BRITISH COLUMBIA

PROSPECTORS ASSISTANCE PROGRAM

MINISTRY OF ENERGY AND MINES

GEOLOGICAL SURVEY BRANCH

PROGRAM YEAR:	1998/99
REPORT #:	PAP 98-17
NAME:	STEVE TRAYNOR

Rec'd
0'8/99

BRITISH COLUMBIA
PROSPECTORS ASSISTANCE PROGRAM
PROSPECTING REPORT FORM (continued)

MINISTRY OF ENERGY & MINES
REC'D JAN 20 1999
SMITHERS, BC

B. TECHNICAL REPORT

- One technical report to be completed for each project area.
- **Refer to Program Requirements/Regulations 15 to 17, page 6.**
- If work was performed on claims a copy of the applicable assessment report may be submitted in lieu of the supporting data (see section 16) required with this TECHNICAL REPORT.

Name Steve Traynor Reference Number 98/99 P31

LOCATION/COMMODITIES

Project Area (as listed in Part A) Teslin Lake MINFILE No. if applicable

Location of Project Area NTS 104N16 W Lat 59° 59' N Long 132° 24' W

Description of Location and Access East shore of Teslin Lake, just south of the B.C./Yukon border by boat.

Main Commodities Searched For Copper

Known Mineral Occurrences in Project Area Lakeshore showing reported by Mihalynuk (1993).

WORK PERFORMED

1. Conventional Prospecting (area) 2 to 3 Km along lakeshore and up to 1 Km inland.
2. Geological Mapping (hectares/scale)
3. Geochemical (type and no. of samples)
4. Geophysical (type and line km)
5. Physical Work (type and amount)
6. Drilling (no. holes, size, depth in m, total m)
7. Other (specify)

SIGNIFICANT RESULTS

Commodities Claim Name

Location (show on map) Lat Long Elevation

Best assay/sample type

Description of mineralization, host rocks, anomalies

None, Showing not found

Supporting data must be submitted with this TECHNICAL REPORT

Information on this form is confidential for one year from the date of receipt subject to the provisions of the *Freedom of Information Act*.

BRITISH COLUMBIA
PROSPECTORS ASSISTANCE PROGRAM
PROSPECTING REPORT FORM (continued)

B. TECHNICAL REPORT

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Name Steve Traynor Reference Number 98/99 P31

LOCATION/COMMODITIES

Project Area (as listed in Part A) Swift River MINFILE No. if applicable

Location of Project Area NTS 104O13E Lat 59°55'N Long 131°45'W

Description of Location and Access North of Swift River between Mt Hazel to the west and Swan Lake to the east via the Alaska Highway

Main Commodities Searched For Base and precious metals.

Known Mineral Occurrences in Project Area A number of highway showings reported by Mihalynuk (1998)

WORK PERFORMED

1. Conventional Prospecting (area) See location description above
2. Geological Mapping (hectares/scale)
3. Geochemical (type and no. of samples) 3 rock grab samples, 15 soil samples and 3 stream seds.
4. Geophysical (type and line km)
5. Physical Work (type and amount)
6. Drilling (no. holes, size, depth in m, total m)
7. Other (specify)

SIGNIFICANT RESULTS

Commodities Claim Name

Location (show on map) Lat Long Elevation

Best assay/sample type

Description of mineralization, host rocks, anomalies

* Please refer to attached Report of 1998 Field Activities.

Supporting data must be submitted with this TECHNICAL REPORT

Information on this form is confidential for one year from the date of receipt subject to the provisions of the *Freedom of Information Act*.

BRITISH COLUMBIA
PROSPECTORS ASSISTANCE PROGRAM
PROSPECTING REPORT FORM (continued)

B. TECHNICAL REPORT

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- **Refer to Program Requirements/Regulations 15 to 17, page 6.**
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Name Steve Traynor **Reference Number** 98/99 P31

LOCATION/COMMODITIES

Project Area (as listed in Part A) Mt. Francis (Arsenault) MINFILE No. if applicable 104O 011

Location of Project Area NTS 104O 13E Lat 59°48'N Long 131°43'W

Description of Location and Access Western flank of Mt. Francis by helicopter from nearest base.

Main Commodities Searched For Cu and Au.

Known Mineral Occurrences in Project Area Arsenault property, active much of last 3 decades and before.

WORK PERFORMED

1. Conventional Prospecting (area) Most of main ridge and surrounding area
2. Geological Mapping (hectares/scale)
3. Geochemical (type and no. of samples) Soil geochemistry, 54 samples. Rock, grab, chip, core, 26 samples.
4. Geophysical (type and line km)
5. Physical Work (type and amount) Claim staking, 40 units.
6. Drilling (no. holes, size, depth in m, total m)
7. Other (specify)

SIGNIFICANT RESULTS

Commodities Cu and Au Claim Name WIN.

Location (show on map) Lat 59°48'N Long 131°43'W Elevation 4750 feet

Best assay/sample type Chip sample across 7.5m yielded 0.46% Cu and 1.3g/t Au.

Description of mineralization, host rocks, anomalies Quartzite.

* Please refer to attached report of 1998 Field Activities for additional details and other results

Supporting data must be submitted with this TECHNICAL REPORT

Information on this form is confidential for one year from the date of receipt subject to the provisions of the *Freedom of Information Act*.

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INTRODUCTION

This report prepared in fulfillment of the requirements of the Prospectors Assistance Program, details the results of field work completed during the 1998 season. A synoptic log detailing prospecting activities is included as Appendix A.

An integrated program consisting of convential prospecting, geochemical surveying and limited geological mapping aimed at identifying new mineral occurrences and following up those previously reported was completed in the Swift River area of central northern B.C.

TESLIN LAKE AREA (Target A)

PROJECT SUMMARY

The authors prospecting partner, Mr. W. Carrell, completed a single days' reconaissance in this area in late June of 1998. Reconnaissance of the lake shore was carried out by boat and potentially interesting areas along and adjacent to the shoreline were traversed on foot. Despite his best effort he was unable to locate the Cu occurrence reported by Mihalynuk (1998) or any other signs indicative of potential mineralization. The success of ongoing work elsewhere in the project area did not allow for any further investigations in this area.

SWIFT RIVER AREA (Targets B and C)

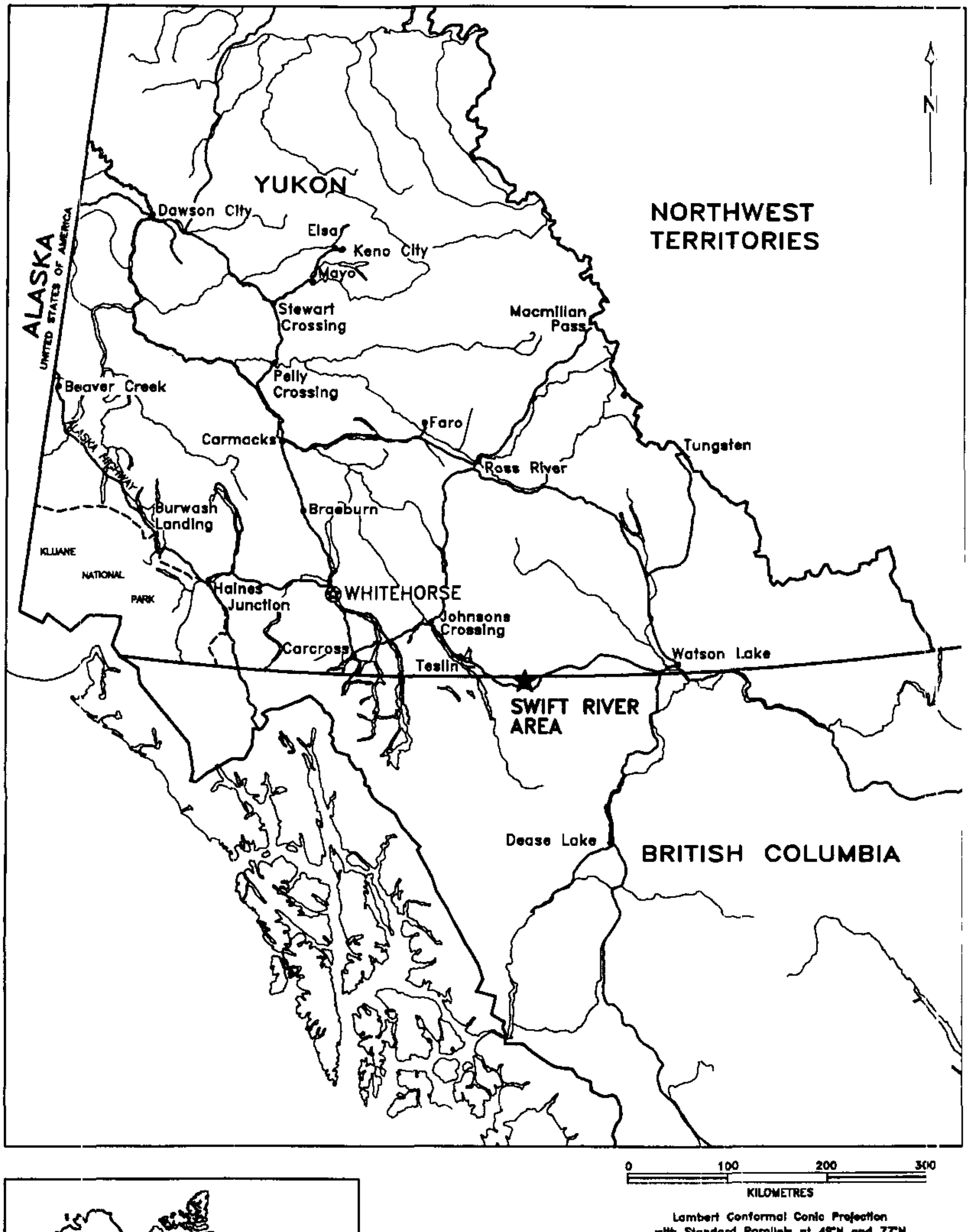
PROJECT SUMMARY

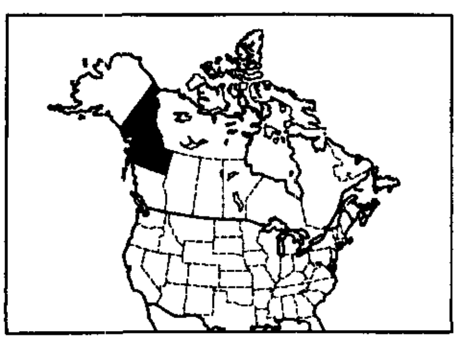
Work on these targets was concentrated in the area between Mt. Hazel and Swan Lake north of the Swift River. Grassroots prospecting combined with geochemical sampling met with limited success due to the extensive fluviogacial and lacustrine deposits that were found obscuring much of the area. Despite these difficulties a few hints of the possible massive sulfide potential of the area were uncovered.

AREA LOCATION AND ACCESS

The target area is located in central northern B.C. within the Atlin Mining Division and is shown on the 104 O 13 NTS map sheet (see Figure 1).

Access to the area from Whitehorse, Yukon is via the Alaska Highway approximately 250 km east





B.C. - PAP, 98/99 - P31		
SWIFT RIVER AREA Location Map		
Steve Traynor, Geologist		
SCALE: 1 : 6,000,000	FILE: BC98_1	DATE: 98.12.15
NTS:	DRAWN:	FIGURE 1

to the section of the highway that passes through northern B.C. between Teslin and Watson Lake, Yukon. Access is further facilitated by the use of a number of old mineral property access roads that originate from the Alaska Highway and proceed generally north from those points.

PREVIOUS WORK AND EXPLORATION HISTORY

A review of B.C. Minfile occurrences in this area shows only a few occurrences and suggests that the area has long been neglected by explorationists.

Stradling the B.C./Yukon border to the north a number of vein and skarn occurrences related to Cretaceous intrusive tocks are documented. Of particular note is the Logtung tungsten molybdenum porphyry system that was first discovered in 1976. This large tonnage, but rather low grade deposit has been studied quite extensively, but has never been mined.

The other occurrences of note are found east of Swift Lake in the vicinity of Mt. Francis and include a number of copper/gold showings associated with the old Arsenault property. This history of this area is discussed in detail later in this report.

REGIONAL AND GENERAL GEOLOGY

Situated on the Nisutlin Plateau in northern B.C. the area is underlain by an assemblage of volcanic and sedimentary rocks, metamorphosed to greenschist grades, which lie to the east of the Teslin Fault. Lying within the Big Salmon Complex these rocks are thought to represent the southern extension of the Yukon-Tanana terrance which is currently being explored for massive sulfide deposits formed in volcanogenic settings since the discovery of the Kudz ze Kayah deposit of Cominco and the Wolverine deposit of Atna/Expatriate.

A variety of mica schists, greenstones, terrigeneous clastic and carbonate rocks were observed in the course of prospecting in the area. Of particular interest was an outcropping of quartz-sericite-piedmontite schist discovered on the first ridge to the east of Mt. Hazel at 59 56.85'N/131 49.18'W.

As mentioned previously, overburden in the area is extensive often showing signs of at least secondary transportation and limiting outcrop to less than 1%. The confusing mix of glacial, lacustrine and fluvial deposits coupled with depths of cover often in excess of 20 meters, as measured in numerous gravel pits in the area, ultimately proved to be a significant deterent to further work.

DESCRIPTION AND SUMMARY OF WORK

Twelve days were spent traversing, prospecting and sampling within this project area. The bulk of the work was completed during two seperate trips late in May and early in June that were briefly followed up in mid September.

Foot traverses starting from various points along the main highway and the mineral property access roads in the area provided for good coverage of the ground. The first trip consisted entirely of orientation and prospecting at the Mt. Hazel end of the area. Subsequent trips focused on prospecting and sampling at the Swan Lake or eastern end of the area, Figures 2a and 2b shows the locations of samples collected during the course of this work.

ANALYSIS AND RESULTS

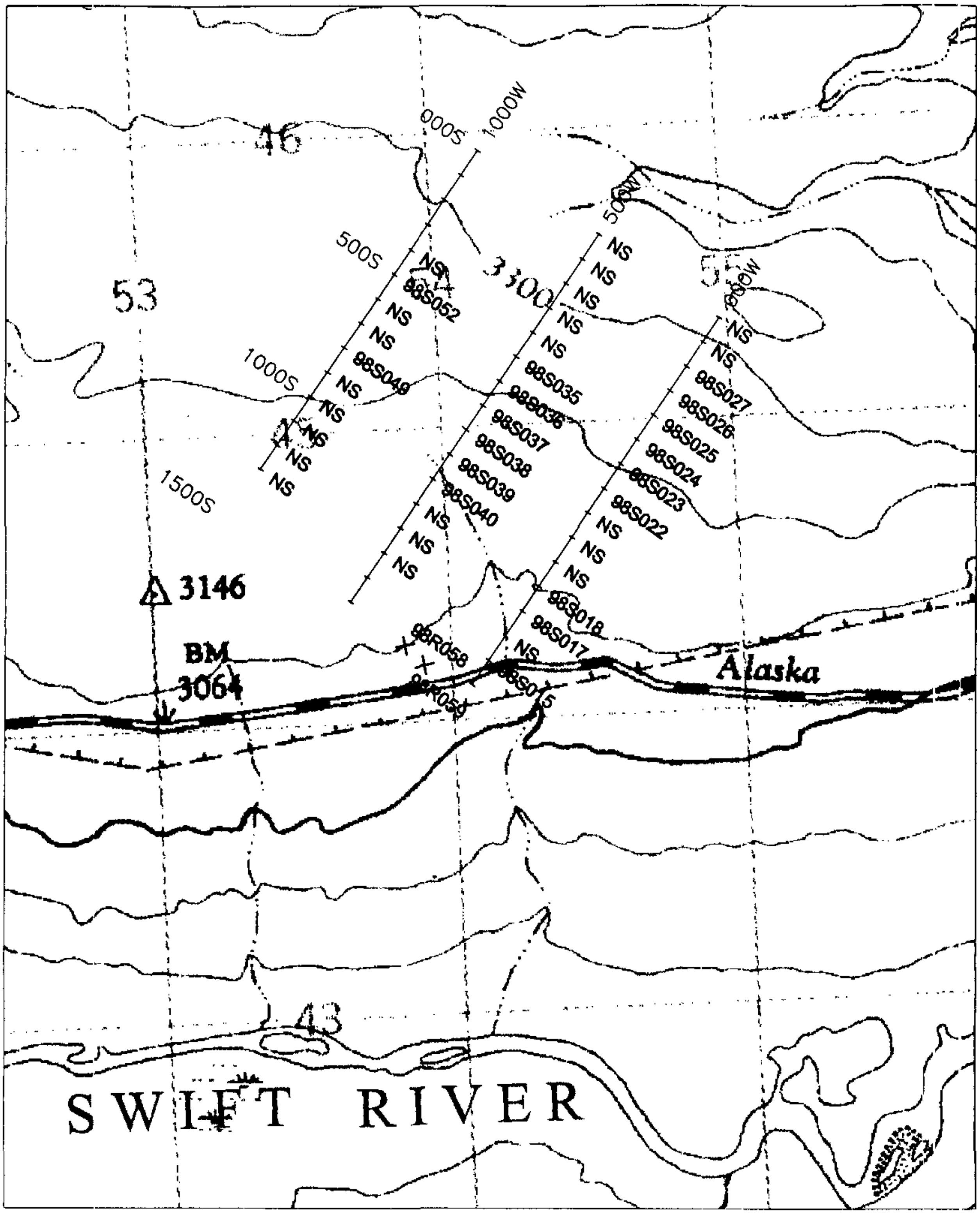
A total of 21 samples were collected for analysis during these investigations and included 3 rock, 15 soil and 3 stream sediment samples, the results of which are presented in Appendix C.

Soil sampling in the area of the Logtung road (Figure 2a) which is inferred to be underlain by prospective lithologies produced two minor Au values, followup of which was inconclusive. A grab sample of some brecciated graphitic schist with quartz veins, collected from the burrow pit located just south of the soil grid did return values that were moderately anomalous in Cu, Co and As. Further west, 3 stream sediment samples collected from a stream (see Figure 2b) that drains across this same band of rocks all returned elevated Mn values, probably derived from the Mn-rich piedmontite layer inferred to be associated with this package. Extensive prospecting failed to locate any outcrop through the glaciofluvial cover of the area eventhough the stream bed was deeply incised into this layer.

CONCLUSIONS AND RECOMMENDATIONS

The widespread occurrence of a Mn-rich exhalative marker horizon throughout the area is highly indicative of the potential for discovery of massive sulfide mineralization. Unfortunately extensive glacio-fluvial cover, especially in areas underlain by the most prospective lithologies, limits the usefulness of conventional prospecting techniques. Detailed examination of available airphotos of the area may be useful in locating areas of potential outcrop.

Ultimatley, the information most useful in attracting additional exploration interest in the area



UTM 354,000m E

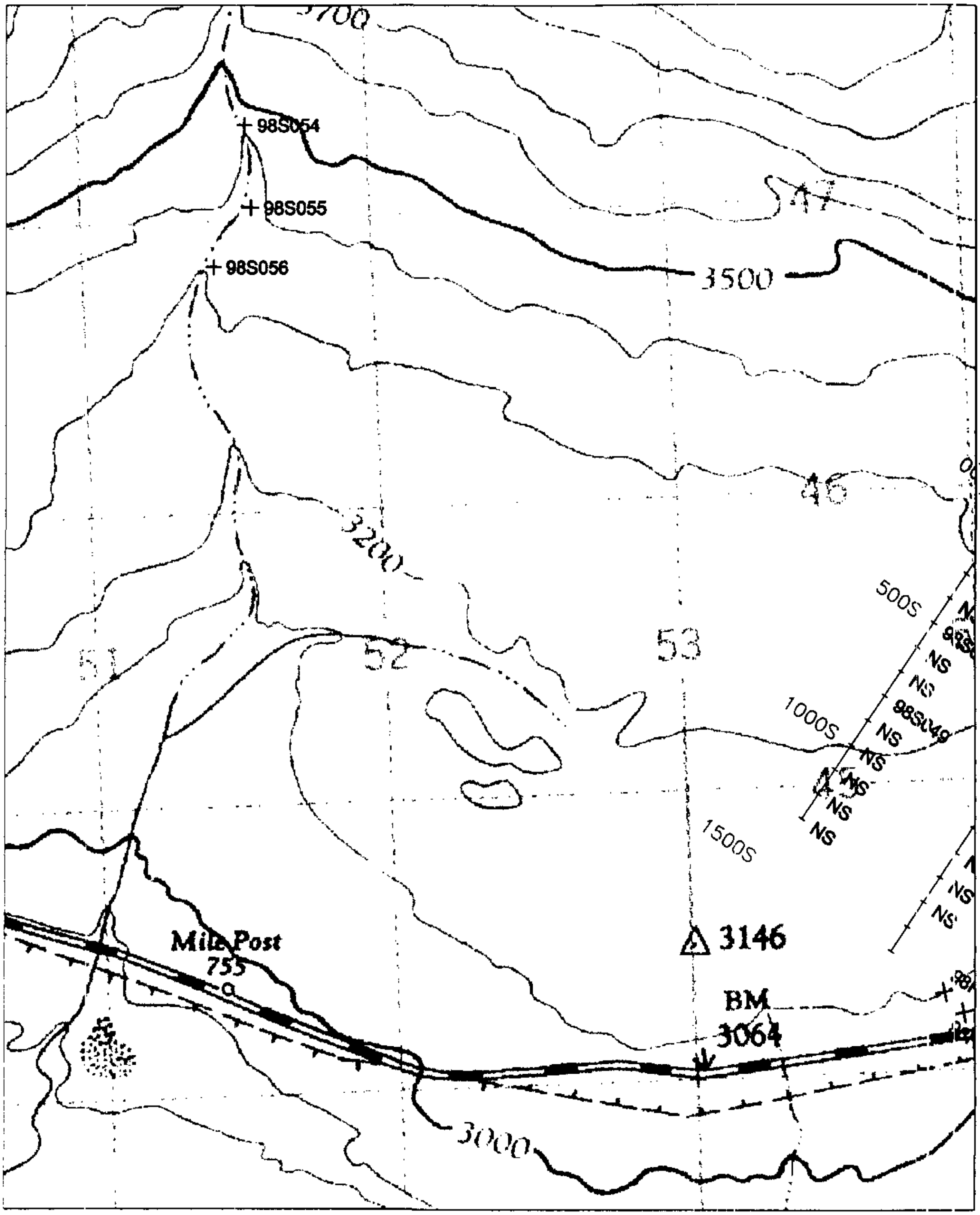
0 200 400 600 800
METRES

LEGEND

———	Elevation Contour Interval (100 feet)
- - -	Stream, creek
× 98R059	Rock sample location, number
+ 98S015	Soil sample location, number

T.N.

