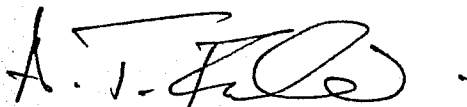


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ORE RESERVE STUDY  
of the  
MOUNT SKUKUM PROJECT  
SOUTHERN YUKON  
for  
AGIP CANADA LTD

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INTRODUCTION

AGIP Canada Ltd (AGIP) of Calgary, Alberta, identified gold bearing anomalies on the northern slopes of Mount Skukum, Southern Yukon, early in 1981 during a surface sampling programme. Subsequent to discovery of the anomalies a limited diamond drilling programme in 1982 confirmed that the gold mineralization continued to depth and further diamond drilling of the property was planned for the summer of 1983.

By the end of the 1983 drilling season, about 8,000 metres of drilling had been completed. This drilling had been concentrated mainly on a single quartz vein structure although several other vein structures had been identified by that time. High grade gold occurrences were identified in the quartz of the vein structure drilled.

This study was commissioned by AGIP Canada Ltd subsequent to the completion of the 1983 exploration programme. The purpose of this study is to:

- (a) review all available exploration information;
- (b) identify methods suited to computation of the ore reserves;

- (c) compute the ore reserve identified by exploratory drilling during the 1982-83 drilling campaigns;
- (d) consider mining and milling methods suited to the mineralized zone and from this to estimate the cost of recovery of gold and thereby to identify the cut-off grade of the ore reserve; and
- (e) prepare a report evaluating the available data, outlining conclusions permitted by these data and suggesting requirements for future exploration.

SUMMARY

The Mount Skukum deposit, situated in the Southern Yukon has been explored by two diamond drilling programmes during the summers of 1982 and 1983.

In total 8,000 metres of drilling have been completed and recovery of core has been in excess of 95%. The drilling has been concentrated on a single quartz vein structure known as the Main Zone, and has largely delineated a shoot of gold mineralization which is about 200 metres in length, extends over a vertical height of about 80 metres and has an average thickness of about 5 metres.

Calculation of the ore reserve contained in the mineralized deposit drilled to date indicates that the Main Zone contains about 211,000 tonnes of ore which has a grade of 21 grammes gold per tonne and 22 grammes silver per tonne. This reserve includes a dilution factor of 30%. This is the amount of low grade material which it is estimated will become mixed with the ore during the mining process and which will become part of the mill feed material.

In this calculation, a cut off grade of 7 grammes per tonne has been used. At a gold price of US \$400 per ounce and an estimated

recovery of 90% this indicates a revenue of about \$108 per tonne which is about the cost level which can be anticipated at a production rate of 300 tonnes of ore milled per day.

The Main Ore Shoot appears to be largely delineated by the drilling completed to date. It is not expected that the Main Ore Shoot will extend further on strike or to significantly greater depth.

Other quartz veins which have been identified within a few hundred metres of the Main Zone have been shown by surface sampling to carry gold values which are apparently of similar grade to those of the Main Zone. It is planned that certain of these zones will be drilled during the summer of 1984.

It is also recommended that sufficient check drilling of the Main Zone be completed during the summer of 1984 to confirm the tonnage and grade of sections 0-75S and 1+50S which carry about 60% of the gold identified to date.

This study has been based entirely upon samples of the drill core selected by members of the AGIP exploration team and on assays completed by two reputable Vancouver assay laboratories. All significant assays were completed and checked by fire assay methods.

