MAP NO.:	**ASSESSMENT REPORT** X	**DOCUMENT NO:**	092699
	PROSPECTUS	**MINING DISTRICT:**	Whitehorse
	CONFIDENTIAL X	**TYPE OF WORK:**	Trenching
115 I 6	**OPEN FILE**		

REPORT FILED UNDER: Archer, Cathro & Associates (1981) Ltd

DATE PERFORMED: 6-8 September, 1988 **DATE FILED:** 7 April, 1989

LOCATION: **LAT.:** 62 17'N **AREA:** Mt Freegold

LONG.: 137 09'W **VALUE $:**

CLAIM NAME & NO.: AUGUSTA,MARGARETE,GOLD STAR,PEERLESS, PROTECTION FR.,(15494,505,519,549,677) SHEAR ZONE 1-2,VINDICATOR 1-2 (60420-23);LIBERTY,EXCELSIOR 1-3 (63638-41),GOLDSTAR FR(Y80600) GREENSTONE 1-10(Y21094,90465-9,91056,YA92278-80),CABAGE 1-24(YA92757-77;PROGRESS 1-2(73464-5); RICK 1-23(YA92082-95,748-56);BYNORDAC 1-6(YB05903-8)

WORK DONE BY: C.A. Main

WORK DONE FOR: Big Creek Joint Venture

DATE TO GOOD STANDING:

REMARKS: #100 MARGARETE AND AUGUSTA (GOLDSTAR)

Excavator trenching was carried out on the MARGARETE showing in 1988 and eight samples were taken of the weathered oxide material. The samples were panned. Three of the samples yielded more than 50 fine to medium colours, and one of these contained over 100. The bes gold values in the clay-altered zone occur in two pods 2 m wide and 1 and 6 m long.

ARCHER, CATHRO
& ASSOCIATES (1981) LIMITED
CONSULTING GEOLOGICAL ENGINEERS

1016-510 WEST HASTINGS STREET
VANCOUVER, B. C. V6B 1L8

(604) 688-2568

TRENCHING PROGRAM

on the

GOLDSTAR PROPERTY

Augusta	15494
Margarete	15505
Gold Star	15519
Peerless	15549
Protection Fr	15677
Shear Zone 1-2	60420-60421
Vindicator 1-2	60422-60423
Liberty	63638
Excelsior 1-3	63639-63641
Progress 1-2	73464-73465
Goldstar Fr	Y80600
Greenstone 1-4	90465-90468
5	91056
6F	Y21094
7-9	YA92778-YA92780
10	YA92869
Rick 1-14	YA92082-YA92095
15-23	YA92748-YA92756
Cabage 1-11	YA92757-YA92767
13-14	YA92768-YA92769
17-24	YA92770-YA92777
Bynordac 1 - 6	YB05903-YB05908

MOUNT FREEGOLD, YUKON

Latitude 62°17'N Longitude 137°09'W NTS: 115I/6

Whitehorse Mining District

BIG CREEK JOINT VENTURE

C.A. MAIN, B.Sc.

092699

February, 1989

Work done between September 6 and September 8, 1988

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SUMMARY AND RECOMMENDATIONS

The Goldstar property consists of seventy-six contiguous mineral claims and fractions owned by prospectors E. Weinecke (51%) and G. Harris (49%) and held under option by Big Creek Joint Venture [Big Creek Resources Ltd. (55%) and Rexford Minerals Ltd. (45%)]. Exploration in 1988 was managed by Archer, Cathro & Associates (1981) Limited and consisted of a $10,000 trenching and gravity separation testing program on the Augusta showing.

The Goldstar property lies in central Yukon, 50 km northwest of Carmacks within the Dawson Range Gold Belt. This belt is an 85 km long northwest-trending zone of porphyry-related gold and copper deposits which occur along the southern margin of the Big Creek Fault, a major regional lineament. The Goldstar property consists of a basement assemblage of metamorphosed Yukon Cataclastic Complex that has been intruded by Jurassic syenites and Cretaceous quartz monzonite and subsequently faulted and intruded by two stages of Late Cretaceous felsic dykes. Limy horizons within the metamorphosed basement have been altered to magnetite skarns. Most of the higher part of the property is unglaciated resulting in the formation of a surface cap of weathered material. Oxidized gold mineralization found within this weathered cap is probably amenable to heap leach cyanide extraction.

The Goldstar property has a long exploration history, beginning with the discovery of the first lode gold occurrence in the Dawson Range (Augusta showing) by F. Guder in 1930. Early work by Guder consisted of hand dug shafts and trenches concentrating on the Margarete vein and the Augusta showing. Drill programs in 1956, 1974 and 1987 mainly tested the Margarete vein with minor emphasis on the magnetite skarn.

Work to date has identified three main types of gold mineralization.

1. Quartz-carbonate Veins

Discordant northwesterly- to westerly-trending vein faults, the best example of which is the Margarete vein, cut both the metamorphosed basement rocks and the later granodiorites. The veins dip vertically, or steeply to the northeast and consist of numerous, irregular quartz-carbonate stringers and veinlets contained within a wider zone of intense argillic alteration and brecciation. Quartz feldspar dykes follow irregularly along the vein and are commonly clay altered. The veinlets are relatively narrow, from 0.3 to 1.0 m, but the fault zone has an average true thickness of about 3.3 m. Gold mineralization appears to be related to the presence of sulphides that are seen in drill core to consist mainly of pyrite with lesser arsenopyrite and chalcopyrite. At surface, the sulphide minerals are oxidized to limonite. The veinlets give good assays of up to 150 g/t (4.5 opt) gold over narrow widths (0.3 m) although average grades across the vein zone are about 4.1 g/t (0.12 opt) gold and 48.0 g/t (1.4 opt) silver over 3.3 m.