B.C. - PAP, 98/99 - P31		
SWIFT RIVER AREA Sample Location Map 1		
Steve Traynor, Geologist		
SCALE: 1 : 20,000	FILE: BC98_2	DATE: 99.01.13
NTS: 104 O/13	DRAWN:	FIGURE 2a



LEGEND

- Elevation Contour Interval (100 feet)
- Stream, creek
- × 98R059 Rock sample location, number
- + 98S015 Soil sample location, number

T.N.

B.C. - PAP, 98/99 - P31		
SWIFT RIVER AREA Sample Location Map 2		
Steve Traynor, Geologist		
SCALE: 1 : 20,000	FILE: BC98_2b	DATE: 99 01.13
NTS: 104 O/13	DRAWN:	FIGURE 2b

would be the completion and publication of airborne geophysical data, an undertaking that only a government agency would have the resources necessary to complete.

MT. FRANCIS (ARSENAULT) AREA
(Targets D and E)

PROJECT SUMMARY

Ongoing research and initial reconaissance served to highlight the mineral potential of this area and resulted in the staking of two 4 post claims, each comprising 20 units.

A detailed program of prospecting and sampling, which include a re-examination of old trenches and available drill core, was then carried out and provided further evidence that previous investigations focused on the limited skarning in the area have likely overlooked the potential of the area to host volcanogenic massive sulfide mineralization.

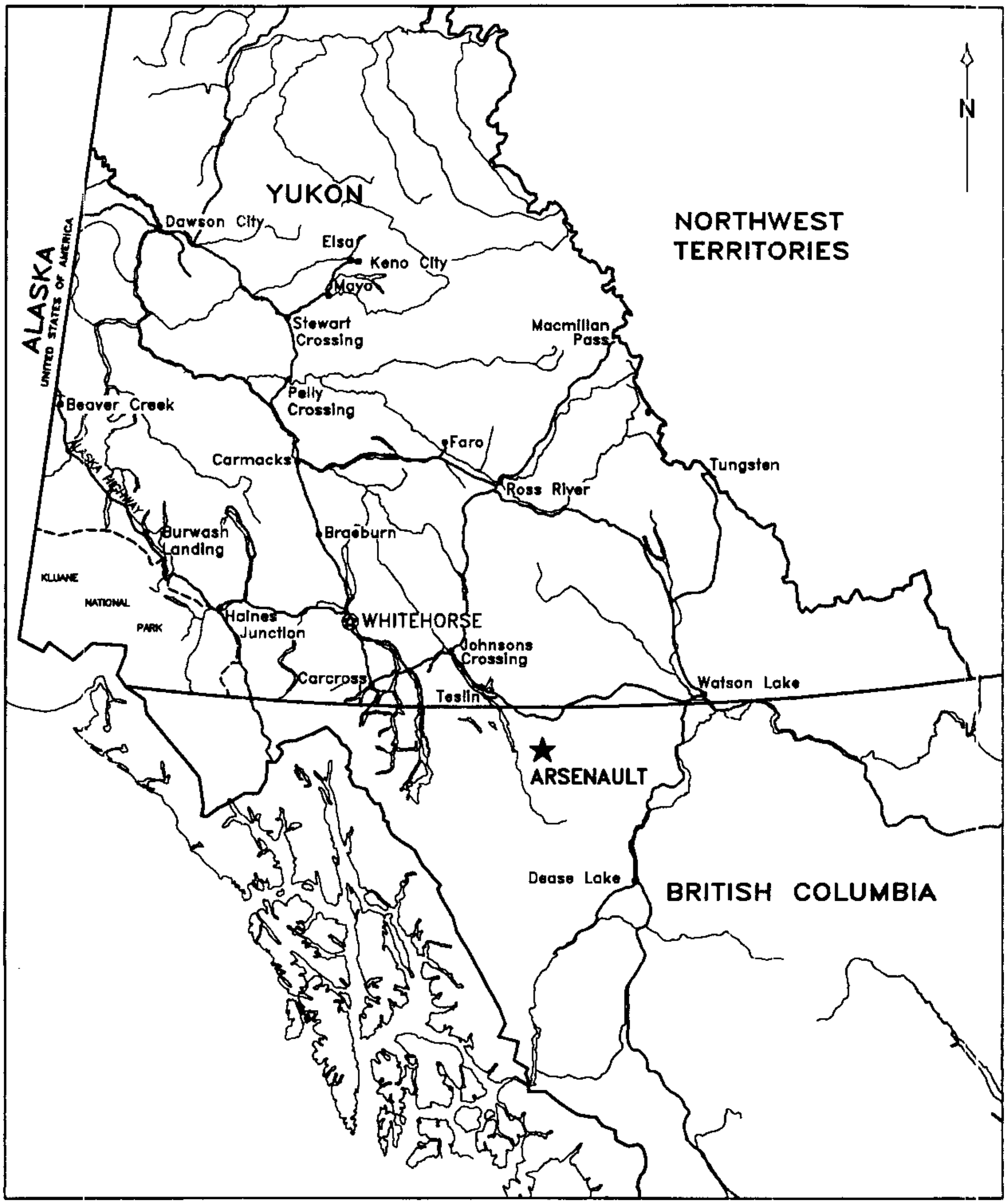
AREA LOCATION AND ACCESS

The area is located in central northern B.C. in the northwestern corner of the Jennings River Map Sheet, NTS 104 O and is situated approximately 14 km south of the Alaska Highway where it crosses the Smart River (see Figure 3).

Access to the area was facilitated by the use of a float plane and a helicopter stationed at the Jennings River Outfitters camp at Pine Lake some 17 km to ENE. Initial reconaissance, prospecting and staking were completed from a float plane accessible camp on Two Lakes which was abandoned in favor of helicopter supported access during subsequent trips due to the excessive time required to traverse on foot from the camp to the main area of investigation. An old access road constructed in 1971 that once connected the property to the Alaska Highway, was not considered for access as the bridge across the Swift River has long since washed out and the road is now somewhat deteriorated.

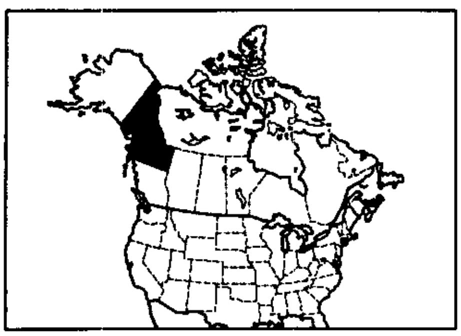
PROPERTY DESCRIPTION

The property currently consists of two 4 post mineral claims each of 20 units that covers 1000 ha. Comprising the majority of the main ridge of Mount Francis the property lies mostly above the 4000 foot level and much of it is above treeline (see Figure 4). The claims are within the Atlin Mining Division and



0 100 200 300
KILOMETRES

Lambert Conformal Conic Projection
with Standard Parallels at 49°N and 77°N

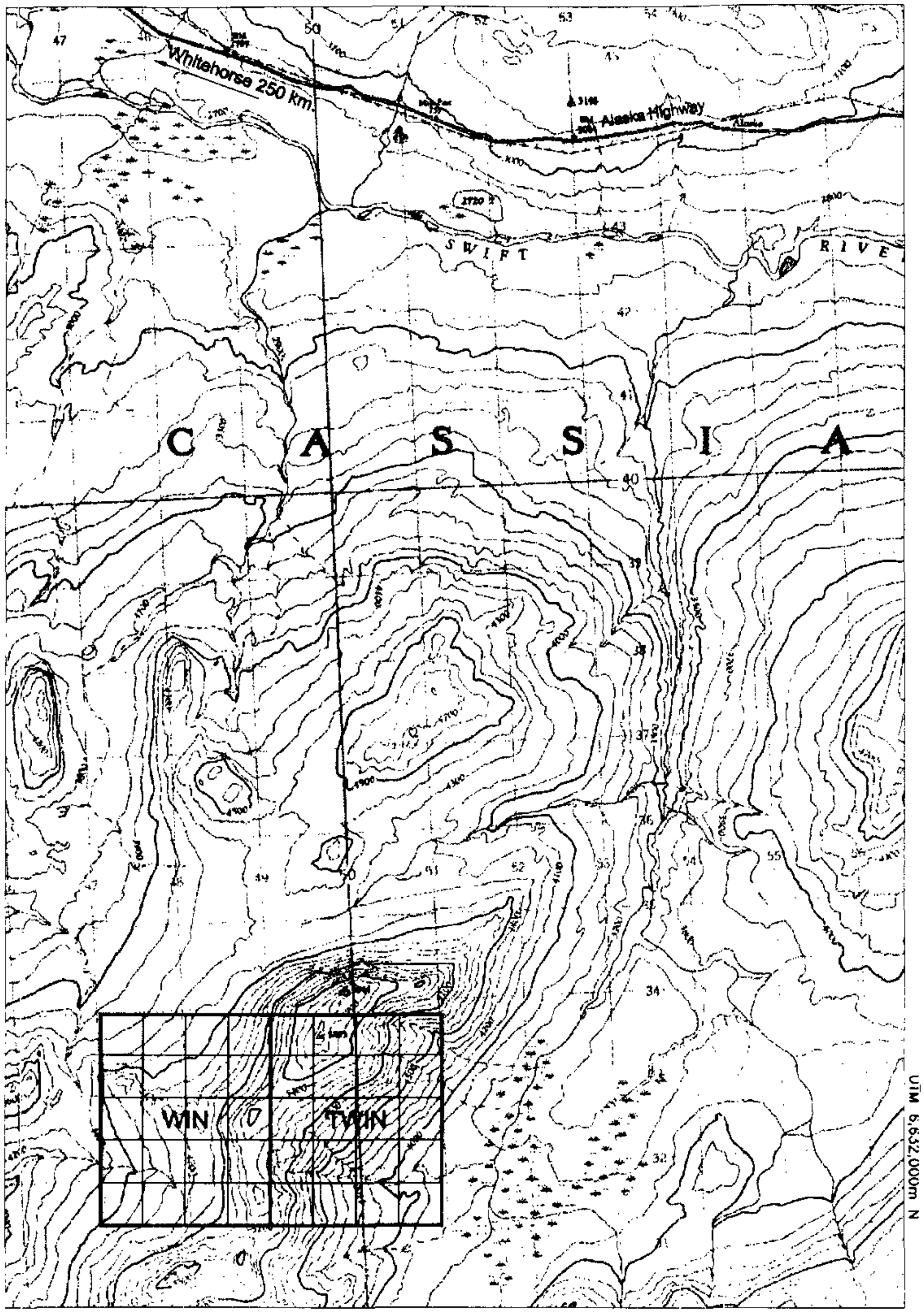


B.C. - PAP, 98/99 - P31

ARSENAULT PROPERTY
Location Map

Steve Traynor, Geologist

SCALE: 1 : 6,000,000	FILE: BC98_3	DATE: 98.12.15
NTS:	DRAWN:	FIGURE 3



LEGEND

- Elevation Contour Interval (100 feet)
- Stream, creek
- Claim group boundary
- Claim line

T.N.

B.C. - PAP, 98/99 - P31		
ARSENAULT PROPERTY Claim Map		
Steve Traynor, Geologist		
SCALE: 1 : 75,000	FILE: BC98_4	DATE: 98.12.15
NTS: 104 O/13	DRAWN:	FIGURE 4

are shown on the Mineral Titles Reference Map 104 O 13E (see Map Pocket).

Claim Data

Name	Tag #	Tenure#	Units/Shape	Staked	Recorded	Expiry Date*	Owner
Twin	218472	363335	20/5Nx4W	June 12, 1998	June 17, 1998	June 17, 2000	S. Traynor
Win	218473	363336	20/5Nx4W	June 13, 1998	June 17, 1998	June 17, 2000	S. Traynor

*Upon filing and acceptance of Evaluation Assesment Report in progress.

PREVIOUS WORK AND EXPLORATION

It is reported by Sawyer (1979) that copper mineralization was discovered in the area by Wilf McKinnon of Hudson's Bay Mining and Smelting in the 1940's. Subsequent work was concentrated on the Arsenault and adjacent claims in the area around Mt. Francis. Geological and geochemical survey work was undertaken in 1967 and included the excavation of 16 trenches, one of which reportedly yielded an assay result of 0.10 oz/ton Au over 3 meters (Sawyer, 1967). Construction of an access road (now washed out at Swift River), airborne and ground geophysical surveying, geochemical surveying, geological mapping and 1080 meters of diamond drilling in 4 holes, between 1970 and 1972 by Bolivar Mining Corp. Ltd., identified sulfide mineralization containing copper and zinc values – but not of commercial grade. Additional drilling of two holes totaling 675.5 meters by Rebel Developments Ltd. was completed in 1979 and 1981, the former of which contained a 27.6 meter intersection of moderate to heavy sulfides which included 6.7 meters that averaged 0.22% Cu. Two reports for Arnica Resources Ltd. by Ross (1989) and Christopher (1990) served to confirm many of the previous analytical results.

For more detailed information the reader is referred to the numerous reports referrence at the end of this report Of note here though is the fact that invariably previous investigations have focused almost exclusively on the limited skarning in the area while the more important massive sulfide potential of the area has been largely ingnored.

REGIONAL AND PROPERTY GEOLOGY

Situated on the Nisutlin Plateau in northern B.C. the area is underlain by an assemblage of volcanic and sedimentary rocks, metamorphosed to greenschist grades, which lie to the east of the Teslin Fault. Lying within the Big Salmon Complex these rocks are thought to represent the southern extension of the Yukon-Tanana terrance which is currently being explored for massive sulfide deposits formed in volcanogenic settings since the discovery of the Kudz ze Kayah deposit of Cominco and the Wolverine deposit of Atna/Expatriate.

Locally on the property a variety of micaceous schists, quartzites and actinolite (chlorite-magnetite) schists are found. The mafic schists occasionally are interbedded with carbonate rich layers and less frequently with quartzites, petrographic analysis of thin sections taken from samples of most of these units suggests intermediate to mafic volcanics as the most likely protoliths.

The diopside-garnet skarn complexes targeted during previous explorations are confined to the east-west trending lower ridge in the western central part of the property and are apparently contained in the upper horizons of the stratigraphy in the area. Although the calc-silicate mineralogy of these rocks is suggestive of skarn, no causative intrusion has been found and the interpretation of available drill logs suggests that the massive sulfide mineralization encountered in the drill holes have a syngentic origin as originally proposed by Sawyer (1979) and favored by Mihalynuk (1998). In fact the presence of hematite and a number of Mn bearing minerals, including piedmontite, associated with sulfide mineralization in greenstone as described in the drill logs for hole 79-2, suggests that this mineralization may in fact be related to the barium-manganese-rich rocks of the crinkle chert unit described by Mihalynuk (1998) which outcrops to the SW of where the drill hole was collared and for which Nelson (1997) has proposed an exhalative origin. This unit forms a distinctive marker horizon throughout much of the project area and at most localities is found to be underlain by carbonate and overlain by greenstone.

Mineralization consisting mainly of pyrite and chalcopyrite is dominant and is found at surface associated with the actinolite (chlorite) schists and the quartzites and occurs mainly as fine disseminations and blebs, but occassionally as semi-massive accumulations. Some samples contain late carbonate and chlorite veinlets which cut across the metamorphic fabric, but the chalcopyrite (where present) shows no obvious relationship to these and appears to belong to an earlier phase of mineralization (B Northcote, personal communication see Appendix C), suggesting that it was deposited contemperaneously with the volcano-sedimentary lithologies that host it.

Chalcopyrite is also found associated with the 'Arsenault' dacite tuff of Mihalynuk (1998), the unit that apparently hosts two other chalcopyrite occurrences first identified by Sawyer in 1967 that appear to have received little attention since.

DESCRIPTION AND SUMMARY OF WORK

Investigations during the 1998 field season focussed on evaluating the claims staked in the Mount Francis area for their potential to host volcanogenic massive sulfides. Orientation and reconaissance of the property were carried out in conjunction with staking during mid June. Preliminary prospecting revealed widespread disseminated sulfide mineralization and a number of lithologies of specific interest.

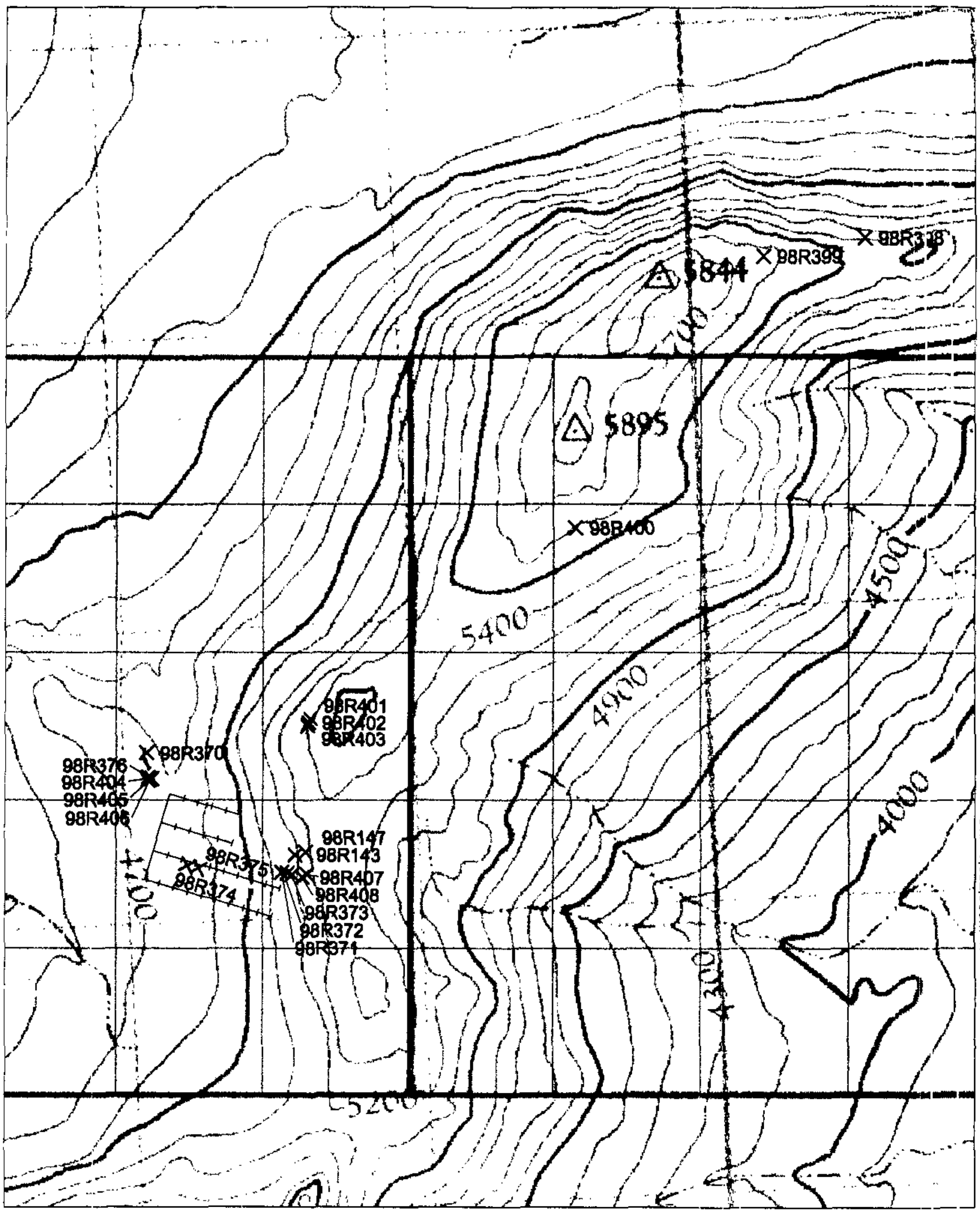
Following a review of the existing data, more detailed prospecting and sampling was carried out on the western flank of the mountain in an area overlooking the site(s) of previous investigations (see Figure 5). This phase of the evaluation involved the collection, for analysis, of 54 soil samples from an area that had previously produced a number of interesting Cu values and grab sampling of various lithologies in the immediate area. In addition, core available on the property from the 1971 drilling program was studied and sampled. Unfortunately, core from the 1979 and 1981 drilling which contained the reported massive sulfide intersections was not located on the property and subsequent inquires in Whitehorse failed to determine its whereabouts. The collection of the soil samples involved the digging of small pits with a mattock to remove obstructing talus and/or felsmeer, followed by drilling with a hand auger to obtain good samples of B horizon material wherever possible.