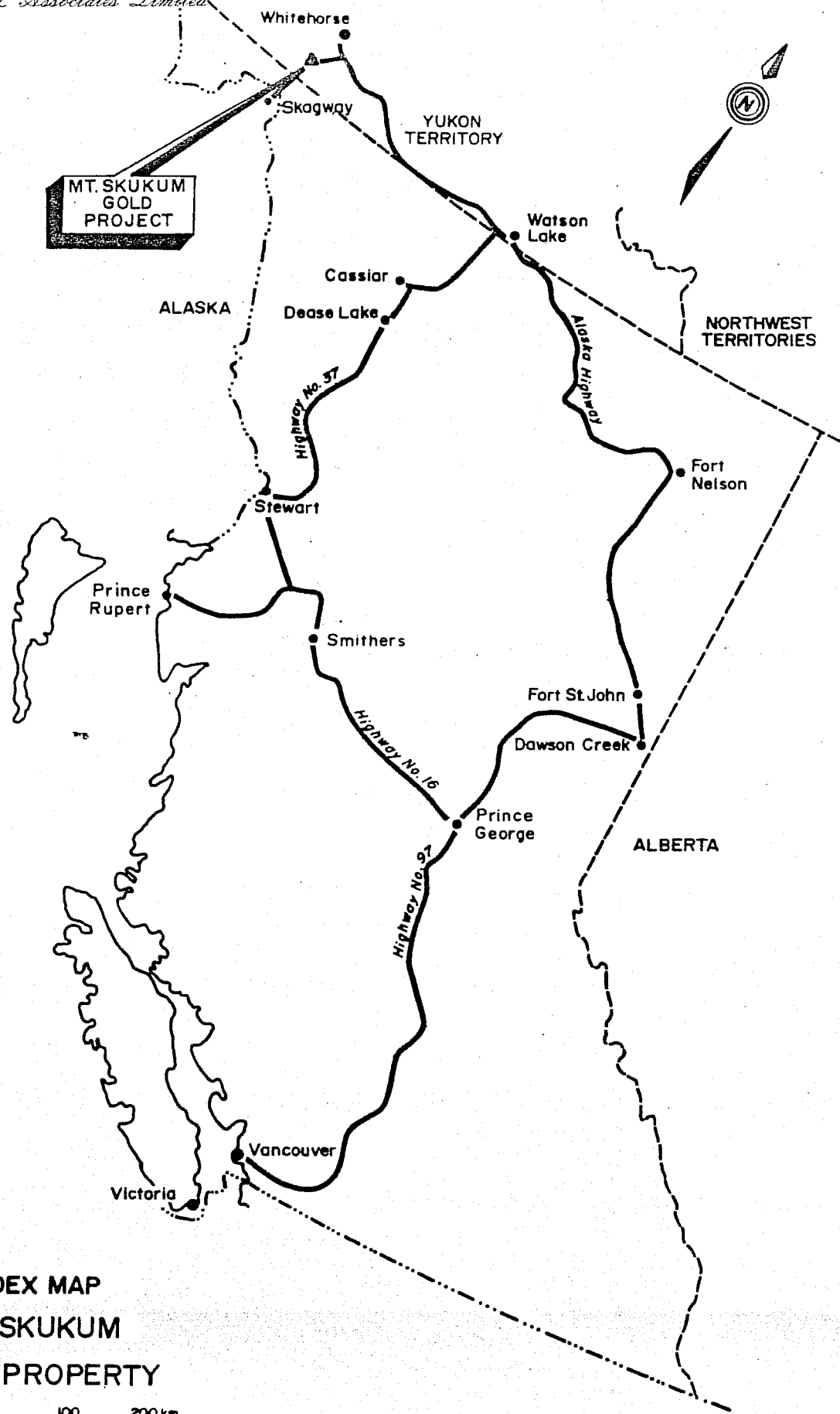
In view of the unusually high grade of the material identified to date, it is recommended that independent sampling and assaying of the core recovered in 1982 and 1983 be completed as part of the 1984 exploration programme.

The ore identified to date appears to be free milling and to contain no significant amounts of deleterious elements such as arsenic, antimony, bismuth or mercury.

This report was prepared without a visit to the site by the author, although he is familiar with the general area.

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**MT. SKUKUM  
GOLD  
PROJECT**



**INDEX MAP  
MT. SKUKUM  
GOLD PROPERTY**

100 50 0 100 200 km  
SCALE 1:7,500,000

FIGURE 1

## THE PROPERTY

### LOCATION

The gold mineralization at Mount Skukum is situated approximately 60 kilometres south-south west of Whitehorse, capital city of the Yukon. The deposit lies at 135 degrees 8 minutes longitude and 60 degrees 12 minutes latitude at an altitude of about 1,700 metres in the Coast Belt of the Canadian Cordillera. The location of the property relative to Vancouver and to Whitehorse is shown in Figure 1.

### TOPOGRAPHY

The deposit is located on the north side of Mount Skukum (2,385 metres) which is the highest mountain in the area. The mineralized zone has been identified in a U shaped hanging valley which opens to the north and lies in a north-south direction. The properties consist of 477 claims comprising an area of 9,900 hectares between the headwaters of the Watson and Wheaton rivers.

The mineralized environment identified to date is well above tree line which at this latitude is about 1,200 metres above sea level. Little vegetation of any description occurs in the mineralized area.

