

# ARCHER, CATHRO

& ASSOCIATES (1981) LIMITED

CONSULTING GEOLOGICAL ENGINEERS

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## ASSESSMENT REPORT

093 995

describing

## GEOLOGICAL MAPPING AND PROSPECTING

at the

## SLAP SHOT PROPERTY

Blue Line 1-20	YB60514-YB60533
21-32	YB61472-YB61483
33-34	YB89605-YB89606
Rink 1-20	YB61452-YB61471
21-44	YB68869-YB68892
45-144	YB70331-YB70430
Shot 1-36	YB56059-YB56094
37-74	YB61484-YB61521
75-96	YB68893-YB68914
97-110	YB70317-YB70330
111-128	YB68915-YB68932



Latitude 61°21' N; Longitude 130°53' W

NTS 105G/7

WATSON LAKE MINING DISTRICT, YUKON TERRITORY

Prepared by

Archer, Cathro & Associates (1981) Limited

for

**EXPATRIATE RESOURCES LTD.**

W.A. Wengzynowski, P.Eng.  
January, 1999

This report has been examined by  
the Geological Evaluation Unit  
under Section 53 (4) Yukon Quartz  
Mining Act and is allowed as  
representation work in the amount  
of \$ 13,600.

*M. Burk*

*for* Regional Manager, Exploration and  
Geological Services for Commissioner,  
of Yukon Territory.

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## SUMMARY AND RECOMMENDATIONS

The Slap Shot property is owned 100% by Expatriate Resources Ltd. and consists of 306 mineral claims located 230 km northeast of Whitehorse in east-central Yukon. There is all-season road access to Finlayson Lake which lies 30 km northeast of the property. A private road extends from Finlayson Lake to Cominco's Kudz Ze Kayah Deposit 15 km east-northeast of the claim block.

The property occupies approximately 6400 hectares in the south-central part of the Finlayson Block, a 380 by 60 km area comprised primarily of metavolcanic and metasedimentary stratigraphy belonging to the Yukon-Tanana Terrane.

Geomorphology is characterized by a main north and northeast trending ridge system flanked by steep walled cirques and talus slopes giving way to till covered plateaus near valley bottoms. Elevations range from 1300 to 2000 m. Soil development is immature in most areas.

The main exploration target on the Slap Shot property is volcanogenic massive sulphide (VMS) mineralization. The property's potential is indicated by nearby deposits including Kudz Ze Kayah and Wolverine deposits which contain felsic affinity Kuroko-style VMS mineralization.

Expatriate has developed an excellent VMS target on the Blue Line claims in the southwestern corner of the Slap Shot property. This target has been explored since 1996 by airborne geophysical surveys, reconnaissance and grid soil geochemistry, geological mapping and prospecting, hand trenching and hand pitting. The strongest soil geochemical response for silver (4.4 ppm), copper (1635 ppm), lead (734 ppm) and zinc (4250 ppm) occurs in clusters along the projected surface trace of favourable felsic volcanic stratigraphy. Hand trenching at several

locales encountered mineralized subcrop and bedrock, samples of which yielded up to 8.58% zinc across 5 cm. Mineralized float returned as high as 9.24% zinc. Although precious metal values are generally low, limonite and arsenopyrite bearing vein float returned 62.0 g/t silver and 10.29 g/t gold, respectively.

Additional exploration is recommended in two phases on the Slap Shot property. The first phase of work should include detailed stratigraphic alteration mapping and lithochemical analyses plus continued prospecting and hand trenching of geochemical anomalies. The identification of vent proximity vectors is essential in defining diamond drill holes for the second phase of exploration.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED



W.A. Wengzynowski, P.Eng.

## INTRODUCTION

Expatriate Resources Ltd. has a 100% interest in the Slap Shot property which protects massive sulphide volcanogenic massive sulphide (VMS) targets. The property consists of 306 claims that were acquired by staking in 1994, 1995 and 1997. Grid soil sampling, geological mapping and prospecting were done in the northern part of the property in fall 1995 (Wengzynowski, 1996). Follow-up exploration in 1996 consisted of airborne magnetic and electromagnetic surveys, geological mapping, prospecting, claim surveys, soil sampling, hand trenching, linecutting, ground magnetic and Maxmin surveys, and 396 m of diamond drilling in three holes (Aerodat, 1996 and Eaton, 1997). Most of the work was concentrated in the northwestern part of the claim block and returned disappointing results. However, reconnaissance in the southwestern part of the property (Blue Line claims) discovered VMS mineralization in favourable stratigraphy. This discovery was followed up with a small soil sample grid in late 1996 then geological mapping, prospecting, additional grid and contour soil sampling, plus minor hand pitting in 1997 (Wengzynowski, 1998).

The 1998 program again focussed on the Blue Line Area and consisted of geological mapping and detailed prospecting (including hand trenching) within previously outlined soil geochemical anomalies. The work was completed by a two or three person crew working from a fly camp on the property. The program was managed by Archer Cathro & Associates (1981) Limited and supervised by the author. Appendix I contains the Author's Statement of Qualifications.

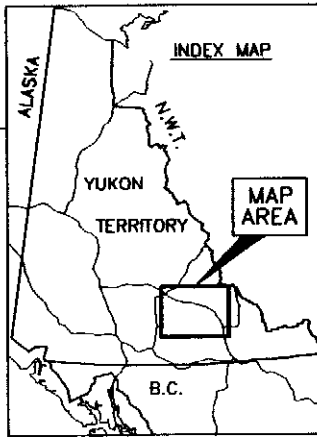
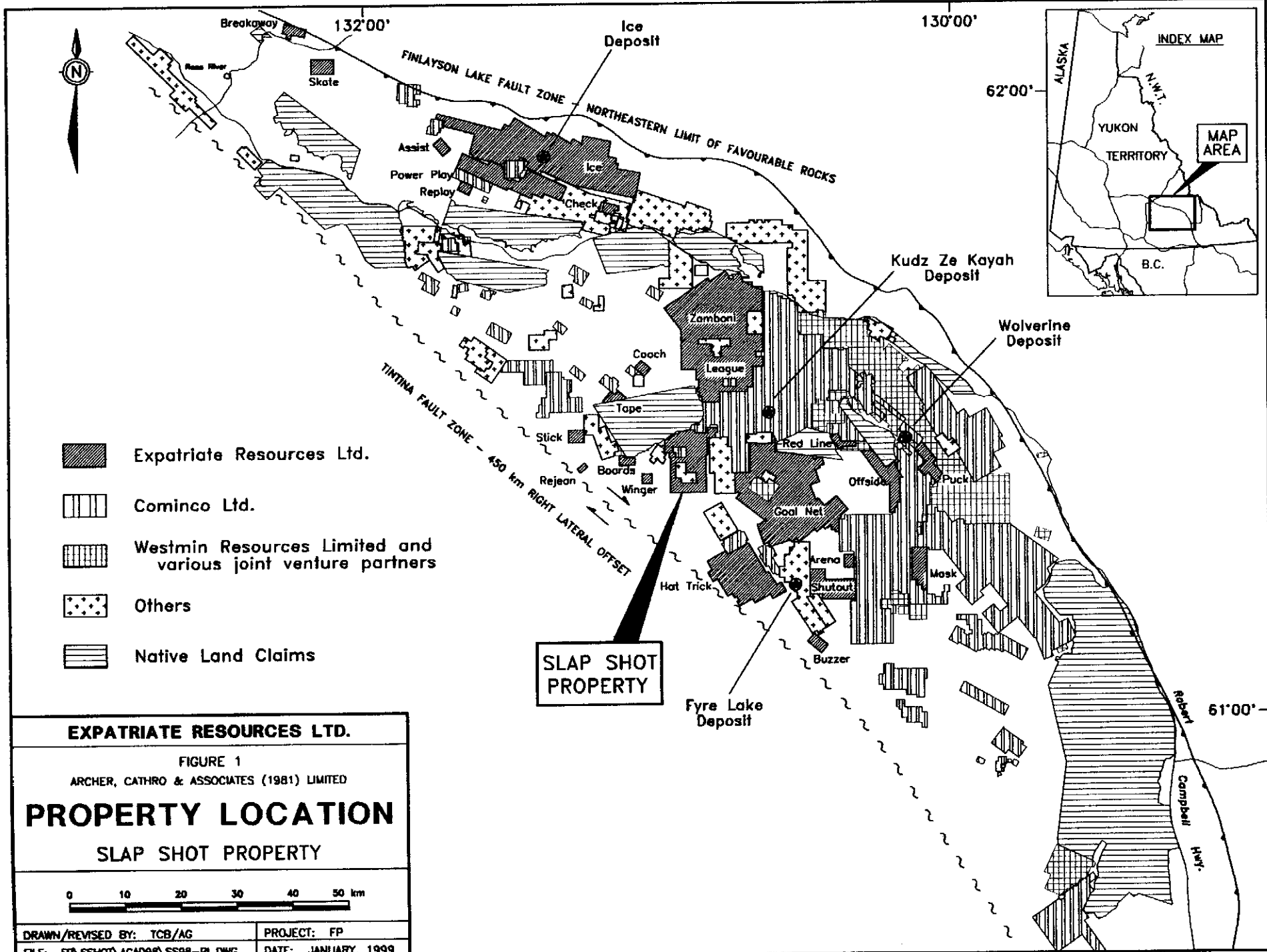
## PROPERTY, LOCATION AND ACCESS

The property is located in southeastern Yukon at latitude 61°21'N and longitude 130°53'W on NTS map sheet 105G/7 (Figure 1). It consists of 306 contiguous mineral claims registered with the Watson Lake Mining Recorder in the name of Archer, Cathro & Associates (1981) Limited which holds them in trust for Expatriate Resources Ltd. Figure 2 illustrates the property boundaries and the area explored in 1998 while individual claim locations are shown on Figure 3. Claim registration data are listed below.

<u>Claim Name</u>	<u>Grant Number</u>	<u>Expiry Date</u>
Blue Line 1-20	YB60514-YB60533	March 17, 2009
21-32	YB61472-YB61483	March 17, 2009*
33-34	YB89605-YB89606	March 17, 2009*
Rink 1-20	YB61452-YB61471	March 17, 2000
21-44	YB68869-YB68892	March 17, 2000
45-144	YB70331-YB70430	March 17, 2000
Shot 1-36	YB56059-YB56094	March 17, 2007
37-74	YB61484-YB61521	March 17, 2001
75-96	YB68893-YB68914	March 17, 2001
97-110	YB70317-YB70330	March 17, 2001
111-128	YB68915-YB68932	March 17, 2001

\*Expiry dates include 1998 work filed for assessment credit but not yet accepted.

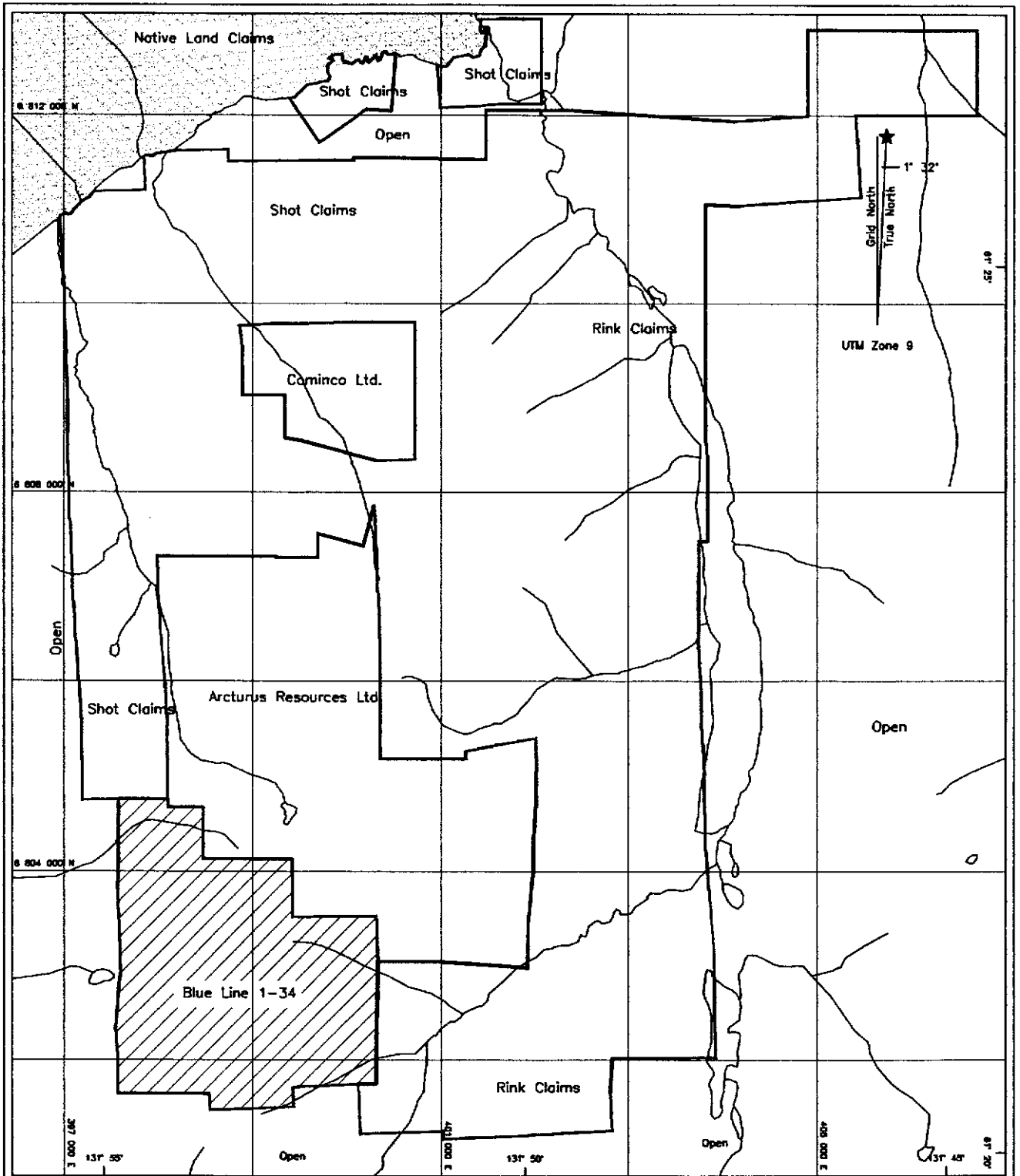
Fly camp support was provided by Bell 206B Jet Rangers operated by Trans North Helicopters from permanent bases in Ross River and Watson Lake. The Robert Campbell Highway provides all-season road access to Finlayson Lake which is situated some 40 km to the northeast of the property. A private access road constructed by Cominco Ltd. extends from the Robert Campbell Highway near Finlayson Lake southward to the Kudz Ze Kayah Deposit, some 15 km northeast of the Slap Shot property.