2. Magnetite Skarn

Limy members of the metamorphosed basement rocks have been altered to magnetite skarns. The skarns are conformable with foliation and are probably conformable with bedding. The main skarn band averages 30 m wide (ranging up to 70 m) and has been traced for over 500 m along strike with trenches, a few random drill holes, and a magnetic survey. The primary skarn mineral assemblage consists of magnetite, epidote, diopside, red and brown garnet and calcite. This has been overprinted by a later retrograde assemblage of quartz, hematite, actinolite and chlorite. The retrograde assemblage, which may be

related to faulting, exhibits a crude zoning from a siliceous (magnetite/hematite) core, out to more chloritic rocks. Skarn typically averages 0.03 g/t (0.001 opt) gold and 6 g/t (0.2 opt) silver. A few samples produced higher assays, up to 11.5 g/t (0.34 opt) gold over 1.8 m and, at a different site, 155 g/t (4.5 opt) silver over 9.9 m. In these cases, it appears mineralization may be related to faulting and retrograde metasomatism.

The Augusta showing is hosted in a small body of magnetite skarn some 350 m southeast of the main horizon. The mineralization is probably more related to Margarete-type veining than to the magnetite skarn as all the mineralized material appears to be confined to fault zones. These vein faults, which are disjointed and difficult to trace, may be the eastern extension of the Margarete vein system. Some surface samples from the Augusta showing have given spectacular gold assays, up to 366 g/t (10.67 opt) gold and 106 g/t (3.0 opt) silver over 5 m. Drilling failed to confirm these high grades at depth suggesting that some of the gold mineralization may have been enhanced by surface enrichment. The best intersection at depth assayed 4.45 g/t (0.13 opt) gold and 46.3 g/t (1.35 opt) silver over 6 m, which is typical of the grades found in the Margarete vein.

3. Porphyry Breccias

The Cabin zone, which was mapped in 1981 as an intensely weathered and leached felsic porphyry breccia, lies about 500 m south of the Margarete vein. This zone has a moderate gold soil geochemical expression and further work is warranted to determine if the anomaly is associated with mineralization similar to the Antoniuk porphyry breccia located 4 km to the southeast.

MINERAL INVENTORY

The Margarete vein is the only mineralized occurrence with sufficient sampling to allow estimation of a geological inventory. The computation of average grade and width, based on five 1987 drill intercepts, is as follows:

Depth (m)	Tonnes	Contained gold (g)	Contained silver (g)	Waste:Ore
5	10,315	43,400	486,500	0.9:1
10	20,630	86,800	973,000	1.8:1
20	41,260	173,600	1,946,000	3.5:1
30	61,890	260,400	2,919,000	5.2:1
60	123,780	520,800	5,838,000	10.4:1

Assuming:

1. an idealized 45° pit wall;
2. a specific gravity of 2.5 for both ore and waste;
3. an average vein width of 3.3 m; and,
4. an average grade of 4.21 g/t (0.12 opt) gold and 47.2 g/t (1.4 opt) silver.

1988 PROGRAM

An excavator was used to clean off the Augusta showing and samples were taken from the zone which had previously produced good gold assays. Eight random samples were panned to determine the presence and relative abundance of free gold. Each sample was typical of the zone, consisting mainly of clay with various amounts of hematite and magnetite. The panning concentrates were highly variable with three samples carrying no gold and some of the better samples containing in excess of 100 fine to medium sized colours. There was no visual evidence to discriminate the gold-bearing samples from the barren samples. Three specific samples were taken of: (a) fine-grained green chloritic material; (b) red/ochre hematitic clay; and, (c) yellow jarositic clay gouge, which are typical materials within the zone. Assays of the three

samples were 4.70 g/t (0.137 opt), 5.97 g/t (0.174 opt) and 40.182 g/t (1.172 opt) gold, respectively. Although the number of samples is small, this would suggest the gold was originally related to iron minerals, probably sulphides. Surface mapping of the showing suggests that there are about 500 tonnes present at surface in two pods. The average grade is difficult to determine as assays to date have been highly variable ranging from no gold content to over 350 g/t (10 opt) gold.

Samples were taken from the Margarete vein for metallurgical testing but, because of budget restraints, these have not been processed.

A $330,000 program is recommended for 1989, as follows (includes all camp cost, infrastructure, etc):

1.	Exploration of Margarete vein, expose on surface and channel sample at 5 m intervals, dig excavator test pit every 25 m for additional metallurgical samples and drill rotary holes every 25 m. Process metallurgical samples. D8 Caterpillar bulldozer - 150 hours; excavator - 50 hours; rotary drill holes - 400 m	$180,000
2.	Continued exploration of Augusta showing, cut 5 m wide trench to 10 m depth for length of 50 m to investigate distribution of high grade mineralization; excavator - 100 hours; contract blasting as required	45,000
3.	Trenching of Vindicator, Liberty and Cabin zones, D8 Caterpillar bulldozer - 200 hours	85,000
4.	Reanalyses of 2000 soil samples for gold and 32 element ICP .	20,000
		$330,000

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

Charles A. Main

C.A. Main, B.Sc.

/mc

INTRODUCTION

The Goldstar property covers the first lode gold discovery in the Dawson Range. Discoverer F. Guder held the property until his death in 1981, at which time it was acquired by the present owners. Big Creek Joint Venture (BCJV) [Big Creek Resources Ltd. [BCRL], formerly Nordac Mining Corporation, (55%) and Rexford Minerals Ltd. (45%)] optioned the property in May, 1987 and conducted a program of bulldozer and excavator trenching and diamond drilling. The 1988 program, which cost $10,000, consisted of excavator trenching and gravity separation testing program on the Augusta showing planned and managed by Archer, Cathro & Associates (1981) Limited. C.A. Main served as project manager and was assisted by geologist T. Becker. Because of budget constraints, the program was not completed in mid-summer as planned but was executed in early fall when cold weather conditions prevented a complete examination of the showing.

