

DEPARTMENT OF INDIAN AND
NORTHERN AFFAIRS

JUL 15 1996

MINING RECORDER

YELLOWKNIFE, N.W.T.

083680

GEOCHEMICAL ASSESSMENT REPORT

on the

SU CLAIM GROUP

of

BENACHEE RESOURCES INC.

and

SNOWPIPE RESOURCES LTD.

April 14, 1995 - April 13, 1996

BATHURST INLET - BURNSIDE RIVER AREA,

NTS: 76K/9, /10

66° 45' N, 108° 29' W

**DISTRICT OF MACKENZIE,
NORTHWEST TERRITORIES**

by

Rodney W. Arnold, P. Geo.

CANAMERA GEOLOGICAL LTD.

*540 - 220 Cambie Street
Vancouver, B.C.*

July 12, 1996

Volume 1 of 1

THIS REPORT HAS BEEN EXAMINED AND
APPROVED AS TO TECHNICAL WORTH UNDER
SECTIONS 6 & 7 OF SCHEDULE II OF THE
CANADA MINING REGULATIONS AND
VALUED IN THE AMOUNT OF \$ *61,980.00*

DATE:

Aug 9/1996

ENGINEER OF MINE'S FOR
CHIEF, NORTH-NORTHWEST
RESOURCES BRANCH

TABLE OF CONTENTS

	Page
SUMMARY.....	1
INTRODUCTION	2
Location And Access	2
Topography And Climate	5
Claim Status.....	5
GEOLOGY.....	6
Introduction	6
Archean Geology	6
Early Pre-Yellowknife Supergroup Assemblage	6
Yellowknife Supergroup	8
Subvolcanic Rocks	8
Metavolcanic Rocks.....	8
Metasedimentary Rocks	8
Post-Yellowknife Supergroup Assemblage.....	9
Proterozoic Geology	9
Structural Geology	10
Economic Geology.....	11
Property Geology	13
Pleistocene Geology	15
Previous Exploration.....	15
CURRENT EXPLORATION (1995-1996)	15
Overview.....	15
GEOCHEMISTRY.....	16
Introduction	16
Field collection	16
Sample Processing	17
Results and Interpretation.....	18
CONCLUSIONS AND RECOMMENDATIONS	19

REPORT VOLUME INDEX

VOLUME 1 REPORT AND GEOCHEMICAL MAPS

LIST OF FIGURES

	Page
Figure 1 SU Claims - Location Map	3
Figure 2 SU Claims - Property Position within Slave Province	4
Figure 3 SU Claims - Regional Geology	7
Figure 4 SU Claims - Mineral Occurrences	12
Figure 5 SU Claims - Property Geology	14

LIST OF APPENDICES

Appendix 1 Statement of Costs
Appendix 2 Application of Expenditures
Appendix 3 Claim Data
Appendix 4 Statement of Qualifications
Appendix 5 Selected Bibliography
Appendix 6 Geochemical Data
Appendix 7 Special Laboratory Analyses Results
Appendix 7A Abrasion Summary
Appendix 8 List of Assessment Reports
Appendix 9 List of Personnel

LIST OF DRAWINGS

Drawing 1 SU Claims - Sampling Coverage and Results (1:100,000).....	pocket
Drawing 2 SU Claims - Claim Map (1:100,000)	pocket

SUMMARY

The SU claims, located in the northern portion of the Slave Structural Province, Northwest Territories, encompass approximately 133,000 acres has been the focus of diamond exploration since 1993.

To date a total of 668 till samples have been collected and processed. A detailed airborne geophysical program consisting of 7394.6 line kilometers was carried out by Geoterrex Limited, Ottawa, Ontario. These activities and expenditures were detailed in the 1995 assessment report on the SU claims by Canamera Geological Ltd. The 1995 exploration activities included the collection and processing of an additional 44 glacial till samples.

No kimberlite pipes have been discovered on the property to date, however based on reconnaissance sampling four kimberlitic heavy mineral indicator trains appear to may be developing. A number of geophysical anomalies having characteristics typical of massive sulphide mineralization occur within the metasediments which are covered by the claim blocks. These anomalies have not been investigated but should be the focus of exploration in the near future.

Further till sampling in the up-ice direction of minor and significant anomalous samples may result in developing and refining dispersion trains. Existing geophysical anomalies should be investigated for their base metal potential.

This report consists of one volume detailing the geochemical sampling program, including maps, figures and results, for the work completed during this time period.

INTRODUCTION

The Slave Structural Province of the Northwest Territories is an Archean segment of the North American Craton. It is underlain by metasedimentary and metavolcanic rocks of the Yellowknife Supergroup and by Archean granites and gneisses. The discovery of diamonds at Lac de Gras, through the use of geochemical tracking of kimberlitic indicator minerals, has fueled the exploration activities within the region. Many junior companies staked out large land positions and carried out detailed geochemical exploration programs. Benachee Resources Inc. and Snowpipe Resources Ltd. were among the early participants in this activity by the staking of several properties including the SU claims.

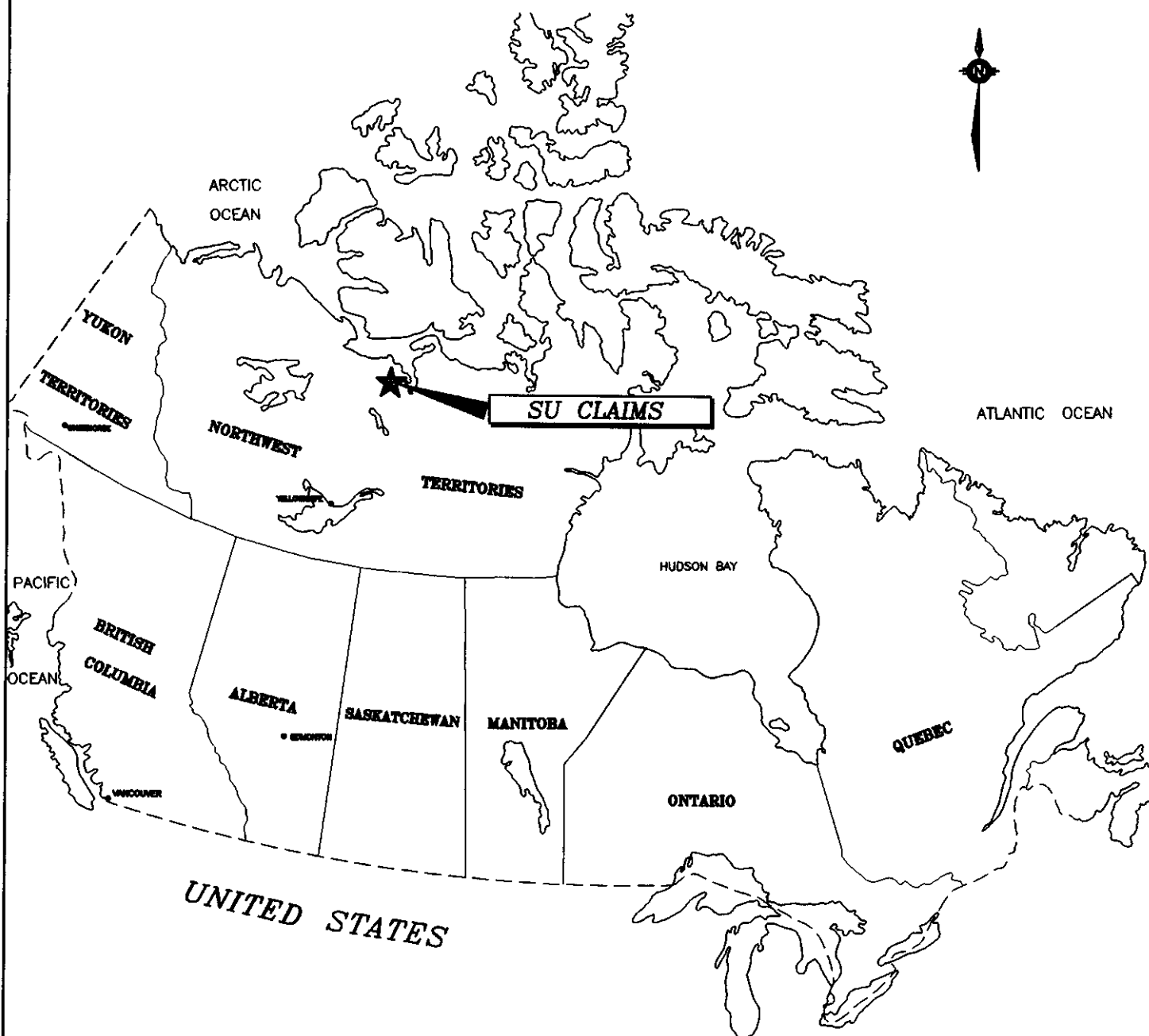
The property has undergone at least two major episodes of glaciation that scoured the terrain and deposited a layer of till. Exploration for kimberlite pipes has consisted primarily of glacial till sampling in search of a specific assemblage of minerals associated with kimberlites. These samples are processed and examined for traces of these minerals whose chemical composition distinguishes them as being unique to an upper mantle origin. The geographical positions of these indicator minerals in the glacial dispersion train are noted and followed "up-ice" to the kimberlite source. Airborne magnetics and EM surveys are used, in conjunction with sampling, to pinpoint various geophysical responses associated with weathered pipe structures.

Location and Access

The SU claims are located in the Mackenzie District of the Northwest Territories (Figure 1 & 2). The center of the SU claims is located at 66° 45' N; 108° 29' W and lies about 25 kilometers north of the Arctic Circle. The center of the property lies 555 kilometers N32°E of Yellowknife. The claim blocks are located west of Bathurst Inlet extending west to the Booth River in the northwest corner and south to the Mara River. The Burnside River transects the claim area.

During the winter the area is accessible by ski-equipped aircraft. In the summer, there is a window of approximately two to two and a half months (early July to mid-September) in which lakes suitable for float-equipped aircraft can be used to transport men and supplies to the property. Larger aircraft can land on the 6000 foot gravel airstrip at the Lupin mine site, 162 kilometers S48°W from the center of the claim block. During freeze-up and break-up, September and June respectively, access to the property is by helicopter only.

The Echo Bay Mines' winter road, which links Yellowknife to the Lupin mine site on Contwoyto Lake, passes within 158 kilometers on a S47°W bearing from the center of the property.

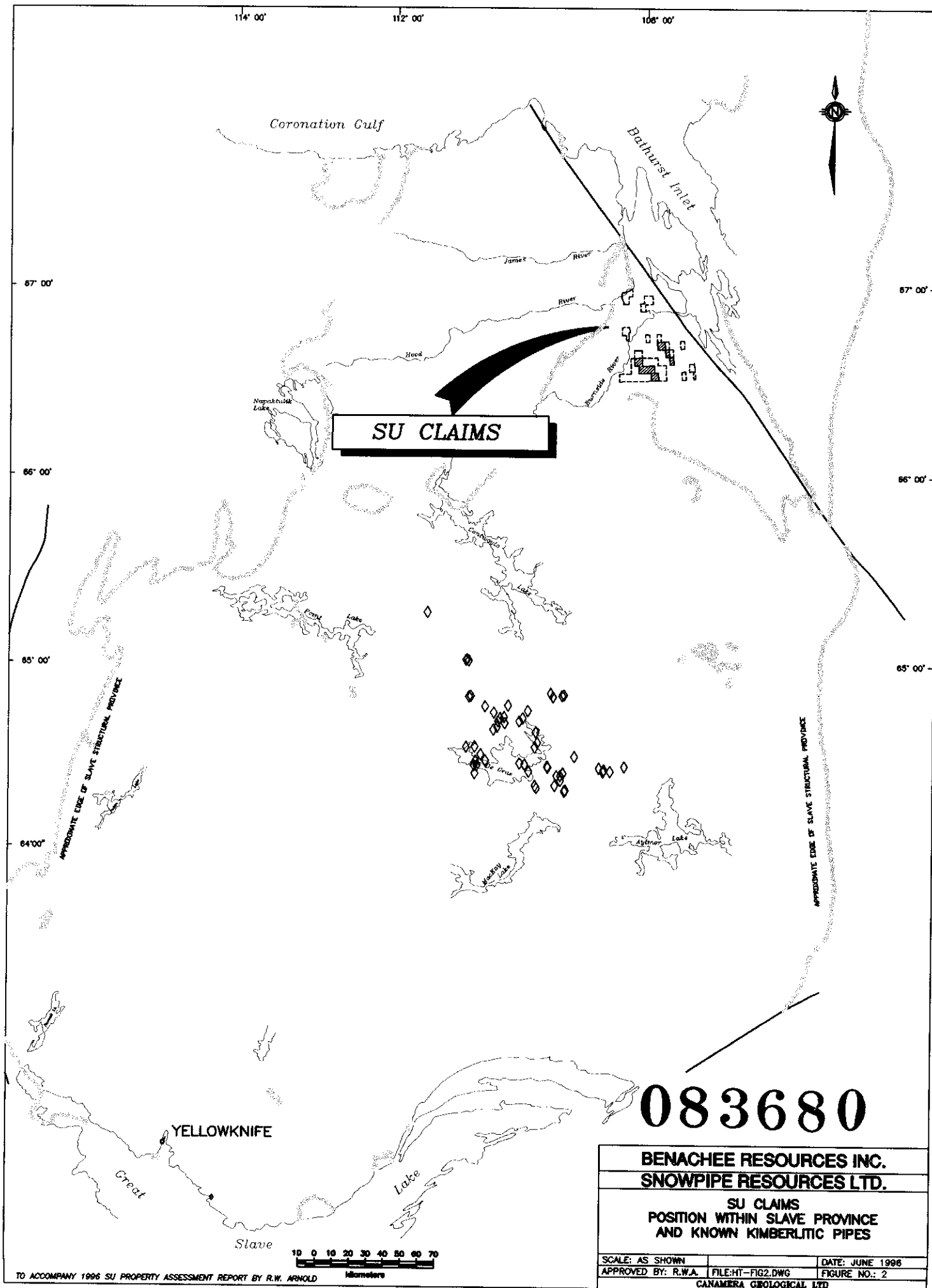


BENACHEE RESOURCES INC.
SNOWPIPE RESOURCES LTD.

SU CLAIMS
LOCATION MAP

SCALE:	DATE: JUNE 1996	FIGURE NO.1
APPROVED BY: R.W.A.	FILE : SU-FIG1.DWG	
CANAMERA GEOLOGICAL LTD		

TO ACCOMPANY 1996 SU PROPERTY ASSESSMENT REPORT BY R.W. ARNOLD



083680

**BENACHEE RESOURCES INC.
SNOWPIPE RESOURCES LTD.**

**SU CLAIMS
POSITION WITHIN SLAVE PROVINCE
AND KNOWN KIMBERLITIC PIPES**

SCALE: AS SHOWN	DATE: JUNE 1996
APPROVED BY: R.W.A.	FIGURE NO.: 2
CANAMERA GEOLOGICAL LTD	

Topography And Climate

The SU property is located on the treeless tundra of the barren grounds. The area of the claims is quite rugged rising from the flats near Bathurst Inlet to the Wilberforce and Burnside hills in the north and extending south to more rolling hills and rocky ridges. The southern area of the claims tends to have elongated lakes of varying sizes interspersed with minor areas of low lying muskeg. The northern part of the claims area has moderately steep slopes rising from the Booth River to an area of moderately sloped hills then plunging down steeply to the Burnside River. Elevations vary from 20 meters above sea level in the northeast to 460 meters north of the Burnside River to 480 meters in the southern area of the claim blocks.