TABLE I

**METEOROLOGICAL DATA FOR WHITEHORSE AIRPORT**  
 (Latitude 60° 43' N)  
 (Longitude 135° 4' W)  
 (Elevation 698 m ASL)

	<u>Jan</u>	<u>Feb</u>	<u>Mar.</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Year</u>	<u>Type</u>
Mean Daily Temperature (Deg. C)	-18.9	-13.2	-7.7	-0.1	7.1	12.4	14.0	12.3	7.8	0.7	-9.0	-15.8	-0.8	2
Mean Daily Maximum Temperature	-14.7	-8.4	-2.1	5.1	13.1	18.7	20.0	18.1	12.5	4.3	-5.6	-11.9	4.1	2
Mean Daily Minimum Temperature	-23.1	-17.9	-13.3	-5.3	1.1	5.9	8.1	6.6	3.0	-3.0	-12.4	-19.7	-5.8	2
Extreme Maximum Temperature	8.9	11.7	11.1	20.6	30.0	34.4	32.8	30.0	26.7	18.9	11.7	8.3	34.4	2
No. of Years of Record	28	28	28	29	29	29	29	29	29	29	29	29	29	
Extreme Minimum Temperature	-52.2	-51.1	-38.3	-26.1	-11.7	-1.7	0.0	-4.4	-10.0	-24.4	-40.6	-47.8	-52.2	2
No. of Years of Record	28	28	28	29	29	29	29	29	29	29	29	29	29	
No. of Days with Frost	31	28	30	28	13	1		1	7	21	28	31	219	2
Mean Rainfall (mm)	T	T	T	0.5	11	28	33	36	25	7	1.5	0.3	142	2
Mean Snowfall	206	150	165	107	28	5	0	3	38	137	231	208	1278	2
Mean Total Precipitation	19	14	15	11	13	29	33	36	29	20	22	20	260	2
Greatest Rainfall in 24 hours	0.5	0.3	0.8	4	12	30	21	31	20	18	9	1.5	31	2
No. of Years of Record	27	28	28	28	29	29	29	29	29	29	29	29	29	
Greatest Snowfall in 24 hours	140	104	272	142	122	51	0	46	216	122	142	109	272	2
No. of Years on Record	28	28	28	29	29	29	29	29	29	29	29	29	29	
Greatest Precipitation in 24 hours	9	10	10	14	12	30	21	31	22	24	11	11	31	2
No. of Years on Record	28	28	28	29	29	29	29	29	29	29	29	29	29	
No. of Days with Measurable Rain				1	4	9	11	10	9	3	1		48	2
No. of Days with Measurable Snow	13	10	8	5	2				1	7	12	13	71	2
No. of Days with Measurable Precipitation	13	10	8	6	6	9	11	10	10	9	13	13	118	2

### ACCESS

The site can be reached by four-wheel drive pick up vehicles, however conventional two-wheel drive pick up vehicles can reach to about 14 kilometres from the site along the Alaska Highway from Whitehorse and thence by Highway 5 to Robinson and along an access road to the now derelict site of Yukon Antimony Mine which lies to the east of Mount Skukum.

Access to the site in summer is relatively easy except for crossing of the Wheaton River. In winter access to the site is confined to helicopters, mainly because the limited snowfall is not cleared from the access road on a routine basis at the present time.

When the project is brought to production it is not anticipated that winter access will pose any undue problem.

### CLIMATE

Mount Skukum is situated some 50 kilometres south of Whitehorse Airport, the closest location for which extensive meteorological data are kept. It must be noted however that the elevation of Whitehorse Airport is about 700 metres while that of the mineralized zone on Mount Skukum is about 1700 metres, nearly 1,000 metres higher. It must be expected therefore that temperature variations, rainfall, snowfall and wind velocities on Mount

Skukum will be considerably more severe than at Whitehorse.  
Meterological data for Whitehorse Airport is presented in Table  
I.

EXPLORATION HISTORY

There is no record of any early discovery of quartz veins in the immediate vicinity of the mineralized zone now being explored, although there has been substantial prospecting activity throughout the region since the time of the original Yukon gold discoveries in the late 1800's. It is thought that the quartz veins of the Mount Skukum area attracted little attention from the early prospectors since they recognised that the veins were high in calcite and thus may have concluded that the quartz structures did not contain gold. The fact that the gold is now known to occur in the veins in very fine form and is not readily identifiable by the naked eye may have further contributed to early disinterest in the veins.

In 1980 AGIP carried out a regional geochemical survey and followed this in 1981 by a programme of detailed geochemical ground survey combined with trenching and mapping of areas of special interest.

The 1981 programme gave sufficient encouragement for a drilling programme to be undertaken in 1982, when a total of 27 diamond drill holes were completed. Seven of the holes encountered quartz veining of mineable width and ore grade gold content.

The 1983 programme was concentrated on the Main Zone identified in 1982. By the end of the 1983 programme a total of about 8,000 metres had been drilled. It appeared from this drilling that the ore shoot of the Main Zone had been largely delineated, but other known quartz structures in the area still have not been drilled. Surface sampling of these veins indicates the presence of gold mineralization in these veins.

