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ASSESSMENT REPORT

describing

GEOLOGY, MINERALIZATION AND GEOCHEMISTRY

at the

SHARK PROPERTY,

NTS 105F/8 and 9
Latitude 61°30'N Longitude 132°30'W

in the

Watson Lake Mining District

Prepared by

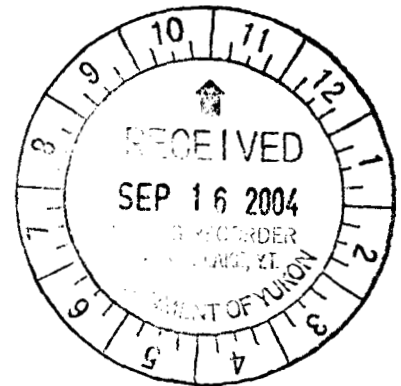
Archer, Cathro & Associates (1981) Limited

for

TRUE NORTH GEMS INC.

by

William A. Wengzynowski, P.Eng.
December 2003



Costs associated with this report have been
approved in the amount of \$ 29,600.00
for assessment work under Certificate of
Work No. Q125658

[Signature]

Mining Recorder
Watson Lake Mining District

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INTRODUCTION

The Shark property is a mineral property located in the Ketzsa-Seagull District of southern Yukon Territory. It is wholly owned by True North Gems Inc. The author was retained by True North in 2003 to conduct a reconnaissance scale program to explore for gem quality beryl, interpret results and prepare an appropriate work program for future exploration. This report describes the results from work done in 2003 at the Shark property. The results are compared to results from other properties in southern Yukon that are also being explored for gem quality beryl.

In 2003, the author participated in exploration at the Shark property. The work was done in three stages: July 10, August 1 to 11, and August 23 to September 9. It consisted of geological mapping, prospecting, silt sampling, soil sampling, mini-bulk sampling, specimen extraction and claim surveys. The author's Statement of Qualifications appears in Appendix I.

PROPERTY, LOCATION AND ACCESS

The Shark property comprises a contiguous block of 94 mineral claims and is located in southern Yukon at approximate latitude 61°30' north and longitude 132°30' west on NTS 105F/8 and 9 (Figure 1). Figure 2 displays the location of individual claims comprising the property. The claims were staked under the Yukon Quartz Mining Act and are registered with the Watson Lake Mining Recorder in the name of Archer Cathro which holds them in trust for True North. They cover an area of approximately 1900 hectares. Mineral claim tenure information is summarized as follows:

<u>Claim Name</u>	<u>Grant Number</u>	<u>Expiry Date</u>
Shark 1-16	YC23168-YC23183	March 30, 2009*
17-64	YC24131-YC24178	March 30, 2009*
65-94	YC24327-YC24356	September 11, 2004

* Expiry dates include 2003 work that has been filed for assessment credit but not yet accepted.

The Shark property is located 50 km south of Ross River in southern Yukon. The property is approximately 10 km southwest of the former Ketzsa River mine and its gravel airstrip. Year round access to the Shark claims is via helicopter from Ross River. A gravel road from the Robert Campbell Highway to the Ketzsa River mine site is usable during summer and fall. A four-by-four trail extends from the mine to the northern part of the Shark property. In summer 2003, access to the property was by truck to the Ketzsa River airstrip, and then from the airstrip to the property via helicopter.

HISTORY

Considerable work has been done in the Ketzsa-Seagull District since the late 1960's. Exploration focussed on lead-zinc veins, gold veins and manto deposits, uranium-rare earth element (REE) prospects, and volcanogenic massive sulphide mineralization (VMS) (Deklerk,

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FIGURE 1

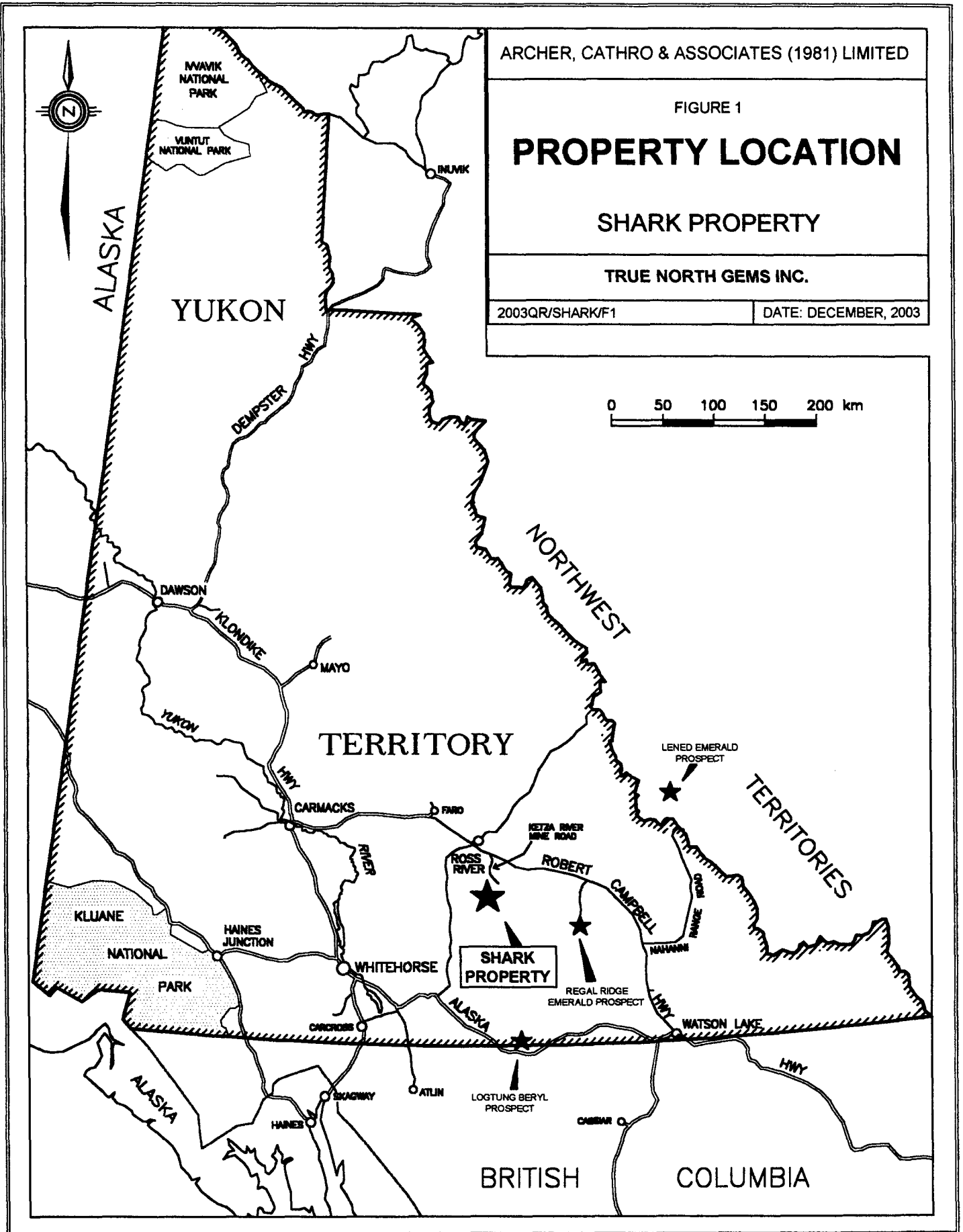
PROPERTY LOCATION

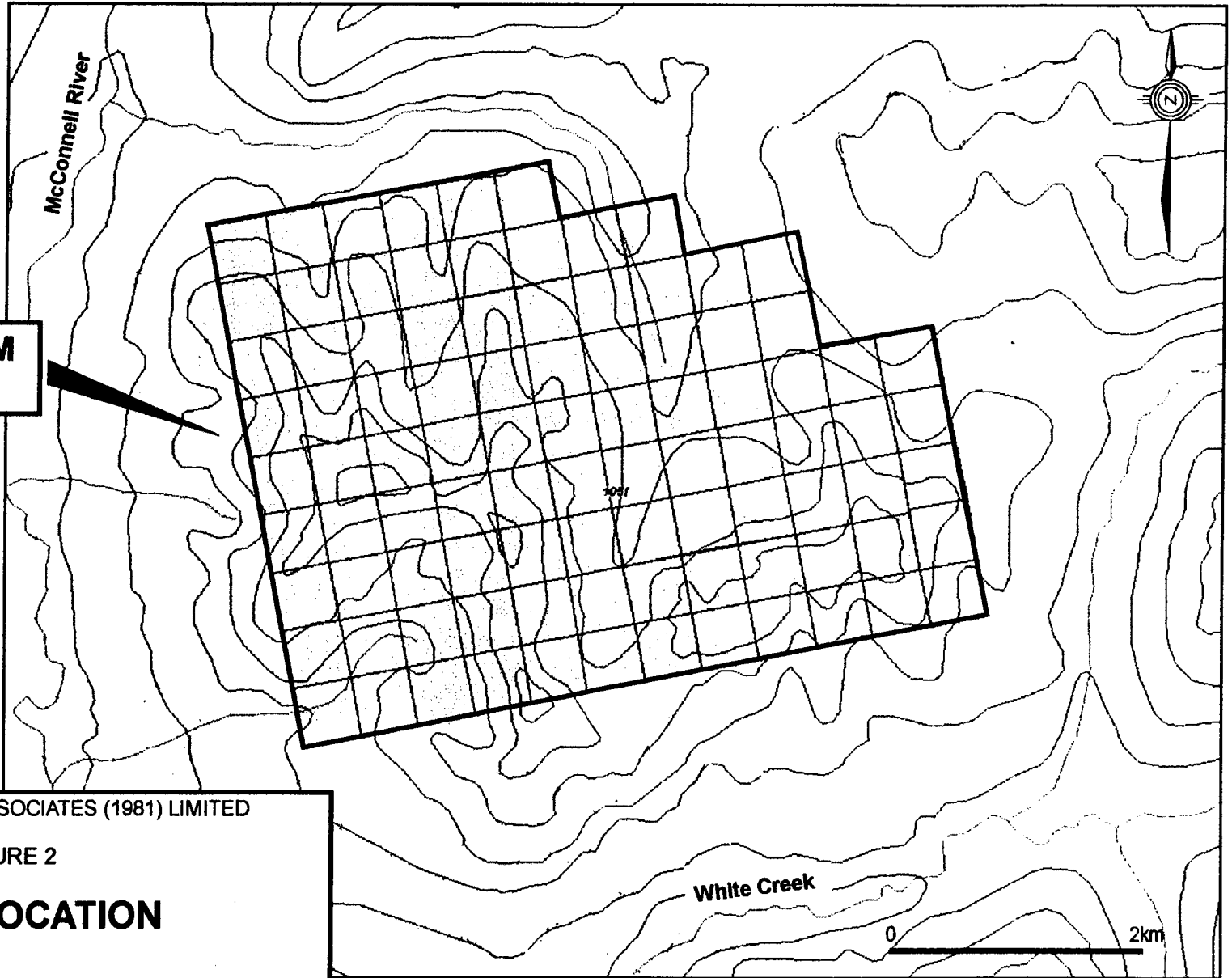
SHARK PROPERTY

TRUE NORTH GEMS INC.

2003QR/SHARK/F1

DATE: DECEMBER, 2003





**SHARK CLAIM
BLOCK**

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FIGURE 2
CLAIM LOCATION
SHARK PROPERTY
TRUE NORTH GEMS INC.
...2003QR\SHARK\F2 DATE: DECEMBER, 2003

2002). Claims that once covered parts of the current Shark property are described in the following paragraphs.

In 1976, the Guano claims were staked by Ukon Joint Venture (Chevron Minerals Ltd. and Kerr Addison Mines Limited). Those claims covered the eastern portion of the present Shark property. They were explored for uranium and REE associated with skarns and veins developed peripheral to a Mississippian syenite stock. Work on the Guano claims in 1976 and 1977 included geological mapping, ground radiometrics, airborne radiometrics, and geochemical sampling (Archer and Onasick, 1976 and Archer, 1977). F. Chronic also completed a master's thesis at the University of British Columbia (UBC) on the Guano property. Relevant work from her thesis includes detailed geological mapping, assays and petrological studies (Chronic, 1979).

During 1976, Archer Cathro performed exploration peripheral to the Guano claims on behalf of Ukon Joint Venture. During this work D. Eaton discovered an unidentified blue mineral within a quartz vein cutting syenite talus. The occurrence was documented in a traverse report but its importance was not appreciated until Dr. Lee Groat from UBC identified the mineral as beryl in fall 2000.

In the late 1980s the White and PS claims were staked by Mountain Province Mining Inc. to cover gold targets. Most of those claims were north of the Shark claims but some of them once covered the eastern portion of the current Shark property. Exploration work done by Mountain Province focussed on the northern portion of its claims and consisted of cursory inspections.

In 1988, B. Hall staked the Matthew claims to cover an area that included the southwestern corner of the Shark property. In 1990, he optioned his property to Cascade Pacific Resources Ltd., which in turn optioned it to Granges Inc. and later to Oro Bravo Resources Ltd. During the 1990s the Matthew claims expired and were replaced by the Mamu-Bravo-Kulan claims. Work done at that time on ground now covered by the Shark property included geological mapping, geochemical sampling, magnetometer surveys, and VLF-EM surveys (Doherty, 1996). Exploration during the 1990s was directed toward Kuroko type VMS mineralization, and most of the geochemical and geophysical results are not applicable to beryl exploration.

In early winter 2002, True North contracted Archer Cathro to perform gem exploration in the Yukon on its behalf. Research of published data, assessment reports and old traverse reports from Archer Cathro's database identified potential gem targets. The initial 16 Shark claims were staked in December 2002 to cover the beryl occurrence discovered by D. Eaton in 1976.

GEOMORPHOLOGY

The property is located within the Pelly Mountains on the southwest side of the Tintina Trench. It is in the headwaters of the McConnell River which is part of the Yukon River watershed. Local terrain consists of rugged mountains separated by wide glaciated valleys with fairly gentle floors. Valley bottoms are mostly covered by glaciofluvial outwash and are flanked by lateral moraines and moderate to steep hillsides (typically 20 to 50°). The property is centred on a prominent west trending ridge with a series of north trending spurs. Outcrop is most abundant in cirques on the north side of the main ridge and in actively eroding creek cuts. Ice sheets covered

the entire Pelly Mountain area during the Pleistocene and alpine glacial features such as cirques, tarn lakes and moraines are common.

Elevations on the property are between 1250 and 2150 m. Tree line is at about 1500 m. Vegetation ranges from scattered stunted spruce, balsam and willow at lower elevations giving way to buckbrush and moss and ultimately to lichen covered rock at higher elevations.