Climatic conditions on the barren grounds are extreme. Winter temperatures reach -45 degrees Celsius occasionally accompanied by high winds creating extreme wind chill conditions and extensive drifting snow; summer temperatures can reach the high 20's Celsius. However, the weather is highly variable and storms can occur at any time of the year. Average annual snowfall rarely exceeds 1 meter, most of which falls during autumn and spring storms.

With the onset of summer, black flies and mosquitoes infest all areas of the barren grounds. Other wildlife includes: caribou, musk oxen, Arctic wolves, Arctic foxes, barren ground grizzlies, wolverines, Arctic hare and ptarmigan. Lake trout and Arctic char abound in the local lakes and rivers.

Claim Status

The current SU property comprises 58 claims totaling 132,928.89 acres (Drawing 2). The property consists of scattered, irregular shaped, unattached claim blocks; property dimensions are: 45 kilometers east-west by 55 kilometers north-south. Benachee Resources Inc. and Snowpipe Resources Ltd. are co-holders of the claims. The statement of exploration expenditures is listed in Appendix 1. A complete list of claim information, including claims being allowed to lapse, is attached in Appendix 3.

GEOLOGY

Introduction

The SU property is located in the northeast portion of the Slave Structural Province extending east from Bathurst Inlet. The Slave Structural Province (Figure 3) is an Archean granite-greenstone terrain containing belts of 2.70 to 2.67 Ga metasedimentary and metavolcanic rocks that were intruded extensively by syn- to post-volcanic granitic plutons between ca. 2.70 and 2.58 Ga (Relf, 1992).

Archean Geology

Archean rocks within the Slave Structural Province are located between Great Slave Lake to the south and Coronation Gulf to the north. The Archean rocks are overlain by Proterozoic strata of the Wopmay orogen on the west. The eastern side of the province can be roughly delineated by: the early Proterozoic Thelon deformation and metamorphic zone which occurs along its southeastern edge, the western edge of the Proterozoic deformation between the Bathurst and McDonald faults, and the eastern limit of Archean migmatites to the northeast (Fyson and Padgham, 1993).

Rocks within the Slave Structural Province are assigned to three lithotectonic assemblages identified as: an early assemblage of gneisses, granitic rocks and quartz arenites; Yellowknife Supergroup greywackes, mudstones, volcanic rocks and synvolcanic intrusions; and a younger sedimentary-plutonic assemblage of clastic sediments and granitic rocks. Approximately two-thirds of the province is underlain by post-Yellowknife Supergroup granitic rocks. Deformation and greenschist to amphibolite facies metamorphism affect all volcanic and sedimentary rocks (Fyson and Padgham, 1993).

Early Pre-Yellowknife Supergroup Assemblage

The early assemblage of pre-Yellowknife Supergroup rocks generally occurs west of 112° west, along the western edge of the Yellowknife supracrustal domain and between Point Lake and Coronation Gulf. It contains two groups: granites and gneisses of variable composition (tonalitic gneiss to potash granite), and a quartz arenite-felsic volcanic group. The quartz arenite-felsic volcanic association also includes distinctive magnetite iron formations and ultramafics and appear to be intimately tied to granitic basement rocks (Fyson and Padgham, 1993).

GEOLOGY OF THE SLAVE STRUCTURAL PROVINCE

UTLHOLOGIES

PROTEROZOIC-PALEOZOIC



cover rocks

ARCHEAN (supracrustal rocks are metamorphosed)

Younger Assemblage



polymict conglomerates, feldspathic arenites



granitoid rocks

Yellowknife's Assemblage



migmatite and gneiss: (may include older rocks)



supracrustal rocks identified



plutonic and undifferentiated rocks



metagraywacke-mudstones, minor conglomerates (s), calc-arenites, carbonates, and iron formation



intermediate-felsic volcanic rocks



mafic-intermediate and undifferentiated volcanic rocks



gabbro-diorite and gneissic granitoid rocks, partly syenitic

Older Assemblage



quartz arenites and felsic volcanic rocks, zircons older than 2.8 Ga; commonly associated with iron-formation and ultramafic rocks



gneiss and granite, partly with zircon ages >2.8 Ga; includes undifferentiated younger rocks

Boundary of Slave Structural Province

Geological contacts approximate, gradational

Structural trends



folds



foliation in migmatite and granitoid rock



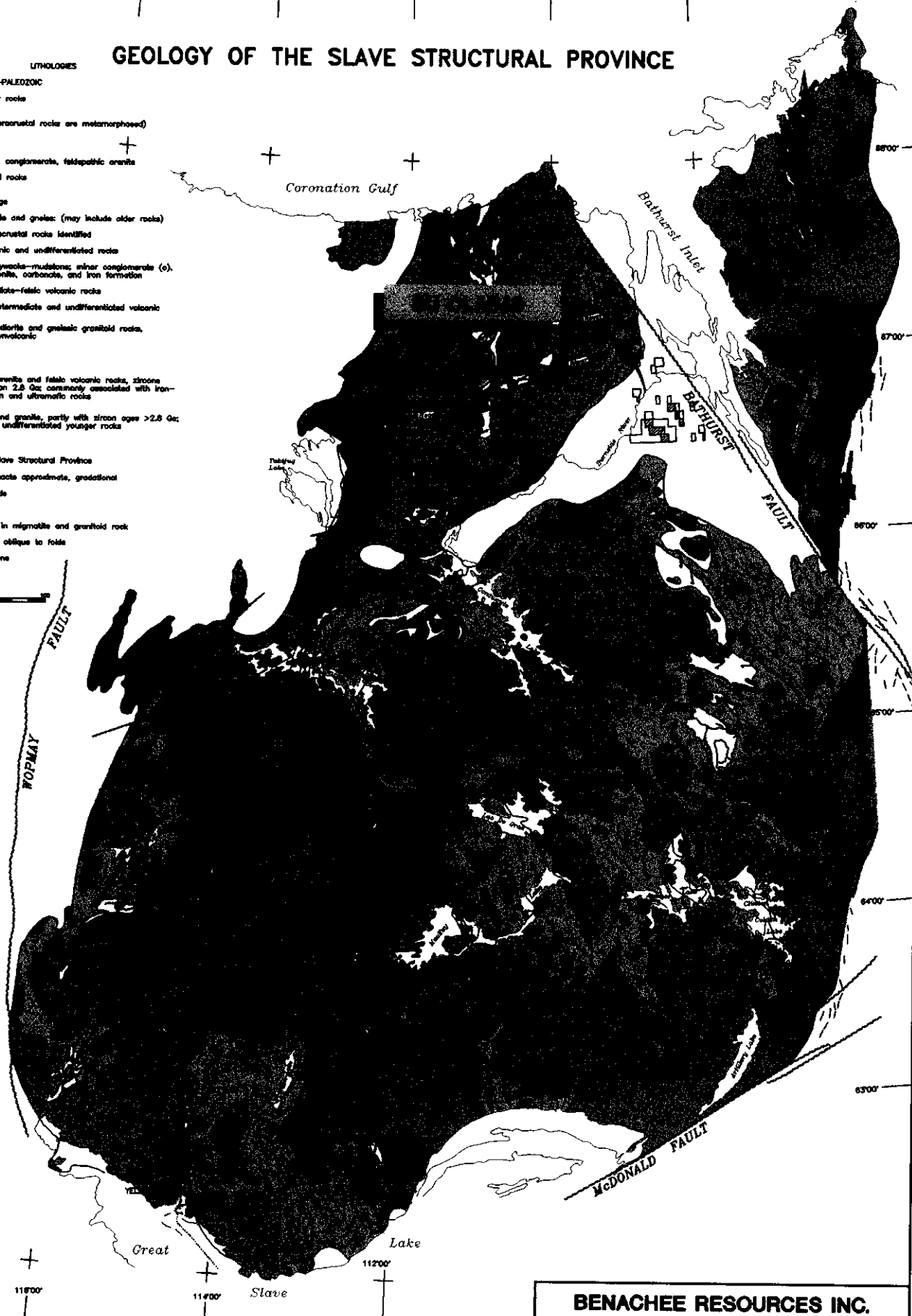
cleavage oblique to folds



shear zone



fault



**BENACHEE RESOURCES INC.
SNOWPIPE RESOURCES LTD.**

**SU CLAIMS
REGIONAL GEOLOGY**

Modified from Fyson & Padgham 1993-8

CANAMERA GEOLOGICAL LTD

SCALE: AS SHOWN DATE: JULY, 1998

FILE: SUFIG3.DWG

APPROVED BY: R.W.A.

FIGURE NO.: 3

Yellowknife Supergroup

The Yellowknife supracrustal-plutonic assemblage consists of three distinct assemblages: granite and gneisses; volcanic and metasediments; and interbedded turbidites. In the Point Lake - Contwoyto Lake area, the Yellowknife Supergroup is comprised of five formations: two distinct belts of metavolcanic rocks known as the Point Lake Formation and the Central Volcanic Belt; metaturbidites of the Contwoyto and Itchen formations; and conglomerates and related clastic sedimentary rocks of the Keskarrah Formation.

Subvolcanic Rocks

This subdivision consists of foliated gabbroic, granitic and gneissic rocks and have a field relationship which infers that older rocks may be included within this group. There are however, radiogenic ages (2.7 - 2.65 Ga) suggesting that part of the group is synvolcanic with supracrustal rocks included with the Yellowknife Supergroup (Fyson and Padgham, 1993).

Metavolcanic Rocks

Volcanic belts within the Yellowknife Supergroup display a wide variation in composition - basaltic to rhyolitic, and appear in most volcanic belts within the assemblage. Dikes, sills and larger bodies (gabbroic and felsic) have intruded the volcanics. Volcanogenic sandstones, conglomerates, and iron formations occur as thin sedimentary units within the volcanics (Fyson and Padgham, 1993).

In the Point Lake - Contwoyto Lake region, a dominantly mafic metavolcanic and related intrusion referred to as the Point Lake Formation have mid-ocean-ridge basaltic affinities. Intermediate volcanoclastic rocks similar to those found in modern island arc settings are assigned to the Central Volcanic Belt. In this area plutonic rocks, of which the Wishbone monzogranite is the largest body, intruded between 2,667 and 2,650 million years ago. The Wishbone intrusive, outcropping approximately 20 kilometers southwest of the Lupin mine, has been interpreted as a synvolcanic intrusion related to the Central Volcanic Belt (Relf, 1992).

Metasedimentary Rocks

Interbedded greywackes, siltstones and mudstones, which have been interpreted as turbidites, make up the largest aerial extent of supracrustal rocks in the province. Included within this group of turbidites are two formations located between Contwoyto Lake and Point Lake which are distinguished by the presence

of interbedded iron formation (Contwoyto Formation) and the absence of iron formation (Itchen Formation) (Bostock, 1980).

Other sedimentary rocks within this sequence include locally prominent conglomerates which have been derived from nearby volcanic rocks or from older granitic rocks (Point Lake area). A synvolcanic association is inferred in areas where greywackes and mudstones are interlayered with thin felsic and mafic volcanics. This assemblage also includes auriferous iron formations interbedded with fine grained siltstones and mudstones. Thinly bedded carbonates are associated with felsic volcanics in the Back River area (Fyson and Padgham, 1993).

Post-Yellowknife Supergroup Assemblage

Post-Yellowknife Supergroup granitic rocks of varying composition (diorite, tonalite, granodiorite, K-rich granite) underlie a large part of the province. Conglomerates and feldspathic sandstones within or adjacent to volcanic belts also contain clasts of post-volcanic granites (Fyson and Padgham, 1993).

In the Point Lake area, polymictic conglomerates and other clastic sedimentary rocks of the Keskarrah Formation represent the youngest Archean rocks. These rocks outcrop at Keskarrah Bay, on Point Lake, and unconformably overlie both the Point Lake Formation and the pre-Yellowknife assemblage. Between 2,608 and 2,585 Ga, calc-alkaline rocks of diorite to granodiorite composition and peraluminous granites were emplaced (Relf, 1992). Rocks of this suite underlie approximately half of the Point Lake - Contwoyto Lake region.

Proterozoic Geology

Proterozoic metasedimentary cover rocks, having limited aerial extent in the Slave Structural Province, are located near Rockinghorse Lake and northeast of Contwoyto Lake, straddling the Burnside River, and extending to Bathurst Inlet. These rocks comprise the Goulburn and Epworth groups and represent cratonic and marginal geosynclinal environments and lie unconformably on Archean basement (Bostock, 1980).

Regionally, four swarms of Proterozoic diabase dikes are recognized; two belts of diabase dikes belonging to the Mackenzie dike swarm occur in the Point Lake - Contwoyto Lake region. One belt occurs north of Contwoyto Lake; the second belt is located 60 kilometers to the west between Point Lake and Itchen Lake. The dikes are up to 150 meters thick, generally steeply dipping and strike north-northwesterly. The rocks are coarse grained, dark grey to green in color (Bostock, 1980) and form areas of local positive

relief where they intrude easily eroded lithologies such as the metaturbidites and negative relief in areas where they are juxtaposed with granites and gneisses.

Structural Geology

Several structural elements are noted in the Slave Structural Province. Folding is most evident in sedimentary sequence, while narrow volcanic belts along the margins of these sedimentary domains appear as steep homoclines dipping towards the sediments. In the southern part of the map area where the volcanics are marginal to or located within wider sedimentary domains. Felsic centers (Back River area) are relatively broad and tend to have shallower dips. Folds tend to be steeply inclined and align parallel to contacts with volcanic and granitic rocks. They are truncated and deformed by younger intrusions indicating a syndeformational association. The last generation of large scale folds trend northward (Fyson and Padgham, 1993).

The alignment of volcanic belts or belt segments illustrate the structural trends. Lineaments formed by the volcanic belts and at the granite margins change from northwestward in the eastern part of the province to north-northwest and northeast in the area north of 66° N. Sharp contrasts in the structural trend occurs in the southwestern part of the province where volcanic belts and intrusion margins which trend northwest, northeast, and north are juxtaposed and develop an angular pattern. This angular orientation of volcanic belts suggests control of volcanism and structure by an underlying system of crustal-scale fractures (Padgham and Fyson, 1992).

Foliation in migmatitic metasediments tend to parallel bedding and along tight fold lines in weakly metamorphosed rocks. Foliation in granites is variable. Cleavage/schistosity is steeply inclined and generally oblique to the axial traces of large scale earlier folds. South of 66° N, cleavage is usually oriented north to northeast postdating cleavage that strike northwest. This suggests a reorientation of regional stresses.