GEOLOGY

REGIONAL GEOLOGY

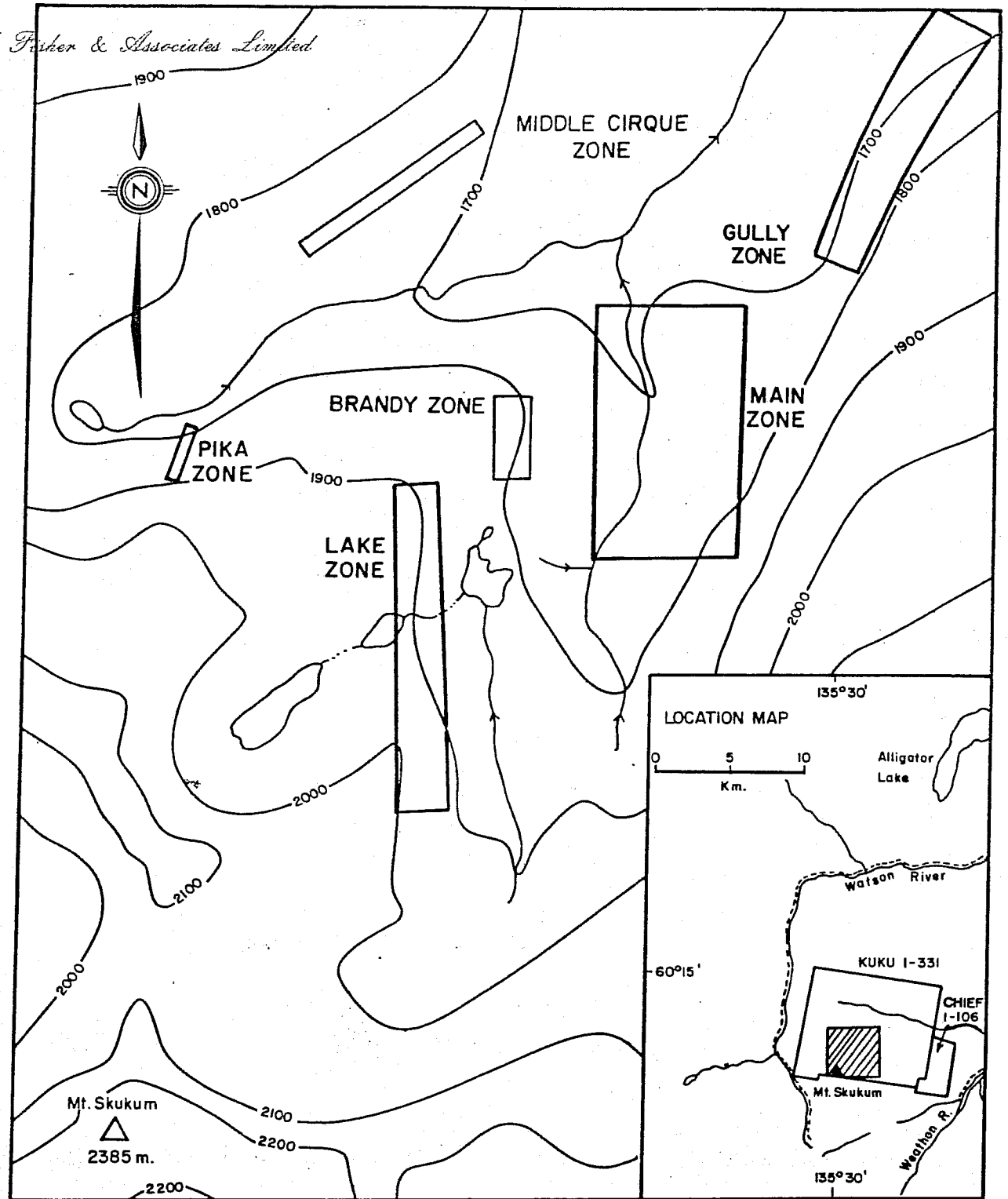
The regional geology is characterised by the remnants of 8 kilometres by 17 kilometres of intermediate and felsic volcanic rocks of Tertiary age which belong to the Skukum Group. The volcanic members are flat lying to gently dipping and appear to have been extruded from several volcanic centres. The main flow type is andesite with pyroclastics well developed near eruption centres.

The volcanic complex was extruded upon a late Precambrian schist complex and preserved by general cauldrea subsidence and down faulting. The major east trending Berney Creek Fault bounding the south side of the Mount Skukum remnant hosts several gold and stibnite occurrences.

Late volcanic dykes, predominantly rhyolite, which have a spacial relationship to the gold occurrences, are common within the volcanics. They have a preferred north to northeast orientation coincident with a major fault trend. Dykes of basalt and diabase are also found, together with a few small stocks of quartz-feldspar porphyry.

Gold and silver mineralization appears to be associated with quartz-carbonate vein systems, which in turn are found in serici-

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<b>AGIP CANADA LTD.</b>		
<b>ZONE LOCATION MAP</b>		
<b>MT. SKUKUM MAIN CIRQUE</b>		
<b>YUKON</b>		
Scale: 1:16,000	NTS: 105 / D	Date: FEB. / 84
Author: R.A.D.	Drawn by: J.B.	Figure:

tic and propylitic alteration zones in the volcanics. The alteration zones are structure related and to date have been shown to have a northeast trend. Shearing and fault gouges have been noted in these altered structural zones. Pyritization spatially related to volcanic alteration and to rhyolite dykes, appears to be a regional guide to metal concentrations.

Mineable mineralization in the region has been discovered by Arctic Gold (formerly Arctic Mining and Exploration Ltd), about 13 kilometres southeast of Carcross, where 300 tpd gold-silver-lead-zinc production was established temporarily in 1968; Venus Mine Ltd, about 25 kilometres south of Carcross where 300 tpd gold-silver-lead-zinc cadmium production operated briefly in 1970; and Yukon Antimony Mine, about 5 kilometres east of the peak of Mount Skukum where stibnite occurrences have been located.

#### STRUCTURAL GEOLOGY

There are several anomalous zones located on the properties which are identified as described below and shown in Figure 2.

#### Main Zone

The Main Zone was discovered from stream silt sampling. Anomalous sediment was found downstream from exposed quartz-carbonate veining which lies along a northeast trending fault

plane. The fault itself is represented by fault gouge which contains low gold values. Higher gold values are found, however, in quartz-carbonate veins trending northeast along the major fault plane.