PROPERTY, LOCATION AND ACCESS

The Goldstar property consists of 76 mineral claims owned by E. Weinecke (51%) and G. Harris (49%) and optioned to BCRL by agreement dated April 16, 1987. The Goldstar property is part of the BCJV holdings by an agreement dated May 13, 1987 and amended March 1, 1988. The claims are registered in the name of Archer, Cathro & Associates (1981) Limited with the Whitehorse Mining Recorder as follows:

CLAIM NAME	GRANT NUMBER	EXPIRY DATE
Augusta	15494	December 12, 1991
Margarete	15505	December 12, 1991
Gold Star	15519	December 12, 1991
Peerless	15549	December 12, 1991
Protection Fr	15677	December 12, 1991
Shear Zone 1-2	60420-60421	December 12, 1991
Vindicator 1-2	60422-60423	December 12, 1991
Liberty	63638	December 12, 1991
Excelsior 1-3	63639-63641	December 12, 1991
Goldstar Fr	Y80600	December 12, 1991
Greenstone 6F	Y21094	December 12, 1991
Rick 1-2	YA92082-YA92083	January 29, 1993
Cabage 2	YA92758	January 29, 1993
Cabage 4	YA92760	January 29, 1993
Cabage 17-20	YA92770-YA92773	January 29, 1993
Cabage 22	YA92775	January 29, 1993
Cabage 24	YA92777	January 29, 1993
Progress 1-2	73464-73465	December 12, 1991
Greenstone 1-4	90465-90468	December 12, 1991
5	91056	December 12, 1991
7-9	YA92778-YA92780	January 29, 1993
10	YA92869	January 29, 1993
Rick 3-14	YA92084-YA92095	January 29, 1993
15-23	YA92748-YA92756	January 29, 1993
Cabage 1	YA92757	January 29, 1993
3	YA92759	January 29, 1993
5-11	YA92761-YA92767	January 29, 1993
13-14	YA92768-YA92769	January 29, 1983
21	YA92774	January 29, 1993
23	YA92776	January 29, 1993
Bynordac 1-6	YB05903-YB05908	January 29, 1993

The property is located on Mount Freegold, in central Yukon, near the southeast end of the Dawson Range Gold Belt, as shown on Figures G-1 to G-3. The property is accessed from Carmacks, 53 km to the southeast, by an all-weather gravel road maintained by the Yukon Territorial government during the summer months. The claims are within NTS map sheet 115I/6 at latitude 62°17′ and longitude 137°09′W.

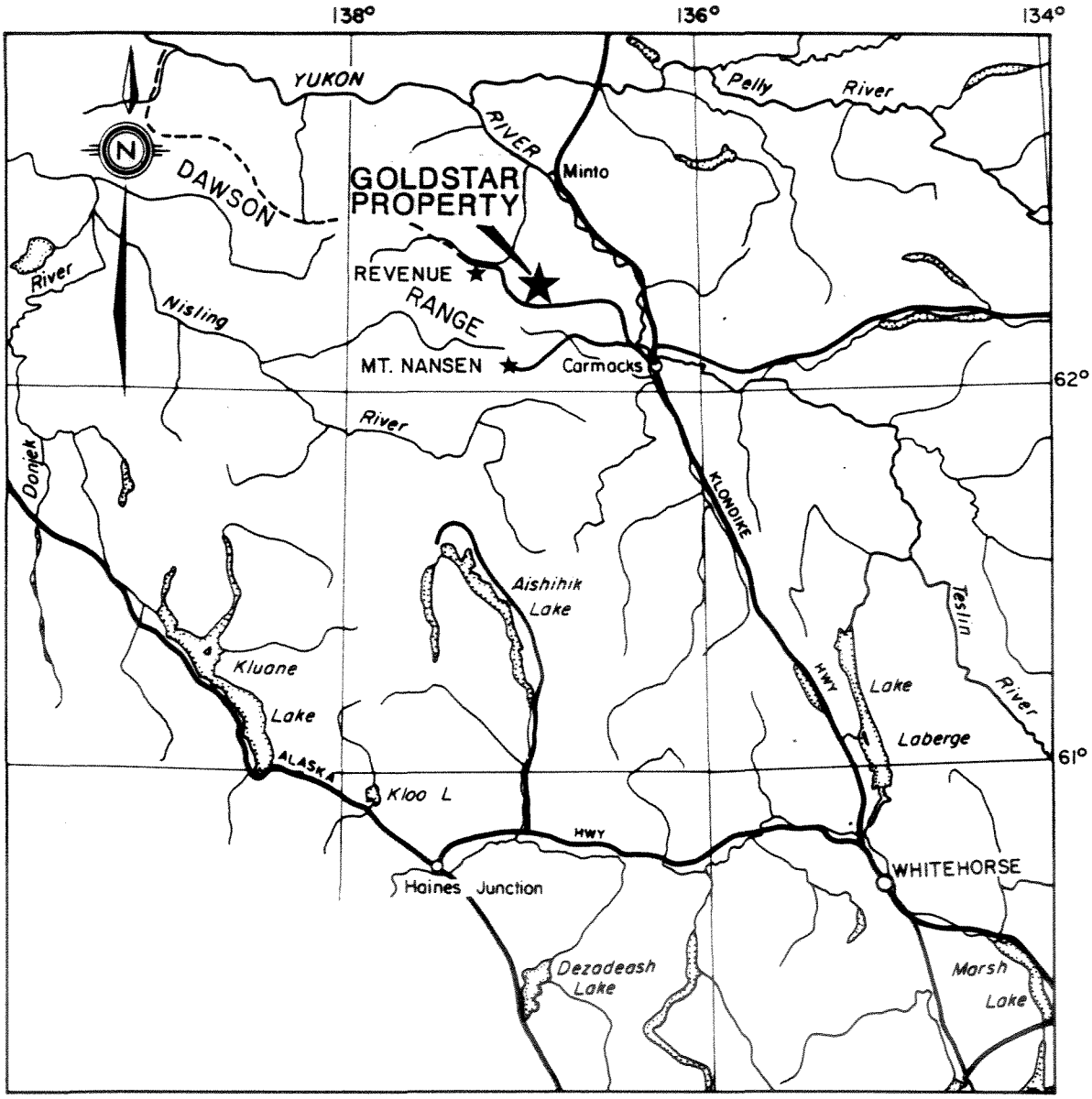


Figure G-1

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

GENERAL LOCATION MAP

GOLDSTAR PROPERTY

MOUNT FREEGOLD, Y.T.