Major shear zones are recognized as zones of high strain ductile deformation restricted to rock boundaries of contrasting competency. Movement along the McDonald and Bathurst faults occurred mainly during the Proterozoic. Most faults within the province are Proterozoic brittle fracture zones, some of which produce prominent topographic lineaments.

Economic Geology

The claims area is underlain by Archean volcanic and sedimentary rocks of the Yellowknife Assemblage and younger granitic rocks. This felsic/mafic volcanic package forms a linear belt extending from Izok lake to High Lake and beyond. The SU claims are underlain entirely by Proterozoic rocks of the Goulburn and Epworth groups.

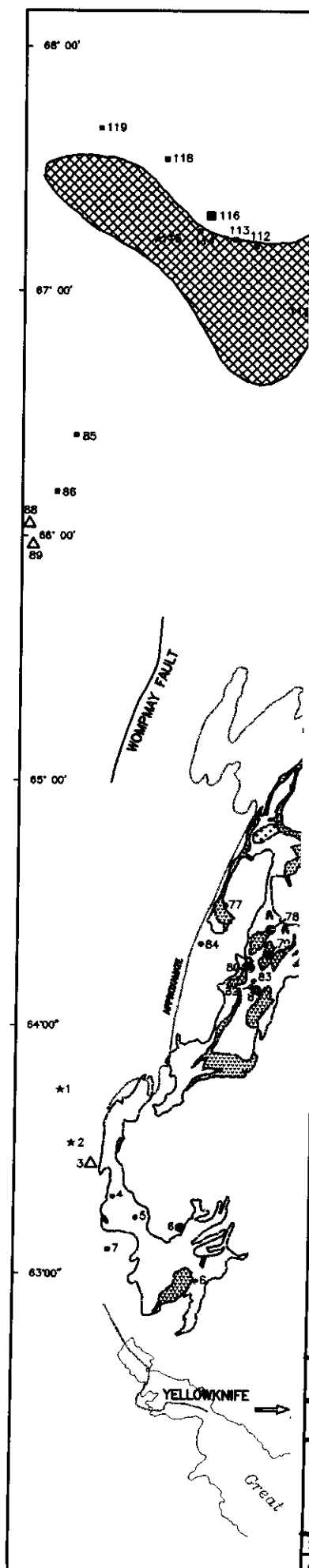
The deposit, at Izok Lake, is a cluster of zinc-copper-lead-silver volcanogenic massive sulphide lenses occurring near the top of a sequence of pyroclastic, felsic metavolcanic rocks of the Point Lake Formation. This deposit is located approximately 225 kilometers west-southwest of the center of the SU claims area and is currently held by Inmet Mining Corporation. Estimated minable reserve of the deposit are 16.5 million tonnes grading 11.4% Zn, 2.2% Cu, 1.1% Pb and 60g/t Ag. (published by Department of Energy, Mines, and Petroleum Resources, 1995).

The Ulu occurrence, located about 110 kilometers west-northwest of the center of the SU claim blocks, is host to precious metal vein mineralization. Two types of occurrences within Archean volcanics are noted: polymetallic quartz veins contain pyrite, pyrrhotite, minor sphalerite and arsenopyrite; and quartz veins with acicular arsenopyrite. The best values obtained to date are: 54.94 g/t Au over 0.95 meters which included visible gold within pyrite-filled fractures. This intersection occurs at the sediment / volcanic contact.

The High Lake copper-zinc massive sulphide deposit of Kennecott Canada Inc. is about 120 kilometers northwest of the center and within the most southwesterly of the SU claim blocks. Estimated reserves are 5.3 million tonnes grading 4.05% Cu, 2.36% Zn, 31.73 g/t Ag and 1.76 g/t Au. This deposit and numerous other mineral showings are located within the Anialik River-High Lake greenstone belt. The Canuc/Orofino (Arcadia) gold deposit is located 165 kilometers northwest of the SU claims on Coronation Gulf. Estimated reserves are 780,000 tons grading 7.5 g/t Au.

The Turner Lake showing is located approximately 50 kilometers north-northwest of the center of the SU claims. The showing is an arsenopyrite-pyrrhotite-gold bearing quartz stockwork that cuts a metamorphosed gabbro sill which intrudes Archean metasediments. Reserves of the deposit are estimated at 1,180,000 tonnes grading 5.35 g/t Au. (published by Department of Energy, Mines and Petroleum Resources, 1995).

The Pistol Lake gold deposit, which is located about 35 kilometers north-northwest of the center of the SU claim blocks, occurs in Archean metasediments. The occurrence is in a well-banded silicate facies iron



LEGEND

BASE METALS (Cu,Pb,Zn)

- > 10 MT
- 4 MT - 10 MT
- < 4 MT

PRECIOUS METALS (Au,Ag,Pt)

- > 2,000,000 oz.
- 200,000 - 2,000,000 oz.
- < 200,000 oz.
- ★ RARE EARTH DEPOSITS (U,Th,etc.)
- ◇ KNOWN KIMBERLITE PIPES

- ARCHEAN VOLCANICS
- ARCHEAN SEDIMENTS
- HIGH URANIUM POTENTIAL
- INTRUSIVE ROCKS

- ▲ PRODUCING MINES
- △ EX-PRODUCING MINES

MODIFIED FROM E.G.S. 1994-05 BY P.L.BEALES

083680

BENACHEE RESOURCES INC.

SNOWPIPE RESOURCES LTD.

**MINERAL OCCURENCES
IN THE
SLAVE PROVINCE**

SCALE: AS SHOWN

DATE: JUNE, 1996

APPROVED BY: R.W.A.

FILE: SU-FIG4.DWG

FIGURE

4

formation, containing greater than 10% sulphides, within an amphibolite grade quartz biotite schist. The deposit consists of several mineralized zones of heavily disseminated pyrrhotite-pyrite-arsenopyrite with pods of massive mineralization. The gold is associated with arsenopyrite and quartz veins similar to the geological environment at Lupin. Geological reserves for the deposit are 1.4 million tonnes grading 3.4 g/t Au. (published by Department of Energy, Mines and Petroleum Resources, 1995).

The Lupin mine, operated by Echo Bay Mines Ltd. and located on Contwoyto Lake, is the only producing mine in the area. The ore body at Lupin consists of tightly folded, gold bearing pyrrhotite-hornblende iron formation within the metaturbidites of the Contwoyto Formation (Yellowknife Supergroup). These iron formations have been the subject of numerous exploration programs, however, the Lupin operation is the only economically viable deposit discovered to date. Major mineral occurrences are shown in Figure 4.

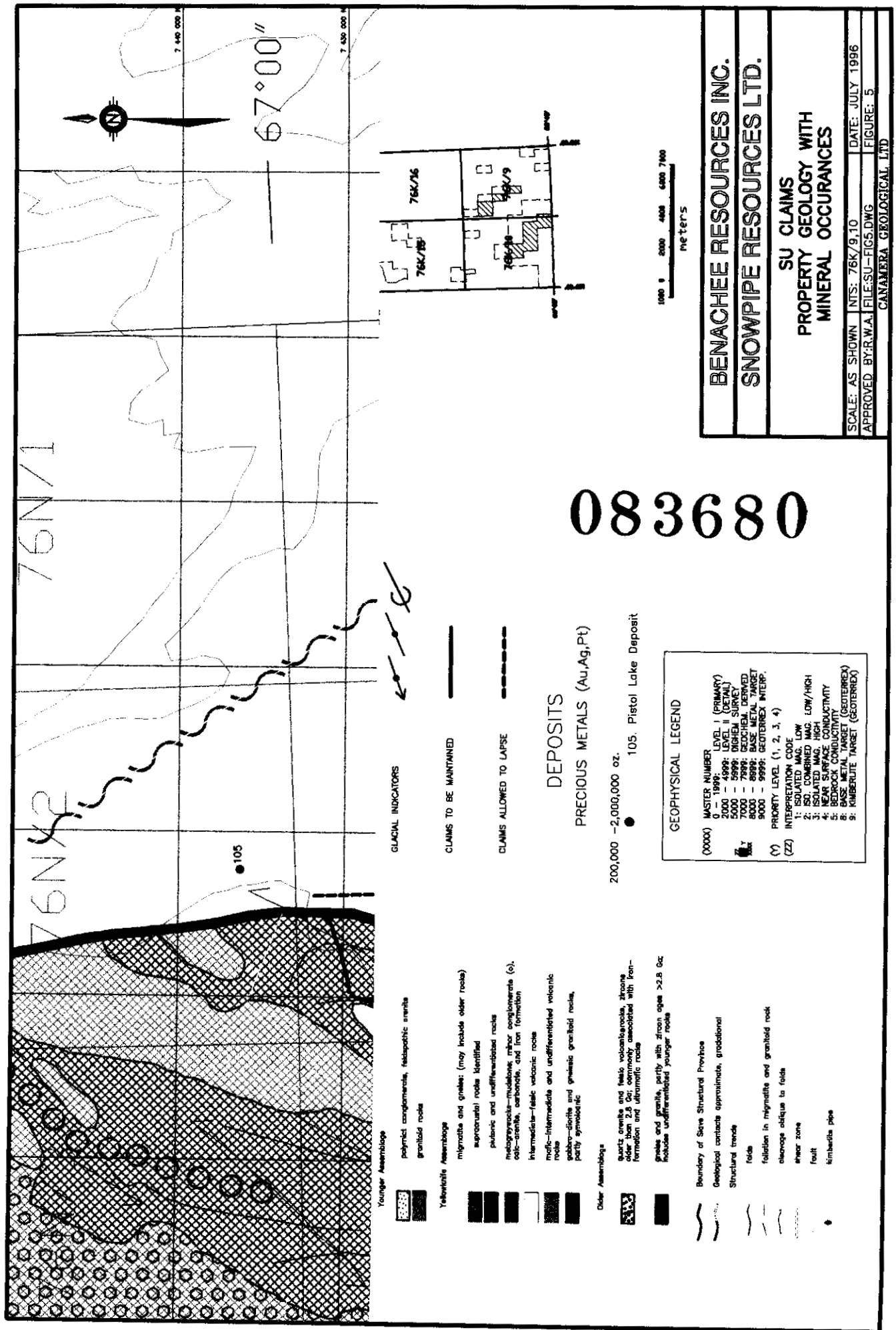
Many diamond exploration programs are currently in progress within the Slave Province; a region which only recently has been recognized as an environment favorable for the emplacement of kimberlite pipes. One such project is the BHP-Dia Met joint venture in the Lac de Gras-Exeter Lake area. BHP, the project operator, produced a 1,193 dry metric tonne bulk sample from the Koala pipe which returned 893 carats at an averaged value of US \$82/tonne (GCNL No. 132, July 12, 1994).

Underground sampling at the Panda pipe, located 1.2 kilometers from Koala, returned 2557 carats from a 2835 tonnes sample for an average grade of 0.90 cts/dmt (as of December 12, 1994). At the Fox pipe, the underground bulk sampling program has been completed. A total sample of 6915 tonnes of kimberlite produced 11,960 diamonds weighing 166 carats for an overall grade of 0.26 cts/dmt. The average value per carat for this sample is about US \$120. The proposed BHP/Dia Met development plan, based upon the on-going bulk sampling program, has expanded to include the: Panda, Misery, Koala, Fox and Leslie diamondiferous pipes.

Project construction is slated to begin in 1996 with commercial production anticipated by the third quarter of 1997 (Dia Met Minerals Ltd. Company News Release, December 12, 1994).

Property Geology

The underlying geological theme of the claims are the Proterozoic metasedimentary cover rocks of the Goulburn and Epworth groups. These rocks represent cratonic and marginal geosynclinal environments and lie unconformably on Archean basement (Bostock, 1980). Claim blocks geology is detailed in Figure 5.



Pleistocene Geology

Reconnaissance mapping of surficial deposits and ice direction indicators on the SU claims was carried out by M. J. Millard of the Saskatchewan Research Council, using airphoto interpretation and field investigations, as part of the BK project (Millard, 1993).

Till is the most abundant quaternary deposit, occurring as a thin veneer (less than 2-3 meters thick) or as till blanket (>3 meters thick). It is generally very poorly sorted, from boulder size clasts of widely varying size to granules, with a coarse sand to silt size matrix (McCuaig, 1995). There are two genetically different types of till deposits that have been recognized: basal or subglacial till which is deposited primarily from active ice and generally contains more locally revived material and ablation or englacial till which occurs as a product of gentle release during the ablation processes by stagnant ice (Millard, 1993).

Eskers occur in the southern half of the claims area and trend north-northwest to north.

Previous Exploration

Previous diamond exploration on the claim group includes till sampling and airborne geophysics. Since 1993, a total of 668 geochemical till samples have been collected and analyzed for heavy mineral indicators. In addition, a 250 meter spaced airborne magnetic and EM survey, totaling 7394.6 line-kilometers, was flown by Geoterrex in 1994.

CURRENT EXPLORATION (1995-1996)

Overview

The focus of initial exploration efforts on the SU property was reconnaissance level sampling of glacial till material. Between 1993 and 1995, a total of 624 geochemical samples have been collected and 7394.6 line-kilometers of airborne magnetics and EM had been flown by Geoterrex Limited (see previous assessment report - PSHC PROPERTY). The 1995 exploration program included the collection of an additional 44 till samples.

GEOCHEMISTRY

Introduction

During previous exploration programs on the SU property, 624 till samples were collected by Canamera Geological Ltd. for Benachee Resources Inc. and Snowpipe Resources Ltd.. These programs included initial and some follow-up sampling in areas of geochemical anomalies.

The samples were processed for kimberlitic indicator minerals, pyrope and eclogitic garnet, chrome diopside, picro-ilmenite, chromite, and olivine, in the North Vancouver laboratory of Canamera Geological Ltd. The results derived from these samples form the body of this report (Drawing 2, Appendix 6).

The sampling crew is a 13 man crew consisting of eight samplers, camp manager, assistant manager, camp maintenance man and helicopter support crew.

The camp was mobilized from Yellowknife via fixed wing Twin Otter aircraft. Helicopter support was Bell Jet Ranger 206 B and A-Star. Fuel and supplies were transported periodically from Yellowknife and samples back-hauled.

Field Collection

Frost-boils are the ideal sampling material. Frost-boils are quite numerous and easy to locate and represent underlying till material that has been reworked by fluid movement to produce a higher concentrations of sand-sized particles. The next best sample medium is glacial till.

Once a site has been located and the sample collected, sample material is passed through a 6 or 10 mesh wire screen (3.36 to 1.70 mm) into a collection basin. This screening process is carried out with the aid of water. The oversize is examined for kimberlite fragments and discarded if none are found. The material collected in the basin is submerged in water and agitated to liberate the majority of the fine clay and silt particles. The water, with the suspended particles, is then poured off leaving behind only the granular material. This screening and washing process is continued until approximately 15 kilograms of screened and washed material remains. The residual material is transferred to a 15 liter plastic bucket with sealable lids for transport.

For detailed follow-up, sample lines are selected to provide fill-in information where needed. These samples are usually taken dry, then washed and screened at a water source prior to shipment to the lab

for processing. The sample density in an area is somewhat dependent on surficial features, i.e. rock outcrops, boulder fields, bogs, eskers, etc., and material availability.