- Expatriate Resources Ltd.
- Cominco Ltd.
- Westmin Resources Limited and various joint venture partners
- Others
- Native Land Claims

**SLAP SHOT PROPERTY**

<b>EXPATRIATE RESOURCES LTD.</b>	
FIGURE 1 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED	
<b>PROPERTY LOCATION</b>	
SLAP SHOT PROPERTY	
DRAWN/REVISED BY: TCB/AG	PROJECT: FP
FILE: F:\SSHOT\ACAD98\SS98-PL.DWG	DATE: JANUARY, 1999



1997, 1988 WORK AREA

**EXPATRIATE RESOURCES LTD.**

FIGURE 2

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**PROPERTY BOUNDARIES**

SLAP SHOT PROPERTY



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PROJECT: FP

FILE: \SINGH\ACAD\85-PRJ.DWG

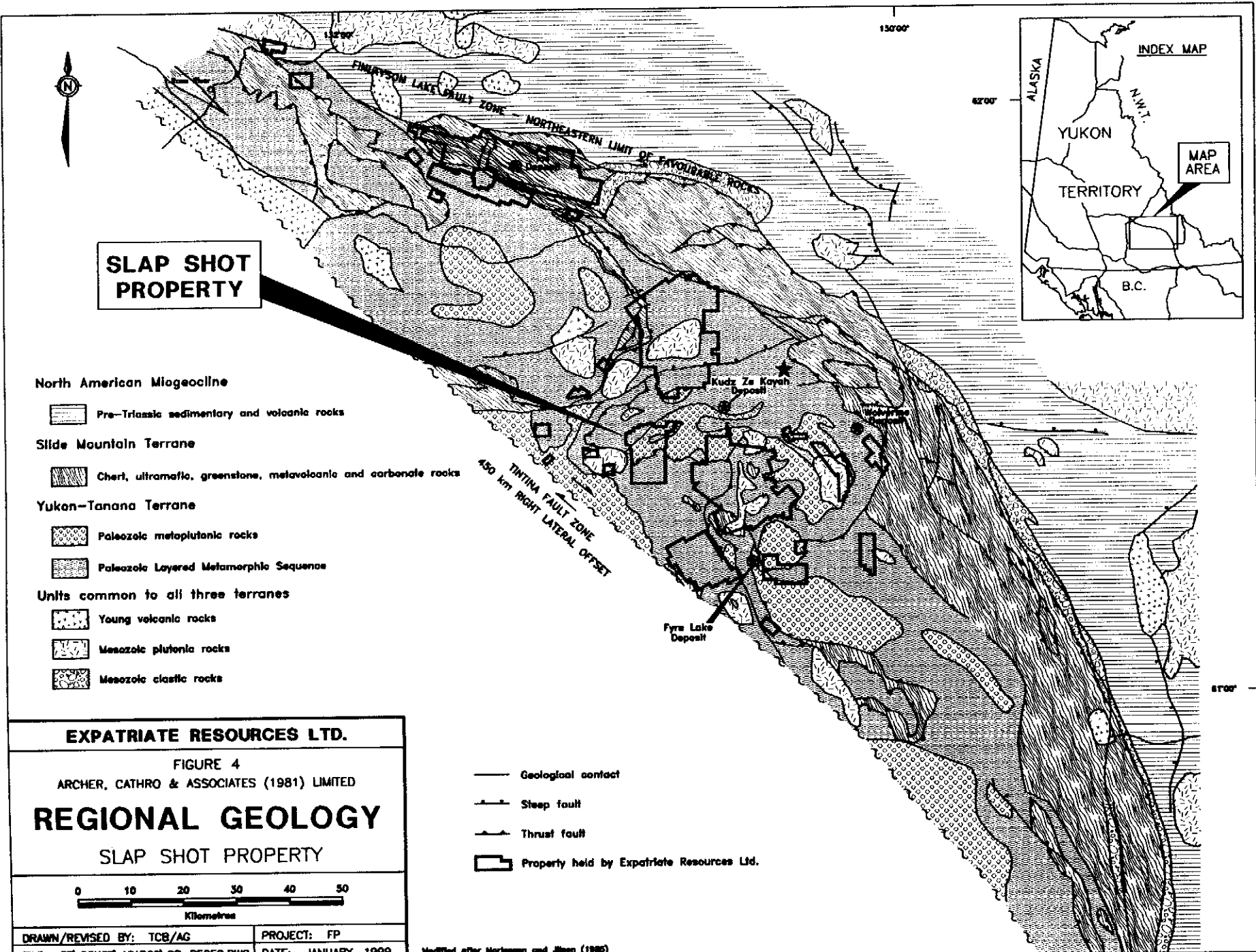
DATE: JANUARY, 1989

## REGIONAL GEOLOGY

The Slap Shot property is located within the Finlayson Block, a 380 by 60 km area comprised primarily of the Yukon-Tanana Terrane (YTT) as illustrated on Figure 4. This terrane represents the innermost of the accreted or "suspect" terranes in the Canadian Cordillera (Mortensen and Jilson, 1985). The northeastern margin of the block is the Finlayson Lake Fault Zone, a complex zone of steep and shallow faults related to transpressive suturing. The southwestern boundary of the block is the Tintina Fault Zone, a major strike-slip structure with at least 450 km of dextral displacement during Late Cretaceous and/or Early Tertiary time (Tempelman-Kluit et al, 1976).

Regional mapping of the Finlayson Lake area was completed by the Geological Survey of Canada (GSC) in the mid to late 1970's (Tempelman-Kluit, 1977, 1979). More recent regional studies have been published by Mortensen and Jilson (1985), Mortensen (1992), Murphy & Timmerman (1997) and Murphy (1997). The following regional geological descriptions and property geology use the most recent nomenclature and regional interpretations as presented by Murphy (personal communication, 1998) and to a lesser degree Mortensen. Figure 5 shows stratigraphic columns that illustrate similarities and key differences between Murphy's and Mortensen's geological models.

YTT consists largely of Paleozoic continental margin and/or arc stratigraphy deposited on a continental basement of uncertain origin (Mortensen, 1992). It contains eight stratigraphic units which Murphy collectively termed Layered Metamorphic Rocks (LMR). LMR is divided into three main packages, the lower two of which are separated by a regional scale unconformity. Units 1 to 4 comprise the first package, 5 to 7 to the second and Unit 8 the third. Elsewhere in the Finlayson



**SLAP SHOT  
PROPERTY**

**North American Miogeocline**

Pre-Triassic sedimentary and volcanic rocks

**Slide Mountain Terrane**

Chert, ultramafic, greenstone, metavolcanic and carbonate rocks

**Yukon-Tanana Terrane**

Paleozoic metaplutonic rocks

Paleozoic Layered Metamorphic Sequence

**Units common to all three terranes**

Young volcanic rocks

Mesozoic plutonic rocks

Mesozoic clastic rocks

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FIGURE 4

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**REGIONAL GEOLOGY**

SLAP SHOT PROPERTY



- Geological contact
- Steep fault
- Thrust fault
- Property held by Expatriate Resources Ltd.

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PROJECT: FP

FILE: FP\SSHOT\ACAD98\SS-REGEO.DWG

DATE: JANUARY, 1999

Modified after Norlenn and Jison (1988)

Mortensen  
( '85 and '92)

Murphy  
( '96 - '98)

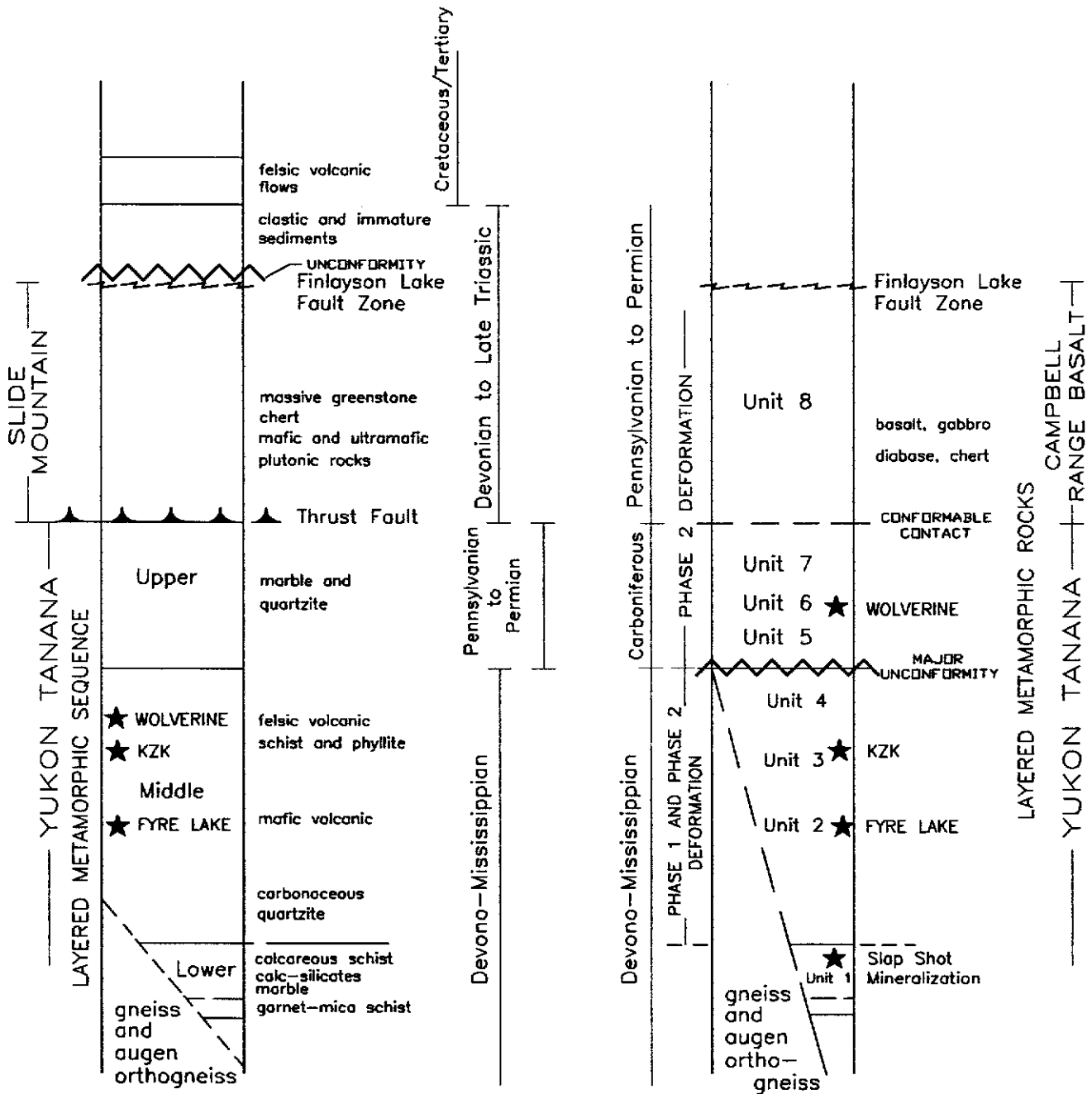


FIGURE 5  
REGIONAL STRATIGRAPHIC SECTIONS

Block this sequence is conformably underlain by a thick section of garnet-mica schist. Murphy's mapping has not yet covered areas where these rocks occur but it is likely that Unit 1 will later be expanded to include them. The Slap Shot property is predominantly underlain by Unit 1.

The lowest unit of LMR (Unit 1) consists of marble, calc-silicate and calcareous schist plus locally extensive felsic metavolcanic sequences that have associated VMS mineral occurrences. The principal target in the Blue Line Area of the Slap Shot property is associated with Unit 1 stratigraphy. Unit 2 is dominantly massive to subtly layered biotite-plagioclase-actinolite-chlorite schist that has a distinct mafic volcanic affinity. Mineralization associated with these rocks include the Fyre Lake Deposit located about 25 km southeast of the Slap Shot property. Most of Unit 3 is made up of felsic to intermediate metavolcanic, metatuff, metaporphyry and carbonaceous quartzite. Magnetite iron formation is locally abundant while calc-silicate and marble are interbedded with metavolcanics in the lower part of the section. This unit hosts the Kudz Ze Kayah Deposit. Unit 4 is comprised of carbonaceous phyllite, quartzite, and biotite-chlorite-actinolite-plagioclase schist with a mafic volcanic affinity. Units 1 to 4 are Devono-Mississippian in age and show two major phases of deformation.

Units 5 through 7 contain similar lithologies but these rocks only exhibit one phase of deformation and are believed to be Carboniferous in age. Unit 5 is a mixed volcanic and sedimentary sequence containing carbonaceous phyllite, sandstone, porphyritic felsic phyllite, quartz-feldspar metaporphyry and coarse feldspathic grit. Unit 6 is mostly metavolcanic consisting dominantly of phyric and aphyric metarhyolite and felsic schist plus a laterally extensive massive or

bedded baritic iron formation. The Wolverine Deposit is situated 50 to 100 m structurally below the iron formation marker horizon. Intercalated phyllite is common near the top of the section and grades sharply into Unit 7 which is comprised of carbonaceous argillite, sandstone, grey quartz grit and a thin tuffaceous chert or silicified argillite horizon that marks the top of the unit.

The uppermost package of the LMR consists of conformably overlying Pennsylvanian to Permian, Campbell Range Basalt which are designated Unit 8. These rocks are of typical mid-ocean ridge basalt affinity (Murphy, personal communication, 1998) and include coarse basaltic breccia, pillowed and massive basaltic flows, gabbro, diabase and maroon and green chert. The Campbell Range Basalt were previously interpreted as disrupted oceanic thrust slices belonging to the Slide Mountain Terrane; however, Murphy's recent mapping indicates this succession is conformable with the underlying units of YTT.

In addition to the stratigraphic units a number of enigmatic intrusive rocks and other units occur within YTT.

Gneiss and augen gneiss occur within and directly below Units 1 to 4 as illustrated on Figure 5. Two main packages of gneiss have been recognized: Grass Lake orthogneiss and Simpson Suite. Mortensen and Jilson (1985) considered the orthogneiss to be metamorphosed Mid-Paleozoic plutonic rocks. Conversely, Tempelman-Kluit (personal communication, 1996) considers these gneisses to be at least in part recrystallization of earlier stratigraphy. Radiometric dating has consistently yielded Late Devonian to Mississippian ages (Mortensen, 1992).

The Grass Lakes orthogneiss occurs in structural culminations with diameters on the order of 10 km and structural relief up to about 1 km. It forms dykes and sills near the base of LMR but

no large sections are seen beneath it. Foliated quartz-feldspar metaporphry, which is dated as Mississippian and may be a hypabyssal equivalent of the orthogneiss, has been mapped at two localities adjacent to the Slap Shot property. These bodies intrude LMR and Grass Lake orthogneiss.

The Devono-Mississippian Simpson Suite (Mortensen, 1992) forms thick intervals of foliated hornblende granodiorite and quartz monzonite within the YTT stratigraphic sequence. Mortensen and Jilson (1985) interpreted this suite as intrusive sills while Tempelman-Kluit (1979 and personal communication, 1996) considers it to be an allochthonous slice emplaced on top of the structural pile.

Small Mississippian or younger ultramafic bodies found within YTT of the Finlayson Block are also controversial. Some mappers consider them to be thrust bounded slices while others propose they were intruded as sills.

Mesozoic intrusive activity in the Finlayson Block includes two main suites. The first is comprised of several unmetamorphosed Early Jurassic mafic and intermediate plutons. The second suite consists of Late Cretaceous two-mica quartz monzonite and granite (Mortensen and Jilson, 1985). Some of the Cretaceous intrusions show weak strain while others are unfoliated.

YTT strata are locally unconformably overlain by sedimentary and volcanic units which also overlie adjacent autochthonous strata belonging to the North American miogeocline. One of the successor units consists of Late Triassic immature sediments containing cobbles of Campbell Range Basalt. Late Cretaceous to Tertiary felsic volcanic flows and volcanoclastic deposits are also present and are usually found in close proximity to the Tintina Fault Zone.

Metamorphic grades within YTT range from lower greenschist to middle amphibolite facies. Contact hornfels occur locally around plutonic units.

Two distinct phases of deformation have been identified within YTT stratigraphy. The second phase is observed in all YTT units and appears as regional scale, broad to isoclinal folds and shear bands. The folds are south verging except where subsequent broad low amplitude warping has resulted in a mild shift of vergence to the southwest. The first phase of deformation is confined to Units 1 to 4 and is indicated by a well developed pervasive foliation. This foliation is preserved as a variably developed crenulation cleavage within phase 2 fold hinges. The crenulations are defined by the realignment of micaceous minerals parallel to axial fold planes. The absence of crenulation cleavage within fold structures is the main observation used by Murphy to define the position of the regional scale unconformity mapped between Units 4 and 5. This unconformity lies about 32 km east-northeast of the Slap Shot property roughly paralleling the southwestern shore of Wolverine Lake.

The second phase of deformation is tentatively correlated with transpressive suturing of these suspect terranes with ancestral North America. Suturing began in early Jurassic continuing into Cretaceous. Whether deformation was continuous or sporadic has not been determined.

Low angle extensional faults of various magnitudes occur throughout the Finlayson Block and in some cases are believed to juxtapose differing sequences (Tempelman-Kluit, personal communication, 1996). East and northeast trending, steep normal faults are also present. These faults predate the Cretaceous intrusions. The presence of thrust faults in the Finlayson Block is somewhat uncertain as there is little surficial evidence to confirm this type of structure.

## REGIONAL MINERALIZATION

A total of fifty-one mineral occurrences have been reported within the Finlayson Block (DIAND, 1995). Of these, twenty-one are known or suspected to be volcanogenic in origin while veins, skarns and asbestos occurrences comprise most of the remainder. Although the better known volcanogenic occurrences are Kuroko-type, some Besshi-type mineralization is also present (Morin, 1981; Johnston and Mortensen, 1994) and the recently discovered Ice Deposit is Cyprus-type. Figure 5 shows the stratigraphic position of the Kudz Ze Kayah, Wolverine and Fyre Lake Deposits; the first two of which are the main "type-deposits" for Expatriate's exploration at the Slap Shot property. The three deposits are briefly described below.