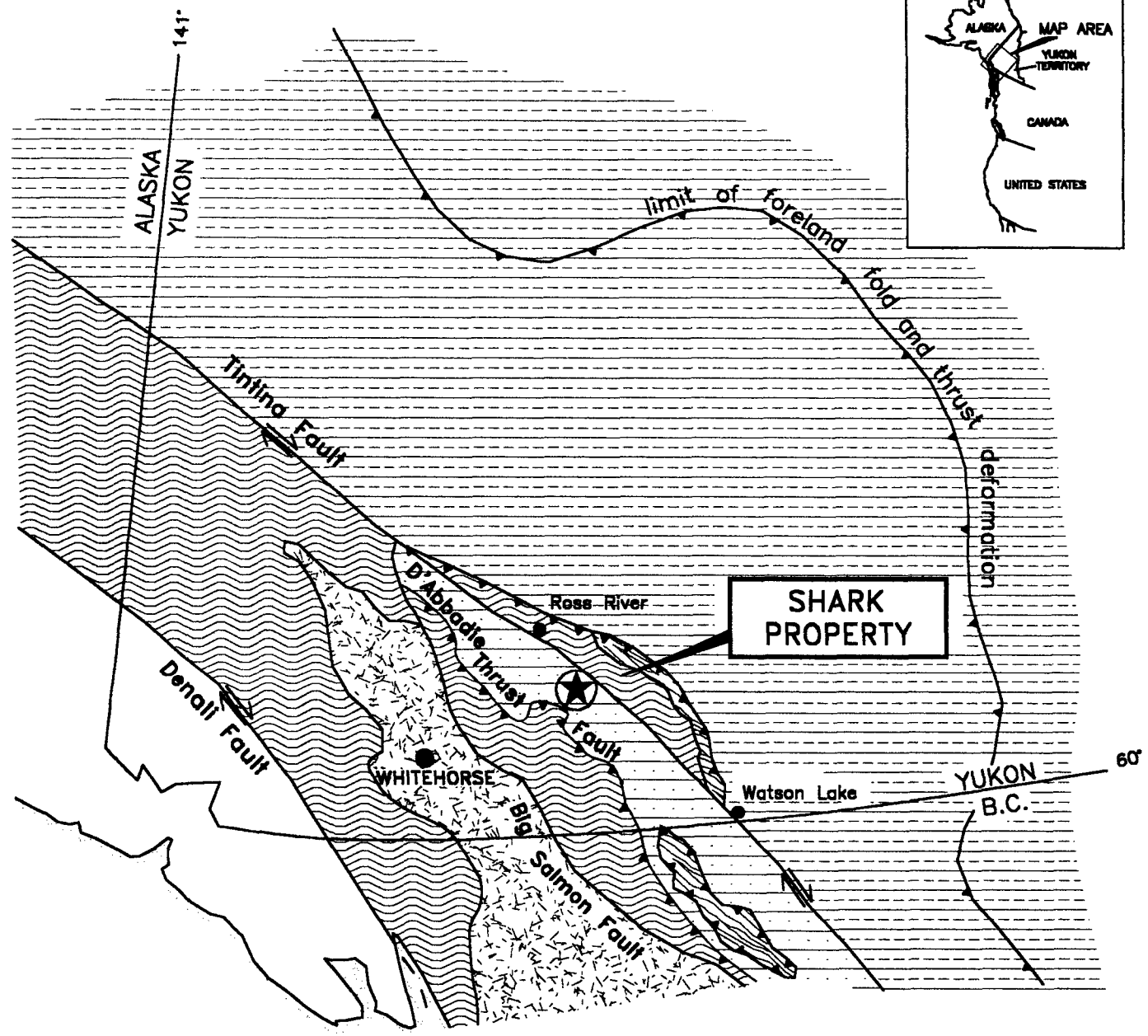
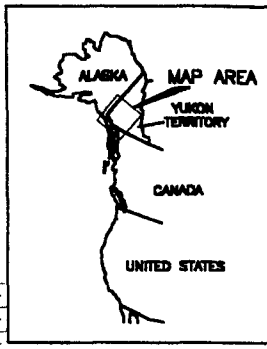
GEOLOGY








Regional Geology

The Shark property is located within the Cassiar Platform, a displaced tectonic element comprised of Paleozoic miogeoclinal clastic and carbonate sedimentary rocks (Figure 3). These strata are overlain and interfingered with Mississippian felsic to mafic metavolcanic rocks which form the linear northwest trending Pelly Mountain volcanic belt (Gibson, et al, 1999) believed to be deposited in a continental rift environment. Roughly coincident with the southwestern edge of the volcanic belt is a 32 km long string of Mississippian syenite intrusions, the largest of which is partially covered by the Shark claim block. This entire package of rocks was faulted and deformed during Late Paleozoic arc-continent collision, and intruded by Mid-Cretaceous plutons of intermediate composition (Tempelman-Kluit, 1981).

The Ketzia-Seagull District, in which the Shark property is located, is bounded on the northeast by the Tintina Fault (Figure 4). This regional scale, transcurrent fault extends across Yukon into Alaska and resulted in approximately 420 to 460 km of dextral offset in Early Tertiary times (Mortensen, et al, 2000). This portion of the Cassiar Platform is structurally complex and has been divided into four northeast-directed thrust panels (Abbott, 1986). From northeast to southwest and from structurally lowest to highest, they are: the St. Cyr, Cloutier, Seagull-Porcupine, and McConnell thrust faults. A prominent feature is the nearby Ketzia-Seagull Arch, which is described as a broad domal uplift in which strata of the Lower Cloutier thrust panel are exposed through the Seagull-Porcupine thrust. This feature is most likely related to one or more buried Cretaceous intrusions (Abbott, 1986). The Shark property is located just north of the McConnell thrust and immediately southwest of the Ketzia-Seagull Arch.

The main lithologies in the Ketzia-Seagull District are shown on Figure 4 and are described as follows. The oldest rocks are Lower Cambrian to Mississippian in age and consist dominantly of shale, limestone, dolomite, sandstone, quartzite and phyllite of the Cassiar Platform. The Mississippian metavolcanics (unit Mva) are described as the metamorphic equivalents of "dark clastic rocks, tuffaceous chert and felsic volcanic rocks" (Gordey and Makepeace, 2000). Those rocks are approximately coeval with and in part genetically linked with Mississippian syenite (unit My). These intrusives range from small plugs to 35 km² stocks. They typically consist of resistant, massive, medium to fine grained equigranular syenite (Gordey and Makepeace, 2000). The youngest rocks (units KqC) belong to the Cassiar Plutonic Suite, which ranges between 100 and 110 Ma (Mortensen, 1999). Typically they consist of grey weathering, equigranular, medium to coarse grained quartz monzonite and range from small stocks to batholith sized bodies. The closest documented intrusion to the Shark property is a stock located 9 km to the southwest.



-  Thrust fault
-  Transcurrent fault
-  Yukon-Tanana Terrane
-  Slide Mountain Terrane
-  Stikinia and other Terranes
-  Cassiar Platform
-  North American Miogeoclinal Strata


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FIGURE 3

TECTONIC SETTING

SHARK PROPERTY

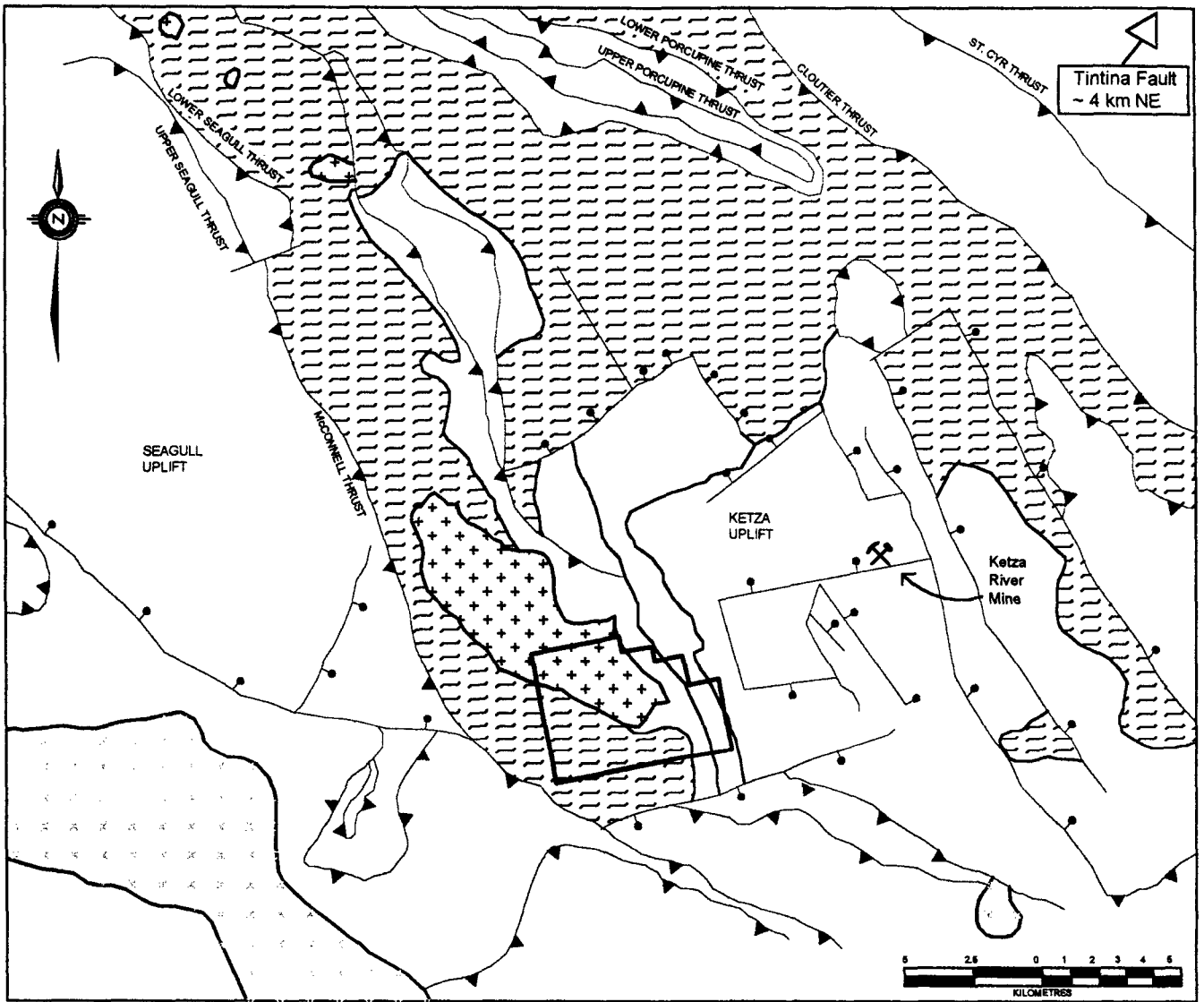
TRUE NORTH GEMS INC.










KILOMETRES

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Modified after Mortensen and Jilson (1985), and Mortensen (1982)



Modified after Tempelman-Kluit (1977) and Gordey and Makepeace (2000)

-  Paleozoic Cassiar Platform sediments
-  Mississippian metavolcanics (Mva)
-  Mississippian syenite (My)
-  Cretaceous intrusions (KqC)
-  Normal fault
-  Thrust fault
-  Shark property claim boundary

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FIGURE 4

REGIONAL GEOLOGY

SHARK PROPERTY

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PROJECT: SHARK
DATE: DECEMBER, 2003

Property Geology

The Shark property is underlain by three metasedimentary units (uCOs, SDc and uDMs), a metavolcanic unit (Mva) and a syenite stock (My) (Figures 5 and 6). Regionally the metasedimentary rocks are part of a conformable sequence but on the property a steep fault juxtaposes the Cambrian strata against Silurian to Mississippian rocks. Silurian shale, volcanic breccia, sandstone, and dolomite normally occur between units uCOs and SDc. The metavolcanics and syenite are slightly younger and are dated as Mississippian. The following paragraphs describe each of the units, from oldest to youngest.

Unit uCOs is upper Cambrian to Ordovician in age and comprises grey to black, lustrous phyllite and minor black shale. The rocks are typically thinly bedded.

Unit SDc includes thinly to thickly bedded, grey limestone and orange weathering dolomite with minor quartzite. This Silurian to Devonian unit forms the bulk of Guano Ridge.

Unit uDMs consists of thinly laminated, dark grey to black shale.

Unit Mva is a package of predominantly metavolcanic rocks with some interfingered sedimentary lithologies. Metamorphic grades range from lower greenschist to lower amphibolite facies. It includes phyllite, argillite, chert, lapilli tuffs, volcanic breccias, trachytic flows and moderately to well foliated sericite and chlorite-talc altered schist. This unit typically ranges from pale green to grey to maroon, and weathers as platy to blocky talus.

Unit My forms the southeastern half of a 12 km long, 3 km wide syenite stock. It is medium to fine grained, equigranular, and becomes increasingly mafic toward the margins of the intrusion. Colour is variable ranging from light grey to pink to dark green. The rock is massive and weathers resistantly to form prominent cliffs along ridges. Pockets of unit Mva, possibly roof pendants too small to be mapped at a regional scale, are present within this unit. Tension gashes are locally abundant in the syenite and have a high aspect ratio. They range from centimetres to metres in length and are filled with quartz and a variety of accessory minerals. Zircon extracted from unit My has been dated at 362.7 ± 3.6 Ma using U-Pb isotopic methods (Mortensen, 1999).

Units uCOs, SDc and uDMs comprise the eastern part of the Shark property while units My and Mva underlie the remainder. Unit uCOs is separated from units SDc and uDMs by a near vertical, northwest trending fault (Chronic, 1979). A second northwest trending shear zone located about 800 m to the southwest separates the carbonate, clastic, and syenite rocks in the eastern part of the property from the main body of syenite and metavolcanic rocks. Bedding in stratified units across the property strikes northeasterly and dips moderately to the southeast. Skarnification developed in the carbonate rocks is most likely a result of contact metamorphism from the syenite stock, but could be related to later fluid movement along the shear zone and associated minor faults.

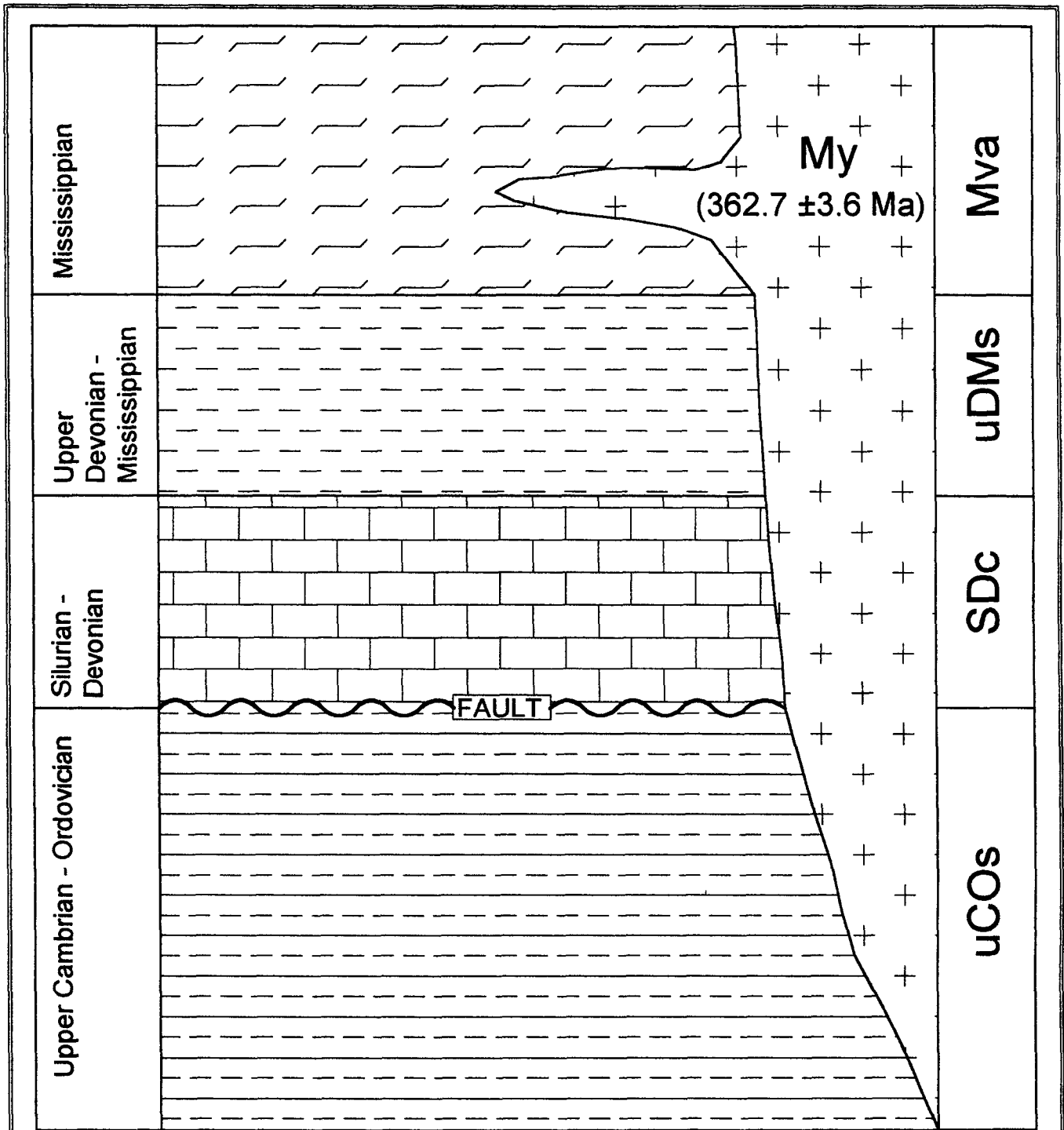







Figure 5. Schematic section of the Paleozoic stratigraphy pertaining to the Shark Property. Beryl occurs primarily in the Mississippian syenite (My).