Sample Processing

Till samples, collected from the SU property, were processed in the Canamera's lab facilities located in North Vancouver. Gravity concentration methods and procedures were used in handling initial stages of mineral processing.

Producing a heavy mineral concentrate

- Stage 1: Screening of sample material into 4 size fractions using a vibratory Sweco unit.
Size categories are: 10 mesh (1.7 mm), 20 mesh (0.85 mm), 40 mesh (0.425 mm), and 60 mesh (0.250 mm)
- Stage 2: Simple gravity separation of the -20 to +40 fraction using Wilfley tables to produce two products: low density material and high density material. Only the high density product is processed further
- Stage 3: Heavy density product is magnetically separated at two settings to produce three distinct products; an ilmenite rich magnetic concentrate and a garnet-chrome diopside rich concentrate. The remaining material is the non-magnetic fraction.
- Stage 4: Both the ilmenite and garnet-chrome diopside concentrates are further refined using a Magstream dense magnetic media separation.
- Stage 5: Trained mineral sorters examine each final concentrate for kimberlitic pyrope garnet, chrome diopside, eclogitic garnet, ilmenite, chromite and olivine grains using binocular microscopes. Questionable grains are examined by the senior mineralogist and / or sent out for microprobe analysis.

At each stage of screening, separation, and concentration, a record of weights is maintained for all fractions. All sample splits are repackaged separately and kept in archives.

Additional analyses (Special Laboratory Requests) were conducted on 57 samples from the SU claims. These analyses included: 24 samples raised to complete sort category; fines were sorted on 22 samples; the light fraction was analyzed on 8 samples; and 2 samples required extra sorting. This work resulted in one additional anomalous sample being generated. Results are recorded in Appendix 7.

Abrasion summary analyses on 13 samples is included in Appendix 7A.

Results and Interpretation

Interpretation is based on all the sampling programs completed on the claim group. Reference to anomalous samples may be from previous representation work report (see PSHC Report - Appendix 8).

Four possible indicator mineral trains have been developed. The most northerly train consists of a 4 or 5 sample train with 2 multi-count and 2 or 3 single count, single element (chrome diopside) samples. Two of the anomalous samples were kimberlitic or probably kimberlitic - duplication?. Two additional samples collected beside near these anomalous samples were barren and samples taken 1 kilometer up-ice were also barren. Another sample in this train? is probably kimberlitic and is surrounded by 3 barren samples and 5 more barren samples taken 1 kilometer up-ice. One sample is probably not kimberlitic but no follow-up samples have been collected near the sample site.

Another train consists of five single count, single element (chrome diopside) and one multi-count single element (chrome diopside); 4 grains from this train are probably kimberlitic to kimberlitic and 2 grains are probably not kimberlitic. To the southeast of this train 0.5 to 2 kilometers from one of the anomalous samples, 5 barren samples were collected possibly representing an up-ice cut-off. Two to three barren samples were collected from around the anomalous samples; no duplication of the anomaly occurred.

Eight anomalous samples make up the next train. Differing geochemistry for the anomalous samples mark this train: 2 single count chromite samples, probably kimberlitic to kimberlitic occur at the north end of the train; 4 single count chrome diopside samples, probably kimberlitic to kimberlitic occur in the center and southeast end of the train; 1 single count multi-element (chrome diopside-pyrope) is identified as kimberlitic; and 1 single count olivine which was not probed. No duplication was obtained from barren samples taken within 50 to 100 meters of all anomalous sample locations. One area of the train has 3 anomalous samples and 5 barren samples within a 1 kilometer radius. No termination sampling has been done at the southeast end of the train.

The most southerly? train is made up of 2 anomalous samples, 1.1 kilometers apart. This train consists of 1 single count probably kimberlitic chrome diopside and 1 single count chromite which has not been probed. Duplicate samples were barren.

Four or five isolated anomalous samples were identified; 2 samples were kimberlitic; one was possibly kimberlitic and one was not probed. Three of four isolated samples were surrounded by 2 to 8 barren

samples within a 1 kilometer radius of the anomalous samples. One anomalous sample was not followed up.

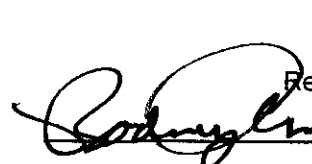
CONCLUSIONS AND RECOMMENDATIONS

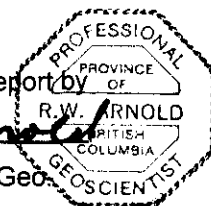
The sampling programs on the SU claims have developed four possible indicator mineral trains and several scattered isolated sample anomalies. Although most of the anomalous samples have had some followed-up, selected follow-up sampling is suggested to develop and terminate these trains.

Approximately 1/4 of all samples require additional laboratory work to be raised to a complete sort category.

It is recommended that a detailed 50 meter spaced airborne magnetic/VLF EM survey be flown over all 4 trains.

Base metal/gold potential exists on SU 194-198. The remaining claims fall within the Kilihigok Basin which is also of interest for base metals. It is recommended that a program of base metal potential evaluation be undertaken prior to allowing these claims to lapse.

Report by 
Rodney W. Arnold, P. Geoscientist



dated: July 12th, 1996

APPENDIX 1
STATEMENT OF COSTS

SU CLAIMS
EXPLORATION EXPENDITURES
FOR PERIOD: APRIL 14, 1995 - APRIL 13, 1996

	TOTAL
<u>SAMPLE COLLECTION</u>	\$
<u>PROJECT PREPARATION</u>	\$796
<u>PERSONNEL</u>	
Camp Geologist, Assistant, Cook and 8 samplers (11 man camps) approximately 22 man-days in total	\$3,772
<u>CAMP BUILDING AND MOBILIZATION</u>	\$1,724
<u>DEMOBILIZATION AND CLEANUP</u>	\$483
<u>FIELD SUPPLIES</u>	\$464
<u>PERSONNEL BOARD</u>	\$736
<u>PERSONNEL ROOM</u>	\$1,379
<u>COMMUNICATIONS</u>	\$151
<u>SAMPLING EQUIP RENTAL</u>	\$736
<u>SAMPLING SUPPLIES</u>	\$197
Fuel Caching	\$378
Twin Otter	\$5,673
Helicopter (DRY)	\$13,416
<u>FUEL CONSUMPTION</u>	
HELICOPTER Fuel Jet B	\$2,210
CAMP Fuel p-50 stove	\$376
p-40 diesel	\$72
CAMP Fuel Propane	\$166
<u>SAFETY EQUIPMENT</u>	\$263
<u>SAMPLE SHIPPING</u>	\$2,207
<u>TOTAL FIELD COLLECTION EXPENDITURES</u>	<u>\$35,200</u>
<u>SAMPLE PROCESSING EXPENDITURES</u>	
**cost of probe work and abrasion summary included **	
44 samples @ \$300/sample (including screening, tabling, magnetic separation, magstream, and mineral sorting)	\$13,200
<u>TOTAL SAMPLE EXPLORATION COSTS</u>	
samples collected	44
average cost per sample	\$1,100 (average winter and summer)
	\$48,400

SPECIAL LABORATORY SAMPLE COSTS

Special lab work - 57 samples @ \$200/sample

\$11,400

Coarse Grain	0	\$200	
Excess -20+40	2	\$200	\$400
Fine Grain -40 / +50	22	\$200	\$4,400
Fine Grain -50 / +60	8	\$200	\$1,600
Half Sort Raised to Full	24	\$200	\$4,800
Quality Resort		\$200	
Resort	1	\$200	\$200
O/B -20 / +40	0	\$300	
	57		\$11,400

TOTAL GEOCHEMICAL ANALYSES EXPENDITURES

\$59,800**REPORT WRITING**

\$2,500**TOTAL EXPLORATION EXPEDITURES**

\$62,300

APPENDIX 2
APPLICATION OF EXPENDITURES

BREAKDOWN OF EXPENDITURES

EXPENDITURES

Total Exploration Expenditures for SU CLAIMS = \$62,300 (Appendix 1)
Consisting of detailed till sampling and processing

ACREAGE

Total applied SU CLAIMS reduced acreage = 30,990 (Appendix 3)

REQUIRED WORK

Required value of work = \$2/acre/year
Value per year = \$61,980.00

APPLIED YEARS OF WORK CREDIT

Application of one year (1) credit = \$61,980.00
on
SU 11, SU 12, SU 26-29, SU 47, SU 55,
SU 56, SU 73, SU 89, SU 90

Exploration expenditures = \$62,300.00

EXCESS CREDIT

Excess credit of \$320.00 to be credited
toward the next year of work credit

APPENDIX 3

CLAIM DATA



SU PROPERTY - FORM 9 ATTACHMENT

12-Jul-96

CLAIM NUMBER	CLAIM NAME	OWNER(S)	NTS SHEET(S)	AREA (ACRES)	NEW WORK	EXCESS:	CASH	SURPLUS	YEARS APPLIED	RECORDED	NEW ANNIVERSARY
F34319	SU 139	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / 076-K-15 / - / -	2332.4	0	\$0	0	0	2	4/14/1993	4/14/1996
F34320	SU 140	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-15 / 076-K-10 / - / -	2582.5	0	\$0	0	0	2	4/14/1993	4/14/1996
F34586	SU 183	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-15 / - / - / -	2582.5	0	\$0	0	0	2	4/14/1993	4/14/1996
F34587	SU 184	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-15 / - / - / -	914.27	0	\$0	0	0	2	4/14/1993	4/14/1996
F34588	SU 185	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-15 / - / - / -	333.5	0	\$0	0	0	2	4/14/1993	4/14/1996
F34589	SU 186	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-15 / - / - / -	100.8	0	\$0	0	0	2	4/14/1993	4/14/1996
F34590	SU 187	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-15 / - / - / -	790.3	0	\$0	0	0	2	4/14/1993	4/14/1996
F34591	SU 188	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-15 / - / - / -	2582.5	0	\$0	0	0	2	4/14/1993	4/14/1996
F34592	SU 189	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-15 / - / - / -	2582.5	0	\$0	0	0	2	4/14/1993	4/14/1996
F34597	SU 194	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-15 / - / - / -	2582.5	0	\$0	0	0	2	4/14/1993	4/14/1996
F34598	SU 195	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-15 / - / - / -	1568.8	0	\$0	0	0	2	4/14/1993	4/14/1996
F34599	SU 196	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-15 / - / - / -	1093.42	0	\$0	0	0	2	4/14/1993	4/14/1996
F34600	SU 197	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-15 / - / - / -	1509.8	0	\$0	0	0	2	4/14/1993	4/14/1996
F34891	SU 1	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-09 / - / - / -	1157.2	0	\$0	0	0	0	4/14/1993	4/14/1996
F34894	SU 4	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-09 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34899	SU 9	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-09 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34900	SU 10	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-09 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34901	SU 11	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-09 / 076-K-10 / - / -	2582.5	\$165	\$0	0	0	1	4/14/1993	4/14/1997

CLAIM NUMBER	CLAIM NAME	OWNER(S)	NTS SHEET(S)	AREA (ACRES)	NEW WORK	EXCESS:	CASH	SURPLUS	YEARS APPLIED	RECORDED	NEW ANNIVERSARY
F34902	SU 12	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
F34903	SU 13	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34904	SU 14	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34905	SU 15	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34906	SU 16	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34907	SU 17	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34908	SU 18	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34909	SU 19	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34910	SU 20	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34914	SU 24	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34915	SU 25	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34916	SU 26	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
F34917	SU 27	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
F34918	SU 28	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
F34919	SU 29	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
F34920	SU 30	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / 076-K-09 / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34921	SU 31	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-09 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34922	SU 32	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-09 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34929	SU 39	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-09 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34930	SU 40	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-09 / - / - / -	1033	0	\$0	0	0	0	4/14/1993	4/14/1996

CLAIM NUMBER	CLAIM NAME	OWNER(S)	NTS SHEET(S)	AREA (ACRES)	NEW WORK	EXCESS:	CASH	SURPLUS	YEARS APPLIED	RECORDED	NEW ANNIVERSARY
F34942	SU 52	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34943	SU 53	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34944	SU 54	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34945	SU 55	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
F34946	SU 56	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
F34947	SU 57	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2471.3	0	\$0	0	0	0	4/14/1993	4/14/1996
F34955	SU 65	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34956	SU 66	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-10 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34963	SU 73	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-09 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
F34964	SU 74	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-09 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34974	SU 84	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-09 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34978	SU 88	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-09 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F34979	SU 89	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-09 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
F34980	SU 90	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-09 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
F37413	SU 198	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-K-15 / - / - / -	2205.4	0	\$0	0	0	0	4/14/1993	4/14/1996
Z01096	SU 103	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-K-10 / - / - / -	1206.2	0	\$0	0	0	0	4/14/1993	4/14/1996
Z01101	SU 108	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-K-10 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
Z01104	SU 111	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-K-09 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996

total # of acres = 132928.89

total amount of new work = 61980

total amount of excess = 0

total # of claims 58

total amount of cash = 0

total amount of surplus = 0

APPENDIX 4
STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Rodney W. Arnold, resident at 41751 Yarrow Central Road, Chilliwack, British Columbia, V2R 5G3, hereby certify that:

I am a consulting geologist and have worked in the mineral exploration and mining industry since 1979.

I received a Bachelor of Science degree in Geology from the University of Calgary in 1974.

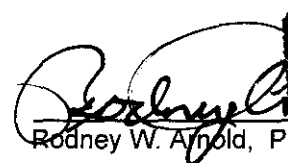
I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia (1993).

I have been involved with exploration on the SU claims since 1995 and am familiar with the current state of exploration.

I have no direct or indirect interest in the SU claims or in the shares of Benachee Resources Inc. or Snowpipe Resources Ltd. nor do I expect any.

Permission is hereby granted for the use of this report, or excerpts thereof, for any legal purposes normal to the business of Benachee Resources Inc. and Snowpipe Resources Ltd. The author reserves the right to approve any summaries or alterations.

Dated at Vancouver, British Columbia, this 12th day of July, 1996


Rodney W. Arnold, P. Geo. SCIENTIST

PROFESSIONAL
PROVINCE
OF
R.W. ARNOLD
BRITISH
COLUMBIA
SCIENTIST

APPENDIX 5
SELECTED BIBLIOGRAPHY

BIBLIOGRAPHY

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1995. Significant mineral deposits of the Northwest Territories. Published by: Department of Energy, Mines and Petroleum Resources, Mineral Resources Division, Government of the Northwest Territories.

APPENDIX 6
GEOCHEMICAL DATA

7/12/1996

CANAMERA GEOLOGICAL LTD.