The Kudz Ze Kayah (ABM) Deposit lies within YTT near the centre of the Finlayson Block (Cominco Exploration, 1995; Whiteway, 1995). It is a VMS deposit hosted by an overturned assemblage of felsic pyroclastics, aphanitic massive rhyolites and metasiliclastic rocks belonging to Unit 3 of Murphy's LMR. Although both the sulphides and wallrocks are highly strained and exhibit pervasive schistosity, compositional layering in the immediate vicinity of the deposit has a relatively consistent, shallow northerly dip. Sphalerite, chalcopyrite and galena are the main economic minerals while the gangue includes various mixtures of magnetite, barite, pyrrhotite, pyrite and carbonate. The deposit averages about 18 m thick and has been traced 700 m along strike and up to 400 m downdip. Open pit mineable ore reserves are reported to be 11 million tonnes grading 5.9% zinc, 0.9% copper, 1.5% lead, 130 g/t silver and 1.3 g/t gold (Schultze, 1996). Preliminary studies suggest that satisfactory lead, zinc and copper concentrates can be produced using conventional flotation processes (Cominco Exploration, 1995). The

mineralization responds well to magnetic and electromagnetic surveys but geochemical response is somewhat erratic because the entire deposit is covered by 2 to 10 m of glacial till.

The Wolverine Deposit is located 25 km east of Kudz Ze Kayah. It consists of the Wolverine, Lynx and Sable Zones which are hosted by rhyolitic metavolcanics and argillites lying within Unit 6 of the LMR. The mineralization consists primarily of semi-massive to massive pyrite and sphalerite with varying amounts of galena, chalcopyrite, tetrahedrite and native gold. The surface expression of the Wolverine Zone is marked by a vegetation kill zone containing weakly malachite-stained chlorite schist while the Lynx and Sable Zones are blanketed by glacial till. Westmin traced the deposit 700 m along strike and up to 450 m downdip in 1996 and 1997. The mineralization averages about 6 m thick and dips shallowly to the north. The Sable Zone, which lies about 1500 m to the southeast, was discovered in late 1997 when two holes yielded high grade intersections over narrow widths. All three zones contain significantly more zinc and precious metals than Kudz Ze Kayah. The most recent geological inventory is reported to be 6,237,000 tonnes grading 12.66% zinc, 1.33% copper, 1.55% lead, 370.9 g/t silver and 1.76 g/t gold (Westmin News Release, January 15, 1998). Soil geochemistry outlined weakly to moderately anomalous values along the projected surface trace of the deposit while magnetic surveys easily traced a laterally extensive, banded iron formation which occurs 50 to 100 m up-section from the massive sulphide lenses. Interpretation of electromagnetic results is complicated by the presence of graphite within the argillite sequence however, newly released airborne radiometric data for this area show strong response related to the footwall alteration in the immediate vicinity of the deposit (GSC Open File 3552).

The Fyre Lake Deposit is located 25 km southeast of the Slap Shot property. It is a Besshi-type VMS deposit hosted by chloritic±actinolite±quartz schist belonging to Unit 2 of the LMR. The host stratigraphy is structurally overlain by phyllitic metasediments with a basal unit of quartz-chlorite-mica schist (Roberts, 1997). Drilling to date has identified three mineralized horizons within the Kona East and Kona West Zones. Massive and semi-massive sulphide mineralization is contained within a 6 to 80 m section that has an average width of 250 m over a drill-inferred length of 1500 m (GCNL, October, 1997). Kona East intersections on the Lower Horizon averaged 1.2% copper, 0.12% cobalt and 0.77 g/t gold over 7 m while those found in the Upper Horizon averaged 1.9% copper, 0.12% copper and 0.53 g/t gold over 13 m (Columbia Gold Mines Ltd., News Release, December 2, 1996). The Middle Horizon is discontinuous and appears to be of little economic significance. Average grades and widths for Kona West mineralization have not been reported.

## PROPERTY GEOLOGY

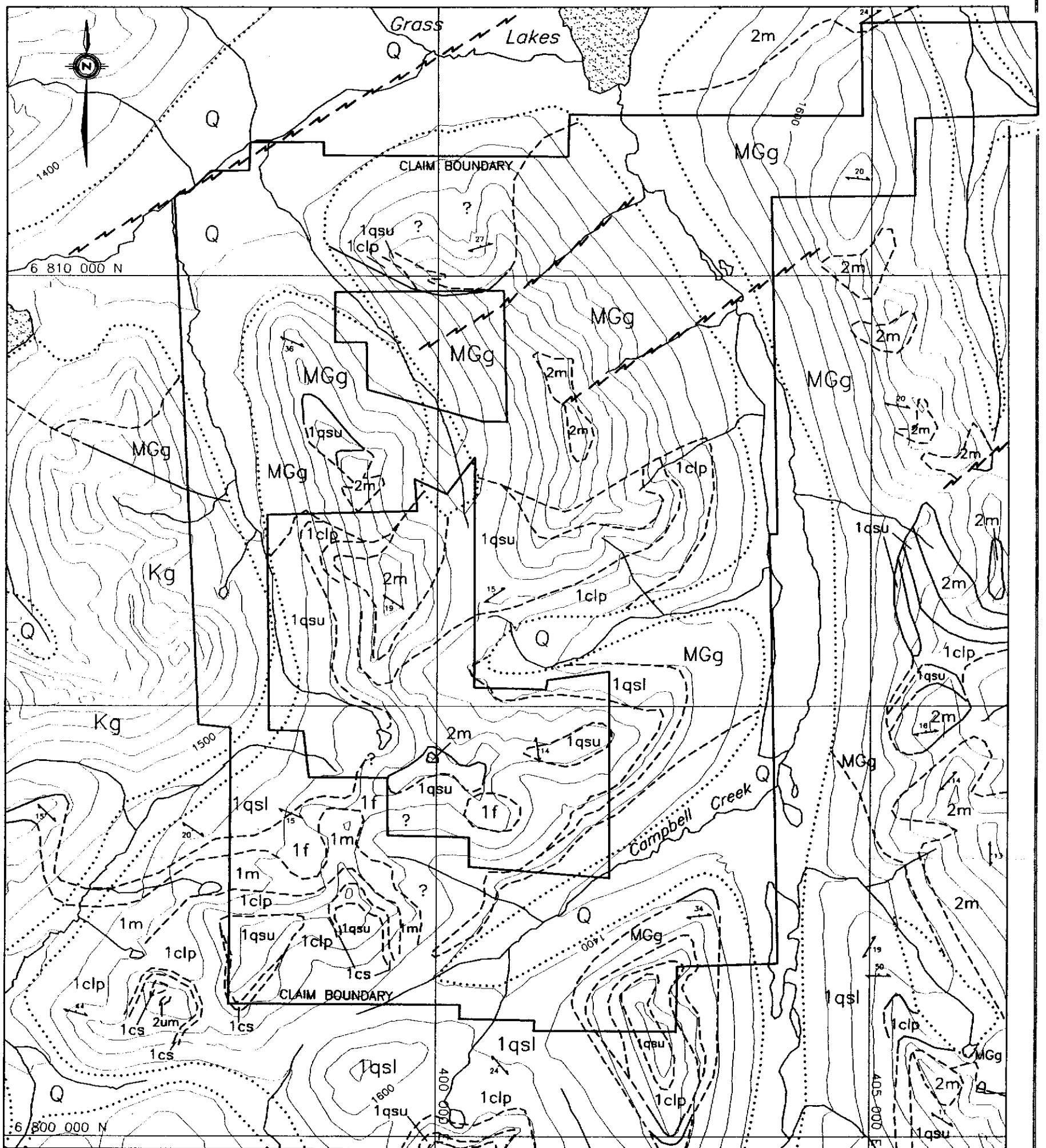
Geology of the entire property is shown on Figure 6 while the Blue Line Area is shown in more detail on Figure 7. The mapping combines traverses performed in 1996 and 1997 by Expatriate field crews plus work done by L.C. Pigage Consulting Limited in 1997. The geology has been reinterpreted to conform to Murphy's 1998 nomenclature.

Bedrock exposure in the Blue Line Area is limited to creek cuts and cliffs near the crest of a northeast trending ridge that forms the core of the area. The stratigraphy dips gently to the south and southwest and appears to be right side up. Foliation parallels compositional layering. Most of the lithological subunits belong to Murphy's Unit 1. They are described in approximate order of formation.

### LITHOLOGY

**Muscovite-quartz-feldspar gneiss (lqsl)** typically weathers pale creamy white and less commonly bright orange-brown. It is strongly foliated occasionally contains disseminated biotite on foliation surfaces. Muscovite-biotite quartzite and biotite-chlorite-actinolite±calcite schist form 0.2 to 2 m interbands within the gneiss unit. The top of the subunit is marked by a 5 to 10 m thick horizon exhibiting 0.5 cm feldspar augen in a medium grained biotite-muscovite-quartz-feldspar matrix.

**Muscovite-sericite±augen quartzite (lf)** forms a distinctive rusty weathering, pyritic horizon which exhibits intense orange gossans along the northwestern side of the main ridge. It is about 20 m thick and is believed to be of felsic volcanic affinity. Sericite is best seen where



**QUATERNARY**

Q Unconsolidated alluvium, colluvium and lacustrine and glacial deposits

**Intrusive Rocks**

**CRETACEOUS**

Kg Biotite-muscovite granite

**MISSISSIPPIAN OR YOUNGER**

MGg Grass Lakes orthogneiss

2um Pyroxenite ultramafic

**Layered Metamorphic Rocks**

**MISSISSIPPIAN AND OLDER**

2m Chlorite schist

1qsl Muscovite-quartz-feldspar gneiss

1f Muscovite-sericite ± augen quartzite

1m Quartz-feldspar-muscovite-biotite schist and chlorite schist

1clp Quartzite, muscovite-biotite-chlorite ± garnet schist and marble

1cs Chlorite schist

1qsu Muscovite-biotite quartzite

- ..... limit of outcrop
- geological contact defined, inferred
- 15 foliation orientation
- fault trace

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FIGURE 6

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**PROPERTY GEOLOGY**  
SLAP SHOT PROPERTY

SCALE 1:50,000

0 500 1000 1500 2000 2500m

DRAFTED/REVISED BY: AG

PROJECT: FP

FILE: ...\\SSHOT\\ACAD98\\SS-PRGEO.DWG

DATE: JANUARY, 1999

the horizon is not intensely oxidized. Augen up to 2 mm in diameter are locally present consisting of white feldspar or grey to clear quartz. Feldspars are rotated and recrystallized while quartz augen are flattened. Some silica rich varieties of this subunit are interpreted as metarhyolite.

**Quartz-feldspar-muscovite-biotite schist and chlorite schist (1m)** are interbanded in equal amounts within a 50 m section. Thin horizons (<1 m) of muscovite quartzite plus lesser grey marble are also present within this package. Immediately east of camp the dominant lithology comprising this subunit is a dark grey micaceous quartzite. Chlorite schist in this area exhibits quartz-carbonate-mariposite alteration while quartz-feldspar-mica schist exhibits retrograde alteration of biotite to chlorite.

**Quartzite, muscovite-biotite-chlorite±garnet schist and marble (1clp)** are interlayered at 2 to 25 m intervals forming an aggregate thickness of approximately 240 m.

Quartzite is tan to grey weathering, thin to thick bedded and calcareous or non-calcareous. Muscovite, biotite and lesser chlorite commonly occur on foliation planes. Pale coloured varieties of this subunit sometimes contain clear quartz lenses and sericite on partings suggesting a metarhyolite protolith. Grey quartzites are carbonaceous.

Muscovite-biotite-chlorite±garnet schist is brown weathering, well foliated and weakly calcareous. Garnets, where present, are red to brown and between 1 and 3 mm in diameter. Schist bands are generally narrow ranging between 2 and 3 m in thickness.

Massive marble forms a steeply-dipping lens in the cliffs immediately southeast of camp. At its thickest the lens is 25 m across but it thins to about 4 m some 500 m to the east.

**Chlorite schist (1cs)** is typically dark green and well foliated. It is comprised of chlorite, biotite, actinolite and occasional calcite. Locally the schists are brown weathering where quartz-carbonate-mariposite alteration is present. Narrow micaceous and non-micaceous quartzite interbeds are common.

**Muscovite-biotite quartzite (lqsu)** occurs mainly on the upper slopes of the ridge. It is brown weathering and pale cream to grey on fresh surfaces. Biotite occurs as small spots on foliation planes. The basal part of the subunit is a dark grey, micaceous marble which weathers rusty brownish grey. Some quartzite, especially at the north end of the ridge, contains clear quartz lenses which may represent flattened augen. These rocks may be of felsic volcanic affinity. The upper part of this section contains thinly bedded, silver-grey micaceous marble interbanded with muscovite-biotite quartzite on a scale to 4 to 10 m.

**Chlorite schist (2m)** forms a 1 to 40 m thick band that is commonly olive-green, pervasively foliated and comprised of chlorite, biotite, actinolite and minor calcite. Quartz, garnet and epidote are also present in isolated localities. This unit is recognized as having a mafic volcanic affinity which distinguishes it from chlorite schist horizons within the other metasedimentary and metavolcanic units.

### **Intrusive Subunits**

**Ultramafic (2um)** is dark green and coarse grained. It occurs as rubble and talus adjacent to chlorite schist at the southwestern end of the main ridge.

**Grass Lakes orthogneiss (MGg)** is the oldest intrusive unit (Devono-Mississippian) mapped on the property. It occurs as large bodies at the base of the LMR and as sills and dykes

within it. The rocks are generally well foliated, grey weathering and competent. Augen are usually present including orthoclase and plagioclase feldspar up to 1 cm across and lesser quartz up to 5 mm. The matrix consists of coarse sucrosic quartz, feldspar, biotite and muscovite.

**Biotite-muscovite granite (Kg)** is Cretaceous in age and forms a large stock along the western edge of the claim block. This unit is massive, grey to brown, medium to coarse grained and generally equigranular. It weathers to form large slabs or blocks.

### **STRUCTURE**

All units have been affected by three phases of deformation. The first phase resulted in a gentle south-dipping ( $\sim 15^\circ$ ) pervasive foliation which is parallel to compositional layering. This foliation is only distinguishable in some quartzite units. Phase two fold deformation produced a pervasive schistosity developed subparallel to compositional layering. Local crenulation cleavage is also present and best preserved along axial fold planes. Schistosity and crenulation cleavage are dominantly southwest-dipping while phase two folds verge to the south. Axial fold planes are typically west trending and plunge gently to the west at about  $10^\circ$ . Phase three deformation likely results from broad warping and appears as north-dipping crenulation cleavage observed at several locales on the property.

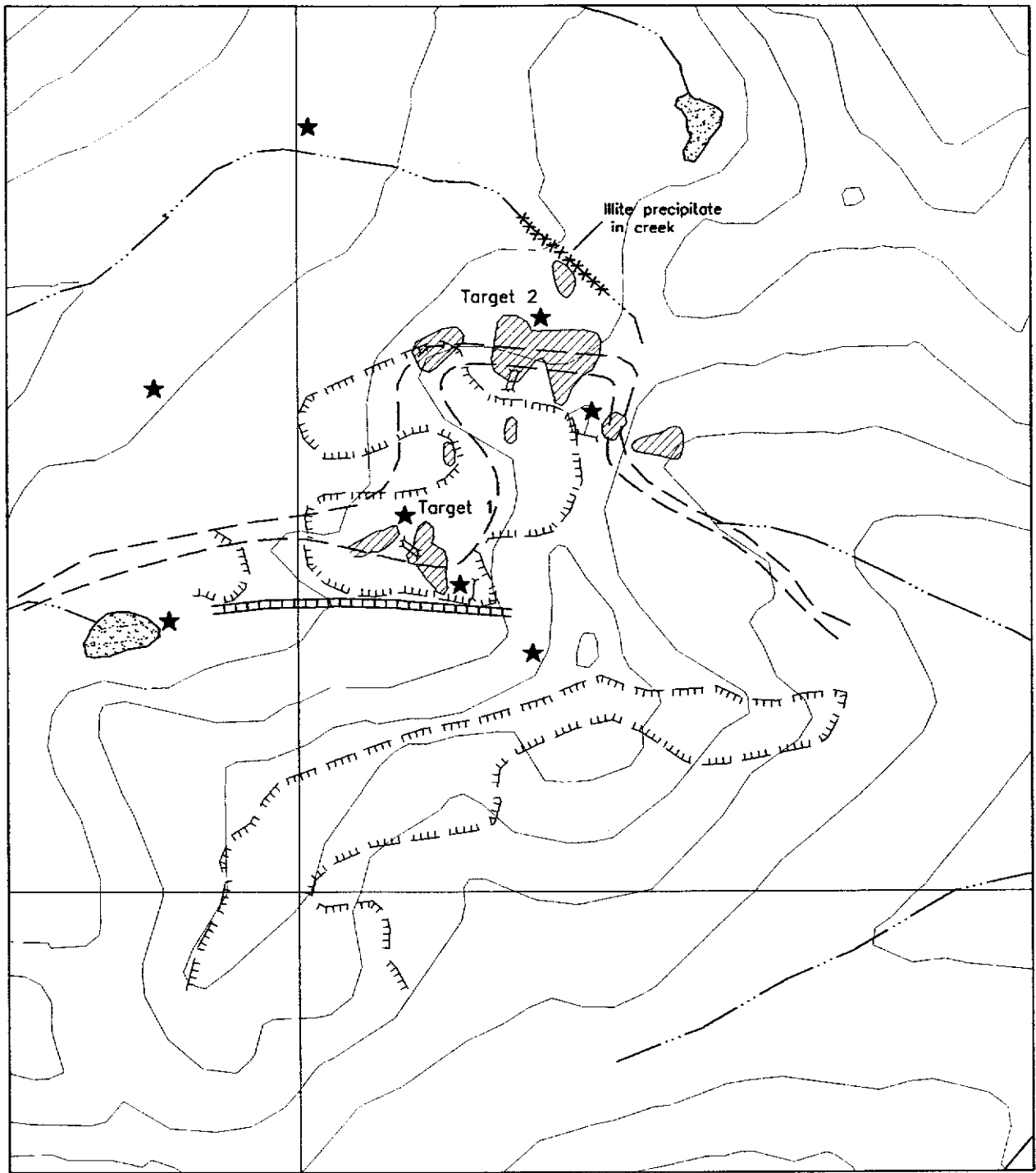
No large faults have been identified in the Blue Line Area. Small scale faults observed on cliffs strike east-west and dip steeply to the north or south. Quartz veining is developed along some of the faults.


