is quartz monzonite and porphyritic quartz monzonite. The Yukon Group basement rocks are comprised of quartz muscovite schist, chlorite schist, graphitic schist with quartzite, some limestone, and quartz biotite schist, and spotted by a tight schist, phyllite, quartz feldspar porphyry, quartz muscovite schist, foliated quartzite and limestone.

Intrusives

The surface area of the main quartz monzonite body or Sunshine intrusive is approximately 6 square kilometres occupying the centre of the property. It has been cut by several late stage

dykes of quartz feldspar porphyry and aplite. These dykes also have cut the sedimentary package in several places. A quartz feldspar porphyry concordant with the sedimentary package has also been mapped but is not believed to be related to the later Cretaceous intrusives (Cooke, 1979).

Stratabound Basement Rocks

A package of micaceous schists, quartzites, minor limestones and phyllites cover the remainder of the claim area. In general they trend northeast-southwest but local deformation around the intrusive body has altered the strikes of bedding to run parallel to the intrusive contact in places. As previously stated (see Regional Geology), the greatest mass of the upper Yukon Group consists of interbedded quartz muscovite schist and micaceous quartzites. Minor amounts of limestone, calc-silicate and skarn are also in evidence especially in the north-central part of the claim group adjacent to the northernmost boundary of the intrusive.

Structure

As previously mentioned, the axis of an east-trending anti-cline passes through the property at the south end of the Sunshine intrusive, the northern limb of which contains interesting and anomalous values in tungsten, silver and tin in structurally controlled zones. Mulligan emphasized the possible importance of transverse and oblique faults that aided in the localization of mineralization in the area. Zones A and B are both in areas that have been projected to have fault features that are represented by breccia trains along a fault path. These are both northeast-southwest trending features that appear

to be oblique to bedding and to the axis of the anticline. The South Zone also has an outcrop of breccia just off the southwest edge of the property. Small structural features are also represented in greisenized zones that were visible in the core but these are relatively minor.

Pneumatolytic alteration is a key mineralizing feature in this area as well as in other environments similar to it. This type of alteration is represented by greisening and tourmalinization and results from the action of the final differentiates of a magma in the gaseous state. Deposition of the relevant minerals is along structural planes.

Greisening is of three basic types:

(1) The most common of all greisen occurs in silica rich veins within the granitic host and appears on the walls of the quartz vein structure. It consists basically of a large amount of micaceous material which can often be high in such elements as lithium, boron, and fluorine.

(2) A second type of greisen is a type of igneous rock similar to aplite and pegmatite which is in fact an intrusive differentiate and consists of dykes of white mica and quartz.

(3) Larger bodies of greisenized material may occur at the periphery of a granitic intrusion or within the granitic intrusion itself. In general they are not related to structural features and might therefore be considered as an intrusive phase of their own. Examples of both type (1) and type (3) are seen in outcroppings and in drill core on the Sunshine Creek property.

Tourmalinization accompanies greisenization. Tourmaline is often a normal constituent of acid and alkalai types of granites. It is very much in evidence in the breccia zones of the Sunshine Creek property both at surface and in drill core. It is expected that the tourmaline breccias are in fact high level expressions of what would be encountered at depth as intense greisenization of the granitic cupola and roof rocks.

Types of Tin Deposits

Classification of tin deposits is not a thoroughly understood subject. Among the parameters considered in recent publications are form, geological environment, mineralogy, inferred temperature and mode of deposition. Mulligan presents a general classification and Solomon presents classifications with specific reference to Tasmania. Table II is a brief summary of the classifications. To date there have been no deposits of the magmatic dissemination type found in Canada. Most other types of mineralization are in evidence although not many of these known showings are of economic importance at the present time. The known showings around the Sunshine Creek area are basically pneumatolytic hydrothermal veins comprised of quartz, greisen, and tourmaline. They may in fact be high level indications of a more mineralized lower level source. The widespread occurrence of high level cupola intrusions into the Yukon Group throughout the north side of the Tintina Trench is an indication of a possibly highly differentiated granitic suite at depth. Therefore it is important to consider at least three types of possible tin deposits in the area (Figure 4).

(1) Pneumatolytic hydrothermal veins.

(2) Magmatic disseminations.

(3) Skarn.

This does not preclude the existence of any other types but the design of the exploration program is centered around the discovery of these types of mineralization. At present in Zones A, B and C quartz tourmaline veins and lodes are known to exist and to contain anomalous values in tin and silver along with geochemical highs in copper, lead and zinc. Due to the exotic suites of minerals often associated with quartz greisen tin deposits two samples taken by Sawyer Consultants Inc. in August of 1981 were tested for lithium, columbium and tantalum as well as tungsten, tin, copper, silver and gold. High lithium contents up to 0.013% were indicated. In a sample of the A Zone breccia a very minor amount of tantalum was also detected. The B Zone breccia, although higher in tin, did not produce as high a value in lithium but did report tantalum. The high lithium content is due to the lithium bearing micas associated with greisening. It has been known to occur in quantities that would make its recovery an economic by-product in production of lode deposits in Nigeria (Hawkins, 1981). The anomalous exotic mineral contents in the samples taken, i.e. lithium and possibly tantalum, indicate that there is a possible magmatic dissemination system in existence in the granitic rock beneath the Yukon Group cover at the Sunshine Creek property. Zones A and B illustrate pneumatolytic and hydrothermal alteration in breccia zones in basement rocks believed to be above a zone of quartz greisening in the granites beneath. They are themselves potential targets for

economic development as also are their projected possible magmatic dissemination or quartz greisen sources below.

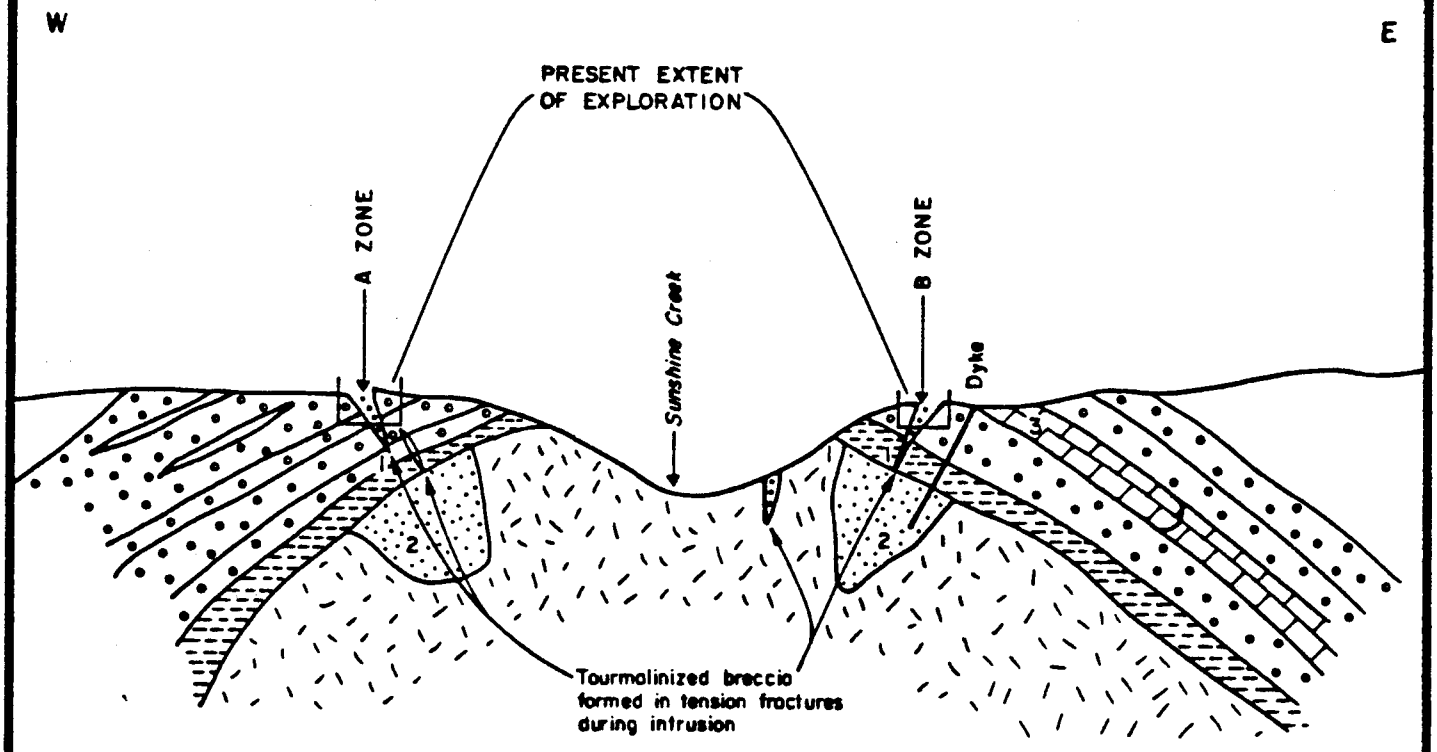
In Zone B a significant amount of limestone and skarn has been mapped. Given the existence of very important skarn deposits in the Dublin Gulch area these become a very important potential target as well. None of these skarn areas or limestone areas have been intersected or sampled for scheelite or tin-bearing minerals by the drilling completed to date.

It is of interest to note that virtually all tin production in Nigeria has been alluvial/eluvial whereas hardrock mining has predominated in Tasmania. Tin "production" in the Yukon to date has been predominantly from alluvial sources but no true economic quantities have yet been discovered. New hardrock discoveries in the Territory have been made since exploration for the metal has increased sharply (Dupont, Canada Tungsten).

No.	Type	Form	Typical host rock	Essential or gangue minerals	Metasomatic associated minerals	Tin minerals	Associated metals and metallic minerals	Canadian examples	Foreign examples	References
1.	magmatic ? disseminations	disseminated	granite			cassiterite	Ta-Nb, Zr, etc.		Zaaiplaats, South Africa Nigeria	Hunter and Lenthall, 1971 Hosking, 1965
2.	pegmatites	dykes	metasedimentary, metavolcanic, granitoid	feldspar, quartz, muscovite	tourmaline, topaz, fluorite rare	cassiterite	Li, Be, Ta-Nb, etc. W, Mo, etc., rare	Yellowknife (24) Winnipeg R. (30) Lishtater L. (31)	Africa, Brazil, etc. (numerous) Carolinas, U.S.A. Black Hills, S. Dakota	Pratt and Sterrett, 1904 Roberts and Rapp, 1965
	(albitite)			albite, quartz, muscovite		cassiterite wodginite		Red Sucker L. (28) Winnipeg R. (30)		
3.	skarn contact metamorphic	irregular incl., pipes	calcareous-dolomitic	Ca-Mg-Fe aluminosilicates magnetite	fluorite, axinite, danburite, ± tourmaline	cassiterite malayaite hulsite-paigeite stannif. ludwigite	W(scheelite ± wolframite) Be(helvite, chrysoberyl) Mo, various sulphides	Cassiar (16 a,e,f)	Lost River, Alaska; Devonshire; Malaya; etc. Brooks Mt., Alaska; Stevens Co., Washington; U.S.S.R. Czechoslovakia; Thailand, Devon	Sainsbury, 1964 Sharkawi and Dearman, 1966 Bennett, 1962 Nekrasova et al., 1965 Hadek and Novak, 1965 Hosking, 1965
						stannif. Fe-Al silicates		Cassiar (16e)		
4.	PNEUMATOLYTIC- HYDROTHERMAL									
	quartz-feldspar- greisen	veins, lodes	generally granite	quartz K-feldspar (secondary)	adularia, albite, ± fluorite, topaz, ± Li micas	cassiterite			Erzgebirge, U.S.S.R. Cornwall (South Crofty)	Stemprok, 1964, 1967 Cronshaw, 1921
	quartz-greisen	veins, lodes, pipes	quartzose and argillaceous schist, granitic	quartz	muscovite, Li mica, topaz, fluorite, ± tourmaline	cassiterite stannite	W (wolframite) Mo, Be (beryl), local, Li micas arsenopyrite, Cu Zn etc. sulphides minor	Yukon Tungsten (16i) Atlin (15) Burnt Hill (48) New Ross (49) Mt. Pleasant (46) (in part)	Most numerous and important lode types	
	quartz-tourmaline (hydrothermal)	veins, lodes veins, lodes	argillite, quartzite argillite, quartzite	quartz quartz	tourmaline, chlorite	cassiterite stannite canfieldite stannite franckeite	Zn-Pb-Cu-Ag sulphides major Pb,Zn,Sb sulphides	Dublin Gulch (4f) Sullivan (22h) Snowflake (22a); numerous minor in Cordillera Coal River (14)		
		veins, lodes veins, lodes	argillite, quartzite argillite, quartzite	calcite rhodonite		?	V, Zn, Co, Cu	Tellsell Mt. (18)		
5.	subvolcanic	lodes, pipes	rhyolitic, volcanic, granitic, hypabyssal		fluorite, topaz, chlorite	cassiterite stannite other tin sulphosalts	various sulphides and sulphosalts, notably silver	Mt. Pleasant (46)	Bolivian tin-silver belt U.S.S.R. Japan	Ahlfeld (1967) Matveyenko and Shatalov, 1963 Miyahisa, 1961
6.	fumarole	vein and segregation	rhyolitic, volcanic, and hypabyssal		fluorite, chalcedony, kaolin, hematite	cassiterite (notably wood tin)		Possible origin wood tin in Yukon placers (3, etc.)	Bolivia Mexico, Southwest U.S.A. U.S.S.R.	Ahlfeld, 1967 Sainsbury, 1969 Knopf, 1916 Matveyenko and Shatalov, 1963
7.	massive sulphide	concordant	argillite, quartzite rhyolitic, volcanic, and sedimentary	quartz, Fe Zn Pb sulphides Fe Zn Pb Cu sulphides	tourmaline	cassiterite cassiterite stannite		Sullivan (22h) Bathurst area (45) Kidd Creek (36) South Bay (32a) Geco (35) Lac Dufault (37)	Bleikvassli, Norway Boliden, Sweden	Vokes, 1963 Hübner, 1972
8.	metamorphosed fossil placer (?)	quartz lenses	argillaceous and limy schist	(chlorite-garnet zone)	chlorite	cassiterite	Fe sulphides, Co, Ti		Isergebirge, Poland	Jaskolski, 1963
9.	placer deposits	eluvial residual alluvial beach and marine				cassiterite	numerous heavy and resistant minerals of rocks and of primary tin deposits	North Cordillera (3) (4e,f,j) (15) (insignificant)	Congo, Nigeria, Brazil, etc. widespread Malaya, Indonesia, Thailand Cornwall, etc.	

Types of Tin Deposits from Economic Geology Report No. 28 (Mulligan, 1975)

Table II



LEGEND

- Quartz Monzonite
- Phyllite
- Quartzite, Quartz-Feldspar porphyry
- Quartz-biotite-chlorite schist
- Limestone Skarn
- Greisen

POSSIBLE TARGETS:

1) Quartz-Greisen veins SW-W (Pb, Zn, Ag, Cu)
2) Greisenized Granite SW-W
3) Skarn W-SW

PACIFIC RIDGE RESOURCES CORP.

IDEALIZED E W SECTION
SUNSHINE CREEK PROSPECT
MAYO MINING DISTRICT

DATE: OCTOBER, 1981	SCALE: ~1:30,000
DRAWN BY: KDH HOLDINGS	REFERENCE: COMINCO 1979 MULLIGAN 1975
SAWYER CONSULTANTS INC.	FIGURE No. 4

1982 PROPOSED PROGRAM

Basic objectives of the 1982 program are further to delineate areas of interest and provide deep drilling targets and targets in areas of new potential. In order to achieve this the following is recommended.

Grid Work

The two isolated Cominco Grids on Zones A and B provided some results over these specific areas. However in order to provide continuous and consistent results over the entire area of interest a more extensive grid over both areas is proposed. Follow up work in anomalous zones will be on a smaller scale including fill-in lines and fill-in sample points.

Geophysics

Two basic objectives of the geophysics program are to estimate the depth and size of the intrusive and to delineate any structures that may be mineralized. Magnetics is proposed as an aid in defining the limits of the intrusive. It is believed that the structural features may best be expressed in terms of resistivity. Due to the low disseminated sulphide content IP effect may help to delineate zones of increased metal content. Both resistivity and IP factor will be provided through an induced polarization survey.

Geochemistry

Previous geochemical sampling provided little or no useful data in terms of anomalous zones of tin and tungsten, however the methods of sample treatment were not consistent with the procedures recommended for these two elements. With a larger grid and increased

line spacing a more regional look at anomalous values of copper, lead, zinc, tin and tungsten will be presented. Treatment must include crushing of all mesh sizes of the soil sample and digestion of the same.

Coincident IP-geochemical anomalies will therefore provide targets for deeper drilling.

Geology

Further detailed prospecting and sampling will be required on the new grid with an interpreted geological map to be presented. Attention will also be paid to the possible existence of scheelite deposits within the skarn horizons. The results of the geochemical stream sediment sampling survey indicate generally very low values in gold with only one sample reporting a value of 0.01 oz./ton Au. Of the other 32 samples, 28 reported values of 0.002 oz./ton Au or less. Of the remaining four, sample No. SS 6, which reported a value of 0.007 oz./ton Au was the highest.

With reference to the tin results four of the 33 samples reported values of 0.1% Sn or greater, and of these four, three were samples numbers SS 1, SS 2, and SS 3, which returned values of 0.12%, 0.16%, and 0.26% tin respectively. These samples are on a southern (north flowing) tributary of Sunshine Creek in the southeastern corner of the grid, to the southeast of the A Zone and south of the B Zone. Clearly these samples are anomalous and will require further follow-up work.

Sample No. SS 31 which was taken from Sunshine Creek immediately upstream of the point at which the trace of the east-west trending anticlinal structure crosses it returned a value of 0.15% Sn.