Sample Processing Summary For
The SU Claims

COLLECTION			CONCENTRATION		SORTING								
Sample #:	NTS:	Claim:	Tabling Wt/gm:	Conc. Wt/gm:	Sort Wt/gm	Result Class:	Status:	PY	EG	Indicator Recovery Totals:			
										CD	ILM	CR	OL
051083	76K16	SU 233	4200	752	83	ANOMALOUS	C	0	0	0	0	1	0
051261	76K10	SU 29	2900	80	9	ANOMALOUS	C	0	0	1	0	0	0
051262	76K10	SU 27	2400	104	7	ANOMALOUS	C	0	0	0	0	0	1
3 ANOMALOUS Samples													
050049	76K16	SU 223	4500	86	1	BARREN	C	0	0	0	0	0	0
051036	76K10	SU 19	5300	300	56	BARREN	C	0	0	0	0	0	0
051037	76K10	SU 19	4400	500	44	BARREN	C	0	0	0	0	0	0
051038	76K10	SU 19	5000	510	34	BARREN	I	0	0	0	0	0	0
051039	76K10	SU 19	4500	666	40	BARREN	C	0	0	0	0	0	0
051041	76K9	SU 116	3600	948	45	BARREN	C	0	0	0	0	0	0
051042	76K16	SU 125	5000	1072	49	BARREN	I	0	0	0	0	0	0
051043	76K16	SU 125	5000	876	86	BARREN	C	0	0	0	0	0	0
051044	76K16	SU 125	5300	368	32	BARREN	C	0	0	0	0	0	0
051045	76K16	SU 125	5000	1266	67	BARREN	I	0	0	0	0	0	0
051046	76K16	SU 125	5400	888	70	BARREN	C	0	0	0	0	0	0
051084	76K16	SU 233	3800	500	72	BARREN	C	0	0	0	0	0	0
051085	76K16	SU 233	4100	410	67	BARREN	C	0	0	0	0	0	0
051086	76K16	SU 233	3900	554	66	BARREN	C	0	0	0	0	0	0
051179	76K15	SU 169	5500	504	35	BARREN	C	0	0	0	0	0	0
051180	76K15	SU 169	5100	370	22	BARREN	C	0	0	0	0	0	0
051181	76K15	SU 169	4600	322	15	BARREN	C	0	0	0	0	0	0
051184	76K15	SU 169	4700	316	27	BARREN	C	0	0	0	0	0	0
051185	76K15	SU 169	4700	188	47	BARREN	C	0	0	0	0	0	0
051186	76K16	SU 169	4700	606	125	BARREN	C	0	0	0	0	0	0
051254	76K10	SU 30	1900	156	6	BARREN	C	0	0	0	0	0	0
051255	76K10	SU 30	2800	166	5	BARREN	C	0	0	0	0	0	0
051256	76K10	SU 30	3600	250	13	BARREN	C	0	0	0	0	0	0
051257	76K10	SU 29	3000	100	10	BARREN	C	0	0	0	0	0	0
051258	76K10	SU 29	3000	160	10	BARREN	C	0	0	0	0	0	0
051259	76K10	SU 29	4600	226	13	BARREN	C	0	0	0	0	0	0
051260	76K10	SU 29	3000	164	10	BARREN	C	0	0	0	0	0	0
051263	76K10	SU 27	3000	140	8	BARREN	C	0	0	0	0	0	0
051264	76K10	SU 27	2600	142	8	BARREN	C	0	0	0	0	0	0
051301	76K15	SU 167	3900	386	112	BARREN	C	0	0	0	0	0	0
051510	76K9	SU 39	3900	1184	63	BARREN	C	0	0	0	0	0	0
051511	76K9	SU 39	4400	588	17	BARREN	C	0	0	0	0	0	0
051512	76K9	SU 39	4100	518	24	BARREN	C	0	0	0	0	0	0
051513	76K9	SU 39	3800	816	36	BARREN	C	0	0	0	0	0	0
051514	76K9	SU 39	2500	576	43	BARREN	C	0	0	0	0	0	0

Status Legend:

I=initial sort, H=half sort, Q=quarter sort, F=final result, C=complete

COLLECTION			CONCENTRATION		SORTING								
Sample #.	NTS.	Claim.	Tabling Wt/gm.	Conc. Wt/gm.	Sort Wt/gm	Result Class.	Status.	PY	EG	CD	Indicator Recovery Totals.		
											LM	CR	OL
051515	76K9	SU 32	3600	250	17	BARREN	C	0	0	0	0	0	0
051516	76K9	SU 31	3200	234	16	BARREN	C	0	0	0	0	0	0
051517	76K9	SU 31	3500	142	10	BARREN	C	0	0	0	0	0	0
051518	76K9	SU 31	4100	382	22	BARREN	C	0	0	0	0	0	0
051519	76K9	SU 31	4200	196	20	BARREN	C	0	0	0	0	0	0
051561	76K10	SU 16	2400	124	12	BARREN	C	0	0	0	0	0	0
41 BARREN Samples													
Total Samples Processed													
44													

Status Legend: I=initial sort, H=half sort, Q=quarter sort, F=final result, C=complete

APPENDIX 7

SPECIAL LABORATORY ANALYSES RESULTS

COLLECTION				CONCENTRATION		SORTING							
Sample #:	Status/Request:	NTS:	Claim:	Tabling Wt/gm:	Conc. Wt/gm:	Sort Wt/gm	Result Class:	PY	EG	Indicator Recovery Totals:			
										CD	ILM	CR	CL
041884	RC	76K10	SU 17	4900	534	46	BARREN	0	0	0	0	0	0
041887	RC	76K10	SU 17	5400	812	60	BARREN	0	0	0	0	0	0
041928	F	76K10	SU 25	5300	170	5	BARREN	0	0	0	0	0	0
041932	F	76K10	SU 55	3700	46	4	BARREN	0	0	0	0	0	0
041946	F	76K10	SU 100	5300	390	14	BARREN	0	0	0	0	0	0
042008	F	76K10	SU 57	4300	88	6	BARREN	0	0	0	0	0	0
044071	F	76K15	SU 189	2700	170	27	BARREN	0	0	0	0	0	0
044071	PL	76K15	SU 189	2700	170	95	BARREN	0	0	0	0	0	0
044072	F	76K15	SU 189	2200	138	22	BARREN	0	0	0	0	0	0
044072	PL	76K15	SU 189	2200	138	76	BARREN	0	0	0	0	0	0
044073	PL	76K15	SU 189	2800	58	24	BARREN	0	0	0	0	0	0
044073	F	76K15	SU 189	2800	58	12	BARREN	0	0	0	0	0	0
044085	F	76K15	SU 189	3900	204	16	BARREN	0	0	0	0	0	0
044085	PL	76K15	SU 189	3900	204	129	BARREN	0	0	0	0	0	0
044086	F	76K15	SU 189	3100	54	20	BARREN	0	0	0	0	0	0
044086	PL	76K15	SU 189	3100	54	26	BARREN	0	0	0	0	0	0
56 BARREN Samples													
Total Samples Processed:				57									

APPENDIX 7A
ABRASION SUMMARY



CANAMERA GEOLOGICAL LTD.
Abrasion Summary for The
SU Claims

Sample #:	NTS:	Claim:
1	NTS	Claim

13

13 ANOMALOUS Samples

Abrasion - Legend of Abrasion

Pyropes:

Pyropes are routinely evaluated for kelyphite preservation, and are given a kelyphite preservation index (KPI) grade of 1 to 4 based on the degree of kelyphite preservation.

KPI 1 = very good kelyphite preservation, in which thick kelyphite occurs over most of the unbroken grain surface. The radial texture of the kelyphite is usually visible.

KPI 2 = good kelyphite preservation, in which a thin coat of kelyphite occurs over most or all of the grain surface.

KPI 3 = any trace to small patches of kelyphite.

KPI 4 = no kelyphite preserved at all.

Chrome diopsides:

Chrome diopsides are rated on a scale of increasing abrasion from 1 to 8, with 1 including the freshest and 8 comprising the most abraded and worn grains.

CD Abrasion Grade #1 = very fresh (on all surfaces suitable for evaluation, surface features are fresh without evidence of abrasion)

CD Abrasion Grade #2 = Fresh to slightly abraded

CD Abrasion Grade #3 = slightly abraded (some fresh surface features, but most abraded)

CD Abrasion Grade #4 =

CD Abrasion Grade #5 = moderately abraded (some fresh surface feature, but none without evidence of abrasion)

CD Abrasion Grade #6 =

CD Abrasion Grade #7 = very abraded

CD Abrasion Grade #8 = entirely worn and abraded

The CD abrasion grade is a single digit evaluation covering the entire sample, thus a sample with several clearly very fresh grains is rated #1, despite the occurrence of numerous more worn or indeterminate grains.

Ilmenites

Routine Ilmenite evaluation results in a grade from 1 to 4 (1 is very fresh, 4 is abraded) for the entire sample in a manner analogous to the CD abrasion grade system described above.

Olivine

Surface texture evaluation of olivine is given as a qualitative verbal description in the comments section of the abrasion database. The verbal descriptions used are "very fresh", "fresh", "moderately fresh", "moderately worn", "worn", and "very worn". These descriptions correspond to increasing abundance of etch pits and conchoidal fractures as shown by SEM analysis, and at the least the "very fresh", rating "fresh" correlate well with increasing distance from the source.

APPENDIX 8

LIST OF ASSESSMENT REPORTS

List Of Assessment Reports

Geochemical And Geophysical Assessment Report on the Benachee Resources Inc/ Snowpipe Resources Ltd PSHC Property; March , 1993 - March , 1995; 10 volumes; Ken Hicks; June 20, 1995; NTS 76K, 76M, 76N, 86P; DIAND #083499

Geochemical And Geophysical Assessment Report on the Benachee Resources Inc/ Snowpipe Resources Ltd WOOSUP (IL Claims) Property; March 18, 1993 - March 17, 1995; 12 volumes; Ken Hicks; June 12, 1995; NTS 76E, 86H, 86I; DIAND #083539

APPENDIX 9
LIST OF PERSONNEL

APPENDIX 7B
ELECTRON MICROPROBE SUMMARY
AND DATA

Key index for Microprobe data
on the
SU Claims
of
Benachee Resources Inc. and Snow pipe Resources Ltd.

A	- A fraction (-20+35)	MOD	- Moderate
ABR	- Abraded	NEG	- Negative
B	- B fraction (-35+40)	NOD	- Nodular
CPX	- Clinopyroxene	OL, OLV	- Olivine
CR	- Chromite	OLS	- Olivines
DEF	- Definitely	OPX	- Orthopyroxene
DIOP	- Diopside	PCD-H	- Pyrope chrome diopside heavies
EG	- Eclogitic garnet	POSS, POS	- Possible
EN	- Enstatite	PROB.	- Probably
EXT	- Extensive	PY, PYR	- Pyrope
F9	- Typo should read G9	PYS	- Pyropes
Fe#	- Calculated Fe quotient	QTZ	- Quartz
FRAG	- Fragment	RK	- Rock
G1,G3,G9,G10	- Pyrope garnet classifications	ROS	- Remaining original surface
G2CD	- G2 Class Chrome Diopside	SL	- Slightly
GRN #25-L10	- Grain #25-L10	ST	- Staurolite
GN	- Garnet	SURF	- Surface
GTS	- Garnets	TW	- Tray wash
Il-Fe	- Iron Ilmenite	UN ABR	- Unabraded
Il-Mg	- Magnesium Ilmenite	V	- Very
K, K'LITIC	- Kimberlite, kimberlitic	V.SL	- Very slight
KEL	- Kelyphite	WJ	- William Jarvis
Mg#	- Calculated Mg quotient		



Canamera Geological Ltd.

CANAMERA GEOLOGICAL LTD.

Electron Microprobe Summary For All SU Claims

7/12/1996

Sample #	Grain #	Claim	Sent As	Mineral	Kimberlitic	Sorting Remarks
015537	103-B20	SU 56	CD	CD (G3)	K	RESORTED. PCD-L ALSO SORTED. -40+50 ALSO SORTED. 1 PY THICK SERP OR KEL. COATING POLISHED (SL. ABR ?) & PROBE
	103-B19	SU 56	PY	PY 1/9/11	K	RESORTED. PCD-L ALSO SORTED. -40+50 ALSO SORTED. 1 PY THICK SERP OR KEL. COATING POLISHED (SL. ABR ?) & PROBE
015548						
	81-C3	SU 108	CD	CD(G2)	PK	GNA. CD PROBED WAS PROB. K'LITIC CD (G2).
015792						
	15-E5	SU 111	CD	CD	K	GNA. GRAIN PROBED IS K-CD
015858						
	15-C12	SU 54	CD	CD	NK	NOT SORTED FOR OLV. GNA. -40+50 ALSO SORTED. GRAIN PROBED IS A K. CD. CD SHOWS SOME FEATURES WHICH ARE NOT
015859						
	8-C14	SU 53	CD	CPX	K	NOT SORTED FOR OLV. -40+50 ALSO SORTED. 1 CD POSSIBLY OF NON-K ORIGIN
015875	4-J11	SU 207	JX	Fe IL	NK	NOT SORTED FOR OLV. PROBE RESULT OF 2 POSS. ILM IS ILG
	4-J13	SU 207	OX	Fe IL	NK	NOT SORTED FOR OLV. PROBE RESULT OF 2 POSS. ILM IS NEG
016254	15-A5	SU 111	IL	IL-FE	NK	NOT SORTED FOR OLV. PROBE RESULTS ON POSS. ILM IS NEG
	3-C12	SU 111	IL	Fe IL	NK	NOT SORTED FOR OLV. PROBE RESULTS ON POSS. ILM IS NEG
016554						
	17-F3	SU 4	CD	DIOP[G2]	K	GNA. CD PROBED IS K. (FITS G2 S & D) 1 BEAT UP CD ROUNDED (ABR) SL. EVIDENCE OF RESORPTION SURFACE ON ENDS.
016569						
	15-E7	SU 85	CD	CD	K	GNA. GRAIN PROBED IS A K-CD. COLOUR LOOKS GOOD. NON X-TAL LIKE SURF. SL. ABR.
016604						
	8-A11	SU 12	GN	ST	NK	NOT SORTED FOR OLV. PROBE RESULTS NEG.
016653						
	8-A12	SU 151	PCA	IL-FE	NK	NOT SORTED FOR OLV. PROBE RESULT NEG.
016675						
	21-D11	SU 65	CD	CD/DIOP	K	1 CD PROBED MAY BE K'LITIC.
016690						
	35-K10	SU 55	CD	CPX	NK	A SORTED. CD PROBED WAS PROBABLY NON-K CPX.
016724						
	9-A10	SU 80	OX	MAGNETI	NK	NOT SORTED FOR OLV. TOO SMALL TO PROBE THE GRAIN.
016728						
	8-B7	SU 42	IL	MAGNETI	NK	NOT SORTED FOR OLV. PROBE RESULTS NEG.
016736						
	2-D5	SU 159	OX	LOW		NOT SORTED FOR OLV. 1 BROWNISH GRAIN TO PROBE & RESULT WAS NEG.
017048						
	106-I11	SU 38	PY	PY G1	K	1 PY PROBED WAS K-PY G1.
017086						
	46-L12	SU 29	OL	CPX	PK	GNA. -40+50 ALSO SORTED. OLV PROBED WAS A POSS. K'LITIC G3 DIOPSIDE
019683						
	23-A7	SU 48	EG			NOT SORTED FOR OLV. GARNET PROBED WAS NON K.
019684						