-  Syenite (My)
-  Metavolcanics (Mva)
-  Shale (uDMs)
-  Carbonates (SDc)
-  Limestone, slate (uCOs)

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FIGURE 5

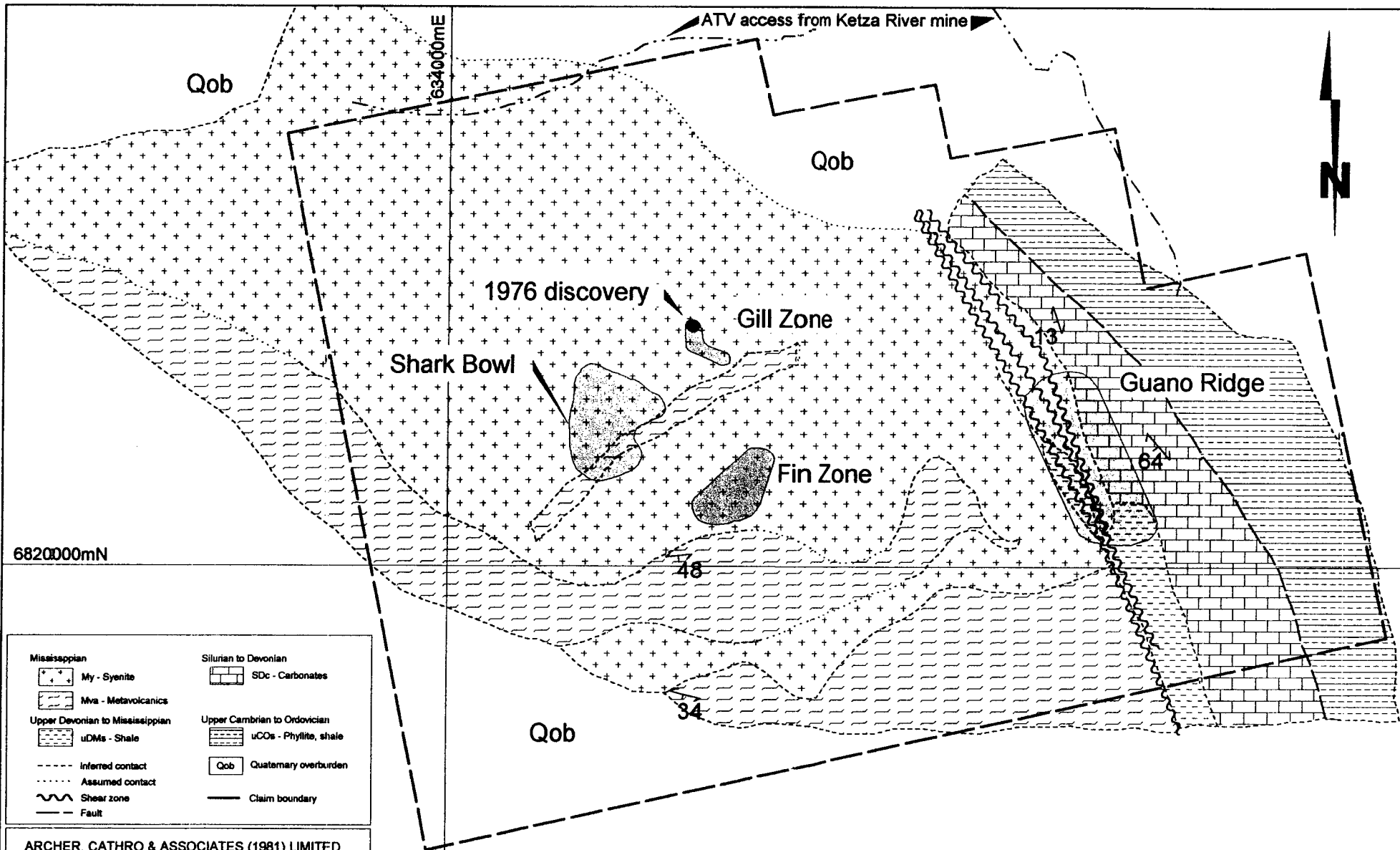
STRATIGRAPHY

SHARK PROPERTY

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PROJECT: SHARK
DATE: DECEMBER, 2003



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Mississippian	Silurian to Devonian
My - Syenite	SDc - Carbonates
Mva - Metavolcanics	
Upper Devonian to Mississippian	Upper Cambrian to Ordovician
uDMs - Shale	uCOs - Phyllite, shale
----- Inferred contact	Qob - Quaternary overburden
..... Assumed contact	— Claim boundary
~~~~~ Shear zone	
——— Fault	

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 FIGURE 6  
**PROPERTY GEOLOGY**  
**SHARK PROPERTY**  
**TRUE NORTH GEMS INC.**  
 2003SHARKSHARK_OR      DATE: DECEMBER 2003



## MINERALIZATION

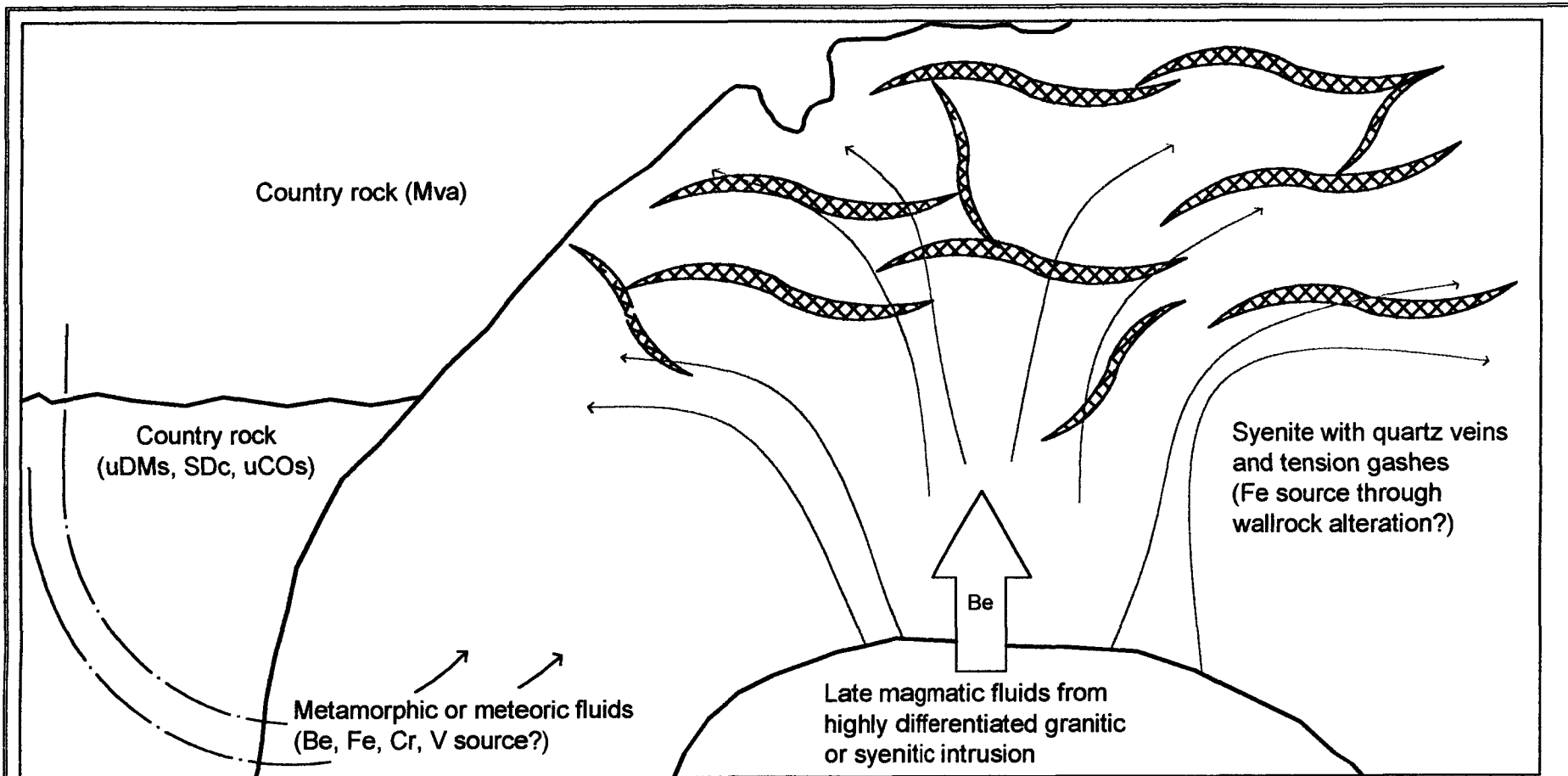
Exploration efforts on the Shark property in 2003 focussed on beryl mineralization. Previous work within the current property boundaries defined sub-economic grade uranium and REE mineralization associated with skarns and veins.

Figure 7 illustrates a basic model for the formation of blue and green beryl observed at the Shark property. A beryllium rich fluid from an evolved magma interacts with metal rich wallrocks or is mixed with metal bearing meteoric or metamorphic fluids, bringing the chromophore elements and beryllium into contact, thus forming coloured beryl. The origin of the beryllium rich fluid is unknown, however a 2000 by 750 m aeromagnetic high (Gordey and Makepeace, 2000) on the edge of the mineralized region may be associated with a buried Cretaceous age granitic intrusion. The possibility that beryllium was derived from magmatic evolution of the syenite or was introduced by hydrothermal fluids associated with tectonic activity cannot be ruled out. Similarly, the origin of the chromophore in the beryl is uncertain at this time but two probable sources are wallrock alteration of the host syenite and scavenging by hydrothermal cells from the surrounding metasedimentary country rocks.

Beryl mineralization has been identified in two areas within the Shark property. The beryl is opaque to transparent and ranges from pale to dark blue, sometimes pale to medium green and occasionally shows blue-green bicolouration. It usually occurs in tension gashes and veins cutting syenite, but at one locale a pale blue beryl is hosted in a quartz vein within a roof pendant of metavolcanic rock (unit Mva). Vein mineralogy is quite simple, consisting dominantly of clear to white quartz and a combination of accessory minerals including calcite, siderite, tourmaline, and smoky to purple fluorite. The veins occupy a dense network of orthogonal tension gashes and range in length from 30 cm to tens of metres and in width from 3 to 20 cm. They have sharp wallrock contacts and display coarse granular crystal growth. Density appears to increase toward the structural top of the syenite body where vein material locally constitutes up to 30% of the rock. Some beryl is thought to have replaced tourmaline, based on the aspect of the crystals and a few specimens that exhibit tourmaline grading into beryl.

Dark blue beryl is the main focus of exploration on the Shark property. The intense colour saturation observed in this gem beryl has prompted its tentative classification as a new variety of aquamarine although it may be designated a distinct gem variety. Five faceted stones have been submitted to the Gemological Institute of America for classification and authentication. The mineral has been temporarily named True Blue beryl.

Academic studies are underway on True Blue beryl specimens. Electron-microprobe analyses performed on the beryl indicate iron is the main impurity, ranging up to 5.81% which is one of the highest concentrations ever reported in beryl (Groat, pers. comm., 2003). The density ranges from 2.775 to 2.783 g/cm³. The refractive indices measured from uncut stones range between 1.582 and 1.602 and the beryl is strongly dichroic (Smith, 2003). Of the five stones faceted by True North, two have elongated emerald cuts and weigh 0.82 and 0.79 carats, while the remaining stones have round brilliant cuts and weigh less than 0.10 carats each. Refractive indices are currently being determined for the cut stones. A thorough literature review has found reference to several locales with blue beryl including Brazil, Ireland, Madagascar, Pakistan and



Tension gashes and veins with varying amounts of quartz, calcite, siderite, fluorite, tourmaline, and beryl.



Fluid movement along planes of weakness

Be = Beryllium Fe = Iron Cr = Chromium V = Vanadium

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FIGURE 7

**"TRUE BLUE" BERYL  
FORMATION MODEL**

SHARK PROPERTY

TRUE NORTH GEMS INC.

USA. Most of these references are anecdotal or only briefly describe the blue beryl. References that do contain scientific information indicate that the True Blue beryl has higher iron content and is significantly darker blue (Groat, pers. comm., 2003). When compared to dark blue stones from Brazil and the USA the True Blue sample exhibited significantly darker blue colour saturation (Groat, pers. com., 2003)

Initial prospecting at the Shark property has identified four prospective zones, two of which are known to contain beryl. These zones are described in the following paragraphs and are shown on Figure 6.

### **Shark Bowl**

The Shark Bowl is the most thoroughly explored target on the property. Beryl occurs in a 700 by 400 m area in outcrop and talus. The colour of the beryl ranges from the deep saturated True Blue to aquamarine to turquoise to a medium dark green. Clarity of the True Blue beryl is very good in the smaller crystals, however the larger specimens found to date tend to be moderately fractured and contain numerous inclusions. The beryl crystals range from millimetres in length and width up to 5 cm long and 2.5 cm wide.

Two mini-bulk samples (113 kg and 59 kg) were taken from the Shark Bowl to assess the grade of blue beryl in moderately veined syenite. The rocks comprising the samples were collected from outcrop and locally derived talus and showed at least minor beryl mineralization on exposed veins. Processing of the 59 kg sample at UBC yielded a total of 57.9 grams of gem grade True Blue beryl. Individual crystals reached 38 mm in length and 11 mm in diameter. It was estimated that quartz veins comprised 8% of the sample (Short, 2003).

### **Gill Zone**

The dimensions of the Gill Zone are 300 by 100 m. Although prospecting within the zone has been minimal, four occurrences of medium to deep blue beryl were found in syenite on either side of a ridge. The beryl was found in tension gashes with varied mineral assemblages. Beryl crystals discovered to date are less than 1 cm in length and 3 mm in diameter.

Two other areas on the property contain geochemical and geological features that suggest beryl could be present but none has been discovered to date. These areas are the Fin Zone and Guano Ridge.

### **Fin Zone**

Prospecting in the vicinity of the Fin Zone has been cursory and has identified many large tension gashes hosted in syenite that contain combinations of accessory minerals similar to those observed at the Shark Bowl. Soil and silt geochemistry show moderately anomalous beryllium values and the metavolcanic rocks that lie within this zone are dominantly chloritic schists, which are the host rocks and probable source of chromium for emerald at the Regal Ridge prospect (Groat, et al, 2002).

## **Guano Ridge**

This area was not prospected or mapped in detail during the 2003 field season, however the geological setting along Guano Ridge has potential for beryl formation. The large shear zone mapped on the eastern side of the property is associated with skarnification of limy metasediments and abundant quartz-calcite veining into adjacent sediments. This structure was previously identified as a conduit for REE bearing fluids (Chronic, 1979) and may have acted as a conduit for beryllium rich fluids as well. Semi-quantitative spectrographic analysis of a chip sample from a vein and a nearby soil collected in 1976 from the Guano Ridge area returned beryllium values of 300 and 700 ppm, respectively (Archer and Onasick, 1976). Furthermore, multi-element soil geochemical analysis performed in 2003 suggests that sedimentary wallrocks are enriched in vanadium.

### **GEOCHEMISTRY**

The following paragraphs describe geochemical results from soil and stream sediment sampling from the Shark property. There is little published data concerning beryllium geochemistry with which to compare these results. The author has used data obtained from 2003 regional gem exploration (Wengzynowski, in prep.) and True North's exploration at Regal Ridge (Gaboury, 2002) to establish anomalous thresholds. Vanadium values have also been compared to regional reconnaissance stream sediment geochemical results for the area (Schmitt and Lund, 1985).

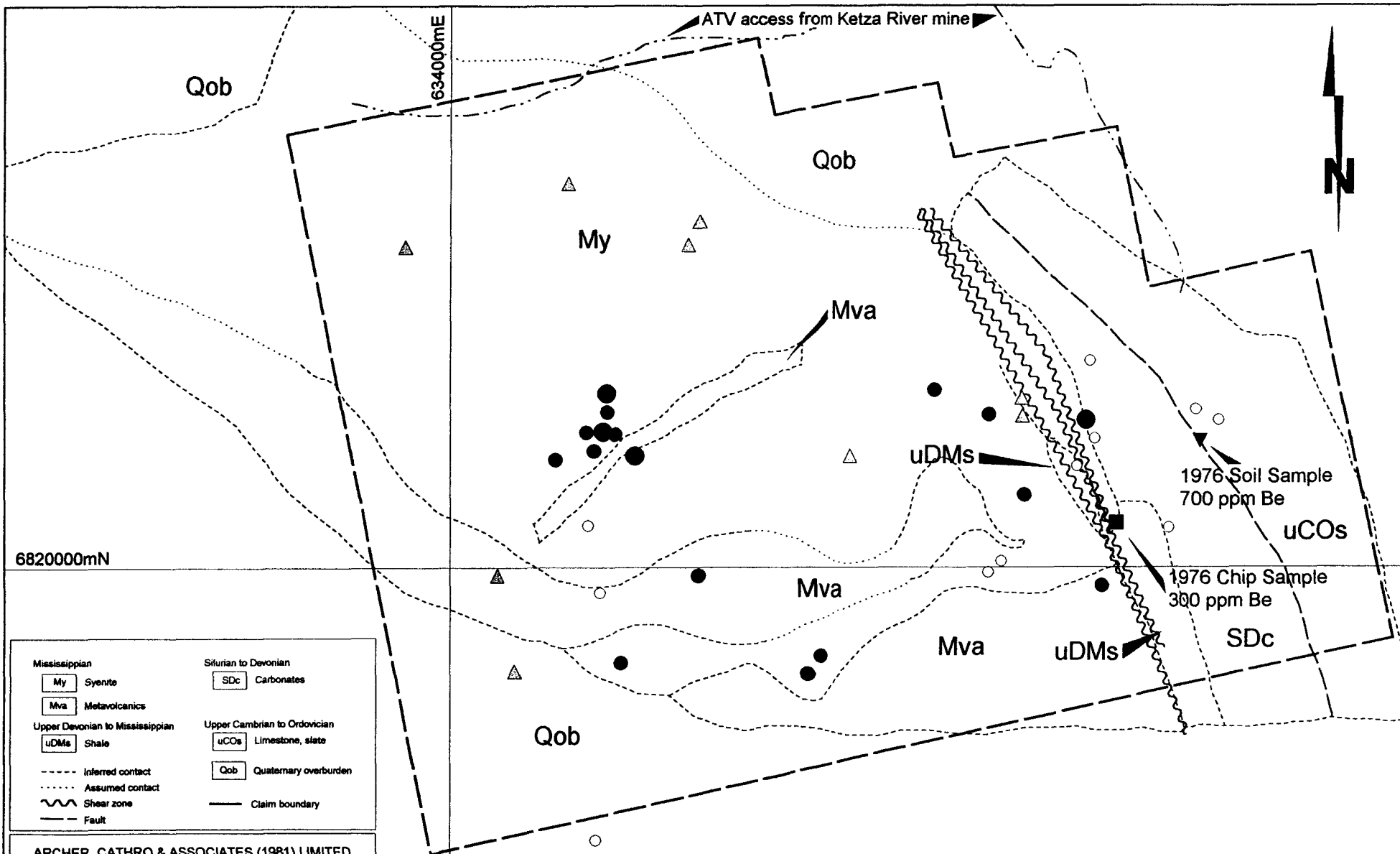
Soil and stream sediment samples were collected to identify specific areas of potential mineralization. All sample sites were marked by flagging tape bearing the sample number, and located using GPS. Certificates of Analysis are contained in Appendix II.

Figure 8 illustrates beryllium results for soil and stream sediment samples. Most of the beryllium values are strongly anomalous, with peak values of 11.5 ppm in soil and 8.87 ppm in silt. Although the highest single soil value was obtained from the eastern part of the property, the majority of the strongly anomalous values came from the Shark Bowl.

Chromium values in soils and silts on the Shark property are low, peaking at 53 ppm. Vanadium results are higher and include strongly anomalous values of 1465 ppm and 463 ppm from soil samples taken within the Upper Cambrian-Ordovician limestone and shale (unit uCOs), indicating a potential vanadium chromophore at Guano Ridge.

The samples were taken from B or C Horizon soil, usually at depths between 20 and 30 cm below surface. About 200 g of soil was collected and placed in a pre-numbered, heavy gauge paper bag. Soil sampling is intended to detect non-outcropping mineralization located directly beneath or uphill from the sample site.

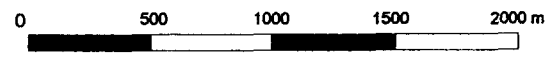
Individual beryl occurrences were marked with flagging and located by GPS (Figure 9). The most important beryl occurrences were marked with lath and double flagged. Factors influencing importance included size, clarity, colour and the presence or absence of other minerals such as tourmaline. Thirty-seven occurrences were designated as extraction sites on the basis of the above factors as well as accessibility. Beryl specimens were extracted using a hand



Mississippian		Silurian to Devonian	
My	Syenite	SDc	Carbonates
Mva	Metavolcanics		
Upper Devonian to Mississippian		Upper Cambrian to Ordovician	
uDMs	Shale	uCOs	Limestone, slate
		Qob	Quaternary overburden
----- Inferred contact		----- Assumed contact	
~~~~~ Shear zone		- - - - - Claim boundary	
- - - - - Fault			