Since the best qualitative and quantitative gold values were obtained in the Main Zone by inclined diamond drilling from the surface in the 1981-82 campaigns, this zone was selected for more detailed exploration as main exploration target on the properties.

The host rock for the Main Zone consists mainly of porphyritic andesite with rhyolite intrusives.

#### Gully Zone

The Gully Zone is about 350 metres northeast of the Main Zone, along what is the probable extension of the major fault plane which runs through the Main Zone. Topography is steep and this has helped to expose mineral veins and gossanous volcanics although the major part of the zone is covered by overburden.

No diamond drilling has been done yet in the Gully Zone.

#### Brandy Zone

The Brandy Zone is located 400 metres northwest of the main ore shoot at an elevation of 1800 metres. Quartz calcite veining with

visible gold discovered late 1983 by bulldozer trenching in an area of anomalous gold values in soil. The veining trends north-south and appears to dip steeply west with an average width of one metre. The vein has been exposed over a strike length of 30 metres. A series of seven chip samples taken across the width of the vein and collected five metres apart, gave an average grade of 45.7 grammes of gold per tonne and 37.3 grammes of silver per tonne.

The zone is inferred to continue for 150 metres to the north through a second area of anomalous gold values in soil to vein outcrops exposed in cliffs with chip sample results up to 46.5 grammes of gold per tonne over 0.35 metres vein width.

#### Lake Zone

Quartz veins are exposed at an elevation of 1850 metres on a cliff face 550 metres west of the Main Ore Shoot. The veins trend north-east, dip steeply to the west and have been traced almost continuously for 400 metres. Surface chip samples give high gold values over generally narrow widths. For example, 180 grammes of gold per tonne over 0.3 metres, 84.7 grammes of gold per tonne over 0.2 metres, 41 grammes of gold per tonne over 3.5 metres. Six holes were drilled in this area in 1982. All four holes which were targeted on the known vein system intersected ore grade mineralization. These holes were drilled on three sec-

tions up to 240 metres apart. Drill results are summarised as follows:

Hole 82-14	0.89 metres grading 63.9 grammes of gold per tonne and 18.0 grammes of silver per tonne.
82-15	1.50 metres grading 4.3 grammes of gold per tonne and 4.4 grammes of silver per tonne.
82-16	1.23 metres grading 10.4 grammes of gold per tonne and 18.0 grammes of silver per tonne.
82-17	1.19 metres grading 23.2 grammes of gold per tonne and 11.5 grammes of silver per tonne.

#### Other Occurrences

The Pika Zone, 300 metres west of the Lake Zone where a quartz-calcite vein is exposed for a length of over 100 metres.

Several anomalous areas elsewhere on the property warrant future surface exploration.

At the present stage of exploration, only the Main Zone has been explored in sufficient detail to have the mineralization defined as ore reserve, although the other zones must be regarded as exploration targets which could yield other ore shoots of comparable size and quality to the Main Zone.

MINERALOGY

Only a limited number of surface samples were submitted to mineralogical examination in 1982. From those samples it has been found that there are two generations of gold occurrences: one dark yellow and one light yellow (with silver content). The particle sizes ranged 1 to 15 microns in the first sample, 20 to 50 microns in the second, and up to 60 microns in the third sample. Regardless of size, most gold was liberated at 100% - 100 M grind, due to the relatively large quartz grain size (70 - 120 microns). The samples were taken from veins containing quartz, sericite and clay. It is thought the presence of these minerals indicates hydrothermal activities whereby many of the original minerals were replaced by fine-to-medium grained quartz. No feldspar has been detected. Among the sulphide minerals in the veins, pyrite was found to be the most common, but only in minor to trace quantities, followed by chalcopyrite, sphalerite and proustite, generally in the 20 to 50 micron size range.

Among the hydroferrous minerals, goethite and limonite were found also in minor to trace quantities but in sufficient quantity to cause distinct coloration.

Detailed mineralogical examination has been conducted on a variety of samples. The results of these examinations show that:

1. Pyrite occurs in four generations, namely:

- (a) small idiomorphic cubes disseminated in metavolcanics;
- (b) medium size crystals and aggregates in metavolcanic fragments;
- (c) large idiomorphic crystals and aggregates, occasionally with rutile in the cumulates; and
- (d) veins of irregular grains.

2. Quartz occurrences are similarly in various forms:

- (a) medium to large vein quartz probably formed by hydrothermal activity;
- (b) fine grained fracture filling quartz probably mobilised by tectonic activity;
- (c) very fine crystals in the form of jasper/chalcedony, probably of hydrothermal origin; and
- (d) extremely fine metaquartzite.

Calcite may occur also in the form of long laths, fine grained in fractures, coarse to fine grained in marble, and as alterations of feldspars and mafic phenocrysts.

Rutile is found in three generations: small individual grains in metavolcanic fragments, lace-like aggregates in metaquartzite, and crystal aggregates in altered andesite.

As rutile crystallizes at greater than 5,000 metres in depth in sedimentary rocks, that is at high temperatures and pressures, its presence indicates high temperature and pressure in the volcanic rocks in the past. Since the volcanic rocks of the region are too young to have sunk and risen more than 5,000 metres in about 60 million years, the high temperatures probably indicate intermittent volcanic activity, while the high pressure was probably caused by very large lateral tectonic forces. This hypothesis is supported by other findings of the mineralogical investigations, such as the formation of gouges, mobilisation of quartz, brecciation and relatively high density of the rocks examined.