## **GEOCHEMISTRY & MINERALIZATION**

### **GENERAL**

Grid soil sampling was conducted in 1996 and 1997 and covers a 1600 by 900 m area centred on two baselines located 600 m apart. The baselines are oriented due north and are marked every 100 m with 1 m high wooden lath. Soil samples were taken at 100 m intervals on lines spaced 100 m apart. Contour soil samples were taken at 100 m intervals on north-facing slopes which were too steep for grid sampling. All sample sites are marked with 0.5 m wooden lath bearing aluminum tags inscribed with grid coordinates. In 1998 thirty-one rock samples were taken during follow-up prospecting and hand trenching in the vicinity of the best soil geochemical anomalies.

All samples were sent to Chemex Labs Ltd. in North Vancouver where they were analyzed for 32 elements using the ICP technique and/or directly assayed for specific metals. Some samples were later analyzed for gold and selenium. Soil sample locations are shown on Figure 8 while results for copper, lead and zinc are plotted on Figures 9 to 11. Anomalous thresholds and peak values are listed on Table I. All 1998 rock sample locations plus select samples from previous years are illustrated on Figure 12 along with a table of significant results. Figure 13 is a compilation map showing areas of moderate to strong soil geochemical response, airborne geophysical anomalies and mineral occurrences. Certificates of Analysis for 1998 samples appear in Appendix III.



- Felsic volcanic trace
-  Moderate lead threshold
- ||||| Airborne magnetic anomaly
- ==== Airborne EM conductor
- ★ Stratobound sulphide float occurrence
- Hand trench

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FIGURE 13  
 ARCHER, CATIRO & ASSOCIATES (1981) LIMITED

**COMPILATION**  
**BLUE LINE AREA**

SLAP SHOT PROPERTY

SCALE 1:20,000  
 0 200 400 600 800 1000m

**TABLE II**  
**THRESHOLD VALUES (ppm)**

<u>Element</u>	<u>Weak</u>	<u>Moderate</u>	<u>Strong</u>	<u>Peak Value</u>
Copper	50	100	200	1635
Lead	50	100	200	734
Zinc	200	500	1000	4250

**GEOCHEMICAL RESULTS**

Lead response is the most localized of the three main VMS indicator metals. Moderately to extremely anomalous values are clustered along the trace of the felsic volcanic unit (lf) specifically near the upper contact. The anomalous values are strongly supported by copper and zinc.

Copper is the most widely dispersed of the indicator metals with weakly anomalous response from about 70% of the samples. Moderately and strongly anomalous values occur in clusters throughout the grid area. Some of the anomalous clusters coincide with the trace of the felsic volcanic stratigraphy while others are associated with footwall rocks.

Zinc response is strongest in the northern half of the grid where clusters of moderately and strongly anomalous values roughly parallel the trend of the felsic volcanic rocks.

Arsenic values are not illustrated but are interesting, with values up to 2790 ppm forming clusters that approximately coincide with the areas of moderate to strong copper response.

Silver response is subdued with only five samples returning greater than 1.0 ppm. The highest value (4.4 ppm silver) coincides with anomalous lead, zinc and copper values but in general silver is only weakly correlated to the main VMS indicator metals.

Gold analyses were performed on select metal rich samples from various parts of the grid. Most returned below the detection limit values. However, a group of four samples in the southeastern portion of the grid yielded between 40 and 240 ppb gold. These samples also produced strong arsenic and weak copper response.

Contour soil samples returned scattered weakly anomalous values for all VMS indicator metals.

### **MINERALIZATION**

Mineralization has been discovered within two main target areas as depicted on Figure 13. Stratabound sulphide bearing float and mineralized quartz veins are common to both areas.

**Target 1** encompasses a broad plateau and west-facing cirque directly uphill from the 1998 campsite. It covers the surface trace of the felsic volcanic horizon (lf) and strong coincidental geochemical response for copper, lead and zinc. Prospecting has discovered abundant sulphide and limonite bearing float across the entire 600 m width of the plateau. The highest concentration of float is near the southern edge of the felsic volcanic horizon. Numerous specimens of felsic schist and micaceous metarhyolite contain wispy foliaform and disseminated sphalerite with minor galena and pyrite. Float was traced to an outcrop source at two locales where hand trenches were excavated across the mineralized zones.

Hand trench TR-98-A (Figure 14) was dug 5 m uphill from a subcrop chip sample (059858) which returned 3.0 g/t silver, 60 ppm copper, 415 ppm lead and 8.58% zinc across 5 cm. The trench exposed a tightly folded section of felsic schist and interlayered metarhyolite exhibiting chlorite-sericite alteration. Two continuous, 1 m chip samples taken across the strongest

# LOCATION PLAN



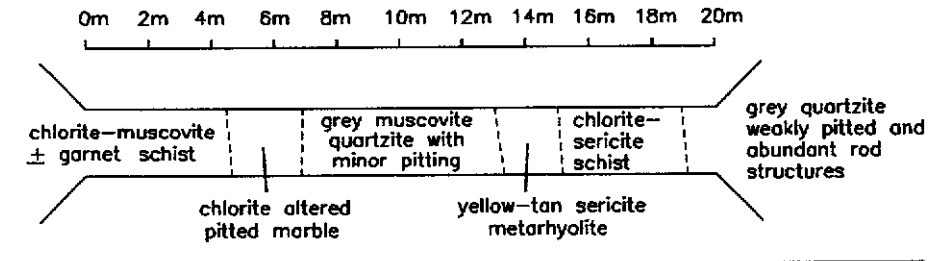
hand pit □  
(BB30333-34)

TR-98-A  
059858  
BB18746

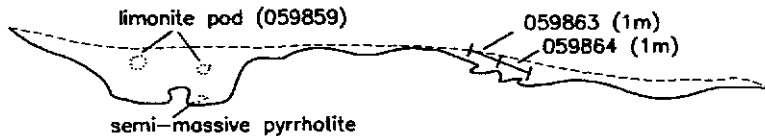
100m  
BB18747  
BB18723

BB18725

# TRENCH PLAN



# CROSS SECTION LOOKING EAST



sample #	type	silver	copper	lead	zinc
059863	chip	1.0	38	1350	168
059864	chip	0.6	36	594	4280
059858	chip	3.0	60	415	85800
059859	float	8.2	835	6350	6140

- all values reported in ppm

## EXPATRIATE RESOURCES LTD.

FIGURE 14  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

# TR-98-A SLAP SHOT PROPERTY FINLAYSON PROJECT

DRAWN/REVISED BY: WAW

PROJECT: FP

FILE: ..FP\SSHOT\ACAD98\SL-TR-A.DWG

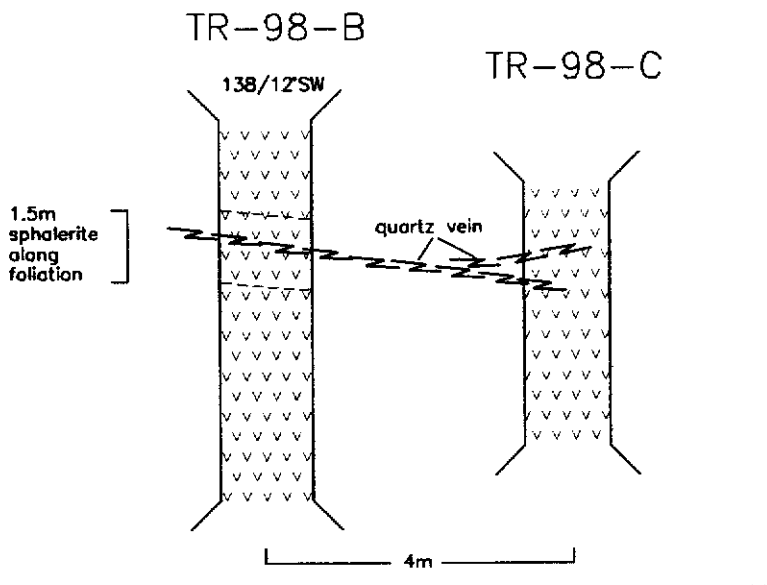
DATE: JANUARY, 1999

alteration averaged 0.8 g/t silver, 37 ppm copper, 972 ppm lead and 2224 ppm zinc. Limonitic semi-massive pyrite and galena bearing marble float (059859) was taken from the soil profile near the northern end of the trench and returned 8.2 g/t silver, 835 ppm copper, 6350 ppm lead and 6140 ppm zinc. Other limonite float specimens were collected along a west trending lineation downslope from the trench site for a distance of 250 m. Most of these samples produced near background values, however sample 059856 yielded 62.0 g/t silver, 1210 ppm copper, 6780 ppm lead, 8760 ppm zinc and 90 ppb gold. This specimen is typical of material in a 3m<sup>2</sup> mound within the lineation.

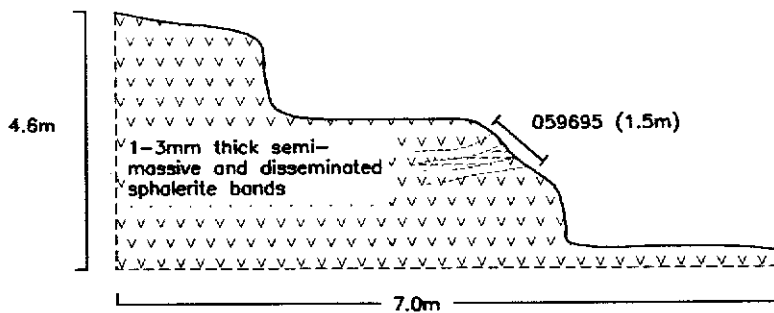
Hand trenches TR-98-B and C, shown on Figure 15, cut a 4.6 m section of non-calcareous metarhyolite containing sericite and chlorite partings plus thin foliaform wisps (up to 3 mm thick) of sphalerite. The sulphide laminae occur in a 1.5 m section of TR-98-B but pinch out along strike and consequently are not observed in TR-98-C. A 1.5 m chip sample (059695) across the zone in TR-98-B yielded 1.6 g/t silver, 84 ppm copper, 198 ppm lead and 2710 ppm zinc.

Prospecting creek cuts some 1200 m west of the plateau near the valley floor discovered two 15 by 10 by 4 cm limonite slabs, a specimen of which (059862) yielded 4.2 g/t silver, 156 ppm copper, 4850 ppm lead and 3270 ppm zinc. Mineralized metarhyolite float was located in the same area. None of this material was submitted for reanalysis but cut surfaces of these specimens exhibit abundant quartz amygdules and coarse recrystallized sphalerite plus chalcopyrite crosscutting clear quartz veinlets.

Scodorite altered, arsenopyrite bearing quartz vein float was discovered in 1996 near the head of the cirque. A specimen (N110314) returned 8.8 g/t silver, 40 ppm copper, 186 ppm lead,



TR-98-B  
CROSS SECTION  
LOOKING EAST



pale green to white metarhyolite with chlorite and sericite developed along foliation planes



quartz vein

059695: 1.6 g/t Ag, 84 ppm Cu, 198 ppm Pb  
2710 ppm Zn

**EXPATRIATE RESOURCES LTD.**

FIGURE 15  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**TR-98-B & C  
SLAP SHOT PROPERTY  
FINLAYSON PROJECT**

DRAWN/REVISED BY: MAW

PROJECT: FP

FILE: ..FP\SSHOT\ACAD98\SS-TR-BC.DWG

DATE: JANUARY, 1999

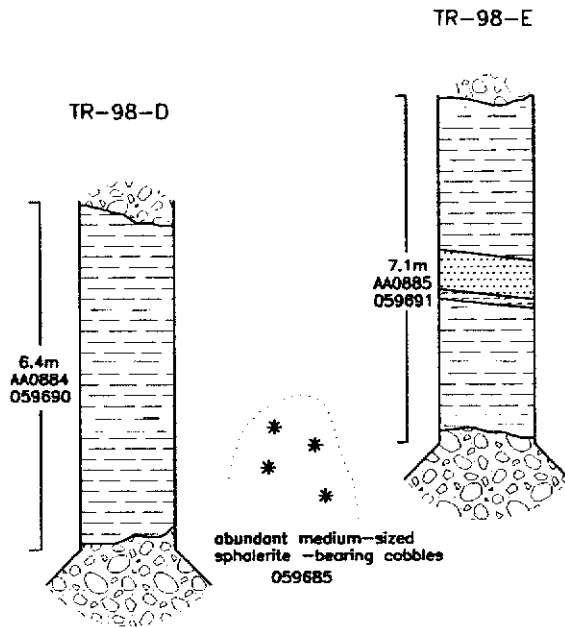
14 ppm zinc, >10,000 ppm arsenic, 912 ppm bismuth and 10.29 g/t gold. Only cursory prospecting has been conducted near this sample site and no additional float was found.

**Target 2** is immediately north of Target 1 and covers the northernmost exposure of the felsic volcanic stratigraphy in the Blue Line Area. Mineralization was discovered in two float trains on a steep, talus covered, north-facing cirque wall. Sphalerite and lesser pyrite occur as foliaform wisps and coarse disseminations within rusty weathering, white sucrosic felsic schist. A specimen (059685) from the top of one float train returned 3.0 g/t silver, 215 ppm copper, 395 ppm lead and 6.43% zinc. The host rocks are often tightly folded and the richest sulphides often occur as rods in fold noses.

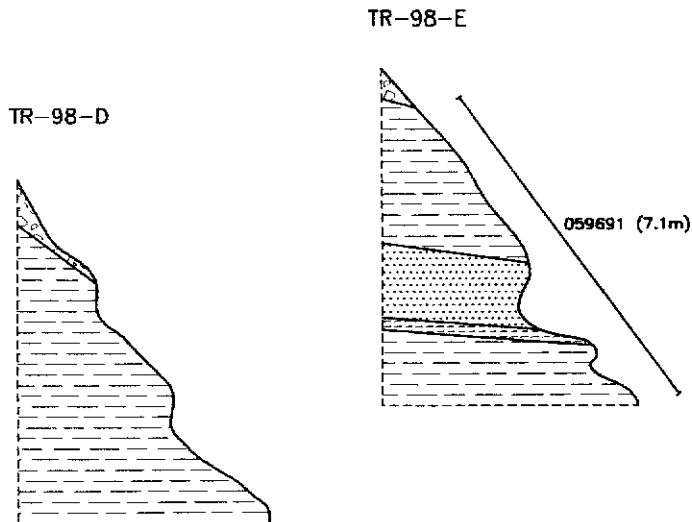
Two hand trenches, TR-98-D and E were excavated immediately above sample site 059685. Both trenches, illustrated on Figure 16, exposed a banded succession of pale green, biotite-chlorite quartzite and orange weathering felsic schist. A 7.1 m chip sample (059691) taken across the floor of TR-98-E was only weakly elevated in zinc (2510 ppm). However, soil profiles (AA0884-85) from both trenches were strongly anomalous yielding up to 1.2 g/t silver, 169 ppm copper, 1355 ppm lead and 8540 ppm zinc.

A third hand trench, TR-98-F, was excavated 250 m southeast of TR-98-D and E uphill from a sphalerite rich, grey quartzite slab. A 19 cm chip sample (059697) from the slab returned 4.0 g/t silver, 95 ppm copper, 1185 ppm lead and 9.24% zinc. Only two pieces of mineralized float were located in this area. The trench exposed a narrow section of unmineralized muscovite-chlorite quartzite, as shown on Figure 17. Soil profiles taken at various intervals along the trench walls returned up to 0.6 g/t silver, 345 ppm copper, 310 ppm lead and 2260 ppm zinc.