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 FIGURE 8
Be GEOCHEMISTRY
 SHARK PROPERTY
 TRUE NORTH GEMS INC.
 2003\SHARK\SHARK_QR DATE: DECEMBER 2003

Stream Sediment	ME-MS61 Be (ppm)	Soil Sample
◆	≥ 20	★
▲	≥ 10 < 20	●
△	≥ 5 < 10	○
	≥ 0 < 5	



held rock saw, hammer and chisel. The specimen was then described, labeled and packaged. When the specimens reached Whitehorse, they were cleaned, photographed and catalogued.

DISCUSSION AND RECOMMENDATIONS

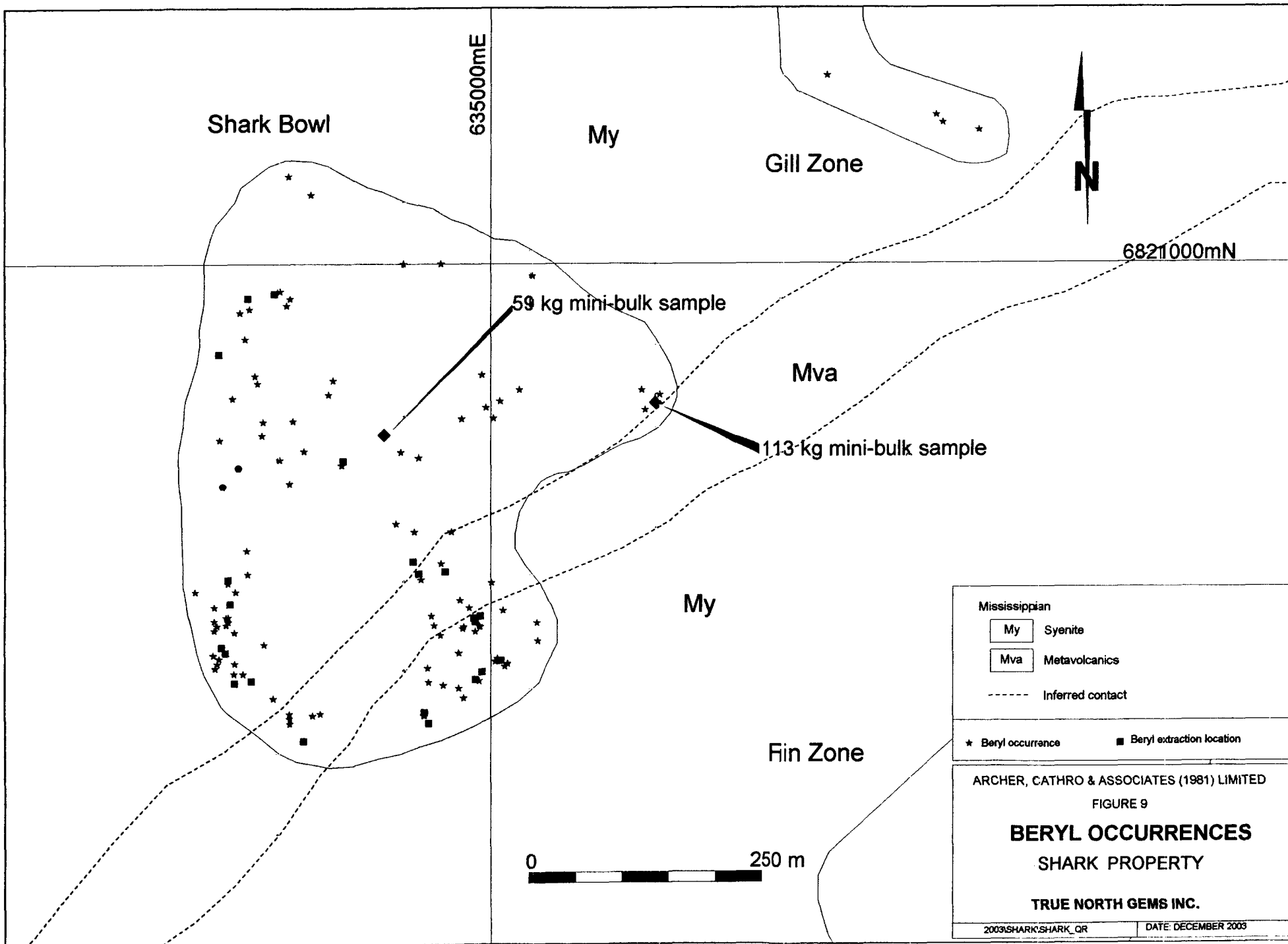
Exploration in 2003 successfully located a zone of beryl mineralization in the vicinity of the 1976 discovery site (Gill Zone) and outlined a much larger zone (Shark Bowl) about 400 m to the southwest. Both of these zones are hosted in Mississippian syenite. In addition, preliminary work elsewhere on the property recognized that the Fin Zone and Guano Ridge also exhibit promising geological and geochemical characteristics that warrant additional exploration.

The majority of beryl occurrences have been found where talus blocks have split open by natural processes exposing mineralized veins or tension gashes. The beryl forms individual crystals and aggregates with crystal sizes reaching up to 5 cm in length and 2.5 cm in diameter. Some beryl crystals have a high aspect ratio which implies possible replacement of tourmaline by beryl. Most specimens are highly fractured and appear to have suffered considerable damage during movement in talus. If this is true, beryl crystals in bedrock should be less fractured and should be capable of producing larger cut stones. The largest faceted gem produced to date from the property is a 0.82 carat dark blue stone. Clarity of the beryl in general varies from opaque to transparent. The smaller crystals are often free of inclusions and fractures while the larger crystals tend to be moderately included and fractured.

Most beryl from the property is light to medium blue; however, the more interesting and rarer specimens are dark blue (True Blue), green, or bicoloured. The colour of the True Blue and other blue beryl is believed to be a result of iron impurities. The chromophore of the green beryl is unknown at this time but, if it is chromium or vanadium, the better quality green stones can be technically classified as emerald. The chromophores in the beryl at the Shark property are derived either from wallrock alteration of the syenite or from hydrothermal scavenging of the metasedimentary country rocks. Beryl crystals with a blue core that grades to a green rim suggests that a significant change in fluid composition or physical state occurred during crystallization. The origin of the beryllium is also uncertain although the most probable source is late magmatic fluids from a highly differentiated intrusion. Petrological, isotopic and fluid inclusion studies are required to define the origin of the beryllium and chromophores to define the time of vein emplacement and to understand the conditions of beryl crystallization.

In addition to the two known zones there is potential for beryl elsewhere on the property. Geology at the Fin Zone closely resembles the Shark Bowl, except no beryl has yet been found. Guano Ridge returned promising geochemical values in a different but prospective geological environment. Wallrocks in that area are limy metasediments which exhibit widespread skarnification indicating hydrothermal activity some of which is localized along faults. The combination of faults, shale and limestone seen at Guano Ridge has been compared to the geological setting of the Columbian emerald mines (Rohtert, pers. comm., 2003).

The Shark property contains two zones of known beryl mineralization and two zones with geochemical and geological conditions favourable for beryl formation. The colour of the True Blue beryl is exceptional and it is higher in iron saturation than other deep blue beryl described



Mississippian	
My	Syenite
Mva	Metavolcanics
----- Inferred contact	
★ Beryl occurrence	■ Beryl extraction location
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED	
FIGURE 9	
BERYL OCCURRENCES	
SHARK PROPERTY	
TRUE NORTH GEMS INC.	
2003SHARKSHARK_QR	DATE: DECEMBER 2003

in literature. Further exploration and scientific studies are warranted to search for more beryl mineralization, to define limits of the known zones and to understand the process of beryl formation. Work in each zone should establish the density of veins and tension gashes, the abundance and quality of beryl within the mineralized structures and the relative proportion of potentially high value, dark blue beryl or emerald to less valuable, lighter coloured beryl.

Respectfully submitted,

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W.A. Wengzynowski, P.Eng.

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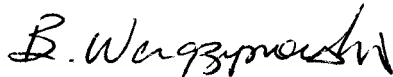
In prep Emerald Project 2003 Final Report.

APPENDIX I
STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

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

1. I am President of Archer, Cathro & Associates (1981) Limited.
2. I graduated from the University of British Columbia in 1993 with a B.A.Sc in Geological Engineering, Option I, mineral and fuel exploration.
3. I registered as a Professional Engineer in the Province of British Columbia on December 12, 1998 (Licence Number 24119).
4. From 1983 to present, I have been actively engaged in mineral exploration in the Yukon Territory, Northwest Territories and northern British Columbia.
5. I have personally participated in and supervised the fieldwork reported herein.



William A. Wengzynowski, P. Eng.

APPENDIX II
CERTIFICATES OF ANALYSIS



ALS Chemex

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To: EP

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Page # : 1

Date: 22-Jul-2003

Account: EMP

CERTIFICATE VA03025979

Project : Quiet Lake

P.O. No:

This report is for 20 SOIL samples submitted to our lab in North Vancouver, BC, Canada on 16-Jul-2003.

The following have access to data associated with this certificate:

AL ARCHER
JOAN MARIACHER

ROB CARNE
BILL WENGZYNOWSKI

DOUG EATON

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
SCR-41	Screen to -180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION
ME-MS61	47 element four acid ICP-MS

To: EP
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:



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Method Analyte Units LOR	WEI-21 Recvd Wt kg	ME-MS61 Ag ppm	ME-MS61 Al %	ME-MS61 As ppm	ME-MS61 Ba ppm	ME-MS61 Be ppm	ME-MS61 Bi ppm	ME-MS61 Ca %	ME-MS61 Cd ppm	ME-MS61 Co ppm	ME-MS61 Co ppm	ME-MS61 Cr ppm	ME-MS61 Cs ppm	ME-MS61 Cu ppm	ME-MS61 Fe %
Sample Description	0.02	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01
BB27471	0.56	0.33	8.56	5.6	730	2.60	0.62	1.82	0.39	105.5	17.6	32	8.71	53.8	4.01
BB27472	0.54	0.28	8.26	7.1	780	2.58	0.41	1.16	0.20	116.0	15.5	37	11.25	28.6	3.66
BB27473	0.78	0.34	6.68	1.1	560	2.33	0.26	1.08	0.19	157.5	11.2	27	7.38	22.5	3.20
BB27474] SHARK	0.38	0.39	9.21	9.0	970	5.14	0.43	1.06	0.31	162.0	4.9	8	5.47	20.7	4.29
BB27475] SHARK	0.56	0.60	9.11	7.7	1050	6.24	0.32	0.49	1.68	>500	5.3	4	6.83	12.2	3.87
BB36507	0.20	0.16	8.21	1.5	700	2.18	0.34	1.45	0.13	160.5	16.4	36	6.59	40.9	3.82
BB36508	0.30	0.29	9.34	3.4	740	1.99	0.35	1.86	0.09	142.5	15.2	40	7.20	43.3	5.44
BB36509	0.34	0.20	10.90	1.5	970	2.90	0.53	0.67	0.10	268	14.6	54	11.35	64.1	5.50
BB36510	0.30	0.22	10.85	2.8	1040	2.35	0.40	0.55	0.14	224	13.8	65	9.96	48.5	5.50
BB36511	0.28	0.27	11.45	7.4	940	3.07	0.70	0.40	0.09	411	10.2	65	16.90	42.7	5.84
BB36512	0.40	0.48	10.30	4.0	910	3.56	1.22	0.73	0.15	122.5	12.0	52	26.1	41.1	5.17
BB36513	0.40	0.29	7.94	6.0	920	2.17	0.58	1.54	0.37	102.5	17.5	58	7.53	52.6	3.67
BB36545] SHARK	0.38	0.58	8.51	8.1	730	8.87	0.26	0.93	0.33	267	8.6	24	6.95	14.0	5.23
BB36546] SHARK	0.32	0.55	8.49	32.9	750	7.48	0.28	1.18	0.83	214	10.2	24	6.49	16.1	5.43
BB36547] SHARK	0.40	1.04	9.64	3.9	980	4.37	1.95	1.18	1.66	105.0	14.4	55	18.00	33.0	3.53
BB36548	0.38	0.54	8.40	3.1	860	3.33	1.11	1.52	1.68	85.2	13.0	40	11.25	26.4	3.40
BB36549	0.50	1.04	7.69	2.3	720	3.52	0.98	1.66	1.79	87.2	14.5	38	11.00	29.9	3.38
BB36599	0.38	0.39	11.00	2.3	880	3.62	3.53	0.34	0.09	290	16.4	73	15.85	103.0	9.12
BB36600	0.40	0.34	11.10	2.6	930	3.92	0.61	1.28	0.46	144.0	27.5	58	14.75	72.7	5.13
BB36601	0.36	0.44	9.71	5.4	800	3.89	1.01	1.51	1.08	135.5	20.2	44	14.80	51.7	3.99

Comments: REE's may not be totally soluble in MS61 method.