The closest samples to the southeast, northwest, and southwest all reported lower values although sample SS 30, the next sample upstream from sample SS 31, did report a slightly higher than background value of 0.04% tin. Some further investigation of this area would be warranted.

Referring to the tungsten values, it can be seen that seven of the 33 samples returned values of 0.01% tungsten or greater and three of these seven are again samples SS 1, SS 2, and SS 3, which had correspondingly anomalous values in tin, and 0.01 oz./ton gold in sample SS 3. Of the remaining samples, numbers SS 6, reporting a value of 0.025% tungsten and SS 14, reporting a similar tungsten content, are adjacent samples on Sunshine Creek and a southern tributary located immediately east of the base line and of the A Zone area. Samples SS 30 and SS 31 which, as we discussed above, showed slightly higher tin values also reported anomalous values in tungsten of 0.03% W and 0.05% W.

While it is true that none of these results are outstanding, the tin values returned from SS 1, SS 2, and SS 3, with corresponding above background tungsten values, clearly indicate an area for further work. Similarly the area to the southeast of Zone A near the base line 0+00, represented by samples SS 6 and SS 14, deserve some further attention, as also does the general area of samples SS 30 and SS 31. These areas will be followed up with further geology and prospecting and possible grid extensions into areas of interest. The following cost estimates provide for the completion of the above work.

Budget

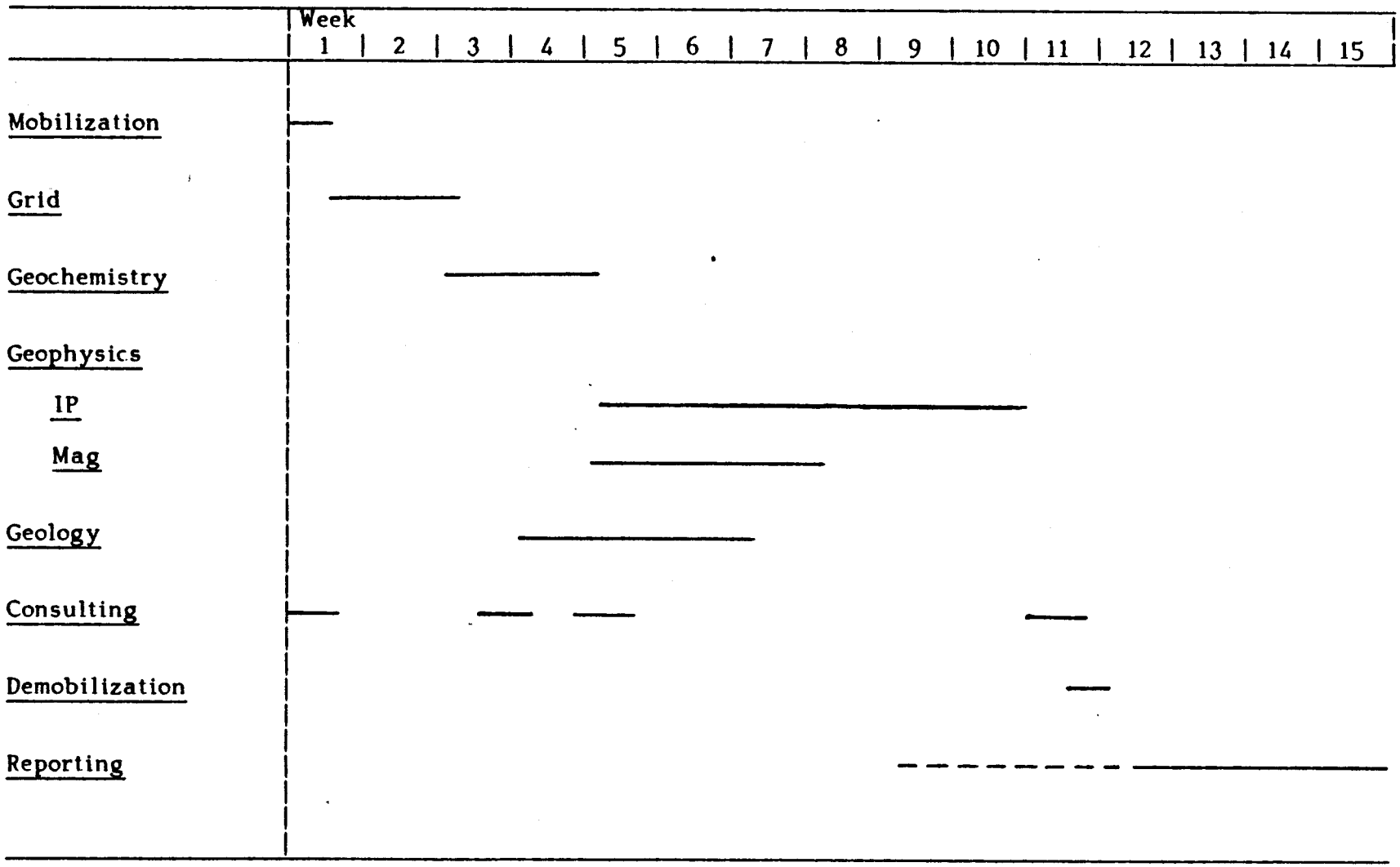
Mobilization/Demobilization			
Air fare		$2,420	
Freight		500	
Helicopter - 3 hours @ $450.00/hr.		1,350	
4 men - 4 days @ $750.00/day		3,000	
		$7,270	$ 7,270
Grid Work			
42 man days @ $150.00/day			6,300
Geochemistry			
Sample collection - 42 man days @ $150.00/man day		$ 6,300	
Analyses - Soil 1200 samples @ $10.75/sample		12,900	
		$19,200	19,200
Geophysics			
Mobilization/Demobilization			
Air fare	$1,210		
Freight	500		
Helicopter - 2 hours @ $450.00/hr.	900		
	$2,610	$ 2,610	
I.P.			
2 operators and equipment - 45 days @ $600.00/day	$27,000		
2 helpers - 90 man days @ $150.00/day	13,500		
	$40,500	40,500	
Magnetics			
20 man days @ $150.00/man day		3,000	
		$46,110	46,110
Geology			
21 man days @ $200.00/man day		$4,200	
50 analyses @ $25.00 average		1,250	
		$5,450	5,450

Other Travel		
Air fares	$2,000	
Helicopter - 5 hours @ $450.00/hr.	2,250	
	$4,250	4,250
Camp Costs		
Infrastructure - 90 days @ $50.00/day	$ 4,500	
Supplies - 395 man days @ $25.00/man day	9,875	
Expediting	1,000	
	$15,375	15,375
Consulting and Supervision		
30 days @ $300.00/day		9,000
Report Costs		5,000
		$117,955
Contingency @ 10%		11,700
	Say	$130,000

Schedule

The estimated total time of completion of the proposed work is three months. A breakdown of the timing is presented in Table III.

Depending on weather conditions the program could probably start by mid-June.



PROPOSED SCHEDULE 1982 PROGRAM

Table III

CONCLUSIONS

(1) The Sunshine Creek property lies within a belt of favourable tin bearing differentiated intrusives.

(2) The apparent lack of similarity with other tin granite provinces is possibly related to the high level or cupola exposure of the intrusive bodies in the Mayo-McQuesten area.

(3) Given a potentially analagous situation and the fact that high grade tin/tungsten has been discovered in adjacent and similar areas (Clear Creek, Dublin Gulch, Swift River) exploration targets are projected in:

(a) Roof rocks along favourable structures (Zones A and B).

(b) Skarn zones in favourable stratigraphy (Zone B).

(c) Magmatitic disseminations in granitic rocks (at depth, Zones A, B, C).

(4) The present drill indicated zones of anomalous values require further delineation to indicate structures in depth. New structures and targets may also be indicated by this work.

(5) Diagnostic geophysical features are expected to be low resistivity, possibly high metal factors and magnetic signatures.

(6) Past geochemical surveys failed to indicate any tin/tungsten trends. Special sample treatment is required including crushing of all size fractions prior to analysis. Diagnostic geochemical trace elements include lithium/boron as well as tin/tungsten. A review of the previous sampling and

drill cores may also help further to determine anomalous values in the Sunshine Creek area.

(7) The winning of tin from hardrock deposits has not met with much economic success in other areas of the world in recent times. It is a difficult metal to explore for and to mine. In that the Canadian experience for these types of deposits is very limited there is a need for more continued experience over time. Therefore, the cost of developing the necessary geological models and exploration technology are that much greater.

RECOMMENDATIONS

Prior to any further drilling attempts on the property, more indirect approaches to evaluation are recommended.

(1) Geochemistry

A large grid (50 line km.) covering all of the known areas of interest is recommended as control for geochemical surveys. Special sample treatment is required in order to determine the tin and tungsten contents. The estimated cost of this work is $19,200. Close spaced follow up work is recommended in areas of interest.

(2) Geophysics

Contract IP and magnetic geophysical surveys are recommended over the 50 line km. grid. Dipole-dipole IP is recommended here although a cheaper and quicker method of pole-dipole will be tested on site prior to final surveying. All follow up work over anomalies of interest will be carried out on dipole-dipole surveys. The estimated cost for total dipole-dipole surveys is $46,110.

(3) Geology

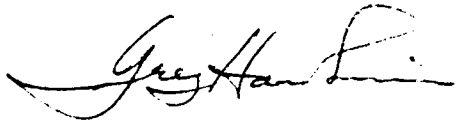
Further geological mapping, prospecting and sampling is recommended on the proposed grid. This will include follow up of the indications provided by the stream sediment samples. The estimated cost is $57,050.

(4) The total cost of the program including camp, mobilization/ demobilization, consulting, and reporting is estimated at $130,000. The projected schedule is over a four month period.

(5) Due to the geological and geochemical similarities with other tin/tungsten environments both in the Yukon and other parts of the world, exploration should be concentrated in areas of skarn and tourmalinized breccia structures.

Respectfully submitted,

SAWYER CONSULTANTS INC.



T. Greg Hawkins, F.C.A.C.

CERTIFICATE

I, T.E. Gregory Hawkins, DO HEREBY CERTIFY:

(1) That I am a Consulting Geologist, of Sawyer Consultants Inc., with business offices at 1201 - 675 West Hastings St., Vancouver, British Columbia, V6B 1N2.

(2) That I am a graduate in geology of The University of Alberta, Edmonton (B.Sc. 1973), and of McGill University, Montreal (M.Sc. 1979).

(3) That I have practised within the geological profession for the past twelve years.

(4) That I am a Fellow of the Geological Association of Canada.

(5) That the information and opinions contained in the attached report are based on personal observations made on the Sunshine Creek property on August 3rd and September 15th-16th, 1981, and general research of tin deposits and the Mayo-McQuesten area.

(6) That I own no interest in the shares or securities of Pacific Ridge Resources Corporation or the subject property, nor do I expect to receive any interest.

T. Greg Hawkins, F.G.A.C.

Dated at Vancouver, British Columbia, this 20th day of October, 1981.

BIBLIOGRAPHY

Aho, A.E., 1949: Mineralogy of some heavy sands of the McQuesten River area, Yukon; unpublished thesis Univ. of Brit. Columbia.

----------, 1964: Mineral potential of the Mayo district; Western Miner V.37, pp.80-88.

Bostock, H.S., 1942: Ogilvie, Yukon; Geol. Surv. Can. Map 711A.

----------, 1964: Geology, McQuesten, Yukon Territory; Geol. Surv. Can. Map 1143A.

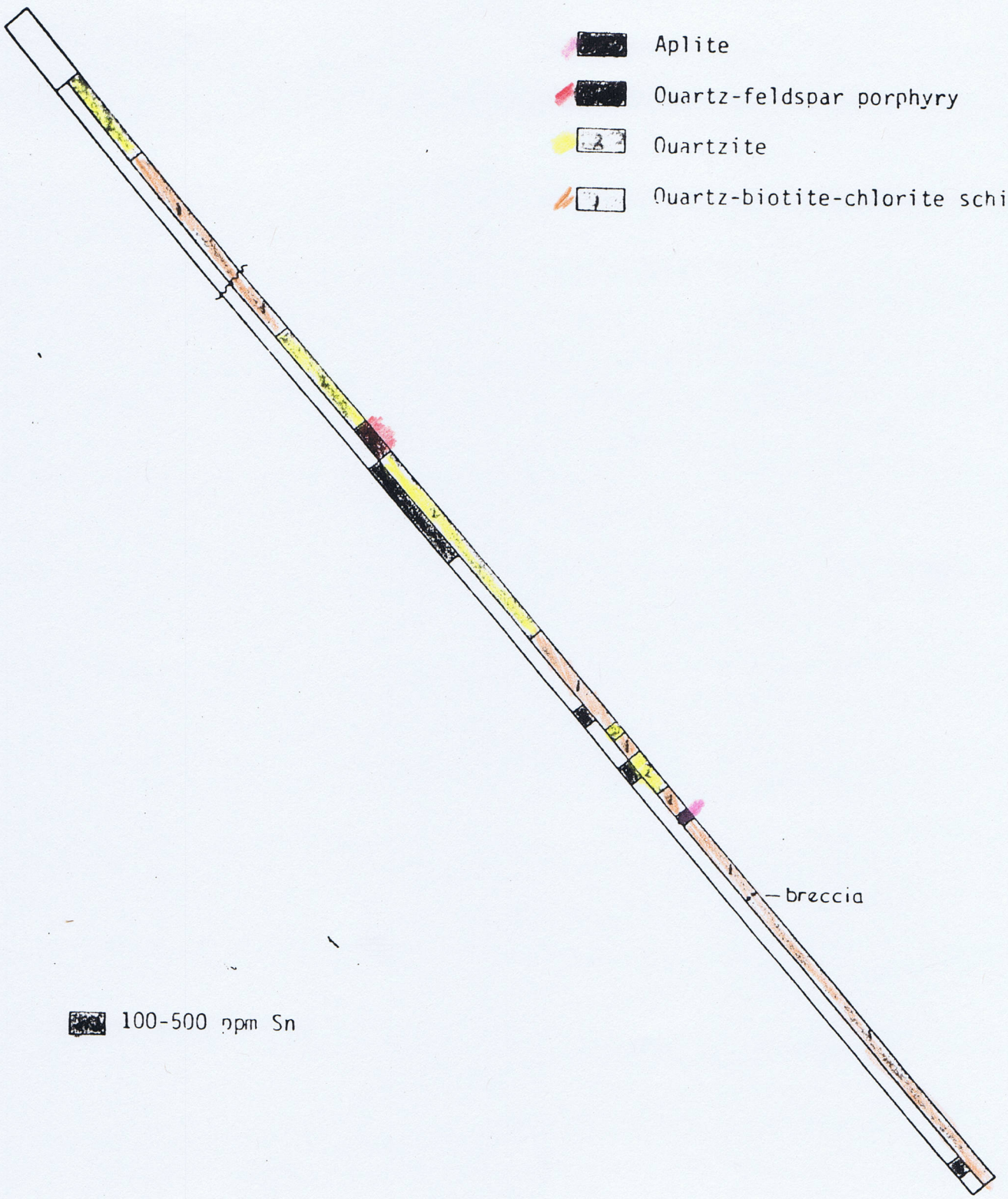
Cooke, D.L., 1979: Report on the Sunshine Creek A Group; Cominco Ltd. corporate file.

Hawkins, T.G., 1981: Ririwai Project 1, Final Report; Nigerian Mining Corp. corporate file.

MacLeod, W.N. et al, 1971: The Geology of the Jos Plateau; Geol. Surv. Nigeria, Bull. 52, Vols. 1 & 2.

Mulligan, R., 1975: Geology of Canadian Tin Occurrences; Geol. Surv. Can. Econ. Geol. Report No. 28.

Solomon, M., 1981: An Introduction to the Geology and Metallic Ore Deposits of Tasmania; Econ. Geol. Vol. 76, No. 2.