BIG CREEK RESOURCES LTD.
REXFORD MINERALS LTD.

SCALE 1:2,000,000

0 20 40 60 80 100 Km

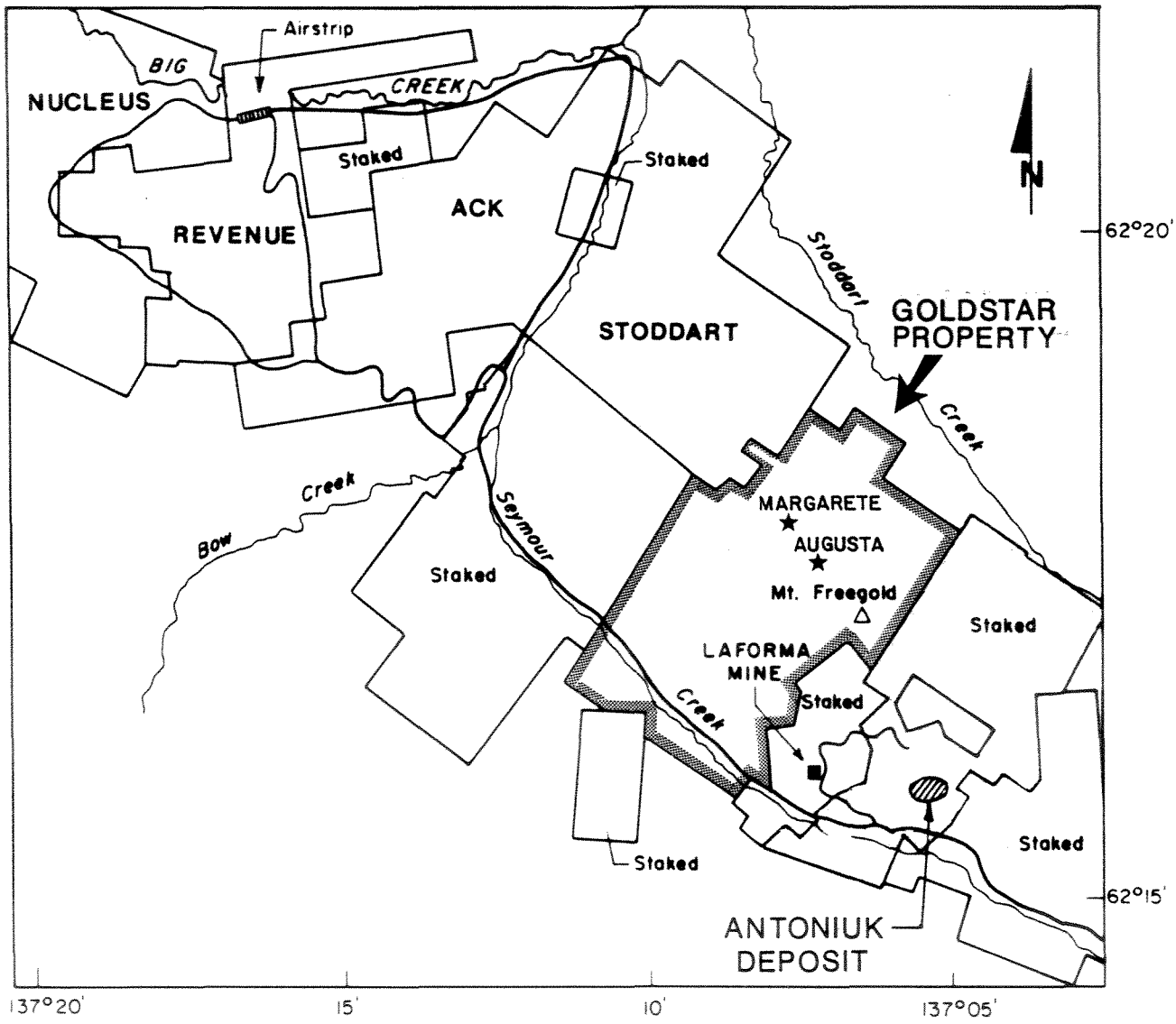


Figure G-2

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

PROPERTY LOCATION MAP

GOLDSTAR PROPERTY

MOUNT FREEGOLD, Y.T.

BIG CREEK RESOURCES LTD.
REXFORD MINERALS LTD.