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Page #: 2 - B
 as : 2 (A - D)
 Date : 22-Jul-2003
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Method Analyte Units LOR	ME-MS61 Ga ppm 0.05	ME-MS61 Ge ppm 0.05	ME-MS61 Hf ppm 0.1	ME-MS61 In ppm 0.005	ME-MS61 K % 0.01	ME-MS61 La ppm 0.5	ME-MS61 Li ppm 0.2	ME-MS61 Mg % 0.01	ME-MS61 Mn ppm 5	ME-MS61 Mo ppm 0.05	ME-MS61 Na % 0.01	ME-MS61 Nb ppm 0.1	ME-MS61 Ni ppm 0.2	ME-MS61 P ppm 10	ME-MS61 Pb ppm 0.5
BB27471	21.5	0.28	0.7	0.058	2.76	54.4	50.2	1.25	662	0.59	1.41	8.3	33.1	960	81.2
BB27472	20.9	0.30	0.7	0.052	2.76	65.3	63.0	0.97	529	1.03	1.24	9.2	35.2	970	31.4
BB27473	15.05	0.28	0.4	0.041	2.14	78.9	36.3	0.72	839	0.60	1.04	7.8	24.5	720	22.0
BB27474] SHARK	28.6	0.30	2.2	0.124	2.86	92.5	32.8	0.63	874	15.85	2.23	72.8	6.5	510	27.0
BB27475] SHARK	36.2	0.55	4.6	0.152	3.16	286	70.0	0.62	1890	12.40	1.46	325	5.3	470	106.0
BB36507	19.05	0.34	0.6	0.057	2.52	77.5	41.1	1.02	709	0.74	1.33	11.0	29.0	660	25.8
BB36508	21.6	0.36	0.9	0.056	2.62	70.8	50.7	1.40	667	1.90	1.61	9.3	22.7	910	18.8
BB36509	25.7	0.42	0.4	0.076	3.95	124.0	74.6	1.18	678	1.39	0.95	13.6	29.0	820	27.1
BB36510	24.1	0.38	0.4	0.073	3.83	103.0	65.7	1.22	660	1.15	0.97	13.8	26.7	720	28.3
BB36511	28.9	0.55	0.3	0.098	4.18	190.5	98.5	1.17	524	1.64	0.87	16.4	20.1	700	37.2
BB36512	23.5	0.34	0.6	0.061	3.46	60.2	79.5	1.02	612	2.67	0.96	13.4	23.7	960	33.2
BB36513	16.70	0.29	1.0	0.056	2.15	50.3	44.3	1.22	685	2.25	1.76	9.2	53.9	1090	51.9
BB36545] SHARK	29.8	0.47	2.2	0.184	1.82	168.5	39.6	1.22	875	12.35	2.13	95.8	17.6	970	33.1
BB36546] SHARK	26.8	0.42	0.9	0.156	1.74	123.0	38.9	1.16	1340	15.85	2.02	65.9	18.2	940	84.0
BB36547] SHARK	22.9	0.32	0.9	0.098	2.78	56.0	100.0	1.32	725	2.91	1.28	13.3	40.3	840	180.5
BB36548	18.00	0.26	0.8	0.068	2.62	45.1	60.3	1.09	995	2.11	1.51	9.8	31.0	920	96.3
BB36549	18.60	0.33	0.9	0.061	2.15	54.5	57.9	1.11	1120	3.24	1.44	10.4	29.9	1030	106.5
BB36599	25.6	0.49	0.3	0.079	3.89	135.5	78.4	1.13	570	2.25	0.57	13.8	37.3	1180	71.1
BB36600	26.6	0.39	0.5	0.078	3.73	71.9	87.9	1.35	752	1.67	1.04	14.3	56.4	710	76.1
BB36601	22.4	0.34	0.8	0.106	3.22	68.9	75.7	1.14	755	2.25	1.48	20.1	42.6	890	95.6

Comments: REE's may not be totally soluble in MS61 method.



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 Pages : 2 (A - D)
 Date : 22-Jul-2003
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Project : Quiet Lake

CERTIFICATE OF ANALYSIS VA03025979

Method Analyte Units LOR	ME-MS61 Rb ppm 0.1	ME-MS61 Re ppm 0.002	ME-MS61 S % 0.01	ME-MS61 Sb ppm 0.05	ME-MS61 Se ppm 1	ME-MS61 Sn ppm 0.2	ME-MS61 Sr ppm 0.2	ME-MS61 Ta ppm 0.05	ME-MS61 Te ppm 0.05	ME-MS61 Th ppm 0.2	ME-MS61 Tl % 0.01	ME-MS61 Tl ppm 0.02	ME-MS61 U ppm 0.1	ME-MS61 V ppm 1	ME-MS61 W ppm 0.1
BB27471	130.5	0.003	0.01	0.46	2	2.7	378	0.47	0.06	16.8	0.40	1.24	3.9	99	1.8
BB27472	136.0	0.003	0.03	0.35	2	3.1	245	0.48	<0.05	18.8	0.38	1.00	8.6	87	1.8
BB27473	103.5	0.003	0.01	0.18	2	2.7	203	0.36	<0.05	25.1	0.33	1.04	4.6	62	1.5
BB27474] SHARK	103.5	0.003	0.03	0.97	1	6.4	316	2.34	0.14	34.5	0.20	0.40	22.9	23	2.3
BB27475	162.5	0.006	0.10	1.08	4	13.9	48.5	13.90	0.39	98.6	0.20	0.45	18.4	12	4.3
BB36507	119.5	0.003	0.02	0.24	2	3.3	319	1.41	<0.05	24.7	0.39	1.04	3.9	92	1.5
BB36508	118.5	0.003	0.11	0.35	2	3.6	434	0.71	<0.05	22.3	0.51	0.93	4.2	148	1.7
BB36509	197.0	0.004	0.18	0.22	2	5.1	184.5	1.10	0.05	41.3	0.47	1.48	7.0	107	2.6
BB36510	186.5	0.004	0.18	0.36	2	4.1	167.0	0.87	0.06	31.7	0.47	1.31	5.5	121	2.5
BB36511	247	0.006	0.28	0.30	2	6.7	158.5	1.34	0.08	58.3	0.50	1.66	11.4	113	3.0
BB36512	188.0	0.003	0.15	1.15	2	5.9	199.5	1.04	0.07	19.1	0.44	1.15	4.3	114	3.7
BB36513	94.8	0.003	0.02	0.78	2	3.4	251	0.57	0.06	16.5	0.40	0.82	6.0	118	2.2
BB36545] SHARK	111.0	0.005	0.04	1.04	4	9.4	179.0	3.71	0.16	51.6	0.32	0.46	13.4	53	3.2
BB36546] SHARK	97.9	0.005	0.06	1.08	3	7.5	247	1.92	0.12	46.1	0.30	0.43	17.2	61	2.7
BB36547	158.0	0.004	0.02	0.83	2	4.7	219	0.76	0.13	17.0	0.44	1.40	28.7	120	5.2
BB36548	132.5	0.003	0.02	0.53	2	3.5	284	0.56	0.09	14.0	0.36	1.10	18.1	93	3.3
BB36549	116.5	0.003	0.04	0.48	3	3.5	310	0.50	0.07	14.0	0.36	1.02	17.0	90	4.9
BB36599	208	0.004	0.27	0.21	2	4.3	122.0	0.91	0.11	52.5	0.47	1.40	8.8	120	3.9
BB36600	192.5	0.004	0.03	0.26	2	5.6	237	0.90	0.05	23.2	0.46	1.50	7.0	113	3.4
BB36601	180.0	0.003	0.03	0.38	2	6.0	267	1.08	0.06	20.6	0.40	1.37	15.9	99	4.0

Comments: REE's may not be totally soluble in MS61 method.



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Page #: 2 - D
as : 2 (A - D)
Date : 22-Jul-2003
Account: EMP

Project : Quiet Lake

CERTIFICATE OF ANALYSIS VA03025979

Sample Description	Method Analyte Units LOR	ME-MS61	ME-MS61	ME-MS61
		Y ppm 0.1	Zn ppm 2	Zr ppm 0.5
BB27471		20.1	136	19.0
BB27472		21.6	104	19.6
BB27473		24.3	68	9.4
BB27474] SHARK	40.2	122	92.4
BB27475		80.4	259	224
BB36507		18.9	84	16.0
BB36508		15.6	91	23.6
BB36509		17.9	101	9.9
BB36510		15.0	97	10.2
BB36511		18.6	97	7.1
BB36512		12.4	98	18.4
BB36513		16.0	139	28.5
BB36545] SHARK	65.9	104	71.8
BB36546		52.4	192	35.8
BB36547		19.8	452	27.5
BB36548		16.8	284	23.2
BB36549		22.2	249	26.7
BB36599		19.3	138	6.3
BB36600		21.3	177	12.8
BB36601		21.4	211	22.0

Comments: REE's may not be totally soluble in MS61 method.



ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
 ALS Canada Ltd.
 212 Brooksbank Avenue
 North Vancouver BC V7J 2C1 Canada
 Phone: 604 984 0221 Fax: 604 984 0218



To: EP
 C/O ARCHER CATHRO & ASSOCIATES (1981) LIMITED
 1016-510 W HASTINGS ST
 VANCOUVER BC V6B 1L8



Page #: 1
 : 25-Aug-2003
 Account: EMP

CERTIFICATE VA03030718

Project : Shark
 P.O. No:
 This report is for 29 SOIL samples submitted to our lab in North Vancouver, BC, Canada on 15-Aug-2003.
 The following have access to data associated with this certificate:

AL ARCHER JOAN MARIACHER	ROB CARNE BILL WENGZYNOWSKI	DOUG EATON
-----------------------------	--------------------------------	------------

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
SCR-41	Screen to -180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION
ME-MS61	47 element four acid ICP-MS

To: EP
 C/O ARCHER CATHRO & ASSOCIATES (1981) LIMITED
 1016-510 W HASTINGS ST
 VANCOUVER BC V6B 1L8

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature: 



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0:EP

C/O ARCHER CATHRO & ASSOCIATES (1981) LIMITED Total # of
1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Page #: 2 - A

Jobs : 2 (A - D)

Date : 25-Aug-2003

Account: EMP

Project : Shark

CERTIFICATE OF ANALYSIS VA03030718

Method Analyte Units LOR	WEI-21 Recvd Wt kg	ME-MS61 Ag ppm	ME-MS61 Al %	ME-MS61 As ppm	ME-MS61 Ba ppm	ME-MS61 Be ppm	ME-MS61 Bi ppm	ME-MS61 Ca %	ME-MS61 Cd ppm	ME-MS61 Ce ppm	ME-MS61 Co ppm	ME-MS61 Cr ppm	ME-MS61 Cs ppm	ME-MS61 Cu ppm	ME-MS61 Fe %
Sample Description	0.02	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01
BB29944	0.32	0.36	6.95	19.8	750	5.36	1.79	0.48	0.30	136.5	8.1	44	3.98	28.3	3.83
BB29945	0.32	1.21	7.02	20.2	660	4.71	0.90	1.01	1.04	343	11.6	14	6.69	32.6	10.65
BB29949	0.34	0.63	8.99	14.4	1800	6.36	0.22	0.47	1.74	185.5	5.2	6	1.74	17.2	5.13
BB29950	0.30	0.65	9.51	10.1	2360	8.94	0.20	0.32	4.14	254	4.1	7	3.51	8.1	4.85
BB29951	0.22	0.41	7.30	66.2	1340	4.45	0.46	0.52	1.55	254	7.0	29	1.86	12.4	4.41
BB29952	0.32	0.46	4.74	82.2	860	3.12	1.74	0.78	0.54	159.5	14.5	46	3.89	103.0	2.81
BB29954	0.30	0.70	8.26	16.8	700	5.41	1.75	0.43	0.31	331	15.0	14	5.54	60.8	7.66
BB29955	0.30	1.26	9.36	11.5	1160	8.17	0.17	0.64	0.64	317	3.7	3	4.49	14.5	3.28
BB36608	0.32	2.97	7.21	150.0	200	3.78	0.09	0.21	0.14	233	1.2	8	1.76	34.4	14.20
BB36609	0.20	0.86	7.20	16.4	1330	5.15	0.45	0.25	3.15	366	2.6	6	2.22	17.8	5.98
BB36610	0.30	6.97	5.21	8.2	800	3.14	36.8	0.16	0.45	351	1.3	8	3.79	183.0	22.9
BB36611	0.32	1.88	9.39	33.7	1390	7.15	1.06	0.59	4.71	272	5.1	14	6.56	38.6	6.92
M24081	0.24	2.08	8.71	18.1	430	8.97	0.40	0.61	0.84	386	4.5	8	6.64	17.3	6.62
M24082	0.28	3.12	8.14	20.0	720	7.34	0.46	0.28	1.56	>500	2.9	4	9.38	13.6	7.28
M24083	0.36	2.39	8.79	30.2	440	9.69	0.48	0.32	0.75	>500	3.6	8	7.66	17.0	7.03
M24084	0.30	2.03	8.70	8.1	480	10.20	0.50	0.33	0.77	470	4.0	7	3.58	16.3	5.68
M24085	0.40	1.92	8.53	5.0	800	9.03	0.21	0.50	0.18	460	4.6	10	5.64	10.2	4.40
M24086	0.30	2.44	8.16	8.4	520	10.25	0.20	0.66	0.18	460	6.1	11	6.48	10.6	5.39
M24087	0.28	1.76	8.99	7.8	530	8.76	0.58	0.55	0.80	430	4.7	12	5.82	20.6	7.02
M24088	0.26	2.24	9.63	11.8	400	10.10	0.77	0.23	2.94	>500	2.4	5	4.97	21.4	6.16
M24093	0.24	0.80	5.52	31.0	2060	3.43	7.12	8.06	1.46	199.0	47.1	35	2.16	174.0	9.60
M24094	0.22	1.10	5.56	30.9	1910	11.50	1.62	4.60	0.59	175.0	18.4	27	4.86	48.5	7.22
M24095	0.30	0.81	2.50	69.0	1370	1.39	12.90	12.35	1.90	148.0	91.5	21	1.70	383	9.92
M24096	0.32	0.36	6.28	36.4	1860	3.26	1.39	0.30	0.70	202	37.8	48	3.86	123.5	6.28
M24097	0.32	0.56	8.59	12.4	720	5.48	0.53	0.44	0.37	214	10.0	13	6.10	13.2	6.14
M24098	0.38	0.91	8.65	13.4	1170	5.61	0.79	0.47	0.66	248	9.7	14	5.73	17.6	8.05
M24099	0.24	0.83	8.12	19.0	1110	6.23	0.95	0.98	1.00	151.5	14.4	27	6.61	45.0	6.74
T39548	0.36	0.16	8.10	6.6	670	3.33	0.87	1.43	0.11	282	18.0	11	2.71	6.1	5.94
T39549	0.28	0.78	9.21	17.2	1030	5.62	0.56	0.68	1.52	252	6.1	14	4.13	15.8	4.89

Comments: Interference: Ca>10% on ICP-MS As,ICP-AES results shown. REE's may not be totally soluble in MS61 method.



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212 Brooksbank Avenue

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Phone: 604 984 0221 Fax: 604 984 0218

To: EP

C/O ARCHER CATHRO & ASSOCIATES (1981) LIMITED Total # of

1016-510 W HASTINGS ST

VANCOUVER BC V6B 1L8

Page #: 2 - B

is: 2 (A - D)

Date : 25-Aug-2003

Account: EMP

Project : Shark

CERTIFICATE OF ANALYSIS VA03030718

Sample Description	Method Analyte Units LOR	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
		Ga ppm 0.05	Ge ppm 0.05	Hf ppm 0.1	In ppm 0.005	K % 0.01	La ppm 0.5	Li ppm 0.2	Mg % 0.01	Mn ppm 5	Mo ppm 0.05	Na % 0.01	Nb ppm 0.1	Ni ppm 0.2	P ppm 10	Pb ppm 0.5
BB29944		22.6	0.22	0.2	0.101	2.58	74.3	22.3	0.65	1010	20.6	0.56	22.4	48.6	1100	36.0
BB29945		31.5	0.50	1.4	0.336	2.14	190.5	27.8	0.99	4750	40.7	2.26	163.5	11.6	1570	46.9
BB29949		33.5	0.28	2.1	0.136	3.96	99.3	25.5	0.77	2260	4.75	0.91	55.1	3.8	370	154.5
BB29950		41.8	0.32	13.2	0.245	4.28	133.5	74.6	0.62	1840	4.05	0.63	47.2	4.6	390	193.0
BB29951		26.4	0.31	1.0	0.102	3.25	132.5	22.0	0.62	1915	4.17	0.65	75.5	12.0	380	27.5
BB29952		12.55	0.18	0.3	0.070	1.51	85.7	12.8	0.59	436	29.8	0.73	79.9	81.2	1150	36.5
BB29954		37.3	0.41	1.5	0.069	1.94	182.5	30.0	1.25	553	16.35	2.07	112.0	28.4	730	20.1
BB29955		48.1	0.39	2.5	0.126	2.48	167.0	32.9	2.62	410	6.10	3.13	342	47.8	690	22.5
BB36608		42.7	0.43	1.9	0.238	5.40	142.0	36.9	0.38	246	43.5	0.22	55.6	1.2	900	98.9
BB36609		37.0	0.43	1.4	0.211	2.69	193.5	22.4	0.66	2310	9.72	0.76	88.6	1.5	350	86.0
BB36610		44.2	0.62	2.0	1.795	2.35	213	10.0	1.04	887	25.2	0.90	188.5	0.4	390	476
BB36611		42.3	0.42	4.0	0.250	3.79	160.0	31.5	0.73	2210	21.3	0.93	116.5	7.1	500	198.0
M24081		40.4	0.48	3.3	0.180	2.27	213	32.9	0.75	1925	23.9	2.41	202	4.4	540	113.0
M24082		37.3	0.66	3.4	0.188	3.02	325	36.0	0.43	4750	43.3	1.43	329	1.3	410	107.5
M24083		45.2	0.55	3.3	0.188	2.52	281	44.8	0.69	2190	34.2	2.13	259	2.9	470	60.6
M24084		40.4	0.50	4.8	0.187	2.58	261	29.4	0.61	1735	37.3	2.54	208	4.0	510	36.3
M24085		35.6	0.50	4.5	0.197	1.85	243	27.5	0.77	850	17.45	3.33	250	5.4	600	10.5
M24086		38.0	0.47	5.3	0.232	1.52	231	28.9	0.66	1630	13.35	2.86	320	6.8	530	11.2
M24087		40.3	0.54	4.4	0.221	2.52	242	33.3	0.75	2090	27.7	2.49	222	4.9	630	45.6
M24088		48.5	0.64	5.2	0.204	3.53	324	32.3	0.56	2160	44.2	1.75	273	1.2	420	100.0
M24093		18.65	0.31	0.4	0.180	0.74	112.5	58.3	6.82	1060	0.60	0.24	35.1	85.4	970	37.6
M24094		24.4	0.28	0.9	0.201	1.47	85.7	101.5	5.92	1405	6.48	0.45	132.5	55.9	500	19.2
M24095		5.24	0.27	0.1	0.073	1.11	96.1	25.9	5.81	623	2.38	0.17	28.1	132.0	1650	117.0
M24096		16.80	0.29	0.2	0.039	1.93	78.2	17.5	0.92	1100	49.3	0.71	25.1	109.5	1470	67.4
M24097		32.2	0.31	1.6	0.132	3.43	108.5	23.6	0.75	1595	24.7	1.17	83.8	18.5	630	22.1
M24098		37.1	0.34	2.9	0.188	3.14	134.5	35.9	0.99	1415	32.8	1.61	106.0	15.0	640	38.3
M24099		30.1	0.29	3.2	0.148	2.72	86.9	36.8	1.73	894	33.0	0.98	89.6	30.4	810	103.0
T39548		24.5	0.37	0.2	0.140	1.04	146.0	20.8	2.47	791	3.71	2.09	10.3	13.7	5440	4.7
T39549		37.6	0.32	8.8	0.170	2.75	135.0	24.9	1.37	1345	20.8	1.52	100.5	11.8	1060	62.9

Comments: Interference: Ca>10% on ICP-MS As, ICP-AES results shown. REE's may not be totally soluble in MS61 method.