Examination of drill core samples show the weathering and oxidation can be detected to 40 metre depths below surface.

## ORE RESERVE ESTIMATION

### METHODS CONSIDERED FOR ORE RESERVE ESTIMATION

The ore reserve study has been prepared both to update and revise earlier estimates of the tonnage and grade of the gold bearing material and also, equally importantly, to define the limits of the mineralized zone such that mining plans can be drawn up.

Two methods of reserve estimation have been considered, namely:

- (a) a geostatistical method; and
- (b) an empirical method.

These methods and their applicability to the Mount Skukum project are discussed individually.

### The Geostatistical Method

This method of mineral resource estimation is applicable to mineralized deposits which demonstrate definite linear trends or ore shoots.

Typically the method is of great value in estimation of the grade and tonnage of the gold and uranium bearing conglomerate deposits

of the Witwatersrand, South Africa and in the uraniferous conglomerates of Elliott Lake, Ontario, Canada. In both these deposits the gold and uranium have been laid down under the influence of water and as a result there is a well defined linear trend to the mineralization.

It has been found in these deposits that the mineralized ore shoots show definite correlation of values in one direction, but very limited range of correlation of values in other directions. It is necessary, however, to have an extensive data bank for such conclusions to be drawn.

At the present time, the data points on the Mount Skukum mineralization are limited to the few diamond drill cores, most of which are separated from each other by about 20 metres. Hence, although it is probable that the Mount Skukum mineralization will eventually show strong directional correlation, there are at present insufficient data points for this trend to be properly defined.

It has been concluded therefore that although geostatistics may well prove to have great applicability to the Mount Skukum deposit, this method of ore reserve computation is not suited to the current stage of exploration data.

### The Empirical Method

The empirical method of ore reserve estimation which is most suited to the present state of knowledge of the Mount Skukum mineralization is to estimate the volume of the ore by plotting all available geological and drill hole information on a series of sections such that a three dimensional interpretation of the deposit is developed. From this model the volume and the tonnage of mineralized rock can be calculated. Various measurements of the specific gravity of the ore material have already been made by the AGIP exploration group. It is apparent from these studies that about one cubic metre of ore is equivalent to somewhat more than 2.9 tonnes, however, for the purpose of this study, and for simplicity, it has been assumed that one cubic metre of ore is equivalent to 3 tonnes.

Determination of the average grade of the ore in each section has been made by weighted average of the drill intercept values for each sections. Determination of the average grade in the total mineralized zone identified to date has then been made by weighted average of each section according to the tonnage on that section.

The determination of tonnage and grade of the deposit has been made principally on the cross sections of the mineralized zone

and this has been checked against a similar computation based on the longitudinal section of the ore body.

CUT OFF GRADE

For the purpose of this study a cut off grade of 7 ppm gold has been used. No allowance has been made for the silver content of the ore since silver will make only a minimal contribution to the revenue potential of the ore.

Based on the above assumption that the price of gold is Cdn \$500 per oz and an assumed gold recovery of 95%, this means that at the cut off limit the revenue/tonne will be:

$$\text{Revenue} = \$500 \times \frac{7}{31.2} \times \frac{95}{100} = \$108/\text{tonne}$$

Such a cut off limit implies that the mine will be operated at a scale of operation of about 300 tonnes milled per day, that the ore can be mined by underground shrinkage methods and that recovery of gold can be achieved without the need for any complicated or expensive metallurgical process.

DILUTION

Examination of the drill data and of photographs of the drill core indicates that the gold mineralization is not confined

exclusively to quartz veins but occurs also in gouge material within the fault zone. Moreover, it is also apparent that ore shoots exist within a halo which carries a background value of between 1 and 5 ppm gold. In certain areas this sub-economic halo of mineralized material has been shown to extend up to 5 metres beyond limit of the ore body.

It is anticipated that during the mining process it will not be possible to confine mining activity exclusively to the ore grade material. Indeed it is probable that considerable mining of sub-ore grade material will be encountered during the extraction process.

To allow for this and for inevitable scaling of sub-ore grade material into the stope-out area an allowance of 30% of the ore has been added. For the purpose of this evaluation and after detailed review of the exploration data it has been estimated that the average grade of the material which will be mined with the ore will be about 3 ppm gold and 2 ppm silver.

#### ORE RESERVE CALCULATIONS

The ore reserve tonnage calculated for each section of the deposit and the associated gold and silver grades are shown in Table II.