Two additional days were spent in followup on the property in mid September and involved additional prospecting and sampling on the main ridge of the mountain and around the gridded area sampled in June to determine if extensions to zones identified at that time could be extended along strike.

ANALYSIS AND RESULTS

Analysis of sampled material produced numerous highly significant results, particularily from the the upper ridge area. Rock sample descriptions, complete analytical results and methodology and selected thin section descriptions and petrographic reports are presented in the Appendicies of this report.

The results of the soil geochemistry show a number of well defined copper anomalies within the gridded area (see Figure 6) that appearently parrallel the prevailing strike in this area and are open along strike. This reconnaissance work produced a peak value of 1122 ppm for copper and the resultant



UTM 349,000m E

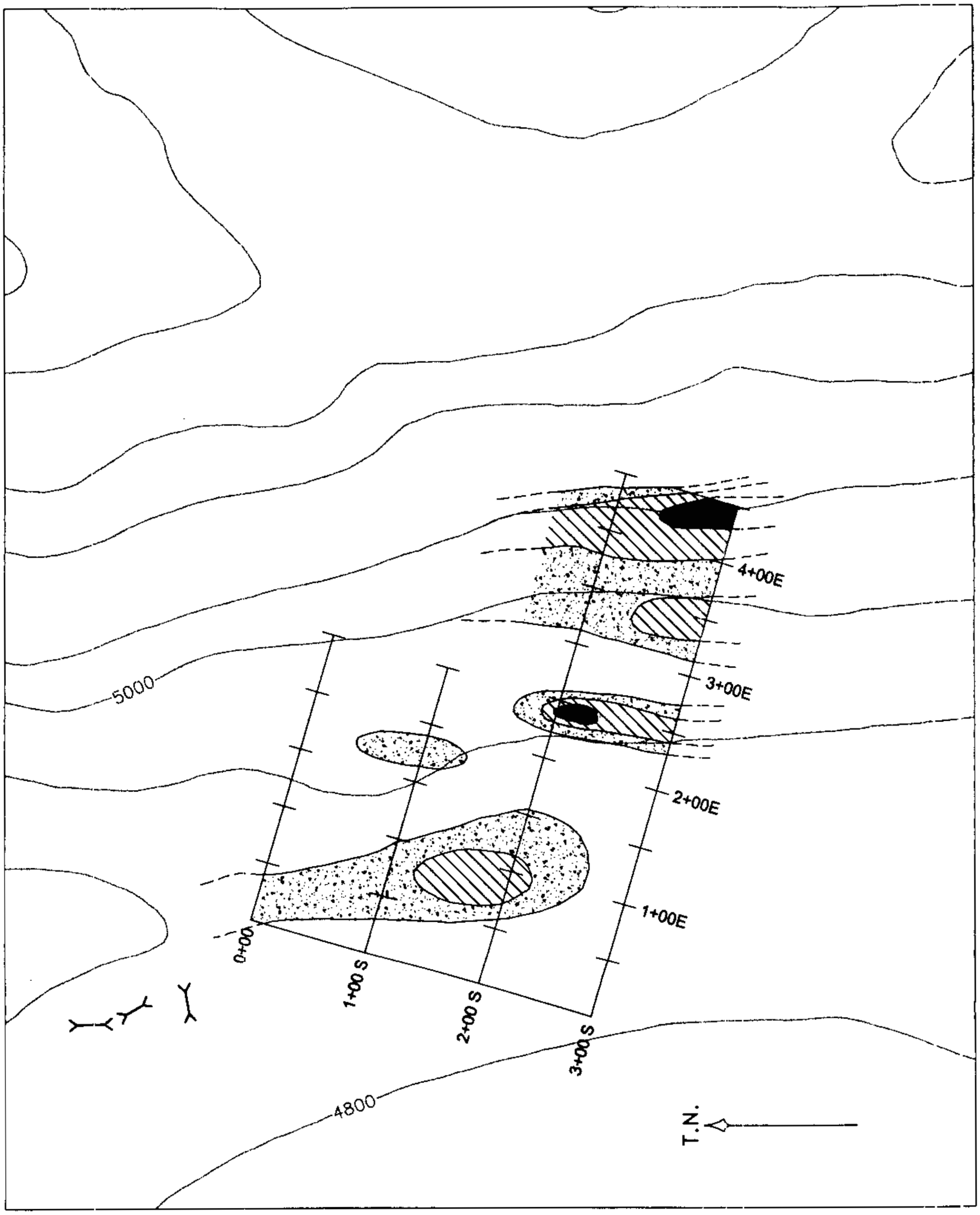
0 250 500 750 1000
METRES

LEGEND

- Elevation Contour Interval (100 feet)
- Stream, creek
- Claim group boundary
- Claim line
- X 98R060 Rock sample location, number

T.N.

B.C. - PAP, 98/99 - P31		
ARSENAULT PROPERTY Sample Location Map		
Steve Traynor, Geologist		
SCALE: 1 : 20,000	FILE: BC98_5	DATE: 98.12.17
NTS: 104 O/13	DRAWN:	FIGURE 5



0 50 100 150 200

METRES

LEGEND

Elevation Contour Interval (100 feet)

Cu – ≥ 600 ppm

Cu – 400–599 ppm

Cu – 200–399 ppm

B.C. - PAP, 98/99 - P31		
ARSENAULT PROPERTY Copper Geochem in Soils - Grid Area		
Steve Traynor, Geologist		
SCALE: 1 : 5,000	FILE: BC98_6	DATE: 99.01.13
NTS: 104 O/13	DRAWN:	FIGURE 6

anomalies, which occur in proximity to numerous grab samples of actinoloite-chlorite schist that returned very high values for copper and gold, are probably derived from this unit. Au and possibly Co may show some correlation with Cu in soils, but a larger sample population will be necessary before this can readily be determined.

Chip sampling of an old trench just NW of the soil grid, which contained quartzite showing abundant malachite staining, returned 0.46% Cu and 1.3g/t Au over 7.5 meters. Petrographic analysis of this unit suggests a protolith that was probably a mafic to intermediate volcanic.

Descriptions from drill logs and historic reports suggests that the actinolite-chlorite schist sampled from the upper ridge area is quite probably the same unit ("mafic D unit") that contained the massive sulfide mineralization intersected during the 1979 and 1981 drill programs. This unit has been found in mineralized outcrop (high Cu and elevated Au) over an extended strike length and occurs over the entire 2+ km. length of the main ridge (Mihalynuk (unpublished mapping and field notes)).

CONCLUSIONS AND RECOMMENDATIONS

Compilation of the results of the 1998 work program in conjunction with a re-evaluation of existing data has shown that the Arsenault property has a high probability of hosting volcanogenic massive sulfide mineralization. Reconaissance soil sampling and lithological grab sampling have revealed a highly anomalous and mineralized band of intermediate to mafic volcanic rocks exposed on the ridge overlooking the area in which previous investigations were focused.

This band of rock which includes carbonate altered quartzites and schists, including an actinolite-chlorite-(magnetite) rich member thought to host the massive sulfide mineralization previously intersected on the property, is known to occur along the entire length of the main Mt. Francis ridge. A review of two geophysical reports by Walcott (1970 and 1972) shows a well defined linear magnetic trend coincident with the inferred extent of these rocks. Further analysis of I.P. data from the same reports shows the presence of a number of strong anomalies also associated with this trend that show good correlation with the elevated soil geochemical responses discussed above.

In light of the numerous positive indications of the potential for mineralization on the property further work is definitely recommended. Grid development and additional soil geochemical sampling should be completed to close off the open anomalies identified during the 1998 season. In addition and

REFERENCES

Christopher, Peter A., 1990: Geological, Geochemical, Geophyscial and Trenching Report on the Fidelity Prospect; B.C. Ministry of Energy, Mines and Petroleum Resources, Assessment Report 20137.

Geological Survey of Canada, 1978: Stream Sediment and Water Geochemical Survey (104N), northern British Columbia, Open File 517.

Geological Survey of Canada, 1978: Stream Sediment and Water Geochemical Survey (104O), northern British Columbia, Open File 561.

Mihalynuk, M. and Nelson, J.L., 1998: Regional Geology and Mineralization of the Big Salmon Complex (104N NE and 104O NW), in Geological Fieldwork 1997, B.C. Ministry of Employment and Investment, Paper 1998-1.

MINFILE, 1988: Jennings River Mineral Occurrence Map, Ministry of Energy, Mines and Petroleum Resources; Minfile Map 104O.

Nelson, J., 1997: Last Seen Heading South: Extensions of the Yukon-Tanana into Northern British Columbia; in Geological Fieldwork 1996, B.C. Ministry of Employment and Investment, Paper 1997-1.

Phendler, R.W., 1982: Report on Assessment Work (Diamond Drilling) on the Arsenault #1, #2 and #3 Claims; B.C. Ministry of Energy, Mines and Petroleum Resources, Assessment Report 10411.

Ross, Katherina, 1989: Assessment Report on the Ram Group of Mineral Claims; B.C. Ministry of Energy, Mines and Petroleum Resources, Assessment Report 19082.

Sawyer, J.B.P., 1967: Geological, Geochemical and Geophysical Report for Assessment Credit on the Top Claim Group; B.C. Ministry of Energy, Mines and Petroleum Resources, Assessment Report 1149.

Sawyer, J.B.P., 1979: Report on the 1979 Drilling Program on the Arsenault Claims Copper Prospect; B.C. Ministry of Energy, Mines and Petroleum Resources, Assessment Report 8022.

Turnbull, I. and Simpson, J.G., 1970: Report on a Geochemical Survey and Physical Work on the Top Claim Group; B.C. Ministry of Energy, Mines and Petroleum Resources, Assessment Report 8022.

Walcott, Peter E., 1970: A Report on Ground Magnetic and Induced Polarization Surveys; B.C. Ministry of Energy, Mines and Petroleum Resources, Assessment Report 3014.

Walcott, Peter E., 1972: A Report on Ground Magnetic and Induced Polarization Surveys; B.C. Ministry of Energy, Mines and Petroleum Resources, Assessment Report 3502.

APPENDIX B

ROCK SAMPLE REPORT

ROCK SAMPLE REPORT

SAMPLE NUMBER	SAMPLE LOCATION	SAMPLE DESCRIPTION	ANALYTICAL HIGHLIGHTS
SWIFT RIVER SAMPLES			
98R013	East of Mt. Hazel	Quartz-sericite-piedmontite schist.	Highly elevated Mn (5434 ppm) and Ba (7828 ppm)
98R058	Burrow Pit at start of Logtung Road	Chip sample of argilliceous quartz-sericite schist, with disseminated pyrite and traces of chalcopyrite.	
98R059	Burrow Pit at start of Logtung Road	Brecciated (?) graphitic schist with quartz veining and sulfides.	Highly anomalous Cu, Co and Sb.
ARSENAULT SAMPLES			
98R143	Ridge above soil grid	Silicified actinolite (chlorite) schist with 2% sulfides.	Highly elevated Cu (9754 ppm) and anomalous Au and Ag values.
98R147	Ridge above soil grid	Chlorite-biotite schist with minor quarzite, showing malachite staining.	Very high Cu (9772 ppm) and Au (121ppb)
98R365	Eastern edge of claim block	Float, chlorite-magnetite schist with 8% sulfides including pyrite, chalcopyrite and bornite (?).	Elevated Cu value of 549 ppm.
98R366	Core - DDH 71-4 at ~240 ft.	Quartz-chlorite-magnetite schist with 15% sulfides, mainly pyrite with minor chalcopyrite.	Elevated Cu values.
98R367	Core - DDH 71-4 at ~500 ft.	Chlorite rich quartzite with 2-3% chalcopyrite as disseminations. Non magnetic.	Elevated Cu and Au values.
98R368	Core - DDH 71-4 at ~930 to 933 ft.	Chlorite-magnetite schist with some quartz with 15-20% disseminated to semi-massive sulfides, mostly pyrite.	Elevated Cu, Co and Au values.
98R369	Core - DDH 71-4 at ~360 ft.	Quartz>chlorite>biotite schist with 3% sulfides, including pyrite, chalcopyrite and bornite (?).	Elevated Cu values.
98R370	Trench 8	Slightly skarnified chloritic schist with 4% sulfides.	High Cu and Au values (5114ppm and 147 ppb, respectively)
98R371	Ridge above soil grid	Actinolite >>chlorite schist with 5% finely disseminated sulfides, showing minor malachite staining.	
98R372	Ridge above soil grid	Taken from 3-5m wide band of iron stained talus, rock is quite chloritic and shows abundant malachite stain.	Elevated Cu values.
98R373	Ridge above soil grid	Very fine grained, silicified chloritic rock that is moderately magnetic. It is interbedded with quartz>>sericite schist.	Elevated Cu, Au and Hg values.
98R374	215 S/125 E on the soil grid	Large felsemeer blocks of quartz>>biotite schist with some chlorite developed. Sulfides to 5% with minor chalcopyrite.	
98R375	212 S/259 E on the soil grid	Grey quartz>>biotite schist that appears chloritized with 2% sulfides and minor malachite staining.	High Cu (7879 ppm) and elevated Au.
98R376	Trench 10	Massive, recrystalized (?) quartzite with 6% sulfides, including pyrite and chalcopyrite with malachite staining.	Very high Cu (1.3%), Au (1479 ppb) values and Hg (112ppb) values..
98R377	Ridge above soil grid	Well silicified, finely laminated argillite (?) float with 2% sulfides.	
98R398	North end of Mount Francis	Chloritized quartzite with finely disseminated sulfides.	
98R399	North end of Mount Francis	Greyish quartzite with 5% sulfides along schistosity and blebs throughout, mostly pyrite and pyrrhotite.	

ROCK SAMPLE REPORT, continued

SAMPLE NUMBER	SAMPLE PARTICULARS	SAMPLE DESCRIPTION	ANALYTICAL HIGHLIGHTS
98R400	Central part of main ridge	Slightly chloritic fine grained quartzite with 2% disseminated sulfides.	Elevated Cu values.
98R401	West flank of main ridge	1/2m thick layer of chloritic actinolite (?) schist bedded with carbonate rich layer. Sulfide content to 30% is semi-massive pyrite and chalcopyrite.	High Cu (4689 ppm) and elevated Au values
98R402	West flank of main ridge	Same as 98R401, 5m along strike to the SW.	Elevated Cu an Co values.
98R403	West flank of main ridge	Same as 98R401, 10m along strike to the SW.	High Cu (4325 ppm) and elevated Au values
98R404	Trench 10	2.5m chip sample of massive recrystalized quartzite.	98R404, 405 & 406 average 0.46% Cu and 1.3g/t Au over 7.5 m width.
98R405	Trench 10	2.5m chip sample of massive recrystalized quartzite.	98R404, 405 & 406 average 0.46% Cu and 1.3g/t Au over 7.5 m width.
98R406	Trench 10	2.5m chip sample of massive recrystalized quartzite.	98R404, 405 & 406 average 0.46% Cu and 1.3g/t Au over 7.5 m width.
98R407	Ridge above soil grid	Thinly laminated, very schistose actinolite schist showing abundant malachite staining and sulfides to 2%.	Very high Cu (9099 ppm) and Au (307 ppb) values.
98R408	Ridge above soil grid	Similar to 98R407 but contains some interbedded quartzite and is magnetic.	Anomalous Cu values.

APPENDIX C

CERTIFICATES
OF
ANALYSIS

ITS Intertek Testing Services
Bondar Clegg

Geochemical
Lab
Report

MR. STEVE TRAYNOR
BOX 4375
WHITEHORSE, YUKON
Y1A 3T5

Intertek Testing Services
Bondar Clegg

Geochemical
Lab
Report

REPORT: V98-00959.0 (COMPLETE)

REFERENCE:

CLIENT: MR. STEVE TRAYNOR

PROJECT: SWIFT RIVER

SUBMITTED BY: S. TRAYNOR

DATE RECEIVED: 22-JUN-98 DATE PRINTED: 9-JUL-98

DATE APPROVED	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION	EXTRACTION	METHOD
980709	1 Au30	Gold	21	5 PPB	Fire Assay of 30g	30g Fire Assay - AA
980709	2 Ag	Silver	2	0.5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	3 Cu	Copper	2	1 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	4 Pb	Lead	2	2 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	5 Zn	Zinc	2	2 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	6 Mo	Molybdenum	2	1 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	7 Ni	Nickel	2	1 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	8 Co	Cobalt	2	1 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	9 Cd	Cadmium	2	1 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	10 Bi	Bismuth	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	11 As	Arsenic	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	12 Sb	Antimony	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	13 Fe Tot	Total Iron	2	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	14 Mn	Manganese	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	15 Te	Tellurium	2	25 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	16 Ba	Barium	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	17 Cr	Chrome	2	2 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	18 V	Vanadium	2	2 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	19 Sn	Tin	2	20 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	20 W	Tungsten	2	20 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	21 Li	Lithium	2	2 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	22 Ga	Gallium	2	10 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	23 La	Lanthanum	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	24 Sc	Scandium	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	25 Ta	Tantalum	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	26 Ti	Titanium	2	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	27 Al	Aluminum	2	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	28 Mg	Magnesium	2	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	29 Ca	Calcium	2	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	30 Na	Sodium	2	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	31 K	Potassium	2	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	32 Nb	Niobium	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	33 Sr	Strontium	2	1 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	34 Y	Yttrium	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	35 Zr	Zirconium	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980709	36 Ag	Silver	19	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980709	37 Cu	Copper	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	38 Pb	Lead	19	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	39 Zn	Zinc	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	40 Mo	Molybdenum	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	41 Ni	Nickel	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	42 Co	Cobalt	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	43 Cd	Cadmium	19	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	44 Bi	Bismuth	19	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	45 As	Arsenic	19	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	46 Sb	Antimony	19	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	47 Fe	Iron	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	48 Mn	Manganese	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	49 Te	Tellurium	19	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	50 Ba	Barium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	51 Cr	Chromium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	52 V	Vanadium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	53 Sn	Tin	19	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	54 W	Tungsten	19	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	55 La	Lanthanum	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	56 Al	Aluminum	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	57 Mg	Magnesium	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	58 Ca	Calcium	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	59 Na	Sodium	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	60 K	Potassium	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	61 Sr	Strontium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	62 Y	Yttrium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	63 Ga	Gallium	19	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	64 Li	Lithium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	65 Nb	Niobium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	66 Sc	Scandium	19	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	67 Ta	Tantalum	19	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	68 Ti	Titanium	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	69 Zr	Zirconium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLA
980709	70 Ba	Barium	1	10 PPM	Pressed Pellet	XRAY FLUORESCENC

ITS Intertek Testing Services
Bondar Clegg

Geochemical Lab Report

REPORT: V98-00959.0 (COMPLETE)

REFERENCE:

CLIENT: MR. STEVE TRAYNOR
PROJECT: SWIFT RIVER

SUBMITTED BY: S. TRAYNOR
DATE RECEIVED: 22-JUN-98 DATE PRINTED: 9-JUL-98

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
S SOIL	15	1 -80	18	DRY, SIEVE -80	18
T STREAM SED, SILT	3	2 -150	3	CRUSH ONLY	3
R ROCK	3			PULVERIZE 500 G	3

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ITS Intertek Testing Services
Bondar Clegg

Geochemical Lab Report

CLIENT: MR. STEVE TRAYNOR PROJECT: SWIFT RIVER
REPORT: V98-00959.0 (COMPLETE) DATE RECEIVED: 22-JUN-98 DATE PRINTED: 9-JUL-98 PAGE 1A(1/ 6)