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 Phone: 604 984 0221 Fax: 604 984 0218



EP
 C/O ARCHER CATHRO & ASSOCIATES (1981) LIMITED Total # of Cases : 2 (A - D)
 1016-510 W HASTINGS ST
 VANCOUVER BC V6B 1L8
 Date : 25-Aug-2003
 Account: EMP

Project : Shark

CERTIFICATE OF ANALYSIS VA03030718

Sample Description	Method Analyte Units LOR	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
		Rb ppm 0.1	Re ppm 0.002	S % 0.01	Sb ppm 0.05	Se ppm 1	Sn ppm 0.2	Sr ppm 0.2	Ta ppm 0.05	Te ppm 0.05	Th ppm 0.2	Ti % 0.01	Ti ppm 0.02	U ppm 0.1	V ppm 1	W ppm 0.1
BB29944		115.0	<0.002	0.15	1.32	1	2.9	21.4	0.20	<0.05	22.0	0.10	0.24	2.3	257	3.1
BB29945		173.0	<0.002	0.07	1.21	4	4.8	167.0	5.60	0.06	27.0	0.60	0.50	7.8	47	3.4
BB29949		194.5	<0.002	0.04	1.31	1	6.4	104.5	0.94	<0.05	32.3	0.21	0.75	5.8	24	2.4
BB29950		175.5	0.002	0.08	2.06	1	11.2	47.3	1.61	<0.05	42.5	0.12	0.76	6.9	18	1.5
BB29951		140.0	<0.002	0.04	1.48	1	7.3	97.3	1.94	<0.05	47.9	0.24	0.69	8.6	42	2.1
BB29952		60.2	<0.002	0.04	5.79	2	2.2	116.5	0.44	0.09	43.9	0.28	0.27	8.1	215	6.9
BB29954		108.0	<0.002	0.19	2.84	3	9.3	37.5	3.91	0.15	43.1	0.14	0.21	8.0	85	5.9
BB29955		81.6	<0.002	0.01	1.56	5	7.4	111.0	16.90	<0.05	60.8	0.18	0.20	13.4	34	2.7
BB36608		193.5	<0.002	1.47	6.84	1	7.2	40.6	0.25	<0.05	21.1	0.12	1.11	3.4	6	2.1
BB36609		90.9	<0.002	0.22	1.26	2	7.4	31.4	0.83	0.08	35.2	0.19	0.47	4.1	5	1.8
BB36610		162.5	<0.002	0.13	1.52	7	12.9	33.1	7.53	0.54	50.3	0.22	0.82	7.4	6	4.2
BB36611		178.5	<0.002	0.06	2.76	3	11.6	110.0	4.90	0.08	61.0	0.23	0.66	13.6	27	3.1
M24081		124.5	<0.002	0.06	2.52	3	10.4	122.0	9.47	0.10	68.2	0.23	0.37	11.7	20	4.1
M24082		161.0	0.002	0.05	4.03	4	10.7	43.1	15.35	0.07	85.6	0.22	0.65	11.3	6	4.7
M24083		144.0	<0.002	0.07	3.07	3	12.1	46.3	11.60	0.15	90.7	0.21	0.44	15.0	9	4.6
M24084		127.5	<0.002	0.04	1.40	3	10.8	62.4	10.90	0.10	68.0	0.24	0.37	11.2	12	3.9
M24085		99.3	0.002	0.02	1.10	3	13.8	103.0	12.80	0.06	75.9	0.35	0.27	9.9	19	4.4
M24086		98.0	0.002	0.03	2.25	4	18.2	103.0	16.15	<0.05	105.5	0.30	0.35	13.0	17	5.1
M24087		142.5	<0.002	0.02	1.54	2	10.7	117.0	9.57	0.10	66.9	0.33	0.42	11.2	24	4.2
M24088		177.0	<0.002	0.04	1.84	3	12.6	36.4	12.30	0.16	101.0	0.18	0.43	15.0	5	4.4
M24093		55.7	0.004	0.24	2.56	5	20.8	92.2	1.82	0.39	43.7	0.27	0.15	8.3	71	1.8
M24094		195.0	0.003	0.04	2.52	4	19.8	124.5	8.21	0.08	36.0	0.26	0.36	10.7	82	2.2
M24095		72.4	0.004	0.33	2.30	4	4.2	111.0	0.14	0.73	14.0	0.10	0.19	5.4	39	2.7
M24096		82.8	<0.002	0.07	4.72	5	1.9	66.1	0.24	0.15	33.8	0.18	0.29	9.0	208	2.4
M24097		140.5	<0.002	0.07	1.78	1	5.5	50.8	2.82	<0.05	28.1	0.18	0.41	5.2	67	4.8
M24098		148.0	<0.002	0.10	2.25	2	10.2	90.3	4.59	0.06	31.4	0.21	0.34	6.8	59	5.7
M24099		143.5	0.003	0.05	2.17	3	8.7	103.5	3.56	0.08	34.8	0.20	0.37	22.8	125	5.5
T39548		37.5	<0.002	0.08	0.74	2	2.5	112.5	0.30	0.11	15.0	0.30	0.13	2.1	99	4.0
T39549		107.0	0.002	0.08	1.87	2	8.0	91.1	4.70	0.12	36.8	0.35	0.43	9.5	60	2.8

Comments: Interference: Ca>10% on ICP-MS As, ICP-AES results shown. REE's may not be totally soluble in MS61 method.



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PO: EP

C/O ARCHER CATHRO & ASSOCIATES (1981) LIMITED Total # of

1016-510 W HASTINGS ST

VANCOUVER BC V6B 1L8

Page #: 2 - D

is: 2 (A - D)

Date: 25-Aug-2003

Account: EMP

Project: Shark

CERTIFICATE OF ANALYSIS

VA03030718

Sample Description	Method Analyte Units LOR	ME-MS61	ME-MS61	ME-MS61
		Y ppm 0.1	Zn ppm 2	Zr ppm 0.5
BB29944		23.2	71	6.2
BB29945		90.8	241	38.5
BB29949		34.3	376	93.3
BB29950		37.5	683	434
BB29951		39.0	312	52.1
BB29952		29.8	137	13.6
BB29954		60.7	62	54.1
BB29955		120.5	149	62.0
BB36608		33.2	49	113.0
BB36609		37.0	593	67.7
BB36610		61.7	291	79.7
BB36611		62.2	1055	170.5
M24081		60.1	160	98.1
M24082		72.3	219	120.0
M24083		69.6	148	102.5
M24084		61.5	151	175.5
M24085		90.9	38	127.0
M24086		104.5	40	138.0
M24087		67.3	178	132.0
M24088		61.2	506	160.0
M24093		62.1	1670	11.4
M24094		108.0	372	30.1
M24095		17.9	486	2.8
M24096		17.2	398	4.1
M24097		37.6	84	50.8
M24098		47.1	127	81.4
M24099		42.6	371	90.6
T39548		24.1	54	6.6
T39549		41.4	326	263

Comments: Interference: Ca>10% on ICP-MS As, ICP-AES results shown. REE's may not be totally soluble in MS61 method.



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EP
 C/O ARCHER CATHRO & ASSOCIATES (1981) LIMITED
 1016-510 W HASTINGS ST
 VANCOUVER BC V6B 1L8



Page # : 1
 17-Sep-2003
 Account: EMP

CERTIFICATE VA03035665

Project : Shark
 P.O. No:
 This report is for 26 SOIL samples submitted to our lab in North Vancouver, BC, Canada on 12-Sep-2003.
 The following have access to data associated with this certificate:

AL ARCHER JOAN MARIACHER	ROB CARNE BILL WENGZYNOWSKI	DOUG EATON
-----------------------------	--------------------------------	------------

SAMPLE PREPARATION

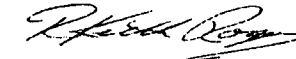
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
SCR-41	Screen to -180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION
ME-MS61	47 element four acid ICP-MS

To: EP
 C/O ARCHER CATHRO & ASSOCIATES (1981) LIMITED
 1016-510 W HASTINGS ST
 VANCOUVER BC V6B 1L8

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature: 



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 212 Brooksbank Avenue
 North Vancouver BC V7J 2C1 Canada
 Phone: 604 984 0221 Fax: 604 984 0218



EP
 C/O ARCHER CATHRO & ASSOCIATES (1981) LIMITED Total # of
 1016-510 W HASTINGS ST
 VANCOUVER BC V6B 1L8

je #: 2 - A
 es: 2 (A - D)
 Date: 17-Sep-2003
 Account: EMP

Project: Shark

CERTIFICATE OF ANALYSIS VA03035665

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	ME-MS61 Ag ppm 0.01	ME-MS61 Al % 0.01	ME-MS61 As ppm 0.2	ME-MS61 Ba ppm 10	ME-MS61 Be ppm 0.05	ME-MS61 Bi ppm 0.01	ME-MS61 Ca % 0.01	ME-MS61 Cd ppm 0.02	ME-MS61 Ce ppm 0.01	ME-MS61 Co ppm 0.1	ME-MS61 Cr ppm 1	ME-MS61 Cs ppm 0.05	ME-MS61 Cu ppm 0.2	ME-MS61 Fe % 0.01
BB36612 SHARK		0.28	3.57	5.52	58.8	4100	2.82	0.36	1.05	13.25	120.0	18.7	53	4.65	81.1	4.61
BB36613		0.34	1.38	8.60	85.5	1150	3.87	2.11	0.99	1.57	213	10.0	17	7.94	94.0	4.65
BB36614		0.34	0.45	7.32	123.0	1020	3.19	0.29	1.98	0.14	103.0	41.8	404	29.4	65.4	6.14
BB36615		0.28	0.26	7.66	56.7	1270	2.55	2.42	0.70	0.06	80.6	30.1	63	8.74	61.5	5.53
BB36616		0.52	1.04	7.11	274	1120	2.15	0.77	2.33	0.77	114.0	20.7	34	13.30	52.6	4.06
M24100 SHARK		0.38	2.14	8.61	96.4	2380	5.89	2.10	0.46	5.85	202	8.4	6	4.01	30.9	8.70
M24101		0.30	1.88	7.69	72.8	2120	5.83	2.16	0.37	3.45	280	7.6	5	3.20	31.9	7.60
M24102		0.32	1.72	5.05	63.2	1520	3.44	0.49	5.75	2.93	82.8	25.8	51	4.90	78.9	5.25
M24103		0.38	0.43	5.68	53.0	1260	1.82	0.97	1.43	0.81	107.5	16.9	38	7.39	50.1	3.62
M24104		0.32	0.54	6.41	131.0	1620	2.06	3.22	1.35	0.83	120.5	17.0	41	9.95	51.9	3.38
M24105		0.28	1.23	9.51	167.0	1180	5.00	0.31	0.88	1.04	183.0	12.6	29	15.50	25.2	5.26
M24106		0.28	1.31	9.31	164.0	1100	4.84	0.28	0.80	1.16	201	12.0	25	12.60	24.7	4.99
M24107		0.32	1.26	12.15	55.3	770	5.21	1.34	0.77	4.14	314	170.5	17	11.20	46.9	5.26
M24108		0.40	1.34	8.73	14.5	1480	4.63	0.15	1.48	0.76	212	33.8	22	6.79	57.3	5.46
M24109		0.44	1.80	9.12	8.6	1460	4.90	0.26	1.22	0.66	223	13.3	29	5.20	23.3	5.67
M24110		0.38	0.19	7.42	4.0	1470	3.14	0.11	4.47	0.50	252	28.3	21	4.28	28.3	8.12
M24111		0.20	0.98	7.28	28.9	860	4.06	0.58	1.03	1.12	221	9.8	33	6.22	22.2	3.49
M24112		0.28	1.46	9.10	93.9	1240	4.57	2.11	0.87	1.54	213	10.0	13	8.56	80.1	4.62
M24113		0.28	1.71	9.97	65.4	1280	4.62	2.34	0.99	1.23	188.0	9.1	8	11.05	38.4	3.98
M24114		0.18	1.20	10.30	146.5	970	4.53	1.15	1.40	2.52	221	109.5	31	14.25	46.4	5.91
M24115		0.34	0.52	6.12	76.4	1800	2.52	0.99	0.82	0.75	109.5	24.6	39	4.29	99.0	3.70
M24116		0.36	1.66	8.63	25.6	1850	3.87	0.62	1.43	0.80	247	18.1	21	3.04	44.1	4.88
M24117		0.24	0.47	6.00	37.2	4040	2.92	1.02	2.28	1.28	114.0	25.2	47	3.91	107.5	5.15
M24118		0.36	0.51	7.59	38.6	1570	2.88	0.66	0.94	0.32	165.0	31.3	43	7.29	92.2	4.09
M24120		0.26	1.58	8.33	22.5	1600	4.46	0.18	1.95	0.73	189.0	35.0	30	6.28	70.0	6.06
M24123		0.28	2.25	9.86	821	760	4.44	2.27	0.91	3.06	205	29.9	33	53.9	71.3	8.71

Comments: REE's may not be totally soluble in MS61 method.