PLAN VIEW



CROSS SECTION  
LOOKING EAST



sample #	silver	copper	lead	zinc
AA0884	1.2	169	1355	8540
AA0885	0.6	111	124	2230
059685	3.0	215	395	64300
059690	-	34	68	954
059691	0.2	51	68	2510

- all values reported in ppm

- overburden
- barren quartz vein
- pale green biotite-chlorite quartzite
- orange weathering muscovite quartzite

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FIGURE 16  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**TR-98-D & E**  
**SLAP SHOT PROPERTY**  
**FINLAYSON PROJECT**

DRAWN/REVISED BY: WAW

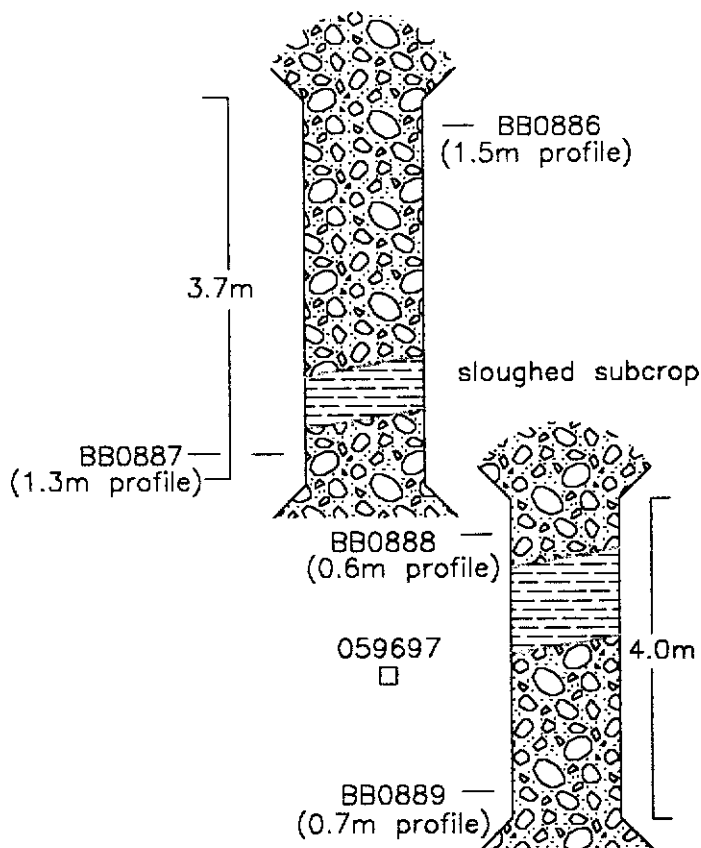
PROJECT: FP

FILE: ..FP\SSHOT\ACAD98\SS-TR-DE.DWG

DATE: JANUARY, 1999

# SECTION LOOKING WEST INTO SLOPE

TR-98-F



sample #	silver	copper	lead	zinc
BB0886	0.2	345	104	1195
BB0887	0.2	281	108	1050
BB0888	0.6	271	310	2260
BB0889	0.2	220	188	1580
059697	4.0	95	1185	92400

- all values reported in ppm



overburden



muscovite-chlorite quartzite

**EXPATRIATE RESOURCES LTD.**

FIGURE 17  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**TR-98-F**  
**SLAP SHOT PROPERTY**  
FINLAYSON PROJECT

DRAWN/REVISED BY: WAW

PROJECT: FP

FILE: ..FP\SSHOT\ACAD98\SS-TR-F.DWG

DATE: JANUARY, 1999

Mineralized quartz vein material was located in 1997 on the cirque floor downhill from trenches TR-98-D and E. A 10 cm thick arsenopyrite and chalcopyrite rich specimen (N112228) taken from subcrop returned 70.0 g/t silver, 2.09% copper, 74 ppm lead, 3430 ppm zinc and 40 ppb gold. No additional prospecting was performed at this locale in 1998.

Cream coloured illite clay was also observed in a small stream draining the cirque. It occurs as a fine precipitate within the stream and resembles fertilizer pellets when dry. This material has been sampled on several occasions since it was first recognized in 1996 and yielded values as high as 0.2 g/t silver, 4700 ppm copper, 102 ppm lead, 1145 ppm zinc, 490 ppm arsenic, >15% aluminum and 1270 ppb gold.

Foliaform sphalerite and galena occur within grey carbonaceous quartzite float approximately 1000 m northwest of Target 2 near the valley floor. Mineralized specimens up to 7 cm thick were found within unvegetated seeps developed along a break in slope. One specimen (N111983) returned 9.0 g/t silver, 642 ppm copper, 4.22% lead and 4.92% zinc. Follow-up prospecting was unable to locate more mineralization due to thick vegetation cover on the surrounding slopes.

## **PROPERTY GEOPHYSICS**

Airborne geophysical surveys conducted in spring 1996 (Aerodat, 1996) indicate that the property as a whole has low magnetic response. The most magnetic area is in the northwestern corner of the claim block which is underlain by a Cretaceous granitic stock. The surveys also show that the underlying rocks exhibit low electromagnetic conductivity. Interpretation of the results outlined nine weak conductors, four of which have weak positive magnetic correlation.

Three geophysical anomalies are located in the Blue Line Area. They are shown on Figure 13 together with the main areas of anomalous soil geochemical response and the surface trace of the felsic volcanic rocks. Two positive magnetic anomalies and one EM conductor lie within the map area. The southerly magnetic anomaly coincides with the main ridge crest and is likely caused by poor topographic control. The other area of magnetic response directly overlies the thickest part of the felsic volcanic horizon and strongest soil geochemical anomalies. The EM conductor parallels the surface trace of the felsic volcanic rocks but is shifted approximately 200 m to the south. Stratigraphy in the area dips shallowly to the south and the conductor may indicate a buried source.

Airborne radiometric surveys conducted by the GSC in 1997 covered the entire Slap Shot property (GSC Open File 3552). Results of the survey outline a well defined potassium high which coincides with the felsic volcanic stratigraphy in the Blue Line Area. This anomaly suggests that the felsic horizon may extend west off the claim block onto unstaked ground.

## DISCUSSION AND CONCLUSIONS

Expatriate is exploring the Slap Shot property using Kuroko-style VMS deposits as its primary exploration model. The main exploration target on the Blue Line Area is considered an excellent VMS prospect. The following is a summary of the main characteristics of Kuroko deposits with comments concerning their relevance to the target on the Slap Shot property.

Kuroko VMS deposits are associated with felsic volcanism and contain locally extensive cycles of phyric and aphyric rhyolite. Aphyric rhyolite is generally aphanitic and pale coloured. It is comprised mostly of silica and lesser feldspar with minor amounts of muscovite and biotite as partings. Phyric rhyolite is essentially a compositional equivalent of the aphyric unit but texturally resembles a porphyry. Porphyroblasts usually consist of quartz and/or feldspar. An abundance of quartz amygdules is an indicator of vent proximity. Massive sulphide lenses usually occur near the transition between the two rhyolite sequences. The horizon marking this transition is normally indicated by pervasive sericite alteration and vent proximal chlorite alteration. The size and intensity of the sericite alteration halo usually depends on the size of the volcanic centre. Sericite formation results from potassium enrichment which can be quantified by lithogeochemical analyses and recognized by enhanced radioactivity through geophysical surveys. Chlorite alteration is characteristically developed in the immediate footwall of massive sulphide lenses. In metamorphic terranes this results in dark green to black chlorite schists. The chlorite is formed by the extraction of magnesium at the felsic extrusive-seawater interface, thus these schists are enriched in magnesium oxide and depleted in sodium, calcium, silica and potassium. This lithogeochemical signature is markedly different from that of metavolcanic or metamorphically derived chlorite schists.

As information becomes available, Expatriate is using these geological criteria in combination with soil geochemical results, airborne and ground geophysical data, and prospecting to continuously evaluate and systematically prioritize the potential of its targets in the Finlayson Block.

The Blue Line Area is considered a high priority prospect. It exhibits strong, multi-element soil geochemical response for VMS indicator metals in the vicinity of felsic volcanic stratigraphy containing substantial potassium enrichment. Prospecting and mapping have identified numerous sulphide occurrences, some of which have been traced to bedrock source. These occurrences are dominantly zinc rich with little to no precious metal content, a signature that is commonly attributed to hanging wall silica exhalites. Copper and precious metal enriched quartz veins and veinlets occur stratigraphically lower than the exhalites and are believed to represent part of a stringer zone or remobilized equivalent which is generally developed within the vent area. Copper-gold rich illite clay also occurs as a precipitate in the vicinity of the vein mineralization. The presence of this metal enriched clay indicates highly acidic groundwater conditions which may be derived from a buried actively oxidizing sulphide body.

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**APPENDIX I**

**AUTHOR'S STATEMENT OF QUALIFICATIONS**

## STATEMENT OF QUALIFICATIONS

I, William A. Wengzynowski, geological engineer, with business addresses in Whitehorse, Yukon Territory and Vancouver, British Columbia and residential address in Vancouver, British Columbia, do hereby certify that:

1. I graduated from the University of British Columbia in 1993 with a B.A.Sc. in geological engineering, option 1, mineral and fuel exploration.
2. I became a Professional Engineer on December 12, 1998 registered in the Province of British Columbia.
3. From 1983 to present, I have been actively engaged in mineral exploration in the Yukon Territory and am presently employed with Archer, Cathro & Associates (1981) Limited.
4. I have personally participated in and supervised the field work reported herein.

  
W.A. Wengzynowski, P.Eng.

**APPENDIX II**  
**CERTIFICATES OF ANALYSIS**



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221 FAX: 604-984-0218

EXPATRIATE RESOURCES LTD.  
 C/O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
 P.O. BOX 4127  
 WHITEHORSE, YT  
 Y1A 3S9

Project : SLAPSHOT  
 Comments:

Page : 1-A  
 Total : 1  
 Certificate Date: 30-AUG-1998  
 Invoice No. : I9828984  
 P.O. Number :  
 Account : MPO

## CERTIFICATE OF ANALYSIS A9828984

SAMPLE	PREP CODE		Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn	No
			ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm
AA0884	201	202	1.2	0.91	84	140	1.5	2	0.88	24.5	162	26	169	9.85	< 10	< 1	0.15	40	0.24	3540	5
AA0885	201	202	0.6	0.64	46	190	1.5	2	0.48	7.5	41	29	111	7.95	< 10	< 1	0.14	40	0.22	2100	4
AA0886	201	202	0.2	2.12	82	410	0.5	< 2	1.31	5.5	78	124	345	9.02	< 10	< 1	0.49	60	1.42	4430	4
AA0887	201	202	0.2	1.68	42	500	0.5	< 2	0.86	4.0	80	46	281	8.89	< 10	< 1	0.50	60	0.78	3940	4
AA0888	201	202	0.6	1.77	44	360	0.5	< 2	0.85	7.0	57	59	271	7.71	< 10	< 1	0.42	60	0.88	3250	6
AA0889	201	202	0.2	1.99	58	400	0.5	< 2	0.90	5.0	59	83	220	7.68	< 10	< 1	0.41	60	1.02	3490	4
AA0890	201	202	< 0.2	2.69	250	200	0.5	< 2	0.70	< 0.5	16	56	46	4.50	10	< 1	0.61	30	1.67	735	3
BB30334	201	202	< 0.2	3.04	6	400	2.0	< 2	0.44	< 0.5	36	31	37	8.23	< 10	< 1	0.71	30	1.37	1640	4

CERTIFICATION: \_\_\_\_\_

*Hartfickler*



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Y1A 3S9

Project : SLAPSHOT  
Comments:

Page : 1-B  
Total pages : 1  
Certificate Date: 30-AUG-1998  
Invoice No. : 19828984  
P.O. Number :  
Account : MPO

## CERTIFICATE OF ANALYSIS

### A9828984

SAMPLE	PREP CODE		Na	Ni	P	Pb	Sb	Sc	Sr	Tl	Tl	U	V	W	Zn
			%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
AA0884	201	202	< 0.01	190	2640	1355	< 2	7	46	0.01	< 10	10	54	< 10	8540
AA0885	201	202	0.01	125	1860	124	< 2	6	47	0.01	< 10	10	40	< 10	2230
AA0886	201	202	< 0.01	209	2240	104	2	9	55	0.14	< 10	10	76	< 10	1195
AA0887	201	202	< 0.01	160	2520	108	< 2	7	41	0.12	< 10	< 10	66	< 10	1050
AA0888	201	202	< 0.01	120	2230	310	< 2	7	49	0.12	< 10	< 10	65	< 10	2260
AA0889	201	202	< 0.01	132	2170	188	< 2	8	44	0.12	< 10	< 10	76	< 10	1580
AA0890	201	202	0.01	19	790	38	< 2	9	28	0.22	< 10	< 10	87	< 10	262
BB30334	201	202	< 0.01	45	1800	30	< 2	15	23	0.17	< 10	< 10	107	< 10	338

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Page Number : 1-A  
 Total Pages : 1  
 Certificate Date: 28-AUG-1998  
 Invoice No. : 19829005  
 P.O. Number :  
 Account : MPO

Project : SLAPSHOT  
 Comments:

## CERTIFICATE OF ANALYSIS A9829005

SAMPLE	PREP CODE	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm
059685	208 226	3	0.38	30	60	< 5	< 10	2.27	275	120	30	215	11.35	< 10	0.23	0.06	540	5	0.05	115
059687	208 226	1	0.24	< 10	20	< 5	10	0.12	15	5	70	75	3.30	< 10	0.06	< 0.01	20	5	0.17	< 5
059692	208 226	1	0.20	< 10	3300	< 5	< 10	0.04	265	5	110	35	0.92	< 10	0.06	< 0.01	40	< 5	0.04	< 5
059694	208 226	< 1	2.42	< 10	17420	< 5	< 10	0.14	100	35	100	50	2.12	< 10	0.20	0.03	70	20	0.06	100
059697	208 226	4	0.17	< 10	240	< 5	< 10	0.08	525	30	70	95	3.55	< 10	0.10	0.03	130	5	0.03	10
059858	208 226	3	0.16	70	120	< 5	< 10	1.62	415	30	70	60	3.46	< 10	0.12	0.02	800	20	0.04	50

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Total Pages : 1  
Certificate Date: 28-AUG-1998  
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P.O. Number :  
Account : MPO

Project : SLAPSHOT  
Comments:

## CERTIFICATE OF ANALYSIS

### A9829005

SAMPLE	PREP CODE		P	Pb	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
			ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
059685	208	226	1400	395	< 10	< 5	55	0.02	< 20	< 20	20	< 20	>50000
059687	208	226	600	100	< 10	< 5	5	< 0.01	< 20	< 20	< 20	< 20	2200
059692	208	226	< 100	70	< 10	< 5	5	< 0.01	< 20	< 20	< 20	< 20	38200
059694	208	226	500	110	< 10	< 5	15	< 0.01	< 20	< 20	< 20	< 20	17610
059697	208	226	100	1185	< 10	< 5	5	< 0.01	< 20	< 20	< 20	< 20	>50000
059858	208	226	100	415	< 10	< 5	65	< 0.01	< 20	< 20	< 20	< 20	>50000

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 Total Pages : 1  
 Certificate Date: 30-AUG-1998  
 Invoice No. : 19829006  
 P.O. Number :  
 Account : MPO

Project : SLAPSHOT  
 Comments:

## CERTIFICATE OF ANALYSIS A9829006

SAMPLE	PREP CODE	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
059686	205 226	9.0	3.41	>10000	120	0.5	24	0.11	< 0.5	28	228	642	9.82	10	< 1	0.09	< 10	2.66	545	2
059688	205 226	0.4	0.27	96	110	< 0.5	2	0.24	7.0	6	101	213	2.32	< 10	< 1	0.16	20	0.04	90	5
059689	205 226	0.2	1.86	256	110	0.5	14	0.26	4.5	15	59	410	4.39	< 10	< 1	0.89	10	1.07	740	14
059690	205 226	< 0.2	1.16	10	100	0.5	< 2	1.23	2.5	8	61	34	1.87	< 10	< 1	0.45	50	0.41	390	1
059691	205 226	0.2	1.30	116	160	0.5	< 2	4.23	8.0	27	66	51	3.72	< 10	< 1	0.66	30	0.42	920	3
059693	205 226	0.2	1.13	8	390	< 0.5	< 2	0.10	20.5	17	175	25	1.75	< 10	< 1	0.15	< 10	0.02	30	8
059695	205 226	1.6	0.47	24	260	< 0.5	6	0.06	7.0	3	70	84	0.71	< 10	< 1	0.24	30	0.03	75	4
059696	205 226	2.0	0.40	8	60	< 0.5	2	< 0.01	1.0	3	85	300	>15.00	< 10	11	0.03	10	< 0.01	165	8
059698	205 226	3.6	0.52	32	70	< 0.5	< 2	0.15	0.5	98	65	416	>15.00	< 10	< 1	0.10	< 10	0.05	1560	27
059699	205 226	0.6	0.06	24	30	< 0.5	< 2	< 0.01	< 0.5	1	181	75	2.64	< 10	< 1	0.01	< 10	< 0.01	35	1
059700	205 226	0.2	0.44	20	370	< 0.5	< 2	0.25	< 0.5	8	115	32	2.24	< 10	< 1	0.13	20	0.12	985	1
059851	205 226	2.0	0.56	46	400	< 0.5	4	0.22	13.5	29	27	348	>15.00	< 10	< 1	0.35	50	0.06	420	18
059852	205 226	0.8	0.39	8	790	0.5	< 2	0.01	< 0.5	8	151	158	9.45	< 10	< 1	0.23	< 10	0.03	700	1
059853	205 226	0.2	1.09	4	200	1.5	< 2	0.38	1.0	45	57	58	7.96	< 10	< 1	0.43	40	0.11	2480	4
059854	205 226	3.2	0.33	52	350	< 0.5	< 2	0.01	< 0.5	23	113	108	12.75	< 10	< 1	0.23	10	0.02	465	12
059855	205 226	4.6	0.17	68	80	< 0.5	2	0.40	7.5	15	229	92	2.51	< 10	< 1	0.09	< 10	0.01	525	4
059856	205 226	62.0	0.23	300	40	< 0.5	6	< 0.01	5.5	39	59	1210	>15.00	< 10	< 1	0.04	20	< 0.01	1270	5
059857	205 226	0.6	0.95	78	170	< 0.5	< 2	0.02	< 0.5	6	59	93	11.60	< 10	< 1	0.17	10	0.14	100	11
059859	205 226	8.2	0.12	10	20	< 0.5	< 2	0.04	14.0	46	15	835	>15.00	< 10	< 1	0.01	30	0.01	1425	4
059860	205 226	2.4	4.14	6	40	0.5	< 2	0.32	43.0	35	49	204	11.35	< 10	< 1	0.20	< 10	0.01	75	21
059861	205 226	1.4	0.16	8	210	< 0.5	2	< 0.01	0.5	19	97	252	>15.00	< 10	< 1	0.04	< 10	0.01	360	10
059862	205 226	4.2	0.41	20	330	< 0.5	< 2	0.04	4.0	17	128	156	>15.00	< 10	< 1	0.12	10	0.11	380	4
059863	205 226	1.0	0.33	4	180	< 0.5	2	0.18	< 0.5	15	128	38	4.85	< 10	< 1	0.19	< 10	0.01	330	11
059864	205 226	0.6	0.44	18	350	< 0.5	< 2	0.61	10.5	33	126	36	3.98	< 10	< 1	0.21	10	0.03	575	3
BB30333	205 226	0.8	1.47	6	430	2.0	2	0.59	15.5	55	96	341	9.32	< 10	< 1	0.15	50	0.34	>10000	14

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 Invoice No. : I9829006  
 P.O. Number :  
 Account : MPO

Project : SLAPSHOT  
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<b>CERTIFICATE OF ANALYSIS</b>	<b>A9829006</b>
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SAMPLE	PREP CODE		Na	Ni	P	Pb	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
			%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
059686	205	226	0.01	37	480	2220	2	23	16	0.02	< 10	< 10	208	< 10	218
059688	205	226	< 0.01	4	160	28	< 2	< 1	9	< 0.01	< 10	< 10	1	< 10	2410
059689	205	226	< 0.01	7	730	74	< 2	6	11	0.18	< 10	< 10	40	< 10	1650
059690	205	226	0.01	17	320	68	< 2	1	35	0.01	< 10	< 10	9	< 10	954
059691	205	226	0.01	56	2030	68	< 2	5	110	0.10	< 10	< 10	79	< 10	2510
059693	205	226	0.02	51	420	54	< 2	1	5	< 0.01	< 10	< 10	20	< 10	3080
059695	205	226	0.01	3	300	198	< 2	< 1	7	< 0.01	< 10	< 10	1	< 10	2710
059696	205	226	< 0.01	9	330	354	< 2	2	1	< 0.01	< 10	< 10	1	< 10	3340
059698	205	226	< 0.01	335	310	138	< 2	6	8	< 0.01	< 10	10	16	< 10	1030
059699	205	226	< 0.01	7	110	50	< 2	< 1	< 1	< 0.01	< 10	< 10	< 1	< 10	264
059700	205	226	< 0.01	40	1030	18	< 2	1	14	< 0.01	< 10	< 10	9	< 10	104
059851	205	226	0.01	91	4830	86	< 2	2	89	< 0.01	< 10	< 10	7	< 10	2040
059852	205	226	< 0.01	15	100	6	< 2	1	3	< 0.01	< 10	< 10	14	< 10	60
059853	205	226	< 0.01	73	2420	36	< 2	9	12	< 0.01	< 10	< 10	52	< 10	572
059854	205	226	0.01	43	390	556	6	2	6	< 0.01	< 10	< 10	8	< 10	824
059855	205	226	< 0.01	53	240	614	4	1	4	< 0.01	< 10	< 10	8	< 10	1835
059856	205	226	< 0.01	121	130	6780	40	7	1	< 0.01	< 10	10	33	< 10	8760
059857	205	226	< 0.01	11	1360	144	6	2	3	< 0.01	< 10	< 10	15	< 10	174
059859	205	226	< 0.01	156	180	6350	2	7	1	< 0.01	< 10	10	< 1	< 10	6140
059860	205	226	0.03	96	1230	3380	< 2	1	1	0.02	< 10	< 10	12	< 10	>10000
059861	205	226	< 0.01	76	130	236	< 2	2	< 1	0.01	< 10	< 10	9	< 10	258
059862	205	226	< 0.01	24	190	4850	< 2	4	2	0.03	< 10	< 10	12	< 10	3270
059863	205	226	< 0.01	31	1180	1350	< 2	1	8	< 0.01	< 10	< 10	11	< 10	168
059864	205	226	< 0.01	50	1570	594	< 2	2	23	< 0.01	< 10	< 10	15	< 10	4280
BB30333	205	226	0.01	257	3980	198	< 2	20	24	< 0.01	< 10	< 10	24	< 10	512

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Invoice No. : 19829339  
P.O. Number :  
Account : MPO

Project : SLAPSHOT  
Comments:

## CERTIFICATE OF ANALYSIS

A9829339

SAMPLE	PREP CODE	Zn %										
059685	244 --	6.43										
059697	244 --	9.24										
059858	244 --	8.58										

CERTIFICATION:

*Sara Lema*



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Invoice No. : 19829531  
P.O. Number :  
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Project : SLAPSHOT  
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## CERTIFICATE OF ANALYSIS

A9829531

SAMPLE	PREP CODE	Zn %									
059860	244 --	1.32									

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Total Pages : 1  
Certificate Date: 09-SEP-1998  
Invoice No. : 19829984  
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Project : SLAPSHOT  
Comments:

## CERTIFICATE OF ANALYSIS

A9829984

SAMPLE	PREP CODE	Au ppb FA+AA									
059686	244 --	30									
059689	244 --	5									
059856	244 --	90									

CERTIFICATION:



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Project: SLAPSHOT  
Comments:

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Total Pages : 1  
Certificate Date: 14-OCT-1998  
Invoice No. : 19832891  
P.O. Number :  
Account : MPO

## CERTIFICATE OF ANALYSIS A9832891

SAMPLE	PREP CODE		Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn	Mo
			ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm
059943	205	226	4.6	3.37	2	150	0.5	8	1.29	5.5	21	110	8600	4.77	10	1	1.53	20	1.62	875	12

CERTIFICATION: Hart Kehler



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P.O. Number :  
Account : MPO

Project : SLAPSHOT  
Comments:

## CERTIFICATE OF ANALYSIS

A9832891

SAMPLE	PREP CODE		Na	Ni	P	Pb	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
			%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
059943	205	226	0.15	22	110	< 2	< 2	3	32	0.14	< 10	< 10	83	10	416

CERTIFICATION:

*Hart Riebler*



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Certificate Date: 30-OCT-1998  
Invoice No. : 19834318  
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Account : MPO

## CERTIFICATE OF ANALYSIS

A9834318

SAMPLE	PREP CODE	Se ppm									
059697	244 287	0.8									
059858	244 287	< 0.2									
059856	244 287	10.4									

CERTIFICATION:

*Handwritten signature: Hank Richman*

**APPENDIX III**

**ROCK SAMPLE DESCRIPTIONS**

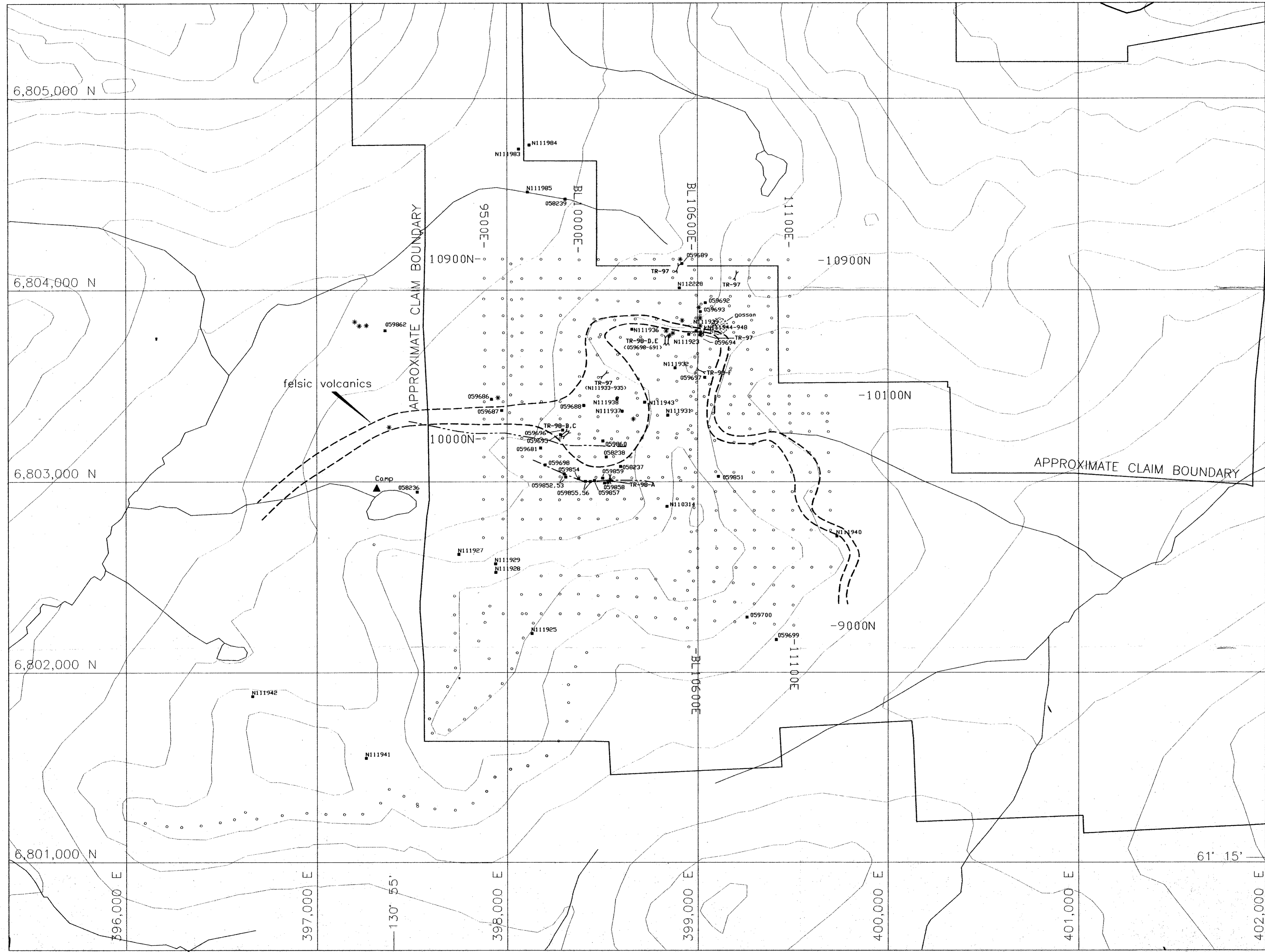
## SLAP SHOT SAMPLE DESCRIPTIONS

<u>Sample Number</u>	<u>Description</u>
<u>NW Grid Area</u>	
059685	15x10x4 cm piece of dark rusty brown-purple float with minor fine pitting along foliation containing sulphides; rock has curved, irregular outline representative of fold hinge, 10-15%, very fine grained, black sphalerite in <1 mm irregular fractures and disseminated giving crude net texture; ~1-2% fine grained disseminated pyrite; trace chalcopyrite observed on other pieces in area; sample taken at head of 20 m float trail bearing same material.
059686	30x20x8 cm thick piece of rusty orange-brown weathering felsic volcanic float found ~50 m southwest of picket 18666 in small drainage basin; 1-2 cm angular clasts of grey, aphanitic quartzite with yellow-orange-brown oxidation rims.
059687	30x35x20 cm thick subrounded float found ~50 m southwest of picket BB18666 deep rusty purple-brown weathering felsic volcanic and lesser creamy white rhyolite with 1-5 mm thick grey, quartz sweats; ~5% very fine blackjack sphalerite; 1% very fine grained galena plus ~10% fine grained pyrite in 1-3 mm thick irregular bands and as fine disseminations; three other cobbles of similar material in same area occurring at the head of a large seep; best piece taken.
059688	25x18x15 cm thick, light rusty orange-brown subrounded cobble of light creamy, green-grey, massive, aphanitic quartzite; some areas contain abundant coarse pits with minor orange staining after sphalerite plus hydrozincite; <1% fine grained black sphalerite±galena plus 5-10% medium to coarse grained pyrite occurring in ≤1 mm irregular fractures, some with trace chalcopyrite; rock cut by 1 cm wide greyish quartz vein containing minor sphalerite and pyrite as recrystallized coarse grains.
059689	1 m long continuous chip sample across small showing ~40 m north (downslope) of picket 18565; showing occurs on 1.4 m high outcrop with upper limit as break in the small cliff forming a bench; showing is dominantly deep rusty brown weathering; light grey, thickly laminated biotite-quartzite containing ~5-10% medium to coarse grained pyrite blebs along micaceous folia and trace black sphalerite and chalcopyrite, both fine grained and disseminated along folia; the showing is cut by 10-72 cm white quartz vein containing trace sphalerite and chalcopyrite as coarse recrystallized grains near vein margin; upper 20 cm is black,

<u>Sample Number</u>	<u>Description</u>
059689 (cont'd)	moderate, hard, friable quartz-biotite schist containing ~1% fine grained black sphalerite, ~1-2% medium to coarse grained chalcopyrite and as ~3-5% coarse grained blebby pyrite; disseminated foliaform grains; slight increases in chalcopyrite 15 cm above and below vein; <1 cm scale chevron folds observed in quartz-biotite schist above vein and for 20-30 cm below vein; showing only mineralized over ~1.5 m strike length.
059690	6.4 m semi-continuous chip sample taken along TR-98-D trench floor; light green, hard, compact, massive, thinly laminated chlorite±biotite quartzite; areas contain coarse grained black biotite books; no sulphides observed in trench.
059691	~7.1m semi-continuous chip sample taken along TR-98-E floor; chips taken ~10-15 cm apart; no sulphides other than trace fine grained disseminated pyrite observed; trench contained three main rock types; bottom 1.1 m of dark grey, hard, chlorite-biotite-quartzite, medium grained black biotite peppered throughout; folia is irregular; weak fine pitting to weathered surface; middle 1.5 m of orange weathering, weak and friable, quartz-muscovite-biotite schist (no sulphides); upper 4.5 m is medium to dark grey, weakly foliated, hard, massive, aphanitic, biotite-quartzite.
059692	25x20x12 cm orange-brown weathered, very light grey-white, thickly laminated felsic quartzite float; contains ~10-15% black sphalerite in 1-4 mm thick massive bands; coarse pitting along sphalerite bands with minor cadmium bloom and hydrozincite along some foliation plane; coarsely pitted areas filled with orange-brown ferricrete oxide.
059693	30x20x10 cm thick, rusty brown-purple weathering, medium grey, hard, compact, massive to weakly laminated quartzite containing ~1-2% fine grained black sphalerite as disseminated grains and several 1 mm thick bands; ~1-5% fine grained disseminated pyrrhotite; material was traced for ~270 m up a talus covered hillside to within ~40 m from the ridge crest.
059694	30x25x15 cm rusty purple-brown weathering, medium grey, hard, compact, massive quartzite float containing ~8% fine grained black sphalerite in 1-3 mm, irregular bands and fractures and ~5-10% fine grained disseminated pyrite; along fractures and foliation.