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe Tot PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	Li PPM	Ga PPM	La PPM	Sc PPM	Ta PPM	Ti PCT	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Nb PPM	Sr PPM	Y PPM	Zr PPM	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mc PPM
98S015		19																																			<.2	41	9	64	2
98S017		9																																			<.2	22	5	35	<1
98S018		7																																			<.2	14	3	28	<1
98S022		<5																																			<.2	10	4	32	1
98S023		<5																																			<.2	11	4	53	1
98S024		<5																																			<.2	11	6	44	1
98S025		7																																			<.2	32	3	55	3
98S026		<5																																			<.2	20	5	77	2
98S027		<5																																			<.2	25	3	53	1
98S035		<5																																			<.2	9	16	75	2
98S036		37																																			<.2	27	49	81	2
98S037		<5																																			<.2	6	10	46	<1
98S038		6																																			<.2	29	11	74	2
98S039		53																																			<.2	13	7	67	2
98S040		<5																																			<.2	15	4	32	1
98S054		<5																																			<.2	30	5	87	1
98S055		6																																			<.2	32	4	98	1
98S056		<5																																			<.2	34	5	99	1
98R013		<5																																			<.2	15	8	22	2
98R058		<5	<.5	23	8	41	3	24	8	<1	<5	<5	<5	2.61	755	<25	202	364	24	<20	<20	5	<10	15	<5	<5	0.12	2.53	0.81	1.78	0.20	0.93	5	71	6	27					
98R059		10	<.5	841	7	75	<1	15	129	<1	<5	135	<5	>10.00	577	<25	170	172	93	<20	212	16	<10	<5	11	<5	0.22	5.89	1.07	0.22	1.76	0.54	9	91	7	16					

CLIENT: MR. STEVE TRAYNOR

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SAMPLE NUMBER / ELEMENT	Ni	Co	Cd	Bi	As	Sb	Fe	Mn	Te	Ba	Cr	V	Sn	W	La	Al	Mg	Ca	Na	K	Sr	Y	Ga	Li	Nb	Sc	Ta	Ti	Zr	Ba
UNITS	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PCT	PCT	PCT	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PPM	PPM
98S015	35	13	0.4	<5	16	<5	3.19	632	<10	156	27	38	<20	<20	19	1.42	0.66	1.23	0.02	0.19	41	11	<2	13	3	<5	<10	0.09	3	
98S017	21	8	<.2	<5	9	<5	1.99	278	<10	130	26	33	<20	<20	20	1.10	0.38	0.32	0.01	0.09	18	13	<2	11	1	<5	<10	0.07	5	
98S018	19	5	<.2	<5	6	<5	1.61	167	<10	79	19	27	<20	<20	14	0.88	0.33	0.22	0.01	0.06	12	4	<2	8	2	<5	<10	0.07	2	
98S022	19	10	0.2	<5	12	<5	2.41	205	<10	82	24	39	<20	<20	15	1.26	0.33	0.14	<.01	0.06	9	3	<2	11	2	<5	<10	0.07	3	
98S023	20	8	0.5	<5	12	<5	2.20	212	<10	74	21	32	<20	<20	11	1.10	0.39	0.21	0.01	0.07	11	3	<2	11	2	<5	<10	0.05	<1	
98S024	24	10	<.2	<5	11	<5	2.74	317	<10	132	28	43	<20	<20	14	1.71	0.40	0.28	0.01	0.08	20	4	3	12	2	<5	<10	0.08	3	
98S025	34	11	<.2	<5	10	<5	3.73	234	<10	100	28	36	<20	<20	17	1.53	0.40	0.45	0.01	0.08	25	15	<2	34	2	<5	<10	0.07	1	
98S026	28	9	0.3	<5	10	<5	2.98	263	<10	223	36	50	<20	<20	18	2.32	0.46	0.52	0.01	0.14	18	9	4	15	3	<5	<10	0.08	8	
98S027	14	9	0.2	<5	5	<5	3.12	346	<10	244	17	49	<20	<20	15	2.25	0.93	0.76	0.01	0.14	31	13	3	14	2	<5	<10	0.09	3	
98S035	32	11	0.3	<5	36	<5	5.85	532	<10	97	12	16	<20	<20	44	1.30	0.13	0.25	<.01	0.05	15	11	<2	6	1	<5	<10	<.01	<1	
98S036	60	23	0.4	<5	61	<5	7.52	741	<10	103	21	28	<20	<20	21	1.76	0.24	0.21	<.01	0.05	12	19	<2	8	1	5	<10	0.03	3	
98S037	12	6	<.2	<5	8	<5	2.11	177	<10	64	20	30	<20	<20	13	1.14	0.29	0.33	0.01	0.06	18	4	2	10	2	<5	<10	0.08	1	
98S038	34	14	0.6	<5	22	<5	3.72	428	<10	111	31	45	<20	<20	13	1.89	0.59	0.26	0.01	0.10	14	5	<2	20	2	<5	<10	0.08	3	
98S039	17	8	0.4	<5	22	<5	4.03	231	<10	51	32	68	<20	<20	15	1.31	0.41	0.19	<.01	0.07	12	3	3	16	2	<5	<10	0.09	1	
98S040	23	7	<.2	<5	10	<5	1.89	199	<10	111	23	30	<20	<20	14	1.26	0.37	0.22	0.01	0.07	14	4	<2	10	<1	<5	<10	0.07	4	
98S054	22	12	0.3	<5	15	<5	3.47	2145	<10	220	26	49	<20	<20	12	1.46	0.64	0.72	0.01	0.09	33	8	<2	11	1	<5	<10	0.09	<1	
98S055	23	11	0.4	<5	11	<5	3.23	1642	<10	223	29	46	<20	<20	13	1.60	0.65	0.92	0.02	0.11	40	11	<2	11	2	<5	<10	0.09	<1	
98S056	23	10	0.5	<5	12	<5	3.20	1340	<10	210	30	45	<20	<20	14	1.57	0.63	0.93	0.01	0.11	40	11	<2	11	2	<5	<10	0.09	<1	
98R013	18	5	<.2	<5	8	<5	0.87	5434	<10	>2000	307	2	<20	<20	4	0.83	0.19	0.94	<.01	0.01	146	3	3	3	<1	<5	<10	0.04	<1	7828
98R058																														
98R059																														

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PROJECT: SWIFT RIVER
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STANDARD NAME	ELEMENT UNITS: Au30 PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe Tot PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	Li PPM	Ga PPM	La PPM	Sc PPM	Ta PPM	Ti PCT	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Nb PPM	Sr PPM	Y PPM	Zr PPM	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM
ANALYTICAL BLANK	<5	<.5	<1	<2	<2	<1	<1	<1	<1	<5	<5	<5	<0.01	<5	<25	<5	<2	<2	<20	<20	<2	<10	<5	<5	<5	<.01	<.01	<.01	<.01	0.03	<.01	<5	3	<5	<5	<.2	<1	<2	<1	<1
Number of Analyses	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value	3	0.3	0.5	1	1	0.5	0.5	0.5	0.5	3	3	3	0.005	3	13	3	1	1	10	10	1	5	3	3	3	.005	.005	.005	.005	0.03	.005	3	3	3	3	0.1	0.5	1	0.5	0.5
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	5	0.2	1	2	1	1	1	1	0.5	2	5	5	0.05	1	.01	.01	1	1	.01	.01	.01	.01	.01	.01	.01	<.01	-	<.01	<.01	-	<.01	.01	.01	.01	.01	0.2	1	2	1	1
Garnet Ref.Material	393	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value	393	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BCC GEOCHEM STD 4	-	0.5	262	32	224	3	40	10	<1	<5	28	<5	2.94	553	<25	372	122	26	<20	<20	9	<10	<5	11	<5	0.09	5.69	1.23	1.36	1.76	1.21	<5	76	10	71	0.5	257	28	221	3
Number of Analyses	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value	-	0.5	262	32	224	3	40	10	0.5	3	28	3	2.94	553	13	372	122	26	10	10	9	5	3	11	3	0.09	5.69	1.23	1.36	1.76	1.21	3	76	10	71	0.5	257	28	221	3
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	0.5	290	33	255	4	42	9	0.8	1	30	1	2.81	600	-	305	136	29	5	1	10	8	8	12	1	0.12	6.88	1.34	1.43	1.82	0.89	7	90	8	68	0.5	290	33	255	4
CANMET SO-2 REF STD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Granite - Cert.Ref.M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CLIENT: MR. STEVE TRAYNOR PROJECT: SWIFT RIVER

REPORT: V98-00959.0 (COMPLETE) DATE RECEIVED: 22-JUN-98 DATE PRINTED: 9-JUL-98

STANDARD NAME	ELEMENT UNITS	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM	Ba PPM
ANALYTICAL BLANK		<1	<1	<.2	<5	<5	<5	<.01	<1	<10	<1	<1	<1	<20	<20	<1	<.01	<.01	<.01	<.01	<.01	<1	<1	<2	<1	<1	<5	<10	<.01	<1	-
Number of Analyses		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-
Mean Value		0.5	0.5	0.1	3	3	3	.005	0.5	5	0.5	0.5	0.5	10	10	0.5	.005	.005	.005	.005	.005	0.5	0.5	1	0.5	0.5	3	5	.005	0.5	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		1	1	0.1	2	5	5	0.05	1	.01	0.005	1	1	.01	.01	.01	<.01	<.01	<.01	<.01	<.01	.01	.01	.01	.01	.01	.01	.01	<.01	.01	.005
Garnet Ref.Material		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BCC GEOCHEM STD 4		36	8	0.9	<5	23	<5	2.69	538	<10	55	67	7	<20	<20	3	0.76	1.16	1.40	0.05	0.13	38	3	<2	5	<1	<5	<10	<.01	7	-
Number of Analyses		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-
Mean Value		36	8	0.9	3	23	3	2.69	538	5	55	67	7	10	10	3	0.76	1.16	1.40	0.05	0.13	38	3	1	5	0.5	3	5	.005	7	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		42	9	0.8	1	30	1	2.60	600	0.1	55	80	9	5	1	4	0.77	1.34	1.43	0.05	0.14	39	4	2	7	1	12	1	0.01	8	420
CANMET SO-2 REF STD		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1086
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Mean Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1086
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1000
Granite - Cert.Ref.M		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1437
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Mean Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1437
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1400

ITS Intertek Testing Services
Bondar Clegg

Geochemical Lab Report

CLIENT: MR. STEVE TRAYNOR
REPORT: V98-00959.0 (COMPLETE)

PROJECT: SWIFT RIVER
DATE RECEIVED: 22-JUN-98 DATE PRINTED: 9-JUL-98

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe Tot PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	Li PPM	Ga PPM	La PPM	Sc PPM	Ta PPM	Ti PCT	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Nb PPM	Sr PPM	Y PPM	Zr PPM	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM
98S035		<5																																			<.2	9	16	75	2
Duplicate																																					<.2	10	15	76	2
98R059		10	<.5	841	7	75	<1	15	129	<1	<5	135	<5	>10.00	577	<25	170	172	93	<20	212	16	<10	<5	11	<5	0.22	5.89	1.07	0.22	1.76	0.54	9	91	7	16					
Duplicate		10																																							

Geochemical Lab Report

CLIENT: MR. STEVE TRAYNOR
PROJECT: SWIFT RIVER
REPORT: V98-00959.0 (COMPLETE)
DATE RECEIVED: 22-JUN-98 DATE PRINTED: 9-JUL-98

SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM	Ba PPM
98S035		32	11	0.3	<5	36	<5	5.85	532	<10	97	12	16	<20	<20	44	1.30	0.13	0.25	<.01	0.05	15	11	<2	6	1	<5	<10	<.01	<1	
Duplicate		32	11	0.4	<5	36	<5	5.86	535	<10	97	12	17	<20	<20	44	1.31	0.13	0.25	<.01	0.05	15	12	<2	6	<1	<5	<10	0.01	<1	
98R059																															
Duplicate																															

Bondar-Clegg & Company Ltd., 130 Pemberton Avenue, North Vancouver, B.C., V7P 2R5, (604) 985-0681

Intertek Testing Services

Bondar Clegg

Geochemical
Lab
Report

MR. STEVE TRAYNOR
BOX 4375
WHITEHORSE, YUKON
Y1A 3T5

ITS Intertek Testing Services
Bondar Clegg

Geochemical Lab Report

REPORT: V98-01535.1 (COMPLETE)

REFERENCE:

CLIENT: MR. STEVE TRAYNOR

PROJECT: ARSENAULT

SUBMITTED BY: S. TRAYNOR

DATE RECEIVED: 26-AUG-98 DATE PRINTED: 4-SEP-98

DATE APPROVED	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION	EXTRACTION	METHOD
980902	1 Au30	Gold	3	5 PPB	Fire Assay of 30g	30g Fire Assay - AA
980902	2 Ag	Silver	1	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	3 Cu	Copper	1	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	4 Pb	Lead	1	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	5 Zn	Zinc	1	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	6 Mo	Molybdenum	1	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	7 Ni	Nickel	1	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	8 Co	Cobalt	1	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	9 Cd	Cadmium	1	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	10 Bi	Bismuth	1	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	11 As	Arsenic	1	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	12 Sb	Antimony	1	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	13 Fe	Iron	1	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	14 Mn	Manganese	1	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	15 Te	Tellurium	1	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	16 Ba	Barium	1	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	17 Cr	Chromium	1	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	18 V	Vanadium	1	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	19 Sn	Tin	1	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	20 W	Tungsten	1	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	21 La	Lanthanum	1	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	22 Al	Aluminum	1	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	23 Mg	Magnesium	1	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	24 Ca	Calcium	1	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	25 Na	Sodium	1	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	26 K	Potassium	1	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	27 Sr	Strontium	1	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	28 Y	Yttrium	1	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	29 Ga	Gallium	1	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	30 Li	Lithium	1	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	31 Nb	Niobium	1	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	32 Sc	Scandium	1	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	33 Ta	Tantalum	1	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	34 Ti	Titanium	1	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	35 Zr	Zirconium	1	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980902	36 Ag	Silver	2	0.5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA
980902	37 Cu	Copper	2	1 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	38 Pb	Lead	2	2 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	39 Zn	Zinc	2	2 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	40 Mo	Molybdenum	2	1 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	41 Ni	Nickel	2	1 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	42 Co	Cobalt	2	1 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	43 Cd	Cadmium	2	1 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	44 Bi	Bismuth	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	45 As	Arsenic	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	46 Sb	Antimony	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	47 Fe Tot	Total Iron	2	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	48 Mn	Manganese	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	49 Te	Tellurium	2	25 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	50 Ba	Barium	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	51 Cr	Chrome	2	2 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	52 V	Vanadium	2	2 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	53 Sn	Tin	2	20 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	54 W	Tungsten	2	20 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	55 La	Lanthanum	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	56 Al	Aluminum	2	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	57 Mg	Magnesium	2	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	58 Ca	Calcium	2	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	59 Na	Sodium	2	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	60 K	Potassium	2	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	61 Sr	Strontium	2	1 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	62 Y	Yttrium	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	63 Ga	Gallium	2	10 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	64 Li	Lithium	2	2 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	65 Nb	Niobium	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	66 Sc	Scandium	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	67 Ta	Tantalum	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	68 Ti	Titanium	2	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA
980902	69 Zr	Zirconium	2	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLA

ITS Intertek Testing Services
Bondar Clegg

Geochemical
Lab
Report

REPORT: V98-01535.1 (COMPLETE)

REFERENCE:

CLIENT: MR. STEVE TRAYNOR

PROJECT: ARSENAULT

SUBMITTED BY: S. TRAYNOR

DATE RECEIVED: 26-AUG-98 DATE PRINTED: 4-SEP-98

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK	3	2 -150	3	CRUSH ONLY	4
				CRUSH, SPLIT	10
				PULVERIZATION	14

REPORT COPIES TO: BOX 4375

INVOICE TO: BOX 4375

ITS **Intertek Testing Services**
Bondar Clegg

Geochemical Lab Report

CLIENT: MR. STEVE TRAYNOR
PROJECT: ARSENAULT
REPORT: V98-01535.1 (COMPLETE)
DATE RECEIVED: 26-AUG-98 DATE PRINTED: 4-SEP-98 PAGE 1A(1/ 4)

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM
98R143		60																		
98R365		9	<.2	549	5	36	1	18	46	<.2	<5	<5	<5	9.44	585	<10	23	22	24	<20
98R370		147																		

SAMPLE NUMBER	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mc PPM
98R143																	2.2	9754	38	148	10
98R365	<20	2	1.30	1.25	3.12	0.19	0.06	44	2	<2	8	4	<5	<10	0.03	<1					
98R370																	0.6	5114	21	75	4

Intertek Testing Services
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Geochemical Lab Report

CLIENT: MR. STEVE TRAYNOR PROJECT: ARSENAULT
REPORT: V98-01535.1 (COMPLETE) DATE RECEIVED: 26-AUG-98 DATE PRINTED: 4-SEP-98 PAGE 1B(2/ 4)

SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe Tot PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
98R143		10	14	<1	7	<5	<5	9.42	1413	<25	9	78	13	25	<20	<5	0.78	2.32	8.16	0.20	0.08	93	9	<10	4	<5	<5	6	0.07	14
98R365																														
98R370		17	30	<1	<5	14	<5	>10.00	1615	<25	7	122	32	<20	<20	<5	1.81	1.10	>10.00	0.24	0.03	300	16	<10	5	7	<5	9	0.11	19

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Geochemical Lab Report

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STANDARD NAME	ELEMENT UNITS	Au30 PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM
CANMET STREAM-SED		-	<.2	33	29	137	1	18	12	0.6	<5	17	<5	3.43	3299	<10	238	22	41	<20	<20	20	1.16	0.81	1.64	0.03	0.07	30	22	<2	8	3	<5	<10	0.03	<1	<.5	34	38	184	1
Number of Analyses		-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		-	0.1	33	29	137	1	18	12	0.6	3	17	3	3.43	3299	5	238	22	41	10	10	20	1.16	0.81	1.64	0.03	0.07	30	22	1	8	3	3	5	0.03	0.5	0.3	34	38	184	1
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	0.3	36	34	165	2	18	14	0.8	-	17	2	3.50	3740	-	-	28	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	36	35	178	2
ANALYTICAL BLANK		<5	<.2	<1	<2	<1	<1	<1	<1	<.2	<5	<5	<5	<.01	<1	<10	<1	<1	<1	<20	<20	<1	<.01	<.01	<.01	<.01	<.01	<1	<1	<2	<1	<1	<5	<10	<.01	<1	<.5	<1	<2	<2	<1
Number of Analyses		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		3	0.1	0.5	1	0.5	0.5	0.5	0.5	0.1	3	3	3	.005	0.5	5	0.5	0.5	0.5	10	10	0.5	.005	.005	.005	.005	.005	0.5	0.5	1	0.5	0.5	3	5	.005	0.5	0.3	0.5	1	1	0.5
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		5	0.2	1	2	1	1	1	1	0.1	2	5	5	0.05	1	.01	.01	1	1	.01	.01	.01	<.01	<.01	<.01	<.01	<.01	.01	.01	.01	.01	.01	.01	.01	<.01	.01	0.2	1	2	1	1
Garnet Ref.Material		2333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		2333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		2520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

ITS **Intertek Testing Services**
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Geochemical Lab Report

CLIENT: MR. STEVE TRAYNOR PROJECT: ARSENAULT

REPORT: V98-01535.1 (COMPLETE) DATE RECEIVED: 26-AUG-98 DATE PRINTED: 4-SEP-98

STANDARD NAME	ELEMENT UNITS	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe Tot PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
CANMET STREAM-SED		24	21	<1	<5	23	<5	4.36	3856	<25	576	48	89	<20	<20	25	4.51	1.30	2.75	1.27	0.97	177	34	<10	10	6	11	5	0.34	74
Number of Analyses		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		24	21	0.5	3	23	3	4.36	3856	13	576	48	89	10	10	25	4.51	1.30	2.75	1.27	0.97	177	34	5	10	6	11	5	0.34	74
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		24	17	0.8	-	23	3	4.70	3950	-	630	67	98	4	-	30	4.80	1.33	2.57	1.30	1.04	170	42	-	11	5	14	0.4	0.45	87
ANALYTICAL BLANK		<1	<1	<1	<5	<5	<5	<0.01	7	<25	<5	<2	<2	<20	<20	<5	<.01	<.01	<0.01	0.01	<.01	<1	<5	<10	<2	<5	<5	<5	<.01	<5
Number of Analyses		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		0.5	0.5	0.5	3	3	3	0.005	7	13	3	1	1	10	10	3	.005	.005	0.005	0.01	.005	0.5	3	5	1	3	3	3	.005	3
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		1	1	0.5	2	5	5	0.05	1	.01	.01	1	1	.01	.01	.01	-	<.01	<.0001	-	<.01	.01	.01	.01	.01	.01	.01	.01	<.01	.01
Gannet Ref.Material		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