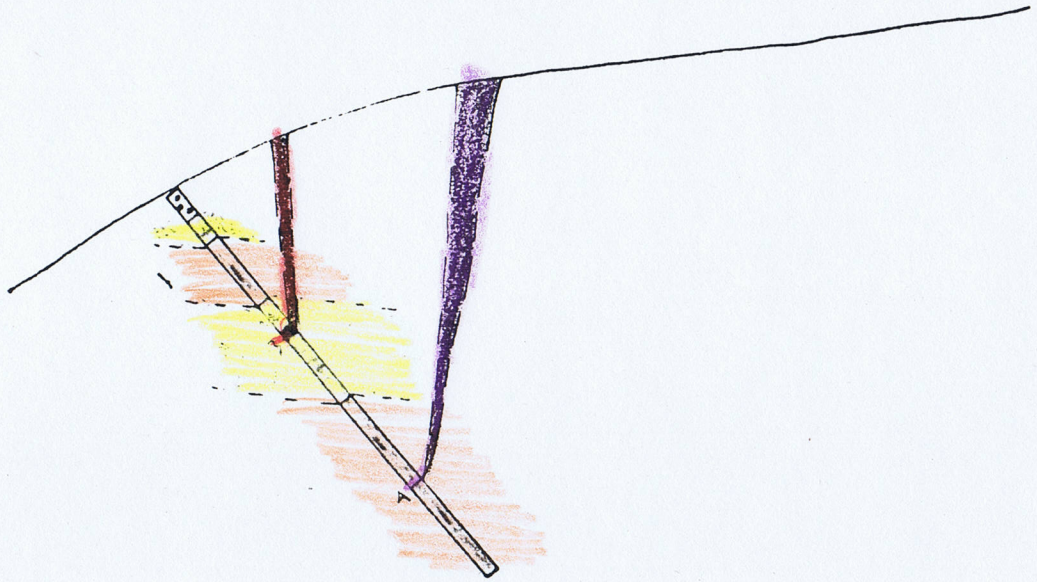
100-500 ppm Sn

Cominco

Drawn by S.B.B	Traced by S.B.B.	SECTION
Reviewed by Date	Reviewed by Date	DDH SC79-1
		Scale 1:500 Date July 1979 Plate SC -6A

SE

NW



1400 m

1300 m

Breccia: tourmalinized

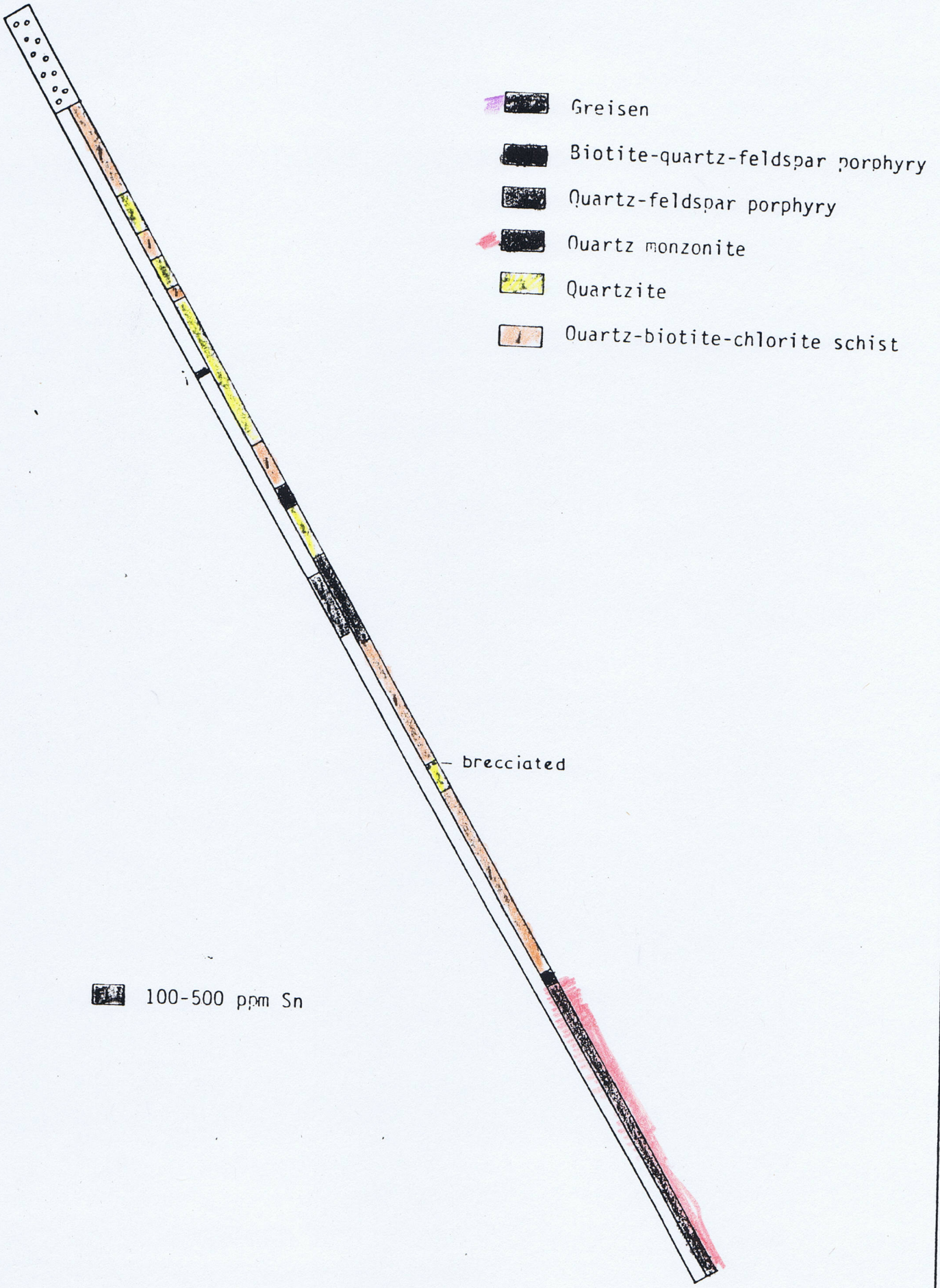
Quartz-feldspar porphyry

Quartzite

Quartz-biotite-chlorite schist

SECTION SE'-NW'
THRU DDH SC79-1

Drawn by: SBB
Traced by: SBB
Date: October 1979
Plate: SC-20
Scale: 1:2000



Drawn by: S B B | Traced by: S B B

Revised by | Date | Revised by | Date

SECTION

DDH SC79-2

Scale: 1:500 | Date

SE

NW

DDH SC79-2

1400 m

1300 m

Breccia: tourmalinized

Quartz-feldspar porphyry; in part greisenized, aplitic

Greisenized quartz monzonite

Quartz monzonite

Quartzite: micaceous, feldspathic

Quartz-biotite-chlorite schist

SUNSHINE CREEK

"B" ZONE

SECTION DDH SC79 2 (SW-NE)

Date: SEPT, 1979

Plate: SC-21

Scale: 1:2000

Traced by: S B B

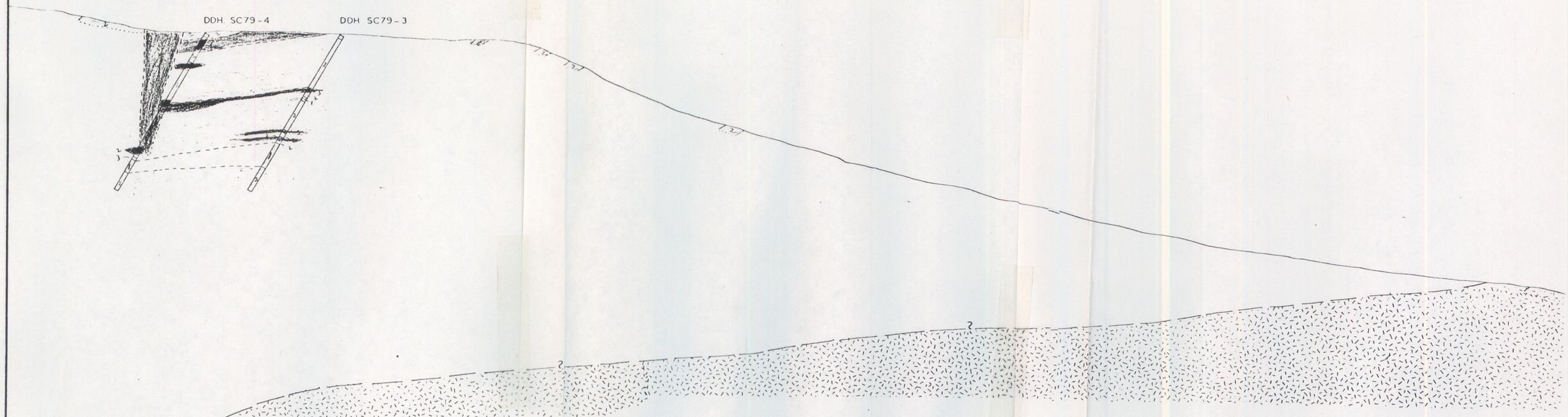
Drawn by: S B B

W

E

DDH. SC79-4

DDH. SC79-3



LEGEND

AGE UNCERTAIN

- Breccia: brecciated quartzite and phyllite, silicified, tourmalinized, vuggy

CRETACEOUS

- 5 Quartz monzonite: porphyritic, holocrystalline

PROTEROZOIC

- Quartz-feldspar porphyry
- Phyllite: light grey, quartzitic, locally-weakly graphitic and/or chloritic
- Quartzite: includes micaceous quartzite, feldspathic quartzite, may contain tuffaceous bands
- 1 Quartz-biotite-chlorite schist

SUNSHINE CREEK

Drawn by: S B B	Traced by S B B
Revised by / Date	Revised by / Date

SUNSHINE CREEK

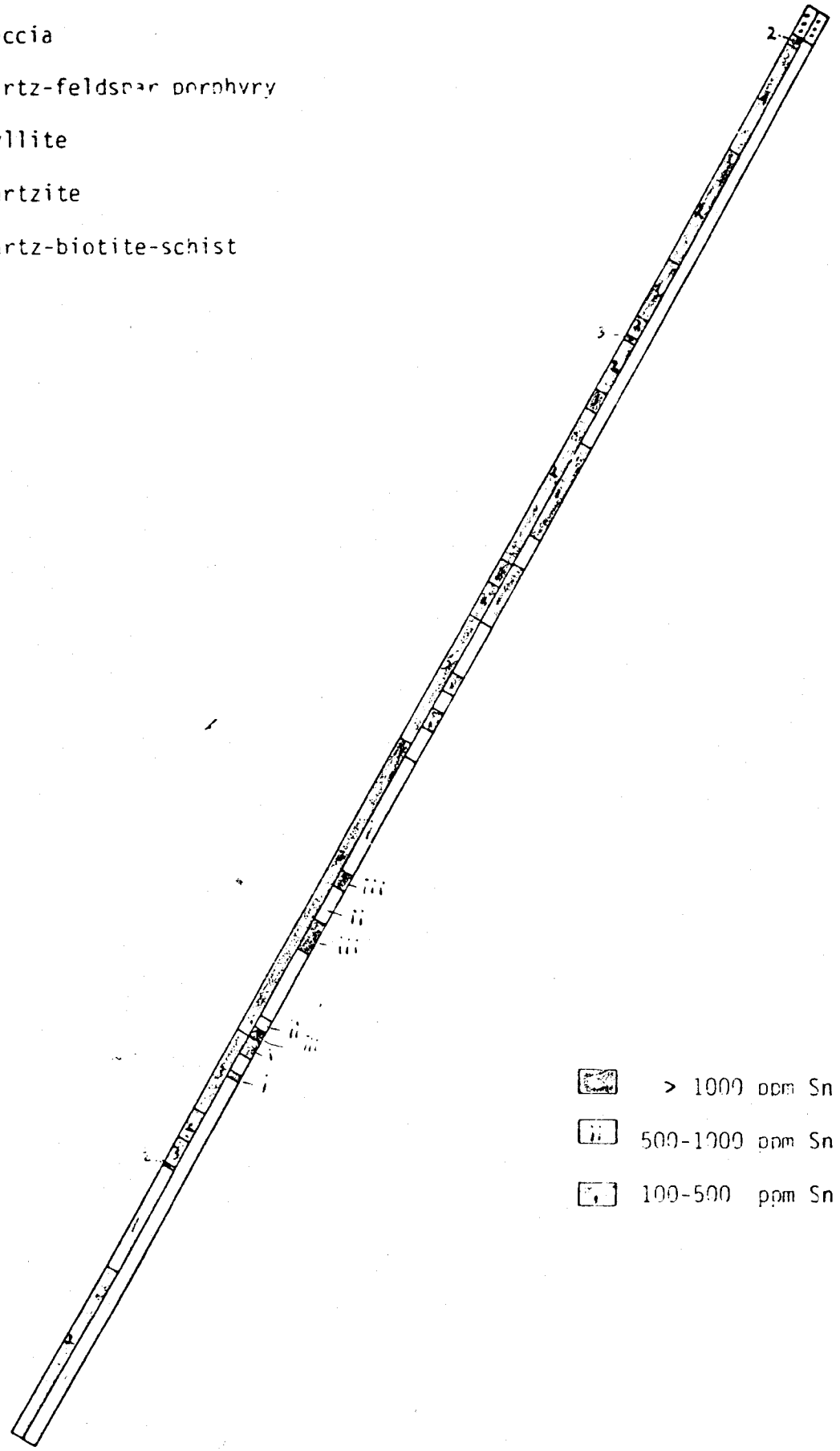
"A" ZONE

SECTION 1800 N

Scale 1:2000 Date SEPT., 1979 Plate SC-13

W

E



Comaco

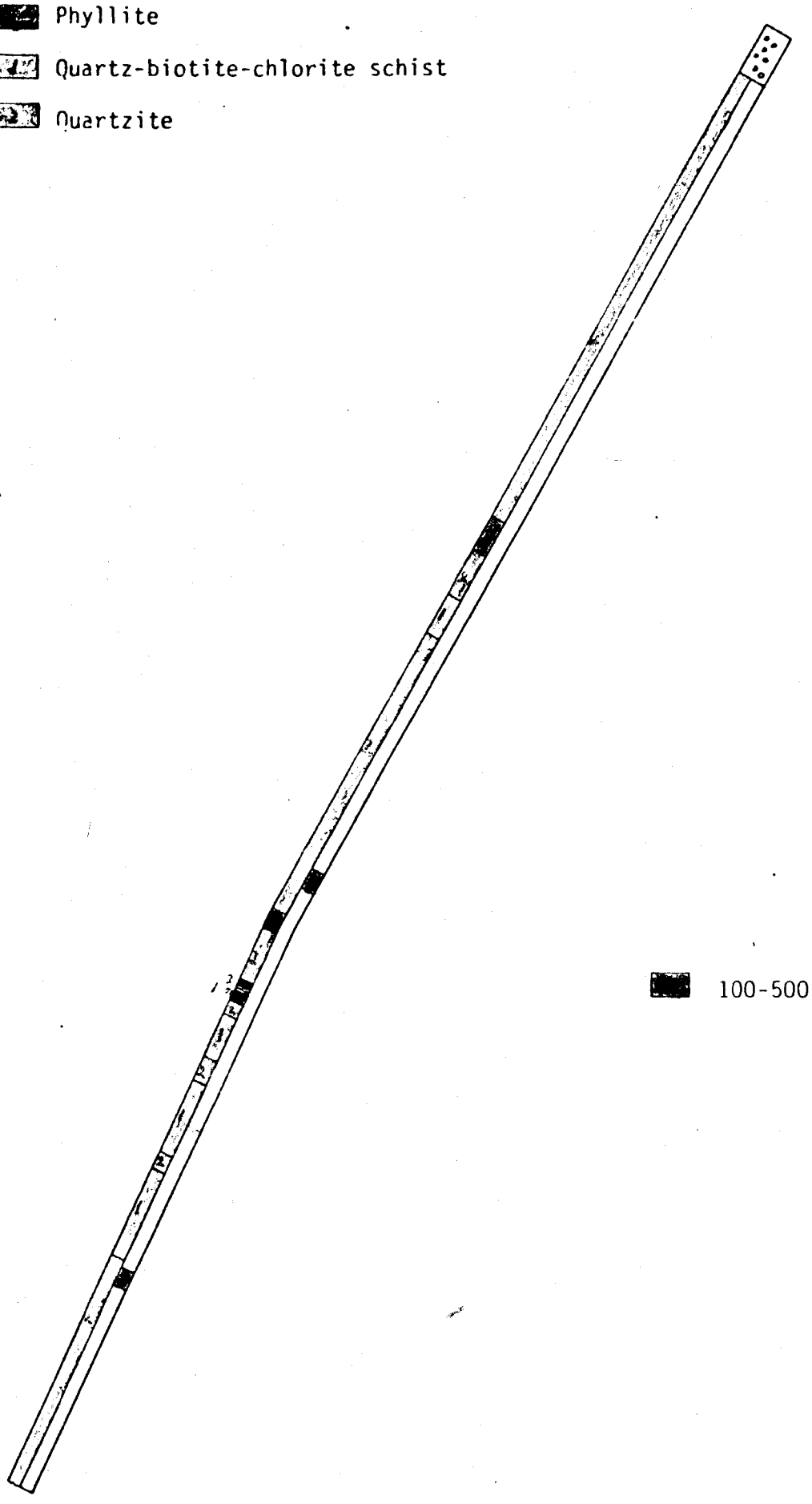
Drawn By S B B	Traced by S B B	SECTION DDH SC79-4 LINE 1800 N
		Scale 1:500 Date OCT., 1979 File SC - 6D

W E

Phyllite

Quartz-biotite-chlorite schist

Quartzite



100-500 ppm Sn

Drawn by: S.B.B.	Traced by: S.B.B.	
Revised by / Date	Revised by / Date	SECTION DDH SC79-3 LINE 1800N
		Scale: 1:500 Date: August 1979 Plate: SC - 6C