<u>Sample Number</u>	<u>Description</u>
059695	1.5 m chip sample (TR-98-B) across light green, hard, massive, non-calcareous chlorite-quartzite; <1% black sphalerite in 1-4 mm, irregular, discontinuous, mineralized with weak pitting along sphalerite-bearing bands and minor hydrozincite along foliation.
059696	one 6x4x2.5 cm piece of brown limonite with abundant fine boxwork.
059697	0.19 m pseudo chip across 60x45x19 cm, angular float slab ~40 m south of picket 18622; moderately oxidized; structurally thickened but planar quartzite slab.
059698	~½ handful of brown limonite with fine boxwork; found in gopher hole ~20 m west of picket BL 10000E, 9750 N.
059699	white-blue quartzite float boulder 10x5x5 cm with moderate surface oxidation; narrow section (2-3 cm) is strongly pitted and weakly orange stained after pyrite or sphalerite.
059700	grey-blue micaceous quartzite float, 2 cm thick; brown foliaform pitted laminae throughout and non-calcareous; pitted all the way through the rock; most float with this appearance is calcareous and pitted.
059851	red-brown ferricrete breccia float 10x15x5 cm on back side of ridge east of camp found within quartz-muscovite schist as assorted fractures and coatings, traced intermittently for ~35 m along slope.
059852	0.5 to 1 cm thick, platy and rusty weathering quartz augen muscovite schist with thin foliaform limonite boxwork on broken surfaces; two pieces found in linear that ~ corresponds with trace of EM conductors.
059853	one piece of rotten quartz-muscovite-chlorite schist; strongly pitted around microfold hinges; core of folds are peppered with red limonitic material.
059854	two types of limonite in moss: (1) dark, brown-orange limonite coatings on quartzite plus abundant light orange pitting; (2) bleached and leached micaceous quartzite with yellow-tan pitting throughout; both types fairly abundant beneath moss.
059855	pale blue quartzite float (15 cm thick); rusty weathering with strong foliaform pitting and minor limonite; no visible sulphide; one piece found.

<u>Sample Number</u>	<u>Description</u>
059856	abundant orange-brown limonite on large mound in gully; pieces up to 4x4x3 cm; all limonite looks to be weathered from fold hinges.
059857	thin slab (10x5x2 cm) yellow-orange limonitic quartzite augen schist with minor remnant pyrite; two large pieces and lots of bits in 1x½ m area.
059858	showing in outcrop; pitted, bleached muscovite quartzite with narrow (4-8 cm) bands of sphalerite±galena (4-5%); sampled best 5 cm horizon (7% sphalerite) of fine grained black and brown sphalerite plus abundant hydrozincite on fractures; also occurring in rods - south verging folds.
059859	red-orange limonite fragments and marble with galena-sphalerite laminae from gully 6 m north of 059858 showing.
059860	coarse grained, granular quartzite (14x10x10 cm); some feldspar present; mineralized with coarse and fine grained pyrite plus minor galena and trace sphalerite.
059861	brown-orange limonite (up to 10x6x4 cm) in 3x½ m float train.
059862	brown-orange limonite (2 pieces, 15x10x4 cm) in creek cut; looks fold thickened with pitted white sucrosic carbonate core.
059863	1 m chip sample from TR-95-A; yellow weathering muscovite quartzite; no visible mineralization.
059864	1 m chip sample from TR-95-A, same as above.
030333	black oxide; from hand pit on plateau.



SAMPLE NUMBER	TYPE	SIGNIFICANT RESULTS				
		Ag (gpt)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Others (ppm) Au-ppb
058236	FLOAT	10.0	3880	580	400	
058237	FLOAT	9.0	30	22000	560	
058239	FLOAT	-	4700	-	446	>15% Al
N112228	PSEUDO CHIP (10m)	70.0	20900	74	3430	>10000 As, 40 Au
N111983	FLOAT	9.0	642	42200	49200	
N111985	FLOAT	7.0	45	19370	24200	
N110314	FLOAT	8.8	40	186	14	>10000 As, 9128, 10290 Au
059685	FLOAT	3.0	215	395	64300	
059692	FLOAT	1.0	35	70	38200	
059697	FLOAT	4.0	95	1185	92400	
059856	FLOAT	62.0	1210	6780	8760	300 As, 90 Au
059858	CHIP 5cm	3.0	60	415	85800	
059859	FLOAT	8.2	835	6350	6140	
059862	FLOAT	4.2	156	4850	3270	

- 058236 Rock sample with sample number
- Soil sample
- └─ TR-97 1997 hand trench
- └─ TR-98-A,B 1998 hand trench
- \* Mineralized float (sphalerite, galena, chalcopyrite, pyrite)
- Linear trace

Dwg 7  
093 995

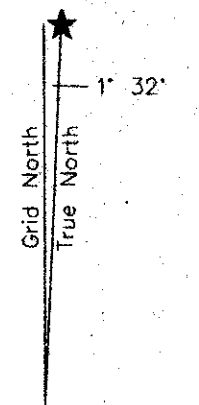
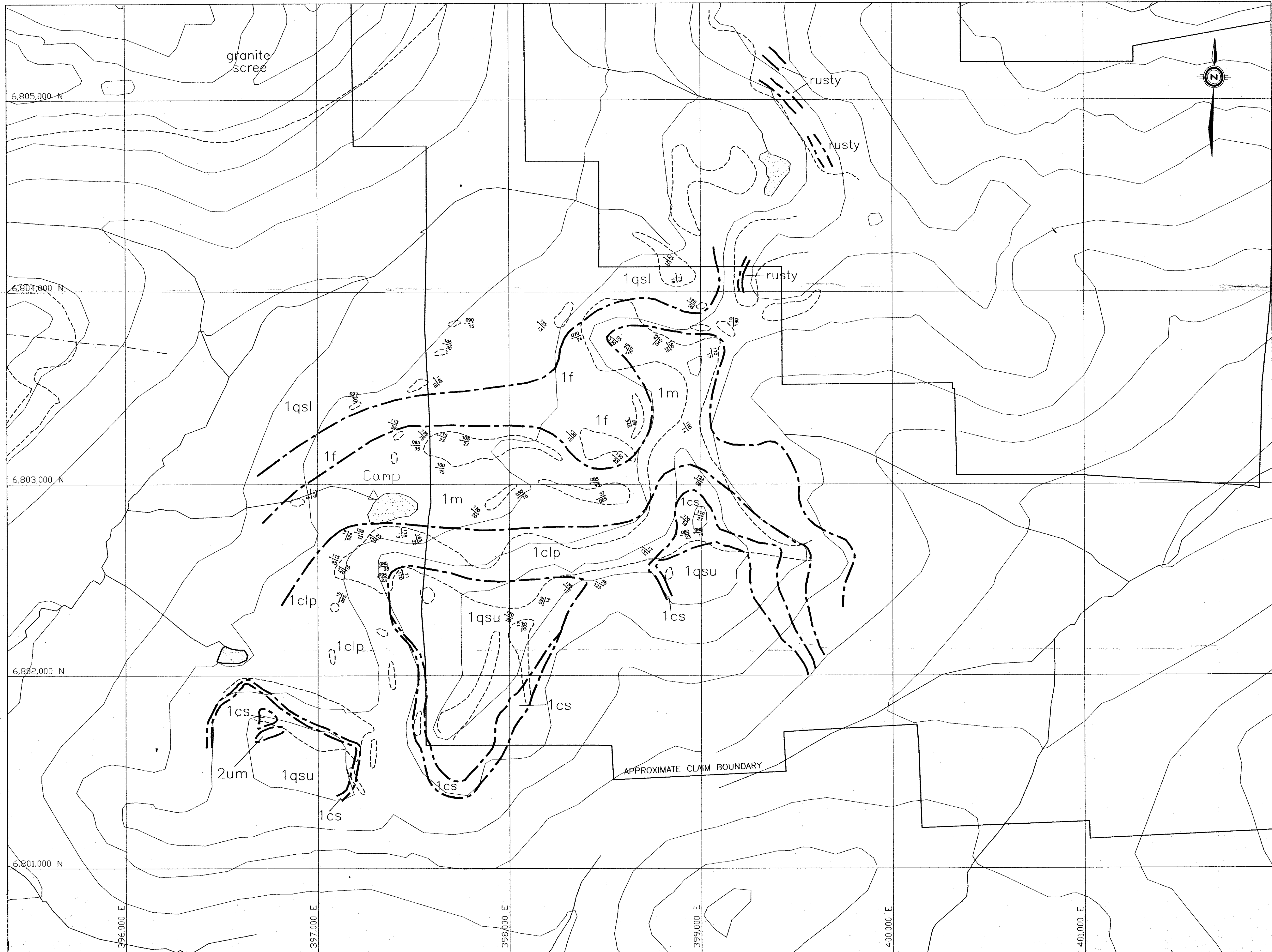
**EXPATRIATE RESOURCES LTD.**

FIGURE 12  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**ROCK SAMPLE LOCATION**  
BLUE LINE AREA  
SLAP SHOT PROPERTY

SCALE 1:10,000  
0 100 200 300 400 500m

DRAWN/REVISED BY: AB/AG	PROJECT: FP
FILE: FP\SSHOT\ACAD98\SS98-SLDWG	DATE: JANUARY, 1999



Layered Metamorphic Rocks  
MISSISSIPPIAN AND OLDER

- Unit 1
- 1qsl Muscovite-quartz-feldspar gneiss
  - 1f Muscovite-sericite ± augen quartzite
  - 1m Quartz-feldspar-muscovite-biotite schist and chlorite schist
  - 1clp Quartzite, muscovite-biotite-chlorite ± garnet schist and marble
  - 1cs Chlorite schist
  - 1qsu Muscovite-biotite quartzite

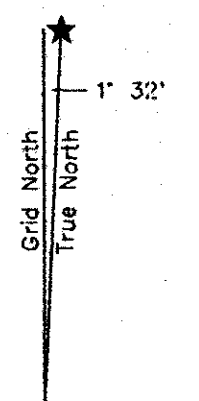
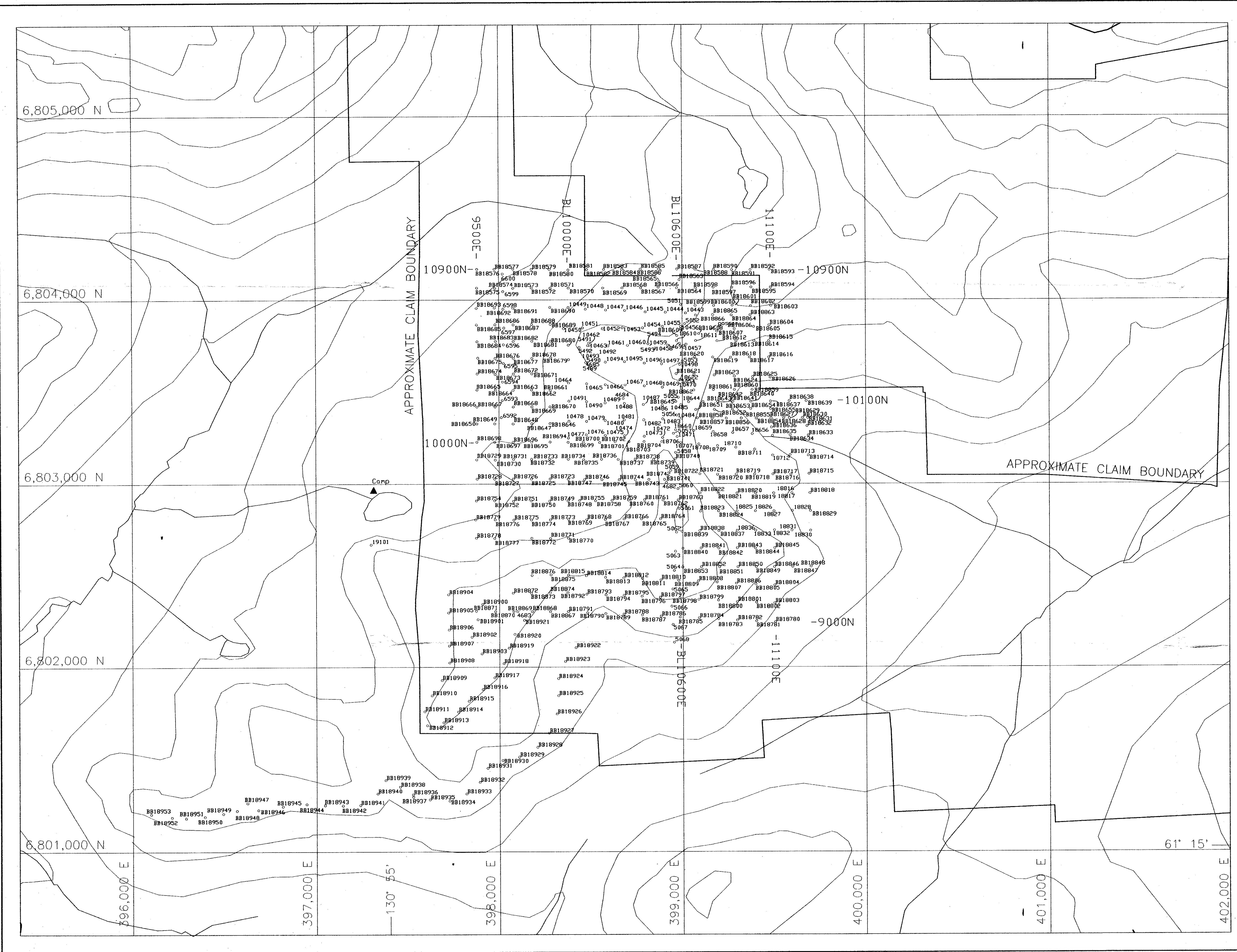
Intrusive Rocks  
MISSISSIPPIAN OR OLDER

- 2um Pyroxenite ultramafic

- Outcrop
- Geological contact
- ⊃ Foliation

093995 DWG 2

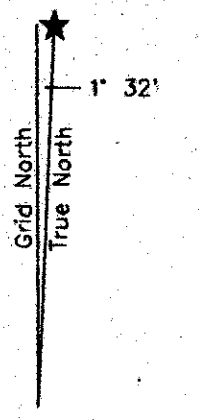
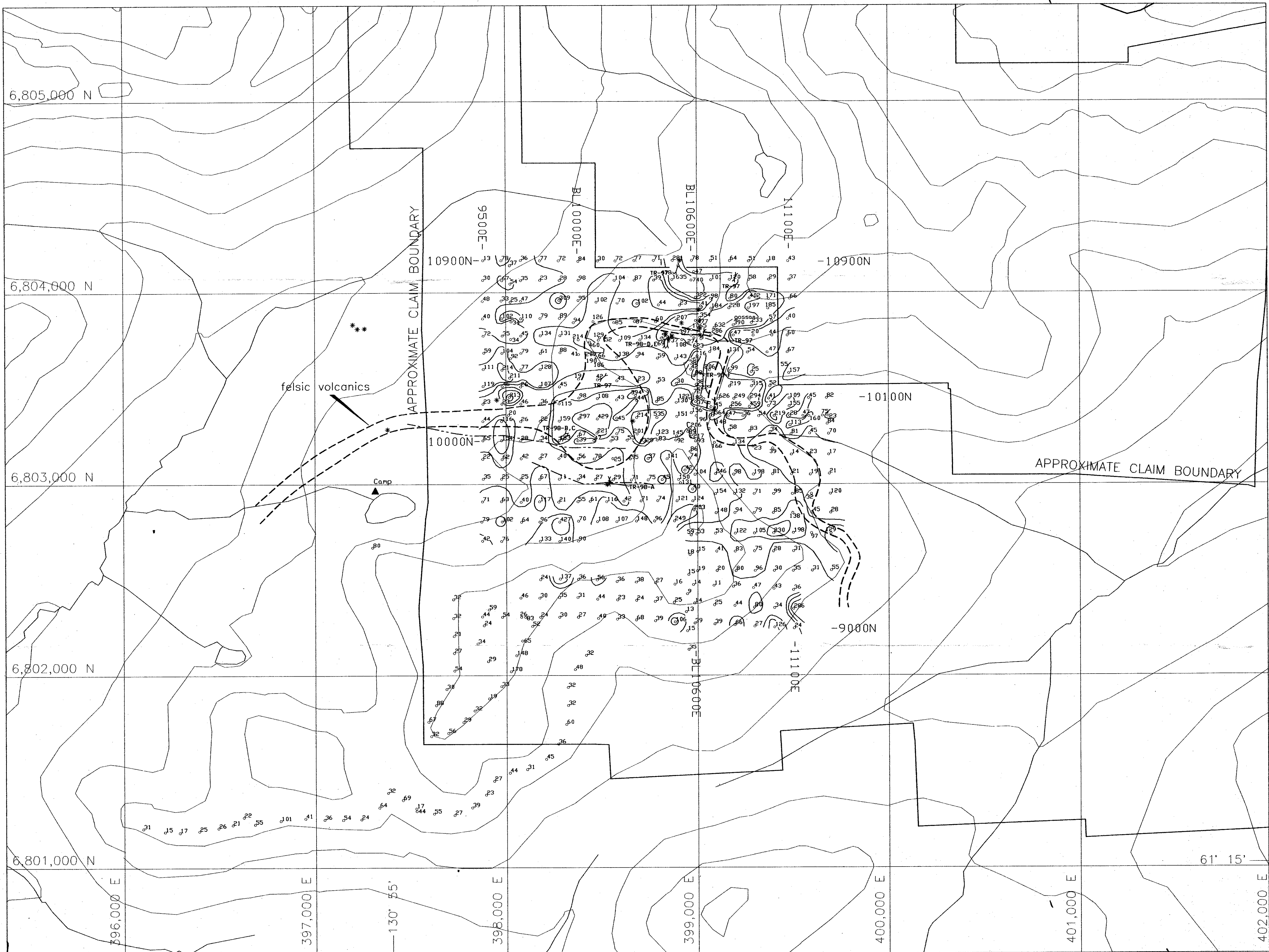
<b>EXPATRIATE RESOURCES LTD.</b>	
FIGURE 7 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED	
<b>DETAIL GEOLOGY</b> BLUE LINE AREA SLAP SHOT PROPERTY	
SCALE 1:10,000 0 100 200 300 400 500m	
DRAWN/REVISED BY: LCP/AB/AG FILE: FP\SSHOT\ACAD98\5598-GEO.DWG	PROJECT: FP DATE: JANUARY, 1999