SCALE 1:100,000

0 1 2 3 4 5 Km

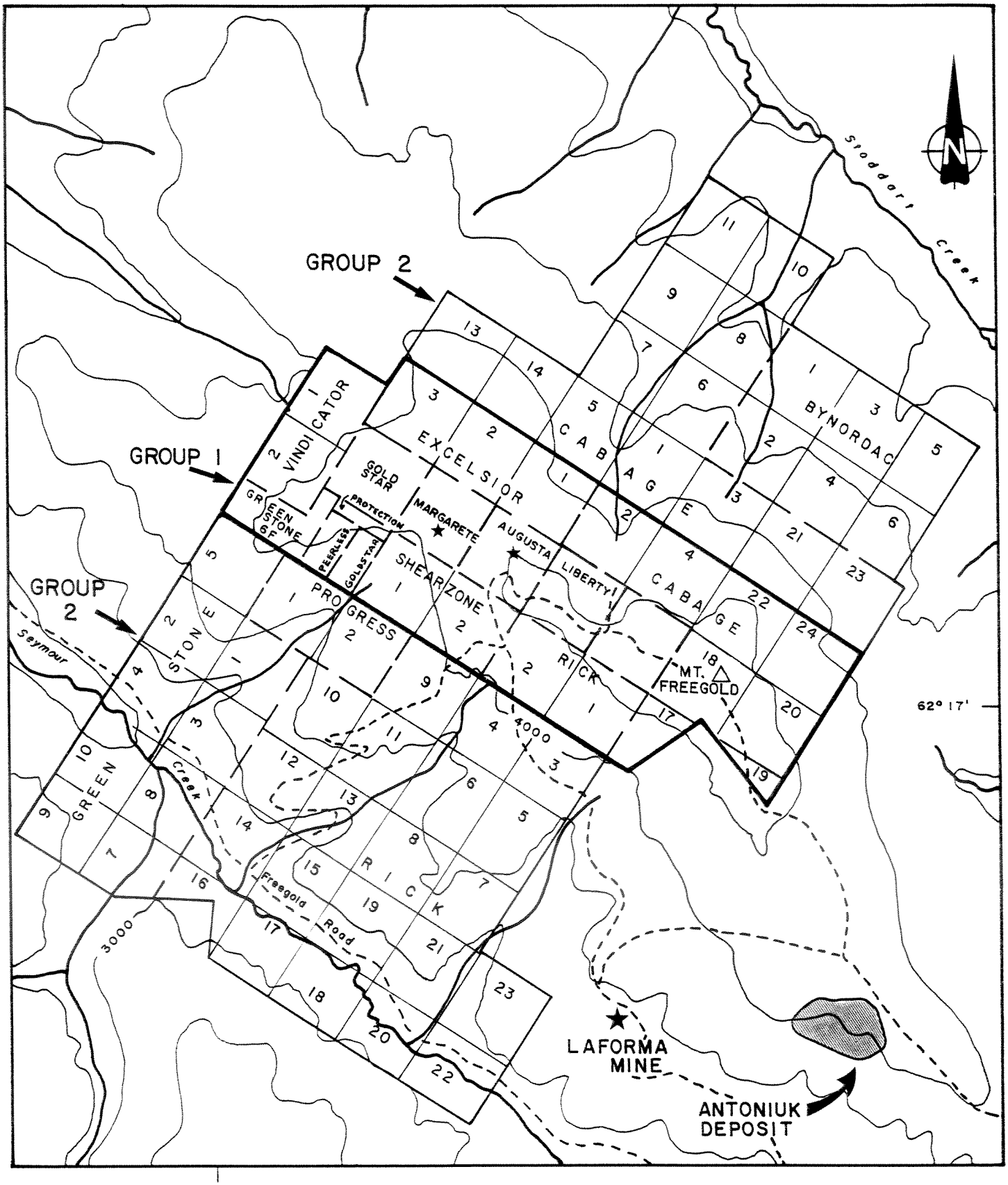


Figure G-3

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

CLAIM LOCATION MAP

GOLDSTAR PROPERTY

BIG CREEK RESOURCES LTD.

REXFORD MINERALS LTD.

SCALE 1 inch = 1/2 Mile (1:31,680)

0 500 1000 1500 m

0 1500 3000 4500 ft

PHYSIOGRAPHY AND GEOMORPHOLOGY

The Goldstar property lies at the northwest end of Mount Freegold covering a broad, gentle sloping ridge separating Seymour Creek to the south and west and Stoddart Creek to the north. Seymour Creek occupies a deep V-shaped valley and the south-facing part of the property adjacent to Seymour Creek is much steeper than the rest of the property, with slopes locally exceeding 30°. Elevations range from 850 m on the floor of Seymour Creek Valley to 1440 m at the summit of Mount Freegold. Vegetation ranges from spruce and poplar trees on south- and east-facing hills to stunted black spruce and thick moss on north- and west-facing slopes.

Soil profiles typically include 1 to 10 cm of "A" horizon organics, 0 to 100 cm of volcanic ash, 5 to 50 cm of "B" horizon soil and 100 to 300 cm of "C" horizon soil over deeply weathered bedrock. Glacial and fluvial deposits are rare except perhaps on the floor of Seymour Valley. Permafrost is extensive, particularly on north- and west-facing slopes. Outcrop and talus is restricted to ridge crests and steep southeast-facing slopes.

HISTORY AND PREVIOUS WORK

Gold-bearing magnetite was discovered on the Goldstar property by F. Guder in 1930 near the summit of Mount Freegold. A small staking rush occurred in the spring of 1931 but few of the claims were worked and most were allowed to lapse. Significantly, the G-3 (LaForma) and the Rambler veins, which are south and southeast of the Goldstar property, were discovered at this time. Guder worked the Goldstar property by hand dug shafts and trenches. In 1959, Conwest optioned Guder's claims and drilled five diamond drill holes totalling 309 m. Recoveries were poor but four intervals returned significant assays averaging 0.14 oz/ton gold over 2.1 m. In 1969, Yukon Revenue Mining Ltd. optioned the property and performed bulldozer trenching and geological mapping. This work outlined the intensely bleached Cabin zone in Cabin Creek on the south slope of Mount Freegold that was explored as a porphyry copper target. In 1973, Prism Resources Ltd. optioned the property, staked additional fringe claims, and conducted geological mapping and a ground magnetic survey. The option was transferred to Dynasty Exploration Ltd. which performed detailed geological mapping, linecutting, soil geochemistry, a magnetometer survey, bulldozer trenching and drilled eight diamond drill holes totalling 653 m. The claims reverted to Guder who reoptioned them from 1980 to 1982 to Arctic Red Resources Corp., which conducted geochemical surveys. Following Guder's death in 1981, the claims were transferred to Guder Mining Explorations Ltd. (controlled by E. Weinecke), which performed bulldozer trenching in 1982 and 1983 and optioned the property in 1985 to Chevron Minerals Ltd. which conducted a soil geochemical survey.