ITS Intertek Testing Services
Bondar Clegg

Geochemical
Lab
Report

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MR. STEVE TRAYNOR
BOX 4375
WHITEHORSE, YUKON
Y1A 3T5

ITS Intertek Testing Services
Bondar Clegg

Geochemical Lab Report

REPORT: V98-01535.0 (COMPLETE)

REFERENCE:

CLIENT: MR. STEVE TRAYNOR

PROJECT: ARSENAULT

SUBMITTED BY: S. TRAYNOR

DATE RECEIVED: 26-AUG-98 DATE PRINTED: 15-SEP-98

DATE APPROVED		ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION	EXTRACTION	METHOD
980911	1	Au30	Gold	11	5 PPB	Fire Assay of 30g	30g Fire Assay - AA
980911	2	Ag	Silver	11	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	3	Cu	Copper	11	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	4	CuOL	Copper, semiquant	1	0.1 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	5	Pb	Lead	11	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	6	Zn	Zinc	11	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	7	Mo	Molybdenum	11	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	8	Ni	Nickel	11	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	9	Co	Cobalt	11	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	10	Cd	Cadmium	11	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	11	Bi	Bismuth	11	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	12	As	Arsenic	11	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	13	Sb	Antimony	11	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	14	Hg	Mercury	11	0.010 PPM	HCL:HNO3 (3:1)	COLD VAPOR AA
980911	15	Fe	Iron	11	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	16	Mn	Manganese	11	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	17	Te	Tellurium	11	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	18	Ba	Barium	11	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	19	Cr	Chromium	11	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	20	V	Vanadium	11	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	21	Sn	Tin	11	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	22	W	Tungsten	11	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	23	La	Lanthanum	11	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	24	Al	Aluminum	11	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	25	Mg	Magnesium	11	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	26	Ca	Calcium	11	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	27	Na	Sodium	11	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	28	K	Potassium	11	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	29	Sr	Strontium	11	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	30	Y	Yttrium	11	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	31	Ga	Gallium	11	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	32	Li	Lithium	11	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	33	Nb	Niobium	11	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	34	Sc	Scandium	11	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	35	Ta	Tantalum	11	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	36	Ti	Titanium	11	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980911	37	Zr	Zirconium	11	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PL
980911	38	SiO2	Silica (SiO2)	7	0.01 PCT	BORATE FUSION	INDUC. COUP. PL
980911	39	TiO2	Titanium (TiO2)	7	0.01 PCT	BORATE FUSION	INDUC. COUP. PL
980911	40	Al2O3	Alumina (Al2O3)	7	0.01 PCT	BORATE FUSION	INDUC. COUP. PL
980911	41	Fe2O3*	Total Iron (Fe2O3)	7	0.01 PCT	BORATE FUSION	INDUC. COUP. PL
980911	42	MnO	Manganese (MnO)	7	0.01 PCT	BORATE FUSION	INDUC. COUP. PL
980911	43	MgO	Magnesium (MgO)	7	0.01 PCT	BORATE FUSION	INDUC. COUP. PL
980911	44	CaO	Calcium (CaO)	7	0.01 PCT	BORATE FUSION	INDUC. COUP. PL
980911	45	Na2O	Sodium (Na2O)	7	0.01 PCT	BORATE FUSION	INDUC. COUP. PL
980911	46	K2O	Potassium (K2O)	7	0.05 PCT	BORATE FUSION	INDUC. COUP. PL
980911	47	P2O5	Phosphorous (P2O5)	7	0.03 PCT	BORATE FUSION	INDUC. COUP. PL
980911	48	LOI	Loss on Ignition	7	0.05 PCT	Ignition 1000 Deg.	GRAVIMETRIC
980911	49	Total	Whole Rock Total	11	0.01 PCT		
980911	50	Cr2O3	Chromium Oxide	7	0.01 PCT	BORATE FUSION	INDUC. COUP. PL
980911	51	Ba	Barium	7	10 PPM	Pressed Pellet	XRAY FLUORESCEN
980911	52	Sr	Strontium	7	1 PPM	Pressed Pellet	XRAY FLUORESCEN
980911	53	Y	Yttrium	7	1 PPM	Pressed Pellet	XRAY FLUORESCEN
980911	54	Nb	Niobium	7	2 PPM	Pressed Pellet	XRAY FLUORESCEN
980911	55	Zr	Zirconium	7	1 PPM	Pressed Pellet	XRAY FLUORESCEN
980911	56	Rb	Rubidium	7	2 PPM	Pressed Pellet	XRAY FLUORESCEN
980911	57	Ce	Cerium	6	2 PPM		NEUTRON ACTIVAT
980911	58	Eu	Europium	6	0.5 PPM		NEUTRON ACTIVAT
980911	59	La	Lanthanum	6	1 PPM		NEUTRON ACTIVAT
980911	60	Lu	Lutetium	6	0.2 PPM		NEUTRON ACTIVAT
980911	61	Nd	Neodymium	6	10 PPM		NEUTRON ACTIVAT
980911	62	Sc	Scandium	6	0.1 PPM		NEUTRON ACTIVAT
980911	63	Sm	Samarium	6	0.1 PPM		NEUTRON ACTIVAT
980911	64	Tb	Terbium	6	1 PPM		NEUTRON ACTIVAT
980911	65	Th	Thorium	6	0.5 PPM		NEUTRON ACTIVAT
980911	66	U	Uranium	6	1 PPM		NEUTRON ACTIVAT
980911	67	Yb	Ytterbium	6	1 PPM		NEUTRON ACTIVAT

ITS Intertek Testing Services
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Geochemical Lab Report

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PROJECT: ARSENAULT

SUBMITTED BY: S. TRAYNOR
DATE RECEIVED: 26-AUG-98 DATE PRINTED: 15-SEP-98

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK	11	2 -150	11	CRUSH ONLY	4
				CRUSH, SPLIT	10
				PULVERIZATION	14

REMARKS: In the whole rock analysis, samples R2 98R366 and R2 98R368 were found with unusually low total values of major oxides and LOI. The results were checked with a retest. RRD 9/8/98.

REPORT COPIES TO: BOX 4375 INVOICE TO: BOX 4375

ITS Intertek Testing Services
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SAMPLE NUMBER	Au30 PPB	Ag PPM	Cu PPM	CuOL PCT	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Hg PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
98R366	17	<.2	1093		10	13	2	9	25	<.2	6	16	<5	0.020	>10.00	1179	<10	19	17	4	<20	<20	2	0.37	0.19	>10.00	0.01	0.04	172	4	<2	<1	5	<5	<10	0.02	<1
98R367	26	<.2	1026		5	20	3	27	17	<.2	<5	<5	<5	0.013	2.78	251	<10	53	83	57	<20	<20	2	2.00	2.31	0.90	0.08	0.16	12	4	<2	9	4	<5	<10	0.10	<1
98R368	31	<.2	841		20	14	4	13	93	<.2	5	58	<5	0.025	>10.00	757	<10	<1	15	4	<20	<20	6	0.29	0.32	6.59	0.03	0.03	59	5	<2	<1	5	<5	<10	0.02	1
98R369	12	<.2	426		5	20	6	11	15	<.2	<5	<5	<5	0.016	3.41	284	<10	51	39	83	<20	<20	4	2.52	3.07	0.48	0.04	0.23	9	6	5	11	4	11	<10	0.04	<1
98R371	<5	<.2	145		3	53	<1	10	7	<.2	<5	<5	<5	<.010	3.55	524	<10	5	16	13	<20	<20	10	1.14	1.15	6.94	0.19	0.07	134	6	<2	1	4	<5	<10	0.05	5
98R372	12	0.3	1968		8	62	18	5	9	0.6	<5	8	<5	0.022	8.58	2097	<10	8	27	8	<20	<20	7	0.31	0.03	6.06	0.02	0.01	19	9	<2	<1	4	<5	<10	0.03	6
98R373	31	0.2	1576		6	15	2	3	4	<.2	<5	5	<5	0.059	6.15	1077	<10	6	26	5	<20	<20	9	0.30	0.01	4.67	0.02	<.01	2	9	<2	<1	3	<5	<10	0.03	6
98R374	<5	<.2	65		8	55	3	23	14	<.2	<5	8	<5	0.013	3.40	871	<10	82	69	27	<20	<20	14	2.24	1.88	0.39	0.03	0.74	6	7	<2	9	3	<5	<10	0.10	1
98R375	57	2.2	7879		27	43	12	16	13	1.6	<5	7	<5	0.018	2.19	478	<10	121	37	34	<20	<20	13	1.31	2.71	2.78	0.06	0.11	95	12	<2	29	5	<5	<10	0.16	<1
98R376	1479	0.7	>10000	1.3	35	12	<1	7	6	<.2	<5	<5	<5	0.112	1.67	64	<10	8	93	14	<20	<20	1	0.48	0.47	0.13	0.03	0.04	6	2	<2	3	2	<5	<10	0.02	<1
98R377	<5	<.2	108		14	57	8	26	11	<.2	<5	<5	<5	0.010	2.62	351	<10	106	114	186	<20	<20	27	2.85	2.57	1.61	0.02	1.09	40	14	<2	9	5	8	<10	0.17	2

CLIENT: MR. STEVE TRAYNOR
PROJECT: ARSENAULT
REPORT: V98-01535.0 (COMPLETE)
DATE RECEIVED: 26-AUG-98 DATE PRINTED: 15-SEP-98

SAMPLE NUMBER	ELEMENT UNITS	SiO2 PCT	TiO2 PCT	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Cr2O3 PCT
98R366		30.31	0.12	3.97	21.21	0.26	2.06	22.43	0.29	0.06	0.15	<0.05	80.86	<0.01
98R367														
98R368		39.55	0.14	2.41	24.51	0.16	2.58	12.95	0.52	<.05	0.12	5.86	88.82	<0.01
98R369														
98R371		44.02	0.34	9.12	14.22	0.16	6.14	15.97	1.97	0.28	0.26	6.48	98.94	<0.01
98R372														
98R373		49.48	0.08	1.02	25.04	0.48	1.57	18.93	0.82	<.05	0.14	<0.05	97.57	<0.01
98R374		65.47	0.66	15.06	5.62	0.22	3.31	1.87	0.56	3.53	0.09	3.48	99.91	0.03
98R375														
98R376		88.73	0.14	4.47	2.49	<.01	0.87	0.85	1.14	0.31	0.04	1.17	100.22	0.03
98R377		67.53	0.55	11.97	3.73	0.05	4.29	3.75	0.03	3.13	0.16	4.29	99.53	0.03

SAMPLE NUMBER	Ba PPM	Sr PPM	Y PPM	Nb PPM	Zr PPM	Rb PPM	Ce PPM	Eu PPM	La PPM	Lu PPM	Nd PPM	Sc PPM	Sm PPM	Tb PPM	Th PPM	U PPM	Yb PPM
98R366	29	385	7	2	25	4											
98R367																	
98R368	<10	89	9	2	41	2	22	<.5	13	<.2	<10	2.6	1.7	<1	2.4	6	<1
98R369																	
98R371	<10	276	11	7	79	3	38	1.0	17	<.2	20	10.2	4.1	<1	6.7	7	<1
98R372																	
98R373	<10	10	10	2	37	<2	24	0.6	15	<.2	<10	1.7	1.4	<1	1.6	4	<1
98R374	502	37	25	11	189	124	85	1.0	45	0.3	35	15.4	5.9	<1	15.0	4	2
98R375																	
98R376	49	51	5	3	21	7	5	<.5	3	<.2	<10	6.5	0.5	<1	0.8	<1	<1
98R377	715	189	25	11	150	110	72	1.1	38	0.3	31	13.0	5.5	<1	13.0	11	2

ITS Intertek Testing Services
Bondar Clegg

Geochemical Lab Report

CLIENT: MR. STEVE TRAYNOR PROJECT: ARSENAULT
REPORT: V98-01535.0 (COMPLETE) DATE RECEIVED: 26-AUG-98 DATE PRINTED: 15-SEP-98 PAGE 2A(3/ 8)

STANDARD NAME	ELEMENT UNITS	Au30 PPB	Ag PPM	Cu PPM	CuOL PCT	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Hg PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
ANALYTICAL BLANK		<5	<.2	3	-	<2	<1	<1	<1	<1	<.2	<5	<5	<5	0.013	<0.01	<1	<10	<1	<1	<1	<20	<20	<1	<.01	<.01	<0.01	<.01	<.01	<1	<1	<2	<1	<1	<5	<10	<.01	<1
Number of Analyses		1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		3	0.1	3	-	1	0.5	0.5	0.5	0.5	0.1	3	3	3	0.013	0.005	0.5	5	0.5	0.5	0.5	10	10	0.5	.005	.005	0.005	.005	.005	0.5	0.5	1	0.5	0.5	3	5	.005	0.5
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		5	0.2	1	<.01	2	1	1	1	1	0.1	2	5	5	0.005	0.05	1	.01	.01	1	1	.01	.01	.01	<.01	<.01	<.0001	<.01	<.01	.01	.01	.01	.01	.01	.01	.01	<.01	.01
Gannet Ref.Material		2554	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		2554	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		2520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CANMET STD SY-3		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	17	-	133	244	-	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	6.22	1.61	-	-	-	-	-	-	-	-	-	-	-	-
Loss on Ignition Std		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loss On Ignition Std		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CANMET STREAM-SED		-	<.2	36	-	29	150	1	18	12	0.5	<5	16	<5	0.105	3.38	3240	<10	238	23	43	<20	<20	20	1.18	0.82	1.63	0.03	0.08	28	22	<2	8	4	<5	<10	0.03	<1
Number of Analyses		-	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		-	0.1	36	-	29	150	1	18	12	0.5	3	16	3	0.105	3.38	3240	5	238	23	43	10	10	20	1.18	0.82	1.63	0.03	0.08	28	22	1	8	4	3	5	0.03	0.5
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	0.3	36	-	34	165	2	18	14	0.8	-	17	2	0.110	3.50	3740	-	-	28	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

ITS Intertek Testing Services
Bondar Clegg

Geochemical Lab Report

CLIENT: MR. STEVE TRAYNOR
REPORT: V98-01535.0 (COMPLETE)

PROJECT: ARSENAULT
DATE RECEIVED: 26-AUG-98   DATE PRINTED: 15-SEP-98

STANDARD NAME	ELEMENT UNITS	SiO2 PCT	TiO2 PCT	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Cr2O3 PCT	Ba PPM	Sr PPM	Y PPM	Nb PPM	Zr PPM	Rb PPM	Ce PPM	Eu PPM	La PPM	Lu PPM	Nd PPM	Sc PPM	Sm PPM	Tb PPM	Th PPM	U PPM	Yb PPM
ANALYTICAL BLANK		<0.01	<.01	<0.01	<0.01	<.01	<.01	<0.01	<.01	<.05	<.03	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		1	1	1	1	1	1	1	1	1	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		0.005	.005	0.005	0.005	.005	.005	0.005	.005	0.03	0.02	-	-	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		<.001	<.01	<.001	<.0001	<.01	<.01	<.001	<.01	<.01	<.01	<.001	<.0001	<.001	.005	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.005	.01	.01	.005	.01	.01
Garnet Ref.Material		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CANMET STD SY-3		60.04	0.15	11.81	6.46	0.33	2.60	8.24	4.10	4.15	0.54	-	98.43	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		1	1	1	1	1	1	1	1	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		60.04	0.15	11.81	6.46	0.33	2.60	8.24	4.10	4.15	0.54	-	98.43	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		59.68	0.15	11.80	6.42	0.32	2.67	8.26	4.15	4.20	0.54	1.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loss on Ignition Std		-	-	-	-	-	-	-	-	-	-	3.89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	3.89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	4.24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loss On Ignition Std		-	-	-	-	-	-	-	-	-	-	40.48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	40.48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	41.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CANMET STREAM-SED		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

ITS **Intertek Testing Services**
Bondar Clegg

Geochemical Lab Report

CLIENT: MR. STEVE TRAYNOR
REPORT: V98-01535.0 (COMPLETE)

PROJECT: ARSENAULT
DATE RECEIVED: 26-AUG-98 DATE PRINTED: 15-SEP-98 PAGE 3A(5/ 8)

STANDARD NAME	ELEMENT UNITS	Au30 PPB	Ag PPM	Cu PPM	CuOL PCT	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Hg PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
Granite - Cert.Ref.M		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CANMET SO-2 REF STD		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CLIENT: MR. STEVE TRAYNOR

PROJECT: ARSENAULT

REPORT: V98-01535.0 (COMPLETE)

DATE RECEIVED: 26-AUG-98 DATE PRINTED: 15-SEP-98

STANDARD / ELEMENT	SiO2	TiO2	Al2O3	Fe2O3*	MnO	MgO	CaO	Na2O	K2O	P2O5	LOI	Total	Cr2O3	Ba	Sr	Y	Nb	Zr	Rb	Ce	Eu	La	Lu	Nd	Sc	Sm	Tb	Th	U	Yb
NAME / UNITS	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
Granite - Cert.Ref.M	-	-	-	-	-	-	-	-	-	-	-	-	-	1385	570	15	23	243	188	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-
Mean Value	-	-	-	-	-	-	-	-	-	-	-	-	-	1385	570	15	23	243	188	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	-	-	-	-	-	-	-	-	-	-	-	-	1400	570	14	21	235	185	-	-	-	-	-	-	-	-	-	-	-
CANMET SO-2 REF STD	-	-	-	-	-	-	-	-	-	-	-	-	-	1000	348	41	19	755	73	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-
Mean Value	-	-	-	-	-	-	-	-	-	-	-	-	-	1000	348	41	19	755	73	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	53.46	-	15.24	-	-	-	-	-	-	-	-	-	-	1000	340	40	22	760	78	-	-	-	-	-	-	-	-	-	-	-

Intertek Testing Services
Bondar Clegg

Geochemical Lab Report

CLIENT: MR. STEVE TRAYNOR
REPORT: V98-01535.0 (COMPLETE)

PROJECT: ARSENAULT
DATE RECEIVED: 26-AUG-98 DATE PRINTED: 15-SEP-98

SAMPLE NUMBER	ELEMENT	Au30	Ag	Cu	CuOL	Pb	Zn	Mo	Ni	Co	Cd	Bi	As	Sb	Hg	Fe	Mn	Te	Ba	Cr	V	Sn	W	La	Al	Mg	Ca	Na	K	Sr	Y	Ga	Li	Nb	Sc	Ta	Ti	Zr
	UNITS	PPB	PPM	PPM	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PCT	PCT	PCT	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PPM
98R366		17	<.2	1093		10	13	2	9	25	<.2	6	16	<5	0.020	>10.00	1179	<10	19	17	4	<20	<20	2	0.37	0.19	>10.00	0.01	0.04	172	4	<2	<1	5	<5	<10	0.02	<1
Duplicate																																						
98R372		12	0.3	1968		8	62	18	5	9	0.6	<5	8	<5	0.022	8.58	2097	<10	8	27	8	<20	<20	7	0.31	0.03	6.06	0.02	0.01	19	9	<2	<1	4	<5	<10	0.03	6
Duplicate		9	0.2	1815		7	63	19	5	9	0.6	<5	7	<5	0.026	7.71	1907	<10	8	26	8	<20	<20	7	0.31	0.03	5.82	0.02	0.01	19	9	<2	<1	4	<5	<10	0.03	6
98R376		1479	0.7	>10000	1.3	35	12	<1	7	6	<.2	<5	<5	<5	0.112	1.67	64	<10	8	93	14	<20	<20	1	0.48	0.47	0.13	0.03	0.04	6	2	<2	3	2	<5	<10	0.02	<1
Duplicate																																						

ITS Intertek Testing Services
Bondar Clegg

Geochemical Lab Report

CLIENT: MR. STEVE TRAYNOR
REPORT: V98-01535.0 (COMPLETE)

PROJECT: ARSENAULT
DATE RECEIVED: 26-AUG-98 DATE PRINTED: 15-SEP-98 PAGE 4B(8/ 8)

SAMPLE NUMBER	ELEMENT	SiO2	TiO2	Al2O3	Fe2O3*	MnO	MgO	CaO	Na2O	K2O	P2O5	LOI	Total	Cr2O3	Ba	Sr	Y	Nb	Zr	Rb	Ce	Eu	La	Lu	Nd	Sc	Sm	Tb	Th	U	Yb
	UNITS	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
98R366		30.31	0.12	3.97	21.21	0.26	2.06	22.43	0.29	0.06	0.15	<0.05	80.86	<0.01	29	385	7	2	25	4											
Duplicate												<0.05																			
98R372																															
Duplicate																															
98R376		88.73	0.14	4.47	2.49	<.01	0.87	0.85	1.14	0.31	0.04	1.17	100.22	0.03	49	51	5	3	21	7	5	<.5	3	<.2	<10	6.5	0.5	<1	0.8	<1	<1
Duplicate		88.12	0.13	4.40	2.42	<.01	0.85	0.84	1.10	0.29	0.03			0.03	44	50	3	3	22	8											