Sample #:	Grain #	Claim:	Sent As:	Mineral:	Kimberlitic:	Sorting Remarks:
	8-A5	SU 73	IL	IL-FE	NK	NOT SORTED FOR OLV. PROBE RESULTS NEG.
019685						
	17-F12	SU 73	CD	CD	K	NOT SORTED FOR OLV. PROBE RESULT GRAIN IS A PROBABLY K-CD.
019746						
	15-E12	SU 28	CD	CD	K	GNA. PCD/IL-L ALSO SORTED. 1 GRAIN PROBED WAS K'LITIC CD.
019747						
	15-F1	SU 29	OL	EPIDOTE	NK	PCD/IL-L, PCD-L, IL-L & NM ALSO SORTED. OLV PROBED WAS NON-K.
019846						
	5-B5	SU 20	OX	IL	NK	NOT SORTED FOR OLV. 1 ILM. PROBE RESULTS NEG.
019879						
	25-J10	SU 14	OL		NK	OLV SENT TO PROBE WAS NON-K.
019946						
	15-F3	SU 14	CD	CD	K	GNA. GRAIN PROBE IS A K-CD.
019977						
	15-F9	SU 17	CD	CD	K	GNA. NOT SORTED FOR OLV. GRAIN PROBED IS A K-CD.
020005						
	3-L7	SU 191	OG	STAURO	NK	NOT SORTED FOR OLV. PROBE RESULTS FOR 1 POSS. EG AND 1 POSS. ILM WERE NEG.
	3-L6	SU 191				NOT SORTED FOR OLV. PROBE RESULTS FOR 1 POSS. EG AND 1 POSS. ILM WERE NEG.
	22-D1	SU 191	OL	PXNE	PNK	NOT SORTED FOR OLV. PROBE RESULTS FOR 1 POSS. EG AND 1 POSS. ILM WERE NEG.
022003						
	8-E1	SU 31	CD	CPX	K	GNA. COUNT 1 CD POSS. OF NON-K. ORIGIN.
022133						
	5-A7	SU 188	OX	IL	NK	NOT SORTED FOR OLV. PROBE RESULTS OF 2 BEST GRAINS IS NEG.
	5-A6	SU 188	OX	IL	NK	NOT SORTED FOR OLV. PROBE RESULTS OF 2 BEST GRAINS IS NEG.
022137						
	15-C9	SU 189	CD	CD	K	GNA. PCD-L & -40+50 ALSO SORTED. 1 CD PROBED WAS PNK.
039822						
	57-H3	SU 4	IL	Fe IL	NK	1.40 KG EXCESS. 1 ILM PROBED WAS NON-K.
040000						
	79-D05	SU 146	EN	KYANITE	NK	1 ENST PROBED WAS NON-K.
041569						
	79-D14	SU 38	EG	EG (G3/G)	PNK	GNA. -40+50 ALSO SORTED. 1 ENST PROBED WAS NON-K. 1 EG PROBED WAS PROB. NON-K.
	79-D15	SU 38	EN	CPX	NK	GNA. -40+50 ALSO SORTED. 1 ENST PROBED WAS NON-K. 1 EG PROBED WAS PROB. NON-K.
041692						
	57-H8	SU 29	CD	GN	PK	GNA. 1.70 KG EXCESS. -40+50 ALSO SORTED. PROBE RESULTS: 1 PK CD AND 1 K CD.
	109-A14	SU 29	CD	CD (G5)	K	GNA. 1.70 KG EXCESS. -40+50 ALSO SORTED. PROBE RESULTS: 1 PK CD AND 1 K CD.
041690						
	79-E06	SU 20	OL	GROSS	NK	1.50 KG EXCESS. 1 OLV PROBED WAS NON-K.
041629						
	79-J08	SU 201	IL	Fe IL	NK	1 ILM PROBED WAS NON-K.
041679						
	54-C1	SU 111	CD	G3 CPX	PK	GNA CD PROBED WAS POSSIBLY K'LITIC G3 CPX.
041695						
	79-C01	SU 125	OL-1	GROSS	NK	GNA. 3.10 KG EXCESS. 2 OLV PROBED WERE BOTH NON-K.
	79-C02	SU 125	OL-2	GROSS	NK	GNA. 3.10 KG EXCESS. 2 OLV PROBED WERE BOTH NON-K.
041686						
	78-F13	SU 125	CD	CD (G5)	K	GNA 1 CD PROBED WAS K-CD (G5).
041689						
	82-J08	SU 133	IL	Fe IL	NK	GNA. 1 ILM PROBED WAS NON-K. 1 PROB. NON-K ILM & PROBE RESULT WAS NON-K.

Sample #:	Grain #	Claim:	Sent As:	Mineral:	Kimberlitic:	Sorting Remarks:
041691	79-01	SU 133	IL	Fe IL	NK	GNA 1 ILM PROBED WAS NON-K. 1 PROB. NON-K ILM & PROBE RESULT WAS NON-K.
	80-F03	SU 133	OL-2	SPHENE	NK	1.30 KG EXCESS. 1/8 SORTED. 4 OLV PROBED WERE ALL NON-K.
	80-F05	SU 133	OL-4	SPHENE	NK	1.30 KG EXCESS. 1/8 SORTED. 4 OLV PROBED WERE ALL NON-K.
	80-F04	SU 133	OL-3	LOW TOT	NK	1.30 KG EXCESS. 1/8 SORTED. 4 OLV PROBED WERE ALL NON-K.
	80-F02	SU 133	OL-1	SPHENE	NK	1.30 KG EXCESS. 1/8 SORTED. 4 OLV PROBED WERE ALL NON-K.
041718						
	82-F04	SU 158	OL	DIOPSID	NK	GNA 1 OLV PROBED WAS NON-K.
041842						
	103-F03	SU 189	CD	CD 2/3/5	K	RESORTED. MIDS & -40+50 ALSO SORTED. ALL GRAINS ARE V. FRESH TO V. SL. ABR. & PROBE RESULTS: 1 K-PY, 2 PROB. K OLV, 3
	103-F02	SU 189	CD	CD G3	K	RESORTED. MIDS & -40+50 ALSO SORTED. ALL GRAINS ARE V. FRESH TO V. SL. ABR. & PROBE RESULTS: 1 K-PY, 2 PROB. K OLV, 3
	103-F01	SU 189	CD	CD G5		RESORTED. MIDS & -40+50 ALSO SORTED. ALL GRAINS ARE V. FRESH TO V. SL. ABR. & PROBE RESULTS: 1 K-PY, 2 PROB. K OLV, 3
	103-E15	SU 189	OL	OL	PK	RESORTED. MIDS & -40+50 ALSO SORTED. ALL GRAINS ARE V. FRESH TO V. SL. ABR. & PROBE RESULTS: 1 K-PY, 2 PROB. K OLV, 3
	103-E13	SU 189	OL	OL	PK	RESORTED. MIDS & -40+50 ALSO SORTED. ALL GRAINS ARE V. FRESH TO V. SL. ABR. & PROBE RESULTS: 1 K-PY, 2 PROB. K OLV, 3
	103-E14	SU 189	PY	PY G9	K	RESORTED. MIDS & -40+50 ALSO SORTED. ALL GRAINS ARE V. FRESH TO V. SL. ABR. & PROBE RESULTS: 1 K-PY, 2 PROB. K OLV, 3
	103-L13	SU 189	IL	Mg IL	K	RESORTED. MIDS & -40+50 ALSO SORTED. ALL GRAINS ARE V. FRESH TO V. SL. ABR. & PROBE RESULTS: 1 K-PY, 2 PROB. K OLV, 3
	103-L12	SU 189	IL	Mg IL	K	RESORTED. MIDS & -40+50 ALSO SORTED. ALL GRAINS ARE V. FRESH TO V. SL. ABR. & PROBE RESULTS: 1 K-PY, 2 PROB. K OLV, 3
	103-L09	SU 189	IL	Mg IL	K	RESORTED. MIDS & -40+50 ALSO SORTED. ALL GRAINS ARE V. FRESH TO V. SL. ABR. & PROBE RESULTS: 1 K-PY, 2 PROB. K OLV, 3
	103-L11	SU 189	IL	Mg IL	K	RESORTED. MIDS & -40+50 ALSO SORTED. ALL GRAINS ARE V. FRESH TO V. SL. ABR. & PROBE RESULTS: 1 K-PY, 2 PROB. K OLV, 3
	103-L10	SU 189	IL	Mg IL	K	RESORTED. MIDS & -40+50 ALSO SORTED. ALL GRAINS ARE V. FRESH TO V. SL. ABR. & PROBE RESULTS: 1 K-PY, 2 PROB. K OLV, 3
041867						
	82-A11	SU 16	OL	GROSS	NK	1 OLV PROBE WAS NON-K.
041883						
	57-F8	SU 17	CHR	CR	K	GNA. 1.00 KG EXCESS. -40+50 ALSO SORTED. CR PROBED WAS VERIFIED. MGO= 6.41; CR2O3= 44.41.
041888						
	103-J03	SU 53	CR	CR	NK	1 CR PROBED WAS NON-K.
041928						
	57-G1	SU 25	CD	CD (G2)	PK	GNA. -40+50 ALSO SORTED. 1 CD PROBED WAS G2 POSS. K'LITIC.
041946						
	82-A02	SU 100	CD	CD	K	GNA. -40+50 ALSO SORTED. 1 CD PROBED WAS K'LITIC.
041947						
	82-A07	SU 100	OL	GN	NK	1 OLV PROBED WAS NON-K.
042008						
	57-I10	SU 57	IL	CR	PK	GNA. -40+50 ALSO SORTED. CR PROBED WAS VERIFIED. MGO= 15.28; CR2O3= 39.38. PROBE 1 POSS. OL - PROBE RESULT. GRAIN
044073						
	110-B20	SU 189	CD	CD 2/3/5	K	PCD-L & -40+50 ALSO SORTED. PROBE RESULT: 1 K CD.
051083						
	109-I04	SU 233	CR	CR	K	PROBE RESULT: 1 K CR.
051261						
	108-I15	SU 29	CD	CD (G2D)	K	1 CD PROBED WAS K'LITIC.

Total Grains Probed:

77

LEGEND:

PK= Possibly Kimberlitic, NK=Not Kimberlitic, KE=Kimberlitic Eclogitic, K=Kimberlitic, KDI=Kimberlitic Diamond Inclusion Composition