Drawn by: S B B

Traced by: S B B

Revised by Date

Revised by Date

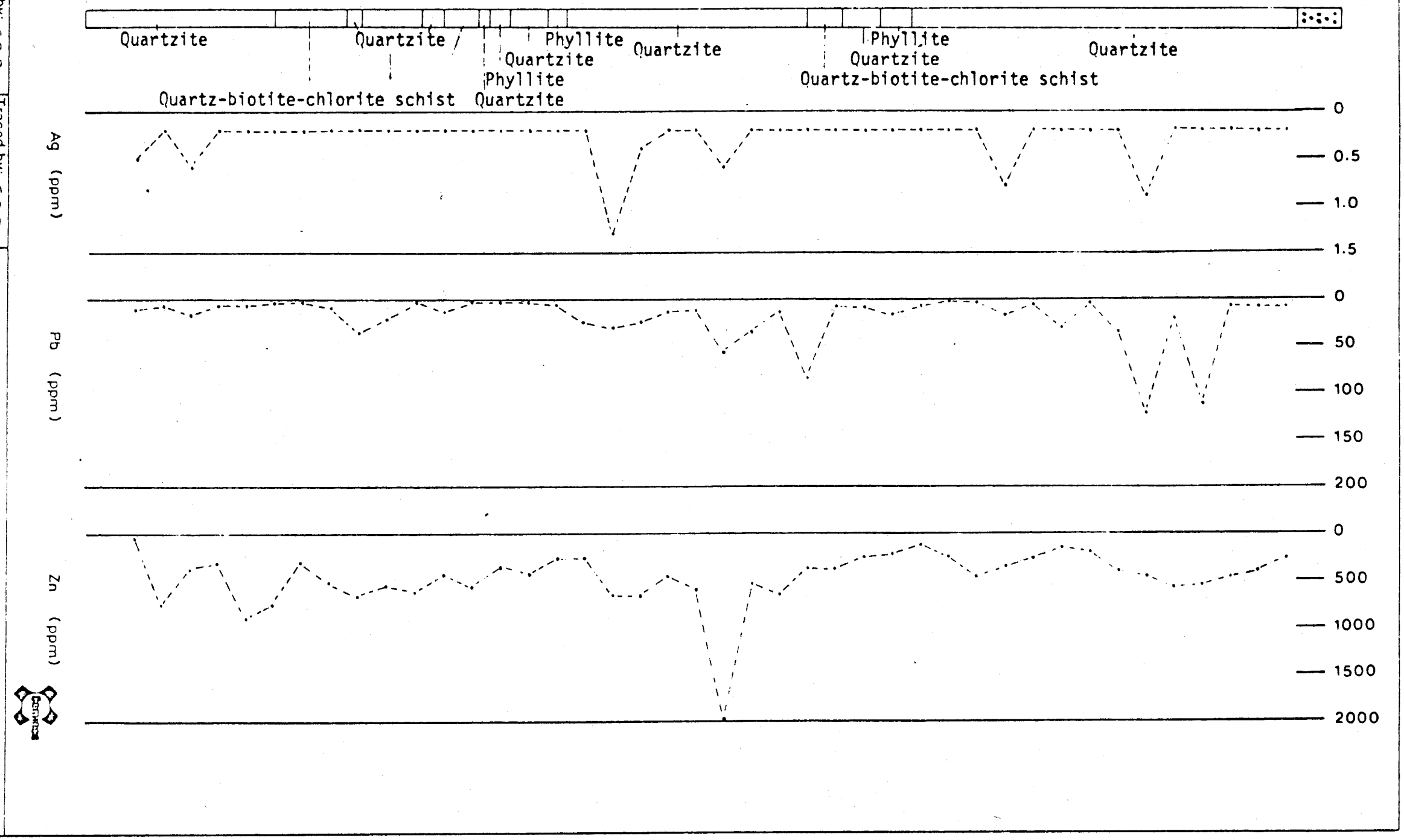
Scale: 1:500

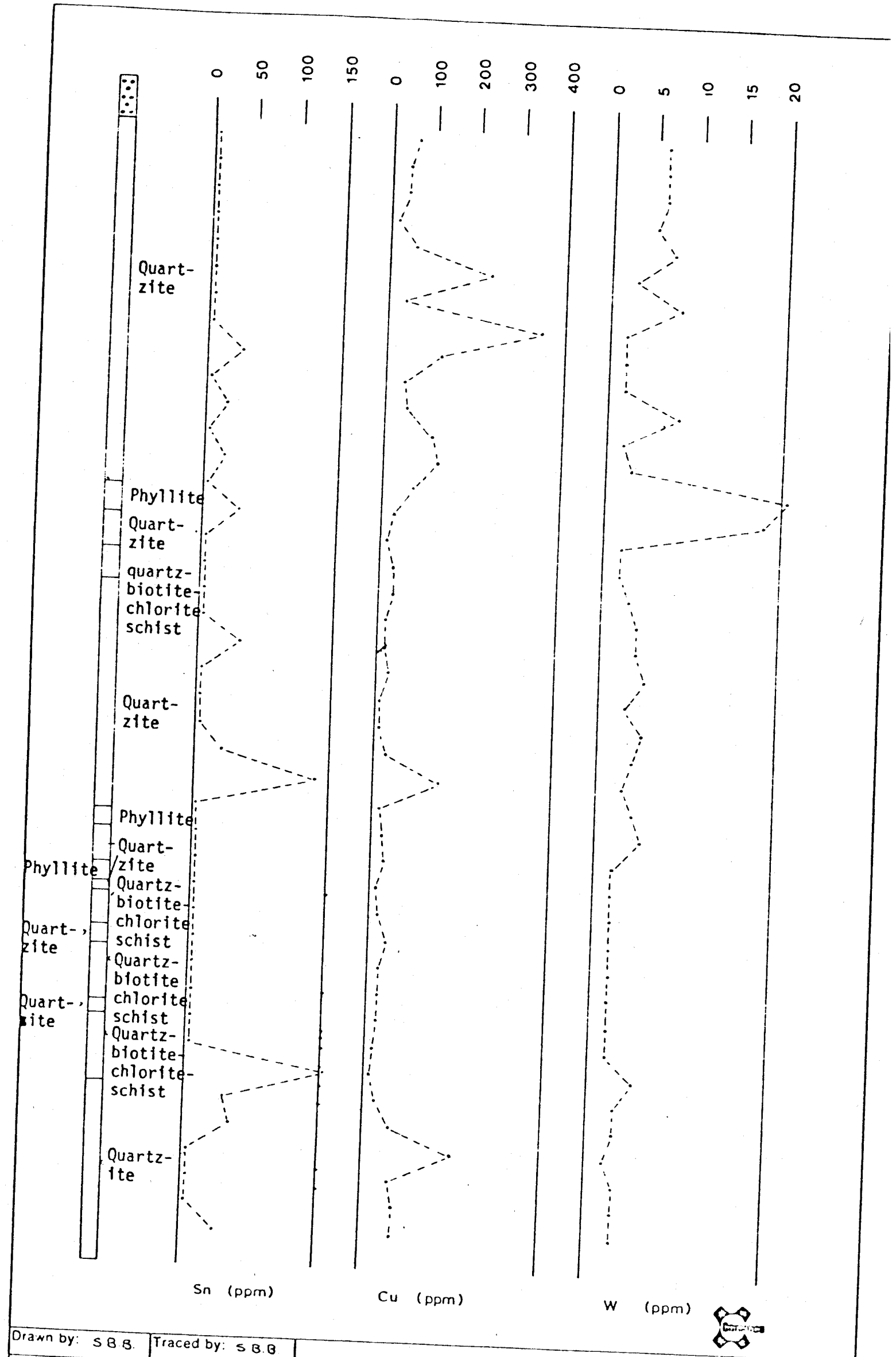
ROCK GEOCHEMISTRY DDH SC79-3

Ag, Pb, Zn

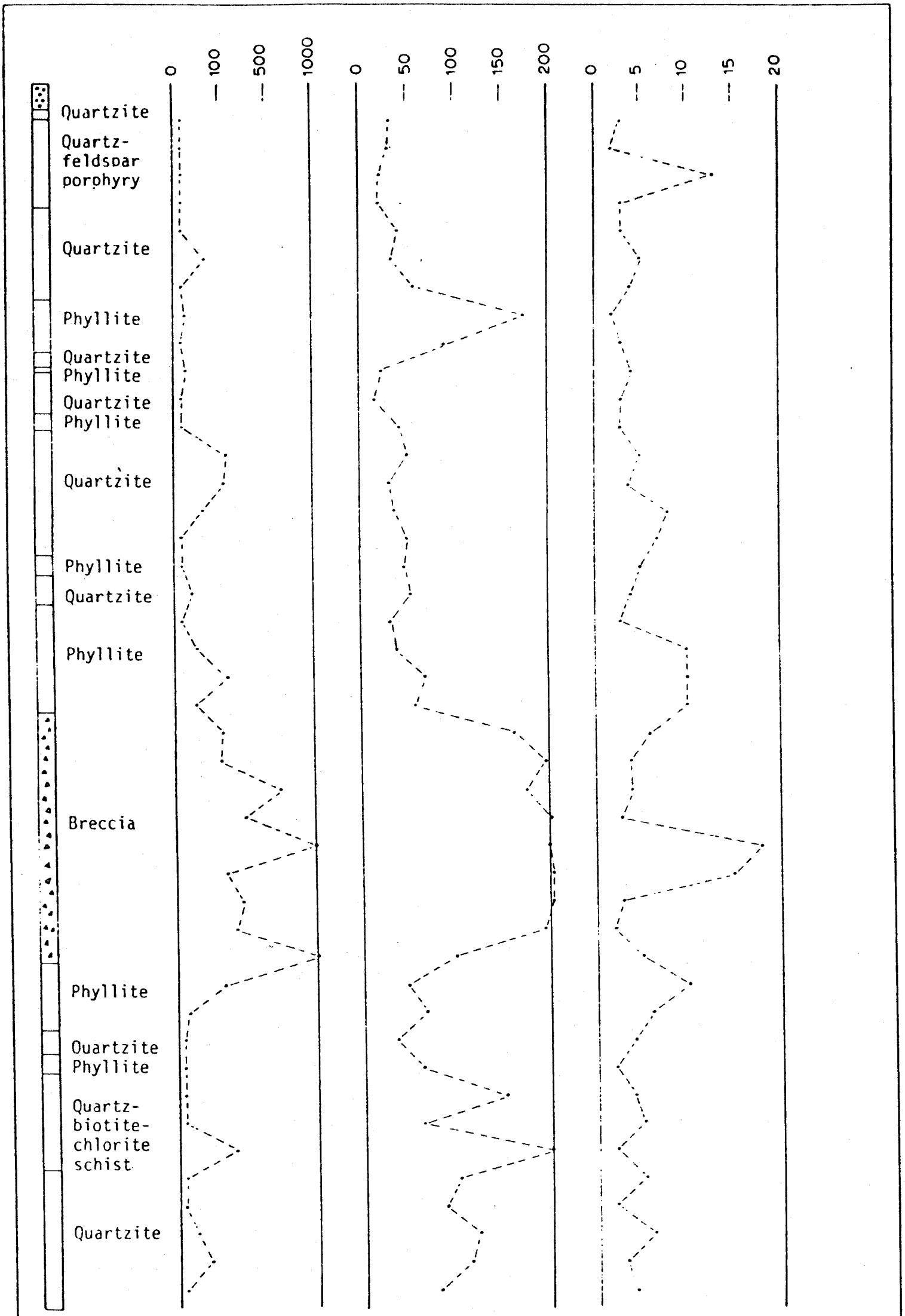
Date SEPT. 1979

Plate SC-5





Drawn by: S.B.B.	Traced by: S.B.B.	ROCK GEOCHEMISTRY DDH SC79-3	
Revised by / Date	Revised by / Date	Sn, Cu, W	
		Scale: 1:500	Date: SEPT, 1979



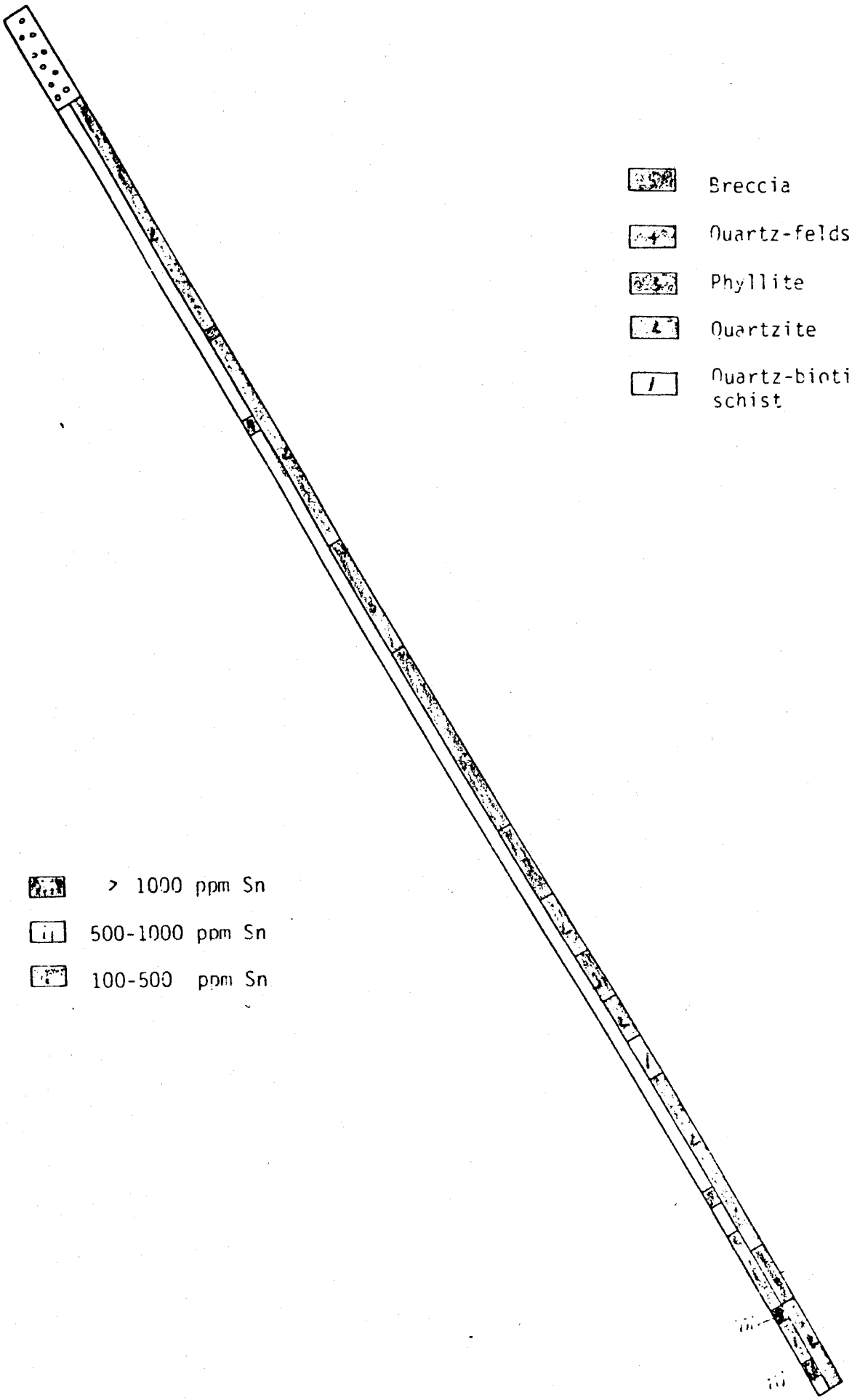
Drawn by: S B B.	Traced by: S B B.
Revised by / Date	Revised by / Date