The G-3 vein on the LaForma property, to the east of the Goldstar property, has been continuously explored since its discovery in 1931. In 1939-40, a total of 1286 tonnes grading 34.75 g/t (1.01 opt) gold were profitably mined by optionees. During 1965-66, Ormsby Mines Ltd. developed the property and mined 5387 tonnes of ore with a recovered grade of 9.26 g/t (0.27 opt) gold and 32.9 g/t (0.96 opt) silver. Because of excessive dilution and poor recovery, this was not a profitable venture and the mine closed leaving published reserves of 62,185 tonnes grading 15.1 g/t (0.44) opt gold.

In 1987, a total of seventeen HQ diamond drill holes were drilled on the Goldstar property by BCJV. An initial program of nine holes totalling 292.5 m focused on the Margarete vein and a later program of eight holes totalling 448.6 m tested the Augusta showing and the nearby Kirsteen zone. Approximately 5800 m of trenches were completed with a Caterpillar D8 bulldozer and 1460 m with a Caterpillar 225 excavator. VLF-EM and proton magnetometer (including total field and gradiometer) surveys were completed on 14 km of grid.

1988 PROGRAM

Mineralized material and adjacent wallrocks at the Augusta showing are both intensely clay altered, hence, the habit of the gold is difficult to determine. Significant amounts of gold can be panned from some samples but adjacent samples of similar material are often barren.

The 1988 program was designed to test various materials from the showing in an attempt to determine the controls on gold mineralization. Loose free gold in the samples was collected by gravity separation using a lab-sized (7 cm) Knelson concentrator. The original plan was to put some samples through a jaw crusher to see if additional free gold was released and thereby determine if a larger processing plant would be economic. Unfortunately, during the time of the program there was no reasonably priced electrical generator available for short term rental that was powerful enough to run the jaw crusher. Cold weather and snow further hampered a detailed study of the showing and prevented the collection of a complete selection of samples.

GEOLOGY

The Goldstar property is situated within the Yukon Crystalline Terrane which consists of Paleozoic or older metamorphic basement rocks intruded and overlain by a variety of Mesozoic igneous rocks. Property geology is shown on maps in previous reports. The units present on the property are as follows.

CRETACEOUS

Mount Nansen Volcanic Suite

a) Grey quartz-feldspar porphyry (rhyolite?)

This unit consists of 3 to 10% subrounded quartz phenocrysts set in an aphanitic to very fine-grained matrix of quartz and feldspar. Typically it contains 1 to 3% pyrite as disseminated specks, often oxidized at surface to limonite. Alteration of this unit typically includes silicification, sericitization and kaolinization. This unit is spatially associated with the known gold mineralization on the Goldstar property, as well as with arsenic soil geochemical anomalies.

b) Pink (hornblende) quartz-feldspar porphyry

This unit is a porphyritic rock consisting of 20 to 80% feldspars and minor quartz phenocrysts with smaller hornblende crystals (commonly 3 to 15% of the rock) that are often altered to chlorite. The matrix is aphanitic and often pale pink. Chlorite alteration imparts a green colour. The distribution of this unit at the Goldstar property is similar to that at Antoniuk where it occurs to the north, well away from the gold mineralization.

Dawson Range Batholith

Hornblende-biotite potassic quartz-diorite

This is a medium-grained equigranular light grey rock. Alteration ranges from weak quartz and epidote veining on fractures to locally intense kaolinization.

JURASSIC

Klotassin Suite

This unit is seen as several scattered outcrops in the central portion of the property and a large mass to the east of the Augusta showing. It is unaltered and consists of phenocrysts of pink orthoclase, up to 10 cm across, set in a very coarse matrix of hornblende and plagioclase feldspar. Crude alignment of the crystals occurs. A weak foliation is present in some outcrops. The matrix consists of medium- to coarse-grained, black hornblende with finer-grained orthoclase and plagioclase.

PALEOZOIC

Basement Metamorphic Complex

a) Hornblende-biotite granodiorite

This is a medium-grained granite rock showing thickly banded gneissic textures. Foliation ranges from well developed to absent.

b) Metasediments

This is a highly variable metamorphosed unit including grey marble, banded quartz-feldspar-mica schist, quartz-feldspar-mica gneiss, chlorite schist, amphibolite-rich schist, amphibolite and grey quartzite. All rock types exhibit a penetrative foliation oriented northwest and dipping steeply to the northeast. Metamorphic textures range from mylonite through gneiss and schist. Limy members of this unit have been altered to skarn, as described under "Mineralization".

MINERALIZATION

Precious metal mineralization occurs in narrow quartz veins within and adjacent to porphyry dykes, and in elongate east-west trending magnetite-rich skarns.

Margarete Vein System

The best example of quartz veining is the Margarete vein which was discovered about 1932 by F. Guder after he had found the nearby Augusta showing. There was active exploration on Mount Freegold at this time with discovery of the Rambler (Antoniuk property) and G-3 veins (LaForma Mine) in 1931. Guder explored the Margarete vein over a fifty year period with a number of hand dug shallow (6-7 m) shafts, trenches, and ground sluices. The GSC reports (GSC Memoir 214, p.18) that vein specimens from the dumps of one of the Margarete shafts assayed up to 2070 g/t (60.3 opt) gold.