SU CLAIMS
Electron Microprobe Data

Sample#	Grain#	Claim Name	FeO Total	Al2O3	CaO	Na2O	MnO	SiO2	TiO2	Cr2O3	MgO	V2O5	ZnO	NiO	TOTAL	Sent As	Min	K	RSUM	Recalc FeO	Recalc Fe2O3	Mg#	Cr#	Fe#
041867	82-A11	SU 16	1.268	22.369	36.522	0.012	0.542	38.861	0.000	0.029	0.045	0.000	0.000	0.000	99.648	OL	GROSS	NK	99.905	-1.032	2.556	5.919	-6.457	0.026
041946	82-A02	SU 100	5.323	1.580	22.079	0.670	0.208	52.610	0.374	0.886	15.654	0.000	0.000	0.000	99.384	CD	CD	K				74.623		
041947	82-A07	SU 100	28.002	0.119	32.969	0.007	0.172	34.484	0.043	0.000	0.144	0.000	0.000	0.000	95.939	OL	GN	NK				0.513		
041719	82-F04	SU 158	2.079	1.604	25.248	0.255	0.087	53.550	0.063	0.000	17.317	0.000	0.000	0.000	100.203	OL	DIOPSIDE	NK				89.282		
041691	80-F02	SU 133	1.765	1.476	28.146	0.020	0.015	29.678	35.739	0.054	0.028	0.000	0.000	0.000	96.922	OL-1	SPHENE	NK				1.572		
041691	80-F03	SU 133	0.991	1.385	28.597	0.004	0.000	29.944	35.883	0.025	0.002	0.000	0.000	0.000	96.829	OL-2	SPHENE	NK				0.167		
041691	80-F04	SU 133	0.000	0.000	0.000	0.000	0.000	35.648	0.354	0.000	0.008	0.000	0.000	0.000	36.010	OL-3	LOW TOT	NK				100.000		
041691	80-F05	SU 133	0.656	1.383	28.487	0.004	0.000	30.032	36.912	0.042	0.000	0.000	0.000	0.000	97.517	OL-4	SPHENE	NK				0.000		
041686	78-F13	SU 125	5.073	2.071	22.250	0.500	0.177	51.838	0.000	0.894	15.730	0.000	0.000	0.000	98.533	CD	CD (G5)	K				75.616		
041685	79-C01	SU 125	26.760	1.005	33.691	0.004	0.168	34.708	0.040	0.051	0.050	0.000	0.000	0.000	96.478	OL-1	GROSS	NK	99.670	-1.908	31.860	0.330	-5.132	0.383
041685	79-C02	SU 125	28.290	0.008	33.783	0.000	0.123	34.655	0.000	0.032	0.025	0.000	0.000	0.000	96.915	OL-2	GROSS	NK	100.289	-2.008	33.672	0.156	-5.139	0.395
041569	79-D14	SU 38	30.867	21.483	6.768	0.022	0.691	37.307	0.158	0.031	3.451	0.000	0.000	0.000	100.777	EG	EG (G3/G4)	PNK	100.975	29.086	1.979	16.618	-5.914	0.781
041600	79-E06	SU 20	1.402	22.262	37.108	0.004	0.266	38.873	0.000	0.000	0.104	0.000	0.000	0.000	100.020	OL	GROSS	NK	100.347	-1.538	3.267	11.723	-6.516	0.029
040000	79-D05	SU 146	1.055	63.813	0.001	0.004	0.021	36.588	0.000	0.000	0.000	0.000	0.000	0.000	101.481	EN	KYANITE	NK				0.000		
041569	79-D15	SU 38	3.641	0.620	24.936	0.198	0.398	53.362	0.210	0.000	16.259	0.000	0.000	0.000	99.624	EN	CPx	NK				81.705		
015548	61-C3	SU 108	4.034	3.626	18.702	0.481	0.077	51.746	0.611	0.947	18.739	0.000	0.000	0.000	98.962	CD	CD(G2)	PK				82.284		
041928	57-G1	SU 25	3.812	3.344	21.178	0.139	0.089	51.658	0.254	1.137	18.045	0.000	0.000	0.000	99.656	CD	CD (G2)	PK				82.560		
041592	57-H8	SU 29	3.673	1.587	22.881	0.520	0.129	53.002	0.000	0.798	16.143	0.000	0.000	0.000	98.734	CD	GN	PK				81.465		
041679	54-C1	SU 111	4.676	1.171	22.573	0.402	0.161	52.456	0.604	0.384	16.681	0.000	0.000	0.000	99.109	CD	G3 CPX	PK				78.104		
017086	46-L12	SU 29	2.316	3.985	24.514	0.047	0.864	50.100	0.617	0.000	16.125	0.000	0.000	0.000	98.567	OL	CPx	PK				87.443		
016690	35-K10	SU 55	6.148	0.743	22.127	0.406	0.270	52.690	0.000	0.384	15.636	0.000	0.000	0.000	98.403	CD	CPX	NK				71.777		
019879	25-J10	SU 14	0.000	55.416	0.008	0.000	0.006	32.585	0.000	0.015	0.002	0.000	0.000	0.000	88.032	OL		NK				100.000		
020005	22-D1	SU 191	5.879	0.448	24.703	0.160	3.291	51.549	0.000	0.025	12.568	0.000	0.000	0.000	98.623	OL	PXNE	PNK				68.130		
019683	23-A7	SU 48	30.007	20.928	7.069	0.000	1.839	36.607	0.000	0.044	2.768	0.000	0.000	0.000	99.261	EG			99.492	27.926	2.313	14.119	-5.673	0.768
016675	21-D11	SU 65	4.279	1.073	23.310	0.429	0.120	53.237	0.000	0.311	16.331	0.000	0.000	0.000	99.091	CD	CD/DIOP	K				79.239		
019747	15-F1	SU 29	4.323	20.185	36.477	0.012	0.124	37.985	0.652	0.000	0.076	0.000	0.000	0.000	99.834	OL	EPIDOTE	NK	100.434	-1.067	5.990	3.050	-6.373	0.085
022137	15-C9	SU 189	4.788	2.570	23.085	0.390	0.141	51.392	0.550	0.342	15.914	0.000	0.000	0.000	99.173	CD	CD	K				76.871		
015858	15-C12	SU 54	3.901	0.966	23.159	0.468	0.168	53.068	0.417	0.541	16.865	0.000	0.000	0.000	99.552	CD	CD	NK				81.216		
015782	15-E5	SU 111	4.023	1.141	23.154	0.474	0.154	52.942	0.007	0.484	16.964	0.000	0.000	0.000	99.343	CD	CD	K				80.832		
016569	15-E7	SU 85	4.315	1.502	22.369	0.621	0.234	52.527	0.123	1.039	16.389	0.000	0.000	0.000	99.119	CD	CD	K				79.159		
019746	15-E12	SU 28	3.329	8.497	12.730	1.163	0.070	47.782	0.000	2.184	19.281	0.000	0.000	0.000	95.035	CD	CD	K				85.275		
019946	15-F3	SU 14	3.811	2.471	22.923	0.857	0.152	52.454	0.000	0.618	15.866	0.000	0.000	0.000	99.153	CD	CD	K				80.634		
019977	15-F9	SU 17	4.252	1.462	23.769	0.656	0.243	52.754	0.000	0.818	15.515	0.000	0.000	0.000	99.470	CD	CD	K				78.490		
016554	17-F3	SU 4	3.166	1.470	23.133	0.642	0.111	53.462	0.005	0.678	16.470	0.000	0.000	0.000	99.137	CD	DIOP[G2]	K				83.876		
019685	17-F12	SU 73	2.390	0.414	23.895	0.419	0.072	54.406	0.000	0.617	17.926	0.000	0.000	0.000	100.140	CD	CD	K				88.235		
016604	8-A11	SU 12	14.342	54.904	0.000	0.015	0.142	26.851	0.676	0.050	1.733	0.000	0.000	0.000	98.712	GN	ST	NK				10.780		
016653	8-A12	SU 151	48.356	0.043	0.000	0.008	2.349	0.000	47.811	0.000	0.068	0.000	0.000	0.000	98.636	PCA	IL-FE	NK				0.140		
015859	8-C14	SU 53	2.312	1.105	23.593	0.372	0.107	54.051	0.000	0.538	17.709	0.000	0.000	0.000	99.787	CD	CPX	K				88.453		
022003	8-E1	SU 31	3.452	0.610	24.813	0.438	0.112	53.374	0.090	0.585	15.843	0.000	0.000	0.000	99.318	CD	CPX	K				82.111		
020005	3-L8	SU 191	47.896	0.040	0.001	0.005	0.557	0.021	51.736	0.028	0.186	0.000	0.000	0.000	100.469				100.723	45.615	2.535	0.686	5.305	1.000
020005	3-L7	SU 191	11.544	56.584	0.006	0.004	0.186	28.176	0.621	0.186	1.560	0.000	0.000	0.000	98.865	OG	STAUROLITE	NK				11.908		
015537	103-B19	SU 56	7.682	18.647	5.605	0.031	0.331	40.010	0.437	6.016	20.140	0.000	0.000	0.000	98.898	PY	PY 1/9/11	K	99.240	4.612	3.412	82.373	-1.252	0.517
041842	103-E14	SU 189	7.423	20.986	4.700	0.038	0.319	41.014	0.000	3.604	21.193	0.000	0.000	0.000	99.277	PY	PY G9	K	99.583	4.667	3.063	83.577	-2.427	0.552
015537	103-B20	SU 56	1.693	0.833	23.671	0.942	0.080	52.683	0.013	1.422	16.893	0.000	0.000	0.000	98.231	CD	CD (G3)	K				90.891		
041842	103-E13	SU 189	7.952	0.017	0.011	0.005	0.080	39.890	0.039	0.039	50.960	0.000	0.000	0.000	99.564	OL	OL	PK				86.502		
041842	103-E15	SU 189	9.416	0.000	0.007	0.011	0.136	39.601	0.000	0.050	49.922	0.000	0.000	0.000	99.142	OL	OL	PK				84.132		
041842	103-F01	SU 189	2.833	1.272	21.112	1.039	0.101	53.841	0.000	0.761	17.604	0.000	0.000	0.000	98.564	CD	CD G5					86.139		

SU CLAIMS
Electron Microprobe Data

Sample#	Grain#	Claim Name	FeO Total	Al2O3	CaO	Na2O	MnO	SiO2	TiO2	Cr2O3	MgO	V2O5	ZnO	NiO	TOTAL	Sent As	Min	K	RSUM	Recalc FeO	Recalc Fe2O3	Mg#	Cr#	Fe#
041842	103-F02	SU 189	2.100	0.535	22.146	1.301	0.083	53.424	0.996	1.770	16.986	0.000	0.000	0.000	99.339	CD	CD G3	K				88.999		
041842	103-F03	SU 189	2.659	1.559	20.498	1.343	0.092	53.824	0.746	1.229	17.425	0.000	0.000	0.000	99.374	CD	CD 2/3/5	K				86.760		
017048	108-I11	SU 38	8.866	21.425	4.973	0.047	0.369	41.065	0.669	1.600	20.624	0.000	0.000	0.000	99.639	PY	PY G1	K	99.972	5.877	3.322	80.568	-4.656	0.582
051261	108-I15	SU 29	4.754	3.282	20.876	0.213	0.119	50.847	0.404	1.244	17.054	0.000	0.000	0.000	98.791	CD	CD (G2D)	K				78.202		
041592	109-A14	SU 29	4.449	1.593	22.558	0.694	0.223	52.642	0.020	0.954	15.803	0.000	0.000	0.000	98.937	CD	CD (G5)	K				78.033		
044073	110-B20	SU 189	2.753	1.576	20.827	1.339	0.084	53.591	0.689	1.222	17.117	0.000	0.000	0.000	99.196	CD	CD 2/3/5	K				86.144		
041689	82-J06	SU 133	47.139	0.023	0.000	0.000	0.687	0.021	50.485	0.007	0.272	0.930	0.000	0.034	99.599	IL	Fe IL	NK	99.761	45.680	1.622	1.050	0.011	0.032
041689	79-I01	SU 133	46.976	0.053	0.000	0.000	0.501	0.024	49.214	0.000	0.274	1.191	0.072	0.000	98.303	IL	Fe IL	NK	98.512	45.106	2.078	1.070	0.000	0.041
041629	79-J08	SU 201	47.092	0.051	0.011	0.000	0.502	0.019	49.526	0.039	0.176	0.400	0.000	0.017	97.833	IL	Fe IL	NK	98.139	44.338	3.060	0.702	0.073	0.062
039822	57-H3	SU 4	48.264	0.004	0.006	0.000	1.198	0.032	51.501	0.031	0.163	0.291	0.067	0.000	101.554	IL	Fe IL	NK	101.892	45.240	3.360	0.636	0.025	0.067
041883	57-F8	SU 17	42.270	2.853	0.000	0.000	0.213	0.094	2.018	44.409	6.411	0.225	0.095	0.145	98.732	CHR	CR	K	100.712	24.499	19.750	31.807	0.913	0.279
016254	15-A5	SU 111	48.340	0.025	0.035	0.000	0.488	0.024	49.521	0.000	0.366	0.534	0.000	0.000	99.331	IL	IL-FE	NK	99.791	44.210	4.589	1.456	0.000	0.093
016724	9-A10	SU 80	89.927	0.465	0.014	0.000	0.036	0.039	0.000	0.028	0.000	0.146	0.000	0.023	90.677	OX	MAGNETITE	NK	97.296	30.483	66.063	0.000	0.039	0.989
019684	8-A5	SU 73	48.943	0.057	0.001	0.000	0.359	0.013	49.662	0.000	0.521	0.527	0.000	0.000	100.081	IL	IL-FE	NK	100.609	44.213	5.257	2.056	0.000	0.107
016728	8-B7	SU 42	94.043	0.093	0.000	0.000	0.019	0.013	0.075	0.076	0.012	0.453	0.000	0.042	94.826	IL	MAGNETITE	NK	101.700	32.308	68.610	0.064	0.355	0.997
022133	5-A6	SU 188	48.551	0.057	0.000	0.000	0.502	0.000	51.003	0.000	0.235	0.000	0.000	0.363	100.856	OX	IL	NK	101.153	44.588	4.404	0.933	0.000	0.089
022133	5-A7	SU 188	49.141	0.008	0.042	0.000	0.479	0.013	50.738	0.000	0.265	0.000	0.000	0.302	101.108	OX	IL	NK	101.522	44.340	5.336	1.055	0.000	0.108
019846	5-B5	SU 20	48.263	0.064	0.010	0.000	0.554	0.002	51.205	0.029	0.332	0.005	0.000	0.368	100.978	OX	IL	NK	101.247	44.539	4.138	1.310	0.050	0.084
016254	3-C12	SU 111	49.544	0.070	0.000	0.000	0.449	0.013	50.817	0.096	0.320	0.000	0.000	0.000	101.316	IL	Fe IL	NK	101.850	44.687	5.398	1.260	0.177	0.109
016736	2-D5	SU 159	74.846	1.438	0.042	0.000	0.012	7.763	0.000	0.000	0.020	0.000	0.000	0.000	84.209	OX	LOW		88.231	37.935	41.021	0.093	0.000	0.948
015875	4-J11	SU 207	49.090	0.079	0.000	0.000	0.444	0.000	50.435	0.000	0.652	0.000	0.000	0.000	100.698	OX	Fe IL	NK	101.295	43.742	5.943	2.587	0.000	0.122
015875	4-J13	SU 207	48.728	0.038	0.020	0.000	0.559	0.047	51.037	0.000	0.090	0.000	0.000	0.000	100.519	OX	Fe IL	NK	100.911	45.200	3.921	0.352	0.000	0.078
041842	103-L09	SU 189	27.613	0.497	0.043	0.000	0.186	0.056	55.664	1.001	14.301	0.207	0.408	0.000	100.092	IL	Mg IL	K	100.339	24.355	3.621	51.140	0.843	0.134
041842	103-L10	SU 189	27.362	0.442	0.013	0.000	0.331	0.043	56.264	0.953	14.362	0.171	0.443	0.127	100.650	IL	Mg IL	K	100.836	24.453	3.233	51.145	0.742	0.119
041842	103-L11	SU 189	28.987	0.302	0.008	0.000	0.302	0.045	55.587	0.390	14.046	0.095	0.437	0.017	100.375	IL	Mg IL	K	100.723	24.436	5.058	50.606	0.564	0.186
041842	103-L12	SU 189	26.761	0.340	0.022	0.000	0.382	0.006	56.016	0.740	14.702	0.289	0.403	0.027	99.778	IL	Mg IL	K	100.016	23.833	3.254	52.371	0.659	0.123
041842	103-L13	SU 189	26.617	0.614	0.011	0.000	0.247	0.036	55.529	1.196	14.961	0.253	0.416	0.037	100.021	IL	Mg IL	K	100.315	23.045	3.971	53.643	0.829	0.155
041888	103-J03	SU 53	16.899	28.565	0.000	0.000	0.111	0.265	0.499	36.301	15.009	0.412	0.066	0.153	98.184	CR	CR	NK	98.578	14.221	2.976	65.292	0.460	0.035
051083	109-I04	SU 233	32.524	11.898	0.013	0.000	0.114	0.096	1.316	43.617	8.041	0.366	0.251	0.165	98.400	CR	CR	K	99.497	22.683	10.936	38.720	0.711	0.145