ROCK GEOCHEMISTRY DDH SC79-4
Sn, Cu, W

Scale: 1:500 Date: SEPT. 1979 Plate: SC - 2

W

E



Breccia

Quartz-feldspar porphyry

Phyllite

Quartzite

Quartz-biotite-chlorite-schist

> 1000 ppm Sn

500-1000 ppm Sn

100-500 ppm Sn

Comaco

Drawn by S B B	Traced by: S B B
Revised by Date	Revised by Date

SECTION
DDH SC79-5
Line 1900N

Scale 1:500 Date [illegible] Plate SC-6E

Drawn by: SBB

Traced by: SBB

W

E

DDH SC79-5

1500 m

1400 m

Breccia: tourmalinized

Quartz-feldspar porphyry

Phyllite

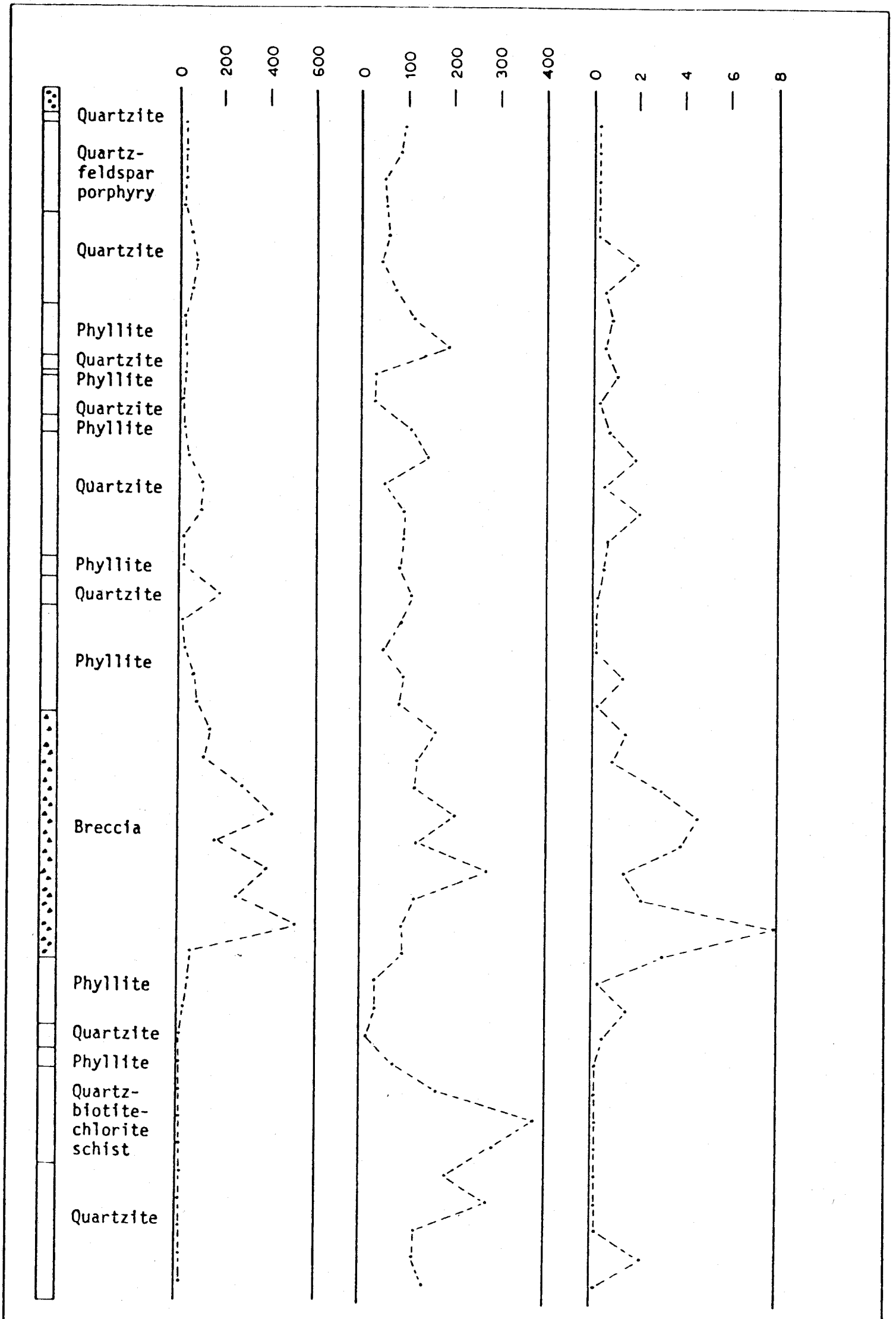
Quartz-biotite-chlorite schist

Quartzite

SUNSHINE CREEK

A ZONE

SECTION 1900 N

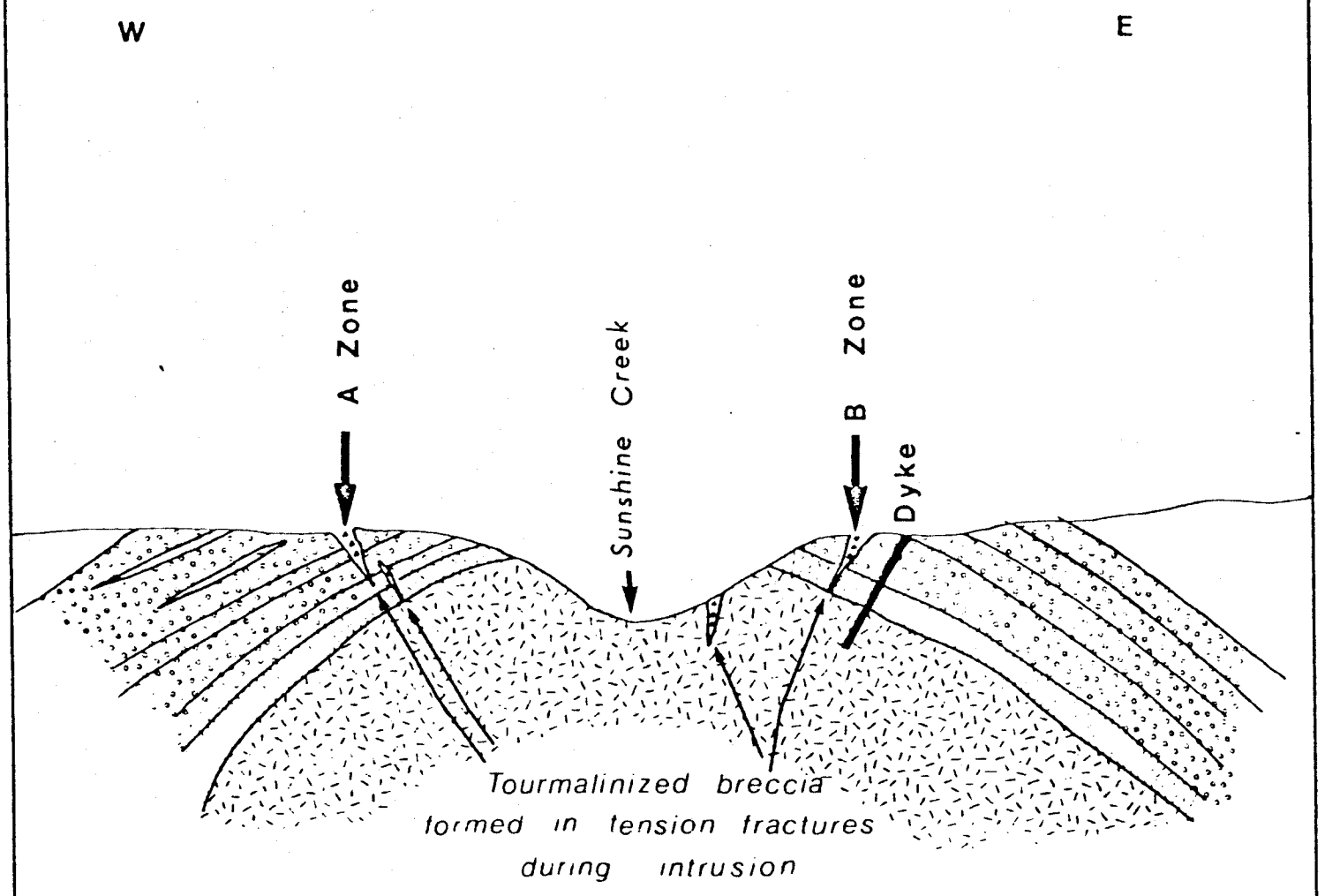


Drawn by: S B B	Traced by: S B B
Revised by / Date	Revised by / Date

ROCK GEOCHEMISTRY DDH SC79 4

Pb , Zn , Ag

Scale: 1 500 Date: SEPT., 1979 Plate: SC - 3



Quartz Monzonite

Phyllite

Quartzite, Quartz-Feldspar porphyry

Quartz-biotite-chlorite schist

Commonwealth

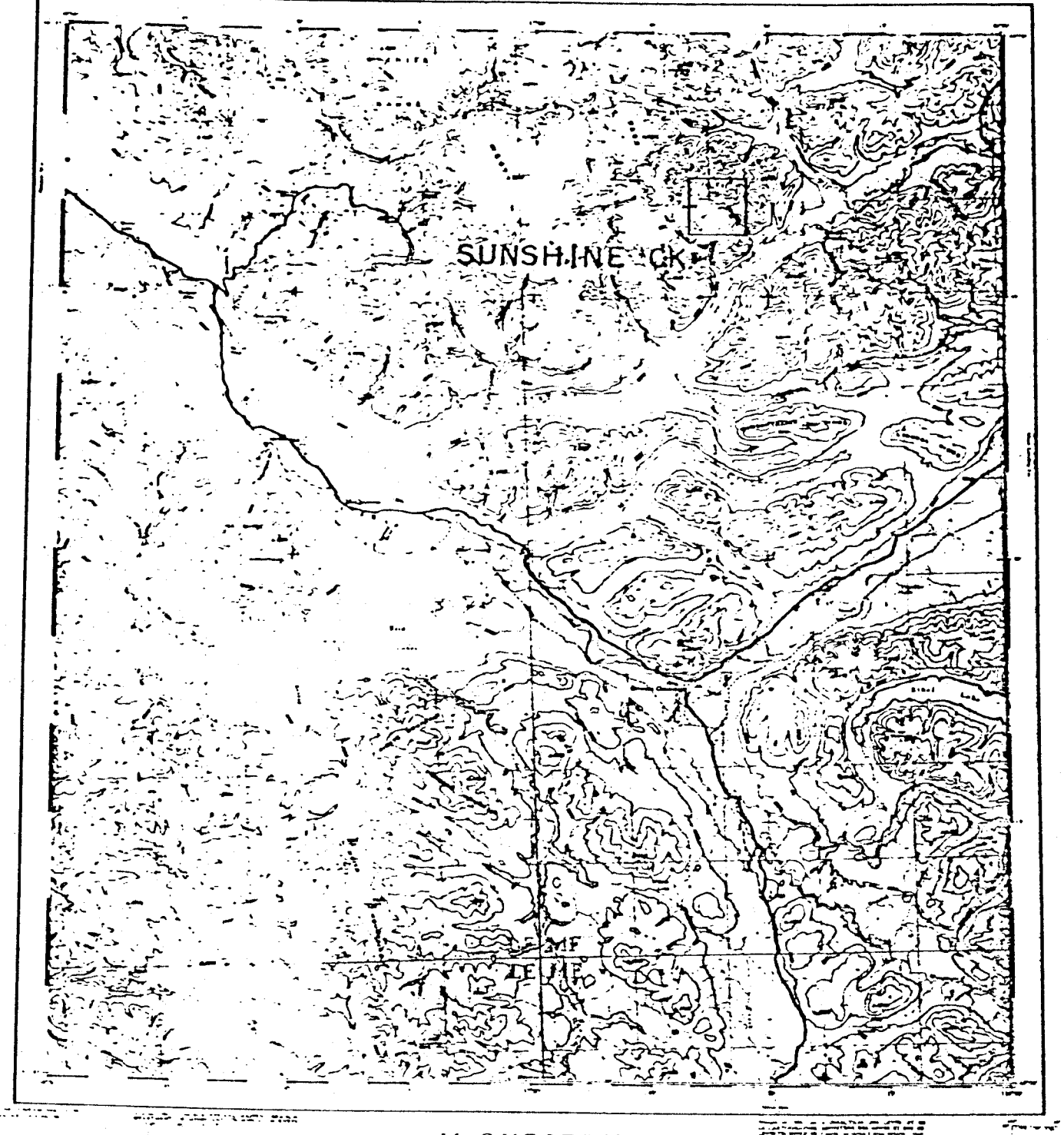
Drawn by: S B B	Traced by:	DIAGRAMATIC SKETCH
Revised by / Date	Revised by / Date	FORMATION OF TIN BRECCIAS
		Scale: Sketch Date: October, 1979 Plate: SC - 1

LIST OF TECHNICAL DATA - OCTOBER 15,1980

"A" GROUP - SUNSHINE CREEK AREA

N.T.S. 115P/15 - MAYO M.D.

APPENDIX 1:		Diamond Drill Core - Assays		
APPENDIX 1A:		Split Core - Geochemical Analyses		
PLATE:	SC-1	Formation of Tin Breccias		
PLATE:	SC-2	Rock Geochemistry	DDH SC79-4	Sn, Cu, W
PLATE:	SC-3	Rock Geochemistry	DDH SC79-4	Pb, Zn, Ag
PLATE:	SC-4	Rock Geochemistry	DDH SC79-3	Sn, Cu, W
PLATE:	SC-5	Rock Geochemistry	DDH SC79-3	Ag, Pb, Zn
PLATE:	SC-6A	Section	DDH SC79-1	
PLATE:	SC-6B	Section	DDH SC79-2	
PLATE:	SC-6C	Section	DDH SC79-3	
PLATE:	SC-6D	Section	DDH SC79-4	
PLATE:	SC-6E	Section	DDH SC79-5	
PLATE:	SC-9	Location Map - Sunshine Creek		
Drill Hole Record - SC79-1,2,3,4 and 5.				
PLATE:	SC-10	Claim Map; 1"=1/2 mile		
PLATE:	SC-11	General Geology 1:10,000		
PLATE:	SC-12	"A" Zone, Detailed Geology; 1:2,000		
PLATE:	SC-13	"A" Zone, Section 1800N; 1:2,000		
PLATE:	SC-14	"A" Zone, Section 1900N; 1:2,000		
PLATE:	SC-15	"A" Zone, Soil Geochemistry - Sn, 1:2,000		
PLATE:	SC-16	"A" Zone, Soil Geochemistry - W; 1:2,000		
PLATE:	SC-17	"A" Zone, Soil Geochemistry - Cu; 1:2,000		
PLATE:	SC-18	"A" Zone, Rock Geochemistry - Sn; 1:2,000		
PLATE:	SC-19	"B" Zone, Detailed Geology; 1:2,000		
PLATE:	SC-20	"B" Zone, Section thru SC79-1; 1:2,000		
PLATE:	SC-21	"B" Zone, Section thru SC 79-2; 1:2,000		
PLATE:	SC-22	"B" Zone, Soil Geochemistry - Sn; 1:2,000		
PLATE:	SC-23	"B" Zone, Soil Geochemistry - Ag; 1:2,000		
PLATE:	SC-24	"B" Zone, Soil Geochemistry - W; 1:2000		
PLATE:	SC-25	"B" Zone, Soil Geochemistry - Cu; 1:2,000		
PLATE:	SC-26	"B" Zone, Rock Geochemistry - Sn; 1:2,000		
PLATE:	SC-27	"B" Zone, Rock Geochemistry - W,Ag,Cu,Au; 1:2,000		



13	14	15	16
12	11	10	9
5	6	7	8
4	3	2	1

N.T.S. GRID REFERENCE

Drawn by:		Traced by:	
Revised by	Date	Revised by	Date

Location plotted on Date

Scale AS SHOWN Date FEB. 1980 Plate SC-9

SUNSHINE CK.
LOCATION MAP

Tel (604) 682-0611 / Telex 04-507730

oration

Mr. Gordon F. Dickson,
244 Wickstrom Road,
P.O. Box 4940,
Whitehorse, Yukon.

16 October 1980.

Dear Gordon:

Re: Data on the Sunshine Creek-A Group, Mayo Mining Division

In reply to your recent request for another copy of the technical data on the Sunshine Creek group of claims, please find attached copies of the same data previously given to you on April 29,1980 on termination of the option agreement. The items being provided are tabulated on the attached list.

I trust that this data will be of immense value to you.

Yours sincerely,

D. L. Cooke,
Senior Geologist,
Exploration
Western District.

DLC/pm
Enclosures

APPENDIX 1

DIAMOND DRILL CORE - ASSAYS

DRILL HOLE	INTERSECTION (feet)	LENGTH (feet)	Sn %	Au oz/T
DDH SC79-4	130 -140	10.0	0.03	
	140 -150	10.0	0.04	
	150 -160	10.0	0.05	
	160 -170	10.0	0.01	
	170 -180	10.0	0.10	
	180 -185	5.0	0.01	
	185 -190	5.0	< 0.01	
	190 -195	5.0	< 0.01	
	195 -200	5.0	0.01	
	200 -205	5.0	0.05	
	205 -210	5.0	< 0.01	
	210 -215	5.0	0.04	0.39
	215 -222	5.0	< 0.01	
	222 -227	5.0	0.02	
	227 -232	5.0	0.01	
	232 -236.5	4.5	0.03	0.44
	236.5-242	5.5	0.06	
	242 -248	6.0	0.02	
	248 -253	5.0	0.09	
	253 -258	5.0	0.41	
	258 -263	5.0	0.18	
	263 -268	5.0	0.13	
	268 -273	5.0	0.36	
	273 -278	5.0	0.33	
	278 -283	5.0	0.01	
	283 -288	5.0	0.02	0.66
	288 -293	5.0	0.06	
	293 -298	5.0	0.03	
	298 -303	5.0	0.02	0.37
	303 -308	5.0	0.10	0.53
	308 -311	3.0	0.31	
	311 -315	4.0	0.04	
	315 -320	5.0	< 0.01	
	320 -322	2.0	0.02	
DDH SC79-5	390 -395	5.0	< 0.01	
	395 -400	5.0	0.01	
	400 -405	5.0	0.01	
	405 -410	5.0	< 0.01	
	410 -415	5.0	0.02	
	415 -420	5.0	0.01	0.54
	420 -425	5.0	0.01	5.40
	425 -430	5.0	0.02	1.22
	430 -435	5.0	0.01	0.17
	435 -440	5.0	0.28	0.17
	440 -445	5.0	0.04	0.47
	445 -450	5.0	0.02	
	450 -455	5.0	0.26	
	455 -463	8.0	< 0.01	

Significant Results:

DDH SC-79-4	253-278	25	0.28	
DDH SC-79-5	415-435	20	1.83	→
including	415-430	15	2.39	→

APPENDIX IA

SPLIT CORE - GEOCHEMICAL ANALYSES

DRILL HOLE	INTERSECTION (feet)	LENGTH (feet)	Sn (ppm)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
SC79-1	20-30	10.0	<20	<0.4	40	11	97
	30-40	10.0	<20	<0.4	51	9	151
	40-50	10.0	<20	<0.4	40	17	84
	50-60	10.0	<20	<0.4	45	17	80
	60-70	10.0	<20	<0.4	28	12	77
	70-80	10.0	<20	<0.4	35	<4	72
	80-90	10.0	<20	<0.4	74	<4	75
	90-100	10.0	21	<0.4	59	<4	82
	100-110	10.0	<20	<0.4	54	5	90
	110-114	4.0	<20	<0.4	53	<4	84
	114-120	6.0	26	<0.4	37	21	133
	120-130	10.0	40	<0.4	70	17	223
	130-140	10.0	32	<0.4	50	13	200
	140-147	7.0	52	<0.4	96	13	209
	147-158	11.0	<20	<0.4	69	37	147
	158-170	12.0	156	<0.4	96	11	167
	170-180	10.0	103	0.4	65	11	50
	180-190	10.0	141	0.4	86	17	92
	190-200	10.0	77	<0.4	128	17	117
	200-210	10.0	96	0.4	150	21	150
	210-215	5.0	65	<0.4	193	16	121
	215-220	5.0	25	<0.4	121	5	115
	220-224	4.0	43	<0.4	56	<4	167
	224-230	6.0	20	<0.4	42	<4	215
	230-235	5.0	44	<0.4	90	14	113
	235-240	5.0	44	<0.4	56	4	93
	240-245	5.0	<20	<0.4	60	8	200
	245-250	5.0	155	<0.4	150	<4	117
	250-255	5.0	47	<0.4	39	6	158
	255-260	5.0	78	<0.4	97	5	239
	260-265	5.0	92	0.8	272	9	374
	265-270	5.0	104	0.6	155	15	600
	270-275	5.0	56	0.6	178	10	190
	275-280	5.0	<20	<0.4	150	8	102
	280-285	5.0	<20	<0.4	66	4	316
	285-289	4.0	<20	<0.4	86	15	189
	289-295	6.0	41	0.4	124	30	450
	295-300	5.0	20	<0.4	90	7	284
	300-305	5.0	57	1.0	130	37	220
	305-310	5.0	45	0.7	167	30	240
	310-315	5.0	33	<0.4	98	11	180
	315-325	10.0	<20	<0.4	30	<4	104
	325-335	10.0	39	0.6	132	4	208
	335-345	10.0	27	<0.4	47	6	117
	345-355	10.0	<20	<0.4	32	6	108
	355-365	10.0	28	0.7	213	29	118
	365-375	10.0	61	0.4	107	27	345
	375-385	10.0	78	0.7	440	<4	104
	385-390	5.0	39	<0.4	170	<4	97
	390-395	5.0	96	0.9	590	5	80
	395-400	5.0	<20	0.5	360	5	148
	400-405	5.0	73	1.0	508	<4	210
	405-410	5.0	113	0.8	416	5	131
	410-417	7.0	71	<0.4	192	5	266
Best Intersections					Averane		
	390-410	20.0			468.5 ppm Cu		
	158-190	32.0	133 ppm Sn				
SC79-2	117-120	3.0	<20	<0.4	46	6	57
	120-124	4.0	<20	0.6	32	5	38
	124-127	3.0	100	0.7	63	16	94
	127-132	5.0	<20	0.5	58	5	227
	132-138	6.0	21	<0.4	62	4	67
	138-142	4.0	37	<0.4	68	<4	107