TABLE II

MOUNT SKUKUM PROJECTDRILL INDICATED GEOLOGICAL RESERVES

Section	Tonnes	Gold Grade g/t	Silver Grade g/t
3 + 75 N	Nil	Nil	Nil
0 + 00	4,500	5.71	4.50
0 + 25 S	14,437	27.00	11.11
0 + 50 S	21,000	12.65	13.65
0 + 75 S	36,500	29.87	32.77
1 + 00 S	28,500	25.40	41.47
1 + 25 S	6,450	10.25	7.22
1 + 50 S	36,375	42.64	42.75
1 + 75 S	10,125	8.69	7.62
2 + 00 S	4,125	14.98	9.89
2 + 25 S	Nil	Nil	Nil
Sub-Total	162,010	26.31	28.17
Dilution	48,603	3.00	2.00
TOTAL	210,613	20.93	22.13

RECOMMENDED 1984 EXPLORATION PROGRAMME

Review of the results of the 1982 and 1983 drill programmes indicates that 60% of the gold identified in these programmes is contained in the zone transected by sections 0+75S and 1+50S. It is recommended that sufficient drilling be completed in 1984 to confirm the size and grade of the mineralized zone in these areas.

It is also noted that selection of the samples of drill core was undertaken entirely by the AGIP exploration team and that assay of the sampled material was undertaken by two Vancouver assaying groups who used both atomic absorption and fire assay techniques. While both the selection of samples and the quality of assaying appear to be of the highest order, it is recommended that independent checks of these facts be completed during the 1984 exploration programme.

Subject to the availability of exploration funds during 1984 it is recommended that a second quartz vein be selected for detailed drilling during the exploration season. It is probable that about 5,000 metres of drilling could be completed on the Brandy Zone and Lake Zone at an estimated cost of about \$600,000.

About \$300,000 should also be allocated for surface sampling, trenching and geochemical analysis of soil samples such that a more complete assessment of the mineralized area may be completed.

A budgeted expenditure of about \$1.0 million appears to be a reasonable expectation of the 1984 exploration cost.

APPENDIX I

DETAILS OF ORE RESERVE CALCULATIONS

EXPLORATION DATA BASE

The drill cores recovered by the AGIP crews during the 1982 and 1983 exploration seasons are stored at the Mount Skukum exploration camp.

The cores were split on recovery and each one metre length of core was assayed for gold and silver content. All samples were assayed by atomic absorption techniques and where anomalous gold values were indicated the samples were re-assayed by fire assay methods. The fire assays were performed principally by Bondar Clegg of Vancouver with further check assays being undertaken by other independent assay laboratories.

No specific check assaying programme was undertaken as part of this present study, hence this ore reserve study is based entirely upon the assay work of others which appear to be well documented and sufficiently checked by the AGIP exploration group.

GRADE AVERAGING PROCEDURE

This procedure was initially set up in the field and carried out on a microcomputer. The procedure was repeated from time to time as additional (check) assays were reported on individual samples;

averaged assays for each sample were used in the final calculation.

The computer programme initially located samples (and sample intervals) with assay values of 7.0 g/t gold or higher (arbitrary cut-off value). The programme then added adjacent intervals with values greater than 0.07 g/t gold (but the total interval grading between 0.07 and less than 7.0 g.t could not exceed 2.0 metres). An initial weighted average (sum of interval-assay products divided by total interval) was calculated. If this result exceeded 7.0 one additional sample length (of any grade) was added at each end of the total interval and a final weighted assay was calculated.

#### CORE ANALYSIS AND ASSAYING

During core logging, the core was marked for splitting (so that samples did not extend beyond lithological boundaries). Sample lengths were as short as 0.1 metre and did not normally exceed one metre, except in extremely fresh rock. The marked intervals were assigned priority. Priority intervals include significant veining plus additional sections of wallrock above and below the samples. These sections were split and shipped to the laboratory immediately. Priority and non-priority samples were handled by the laboratory (Bondar-Clegg, Vancouver) as follows:

Priority Samples - assayed for gold and silver (i.e. classical fire assay determination with gravimetric finish using a one-assay ton sample weight).

Non-Priority Samples - geochemical analysis for gold and silver using 20 g sample weight. The procedure is a fire assay preconcentration; a dore bead is formed and then dissolved in acid. This solution is analysed by the atomic absorption technique which has a lower detection limit than the classical method.

All geochemical analyses reporting 1000 ppb gold or higher (in practice, often 800 ppb or higher) were assayed as for priority samples. All samples (priority or non-priority) which reported assays of 1 g/t or higher were re-assayed; that is, a new 250 g split is prepared and assayed by Bondar-Clegg. In addition, both the original and the new splits were assayed by Chemex, Vancouver as a check procedure.

#### LOST CORE

In the case of lost core, this has been removed from the data base. This appears to have the effect of understating the average grade of the deposit since it is probable that the lost core will tend to occur in zones of extensive mineralization.

CUTTING PROCEDURES

It is frequently normal practice in the gold mining industry for anomalously high sample values to be reduced before being included in the ore reserve calculations. The methods used to cut values vary from gold property to gold property and have normally been devised as an empirical method of reconciling gold recovery to sampled values.

One typical such method is to reduce any individual sample value over 2 oz/ton (60 gmt) to 1.5 oz/ton (45 gmt). This method is used at the Erickson Property and has been found to reconcile gold sampling and recovery calculations.

The rationale behind such techniques is generally accepted as seeking to discount the nugget effect of large grain sizes of gold being recorded in samples and hence distorting the gold grade indications.