SU CLAIMS
Electron Microprobe Data

Sample#	Grain#	Claim Name	FeO Total	Al2O3	CaO	Na2O	MnO	SiO2	TiO2	Cr2O3	MgO	V2O5	ZnO	NiO	TOTAL	Sent As	Min	K	RSUM	Recalc FeO	Recalc Fe2O3	Mg#	Cr#	Fe#
041867	82-A11	SU 16	1.268	22.369	36.522	0.012	0.542	38.861	0.000	0.029	0.045	0.000	0.000	0.000	99.648	OL	GROSS	NK	99.905	-1.032	2.556	5.919	-6.457	0.026
041946	82-A02	SU 100	5.323	1.580	22.079	0.670	0.208	52.610	0.374	0.886	15.654	0.000	0.000	0.000	99.384	CD	CD	K				74.623		
041947	82-A07	SU 100	28.002	0.119	32.969	0.007	0.172	34.484	0.043	0.000	0.144	0.000	0.000	0.000	95.939	OL	GN	NK				0.513		
041719	82-F04	SU 158	2.079	1.604	25.248	0.255	0.087	53.550	0.063	0.000	17.317	0.000	0.000	0.000	100.203	OL	DIOPSIDE	NK				89.282		
041691	80-F02	SU 133	1.765	1.476	28.146	0.020	0.015	29.678	35.739	0.054	0.028	0.000	0.000	0.000	96.922	OL-1	SPHENE	NK				1.572		
041691	80-F03	SU 133	0.991	1.385	28.597	0.004	0.000	29.944	35.883	0.025	0.002	0.000	0.000	0.000	96.829	OL-2	SPHENE	NK				0.167		
041691	80-F04	SU 133	0.000	0.000	0.000	0.000	0.000	35.648	0.354	0.000	0.008	0.000	0.000	0.000	36.010	OL-3	LOW TOT	NK				100.000		
041691	80-F05	SU 133	0.656	1.383	28.487	0.004	0.000	30.032	36.912	0.042	0.000	0.000	0.000	0.000	97.517	OL-4	SPHENE	NK				0.000		
041686	78-F13	SU 125	5.073	2.071	22.250	0.500	0.177	51.838	0.000	0.894	15.730	0.000	0.000	0.000	98.533	CD	CD [G5]	K				75.616		
041685	79-C01	SU 125	26.760	1.005	33.691	0.004	0.168	34.708	0.040	0.051	0.050	0.000	0.000	0.000	96.478	OL-1	GROSS	NK	99.670	-1.908	31.860	0.330	-5.132	0.383
041685	79-C02	SU 125	28.290	0.008	33.783	0.000	0.123	34.655	0.000	0.032	0.025	0.000	0.000	0.000	96.915	OL-2	GROSS	NK	100.289	-2.008	33.672	0.156	-5.139	0.395
041569	79-D14	SU 38	30.867	21.483	6.768	0.022	0.691	37.307	0.158	0.031	3.451	0.000	0.000	0.000	100.777	EG	EG (G3/G4)	PNK	100.975	29.086	1.979	16.616	-5.914	0.781
041600	79-E06	SU 20	1.402	22.262	37.108	0.004	0.266	38.873	0.000	0.000	0.104	0.000	0.000	0.000	100.020	OL	GROSS	NK	100.347	-1.538	3.267	11.723	-6.516	0.029
040000	79-D05	SU 146	1.055	63.813	0.001	0.004	0.021	36.588	0.000	0.000	0.000	0.000	0.000	0.000	101.481	EN	KYANITE	NK				0.000		
041569	79-D15	SU 38	3.641	0.620	24.936	0.198	0.398	53.362	0.210	0.000	16.259	0.000	0.000	0.000	99.624	EN	CPx	NK				81.705		
015548	61-C3	SU 108	4.034	3.626	18.702	0.481	0.077	51.746	0.611	0.947	18.739	0.000	0.000	0.000	98.962	CD	CD(G2)	PK				82.284		
041928	57-G1	SU 25	3.812	3.344	21.178	0.139	0.089	51.658	0.254	1.137	18.045	0.000	0.000	0.000	99.656	CD	CD (G2)	PK				82.560		
041592	57-H8	SU 29	3.673	1.587	22.881	0.520	0.129	53.002	0.000	0.798	16.143	0.000	0.000	0.000	98.734	CD	GN	PK				81.465		
041679	54-C1	SU 111	4.676	1.171	22.573	0.402	0.161	52.456	0.604	0.384	16.681	0.000	0.000	0.000	99.109	CD	G3 CPX	PK				78.104		
017086	46-L12	SU 29	2.316	3.985	24.514	0.047	0.864	50.100	0.617	0.000	16.125	0.000	0.000	0.000	98.567	OL	CPx	PK				87.443		
016690	35-K10	SU 55	6.148	0.743	22.127	0.406	0.270	52.690	0.000	0.384	15.636	0.000	0.000	0.000	98.403	CD	CPX	NK				71.777		
019879	25-J10	SU 14	0.000	55.416	0.008	0.000	0.006	32.585	0.000	0.015	0.002	0.000	0.000	0.000	88.032	OL		NK				100.000		
020005	22-D1	SU 191	5.879	0.448	24.703	0.160	3.291	51.549	0.000	0.025	12.568	0.000	0.000	0.000	98.623	OL	PXNE	PNK				68.130		
019683	23-A7	SU 48	30.007	20.928	7.069	0.000	1.839	36.607	0.000	0.044	2.768	0.000	0.000	0.000	99.261	EG			99.492	27.926	2.313	14.119	-5.673	0.768
016675	21-D11	SU 65	4.279	1.073	23.310	0.429	0.120	53.237	0.000	0.311	16.331	0.000	0.000	0.000	99.091	CD	CD/DIOP	K				79.239		
019747	15-F1	SU 29	4.323	20.185	36.477	0.012	0.124	37.985	0.652	0.000	0.076	0.000	0.000	0.000	99.834	OL	EPIDOTE	NK	100.434	-1.067	5.990	3.050	-6.373	0.085
022137	15-C9	SU 189	4.788	2.570	23.085	0.390	0.141	51.392	0.550	0.342	15.914	0.000	0.000	0.000	99.173	CD	CD	K				76.871		
015858	15-C12	SU 54	3.901	0.966	23.159	0.468	0.168	53.068	0.417	0.541	16.865	0.000	0.000	0.000	99.552	CD	CD	NK				81.216		
015782	15-E5	SU 111	4.023	1.141	23.154	0.474	0.154	52.942	0.007	0.484	16.964	0.000	0.000	0.000	99.343	CD	CD	K				80.832		
016569	15-E7	SU 85	4.315	1.502	22.369	0.621	0.234	52.527	0.123	1.039	16.389	0.000	0.000	0.000	99.119	CD	CD	K				79.159		
019746	15-E12	SU 28	3.329	8.497	12.730	1.163	0.070	47.782	0.000	2.184	19.281	0.000	0.000	0.000	95.035	CD	CD	K				85.275		
019946	15-F3	SU 14	3.811	2.471	22.923	0.857	0.152	52.454	0.000	0.618	15.866	0.000	0.000	0.000	99.153	CD	CD	K				80.634		
019977	15-F9	SU 17	4.252	1.462	23.769	0.656	0.243	52.754	0.000	0.818	15.515	0.000	0.000	0.000	99.470	CD	CD	K				78.490		
016554	17-F3	SU 4	3.166	1.470	23.133	0.842	0.111	53.462	0.005	0.678	16.470	0.000	0.000	0.000	99.137	CD	DIOP[G2]	K				83.876		
019685	17-F12	SU 73	2.390	0.414	23.895	0.419	0.072	54.406	0.000	0.617	17.926	0.000	0.000	0.000	100.140	CD	CD	K				88.235		
016604	8-A11	SU 12	14.342	54.904	0.000	0.015	0.142	26.851	0.676	0.050	1.733	0.000	0.000	0.000	98.712	GN	ST	NK				10.780		
016653	8-A12	SU 151	48.356	0.043	0.000	0.008	2.349	0.000	47.811	0.000	0.068	0.000	0.000	0.000	98.636	PCA	IL-FE	NK				0.140		
015859	8-C14	SU 53	2.312	1.105	23.593	0.372	0.107	54.051	0.000	0.538	17.709	0.000	0.000	0.000	99.787	CD	CPX	K				88.453		
022003	8-E1	SU 31	3.452	0.610	24.813	0.438	0.112	53.374	0.090	0.585	15.843	0.000	0.000	0.000	99.318	CD	CPX	K				82.111		
020005	3-L8	SU 191	47.896	0.040	0.001	0.005	0.557	0.021	51.736	0.028	0.186	0.000	0.000	0.000	100.469				100.723	45.615	2.535	0.686	5.305	1.000
020005	3-L7	SU 191	11.544	56.584	0.006	0.004	0.186	28.176	0.621	0.186	1.560	0.000	0.000	0.000	98.865	OG	STAUROLITE	NK				11.908		
015537	103-B19	SU 56	7.682	18.647	5.605	0.031	0.331	40.010	0.437	6.016	20.140	0.000	0.000	0.000	98.898	PY	PY 1/9/11	K	99.240	4.612	3.412	82.373	-1.252	0.517
041842	103-E14	SU 189	7.423	20.986	4.700	0.038	0.319	41.014	0.000	3.604	21.193	0.000	0.000	0.000	99.277	PY	PY G9	K	99.583	4.667	3.063	83.577	-2.427	0.552
015537	103-B20	SU 56	1.693	0.833	23.671	0.942	0.080	52.683	0.013	1.422	16.893	0.000	0.000	0.000	98.231	CD	CD (G3)	K				90.891		
041842	103-E13	SU 189	7.952	0.017	0.011	0.005	0.080	39.890	0.609	0.039	50.960	0.000	0.000	0.000	99.564	OL	OL	PK				86.502		
041842	103-E15	SU 189	9.416	0.000	0.007	0.011	0.136	39.601	0.000	0.050	49.922	0.000	0.000	0.000	99.142	OL	OL	PK				84.132		
041842	103-F01	SU 189	2.833	1.272	21.112	1.039	0.101	53.841	0.000	0.761	17.604	0.000	0.000	0.000	98.564	CD	CD G5					86.139		

SU CLAIMS
Electron Microprobe Data

Sample#	Grain#	Claim Name	FeO Total	Al2O3	CaO	Na2O	MnO	SiO2	TiO2	Cr2O3	MgO	V2O5	ZnO	NiO	TOTAL	Sent As	Min	K	RSUM	Recalc FeO	Recalc Fe2O3	Mg#	Cr#	Fe#
041842	103-F02	SU 189	2.100	0.535	22.146	1.301	0.083	53.424	0.996	1.770	16.986	0.000	0.000	0.000	99.339	CD	CD G3	K				88.999		
041842	103-F03	SU 189	2.659	1.559	20.498	1.343	0.092	53.824	0.746	1.229	17.425	0.000	0.000	0.000	99.374	CD	CD 2/3/5	K				86.760		
017048	108-I11	SU 38	8.866	21.425	4.973	0.047	0.369	41.065	0.669	1.500	20.624	0.000	0.000	0.000	99.639	PY	PY G1	K	99.972	5.877	3.322	80.568	-4.656	0.582
051261	108-I15	SU 29	4.754	3.282	20.876	0.213	0.119	50.847	0.404	1.244	17.054	0.000	0.000	0.000	98.791	CD	CD (G2D)	K				78.202		
041592	109-A14	SU 29	4.449	1.593	22.558	0.694	0.223	52.642	0.020	0.954	15.803	0.000	0.000	0.000	98.937	CD	CD (G5)	K				78.033		
044073	110-B20	SU 189	2.753	1.576	20.827	1.339	0.084	53.591	0.689	1.222	17.117	0.000	0.000	0.000	99.196	CD	CD 2/3/5	K				86.144		
041689	82-J06	SU 133	47.139	0.023	0.000	0.000	0.687	0.021	50.485	0.007	0.272	0.930	0.000	0.034	99.599	IL	Fe IL	NK	99.761	45.680	1.622	1.050	0.011	0.032
041689	79-I01	SU 133	46.976	0.053	0.000	0.000	0.501	0.024	49.214	0.000	0.274	1.191	0.072	0.000	98.303	IL	Fe IL	NK	98.512	45.106	2.078	1.070	0.000	0.041
041629	79-J08	SU 201	47.092	0.051	0.011	0.000	0.502	0.019	49.526	0.039	0.176	0.400	0.000	0.017	97.833	IL	Fe IL	NK	98.139	44.338	3.060	0.702	0.073	0.062
039822	57-H3	SU 4	48.264	0.004	0.006	0.000	1.198	0.032	51.501	0.031	0.163	0.291	0.067	0.000	101.554	IL	Fe IL	NK	101.892	45.240	3.360	0.636	0.025	0.067
041883	57-F8	SU 17	42.270	2.853	0.000	0.000	0.213	0.094	2.018	44.409	6.411	0.225	0.095	0.145	98.732	CHR	CR	K	100.712	24.499	19.750	31.807	0.913	0.279
016254	15-A5	SU 111	48.340	0.025	0.035	0.000	0.488	0.024	49.521	0.000	0.366	0.534	0.000	0.000	99.331	IL	IL-FE	NK	99.791	44.210	4.589	1.456	0.000	0.093
016724	9-A10	SU 80	89.927	0.465	0.014	0.000	0.036	0.039	0.000	0.028	0.000	0.146	0.000	0.000	100.081	IL	IL-FE	NK	99.791	44.210	4.589	1.456	0.000	0.093
019684	8-A5	SU 73	48.943	0.057	0.001	0.000	0.359	0.013	49.662	0.000	0.521	0.527	0.000	0.000	90.677	OX	MAGNETITE	NK	97.296	30.483	66.063	0.000	0.039	0.989
016728	8-B7	SU 42	94.043	0.093	0.000	0.000	0.019	0.013	0.075	0.076	0.012	0.453	0.000	0.042	94.826	IL	MAGNETITE	NK	100.609	44.213	5.257	2.056	0.000	0.107
022133	5-A6	SU 188	48.551	0.057	0.000	0.000	0.502	0.000	51.003	0.000	0.235	0.000	0.000	0.363	100.856	OX	IL	NK	101.153	44.588	4.404	0.933	0.000	0.089
022133	5-A7	SU 188	49.141	0.008	0.042	0.000	0.479	0.013	50.738	0.000	0.265	0.000	0.000	0.302	101.108	OX	IL	NK	101.522	44.340	5.336	1.055	0.000	0.108
019846	5-B5	SU 20	48.263	0.064	0.010	0.000	0.554	0.002	51.205	0.029	0.332	0.005	0.000	0.368	100.978	OX	IL	NK	101.247	44.539	4.138	1.310	0.050	0.084
016254	3-C12	SU 111	49.544	0.070	0.000	0.000	0.449	0.013	50.817	0.096	0.320	0.000	0.000	0.000	101.316	IL	Fe IL	NK	101.850	44.687	5.398	1.260	0.177	0.109
016736	2-D5	SU 159	74.846	1.438	0.042	0.000	0.012	7.763	0.000	0.000	0.020	0.000	0.000	0.000	84.209	OX	LOW		88.231	37.935	41.021	0.093	0.000	0.948
015875	4-J11	SU 207	49.090	0.079	0.000	0.000	0.444	0.000	50.435	0.000	0.652	0.000	0.000	0.000	100.698	OX	Fe IL	NK	101.295	43.742	5.943	2.587	0.000	0.122
015875	4-J13	SU 207	48.728	0.038	0.020	0.000	0.559	0.047	51.037	0.000	0.090	0.000	0.000	0.000	100.519	OX	Fe IL	NK	100.911	45.200	3.921	0.352	0.000	0.078
041842	103-L09	SU 189	27.613	0.497	0.043	0.000	0.186	0.056	55.664	1.001	14.301	0.207	0.408	0.000	100.092	IL	Mg IL	K	100.339	24.355	3.621	51.140	0.843	0.134
041842	103-L10	SU 189	27.362	0.442	0.013	0.000	0.331	0.043	56.264	0.953	14.362	0.171	0.443	0.127	100.650	IL	Mg IL	K	100.836	24.453	3.233	51.145	0.742	0.119
041842	103-L11	SU 189	28.987	0.302	0.008	0.000	0.302	0.045	55.587	0.390	14.046	0.095	0.437	0.017	100.375	IL	Mg IL	K	100.723	24.436	5.058	50.606	0.564	0.186
041842	103-L12	SU 189	26.761	0.340	0.022	0.000	0.382	0.006	56.016	0.740	14.702	0.289	0.403	0.027	99.778	IL	Mg IL	K	100.016	23.833	3.254	52.371	0.659	0.123
041842	103-L13	SU 189	26.617	0.614	0.011	0.000	0.247	0.036	55.529	1.196	14.961	0.253	0.416	0.037	100.021	IL	Mg IL	K	100.315	23.045	3.971	53.643	0.829	0.155
041888	103-J03	SU 53	16.899	28.565	0.000	0.000	0.111	0.265	0.499	36.301	15.009	0.412	0.066	0.153	98.184	CR	CR	NK	98.578	14.221	2.976	65.292	0.460	0.035
051083	109-I04	SU 233	32.524	11.898	0.013	0.000	0.114	0.096	1.316	43.617	8.041	0.366	0.251	0.165	98.400	CR	CR	K	99.497	22.683	10.936	38.720	0.711	0.145