3313 Soil sample location with number  
 All numbers prefixed with BB  
 unless specified otherwise

093-995  
 DWG ③

<b>EXPATRIATE RESOURCES LTD.</b>	
FIGURE 8 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED	
<b>SOIL SAMPLE LOCATION</b> BLUE LINE AREA SLAP SHOT PROPERTY	
SCALE 1:10,000 	
DRAWN/REVISED BY: AB/AG	PROJECT: FP
FILE: FP\SSHOT\ACAD98\SS98-SL.DWG	DATE: JANUARY, 1999

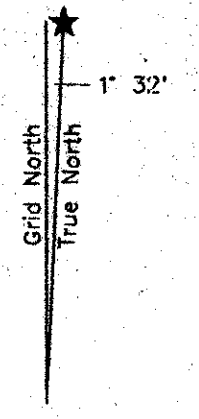
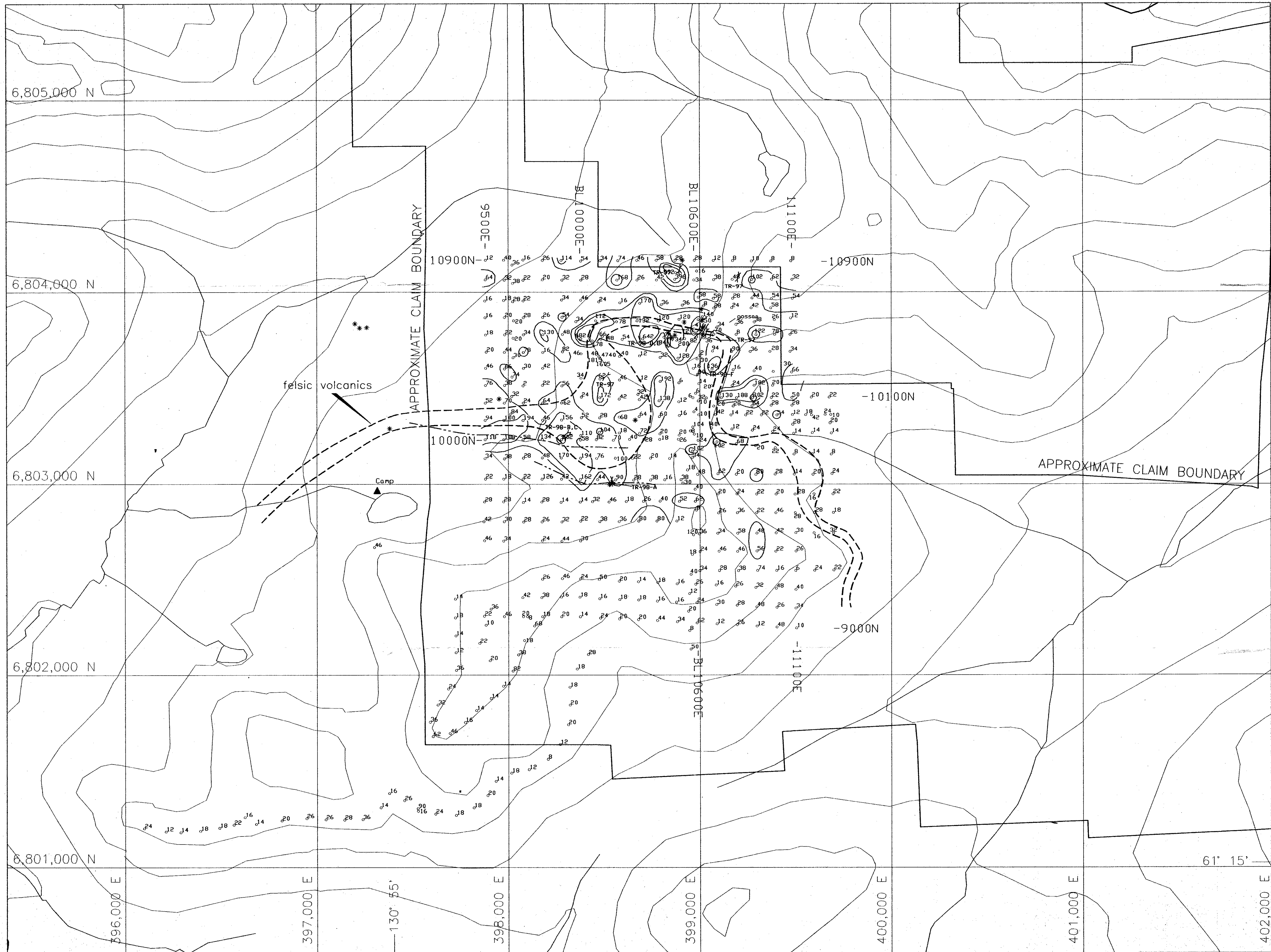


- $\geq 200$  ppm Cu
- $\geq 100 < 200$  ppm Cu
- $\geq 50 < 100$  ppm Cu

- Sample location with Cu value in ppm
- TR-97 1997 hand trench
- TR-98-A, B 1998 hand trench
- Mineralized float (sphalerite, galena, chalcopyrite, pyrite)
- Linear trace

DWG 4  
093 995

<b>EXPATRIATE RESOURCES LTD.</b>	
FIGURE 9 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED	
<b>COPPER GEOCHEMISTRY</b>	
BLUE LINE AREA SLAP SHOT PROPERTY	
SCALE 1:10,000 0 100 200 300 400 500m	
DRAWN/REVISED BY: AB/AG	PROJECT: FP
FILE: FP\SSHOT\ACAD98\SS98-SL.DWG	DATE: JANUARY, 1999

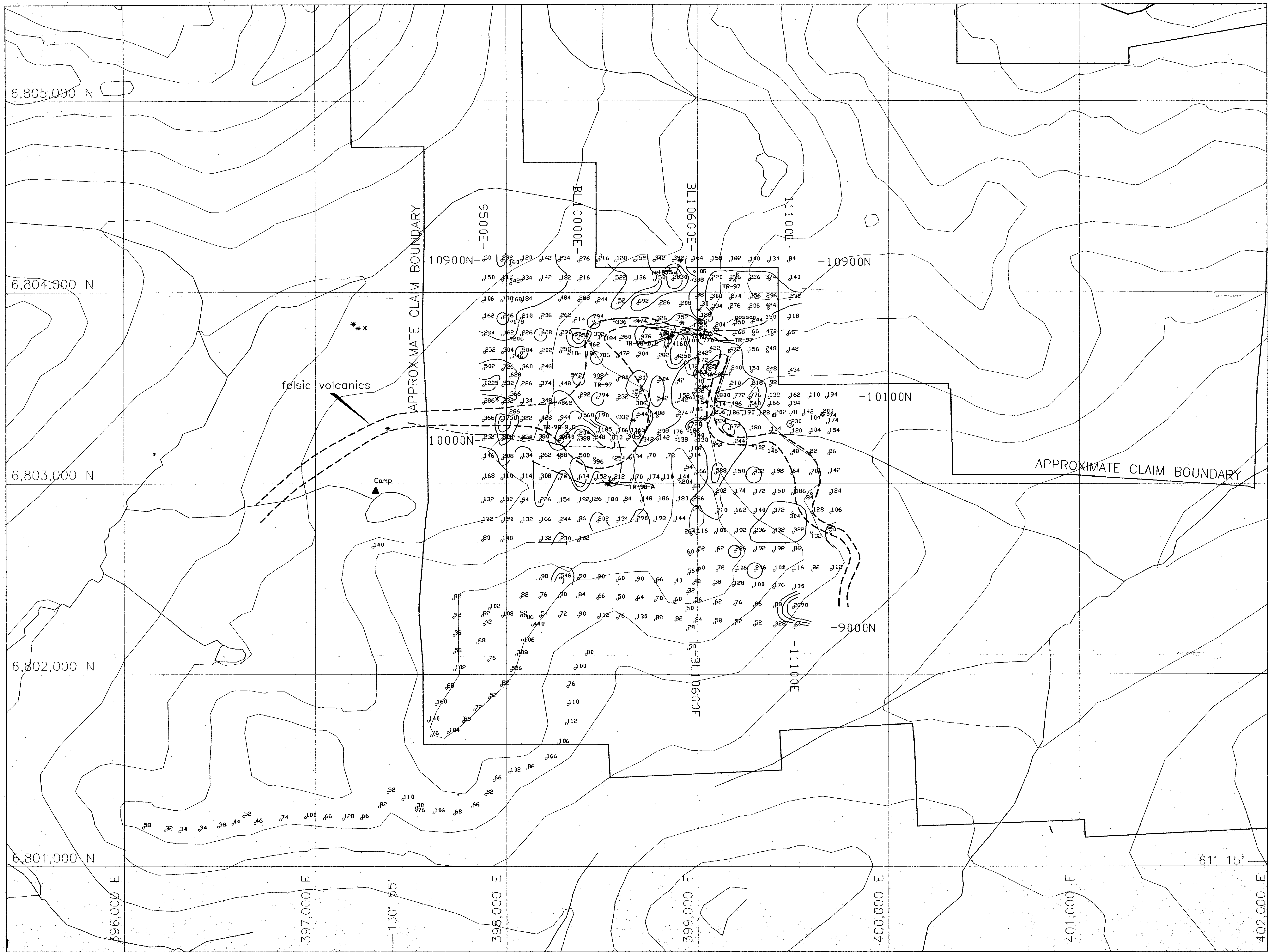


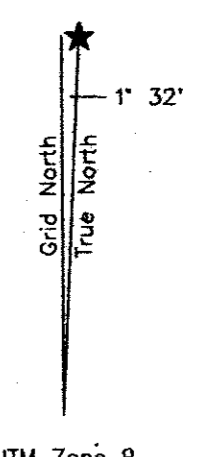
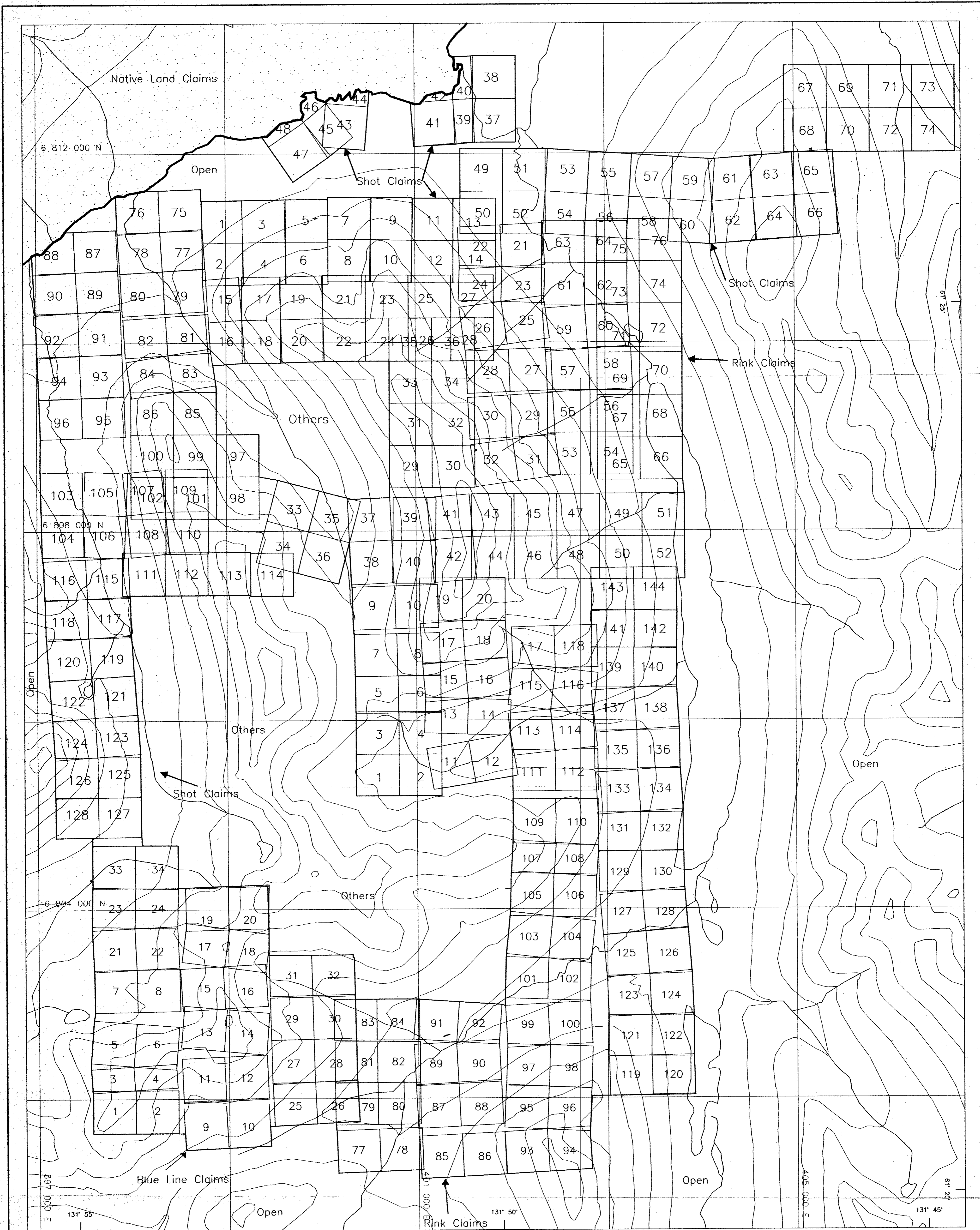
- ≥ 200 ppm Pb
- ≥ 100 < 200 ppm Pb
- ≥ 50 < 100 ppm Pb

- 682 Sample location with Pb value in ppm
- - - TR-97 1997 hand trench
- - - TR-98-A 1998 hand trench
- \* Mineralized float (sphalerite, galena, chalcopyrite, pyrite)
- - - Linear trace

Dwt 5  
093995

<b>EXPATRIATE RESOURCES LTD.</b>	
FIGURE 10 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED	
<b>LEAD GEOCHEMISTRY</b>	
BLUE LINE AREA SLAP SHOT PROPERTY	
SCALE 1:10,000 0 100 200 300 400 500m	
DRAWN/REVISED BY: AB/AG	PROJECT: FP
FILE: FP\SSHOT\ACAD98\SS98-SL.DWG	DATE: JANUARY, 1999





UTM Zone 9  
 '093 995'

<b>EXPATRIATE RESOURCES LTD.</b>	
FIGURE 3 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED	
<b>CLAIM LOCATION</b>	
SLAP SHOT PROPERTY	
SCALE 1:20,000 0 200 400 600 800 1000m	
DRAWN/REVISED BY: AB/AG	PROJECT: FP
FILE: FP\SSHOT\ACAD98\SS98-CLDWG	DATE: JANUARY, 1999