No cutting of any sample values has been done on any sample values of the Mount Skukum ore. This approach appears reasonable since the gold appears to occur in very fine form and is widely disseminated through the host quartz. It appears therefore that no nugget effect is occurring and hence no cutting technique is justified.

DRILL DATA

The drill data used as a basis for ore reserve calculations are shown in Table III. The area of mineralized material used as the basis for the tonnage calculation is shown on each section. Conversion of ore volume to tonnage has used a factor of one cubic metre of ore being equal to three tonnes.

TABLE III

MOUNT SKUKUM PROJECTORE GRADE BY SECTION VALUES

Station	Ore Intercept	Length m	Gold Grade g/t	Silver Grade g/t
Section 0+00				
Drill Hole 82-07	no ore grade			
82-08	42.00 - 42.31	0.31	9.61	4.15
	44.00 - 45.00	1.00	4.50	4.50
83-52	no ore grade			
Section Average		1.31	5.71	4.42
Section 0+25S				
Drill Hole 83-42	29.97 - 31.26	1.29	3.22	2.57
	32.30 - 33.30	1.00	2.81	2.80
	33.30 - 34.30	1.00	2.23	2.23
	36.34 - 37.39	1.05	1.65	1.73
83-38	61.57 - 61.72	0.15	7.87	1.18
	66.74 - 68.00	1.26	1.64	2.07
	70.00 - 71.05	1.05	1.87	1.96
	74.78 - 76.12	1.34	1.72	2.30
	80.65 - 87.40	6.75	28.89	11.35
83-48	no ore intercept			
Section Average			27.0	11.11
Section 0+50S				
83-37	9.31 - 10.23	0.92	11.38	10.47
	38.73 - 42.24	3.51	19.27	23.24
	44.14 - 44.87	0.93	1.52	1.11
	46.94 - 47.42	1.67	8.03	8.48
	50.80 - 51.85	1.05	1.13	1.19
	64.54 - 65.27	0.73	7.85	5.73

Station	Ore Intercept	Length m	Gold Grade g/t	Silver Grade g/t
82-10	57.20 - 57.92	0.72	1.81	1.30
	57.92 - 58.63	0.71	9.00	6.39
	61.35 - 61.75	0.40	4.10	1.64
	61.75 - 62.89	1.11	1.82	2.07
	78.25 - 79.55	1.30	2.89	3.76
	79.55 - 84.75	5.20	16.18	14.83
83-36	no ore intercept			
Section Average			12.65	13.63
Section 0+75S				
Drill Hole 83-32	17.05 - 18.05	1.00	6.2	1.10
	18.05 - 18.60	0.55	5.36	2.95
	36.73 - 37.10	0.37	44.00	49.67
	74.85 - 88.02	13.17	35.35	39.69
83-31	no ore intercept			
83-33	95.76 - 96.42	0.66	3.24	1.26
83-48	36.00 - 39.60	3.60	14.37	13.24
Section Average			29.87	32.77
Section 1+00S				
Drill Hole 82-09	no ore intercept			
83-36	no ore intercept			
83-53	no ore intercept			
83-54	30.53 - 36.88	6.35	38.20	34.58
	36.88 - 40.53	3.65	83.89	81.59
	41.97 - 45.50	3.53	10.44	12.40
Section Average			25.40	41.47
Section 1+25S				
Drill Hole 83-56	no ore intercept			
83-44	81.20 - 83.13	1.93	7.28	8.32
83-55	43.83 - 44.00	0.17	10.00	1.70
	46.19 - 46.65	0.46	22.11	10.17
	50.58 - 51.18	0.60	12.63	5.67

Station	Ore Intercept	Length m	Gold Grade g/t	Silver Grade g/t
Drill Hole 83-55	51.18 - 52.10	0.92	1.65	1.52
	52.20 - 52.53	0.32	6.82	2.18
Section Average			10.25	7.22
Section 1+50S				
Drill Hole 83-46	97.89 - 98.41	0.52	11.16	0.22
	99.01 - 100.02	1.01	2.54	2.56
	100.02 - 100.81	0.79	3.70	2.92
83-45	74.86 - 80.65	5.79	33.52	24.66
83-57	42.88 - 44.60	1.72	7.24	4.56
	45.95 - 51.20	5.25	119.77	113.19
	57.52 - 63.34	5.82	7.65	7.64
Section Average			42.64	42.75
Section 1+75S				
83-59	no ore intercept			
83-47	71.50 - 74.98	3.48	7.68	2.28
	76.30 - 80.34	4.04	10.14	11.74
83-58	37.16 - 37.49	0.33	3.12	1.03
	37.68 - 39.97	2.29	8.38	9.43
Section Average			8.69	7.62
Section 2+00S				
Drill Hole 82-22	no ore intercept			
82-23	no ore intercept			
83-59	no ore intercept			
83-49	no ore intercept			
83-61	91.72 - 93.72	2.00	10.04	10.05
83-60	24.50 - 25.65	1.15	34.03	15.24
	25.95 - 26.83	0.88	7.68	6.75
	33.39 - 33.93	0.54	5.65	3.05
Section Average			14.98	9.89