ITS Intertek Testing Services
Bondar Clegg

Geochemical
Lab
Report

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MR. STEVE TRAYNOR
BOX 4375
WHITEHORSE, YUKON
Y1A 3T5

ITS Intertek Testing Services
Bondar Clegg

Geochemical Lab Report

REPORT: V98-01534.0 (COMPLETE)

REFERENCE:

CLIENT: MR. STEVE TRAYNOR

PROJECT: ARSENAULT

SUBMITTED BY: S. TRAYNOR

DATE RECEIVED: 26-AUG-98 DATE PRINTED: 7-SEP-98

DATE APPROVED		ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION	EXTRACTION	METHOD
980903	1 Au30	Gold	54	5 PPB	Fire Assay of 30g	30g Fire Assay - AA
980903	2 Au Wt1	Test Weight	54	0.01 GM	FIRE ASSAY	FIRE ASSAY-AA
980903	3 Ag	Silver	54	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	4 Cu	Copper	54	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	5 Pb	Lead	54	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	6 Zn	Zinc	54	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	7 Mo	Molybdenum	54	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	8 Ni	Nickel	54	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	9 Co	Cobalt	54	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	10 Cd	Cadmium	54	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	11 Bi	Bismuth	54	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	12 As	Arsenic	54	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	13 Sb	Antimony	54	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	14 Fe	Iron	54	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	15 Mn	Manganese	54	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	16 Te	Tellurium	54	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	17 Ba	Barium	54	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	18 Cr	Chromium	54	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	19 V	Vanadium	54	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	20 Sn	Tin	54	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	21 W	Tungsten	54	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	22 La	Lanthanum	54	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	23 Al	Aluminum	54	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	24 Mg	Magnesium	54	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	25 Ca	Calcium	54	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	26 Na	Sodium	54	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	27 K	Potassium	54	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	28 Sr	Strontium	54	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	29 Y	Yttrium	54	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	30 Ga	Gallium	54	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	31 Li	Lithium	54	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	32 Nb	Niobium	54	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	33 Sc	Scandium	54	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	34 Ta	Tantalum	54	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	35 Ti	Titanium	54	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
980903	36 Zr	Zirconium	54	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
S SOIL	54	1 -80	54	DRY, SIEVE -80	5

REPORT COPIES TO: BOX 4375

INVOICE TO: BOX 4375

ITS Intertek Testing Services
Bondar Clegg

Geochemical Lab Report

CLIENT: MR. STEVE TRAYNOR PROJECT: ARSENAULT

REPORT: V98-01534.0 (COMPLETE) DATE RECEIVED: 26-AUG-98 DATE PRINTED: 7-SEP-98

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB	Au Wt1 GM	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
0+00N BL		<5	30.92	<.2	239	7	56	2	28	12	<.2	<5	12	<5	2.89	474	<10	113	33	56	<20	<20	18	1.76	1.19	0.40	0.02	0.09	19	8	3	11	<1	<5	<10	0.13	1
0+00N 025E		<5	30.76	<.2	209	5	51	2	28	14	<.2	<5	11	<5	2.96	472	<10	88	36	72	<20	<20	11	2.25	1.86	0.46	0.02	0.09	17	6	4	13	<1	6	<10	0.14	<1
0+00N 050E		<5	20.09	<.2	164	8	91	3	30	15	<.2	<5	11	<5	3.50	548	<10	96	33	58	<20	<20	11	1.95	1.24	0.54	0.02	0.10	20	5	4	12	<1	<5	<10	0.12	<1
0+00N 075E		6	30.13	<.2	131	30	139	6	35	13	0.8	<5	40	<5	4.33	702	<10	105	33	50	<20	<20	20	2.03	1.21	0.58	0.02	0.17	23	10	4	12	<1	<5	<10	0.14	<1
0+00N 125E		<5	5.34	<.2	300	95	509	2	30	19	1.1	<5	19	<5	4.14	849	<10	97	52	66	<20	<20	18	2.34	1.83	1.16	0.02	0.18	40	19	4	16	1	20	<10	0.14	<1
0+00N 150E		6	15.30	<.2	130	15	88	2	34	15	<.2	<5	31	<5	3.97	738	<10	90	39	58	<20	<20	19	2.11	1.53	0.83	0.02	0.11	30	11	4	12	<1	<5	<10	0.12	<1
0+00N 175E		6	30.11	<.2	83	18	78	2	41	17	<.2	<5	49	<5	4.26	1027	<10	107	33	51	<20	<20	35	2.02	1.48	0.70	0.02	0.15	32	22	4	9	<1	5	<10	0.12	<1
0+00N 200E		<5	30.09	<.2	39	12	56	1	30	13	<.2	<5	25	<5	3.33	589	<10	73	29	45	<20	<20	18	1.62	1.10	0.53	0.02	0.10	21	7	3	9	<1	<5	<10	0.12	<1
0+00N 225E		<5	30.59	<.2	63	10	59	2	39	17	<.2	<5	31	<5	3.84	635	<10	88	45	65	<20	<20	19	2.65	2.21	0.81	0.02	0.15	28	10	6	17	<1	<5	<10	0.18	<1
0+00N 250E		13	30.27	<.2	68	16	74	1	40	15	<.2	<5	42	<5	4.11	1162	<10	81	34	53	<20	<20	26	2.23	1.75	0.59	0.02	0.09	25	14	5	11	<1	<5	<10	0.12	<1
1+00S BL		14	25.15	<.2	99	19	71	2	34	10	<.2	<5	19	<5	3.22	366	<10	103	38	51	<20	<20	19	2.20	1.30	0.52	0.02	0.16	22	8	4	12	<1	<5	<10	0.14	<1
1+00S 025E		<5	20.06	<.2	197	13	72	2	44	14	<.2	<5	25	<5	4.08	807	<10	130	40	55	<20	<20	35	2.11	1.29	0.70	0.03	0.16	40	22	4	11	<1	7	<10	0.13	<1
1+00S 050E		6	30.42	<.2	303	11	69	3	45	16	<.2	<5	14	<5	3.59	592	<10	154	43	57	<20	<20	21	1.80	1.03	0.62	0.03	0.13	37	12	4	12	<1	5	<10	0.13	5
1+00S 100E		<5	30.10	<.2	160	14	61	2	34	13	<.2	<5	24	<5	3.77	414	<10	69	32	44	<20	<20	14	1.95	1.10	0.56	0.02	0.09	28	7	3	10	<1	<5	<10	0.10	<1
1+00S 125E		24	30.04	<.2	116	14	64	1	38	15	<.2	<5	26	<5	3.87	661	<10	86	31	47	<20	<20	18	2.05	1.16	0.57	0.02	0.11	31	9	4	10	<1	<5	<10	0.10	<1
1+00S 175E		<5	10.91	<.2	243	9	66	2	33	24	<.2	<5	21	<5	4.66	767	<10	96	28	58	<20	<20	14	2.09	1.42	0.75	0.01	0.13	33	8	4	18	<1	7	<10	0.07	<1
1+00S 200E		<5	15.14	<.2	181	25	60	2	29	15	0.3	<5	15	<5	3.71	1272	<10	167	22	32	<20	<20	39	1.88	0.85	0.83	0.01	0.13	38	15	3	10	<1	<5	<10	0.02	<1
1+00S 225E		<5	25.36	<.2	63	25	83	2	50	22	<.2	<5	32	<5	4.74	1242	<10	96	37	52	<20	<20	31	2.21	1.25	0.87	0.01	0.12	41	15	4	12	<1	<5	<10	0.11	<1
1+00S 250E		<5	15.15	<.2	87	28	108	3	69	34	<.2	<5	56	<5	7.13	1365	<10	90	34	43	<20	<20	30	2.08	1.45	0.51	0.01	0.13	27	21	3	13	<1	5	<10	0.06	<1
2+00S BL		<5	15.01	<.2	58	14	67	2	37	16	<.2	<5	18	<5	3.82	462	<10	111	41	53	<20	<20	22	2.07	1.20	0.53	0.02	0.13	24	11	4	11	<1	<5	<10	0.14	1
2+00S 075E		16	20.90	<.2	439	12	81	3	32	16	0.2	<5	14	<5	4.08	529	<10	116	34	55	<20	<20	29	2.16	1.35	0.56	0.02	0.17	22	15	4	12	<1	5	<10	0.12	<1
2+00S 100E		21	25.66	<.2	579	11	97	3	40	20	0.3	<5	15	<5	4.31	500	<10	110	34	52	<20	<20	29	2.28	1.55	0.58	0.02	0.18	20	14	4	12	<1	5	<10	0.13	<1
2+00S 150E		<5	20.04	<.2	214	11	78	5	26	15	<.2	<5	20	<5	4.60	546	<10	127	22	38	<20	<20	14	2.03	1.64	0.33	0.01	0.31	13	6	2	9	<1	<5	<10	0.16	<1
2+00S 175E		<5	30.12	<.2	146	12	86	4	46	21	<.2	<5	25	<5	4.61	794	<10	117	38	55	<20	<20	20	2.37	1.38	0.41	0.01	0.20	17	9	5	10	<1	<5	<10	0.13	<1
2+00S 200E		6	15.58	<.2	54	13	70	2	35	15	<.2	<5	27	<5	3.65	608	<10	124	36	49	<20	<20	15	2.03	1.09	0.31	0.01	0.16	15	6	4	10	<1	<5	<10	0.12	<1
2+00S 225E		<5	15.26	<.2	196	19	117	2	37	16	<.2	<5	55	<5	3.85	661	<10	111	37	52	<20	<20	65	2.07	1.14	0.43	0.01	0.13	19	26	5	11	<1	<5	<10	0.10	<1
2+00S 250E		15	5.96	0.3	1122	11	53	13	48	30	0.2	<5	18	<5	7.14	1337	<10	73	9	39	<20	<20	6	1.19	0.82	1.52	<.01	0.10	22	17	<2	4	<1	17	<10	<.01	<1
2+00S 275E		<5	30.57	<.2	82	12	71	2	37	15	<.2	<5	36	<5	4.38	521	<10	102	36	57	<20	<20	20	2.30	1.39	0.44	0.01	0.13	18	8	5	10	<1	<5	<10	0.11	<1
2+00S 300E		<5	30.08	<.2	108	13	106	2	34	15	<.2	<5	18	<5	3.99	618	<10	92	34	53	<20	<20	20	2.09	1.25	0.61	0.01	0.14	25	10	5	11	<1	<5	<10	0.12	<1
2+00S 325E		<5	15.94	<.2	204	9	142	2	40	18	0.5	<5	17	<5	3.95	680	<10	77	37	50	<20	<20	41	2.30	1.61	0.71	0.02	0.13	29	23	5	12	<1	<5	<10	0.13	<1

Intertek Testing Services
Bondar Clegg

Geochemical Lab Report

CLIENT: MR. STEVE TRAYNOR PROJECT: ARSENAULT

REPORT: V98-01534.0 (COMPLETE) DATE RECEIVED: 26-AUG-98 DATE PRINTED: 7-SEP-98

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB	Au Wt1 GM	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
2+00S 350E		<5	15.41	<.2	253	9	67	2	42	17	<.2	<5	30	<5	4.08	750	<10	86	30	45	<20	<20	22	2.08	1.25	0.63	0.02	0.14	26	10	4	10	<1	<5	<10	0.11	<1
2+00S 375E		7	30.00	<.2	292	9	79	3	46	23	<.2	<5	27	<5	4.84	706	<10	90	34	47	<20	<20	26	2.60	2.08	0.61	0.01	0.21	21	14	5	14	<1	<5	<10	0.15	<1
2+00S 400E		8	25.02	<.2	609	14	79	3	41	18	<.2	<5	32	<5	4.41	721	<10	97	39	57	<20	<20	19	2.13	1.34	1.00	0.02	0.12	40	11	5	11	<1	<5	<10	0.13	<1
2+00S 425E		13	30.00	<.2	457	5	55	3	34	14	<.2	<5	22	<5	4.03	552	<10	89	44	61	<20	<20	15	2.82	2.79	0.81	0.01	0.13	35	7	8	17	<1	6	<10	0.15	<1
2+00S 450E		10	30.97	<.2	83	8	63	2	27	11	<.2	<5	22	<5	3.07	459	<10	83	30	49	<20	<20	15	1.69	0.98	0.32	0.01	0.13	15	6	4	9	<1	<5	<10	0.11	<1
3+00S BL		6	20.31	<.2	166	10	100	2	43	18	0.2	<5	26	<5	4.42	718	<10	159	41	57	<20	<20	29	2.17	1.33	0.51	0.02	0.25	23	15	5	11	1	<5	<10	0.14	2
3+00S 025E		<5	30.45	<.2	75	12	98	2	35	16	0.3	<5	21	<5	3.62	772	<10	121	37	51	<20	<20	22	1.85	1.16	0.46	0.02	0.14	18	10	4	10	<1	<5	<10	0.13	<1
3+00S 050E		<5	15.54	<.2	125	14	129	2	43	15	0.4	<5	16	<5	3.52	464	<10	145	41	55	<20	<20	28	1.98	1.11	0.48	0.02	0.16	21	14	4	11	<1	<5	<10	0.14	4
3+00S 075E		6	15.13	<.2	77	11	85	3	32	9	<.2	<5	21	<5	3.26	453	<10	93	39	53	<20	<20	17	1.86	1.15	0.50	0.02	0.11	20	8	4	10	1	<5	<10	0.13	<1
3+00S 100E		6	10.28	<.2	83	12	79	3	30	9	<.2	<5	30	<5	3.14	636	<10	114	38	52	<20	<20	17	1.84	1.06	0.57	0.01	0.12	24	7	4	11	<1	<5	<10	0.10	<1
3+00S 125E		<5	25.56	<.2	135	19	124	4	24	12	0.2	<5	19	<5	3.42	470	<10	71	25	52	<20	<20	14	1.70	1.14	0.59	0.01	0.11	22	7	3	11	<1	<5	<10	0.11	<1
3+00S 150E		9	20.76	<.2	141	78	322	5	27	17	0.6	<5	42	<5	5.15	692	<10	134	24	92	<20	<20	16	2.56	2.04	0.80	0.01	0.36	30	11	4	12	<1	6	<10	0.16	<1
3+00S 175E		14	30.22	<.2	179	11	84	3	33	14	<.2	<5	14	<5	3.23	370	<10	71	30	49	<20	<20	15	1.53	0.98	0.48	0.01	0.08	24	6	3	10	<1	<5	<10	0.11	<1
3+00S 200E		10	5.88	<.2	183	18	133	5	32	12	0.5	<5	31	<5	3.97	571	<10	114	36	53	<20	<20	19	1.88	1.17	0.83	0.01	0.11	32	9	4	11	<1	<5	<10	0.10	<1
3+00S 225E		<5	15.42	<.2	182	21	88	3	34	16	<.2	<5	24	<5	3.73	595	<10	74	43	65	<20	<20	19	1.94	1.42	0.49	0.01	0.10	20	7	5	13	<1	<5	<10	0.13	<1
3+00S 250E		10	5.79	<.2	753	10	96	6	36	18	0.4	<5	21	<5	4.53	623	<10	94	32	57	<20	<20	39	2.49	1.54	0.61	0.01	0.13	24	18	4	19	<1	8	<10	0.03	<1
3+00S 275E		<5	5.85	<.2	183	<2	62	<1	18	22	<.2	<5	<5	<5	5.59	593	<10	82	22	81	<20	<20	8	4.34	2.63	1.44	<.01	0.10	37	10	5	38	<1	17	<10	<.01	<1
3+00S 300E		<5	25.33	<.2	173	10	58	4	23	10	<.2	<5	24	<5	4.07	394	<10	99	35	62	<20	<20	16	1.87	0.94	0.26	0.01	0.13	14	5	5	8	1	<5	<10	0.15	<1
3+00S 325E		<5	25.91	<.2	316	3	29	9	26	12	<.2	<5	42	<5	5.38	213	<10	99	51	61	<20	<20	24	2.36	2.03	0.18	0.01	0.49	5	6	6	15	<1	<5	<10	0.18	<1
3+00S 350E		<5	5.58	<.2	543	10	84	6	35	14	<.2	<5	39	<5	4.22	562	<10	120	42	60	<20	<20	24	2.34	1.39	0.31	0.01	0.15	14	8	5	12	<1	<5	<10	0.10	<1
3+00S 375E		35	20.72	<.2	255	12	72	4	28	14	<.2	<5	33	<5	4.09	473	<10	80	38	64	<20	<20	14	2.12	1.30	0.28	0.01	0.14	13	5	5	11	<1	<5	<10	0.16	<1
3+00S 400E		6	15.08	<.2	399	9	62	4	27	14	<.2	<5	34	<5	3.67	787	<10	84	37	60	<20	<20	15	1.86	1.02	0.25	0.01	0.13	12	5	5	9	<1	<5	<10	0.11	<1
3+00S 425E		<5	5.24	<.2	500	7	55	3	28	12	<.2	<5	19	<5	3.54	458	<10	72	34	49	<20	<20	16	2.18	1.12	0.23	0.01	0.14	10	5	4	9	1	<5	<10	0.10	<1
3+00S 450E		<5	10.46	<.2	1032	6	65	4	32	16	<.2	<5	12	<5	3.99	471	<10	64	33	52	<20	<20	16	2.26	1.30	0.39	0.01	0.11	12	6	5	11	1	<5	<10	0.12	<1

Intertek Testing Services
Bondar Clegg

Geochemical Lab Report

CLIENT: MR. STEVE TRAYNOR PROJECT: ARSENAULT

REPORT: V98-01534.0 (COMPLETE) DATE RECEIVED: 26-AUG-98 DATE PRINTED: 7-SEP-98

STANDARD NAME	ELEMENT UNITS	Au30 PPB	Au Wt1 GM	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
ANALYTICAL BLANK		<5	-	<.2	<1	<2	<1	<1	<1	<1	<.2	<5	<5	<5	<.01	<1	<10	<1	<1	<1	<20	<20	<1	<.01	<.01	<.01	<.01	<.01	<1	<1	<2	<1	<1	<5	<10	<.01	<1
ANALYTICAL BLANK		<5	-	<.2	<1	<2	<1	<1	<1	<1	<.2	<5	<5	<5	<.01	<1	<10	<1	<1	<1	<20	<20	<1	<.01	<.01	<.01	<.01	<.01	<1	<1	<2	<1	<1	<5	<10	<.01	<1
ANALYTICAL BLANK		<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		3	-	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mean Value		3	-	0.1	0.5	1	0.5	0.5	0.5	0.5	0.1	3	3	3	.005	0.5	5	0.5	0.5	0.5	10	10	0.5	.005	.005	.005	.005	.005	0.5	0.5	1	0.5	0.5	3	5	.005	0.5
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		5	0.005	0.2	1	2	1	1	1	1	0.1	2	5	5	0.05	1	.01	.01	1	1	.01	.01	.01	<.01	<.01	<.01	<.01	<.01	.01	.01	.01	.01	.01	.01	.01	<.01	.01
Garnet Ref.Material		374	31.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		374	31.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STD GEOCHEM STD 6		-	-	0.4	136	16	135	2	121	32	<.2	<5	127	<5	7.17	1352	<10	5	182	46	<20	<20	1	1.84	2.68	3.75	0.01	0.04	77	3	2	20	<1	7	<10	<.01	<1
Number of Analyses		-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		-	-	0.4	136	16	135	2	121	32	0.1	3	127	3	7.17	1352	5	5	182	46	10	10	1	1.84	2.68	3.75	0.01	0.04	77	3	2	20	0.5	7	5	.005	0.5
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	0.2	148	20	148	4	135	35	0.2	1	145	1	7.20	1450	0.2	6	170	50	5	12	-	1.80	2.70	4.00	0.01	0.04	70	3	-	24	2	6	1	.003	5
Garnet Ref.Material		2507	32.51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		2507	32.51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		2520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Garnet Ref.Material		980	30.29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		980	30.29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation							-			-					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		1070																			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Geochemical Lab Report

ITS Intertek Testing Services
Bondar Clegg

CLIENT: MR. STEVE TRAYNOR

REPORT: V98-01534.0 (COMPLETE)

PROJECT: ARSENAULT

DATE RECEIVED: 26-AUG-98 DATE PRINTED: 7-SEP-98

STANDARD NAME	ELEMENT UNITS	Au30 PPB	Au	Wt1 GM	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM
CANMET STREAM-SED		-		-	<.2	38	35	162	2	20	15	0.7	<5	20	<5	3.81	3612
Number of Analyses		-		-	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		-		-	0.1	38	35	162	2	20	15	0.7	3	20	3	3.81	3612
Standard Deviation		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-		-	0.3	36	34	165	2	18	14	0.8	-	17	2	3.50	3740