The Margarete vein is a near vertical, west-northwesterly trending swarm of irregular quartz veinlets often associated with argillically altered quartz feldspar porphyry dykes. The zone that contains the veins lacks sharp boundaries but has good lateral continuity and can be easily traced. The high grade veinlets, which consist mainly of quartz-carbonate material with minor sulphide altered to limonite, are usually confined to a narrow (0.3 to 1.0 m) band but the mineralized zone, which often consists of intensely altered porphyry, has an average true width of about 3.3 m. Leaching of the sulphides probably extends to depths of about 60 m, as is the case at the nearby Antoniuk deposit. Drilling of unoxidized material indicates the sulphides are pyrite with some chalcopyrite and arsenopyrite.

Gold and silver assays vary widely depending upon whether the samples have been taken from the veinlets, which can have good values of up to 150 g/t (4.5 opt) gold over narrow widths (0.3 m), or from the whole zone that has a relatively consistent content of about 4.1 g/t (0.12 opt) gold and 48.0 g/t (1.4 opt) silver over 3.3 m. The gold and silver content of this zone is discussed more fully under Mineral Inventory.

The vein has been traced on surface for 340 m and the probable strike extension to the northwest is known for an additional 250 m. A gold soil geochemical anomaly extends for at least an additional 1.0 km to the northwest. The vein is truncated at its southeastern end by a right(?) lateral fault and it is probable that the offset extension continues at least 200 m to the Kirsteen zone or 300 m to the Augusta showing.

Kirsteen Zone

The Kirsteen zone lies 200 m east of the truncated eastern end of the Margarete vein and may be part of the same structure. If the Margarete has a right hand offset of 50 m, it would extend through the Kirsteen zone; however, if the Margarete is offset about 200 m then it extends through the Augusta showing. The vein at the Kirsteen zone is similar to the Margarete in that it trends west-northwest, probably dips steeply to the northeast, and the gold is carried in silicified structures within intensely clay altered and brecciated porphyry. There is some minor quartz-magnetite skarn development in the host rocks but these skarns are not as continuous nor as well developed as at the main skarn zone to the west or the Augusta showing to the east. The best trench intersection at the Kirsteen zone graded 1.92 g/t (0.056 opt) gold and 30.0 g/t (0.87 opt) silver over 5 m. A drill hole (87-17) directly underneath

the trench intersected 4.33 g/t (0.13 opt) gold and 83.3 g/t (2.43 opt) silver over 6.8 m (with a true width of perhaps 3 to 4 m). Unfortunately, a second drill hole (87-16) between the two intersections cut the structure but was unmineralized, indicating that the mineralization can be highly erratic.

Magnetite Skarn

Limy members of the metasedimentary basement rocks have formed iron skarns with apparent introduction of iron and silica. These skarns are spatially associated with amphibolite horizons and the metasomatism is probably related to emplacement of the Jurassic syenite that lies to the east and north. The skarn bands, which can be up to 70 m wide but usually average 20 to 30 m, trend northwesterly parallel to the penetrative foliation of the host schists and dip steeply northwest. Primary skarn minerals include quartz, magnetite, epidote, diopside, red and brown garnets and calcite. The magnetite occurs as intergrowths with quartz and as zones of massive magnetite. The primary skarn minerals are overprinted by an assemblage of retrograde skarn minerals which include quartz, actinolite, chlorite after actinolite, and chlorite. Oxidation of the magnetite has converted some of the magnetite to hematite. The development of the retrograde assemblage (and possibly the primary skarn development as well) appears spatially related to zones of structural weakness. The retrograde minerals are zoned from a core of magnetite (and/or hematite) and quartz into a surrounding zone of chlorite (sometimes after actinolite). Coarse-grained muscovite occasionally occurs in a wide potassic alteration halo around both primary and retrograde skarns. Precious metal

mineralization and minor amounts of copper appear to be spatially related to zones with retrograde skarn assemblages.

The magnetite skarn is best exposed in a 500 m long zone located northeast of the Margarete vein. For most of this length, it carries trace (0.03 g/t or 0.001 opt) gold and low, but consistent, values in silver averaging 3.0 to 15.0 g/t (0.1 to 0.5 opt). Only one sample from the most northwesterly trench sample (Dynasty 1974-K) carries any appreciable gold, 11.6 g/t (0.34 opt) gold over 1.8 m, but this occurs in a segment of metasediment (or porphyry?) within the skarn. The skarn zone apparently extends farther to the northwest but this has not been investigated. Trench samples (Dynasty 1974-G) from the eastern end of the zone carry good silver values (up to 410 g/t [12.0 opt] silver over 1.5 m within an interval grading 155 g/t [4.5 opt] silver over 9.9 m) but the skarn zone is truncated abruptly at this point and the mineralization may be related to the fault which is cutting the skarn.

The magnetite skarn is well defined by its magnetic expression. The southeastern extension of the skarn zone (described above) is uncertain as there is little magnetic expression between the main skarn zone and the Augusta showing located 350 m farther to the southeast. There are some magnetite exposures in trenches in this interval but they are weakly developed and do not appear to form a consistent horizon.