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EP
C/O ARCHER CATHRO & ASSOCIATES (1981) LIMITED Total # of
1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

je #: 2 - B
as : 2 (A - D)
Date : 17-Sep-2003
Account: EMP

Project : Shark

CERTIFICATE OF ANALYSIS VA03035665

Sample Description	Method Analyte Units LOR	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
		Ga ppm 0.05	Ge ppm 0.05	Hf ppm 0.1	In ppm 0.005	K % 0.01	La ppm 0.5	Li ppm 0.2	Mg % 0.01	Mn ppm 5	Mo ppm 0.05	Na % 0.01	Nb ppm 0.1	Ni ppm 0.2	P ppm 10	Pb ppm 0.5
BB36612 SHARK		14.55	0.24	0.1	0.058	2.21	62.1	41.9	1.59	615	41.2	0.10	4.6	152.0	1780	254
BB36613		26.9	0.34	3.4	0.095	2.51	108.0	32.8	0.81	1145	19.50	2.18	60.5	13.4	870	91.7
BB36614		18.05	0.25	0.2	0.045	1.99	49.9	39.6	4.07	684	3.06	1.14	21.0	197.0	2830	11.0
BB36615		20.6	0.21	0.2	0.044	3.24	44.0	19.3	0.69	270	8.44	0.40	8.1	107.0	1160	10.6
BB36616		19.00	0.23	0.3	0.054	1.97	62.1	39.7	1.87	622	5.42	1.59	30.8	49.0	1380	63.1
M24100	SHARK	29.7	0.35	2.8	0.191	3.43	97.4	62.1	0.71	4950	18.75	1.60	62.2	4.1	960	510
M24101		31.1	0.41	4.8	0.175	3.34	138.0	42.5	0.63	3970	39.1	1.21	78.2	5.4	810	236
M24102		12.70	0.23	0.4	0.053	2.05	47.5	37.2	3.47	888	66.4	0.06	10.6	191.0	1380	170.0
M24103		15.55	0.22	0.2	0.042	1.58	61.0	24.8	0.98	588	4.82	1.13	10.4	49.4	1590	31.9
M24104		18.10	0.26	0.1	0.042	1.78	87.8	26.8	0.85	366	4.45	0.88	6.0	60.2	1700	84.9
M24105		30.4	0.30	4.0	0.165	2.19	97.3	44.0	1.10	991	7.66	2.19	53.0	26.2	1240	165.0
M24106		30.5	0.29	0.4	0.160	2.11	105.0	43.2	0.98	982	7.08	2.46	56.0	21.6	1100	176.0
M24107		19.80	0.65	5.5	0.058	1.21	238	52.4	1.16	2710	26.9	0.76	55.5	76.9	920	64.7
M24108		24.5	0.35	2.8	0.082	3.27	105.0	33.8	1.18	1370	11.25	2.66	83.4	60.0	1630	43.8
M24109		25.6	0.34	3.8	0.090	3.46	113.0	27.8	0.95	1575	9.70	3.27	120.5	14.3	1540	35.4
M24110		20.9	0.41	0.1	0.084	2.46	118.5	25.2	2.46	1785	4.84	2.42	4.7	11.7	5400	20.8
M24111		21.5	0.30	0.1	0.068	1.82	111.5	27.4	0.76	640	7.64	2.63	50.3	16.8	990	73.0
M24112		28.2	0.34	0.7	0.101	2.87	109.0	39.1	0.80	1090	19.40	2.25	72.5	12.1	800	98.5
M24113		28.1	0.32	3.1	0.129	3.24	114.5	43.1	0.75	929	20.1	1.89	83.0	6.2	620	158.0
M24114		22.2	0.47	4.6	0.087	1.68	145.0	68.4	1.88	1480	16.85	1.34	50.3	67.2	1780	93.6
M24115		17.00	0.25	0.2	0.011	1.90	56.9	37.1	1.26	284	12.55	1.07	20.3	100.5	1820	30.6
M24116		23.3	0.32	4.8	0.063	3.11	138.0	29.4	1.26	889	9.59	2.90	99.6	43.5	1250	41.5
M24117		17.15	0.25	0.7	0.054	2.94	65.0	43.0	3.47	469	21.4	1.15	17.4	138.0	1380	17.7
M24118		21.0	0.29	0.1	0.034	2.25	88.6	38.9	2.11	232	7.34	0.94	24.9	80.8	2050	14.3
M24120		22.8	0.33	2.1	0.077	3.11	94.1	38.9	1.69	1295	11.05	2.50	91.7	68.4	1940	39.0
M24123		28.9	0.37	1.4	0.230	2.27	116.5	165.5	1.64	1185	9.66	1.86	58.6	31.7	1950	270

Comments: REE's may not be totally soluble in MS61 method.



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EP
 C/O ARCHER CATHRO & ASSOCIATES (1981) LIMITED Total # of
 1016-510 W HASTINGS ST
 VANCOUVER BC V6B 1L8

je #: 2 - C
 jes: 2 (A - D)
 Date: 17-Sep-2003
 Account: EMP

Project: Shark

CERTIFICATE OF ANALYSIS VA03035665

Sample Description	Method Analyte Units LOR	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
		Rb ppm 0.1	Re ppm 0.002	S % 0.01	Sb ppm 0.05	Se ppm 1	Sn ppm 0.2	Sr ppm 0.2	Ta ppm 0.05	Te ppm 0.05	Th ppm 0.2	Tl % 0.01	Ti ppm 0.02	U ppm 0.1	V ppm 1	W ppm 0.1
BB36612 SHARK		89.5	0.005	0.18	15.50	5	1.3	56.7	<0.05	0.12	15.4	0.28	1.26	10.4	1465	1.8
BB36613		93.1	0.002	0.04	1.38	3	3.4	188.0	2.89	0.22	36.8	0.21	0.36	8.4	42	6.5
BB36614		114.5	<0.002	0.05	1.12	2	2.5	255	0.44	0.06	21.9	0.67	0.70	3.9	244	2.1
BB36615		111.0	0.002	0.12	2.44	3	2.8	77.6	0.16	0.18	18.5	0.27	0.34	4.1	332	1.1
BB36616		72.8	0.002	0.25	2.64	2	5.6	130.0	0.56	0.09	16.3	0.35	0.30	3.3	171	1.8
M24100 SHARK		101.5	<0.002	0.15	6.98	3	3.8	72.8	1.90	0.05	17.4	0.19	0.53	2.3	10	4.1
M24101		105.0	<0.002	0.15	5.38	3	4.8	66.6	2.38	0.06	24.3	0.20	0.54	2.9	10	4.1
M24102		88.9	0.019	0.41	25.1	7	1.5	142.0	0.12	0.12	12.6	0.28	1.25	15.2	463	2.0
M24103		60.3	0.003	0.08	1.56	4	1.9	179.5	0.07	0.06	12.4	0.41	0.35	4.7	177	3.4
M24104		71.0	0.003	0.11	2.30	5	1.8	165.5	0.07	0.17	14.8	0.33	0.38	10.0	260	2.5
M24105		95.7	<0.002	0.04	2.14	3	8.3	162.5	2.07	0.09	47.4	0.33	0.40	10.0	109	2.1
M24106		88.1	<0.002	0.03	2.06	3	8.5	161.0	1.32	0.09	46.9	0.29	0.42	10.3	84	1.8
M24107		67.6	<0.002	0.39	2.20	16	5.0	105.5	2.53	0.14	36.8	0.31	0.30	64.9	78	4.0
M24108		136.5	<0.002	0.07	1.26	3	2.9	228	2.96	0.06	28.5	0.65	0.30	6.8	125	1.9
M24109		138.5	<0.002	0.03	0.63	2	3.6	174.0	5.14	<0.05	33.4	0.53	0.32	6.1	71	2.2
M24110		90.6	0.002	0.03	0.09	3	0.7	236	0.06	<0.05	19.0	0.69	0.23	3.8	251	0.4
M24111		68.6	0.002	0.07	0.95	3	4.1	140.5	0.31	0.11	28.8	0.32	0.27	15.0	65	2.1
M24112		107.5	<0.002	0.05	1.30	3	4.3	171.0	1.45	0.17	35.2	0.26	0.35	8.0	42	7.9
M24113		129.5	<0.002	0.04	0.91	3	5.0	179.5	3.77	0.07	38.3	0.26	0.35	9.6	36	8.0
M24114		91.3	0.003	0.14	2.37	10	6.2	182.0	2.28	0.12	31.3	0.60	0.33	29.5	155	6.1
M24115		65.9	0.004	0.24	2.11	5	1.1	76.1	0.13	0.17	15.4	0.42	0.18	6.1	309	2.7
M24116		85.2	0.003	0.33	1.46	3	3.5	127.5	4.28	0.06	36.7	0.35	0.28	6.6	181	2.1
M24117		84.1	0.009	0.10	3.24	5	2.2	87.1	0.41	0.09	16.1	0.33	0.26	15.4	840	1.5
M24118		88.8	0.002	0.06	2.47	4	2.4	103.0	0.42	0.12	23.5	0.45	0.30	9.4	280	3.6
M24120		129.0	0.002	0.12	1.49	4	2.7	226	4.30	0.09	27.1	0.65	0.32	7.1	143	2.2
M24123		102.5	0.002	0.05	2.36	3	11.4	183.0	1.65	0.17	34.9	0.48	0.42	5.0	142	2.4

Comments: REE's may not be totally soluble in MS61 method.



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EP
C/O ARCHER CATHRO & ASSOCIATES (1981) LIMITED Total # of
1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

je #: 2 - D
as : 2 (A - D)
Date : 17-Sep-2003
Account: EMP

Project : Shark

CERTIFICATE OF ANALYSIS VA03035665

Sample Description	Method Analyte Units LOR	ME-MS61	ME-MS61	ME-MS61
		Y ppm 0.1	Zn ppm 2	Zr ppm 0.5
BB36612 SHARK		34.8	1435	9.7
BB36613		36.2	298	126.0
BB36614		17.6	73	9.8
BB36615		12.2	18	8.7
BB36616		14.8	106	14.5
M24100 SHARK		28.9	1130	96.1
M24101		35.6	703	233
M24102		29.7	580	19.6
M24103		16.1	217	9.8
M24104		19.6	163	9.0
M24105		37.7	227	137.5
M24106		37.1	238	13.4
M24107		197.5	451	192.0
M24108		41.3	179	102.0
M24109		39.4	148	158.0
M24110		45.0	152	1.2
M24111		28.2	188	5.9
M24112		37.9	291	31.2
M24113		36.5	260	112.5
M24114		95.1	353	157.0
M24115		23.0	108	9.5
M24116		31.4	138	208
M24117		27.7	191	31.3
M24118		22.6	78	5.6
M24120		39.0	181	82.3
M24123		39.5	341	78.1

Comments: REE's may not be totally soluble in MS61 method.



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TO: EP
 C/O ARCHER CATHRO & ASSOCIATES (1981) LIMITED
 1016-510 W HASTINGS ST
 VANCOUVER BC V6B 1L8

Page #: 1
 Date: 5-Dec-2003
 Account: EMP

CERTIFICATE VA03051042

Project : EP/SHARK
 P.O. No:
 This report is for 29 PULP samples submitted to our lab in North Vancouver, BC, Canada on 26-Nov-2003.
 The following have access to data associated with this certificate:

AL ARCHER JOAN MARIACHER	ROB CARNE BILL WENGZYNOWSKI	DOUG EATON
-----------------------------	--------------------------------	------------

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
FND-02	Find Sample for Addn Analysis

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Au-ICP21	Au 30g FA ICP-AES Finish	ICP-AES

To: EP
 C/O ARCHER CATHRO & ASSOCIATES (1981) LIMITED
 1016-510 W HASTINGS ST
 VANCOUVER BC V6B 1L8

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature: 



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EXCELLENCE IN ANALYTICAL CHEMISTRY

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1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Page #: 2 - A
Total Pages: 2 (A)
Date: 5-Dec-2003
Account: EMP

Project: EP/SHARK

CERTIFICATE OF ANALYSIS **VA03051042**

Sample Description	Method Analyte Units LOR	Au-ICP21	Au-ICP21
		Au ppm 0.001	WT. SAMP g 0.01
BB29952		0.004	28.59
BB36608		0.019	28.77
BB36610		0.003	28.51
BB36611		0.003	27.20
M24081		0.004	15.12
M24082		0.004	15.14
M24083		0.003	15.25



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O: EP
 C/O ARCHER CATHRO & ASSOCIATES (1981) LIMITED
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 VANCOUVER BC V6B 1L8

Page #: 1
 Date: 5-Dec-2003
 Account: EMP

CERTIFICATE VA03051048

Project : EP/SHARK
 P.O. No:
 This report is for 26 PULP samples submitted to our lab in North Vancouver, BC, Canada on 26-Nov-2003.
 The following have access to data associated with this certificate:

AL ARCHER JOAN MARIACHER	ROB CARNE BILL WENGZYNOWSKI	DOUG EATON
-----------------------------	--------------------------------	------------

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
FND-02	Find Sample for Addn Analysis

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Au-ICP21	Au 30g FA ICP-AES Finish	ICP-AES

To: EP
 C/O ARCHER CATHRO & ASSOCIATES (1981) LIMITED
 1016-510 W HASTINGS ST
 VANCOUVER BC V6B 1L8

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature: 



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0:EP

C/O ARCHER CATHRO & ASSOCIATES (1981) LIMITED

1016-510 W HASTINGS ST

VANCOUVER BC V6B 1L8

Total Page #: 2 - A

pages : 2 (A)

Date : 5-Dec-2003

Account: EMP

Project : EP/SHARK

CERTIFICATE OF ANALYSIS

VA03051048

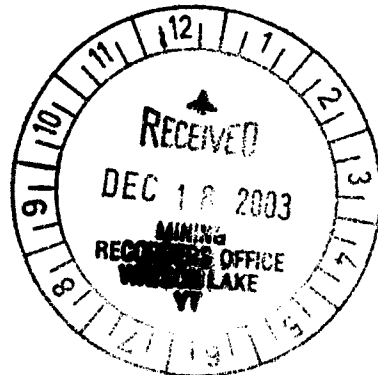
Sample Description	Method Analyte Units LOR	Au-ICP21	Au-ICP21
		Au ppm 0.001	WT. SAMP g 0.01
BB36612		0.005	15.04
M24100		0.006	15.04
M24101		0.003	27.64
M24102		0.005	29.18

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016 - 510 West Hastings Street
Vancouver, B.C. V6B 1L8

Telephone: 604-688-2568

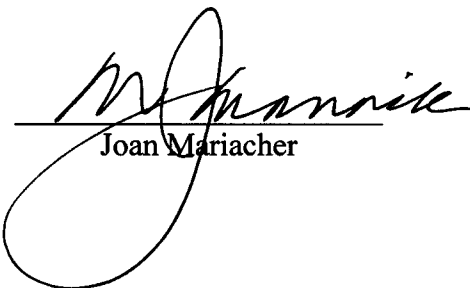
Fax: 604-688-2578

AFFIDAVIT



I, Joan Mariacher, of Vancouver, B.C. make oath and say:


That to the best of my knowledge the attached Statement of Expenditures for exploration work on the ~~WW 1-6~~ *SHARK* mineral claims on 105G/6 Claim Sheet is accurate.



Joan Mariacher

Sworn before me at Vancouver, B.C.

this *18th* day of December, 2003



Notary Public, Yukon Territory

Statement of Expenditures
Shark 12 and 14 Mineral Claims
December 10, 2003

To August 4 August 5 on

Labour

B. Wengzŷnowski – geologist – July 10, 31, August 1-13, 22-24, 26-29, September 1-2, 4-9 – 30 days at \$480/day	\$ 3,081.60	\$12,326.40
L. Groat – geologist – July 10, August 8-12, 22-24, 26-29, September 1-2, 5-9 – 20 days at \$800/day	856.00	16,264.00
H. Neufeld – geologist – July 31, August 1-12 – 13 days at \$352/day	1,883.20	3,013.12
D. Kellett – geologist – July 10, 31, August 1-13 – 15 days at \$288/day	1,848.96	2,773.44
D. Turner – geologist – August 27-29, September 1, 4-9, - 10 days at \$288/day		3,081.60
C. Carleton – field assistant – July 10 at \$130/day	<u>139.10</u>	
	7,808.86	<u>37,458.56</u>

Expenses

Field room and board – 89 days at \$115/day	2,337.95	8,613.50
Trans North Helicopters Bell 206B	4,422.52	4,837.94
Kluane Airways Hughes 500		2,324.04
ALS Chemex	<u>599.59</u>	<u>540.40</u>
	7,360.06	16,315.88

\$15,168.92 \$53,774.44

6800.⁰⁰

22800.⁰⁰

In Account With

Project EMERALD PROJECT
Date JULY 31, 2003

LABOUR				
Field				
	D. EATON - 27 HRS AT 60/HRL		1620.00	
	B. WENIGZYNOWSKI - 248 HRS AT 60/HRL		14880.00	
	L. GREAT - 24 DAYS AT 800/DAY		19200.00	
	H. NEUFELD - 8 DAYS AT 352/DAY		2816.00	
	G. BONNS - 2 DAYS AT 288/DAY		576.00	
	D. KELLETT - 26 1/2 DAYS AT 288/DAY		7632.00	
	S. EATON - 7 DAYS AT 224/DAY		1568.00	
	A. GILLIS - 2 DAYS AT 224/DAY		448.00	
	C. CARLETON - 14 DAYS AT 208/DAY		2912.00	
	Accounting and Expediting J. Mariacher - 66 hrs at \$ 55/hr		3630.00	55287.00
OTHER SERVICES				
	Room & Board in Whitehorse 34 days at \$90/day		3060.00	
	Field equipment from AC stock 114 1/2 MAN DAYS AT 20/DAY		2290.00	
	Printing Photocopies 197 @ .15		29.55	
	Rentals from AC JULY 1-31 - 4 COMS AT 21.33/DAY + SAT SYSTEM AT 30/DAY + SDX II AT 10/DAY + 2 VI LAMM AT 2/DAY		1963.23	
	LOOMIS COURIER - 3 AT 13.85		41.55	7384.33
EXPENSES				
	Petty Cash 45.09 + 9.20 CV		54.29	
	Telephone 17.47 + 48.07 + 6.65		72.19	
	B. WENG X DENBER - 14.60 + 31.56 + 23.36 + 43.19 CV		110.71	
	ATLAS DEVCORP		833.34	
	GOVT CURSOR - SHARIL OLS		579.50	
	INTE GRAPHICS		108.73	
	SUNRISE SERVICE		59.73	
	ROSS RIVER SERVICE - 43.22 CV + 174.04 CV		167.26	
	GREYHOUND COURIER		177.34	
	TRANS NORTH HELICOPTERS		20346.07	
	CORPORATE COURIER		13.96	
	NORTH 60 PETRO - 84.45 CV + 128.90 CV		1383.35	
	EDMUND'S		121.81	
	KLUANE AIRWAYS		783.00	
	SPORTS LODGE		10.36	
	MAR PHEMONT RENTALS - 22.43 CV + 336.92 CV		359.35	
	NORCAN LEASING		2047.70	
	RIVERDALE SUREA		1914.83	
	MAYO BIRWAY		13.44	
	MILLS BASICK		5.02	
	MARK FIREWOOD		203.23	
	BUILDERS SUPPLIERS		477.45	
	HOLLWOOD'S OFFICE		1.75	
	GREAT SLAVE HELICOPTERS		5580.00	
	JOAN M X DENBER - 341.11 CV + 1678.16 CV		2019.27	44539.68
MANAGEMENT 6% on Expenses on Field A/C				
			2672.38	
			25.00	2797.38
				110003.39
GST (R100247667) 7% on 110003.39				
				7700.24