STANDARD NAME	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
CANMET STREAM-SED	<10	269	27	47	<20	<20	21	1.26	0.87	1.80	0.03	0.08	30	24	2	9	<1	<5	<10	0.04	<1
Number of Analyses	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value	5	269	27	47	10	10	21	1.26	0.87	1.80	0.03	0.08	30	24	2	9	0.5	3	5	0.04	0.5
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	-	28	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

ITS Intertek Testing Services
Bondar Clegg

Geochemical Lab Report

CLIENT: MR. STEVE TRAYNOR PROJECT: ARSENAULT

REPORT: V98-01534.0 (COMPLETE) DATE RECEIVED: 26-AUG-98 DATE PRINTED: 7-SEP-98

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB	Au Wt1 GM	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
0+00N 125E		<5	5.34	<.2	300	95	509	2	30	19	1.1	<5	19	<5	4.14	849	<10	97	52	66	<20	<20	18	2.34	1.83	1.16	0.02	0.18	40	19	4	16	1	20	<10	0.14	<1
Duplicate				<.2	310	99	532	2	31	20	1.1	<5	20	<5	4.32	875	<10	101	56	68	<20	<20	18	2.43	1.92	1.20	0.02	0.18	41	20	4	17	3	21	<10	0.14	<1
2+00S BL		<5	15.01	<.2	58	14	67	2	37	16	<.2	<5	18	<5	3.82	462	<10	111	41	53	<20	<20	22	2.07	1.20	0.53	0.02	0.13	24	11	4	11	<1	<5	<10	0.14	1
Duplicate		11	5.37																																		
2+00S 100E		21	25.66	<.2	579	11	97	3	40	20	0.3	<5	15	<5	4.31	500	<10	110	34	52	<20	<20	29	2.28	1.55	0.58	0.02	0.18	20	14	4	12	<1	5	<10	0.13	<1
Duplicate				<.2	580	12	98	3	40	19	<.2	<5	16	<5	4.32	502	<10	108	35	52	<20	<20	28	2.25	1.55	0.57	0.01	0.18	19	14	4	12	1	5	<10	0.12	<1
2+00S 450E		10	30.97	<.2	83	8	63	2	27	11	<.2	<5	22	<5	3.07	459	<10	83	30	49	<20	<20	15	1.69	0.98	0.32	0.01	0.13	15	6	4	9	<1	<5	<10	0.11	<1
Duplicate		<5	5.44																																		
3+00S 125E		<5	25.56	<.2	135	19	124	4	24	12	0.2	<5	19	<5	3.42	470	<10	71	25	52	<20	<20	14	1.70	1.14	0.59	0.01	0.11	22	7	3	11	<1	<5	<10	0.11	<1
Duplicate				<.2	134	19	125	3	24	12	0.3	<5	19	<5	3.43	481	<10	73	25	53	<20	<20	14	1.71	1.15	0.60	0.01	0.12	22	7	3	11	<1	<5	<10	0.11	<1
3+00S 350E		<5	5.58	<.2	543	10	84	6	35	14	<.2	<5	39	<5	4.22	562	<10	120	42	60	<20	<20	24	2.34	1.39	0.31	0.01	0.15	14	8	5	12	<1	<5	<10	0.10	<1
Duplicate		5	5.55																																		

ITS

Intertek Testing Services

Bondar Clegg

Geochemical
Lab
Report

MR. STEVE TRAYNOR
BOX 4375
WHITEHORSE, YUKON
Y1A 3T5

ITS Intertek Testing Services
Bondar Clegg

Geochemical Lab Report

REPORT: V98-01746.0 (COMPLETE)

REFERENCE:

CLIENT: MR. STEVE TRAYNOR

SUBMITTED BY: S. TRAYNOR

PROJECT: ARSENAULT

DATE RECEIVED: 24-SEP-98 DATE PRINTED: 6-OCT-98

DATE APPROVED	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION	EXTRACTION	METHOD
981005	1 Au30	Gold	12	5 PPB	Fire Assay of 30g	30g Fire Assay - AA
981005	2 Au Wt1	Test Weight	12	0.01 GM	FIRE ASSAY	FIRE ASSAY-AA
981005	3 Ag	Silver	12	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	4 Cu	Copper	12	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	5 Pb	Lead	12	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	6 Zn	Zinc	12	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	7 Mo	Molybdenum	12	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	8 Ni	Nickel	12	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	9 Co	Cobalt	12	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	10 Cd	Cadmium	12	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	11 Bi	Bismuth	12	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	12 As	Arsenic	12	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	13 Sb	Antimony	12	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	14 Fe	Iron	12	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	15 Mn	Manganese	12	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	16 Te	Tellurium	12	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	17 Ba	Barium	12	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	18 Cr	Chromium	12	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	19 V	Vanadium	12	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	20 Sn	Tin	12	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	21 W	Tungsten	12	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	22 La	Lanthanum	12	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	23 Al	Aluminum	12	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	24 Mg	Magnesium	12	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	25 Ca	Calcium	12	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	26 Na	Sodium	12	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	27 K	Potassium	12	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	28 Sr	Strontium	12	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	29 Y	Yttrium	12	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	30 Ga	Gallium	12	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	31 Li	Lithium	12	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	32 Nb	Niobium	12	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	33 Sc	Scandium	12	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	34 Ta	Tantalum	12	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	35 Ti	Titanium	12	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
981005	36 Zr	Zirconium	12	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA

DATE APPROVED	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION	EXTRACTION	METHOD
981005	37 SiO2	Silica (SiO2)	5	0.01 PCT	BORATE FUSION	INDUC. COUP. PL
981005	38 TiO2	Titanium (TiO2)	5	0.01 PCT	BORATE FUSION	INDUC. COUP. PL
981005	39 Al2O3	Alumina (Al2O3)	5	0.01 PCT	BORATE FUSION	INDUC. COUP. PL
981005	40 Fe2O3*	Total Iron (Fe2O3)	5	0.01 PCT	BORATE FUSION	INDUC. COUP. PL
981005	41 MnO	Manganese (MnO)	5	0.01 PCT	BORATE FUSION	INDUC. COUP. PL
981005	42 MgO	Magnesium (MgO)	5	0.01 PCT	BORATE FUSION	INDUC. COUP. PL
981005	43 CaO	Calcium (CaO)	5	0.01 PCT	BORATE FUSION	INDUC. COUP. PL
981005	44 Na2O	Sodium (Na2O)	5	0.01 PCT	BORATE FUSION	INDUC. COUP. PL
981005	45 K2O	Potassium (K2O)	5	0.05 PCT	BORATE FUSION	INDUC. COUP. PL
981005	46 P2O5	Phosphorous (P2O5)	5	0.03 PCT	BORATE FUSION	INDUC. COUP. PL
981005	47 LOI	Loss on Ignition	5	0.05 PCT	Ignition 1000 Deg.	GRAVIMETRIC
981005	48 Total	Whole Rock Total	5	0.01 PCT		
981005	49 Cr2O3	Chromium Oxide	5	0.01 PCT	BORATE FUSION	INDUC. COUP. PL
981005	50 Ba	Barium	5	10 PPM	Pressed Pellet	XRAY FLUORESCEN
981005	51 Sr	Strontium	5	1 PPM	Pressed Pellet	XRAY FLUORESCEN
981005	52 Y	Yttrium	5	1 PPM	Pressed Pellet	XRAY FLUORESCEN
981005	53 Nb	Niobium	5	2 PPM	Pressed Pellet	XRAY FLUORESCEN
981005	54 Zr	Zirconium	5	1 PPM	Pressed Pellet	XRAY FLUORESCEN
981005	55 Rb	Rubidium	5	2 PPM	Pressed Pellet	XRAY FLUORESCEN

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMB
R ROCK	12	2 -150	12	CRUSH/SPLIT & PULV.	
				TOTAL SAMPLE PREP	

REPORT COPIES TO: BOX 4375

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ITS

Intertek Testing Services

Bondar Clegg

Geochemical Lab Report

CLIENT: MR. STEVE TRAYNOR

PROJECT: ARSENAULT

REPORT: V98-01746.0 (COMPLETE)

DATE RECEIVED: 24-SEP-98 DATE PRINTED: 6-OCT-98

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB	Au Wt1 GM	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM
98R398		10	31.31	<.2	43	5	10	18	31	12	<.2	<5	<5	<5	1.70	315	<10	13	153
98R399		7	32.20	<.2	84	5	18	5	53	24	<.2	<5	38	<5	4.54	185	<10	39	122
98R400		9	31.46	<.2	518	7	16	4	20	31	<.2	<5	<5	<5	3.12	154	<10	40	107
98R401		25	15.82	2.1	4689	11	32	5	13	13	<.2	<5	7	<5	>10.00	209	<10	9	36
98R402		23	15.39	1.3	1970	12	23	6	15	88	<.2	<5	9	<5	>10.00	185	<10	4	55
98R403		34	15.06	2.4	4325	12	28	5	12	15	<.2	<5	48	<5	>10.00	303	<10	7	35
98R407		307	30.86	4.2	9099	13	19	3	2	2	0.4	10	<5	<5	1.59	154	10	<1	13
98R408		7	32.10	<.2	656	4	43	2	7	3	<.2	<5	<5	<5	2.35	1021	<10	4	107
98R147		121	31.05	2.7	9772	14	93	34	11	33	0.6	<5	<5	<5	8.49	609	<10	35	87
98R404		1729	31.13	1.1	5901	10	14	1	5	3	<.2	<5	<5	<5	1.41	57	<10	39	39
98R405		817	31.90	0.7	4349	8	12	1	5	4	<.2	<5	<5	<5	1.37	59	<10	33	46
98R406		1360	32.94	0.9	3577	7	13	<1	5	5	<.2	<5	<5	<5	1.43	92	<10	22	44

SAMPLE NUMBER	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM	SiO2 PCT	TiO PC
98R398	28	<20	<20	12	0.92	0.33	1.04	0.03	0.16	13	6	<2	3	2	<5	<10	0.08	2	72.23	0.4
98R399	37	<20	<20	14	1.38	0.81	0.52	0.04	0.50	16	8	<2	7	2	<5	<10	0.08	5	65.35	0.8
98R400	31	<20	<20	7	1.66	0.57	1.15	0.04	0.30	7	5	<2	3	3	<5	<10	0.11	1		
98R401	<1	<20	<20	9	0.47	0.24	1.55	0.03	0.05	35	6	<2	<1	2	<5	<10	0.05	1	33.06	0.3
98R402	<1	<20	<20	18	0.42	0.18	1.12	0.04	0.06	25	5	<2	<1	3	<5	<10	0.05	<1		
98R403	<1	<20	<20	4	0.61	0.32	5.10	0.02	0.03	84	7	<2	<1	3	<5	<10	0.04	2		
98R407	<1	<20	<20	3	0.05	0.58	0.74	0.02	<.01	3	2	<2	<1	2	<5	<10	0.01	4	52.93	0.0
98R408	3	<20	<20	3	0.24	0.32	4.05	0.03	0.02	60	3	<2	<1	2	<5	<10	0.01	<1	78.58	0.0
98R147	4	<20	<20	2	0.25	0.08	2.55	0.01	0.02	14	3	<2	<1	3	<5	<10	0.02	2		
98R404	12	<20	<20	<1	0.44	0.44	0.21	0.02	0.04	3	<1	<2	3	2	<5	<10	0.02	<1		
98R405	12	<20	<20	<1	0.45	0.43	0.10	0.02	0.03	3	1	<2	3	1	<5	<10	0.02	<1		
98R406	18	<20	<20	1	0.68	0.73	0.14	0.01	0.03	5	1	<2	4	2	<5	<10	0.02	<1		

Bondar-Clegg & Company Ltd., 130 Pemberton Avenue, North Vancouver, B.C., V7P 2R5, (604) 985-0681

ITS Intertek Testing Services
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REPORT: V98-01746.0 (COMPLETE)

PROJECT: ARSENAULT
DATE RECEIVED: 24-SEP-98 DATE PRINTED: 6-OCT-98 PAGE 1B(2/ 8)

SAMPLE NUMBER	ELEMENT UNITS	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Cr2O3 PCT	Ba PPM	Sr PPM	Y PPM	Nb PPM	Zr PPM	Rb PPM
98R398		7.70	4.55	0.28	2.77	6.16	0.58	1.74	0.14	1.50	98.12	0.03	186	122	11	11	93	51
98R399		13.36	7.06	0.04	1.80	2.16	1.12	3.85	0.08	4.44	100.15	0.03	662	194	20	10	237	127
98R400																		
98R401		5.99	29.51	0.16	5.19	11.98	0.95	0.18	0.20	11.12	98.71	<0.01	<10	321	16	4	51	5
98R402																		
98R403																		
98R407		1.08	12.77	0.28	16.89	11.76	0.45	<.05	0.10	1.97	98.31	<0.01	<10	15	4	3	31	2
98R408		1.14	5.82	0.22	2.04	7.41	0.09	<.05	0.06	4.80	100.25	0.02	<10	84	6	2	16	3
98R147																		
98R404																		
98R405																		
98R406																		

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Geochemical Lab Report

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REPORT: V98-01746.0 (COMPLETE) DATE RECEIVED: 24-SEP-98 DATE PRINTED: 6-OCT-98 PAGE 2A(3/ 8)

STANDARD NAME / ELEMENT UNITS	Au30 PPB	Au Wt1 GM	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM	SiO2 PCT	TiO2 PCT
ANALYTICAL BLANK	<5	-	<.2	<1	<2	<1	<1	<1	<1	<.2	<5	<5	<5	<0.01	<1	<10	<1	<1	<1	<20	<20	<1	<.01	<.01	<.01	<.01	<.01	<1	<1	<2	<1	<1	<5	<10	<.01	<1	<0.01	<.0
Number of Analyses	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Mean Value	3	-	0.1	<1	1	<1	<1	<1	<1	0.1	3	3	3	<0.01	<1	5	<1	<1	<1	10	10	<1	<.01	<.01	<.01	<.01	<.01	<1	<1	1	<1	<1	3	5	<.01	<1	<0.01	<.0
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Accepted Value	5	<0.01	0.2	1	2	1	1	1	1	0.1	2	5	5	0.05	1	<1	<1	1	1	<1	<1	<1	<.01	<.01	<.01	<.01	<.01	<1	<1	<1	<1	<1	<1	<1	<.01	<1	<0.01	<.0
BCC Au Std.8	1018	30.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Number of Analyses	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mean Value	1018	30.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Accepted Value	1070	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CANMET STD SY-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60.09	0.1
Number of Analyses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Mean Value	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60.09	0.1
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Accepted Value	-	-	-	17	133	244	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	6.22	1.61	-	-	-	-	-	-	-	-	-	-	-	-	59.68	0.1
Loss on Ignition Std	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Number of Analyses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mean Value	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Accepted Value	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CANMET STREAM-SED	-	-	0.3	59	15	85	2	22	10	<.2	<5	11	<5	2.76	1108	<10	792	28	43	<20	<20	11	1.12	0.68	1.16	0.04	0.10	48	10	<2	8	4	<5	<10	0.06	1	-	
Number of Analyses	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	
Mean Value	-	-	0.3	59	15	85	2	22	10	0.1	3	11	3	2.76	1108	5	792	28	43	10	10	11	1.12	0.68	1.16	0.04	0.10	48	10	1	8	4	3	5	0.06	1	-	
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Accepted Value	-	-	0.3	66	13	82	2	23	11	0.6	-	11	4	2.60	1200	-	-	30	51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CANMET SO-2 REF STD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Number of Analyses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mean Value	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Accepted Value	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53.46	

CLIENT: MR. STEVE TRAYNOR

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REPORT: V98-01746.0 (COMPLETE)

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STANDARD NAME	ELEMENT UNITS	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Cr2O3 PCT	Ba PPM	Sr PPM	Y PPM	Nb PPM	Zr PPM	Rb PPM
ANALYTICAL BLANK		<0.01	<0.01	<.01	<0.01	<0.01	<.01	<.05	<.03	-	-	<0.01	-	-	-	-	-	-
Number of Analyses		1	1	1	1	1	1	1	1	-	-	1	-	-	-	-	-	-
Mean Value		<0.01	<0.01	<.01	<0.01	<0.01	<.01	0.03	0.02	-	-	<0.01	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		<0.01	<0.01	<.01	<0.01	<0.01	<.01	<.01	<.01	<0.01	<0.01	<0.01	<1	<1	<1	<1	<1	<1
BCC Au Std.8		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CANMET STD SY-3		11.95	6.51	0.33	2.69	8.25	4.16	4.27	0.53	-	98.92	<0.01	-	-	-	-	-	-
Number of Analyses		1	1	1	1	1	1	1	1	-	1	1	-	-	-	-	-	-
Mean Value		11.95	6.51	0.33	2.69	8.25	4.16	4.27	0.53	-	98.92	<0.01	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		11.80	6.42	0.32	2.67	8.26	4.15	4.20	0.54	1.20	-	-	-	-	-	-	-	-
Loss on Ignition Std		-	-	-	-	-	-	-	-	4.38	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	4.38	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	4.24	-	-	-	-	-	-	-	-
CANMET STREAM-SED		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CANMET SO-2 REF STD		-	-	-	-	-	-	-	-	-	-	-	1019	346	38	19	761	72
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
Mean Value		-	-	-	-	-	-	-	-	-	-	-	1019	346	38	19	761	72
Standard Deviation					-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		15.24					-	-	-	-	-	-	1000	340	40	22	760	78

Intertek Testing Services
Bondar Clegg

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STANDARD NAME	ELEMENT UNITS	Au30 PPB	Au	Wt1 GM	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM
Granite - Cert.Ref.M		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

STANDARD NAME	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM	SiO2 PCT	TiO2 PCT
Granite - Cert.Ref.M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Number of Analyses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mean Value	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Accepted Value	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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CLIENT: MR. STEVE TRAYNOR
REPORT: V98-01746.0 (COMPLETE)

PROJECT: ARSENAULT
DATE RECEIVED: 24-SEP-98 DATE PRINTED: 6-OCT-98

STANDARD NAME	ELEMENT UNITS	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Cr2O3 PCT	Ba PPM	Sr PPM	Y PPM	Nb PPM	Zr PPM	Rb PPM
Granite - Cert.Ref.M		-	-	-	-	-	-	-	-	-	-	-	1456	577	12	23	232	188
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
Mean Value		-	-	-	-	-	-	-	-	-	-	-	1456	577	12	23	232	188
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	-	1400	570	14	21	235	185

ITS Intertek Testing Services
Bondar Clegg

Geochemical Lab Report

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DATE RECEIVED: 24-SEP-98 DATE PRINTED: 6-OCT-98 PAGE 4A(7/ 8)

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB	Au Wt1 GM	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM
98R398		10	31.31	<.2	43	5	10	18	31	12	<.2	<5	<5	<5	1.70	315	<10	13
Prep Duplicate		14	30.95	<.2	49	5	9	18	29	11	<.2	<5	<5	<5	1.64	308	<10	12
Duplicate																		
98R407		307	30.86	4.2	9099	13	19	3	2	2	0.4	10	<5	<5	1.59	154	10	<1
Duplicate		305	31.21	4.2	8707	12	19	3	2	2	0.4	9	<5	<5	1.55	153	<10	<1

SAMPLE NUMBER	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM	SiO2 PCT	TiO2 PCT
98R398	153	28	<20	<20	12	0.92	0.33	1.04	0.03	0.16	13	6	<2	3	2	<5	<10	0.08	2	72.23	0.46
Prep Duplicate	160	27	<20	<20	12	0.94	0.31	1.05	0.03	0.16	13	6	<2	3	2	<5	<10	0.09	2	75.36	0.45
Duplicate																					
98R407	13	<1	<20	<20	3	0.05	0.58	0.74	0.02	<.01	3	2	<2	<1	2	<5	<10	0.01	4	52.93	0.08
Duplicate	13	<1	<20	<20	3	0.05	0.58	0.72	0.02	<.01	2	2	<2	<1	2	<5	<10	0.01	3		

Intertek Testing Services
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SAMPLE NUMBER	ELEMENT UNITS	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	Cr2O3 PCT	Ba PPM	Sr PPM	Y PPM	Nb PPM	Zr PPM	Rb PPM
98R398		7.70	4.55	0.28	2.77	6.16	0.58	1.74	0.14	1.50	98.12	0.03	186	122	11	11	93	51
Prep Duplicate		7.69	4.54	0.28	2.76	6.22	0.58	1.79	0.12	1.46		0.03	193	123	12	12	92	51
Duplicate										1.48								
98R407		1.08	12.77	0.28	16.89	11.76	0.45	<.05	0.10	1.97	98.31	<0.01	<10	15	4	3	31	2
Duplicate																		

APPENDIX D

PETROGRAPHIC
(THIN SECTION)
REPORT

for Steve Traynor

Prepared by K.E. Northcote & Associates
for Vancouver Petrographics
October 13, 1998

24 - 2025 Winfield Drive
Abbotsford, BC V3G 1K5

fax

To:

Steve Traynor
(867) 667-6784

From:

Bruce Northcote
(for Vancouver
Petrographics)

Date: Oct 8 1998
Number of Pages: 8
Phone: (604) 859-4618
Fax: (604) 859-4619

Remarks:

Dear Steve,

The following is a fax copy of petrographic descriptions for your samples 98R375, 376, 396, 407.