DRILL HOLE	INTERSECTION (feet)	LENGTH (feet)	Sn (ppm)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
	142-147	5.0	<20	<0.4	46	8	77
	147-153	6.0	32	<0.4	85	8	126
	153-155	2.0	<20	<0.4	80	6	245
	187-192	5.0	51	0.4	108	12	400
	192-197	5.0	70	0.6	110	19	591
	197-202	5.0	181	1.7	34	98	93
	202-207	5.0	169	3.3	32	142	130
	207-213	6.0	170	4.2	125	181	234
	213-217	4.0	197	1.5	28	20	90
	217-222	5.0	91	1.1	145	27	179
	243-247	4.0	63	0.8	58	10	280
	255-260	5.0	34	0.6	212	5	219
	260-265	5.0	31	0.6	178	6	349
	265-270	5.0	<20	<0.4	70	5	60
	280-290	10.0	39	<0.4	106	4	145
	290-297	7.0	50	<0.4	122	<4	74
	297-307	10.7	58	<0.4	96	<4	62
	307-316	9.0	<20	<0.4	70	<4	66
	316-326	10.0	<20	<0.4	74	<4	65
	326-335.5	9.5	<20	<0.4	106	4	56
	335.5-339	4.5	<20	<0.4	60	<4	161
	339-345	6.0	<20	<0.4	22	64	640
	345-352	7.0	50	<0.4	51	13	110
	352-362	10.0	<20	<0.4	72	17	75
	362-367	10.0	<20	<0.4	22	12	38
	367-377	10.0	<20	<0.4	21	11	87
	377-382	5.0	<20	0.4	59	14	78
	382-386	4.0	23	1.2	106	29	139
	386-396	10.0	<20	<0.4	40	10	147
	396-406	10.0	20	<0.4	76	14	96
	406-416	10.0	<20	<0.4	100	12	71
	416-426	10.0	<20	<0.4	59	20	126
	426-436	10.0	20	0.4	91	26	130
	436-447	11.0	59	1.0	200	35	310
Best Intersections			Weighted Average				
	197-217	20.0	178 ppm Sn				
SC79-3	78-83	5.0	<20	1.1	370	22	260
	105-109	4.0	64	2.2	555	36	172
	154-157	3.0	<20	<0.4	65	4	93
	210-215	5.0	<20	0.6	63	31	243
	215-220	5.0	24	0.7	23	30	1973
	220-225	5.0	31	0.5	27	47	1902
	225-230	5.0	<20	<0.4	17	28	424
	252-257	5.0	103	0.5	27	21	561
	257-262	5.0	97	0.7	67	21	1080
	369-375	6.0	194	<0.4	44	6	530
	375-380	5.0	46	<0.4	13	<4	677
	380-385	5.0	42	0.4	51	6	2760
	385-388	3.0	55	0.4	43	5	1950
	388-392	4.0	50	<0.4	27	6	1857

Best Intersections

369-375 (6.0 ft.) 194 ppm Sn
215-225 (10.0 ft) 1933 ppm Zn
380-392 (12.0 ft.) 2256 ppm Zn

DRILL HOLE	INTERSECTION (feet)	LENGTH (feet)	Sn (ppm)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
SC79-4	8-18	10.0	<20	0.6	38	135	109
	18-28	10.0	<20	<0.4	11	31	118
	28-38	10.0	<20	0.6	13	19	29
	38-48	10.0	<20	<0.4	25	18	64
	48-58	10.0	<20	0.4	18	42	26
	58-68	10.0	77	1.3	26	63	36
	68-78	10.0	22	0.5	46	58	52
	78-88	10.0	25	0.9	125	44	150
	88-95	7.0	<20	0.4	98	7	234
	95-100	5.0	25	1.3	80	77	148
	100-110	10.0	35	1.2	28	38	45
	110-120	10.0	31	0.5	20	12	28
	120-130	10.0	33	1.7	74	29	120
	130-140	10.0	118	1.1	49	41	100
	140-150	10.0	160	1.7	33	72	54
	150-160	10.0	295	2.5	30	65	38
	160-170	10.0	<20	0.7	36	34	58
	170-180	10.0	492	2.3	53	48	85
	180-185	5.0	131	0.7	17	27	27
	185-190	5.0	55	<0.4	44	31	145
	190-195	5.0	<20	<0.4	60	13	259
	195-200	5.0	<20	0.4	34	25	40
	200-205	5.0	293	0.4	79	90	138
	205-210	5.0	75	0.4	100	64	151
	210-215	5.0	300	12.2	173	33	61
	215-222	7.0	32	0.5	57	101	57
	222-227	5.0	88	5.0	69	83	174
	227-232	5.0	118	1.0	180	205	217
	232-236.5	4.5	160	12.5	223	86	117
	236.5-242	5.5	224	1.0	112	145	81
	242-248	6.0	141	1.1	211	151	182
	248-253	5.0	385	2.8	180	179	133
	253-258	5.0	1877	6.6	190	442	144
	258-263	5.0	872	2.9	298	279	176
	263-268	5.0	664	4.4	271	211	151
	268-273	5.0	1381	0.9	240	235	111
	273-278	5.0	1561	1.5	282	280	161
	278-283	5.0	123	19.5	540	1300	367
	283-288	5.0	186	1.1	140	265	92
	288-293	5.0	317	2.2	186	360	88
	293-298	5.0	208	2.4	236	347	135
	298-303	5.0	147	10.1	362	484	112
	303-308	5.0	683	13.7	225	259	51
	308-311	5.0	1533	7.4	153	120	42
	311-315	4.0	301	4.3	308	50	93
	315-320	5.0	82	1.5	140	105	164
	320-322	2.0	306	2.0	114	90	67
	322-327	5.0	<20	0.5	33	20	26
	327-337	10.0	22	1.3	61	66	43
	337-347	10.0	<20	0.6	48	10	20
	347-357	10.0	<20	<0.4	108	5	104
	357-367	10.0	<20	<0.4	135	10	178
	367-377	10.0	<20	<0.4	134	10	520
	377-387	10.0	<20	<0.4	74	13	280
	387-397	10.0	<20	<0.4	98	24	155
	397-407	10.0	<20	<0.4	88	11	249
	407-417	10.0	27	0.7	104	9	176
	417-434	17.0	<20	0.7	78	17	126

Best Intersections

253-278	25'	1271 ppm Sn, 3.26 ppm Ag
308-311	3'	1533 ppm Sn, 7.40 ppm Ag

Breccia Zone

222-311	89'	593 ppm Sn

DRILL HOLE	INTERSECTION (feet)	LENGTH (feet)	Sn (ppm)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
SC79-5	30-40	10.0	<20	<0.4	49	<4	146
	40-50	10.0	<20	<0.4	31	<4	86
	50-60	10.0	<20	<0.4	43	<4	100
	60-70	10.0	<20	<0.4	48	6	192
	70-80	10.0	<20	<0.4	37	4	61
	80-90	10.0	<20	<0.4	92	6	60
	90-102	12.0	<20	<0.4	84	5	138
	102-107	5.0	<20	<0.4	54	<4	121
	107-110	3.0	<20	0.4	46	<4	127
	110-115	5.0	<20	<0.4	40	4	71
	115-125	10.0	<20	<0.4	34	6	58
	125-130	5.0	<20	0.5	97	10	172
	130-135	5.0	39	0.7	84	51	100
	135-140	5.0	139	5.6	67	56	88
	140-145	5.0	22	0.4	118	12	135
	145-149	4.0	<20	0.5	43	12	67
	149-159	10.0	<20	0.5	96	32	119
	159-169	10.0	<20	0.7	36	<4	42
	169-179	10.0	<20	<0.4	48	6	64
	179-190	11.0	<20	0.4	66	6	107
	190-200	10.0	<20	<0.4	50	<4	162
	200-205	5.0	<20	<0.4	19	<4	60
	205-210	5.0	<20	<0.4	43	<4	95
	210-215	5.0	<20	0.4	52	6	71
	215-220	5.0	<20	1.2	113	<4	314
	220-225	5.0	<20	1.2	137	<4	380
	225-230	5.0	21	0.6	134	28	410
	230-235	5.0	62	3.6	142	17	168
	235-240	5.0	50	5.2	134	82	157
	240-245	5.0	<20	0.9	100	6	144
	245-250	5.0	<20	0.6	83	<4	292
	250-255	5.0	<20	0.9	63	8	316
	255-260	5.0	<20	0.7	52	5	255
	260-265	5.0	<20	1.0	48	17	160
	265-270	5.0	<20	0.7	44	10	170
	270-275	5.0	<20	0.7	92	25	134
	275-280	5.0	<20	0.6	53	12	770
	280-285	5.0	<20	<0.4	41	5	720
	285-295	10.0	<20	<0.4	39	10	950
	295-305	10.0	<20	<0.4	29	6	800
	305-315	10.0	<20	<0.4	25	8	600
	315-325	10.0	<20	<0.4	53	7	160
	325-335	10.0	<20	<0.4	45	11	252
	335-345	10.0	<20	<0.4	29	8	383
	345-355	10.0	41	<0.4	200	<4	1200
	355-365	10.0	<20	<0.4	161	<4	710
	365-375	10.0	<20	0.4	41	10	53
	375-385	10.0	<20	1.5	80	360	53
	385-390	5.0	<20	0.4	34	17	25
	390-395	5.0	82	4.4	170	37	94
	395-400	5.0	228	24.2	570	265	27
	400-405	5.0	33	0.9	138	28	25
	405-410	5.0	47	1.6	100	49	24
	410-415	5.0	154	0.6	90	96	22
	415-420	5.0	162	17.5	228	206	30
	420-425	5.0	171	200.0	490	570	50
	425-430	5.0	166	74.0	600	570	152
	430-435	5.0	198	38.4	570	536	100
	435-440	5.0	1487	5.0	210	130	55
	440-445	5.0	327	16.4	198	118	85
	445-450	5.0	143	3.4	86	52	60
	450-455	5.0	1020	0.5	74	54	79
	455-463	5.0	22	2.2	78	68	45

East Intersections

420-435	15'	178 ppm Sn, 104 ppm Ag
435-455	20'	744 ppm Sn, 6.3 ppm Ag

Breccia Zone

215-275	60'	27 ppm Sn
395-455	60'	318 ppm Sn

Drill Hole Record

Cominco

Property Sunshine Creek	District Mayo	Hole No. SC 79-1	
Commenced July 15/79	Location	Tests at	Hor. Comp.
Completed July 18/79	Core Size NQ	Corr. Dip -50°	Vert. Comp.
Co-ordinates 1155N and 50E		True Brg. 310°	Logged by SBB
Objective To test a breccia zone at depth for tin mineralization.		% Recov. 96.6	Date July 26/79

Claim A 25 | T Brg. 310 | Collar Dip -50° | Elev. 4580' | Length 417 | Hole No. SC79-1 Sheet 1

Footage From	To	Description	Sample No.	Length	Analysis Sn	Cu	Pb	Zn	Ag	
0	22	Overburden								
22	50	Quartzite: buff-brown, in part rusty, dark coloured bands containing biotite and possible hornblende present throughout, vary in thickness from thin laminations to 0.2 inch thick bands, possible tourmaline present in some of the dark bands, core is broken, thin bands of biotite schist (speckled) present at 38-39 feet and 46-47 feet, small biotite knots constitute up to 10% of the rock, occasional 0.1 inch thick layer. Assays parallel to foliation present.								
		Assays 22-30	18641E	8.0	<20	40	11	97	<0.4	
		30-40	18642E	10.0	<20	51	9	151	<0.4	
		40-50	18643E	10.0	<20	40	17	84	<0.4	
50	114	Quartz-biotite schist: occasional thin quartzite band and speckled schist band present. - dark grey, foliation, occasional quartz bleb present, at 50 feet - hairline fault perpendicular to core axis 53-55 broken core. - foliation at 30° to core axis. - 73-74 speckled schist - 94 - 6 inch thick breccia zone - possible fault.								
		Assays 50-60	18644E	10.0	<20	45	17	80	<0.4	
		60-70	18645E	10.0	<20	28	12	77	<0.4	
		70-80	18646E	10.0	<20	35	<4	72	<0.4	

Drill Hole Record

Cominco

Property	Sunshine Creek	District	Hole No.	SC 79-1	
Commenced		Location	Tests at		Hor. Comp.
Completed		Core Size	Corr. Dip		Vert. Comp.
Co-ordinates			True Brg.		Logged by
Objective			% Recov.		Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. SC79-1 Sheet 2

Footage From	To	Description	Sample No.	Length	Analysis Sn	Cu	Pb	Zn	Ag
		Assays 80-90	18647E	10.0	<20	74	4	75	<0.4
		90-100	18648E	10.0	21	59	<4	82	<0.4
		100-110	18649E	10.0	<20	54	5	90	<0.4
		110-114	18650E	14.0	<20	53	<4	84	<0.4
114	147	Quartzite: rusty brown, thinly layered although the layering is not well developed, occasional tourmaline lense or bleb present; rock is weakly foliated due to the presence of muscovite.							
		114-115 sand							
		Assays 114-120	3152I	6.0	26	37	21	133	<0.4
		120-130	3154I	10.0	40	70	17	223	<0.4
		130-140	3155I	10.0	32	50	13	200	<0.4
		140-147	3156I	7.0	52	96	13	209	<0.4
		132-133 highly oxidized, rock is severely broken							
		133-137 quartz-biotite schist, in part speckled							
		at 140 4 inch thick chlorite rich quartzite band							
		at 146 layering at 30° to core axis.							
147	158	Quartz-feldspar porphyry: light grey, aphanitic with a quartz-feldspar matrix, phenocrysts of quartz and feldspar; feldspar phenocrysts severely altered to kaolinite, phenocrysts 3-5 mm; rock is partially oxidized and weakly fractured.							

Drill Hole Record

Cominco

Property Sunshine Creek	District	Hole No. SC 79-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length

Footage From	To	Description	Sample No.	Length	Analysis Sn	Cu	Pb	Zn	Ag
		- also present are limonitic "phenocrysts" probably an original sulphide assemblage or mineral							
		Assay 147-158	3157I	11.0	<20	69	37	147	<0.4
158	222	Quartzite: buff to brown, mainly quartz with minor feldspar and muscovite, weak to moderate hairline fracturing present, occasional manganese staining along fracture surfaces.							
		177-180 feldspar phenocrysts present (1-2 mm), a few quartz phenocrysts also present; rock may be rhyolite tuff							
		at 197 increase in the intensity of fracturing, at least 2 sets of fractures present, characterized by the presence of a limonitic coating along fracture surfaces.							
		214-215 pyrite present along fractures (up to 2mm thick), minor tourmaline also present.							
		Assays 158-170	3158I	12.0	156	96	11	167	<0.4
		170-180	3160I	10.0	103	65	11	5	0.4
		180-190	3161I	10.0	141	86	17	92	0.4
		190-200	3162I	10.0	77	128	17	117	<0.4
		200-210	3163I	10.0	96	150	21	150	0.4
		210-215	3164I	5.0	65	193	16	121	<0.4
		215-220	3165I	5.0	25	121	5	115	<0.4
		220-224	3166I	4.0	43	56	<4	167	<0.4

Drill Hole Record

Cominco

Property	SUNSHINE CREEK	District	MAYO	Hole No.	SC79-1
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. SC79-1 Sheet 2

Footage From	Footage To	Description	Sample No.	Length	Analysis Sn	Cu	Pb	Zn	Ag
222	254	Quartz-biotite-chlorite schist: dark grey to dark green, foliation is weak to moderately developed, rare cross-cutting quartz stringer, locally the rock contains a fine garnetiferous? mass giving the rock a mauve colouration.							
		at 235 - 2 inch thick band containing disseminated pyrite.							
		at 236 foliation at 55° to core axis.							
		237-254 0-2% disseminated pyrite throughout section.							
		Assays 224-230	31671	6.0	<20	42	<4	215	<0.4
		230-235	31691	5.0	44	90	14	113	<0.4
		235-240	31701	5.0	44	56	4	93	<0.4
		240-245	31711	5.0	<20	60	8	200	<0.4
		245-250	31721	5.0	155	150	<4	117	<0.4
		250-255	31731	5.0	47	39	6	158	<0.4
254	258	Quartzite: rusty brown, weakly foliated, weakly fractured.							
		255.6-256 sand							
		Assays 255-260	18637E	5.0	78	97	5	239	<0.4
258	265	Quartz-biotite-chlorite schist: pyrite present along occasional fracture and disseminated throughout rock.							
		Assay 260-265	18638E	5.0	92	272	9	374	0.8

Drill Hole Record

Cominco

Property SUNSHINE CREEK	District MAYO	Hole No. SC 79-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. (page 1 Sheet 1)

Footage From	Footage To	Description	Sample No.	Length	Analysis Sn	Cu	Pb	Zn	Ag
265	277	Quartzite: weak to moderately fractured, in part weakly chloritic, pyrite present along hairline fractures.							
		Assays 265-270	18639E	5.0	104	155	15	600	0.6
		270-275	18640E	5.0	56	178	10	190	0.6
277	285	Quartz-biotite schist: speckled and chloritic							
		Assays 275-280	3153I	5.0	<20	150	8	102	<0.4
		280-285	3159I	5.0	<20	66	4	30	316
285	289	Aplite: highly weathered, 50% of core in sand, tourmaline blebs present but rare							
		Assay 285-289	3168I	4.0	<20	86	15	189	<0.4
289	315	Quartz-biotite schist: dark grey, laminated, occasional quartz veinlet, few hairline fractures - some are filled with pyrite.							
		293-295 rock is brecciated and has a rusty appearance							
		308-309 quartz vein containing pyrite							
		309-310 rock is moderately brecciated, pyrite and tourmaline present							
		313-314 rock is moderately brecciated, pyrite and tourmaline present.							