E=GST exempt

117703.63

In Account With

Project EMERALD PROJECT
 Date AUGUST 1 - SEPTEMBER 30, 2003

LABOUR			
Field	A. ARCHER - 3 HRS AT 66/HR		198.00
	D. EATON - 16 HRS AT 60/HR		960.00
	B. WENGZNOWSKI - 37 1/2 HRS AT 60/HR		2250.00
	L. GROUT - 28 DAYS AT 800/DAY		22400.00
	H. NEUFELS - 13 DAYS AT 352/DAY		4576.00
	D. MORAL - 8 DAYS AT 310/DAY		2560.00
	I. WEATHERSTON - 1 DAY AT 310/DAY		310.00
	D. KELLET - 15 DAYS AT 288/DAY		4320.00
	D. TURNER - 26 1/2 DAYS AT 288/DAY		7632.00
Accounting and Expediting J. Mariacher - 74 hrs at \$ 55/hr			4070.00
			69426.00
OTHER SERVICES			
Room & Board in Whitehorse	49 days at \$90/day		4410.00
Field equipment from AC stock	1518.15 + 84.60 + 177 MANDAYS AT 20/DAY = 2440		4042.75
Printing	Photocopies 2343 @ .15		351.45
Rentals from AC AUGUST 1 - SEPTEMBER 21 - SAT PHONE AT 20/DAY + SB X AT 10/DAY			
+ 2 DV LAMP AT 2/DAY + 4 COMS AT 21.33/DAY			3293.16
AUGUST - 3 DAYS X 3 COMS AT 16/DAY			48.00
- 16 DAYS ROCK SAW AT 7.50/DAY			120.00
LOANIS COURIER - 4 @ 13.85			55.40
			12320.76
EXPENSES			
Petty Cash	7.23 81 + 56104 + 56.68 CV + 78.58 DI + 1.72 V		149.85
Telephone	41.00 + 129.74 + 5.00 + 54.02 + 46.79 - 7.47 + 82.86		371.94
GREYHOUND	60.26 + 34.36		94.62
KLVAN AIRWAYS	4071.50 + 6606.50		10678.00
H. NEUFELS - AIRFARE		D3	231.54
ATLAS RECORD	916.67 + 250 + 1166.67		2333.34
BIB SALMON AIR			530.00
SHORELAK BANK			42.95
JOAN M XENKES	- 270.63 DI + 319.80 DI + 617.72 D3		1218.15
SUNRISE SERVICE			88.82
B. WEXX XENKES	- 19.98 DI + 109.13 CV + 331.50 DI		460.61
D. EATON XENKES	- 16.06 DI + 164.03 D3		180.09
L. CARBETT XENKES	- 2.10 CV + 100 DI + 419.94 D3		522.02
KLANIKE COURIER			55.98
FALD TRAVEL			266.54
AURORA GEDSMEGEL		FV	140.51.33
DENA GENERAL STORE			12.76
INTEGRAPHIX			97.25
YOKON HONDA			1.86
CORPORATE COURIER			4.30
MACMILLAN RENTALS	- 3.74 DI + 113.13 CV		116.87
NORDAN LEASING			5054.31
TRANS NORTH			30830.64
			67779.27
MANAGEMENT 6% on Expenses on Field A/C			4066.76
			259.10
			4925.86
			154051.89
GST (R100247667) 7% on 154051.89			10783.63
E=GST exempt			164835.52



REMIT PAYMENT TO:
TRANS NORTH HELICOPTERS
 TRANS NORTH TURBO AIR LTD.
 20 NORSEMAN ROAD • WHITEHORSE • YUKON • Y1A 6E6
 TELEPHONE (867) 668-2177 FAX (867) 668-3420

Archer Cathro & Associates
 CHARTER 1016-510 W. Hastings St.
 Vancouver, B.C.
 BILLING V6B 1L8

ACCOUNT NUMBER	ARCHCAC		
INVOICE NUMBER	29562		
INVOICE DATE	02/08/03		AREA B.C. YUKON NWT ALTA
A/C TYPE	206S EC140		
AIRCRAFT REGISTRATION C	206S EC140		
FLIGHT DATE	DAY	MONTH	YEAR
	02	08	03
PURCHASE ORDER NO.			

FUEL & OIL-X	TNTA FUEL USED	HRS./LITRES	FROM
TNTA CUST.	SPT		YDM

FROM	UP/DOWN TIME	HOURS	REMARKS - NO. OF PASS - FREIGHT Kg
TO Mt - Kerak		0.8	Bill + 2
Racco		0.3	+ SLING LOAD.
More Camp.		0.9	
TO TUNAS STATION.			

Please Remit To:
 Trans North Helicopters
 P.O. Box 8
 Whitehorse, Yukon
 (Y1A 5X9)

2.0	@ 925.	1850	00
HOLDING TIME:	@ / HR.		
FUEL 228	@ .95 / LITRE	216	60
FUEL	@ / LITRE		
MEALS & LODGINGS			
OTHER			
OTHER			
SUB TOTAL		2066	60
GOODS & SERVICES TAX REGISTRATION NO. R121483135		144	66

TERMS: PAYABLE UPON RECEIPT OF INVOICE.
 2% INTEREST PER MONTH (24% PER ANNUM) WILL BE CHARGED ON ALL OUTSTANDING AMOUNTS OVER 30 DAYS.
 IF INTEREST IS NOT PAID, FUTURE FLIGHTS WILL BE ON A CASH BASIS.

X *[Signature]*
 CHARTERER'S SIGNATURE

CHARTERER'S NAME (PRINTED)

INITIALS *[Signature]*
 PILOT'S SIGNATURE

ENGINEER'S NAME

TOTAL \$ 2211 26

CARRIAGE SUBJECT TO TERMS OF PUBLISHED TARIFF.
 TARIFF AVAILABLE TO PUBLIC VIEW AT TRANS NORTH OFFICE.

THIS IS YOUR ONLY INVOICE - PAY UPON RECEIPT

KLUANE AIRWAYS LTD.

BOX 31489
WHITEHORSE, YUKON Y1A 6K8

0181/12193	
INVOICE DATE	
H500	
AIRCRAFT TYPE	REGISTRATION

Archer Cathra
CHARTERER

NO 5152

BILLING ADDRESS

PHONE: _____

FROM	MILES	HOURS	REMARKS/PASSENGER/CARGO
<i>McEvoy</i>			
<i>Retzo strip</i>			<i>Bill & Lee</i>
<i>Shank</i>			<i>2 Nets</i>
<i>Retzo</i>			
<i>Shank</i>			<i>Dawn &</i>
<i>Retzo</i>			<i>Hester</i>
<i>Shank</i>			
<i>Retzo</i>			
<i>Fin</i>		<i>2.4</i>	

SPECIAL INSTRUCTIONS	<i>2.4 @ 800 PER HOUR</i>	<i>1949</i>
	@ PER MILE	
<i>Demobe</i>	WAITING TIME @ /HR	
<i>Shank</i>	FUEL <i>250 @ 95.¢/GAL.</i>	<i>229.00</i>
	PILOT'S EXPENSES	
<i>EP</i>	OTHER	
	SUB-TOTAL	<i>2172.00</i>

CHARTERER'S SIGNATURE	GST	<i>192.04</i>
<i>By</i>	2% PER MONTH CHARGES ON ACCOUNTS OVER 30 DAYS	TOTAL \$ <i>2324.04</i>

PILOT'S SIGNATURE

WHITE - OFFICE
YELLOW - OFFICE COPY RECORD
PINK - CUSTOMER COPY
GOLD - BASE COPY (Stays in book.)



REMIT PAYMENT TO:
TRANS NORTH HELICOPTERS
 TRANS NORTH TURBO AIR LTD.
 20 NORSEMAN ROAD • WHITEHORSE • YUKON • Y1A 6E6
 TELEPHONE (867) 668-2177 FAX (867) 668-3420

Archer Cathro & Associates
 1016-510 W. Hastings St.
 Vancouver, B.C.
 V6B 1L8

ACCOUNT NUMBER	ARCHCAC		
INVOICE NUMBER	33029		
INVOICE DATE	24	08	03
A/C TYPE	BH06	AIRCRAFT REGISTRATION C	FDR2
FLIGHT DATE	27	08	03
PURCHASE ORDER NO.			

FUEL & OIL-X	TNTA FUEL USED	HRS./LITRES	FROM
TNTA	CUST.		YDM

FROM	UP/DOWN TIME	HOURS	REMARKS - NO. OF PASS - FREIGHT Kg
YDM →			
KATER STRIP →	13:40		2 internal
comp →	13:52	.2	1 sling
strip →	14:20		
comp →	14:41	.3	
strip →	14:48		
comp →	16:30	1.7	
strip →			
YDM			

Please Remit To:
 Trans North Helicopters
 P.O. Box 8
 Whitehorse, Yukon
 Y1A 5X9

TERMS: PAYABLE UPON RECEIPT OF INVOICE.
 2% INTEREST PER MONTH (24% PER ANNUM) WILL BE CHARGED ON ALL OUTSTANDING AMOUNTS OVER 30 DAYS. IF INTEREST IS NOT PAID, FUTURE FLIGHTS WILL BE ON A CASH BASIS.

X *B. W.*
 CHARTERER'S SIGNATURE

CHARTERER'S NAME (PRINTED)

INITIALS *BDG*
 PILOTS SIGNATURE

ENGINEER'S NAME

2.2	@	925.	2035 00
	@		
HOLDING TIME:	@	/ HR.	
FUEL 250.8	@	.75 LITRE	238.26
FUEL	@	/ LITRE	
MEALS & LODGINGS			
OTHER			
OTHER			
SUB TOTAL			2273 26
GOODS & SERVICES TAX			159 13
REGISTRATION NO. R121483135			
TOTAL		\$	2432 39

CARRIAGE SUBJECT TO TERMS OF PUBLISHED TARIFF.
 TARIFF AVAILABLE TO PUBLIC VIEW AT TRANS NORTH OFFICE.

THIS IS YOUR ONLY INVOICE - PAY UPON RECEIPT



REMIT PAYMENT TO:
TRANS NORTH HELICOPTERS
 TRANS NORTH TURBO AIR LTD.
 20 NORSEMAN ROAD • WHITEHORSE • YUKON • Y1A 6E6
 TELEPHONE (867) 668-2177 FAX (867) 668-3420

Archer Cathro & Associates
 CI 1016-510 W. Hastings St.
 Vancouver, B.C.
 BI V6B 1L8

ACCOUNT NUMBER	ARCHCATH		
INVOICE NUMBER	30879		
INVOICE DATE	09/09/03		
A/C TYPE	BH-206 GPWZ		
FLIGHT DATE	DAY	MONTH	YEAR
	09	09	03
PURCHASE ORDER NO.			

FUEL & OIL X TNTA CUST.	TNTA FUEL USED	HR/LITRES	FROM
<input checked="" type="checkbox"/>	388		Whitehorse

FROM	UP/DOWN TIME	HOURS	REMARKS - NO. OF PASS - FREIGHT Kg
YDM			
To Ketza Road X3	08:35		Bill Wengzyrowski Lee Groat
YDM	12:40		Dave Turner
			move camp out to road, 2 internal & 1 external loads.

Please Remit To:
 Trans North Helicopters
 P.O. Box 8
 Whitehorse, Yukon
 Y1A 5X9

2.2	@ 925.	2035 00
HOLDING TIME:	@ / HR.	
FUEL 250.8	@ .85 / LITRE	213 18
FUEL	@ / LITRE	
MEALS & LODGINGS		
OTHER		
OTHER		
SUB TOTAL		2248 18
GOODS & SERVICES TAX REGISTRATION NO. R121483135		157 37
TOTAL	\$	2405 55

TERMS: PAYABLE UPON RECEIPT OF INVOICE.
 2% INTEREST PER MONTH (24% PER ANNUM) WILL BE CHARGED ON ALL OUTSTANDING AMOUNTS OVER 30 DAYS. IF INTEREST IS NOT PAID, FUTURE FLIGHTS WILL BE ON A CASH BASIS.

X *Bill Wengzyrowski*
 CHARTERER'S SIGNATURE

Bill Wengzyrowski
 CHARTERER'S NAME (PRINTED)

INITIALS: *FDH*
 PILOTS SIGNATURE

ENGINEER'S NAME

CARRIAGE SUBJECT TO TERMS OF PUBLISHED TARIFF.
 TARIFF AVAILABLE TO PUBLIC VIEW AT TRANS NORTH OFFICE.


THIS IS YOUR ONLY INVOICE - PAY UPON RECEIPT



ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
 ALS Canada Ltd.
 212 Brooksbank Avenue
 North Vancouver BC V7J 2C1 Canada
 Phone: 604 984 0221 Fax: 604 984 0218

To: EP
 C/O ARCHER CATHRO & ASSOCIATES (1981)
 LIMITED
 1016-510 W HASTINGS ST
 VANCOUVER BC V6B 1L8

INVOICE NUMBER: 1040450

BILLING INFORMATION	
Certificate:	VA03030718
Account:	EMP
Date :	26-Aug-2003
Project :	Shark 
P.O. No.:	
Quote:	
Terms:	Due on Receipt C1
Comments:	

ANALYSED FOR			UNIT	TOTAL
QUANTITY	CODE	DESCRIPTION	PRICE	
1	BAT-01	Administration Fee	22.50	22.50
29	PREP-41	Dry, Sieve (180 um) Soil	1.88	54.52
8.64	PREP-41	Wt. Charge (kg) - Dry, Sieve (180 um) Soil	0.56	4.84
29	ME-MS61	47 element four acid ICP-MS	13.50	391.50
29	GEO-4A01	Four Acid Dig - ME-MS61	3.00	87.00

SUBTOTAL (CAD) \$ 560.36

GST R100938885 \$ 39.23

TOTAL PAYABLE (CAD) \$ 599.59

To: EP
 ATTN: ACCOUNTS PAYABLE
 C/O ARCHER CATHRO & ASSOCIATES (1981)
 LIMITED
 1016-510 W HASTINGS ST
 VANCOUVER BC V6B 1L8

Please Remit Payments to :
ALS Chemex
 212 Brooksbank Avenue
 North Vancouver BC V7J 2C1



ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY

ALS Canada Ltd.
 212 Brooksbank Avenue
 North Vancouver BC V7J 2C1 Canada
 Phone: 604 984 0221 Fax: 604 984 0218



To: EP
 C/O ARCHER CATHRO & ASSOCIATES (1981)
 LIMITED
 1016-510 W HASTINGS ST
 VANCOUVER BC V6B 1L8

INVOICE NUMBER: 1045705

BILLING INFORMATION	
Certificate:	VA03035665
Account:	EMP
Date :	17-Sep-2003
Project :	Shark <i>Y</i>
P.O. No.:	
Quote:	
Terms:	Due on Receipt C1
Comments:	

ANALYSED FOR			UNIT	TOTAL
QUANTITY	CODE	DESCRIPTION	PRICE	
1	BAT-01	Administration Fee	22.50	22.50
26	PREP-41	Dry, Sieve (180 um) Soil	1.88	48.88
8.34	PREP-41	Wt. Charge (kg) - Dry, Sieve (180 um) Soil	0.56	4.67
26	ME-MS61	47 element four acid ICP-MS	13.50	351.00
26	GEO-4A01	Four Acid Dig - ME-MS61	3.00	78.00

SUBTOTAL (CAD) \$ 505.05

GST R100938885 \$ 35.35

TOTAL PAYABLE (CAD) \$ 540.40

To: EP
 ATTN: ACCOUNTS PAYABLE
 C/O ARCHER CATHRO & ASSOCIATES (1981)
 LIMITED
 1016-510 W HASTINGS ST
 VANCOUVER BC V6B 1L8

Please Remit Payments to :
ALS Chemex
 212 Brooksbank Avenue
 North Vancouver BC V7J 2C1