A hard copy will follow via courier with photomicrographs and your thin sections and offcuts. To quickly respond to some of your questions, 375 and 376 both look like intermediate to mafic metavolcanics, although 376 has abundant quartz, which may have been introduced - textures in the quartz are more consistent with veins than quartzite, chert or purely metamorphic segregations.

The copper mineralization in 396 consists of malachite, which occurs in late veinlets. I could not find primary Cu minerals.

Several of the samples contain late carbonate and chlorite, and in one case K-spar veinlets which cut across the metamorphic fabric, but the chalcopyrite (where present) shows no obvious relationship to these and appears to belong to an earlier phase of mineralization.

All of the samples have been affected to some degree by shearing.

Please feel free to contact me with any questions of concerns.

Sincerely,

Bruce Northcote

Bruce Northcote

[1] 98R375
Greenstone (→amphibolite)

Summary description

Metamorphic rock consisting mainly of actinolite and plagioclase with lesser chlorite, quartz, and epidote. At least two generations of carbonate can be identified -- one parallel to fabric, which has undergone some deformation, and late crosscutting microveins. Chlorite is also observed in late crosscutting veins. Plagioclase is overprinted with fine sericite and locally partly replaced by carbonate.

Copper mineralization consists of finely scattered chalcopyrite, some of which is enclosed by plagioclase, quartz, epidote, and amphibole and is not obviously related to the late veining.

Protolith was probably an intermediate volcanic.

Microscopic description

Transmitted light

Plagioclase; 45-50%, anhedral (0.01 to 1.0 mm). Interlocking plagioclase in roughly lensoidal segregations (affected by shearing). Has a strong dusting of sericite alteration. Some local carbonate replacement. Myrmekitic intergrowths of quartz noted locally.

Amphibole (tremolite-actinolite); 25-30%, euhedral to subhedral (0.01 to 1.0 mm). Elongate laths with planar preferred orientation. Thin metamorphic segregations developed, disrupted by shearing. Very pale green pleochroic, maximum extinction angle 17°, biaxial (-) with moderately high 2V. Properties consistent with tremolite-actinolite.

Carbonate; most occurs in irregular veinlets in amphibole segregations, following the overall fabric, but a few carbonate (+quartz) microveins run perpendicular to the fabric and crosscut the previous generation. Most of these microveins have undergone some minor, local deformation. Chlorite is commonly associated [carbonate reacts with cold, dilute HCl -- calcite].

Sericite; <5%, anhedral (microcrystalline). Strong dusting of sericite alteration in plagioclase.

Quartz; 3-5%, anhedral (0.05 to 0.5 mm). A few quartz lensoids parallel to fabric and some quartz is intermixed with the plagioclase. Some elongate "segregations" parallel to fabric may represent deformed veins. Generally the quartz is strongly strained in these, compared to that interlocking with the plagioclase.

Chlorite; 2-3%, anhedral (<0.01 to 0.8 mm). Most is coarse, oriented parallel to foliation, but some is in veins cutting across the metamorphic fabric.

[1] Continued

Epidote; <1%, anhedral (0.01 to 0.1 mm). Sparse epidote, mainly in plagioclase.

Biotite; traces, anhedral (0.05 to 0.1 mm). Pale reddish-brown flakes in plagioclase segregations, oriented parallel to fabric.

Tourmaline; trace, subhedral (0.2 mm). Very sparse. Brownish-green core and pale rims.

<u>Veins</u>:

Carbonate veins as noted above; both parallel to fabric and minor late, crosscutting microveins which cut amphibole, plagioclase crystals and earlier fabric-parallel carbonate. Some chlorite and quartz associated.

K-feldspar; a veinlet containing K-feldspar (<1.0 mm wide) is observed cutting across the fabric in the stained offcut.

Reflected light

Sphene; 1-2%, anhedral to euhedral (<0.01 to 0.1 mm). Scattered throughout. Some encloses rutile.

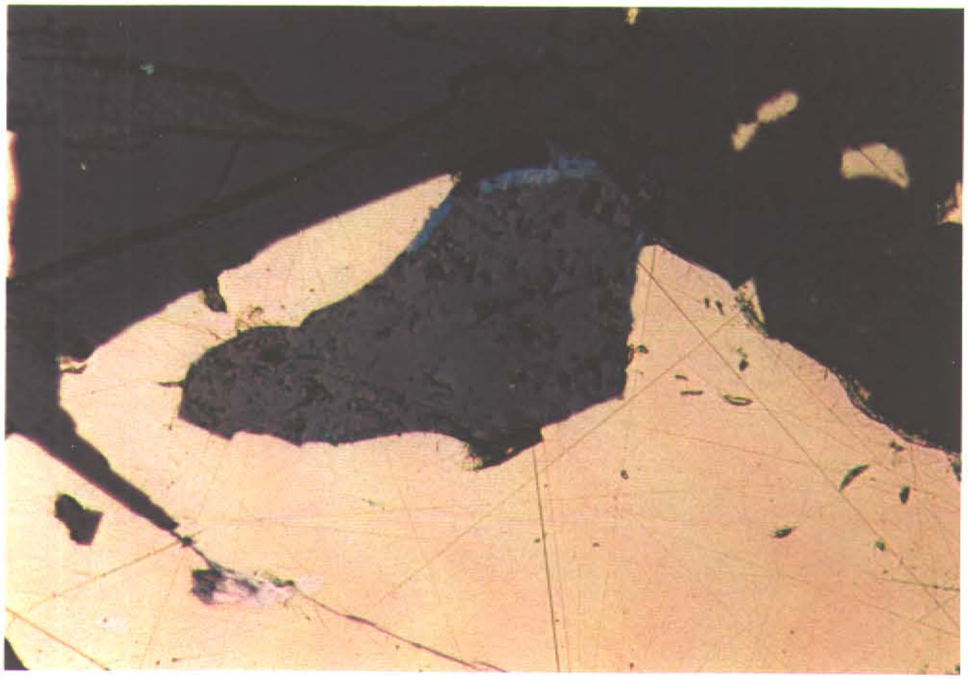
Rutile; ≤1%, anhedral (<0.01 to 0.1 mm). Scattered crystals, commonly enclosed by sphene.

Hematite; traces, anhedral (<0.01 to 0.1 mm). Hematite with chlorite, carbonate, and quartz in a deformed, discontinuous vein (?), parallel to overall fabric.

Chalcopyrite; traces, anhedral (<0.01 to 0.1 mm). Scattered diffuse clusters. Most in plagioclase and quartz but also observed in amphibole. Some is enclosed by euhedral, unaltered grains of amphibole.

Pyrite, euhedral (0.01 mm). Very sparse.

[2] 98R376
Greenschist



Photomicrograph 98R XXII 17 Reflected light
Scale 0.1 mm
Pictured: Malachite occupies cavity in chalcopyrite. Blue mineral is covellite.

Summary description

Slivers of greenschist alternate with bands of quartz. The greenschist portion of the sample consists of plagioclase, epidote, chlorite, calcic clinoamphibole, and remnants of biotite. Chlorite and amphibole produce a weak foliation. Protolith was probably a mafic to intermediate volcanic or intrusive.

Quartz bands consist of interlocking quartz with widely varying grain size. Generally without crystalloblastic texture. Most is strained. Possibly originally veins(?).

Copper mineralization consists of interstitial chalcopyrite in quartz-rich portions, and unevenly disseminated chalcopyrite in greenschist "slivers." Some alteration of chalcopyrite to covellite.

[2] Continued

Microscopic description

Transmitted light

Quartz; 60-65%, anhedral (<0.01 to 2.0 mm). Interlocking quartz in lenses or deformed veins alternating with bands of feldspathic material. Quartz ranges from strongly to weakly strained. Some recrystallization has occurred around grain edges. Lesser quartz is intermixed with plagioclase in the feldspathic / chloritic segregations. Quartz bands probably represent introduced material rather than purely metamorphic segregations, based on texture (generally not crystalloblastic).

Chlorite; 5-7%, anhedral to subhedral (0.01 to 1.0 mm). Ragged bladed chlorite intermixed with plagioclase, epidote, and amphibole. Chlorite has a very rough preferred orientation which contributes to foliation. Observed partially replacing biotite in some cases.

Amphibole; 3-5%, anhedral to subhedral (<0.01 to 2.0 mm). Ragged amphibole laths have very rough preferred orientation in slivers of greenschist. Green to pale brown pleochroic, biaxial (+) interference figures obtained -- probably hornblende.

Epidote; 3-5%, anhedral (<0.01 to 2.0 mm). Irregular grains of epidote with chlorite and amphibole.

Biotite; <0.5%, subhedral (0.01 to 0.5 mm). Partly (largely) replaced by chlorite. No preferred orientation discerned.

Sericite / muscovite; ≤1%, anhedral (microcrystalline to 0.1 mm). Plagioclase is dusted with sericite alteration. Very minor coarser colourless mica occurs with biotite.

Malachite; trace, anhedral (<0.05 mm). Alteration of chalcopyrite.

Reflected light

Chalcopyrite; 1-2%, anhedral (<0.01 to 0.5 mm). Coarse and interstitial in quartz-rich portion of sample and irregularly disseminated in greenschist portion of sample. Some associated with lesser pyrrhotite.

Rutile; traces+, anhedral (<0.01 to 0.2 mm). Scattered grains, mainly in greenschist portions of section.

Pyrite; traces+, anhedral to euhedral (0.01 to 0.5 mm). Sparsely disseminated, mainly in greenschist slivers.

Pyrrhotite; traces, anhedral (0.01 to 0.2 mm). Sparse, associated with chalcopyrite

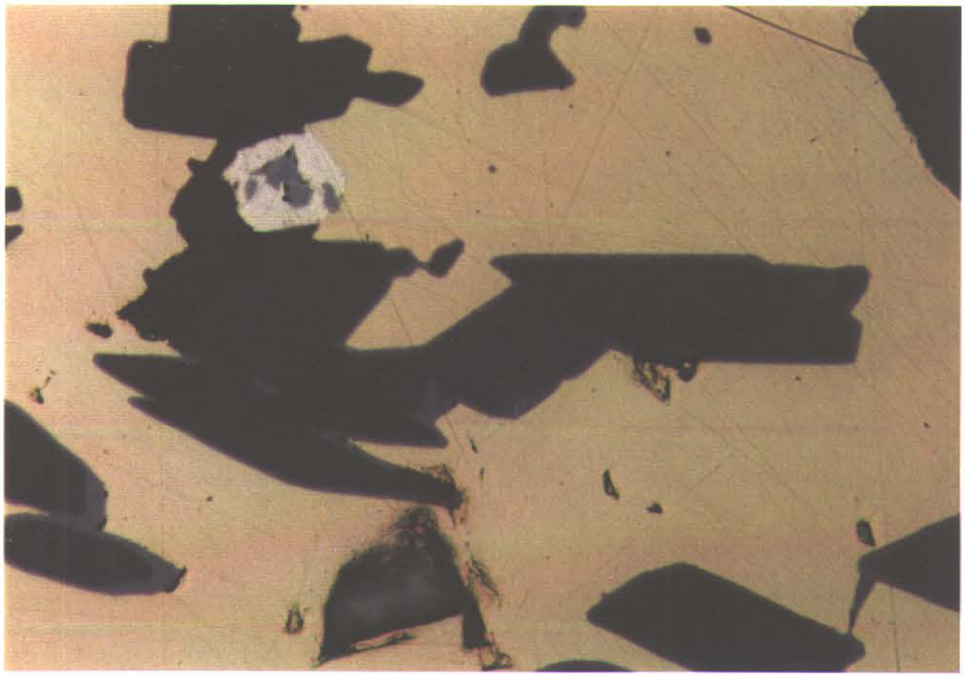
[2] Continued

Covellite; traces, anhedral (<0.01 to 0.1 mm). Alteration of chalcopyrite.

Unknown; traces, anhedral (≤0.01 mm). Alteration product of chalcopyrite, with covellite. Bluish-grey colour. Too fine for reliable identification. Possibly chalcocite.

Hematite; traces+, anhedral (<0.01 to 0.1 mm). Locally forms rims around chalcopyrite and pyrite.

[4] 98R407
Amphibolite



Photomicrograph 98R XXII 19 Reflected light
Scale 0.1 mm ______________________
Pictured: Euhedral amphibole enclosed by chalcopyrite; sphalerite rims on chalcopyrite

Summary description
Consists largely of green pleochroic amphibole laths with preferred orientation. Minor, scattered, roughly equant grains of pale green to pinkish-brown pleochroic clinopyroxene is probably diopside. Minor plagioclase and small quartz lensoids are present.

Contains interstitial carbonate (calcite) in diffuse streaks parallel to the dominant fabric. Chalcopyrite is also interstitial with respect to the euhedral-to-subhedral amphibole, and is generally observed with carbonate. Locally, sphalerite forms thin rims on chalcopyrite.

[4] Continued

Microscopic description

Transmitted light

Amphibole; 80-90%, anhedral to euhedral (<0.01 to 1.0 mm). Section consists largely of pale green amphibole laths with preferred orientation. Biaxial (-) with high 2V (~80°). Green to bluish-green pleochroic. Maximum extinction angle approximately 17°. Calcic clinoamphibole -- actinolite or hornblende.

Clinopyroxene (diopside?); <5%, anhedral, subhedral (0.1 to 0.5 mm). Similar in colour to amphibole but with a pinkish tint in one orientation. Occurs as scattered, roughly equant grains. Higher relief than the amphibole. Biaxial (+), 2V 50-60°. Maximum extinction angle approaches 45°. Characteristic pyroxene cleavages at near 90°.

Carbonate; 3-5%, anhedral to euhedral (<0.01 to 1.0 mm). Interstitial to amphibole, in diffuse and discontinuous bands parallel to fabric. Calcite -- reacts with cold, dilute HCl.

Plagioclase / albite; 1-2%, anhedral (0.01 to 1.0 mm). Interstitial to amphibole in small segregations. Most has apparently associated chalcopyrite and carbonate.

Quartz; 1-2%, anhedral (<0.01 to 0.5 mm). Strained quartz in small lensoidal aggregates.

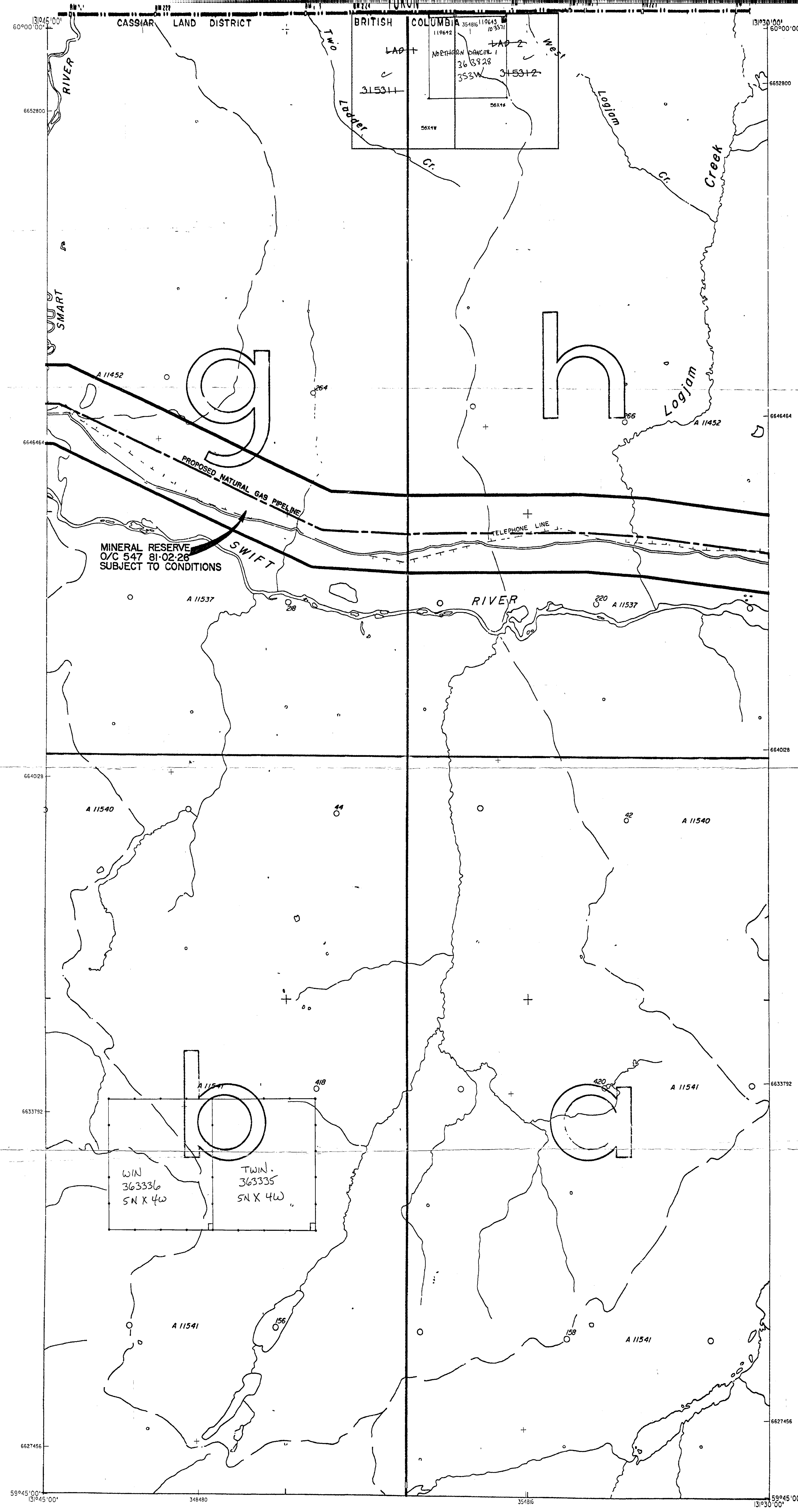
Epidote; ≤1%, anhedral (<0.01 to 0.2 mm). Sparsely scattered irregular grains.

Reflected light

Chalcopyrite; 3-5%, anhedral (<0.01 to 1.0 mm). Interstitial to amphibole. Some is rimmed with sphalerite. Arranged in narrow and diffuse bands, commonly but not exclusively with carbonate.

Sphalerite; traces+, anhedral (<0.01 to 0.05 mm). Sphalerite observed as thin rims on chalcopyrite.

Sphene; <1%, anhedral (<0.01 to 0.1 mm). Disseminated.



PROVINCE OF
BRITISH COLUMBIA

MINISTRY OF
ENERGY, MINES AND
PETROLEUM RESOURCES

MINERAL TITLES REFERENCE
MAP 104O13E
U.T.M. ZONE 9
LAST MAP UPDATE: 1993 FEB 17

ORIGINAL PRODUCED AT 1:31680

METRES
500 0 500 1000 1500 2000

ADMINISTRATIVE AREAS
MINING DIVISIONS: ATLIN

LAND DISTRICTS:

ALIENATIONS
NO STAKING AREAS
NO STAKING RESERVES
PARKS
ECOLOGICAL RESERVES
RECREATION AREAS
INDIAN RESERVES

CONDITIONAL AREAS
SUBJECT TO CONDITIONS RESERVES
SECTION 19 RECREATION AREAS
1 POST CLAIM AREAS
AREAS SUBJECT TO URANIUM / THORIUM REGULATIONS

MINERAL TENURE

MINERAL CLAIM	
MINERAL LEASE	
INDUSTRIAL MINERAL CLAIM	
CLAIM NAME	EXAMPLE
TITLE NUMBER	345679
OLD TITLE NUMBER	*3456*
TAG NUMBER	100000
LEGAL POST	
WITNESS POST	
FORFEITED TENURE	
VERIFIED	VER
SURVEYED	SUR
REVERTED C.G. MINERAL CLAIM	REV CG OR RCG
CROWN GRANTED	C G
OPEN FOR STAKING	O.F.S.

1 UNIT — 2 POST CLAIM — OLD 2 POST CLAIM

THIS MAP IS PREPARED ONLY AS A GUIDE TO THE LOCATION OF MINERAL TENURE AS AS SHOWN ON THE LOCATOR'S SKETCHES. FOR CURRENT OR MORE SPECIFIC INFORMATION, APPLICATION SHOULD BE MADE TO THE MINING DIVISION CONCERNED.

YUKON	YUKON	YUKON
104O13W	104O13E	104O14W
104O12W	104O12E	104O11W

INDEX TO ADJOINING MAPS

98-17 ①

104O13E