Drill Hole Record

Cominco

Property SUNSHINE CREEK	District MAYO	Hole No. SC 79-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length

Footage From	To	Description	Sample No.	Length	Analysis Sn	Cu	Pb	Zn	Ag
		Assays 289-295	3174I	6.0	41	124	30	450	0.4
		295-300	3175I	5.0	<20	90	7	284	<0.4
		300-305	3176I	5.0	57	130	37	220	1.0
		305-310	3177I	5.0	45	167	30	240	0.7
		310-315	3178I	5.0	33	98	11	180	<0.4
315	315.5	Breccia zone in quartz-biotite schist.							
315.5	417	Quartz-biotite schist: dark grey to black, laminated; laminations in part are weakly crenulated, occasional quartz stringer present, very weakly fractured, locally chloritic.							
		- laminations at 45° to core axis.							
		331-337 quartz veining relatively abundant							
		331.5 minor brecciation							
		at 334 laminations highly contorted							
		at 362 laminations at 35° to core axis.							
		372-374 quartz vein							
		at 386 minor chalcopyrite and tourmaline in 1 inch quartz stringer							
		at 387 6 inch quartz veinlet - minor tourmaline and pyrite							
		388-389 disseminated pyrite in quartz stringer (1-2%)							
		at 404 minor chalcopyrite and tourmaline in 3 inch quartz							

Drill Hole Record

Cominco

Property SUNSHINE CREEK	District MAYO	Hole No. SC79-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length

Footage From	Footage To	Description	Sample No.	Length	Analysis Sn	Cu	Pb	Zn	Ag
		veinlet.							
		at 407 minor chalcopyrite and pyrite							
		at 410 5 inch thick quartz vein; abundant chlorite, possible tetrahedrite present.							
		Assays 385-390	3184I	5.0	39	170	<4	97	<0.4
		390-395	3183I	5.0	96	590	5	80	0.9
		395-400	3182I	5.0	<20	360	5	148	0.5
		400-405	3181I	5.0	73	508	<4	210	1.0
		405-410	3180I	5.0	113	416	5	131	0.8
		410-417	3179I	7.0	71	192	5	266	<0.4
		END OF HOLE							
		All assays are in ppm.							

Drill Hole Record

Cominco

Property	SUNSHINE CREEK	District	MAYO	Hole No.	SC 79-2		
Commenced	July 19, 1979	Location	SUNSHINE CREEK	Tests at		Hor. Comp.	223 feet
Completed	July 25, 1979	Core Size	NQ	Corr. Dip		Vert. Comp.	387 feet
Co-ordinates	1008N & 75W			True Brg.	310°	Logged by	SBB
Objective	To test downdip extension of mineralized breccia zone.			% Recov.	96.12	Date	July 29/79

Claim	A 25
T Brg.	310
Collar Dip	-60°
Elev.	4575
Length	447
Hole No.	Sheet 1

Footage From	To	Description	Sample No.	Length	Analysis
0	34	Overburden			
34	65	Quartz-biotite-chlorite schist: grey to green, moderately foliated, few hairline fractures, occasional cream coloured quartzite band. - foliation at 55° to core axis. - 34-51 broken core - occasional thin (1 inch) band of speckled schist - no visible sulphides.			
65	79	Quartzite: chloritic, very light grey, green in sections where chlorite abundant, chloritic sections are moderately foliated, few hairline fractures, no visible sulphides - at 71 - 2 inch band of speckled schist.			
79	87	Quartz-biotite schist: thin bedded to laminated parallel to foliation, grey to greenish-brown bands, thin speckled schist layers present throughout, occasional hairline fracture. - foliation at 60° to core axis.			
87	98	Quartzite: buff-brown, weakly foliated due to presence of muscovite, contains thin quartz-biotite schist bands and chlorite rich bands.			

Drill Hole Record

Cominco

Property SUNSHINE CREEK	District MAYO	Hole No. SC 79-2	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. SC 79-2 Sheet 2

Footage From	To	Description	Sample No.	Length	Analysis in ppm Cu	Sn	Pb	Zn	Ag
87	98	Quartzite: Continued							
		- at 95 - 2 inch band containing feldspar laths (1-2 mm); quartz grains are 0.5-1.0 mm in size							
		- at 96 - thin fracture (1 inch long) contains pyrite.							
98	101	Quartz-biotite-chlorite schist							
101	153	Quartzite: buff-brown to green, chloritic, weakly foliated due to the presence of muscovite, occasional quartz veinlet, few hairline fractures.							
		103-104 quartz-biotite schist							
		107.5-108.5 quartz-biotite schist							
		at 117.5 quartz becomes clean - absence of chlorite and biotite; oxidized (limonitic) hairline fractures are abundant							
		at 121 minor tourmaline present.							
		121-153 minor to trace tourmaline occurs locally throughout this section.							
		Assays 117-120	19352E	3.0	46	<20	6	57	<.4
		120-124	19353E	4.0	32	<20	5	38	0.6
		124-127	19354E	3.0	63	100	16	94	0.7
		127-132	19355E	5.0	58	<20	5	227	0.5

Drill Hole Record

Cominco

Property	SUNSHINE CREEK	District	MAYO	Hole No.	SC 79-2
Commenced		Location		Tests at	
Completed		Core Size		Corr. Dip	
Co-ordinates				True Brg.	
Objective				% Recov.	

Hor. Comp.
Vert. Comp.
Logged by
Date

Claim | T Brg. | Collar Dip | Elev. | Length | Drill Hole Record Sheet

Footage From	To	Description
		Assays 132-138
		138-142
		142-147
		147-153
		153-155
153	168	Quartz-biotite-chlorite schist: dark grey to dark greenish-grey, in part laminated, foliation is weak to moderately developed. - contact with overlying quartzite at 50° to core axis.
168	170	Contact Zone
170	175	Quartz-feldspar porphyry: cream colour, slight light rusty brown appearance due to oxidation, siliceous, white feldspar phenocrysts up to 4 mm in size.
175	197	Quartzite-quartz-muscovite schist: cream to buff-brown, weakly foliated and fractured, occasional manganese staining along hairline fractures. 181-182 biotite rich schistose bands (up to ½ inch thick) 182-183 quartz-feldspar porphyry 188-197 tourmaline present locally in minor amounts

Sample No.	Length	Analysis in ppm Cu	Sn	Pb	Zn	Ag
19356E	6.0	62	21	4	67	<.4
19357E	4.0	68	37	<4	107	<.4
19358E	5.0	46	<20	8	77	<.4
19359E	6.0	85	32	8	126	<.4
19360E	2.0	80	<20	6	245	<.4

Drill Hole Record

Cominco

Property SUNSHINE CREEK	District MAYO	Hole No. SC 79-2	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. SC 79-2 Sheet 4

Footage From	To	Description	Sample No.	Length	Analysis in ppm Cu	Sn	Pb	Zn	Ag
		Assays 187-192	19361E	5.0	108	51	12	400	0.4
		192-197	19362E	5.0	110	70	19	591	0.6
197	222	Aplite: medium crystalline, cream, quartzo-feldspathick, minor muscovite, weakly griesenized, occasional fracture, trace to minor tourmaline in fractures and as blebs.							
		Assays 197-202	19363E	5.0	34	181	98	93	1.7
		202-207	19364E	5.0	32	169	142	130	3.3
		207-213	19365E	6.0	125	170	181	234	4.2
		213-217	19366E	4.0	28	197	20	90	1.5
		217-222	19367E	5.0	145	92	27	179	1.1
222	265	Quartz-biotite-chlorite schist: dark grey, laminated, weakly foliated, occasional thin quartz veinlet; some chlorite present in occasional thin fracture.							
		- laminations at 60° to core axis.							
		222-223 contact zone; quartz veining common							
		244-246 minor tourmaline and trace pyrite							
		246 6 inch speckled schist band							
		255-257 abundant quartz veining parallel to foliation, pyrite is also relatively abundant							
		261 4 inch band containing tourmaline							

Drill Hole Record

Cominco

Property	District	Hole No.	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length

Footage From	To	Description	Sample No.	Length	Analysis in ppm Cu	Sn	Pb	Zn	Ag
		Assays 243-247	19368E	4.0	58	63	10	280	0.8
		255-260	19369E	5.0	212	34	5	219	0.6
		260-265	19370E	5.0	178	31	6	349	0.6
265	275	Quartzite: broken core, buff-brown, occasional biotite rich laminae. 266-267 minor tourmaline present 267-268 brecciated							
		Assay 265-270	19371E	5.0	70	<20	5	60	<.4
275	239	Quartz-biotite-chlorite schist: dark grey to green, chloritic laminations and bands, foliation weakly developed, trace to minor pyrite. 282-290 quartz veining relatively abundant 308-310 quartzite band at 314 laminations at 55° to core axis.							
339	344	Quartz-feldspar porphyry: greenish grey, aphanitic ground mass, phenocrysts of quartz and feldspar up to 1.5 cm in size; comprise 10-15% of the rock.							
344	447	Quartz monzonite-porphyritic quartz monzonite: rock varies from medium-grained holocrystalline to							

Drill Hole Record

Cominco

Property	SUNSHINE CREEK	District	MAYO	Hole No.	SC 79-2
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. (Page No.) of (Total Pages)

Footage From	To	Description	Sample No.	Length	Analysis in ppm Cu	Sn	Pb	Zn	Ag
		porphyritic, cream to light grey coloured, mafics (biotite) vary from 0-15%, K-feldspar is largely altered to kaolinite, plagioclase is relatively unaltered, some weakly griesenized zones.							
		at 345 trace tourmaline							
		355-362 rock is fresh and unaltered							
		at 357 1 inch band containing tourmaline							
		362-367 rock is badly altered and crumbly							
		378-380 phenocrysts up to 1.5 inch in length.							
		380-386 rock is oxidized; limonitic							
		377-386 occasional thin band of pyrite and tourmaline							
		395-396 broken core							
		396-401 rare pyrite-tourmaline lamination							
		Assays 377-382	19372E	5.0	59	20	14	78	0.4
		382-386	19373E	4.0	106	23	29	139	1.2
		END OF HOLE at 447 feet							

Drill Hole Record

Cominco

Property	Sunshine Creek	District	Mayo	Hole No.	SC 79-3		
Commenced	July 28, 1979	Location	Sunshine Creek	Tests at	347 and 437	Hor. Comp.	216.0 feet
Completed	August 1, 1979	Core Size	NQ	Corr. Dip	-65°	Vert. Comp.	380.5 feet
Co-ordinates	1800N + 5050E ("A" zone)			True Brg.	270°	Logged by	SBB
Objective	To test a breccia zone observed at surface for tin mineralization.			% Recov.	94.6	Date	Aug. 2/79

Claim: Bix 6 | T Brg.: 270° | Collar Dip: -60° | Elev.: 4900 | Length: 437

Footage From	To	Description	Sample No.	Length	Analysis in ppm Cu	Sn	Pb	Zn	Ag
0	14	Overburden							
14	149	Quartzite, Phyllitic Quartzite: buff to buff-brown, in part micaceous, locally phyllitic, phyllitic horizons have a silvery grey colour, moderately to well foliated, foliation at 45° to core axis, occasional quartz stringer, 30% broken core, rare hairline fracture.							
		18 - 19 black argillite band							
		57 - 58 few hairline fractures							
		59 - 62 rock has a light grey colouration; foliation is weakly contorted.							
		at 61 fold in the foliation							
		73 - 74 fault breccia: ½ inch - 1 inch thick, at 5-10° to the core axis.							
		78 - 82 relative abundant quartz veining (25% of rock volume)							
		79.5 tourmaline and pyrite in a fracture; chlorite also present.							
		Assay 78-83.	19374E	5.0	370	<20	22	260	1.1
		92 - 97 phyllite: grey, core recovery 1.5 feet							
		at 103.5 chlorite bleb							
		at 106.5 4 inch band containing pyrite and tourmaline							
		Assay 105-109	19375E	4.0	555	64	36	172	2.2

Drill Hole Record

Cominco

Property Sunshine Creek	District	Hole No. SC 79-3	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | B.C. Dept. of Mines No. 5079 Sheet #2

Footage From	To	Description	Sample No.	Length	Analysis in ppm Cu	Sn	Pb	Zn	Ag
		107 -111 phyllite: silvery grey							
		129 -137 rock is dark grey, in part argillite and phyllite							
		136 -136.5 breccia - possibly fault							
		143 single 1/8 inch thick fracture containing tourmaline							
149 - 159		Phyllite: silvery grey, weakly chloritic, quartzitic in part							
		149 -154 abundant quartz veining							
		at 155 tourmaline and minor pyrite in a single fracture							
		at 156 tourmaline and minor pyrite in a single fracture							
		Assay 154-157	19376E	3.0	65	<20	4	93	<.4
159 - 172.5		Quartzite: cream to light grey, phyllitic, few hairline fractures							
172.5 - 184		Quartz-biotite-chlorite schist: dark grey to green in the more chloritic sections, has a reticulate appearance due to both quartz and quartzite lenses, moderately foliated, in part laminated.							
		at 178 foliation at 45° to core axis							

Drill Hole Record

Cominco

Property SUNSHINE CREEK	District	Hole No. SC 79-3	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. SC 79-3 Sheet 3

Footage From	To	Description	Sample No.	Length	Analysis in ppm Cu	Sn	Pb	Zn	Ag
184	- 269	Quartzite: cream to very pale grey, in part phyllitic, in part micaceous, contains interlayered phyllite, few fractures only rare fractures are non-hairline.							
		- silvery grey phyllite bands (laminae to 1 cm thick) occur throughout the section; phyllite is locally chloritic.							
		- quartz lenses occur throughout this section.							
		212 -213 broken core							
		212 thin band (less than 1 inch) containing tourmaline and pyrite							
		215 -220 weak to moderately fractured (hairline fractures), tourmaline and pyrite in minor amounts in a few fractures (less than 25%)							
		at 216 minor sphalerite and trace chalcopyrite							
		Assays 210-215	19377E	5.0	63	20	31	243	0.6
		215-220	19378E	5.0	23	24	30	1973	0.7
		220-225	19379E	5.0	27	31	47	1902	0.5
		225-230	19380E	5.0	17	20	28	424	<.4
		226.5-227.5 2 vugs (1 inch by 1/8 inch) contains pyrite and sphalerite.							
		231 -233 biotite laminae present, highly crenulated							

Drill Hole Record

Cominco

Property SUNSHINE CREEK	District	Hole No. SC 79-3	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length

Footage From	To	Description	Sample No.	Length	Analysis in ppm Cu	Sn	Pb	Zn	Ag
		at 253 2 inch thick quartz vein - fractured and							
		contains pyrite and tourmaline							
		254 -257 limonitic coating on much of the core							
		Assays 252-257	19381E	5.0	27	103	21	561	0.5
		257-262	19382E	5.0	67	97	21	1080	0.7
		252 -262 rock contains abundant hairline fractures							
269	- 274	Phyllite: buff-grey to grey, laminated and foliated, few biotite							
		rich laminae, chloritic laminae also present.							
		at 273 foliation at 55° to core axis.							
274	- 289	Quartzite: very light grey, phyllite bands present, few hairline							
		fractures and few quartz veins							
		275 -276 white 1.5 mm feldspar laths present (less							
		than 5%), weakly to moderately micaceous							
		(muscovite).							
289	- 296	Phyllite-Biotite Schist: grey laminated, foliated, biotite rich and occasional							
		chlorite rich laminations present, occasional quartz							
		stringer, rare hairline fracture,							
		- laminations at 55° to core axis.							

Drill Hole Record

Cominco

Property SUNSHINE CREEK	District	Hole No. SC 79-3	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length

Footage From	To	Description	Sample No.	Length	Analysis
296	- 299	Quartzite			
299	- 312	Quartz-biotite-chlorite schist: few quartz stringers			
312	- 319	Quartzite: contains minor chlorite at 313			
319	- 340	Quartz-biotite schist: locally phyllitic,grey, laminated and foliated, rare hairline fracture, chloritic, few quartz stringers, trace pyrite throughout.			
		at 331 5 in. thick quartz vein - contains minor chlorite			
		337 -338 few biotite knots			
340	- 344	Quartzite			
344	- 369	Quartz-biotite-(chlorite) schist: grey to dark grey, laminated and foliated, few quartz stringers			
		351 -353 biotite rich quartzite band			
		358 -360 chlorite knots present (5%)			
		364 -368 chlorite knots present in bands having a thickness of 6 inches			

Drill Hole Record

Property SUNSHINE CREEK | District | Hole No. SC 79-3

Commenced | Location | Tests at | Hor. Comp.

Completed | Core Size | Corr. Dip | Vert. Comp.

Co-ordinates | True Brg. | Logged by

Objective | % Recov. | Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. SC79-3 Sheet

Footage From	To	Description	Sample No.	Length	Analysis
296	- 299	Quartzite			
299	- 312	Quartz-biotite-chlorite schist: few quartz stringers			
312	- 319	Quartzite: contains minor chlorite at 313			
319	- 340	Quartz-biotite schist: locally phyllitic, grey, laminated and foliated, rare hairline fracture, chloritic, few quartz stringers, trace pyrite throughout. at 331 5 in. thick quartz vein - contains minor chlorite 337 -338 few biotite knots			
340	- 344	Quartzite			
344	- 369	Quartz-biotite-(chlorite) schist: grey to dark grey, laminated and foliated, few quartz stringers 351 -353 biotite rich quartzite band 358 -360 chlorite knots present (5%) 364 -368 chlorite knots present in bands having a thickness of 6 inches			

211-643

Drill Hole Record

Cominco

Property SUNSHINE CREEK	District	Hole No. SC 79-3	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length

Footage From	To	Description		Sample No.	Length	Analysis in ppm Cu	Sn	Pb	Zn	Ag
369	- 437	Quartzite, phyllitic quartzite, phyllite:	interlayered sequence, rock is laminated to thin bedded, weak to moderately foliated, buff-brown to light grey.							
			- at 372 6 inch thick silicified zone containing tourmaline and pyrite							
			372 -389 fractures containing tourmaline and pyrite 1%; fractures - hair-line to 5 mm in thickness							
		Assays	369-375	19383E	6.0	44	194	6	530	<.4
			375-380	19384E	5.0	13	46	<4	677	<.4
			380-385	19385E	5.0	51	42	6	2760	0.4
			385-388	19386E	3.0	43	55	5	1950	0.4
			388-392	19387E	4.0	27	50	6	1857	<.4
		at 400	2 cm thick fault zone (12 cm long) at 25° to core axis							
		at 423	1 inch zone - contains tourma-linized fractures							
		at 429	1 inch zone - contains tourma-linized hairline fractures.							
		END OF HOLE								

Drill Hole Record

Cominco

Property	SUNSHINE CREEK	District	MAYO	Hole No.	SC 79-4		
Commenced	August 2, 1979	Location	SUNSHINE CREEK	Tests at		Hor. Comp.	214.9 feet
Completed	August 5, 1979	Core Size	NQ	Corr. Dip	-60°	Vert. Comp.	377.3 feet
Co-ordinates	1800N+4950E			True Brg.	295°	Logged by	SBB
Objective	To test an observed breccia zone at depth for tin mineralization.			% Recov.	83.65	Date	Aug. 5/79

Claim BIX 4 | T Brg. 295° | Collar Dip | Elev. 4900 | Length 434

Footage From	Footage To	Description	Sample No.	Length	Analysis
0	8	Overburden			
8	12	Quartzite: weakly micaceous, cream to buff, weakly foliated, broken core.			
12	44	Quartz-feldspar porphyry: cream to buff, limonitic, limonitic hairline fractures common, weakly foliated - presence of muscovite, phenocrysts of quartz and feldspar 2-5 mm in length, some manganese staining along fractures, broken core. 37 - 2.5 cm brecciated band foliation at 45° to core axis			
44	77	Quartzite: micaceous (muscovite), in part phyllitic, weak to moderate hairline fracturing. 44 - 45 1 cm thick fault zone 49 - 51 quartz-feldspar porphyry 44 - 50 relatively abundant quartz veining 58 - 60 silvery grey phyllite at 68 few hairline fractures containing tourmaline and chlorite,			
77	95	Phyllite: in part quartzitic, silvery grey with light green laminae, chloritic, foliated, occasional quartz vein - rare tourmaline.			

Drill Hole Record

Cominco

Property SUNSHINE CREEK	District	Hole No. SC 79-4	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length

Hole No SC 79-4 Sheet 2

Footage From	To	Description	Sample No.	Length	Analysis in ppm Sn	Cu	Pb	Zn	Ag
95	100	Quartzite: Highly fractured, weakly brecciated, limonitic coatings along fractures.							
		Assay 95-100	19388E	5.0	25	80	77	148	1.3
100	102	Phyllite: silvery grey							
102	117	Quartzite: weakly micaceous, weakly foliated, light grey, in part phyllitic, few limonite coated hairline fractures.							
117	122	Phyllite: light grey, rare quartz stringer							
		118-119 quartz-feldspar porphyry: weakly foliated, contacts parallel to phyllite							
122	168	Quartzite: in part phyllitic, in part micaceous, weakly fractured, occasional quartz stringer or veinlet.							
		131-132 phyllite: weakly chloritic							
		136 few tourmalinized hairline fractures							
		139-150 75% broken core							
		157-158 quartz vein: rare vug present							
168	174	Phyllite							

Drill Hole Record

Cominco

Property SUNSHINE CREEK	District	Hole No. SC 79-4	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length

Footage From	To	Description	Sample No.	Length	Analysis in ppm Sn	Cu	Pb	Zn	Ag
174	185	Quartzite-Phyllitic Quartzite: in part micaceous, rare tourmalinized hairline fracture.							
185	222	Phyllite: in part quartzitic, weak to moderately fractured, few fractures contain tourmaline							
		- from 202 - weakly brecciated							
		- 185-202 50% core recovery							
		Assays 185-190	19389E	5.0	55	44	31	145	<.4
		190-195	19390E	5.0	<20	60	13	259	<.4
		195-200	19391E	5.0	<20	34	25	40	<.4
		200-205	19392E	5.0	293	79	90	138	0.4
		205-210	19393E	5.0	75	100	64	151	0.4
		210-215	19394E	5.0	300	173	33	61	12.2
		215-222	19395E	7.0	32	57	101	57	0.4
222	238.5	Brecciated quartzite: vuggy, leached, limonitic coating along fractures and in vugs common, tourmaline present but not abundant.							
		Assays 222-227	19396E	5.0	88	69	83	174	5.0
		227-232	19397E	5.0	118	180	205	217	1.0
		232-236.5	19398E	4.5	160	223	86	117	12.5

Drill Hole Record

Cominco

Property	SUNSHINE CREEK	District	
Commenced		Location	
Completed		Core Size	
Co-ordinates			
Objective			

Hole No.	SC 79-4		
Tests at		Hor. Comp.	
Corr. Dip		Vert. Comp.	
True Brg.		Logged by	
% Recov.		Date	

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet

Footage From	To	Description	Sample No.	Length	Analysis in ppm Sn	Cu	Pb	Zn	Ag
238.5	248	Brecciated phyllite: dark grey, severely brecciated and sheared							
		246-247 - brecciated quartzite: leached							
		247-248 - biotite knots present							
		Assays 236.5-242	19399E	5.5	224	112	145	81	1.0
		242-248	19400E	6.0	141	211	151	182	1.1
248	311	Brecciated quartzite: highly fractured, vuggy, leached, limonitic coatings present in vugs, some tourmaline present in vugs, minor amounts of pyrite are present sporadically, rock is silicified in part.							
		Assays 248-253	3186I	5.0	385	180	179	133	2.8
		253-258	3187I	5.0	1877	190	144	144	6.6
		258-263	3188I	5.0	872	298	176	176	2.9
		263-268	3189I	5.0	664	271	151	151	4.4
		268-273	3190I	5.0	1381	240	111	111	0.9
		268-269 phyllite: limonitic							
		Assays 273-278	3191I	5.0	1561	282	280	161	1.5
		278-283	3192I	5.0	123	540	1300	367	19.5
		283-288	3193I	5.0	186	140	265	92	1.1
		288-293	3194I	5.0	317	186	360	88	2.2
		293-298	3195I	5.0	208	236	347	135	2.4
		298-303	3196I	5.0	147	362	484	112	10.1
		303-308	3197I	5.0					

Drill Hole Record

Cominco

Property SUNSHINE CREEK	District	Hole No. SC 79-4	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet

Footage From	To	Description	Sample No.	Length	Analysis in ppm Sn	Cu	Pb	Zn	Ag
		285-291 core is not severely leached, rock is tourmalinized, pyrite is present.							
		307-311 pyrite and tourmaline common to abundant, rock is relatively unleached.							
311	334	Phyllite: silvery grey, well foliated, few fractures							
		311-315 weakly brecciated							
		Assays 311-315	14861I	4.0	301	308	50	93	4.3
		315-320	3355I	5.0	82	140	105	164	1.5
		320-322	3356I	2.0	30	114	90	67	2.0
		320-322 black argillite-siltstone band							
		322-237	3357I	5.0	<20	33	20	26	0.5
334	343	Quartzite: broken core							
343	350	Phyllite: badly broken core							
350	352	Quartzite							
352	384	Quartz-biotite schist: pale grey, laminated, foliated, occasional fracture, few quartz stringers - some have associated chlorite, muscovite is relatively abundant.							

Drill Hole Record

Cominco

Property	SUNSHINE CREEK	District	Hole No.	SC 79-4	
Commenced		Location	Tests at		Hor. Comp.
Completed		Core Size	Corr. Dip		Vert. Comp.
Co-ordinates			True Brg.		Logged by
Objective			% Recov.		Date

Footage From	Footage To	Description	Sample No.	Length	Claim	T Brg.	Collar Dip	Elev.	Length	Analysis
		357-358 quartzite: biotitic								
		358-379 quartzite: chloritic - light greenish colour, rare hairline fracture.								
384	434	Quartzite: phyllite, micaceous, very light grey, few limonite coated hairline fractures, minor to trace chlorite								
		401-404 biotite laminae common								
		404-421 occasional tourmaline filled fracture (hairline to 3 mm thick)								
		397-434 broken core, fair to poor core recovery								
		END OF HOLE AT 434 FEET								

Colour Plot & Dips

Drill Hole Record

Cominco

Property	SUNSHINE CREEK	District	MAYO	Hole No.	SC 79-5		
Commenced	August 7, 1979	Location	Sunshine Creek	Tests at		Hor. Comp.	231.3 feet
Completed	August 10, 1979	Core Size	NQ	Corr. Dip	-60°	Vert. Comp.	403.5 feet
Co-ordinates	1900 + 4925E			True Brg.	090	Logged by	S.B. Butrenchuk
Objective	To test an observed breccia zone at depth for tin mineralization			% Recov.	88.10	Date	August 11, 1979

Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
BIX 5	090°	-60°	4880	463 feet	SC 79-5	1

Footage From	Footage To	Description	Sample No.	Length	Analysis in ppm Sn	Cu	Pb	Zn	Ag
0	30	Overburden							
30	107	Quartzite: cream to buff brown, limonitic in part, weakly foliated, locally feldspathic, muscovite 2-10%, quartz 75-90%, rare chlorite, in part phyllitic 47-48 grey phyllite 77-85 quartzite has a dark grey colour, biotite laminae common 85-87 no core 93.6-94.6 section of quartzite has abundant limonite blotches-possible leached sulphides 103.6-104.6 grey phyllite.							
107	110	Quartz-feldspar porphyry?: buff-brown, phenocrysts or porphyroblasts of quartz, possible relict feldspar-severely altered, argillaceous; rock is highly fractured to weakly brecciated							
		Assays 102-107	3375I	5.0	<20	54	<4	121	<.4
		107-110	3376I	3.0	<20	46	<4	127	0.4
		110-115	3377I	5.0	<20	40	4	71	<.4
110	180	Quartzite: cream to buff-brown, phyllitic layers throughout, limonitic hairline fractures occur throughout section, quartz veining present but not common.							

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	SUNSHINE CREEK	District	Hole No.	SC 79-5	
Commenced		Location	Tests at		Hor. Comp.
Completed		Core Size	Corr. Dip		Vert. Comp.
Co-ordinates			True Brg.		Logged by
Objective			% Recov.		Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. SC 79-5 | Sheet 2

Footage From	To	Description			Sample No.	Length	Analysis in ppm Sn	Cu	Pb	Zn	Ag
			130-133	rock is fractured and limonite stained							
			135-140	rock is highly fractured to brecciated, fractures							
				are lined with limonite, some tourmaline present,							
				pyrite is rare or masked by limonite.							
			149-155	phyllite to phyllitic quartzite: grey to dark grey							
			154	2.5 cm band containing tourmaline							
				foliation at 85° to core axis							
			Assays	125-130	3379I	5.0	<20	97	10	172	0.5
				130-135	3380I	5.0	39	84	51	100	0.7
				135-140	3381I	5.0	139	67	56	88	5.6
				140-145	3382I	5.0	22	118	12	135	<.4
				145-149	3383I	4.0	<20	43	12	67	0.5
180 - 215		Phyllite, quartzitic phyllite:		grey to dark grey, well foliated, laminated in part, contains							
				quartzite bands, laminations at 212-213 contorted.							
			192	minor pyrite							
			207-209	quartzite							
			211-213	laminated quartzite·quartzite; feldspathic							
			Assays	200-205	3389I	5.0	<20	19	<4	60	<.4
				205-210	3390I	5.0	<20	43	<4	95	<.4
				210-215	3391I	5.0	<20	52	6	71	0.4

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	SUNSHINE CREEK	District	Hole No.	SC 79-5	
Commenced		Location	Tests at		Hor. Comp.
Completed		Core Size	Corr. Dip		Vert. Comp.
Co-ordinates			True Brg.		Logged by
Objective			% Recov.		Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. SC 79-5 | Sheet 3

Footage From	To	Description	Sample No.	Length	Analysis in ppm Sn	Cu	Pb	Zn	Ag
215	275	Brecciated quartzite and phyllite: leached, limonitic fractures common, tourmaline present along fractures, pyrite is rare to absent, minor manganese staining.							
		227-232 tourmaline and minor pyrite in fractures							
		236-242 tourmaline abundant							
		Assays 215-220	3392I	5.0	<20	113	<4	314	1.2
		220-225	3393I	5.0	<20	137	<4	380	1.2
		225-230	3394I	5.0	21	134	28	410	0.6
		230-235	3395I	5.0	62	142	17	168	3.6
		235-240	3396I	5.0	50	134	82	157	5.2
		240-245	3397I	5.0	<20	100	6	144	0.9
		245-250	3398I	5.0	<20	83	4	292	0.6
		250-255	3399I	5.0	<20	63	8	316	0.9
		255-260	3400I	5.0	<20	52	5	255	0.7
		260-265	28452D	5.0	<20	48	17	160	1.0
		265-270	28453D	5.0	<20	44	10	170	0.7
		270-275	28454D	5.0	<20	92	25	134	0.7
275	298	Phyllite: grey to dark grey, foliated, laminated, quartzite bands present							
		281-285 crenulated laminae							
		290-291 quartzite,							
		Assays 275-280	28455D	5.0	<20	53	12	770	0.6
		280-285	28456D	5.0	<20	41	5	720	0.4

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	SUNSHINE CREEK	District		Hole No.	SC 79-5
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. SC 79-5 | Sheet 4

Footage From	Footage To	Description	Sample No.	Length	Analysis
298	318	Quartzite: light grey to grey, moderately foliated, micaceous, phyllite bands and laminae throughout, weakly fractured, chlorite laminae also present 304-306 dark grey, chlorite rich band, minor biotite and possible tourmaline, pyrite (1-2%) in elongated lenses parallel to the foliation			
318	333	Phyllite: buff to dark grey, in part quartzitic, laminated, foliated, few limonitic fractures in quartzite bands 322-323 crenulated laminae 326-328 quartzite laminations at 85° to core axis			
333	346	Quartzite: phyllitic, micaceous, minor chlorite, weakly foliated			
346	360	Quartz-biotite-chlorite schist: dark grey with green laminae, weakly foliated and weakly laminated.			
360	417	Quartzite: cream with limonitic colouration throughout, in part moderately foliated, rare quartz vein, weak to moderate fracturing 375-377 limonitic band, few tourmaline filled fractures 377-378 abundant tourmaline filled hairline fractures 397-399 rock is highly fractured, limonite and tourmaline lined vugs present, fractures contain tourmaline and limonite.			

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Colour Plot & Dips

Drill Hole Record

Cominco

Property	SUNSHINE CREEK	District	Hole No.	SC 79-5	
Commenced		Location	Tests at		Hor. Comp.
Completed		Core Size	Corr. Dip		Vert. Comp.
Co-ordinates			True Brg.		Logged by
Objective			% Recov.		Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. SC 79-5 | Sheet 5

Footage From	Footage To	Description			Sample No.	Length	Analysis in ppm Sn	Cu	Pb	Zn	Ag
			415-417	rock contains 5% limonitic specks - possible limonite							
				after pyrite							
			Assays	385-390	28467D	5.0	<20	34	17	25	0.4
				390-395	28468D	5.0	82	170	37	94	4.4
				395-400	28469D	5.0	228	570	265	27	24.2
				400-405	28470D	5.0	33	138	28	25	0.9
				405-410	28471D	5.0	47	100	49	24	1.6
				410-415	28472D	5.0	154	90	96	22	0.6
				415-420	28473D	5.0	162	228	206	30	17.5
417	435	Brecciated quartzite:		highly leached, vuggy, vugs are limonite lined, breccia contact							
				at 10^{o} to core axis, rock is weak to moderately brecciated,							
				breccia fragments are not abundant, rock is also fractured (hair-							
				line) - the majority of fractures are tourmaline filled.							
			Assays	420-425	28474D	5.0	171	490	570	50	200
				425-430	28475D	5.0	166	600	570	152	74
				430-435	28476D	5.0	198	570	536	100	38.4
435	463	Quartzite:		cream to very light grey, weak to highly fractured, weakly							
				foliated							
				435-445 highly fractured section, tourmaline is relatively							
				abundant							

Scale

Colour Plot & Dips

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Drill Hole Record

Cominco

Property	SUNSHINE CREEK	District	Hole No.	SC 79-5	
Commenced		Location	Tests at		Hor. Comp.
Completed		Core Size	Corr. Dip		Vert. Comp.
Co-ordinates			True Brg.		Logged by
Objective			% Recov.		Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. SC 79-5 | Sheet

Footage From	Footage To	Description	Sample No.	Length	Analysis in ppm Sn	Cu	Pb	Zn	Ag
		447-447.5 tourmaline filled hairline fractures abundant							
		450-450.5 abundant tourmaline							
		456-457 breccia							
		Assays 435-440	28477D	5.0	1487	210	130	55	5.0
		440-445	28478D	5.0	327	198	118	85	16.4
		445-450	28479D	5.0	143	86	52	60	3.4
		450-455	28480D	5.0	1020	74	54	79	0.5
		455-463	28481D	8.0	22	78	68	45	2.2
		END OF HOLE AT 463 FEET							