Augusta Showing

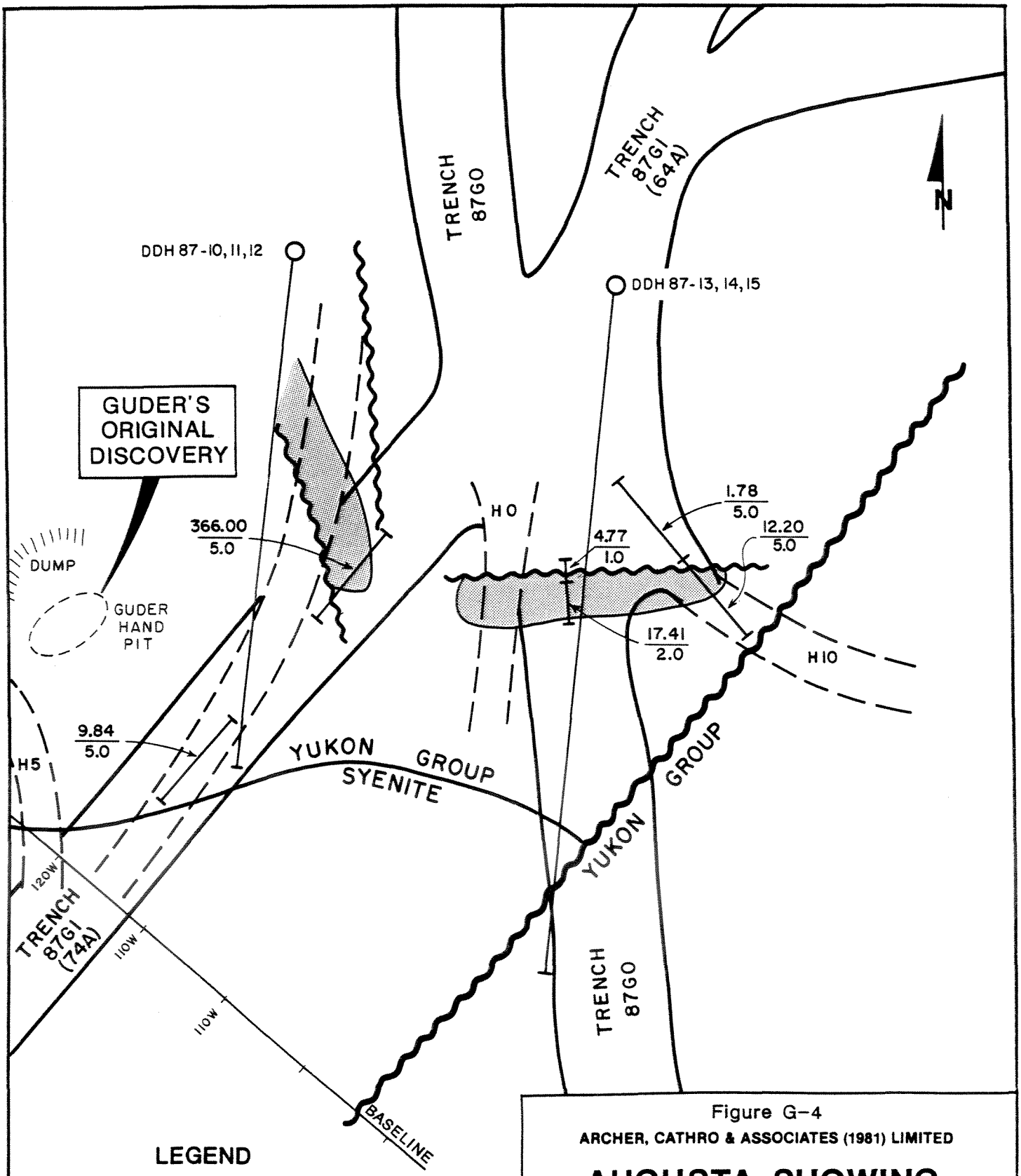
This occurrence was the original discovery of lode gold in the Dawson Range. F. Guder had found mineralized magnetite float while prospecting for placer gold, which led him to the Augusta showing that outcrops on a ridge crest near the top of Mount Freegold. A pod of massive magnetite skarn, shown

on Figure G-4, that varies from 1 to 5 m wide can be traced for about 100 m in a northwesterly direction at which point the magnetite skarn is truncated, as indicated by its disappearance in outcrop and a change in magnetic expression.

The original Augusta mineralization consisted of free gold found within surface samples of highly oxidized, vuggy and limonitic coated magnetite. Massive fresh magnetite usually carries low gold values. One 1987 trench sample of intensely clay altered and hematitic material from the skarn zone assayed 366 g/t (10.67 opt) gold and 106 g/t (3.0 opt) silver over 5 m and resampling returned 105 g/t (3.0 opt) gold over the same interval. More detailed trenching showed the sample was taken from part of the skarn that had been faulted, with retrograde skarn development. Much of the mineralized material is apparently confined to the fault and consists of chlorite and hematite after magnetite with intense clay alteration. Detailed drilling of the showing (Holes 87-10 to 87-15) showed that faulting is extensive, causing a complex and extremely erratic distribution of rock units, alteration and mineralization. Of the six holes drilled directly under the high grade trench, only two produced significant intersections:

DDH	Sample Length (m)	Gold g/t (opt)	Silver g/t (opt)
87-11	3.4	2.40 (0.07)	26.1 (0.75)
87-15	6.0	4.45 (0.13)	46.3 (1.35)

With the degree of faulting evident in the drill holes, there is a small possibility the high grade material seen at surface has been offset and not intersected by the drilling. It is also possible that the gold mineralization found at surface is formed by supergene surface enrichment and grades encountered in the drill holes are more typical of the average grades in the structures.



LEGEND

MAGNETITE / HEMATITE SKARN, ABUNDANT CLAY ALTERATION

12.20 / 5.0 — ASSAYED INTERVAL, GOLD (g/t) / m

87GI — BULLDOZER TRENCH

H0 — EXCAVATOR TRENCH

Figure G-4

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

AUGUSTA SHOWING

GOLDSTAR PROPERTY

MOUNT FREEGOLD, Y.T.

BIG CREEK RESOURCES LTD.

REXFORD MINERALS LTD.

SCALE 1:250

0 5 10 m

In 1988, eight samples were taken from relatively uniform and typical clay-hematite-magnetite material from the showing. These were panned with the following results:

Sample	Gold Grains	Comment
1	50 - 100 fine	abundant magnetite
2	none	
3	none	light coloured, little magnetite
4	2 - 3 medium	
5	10 - 20 fine	very rusty, no magnetite
6	none	hematite staining
7	100+ fine-medium	rusty
8	50+ fine-medium	some magnetite

Little conclusion can be drawn from these results apart from the fact that free gold is commonly present in the showing and there are no apparent visual controls to distinguish the gold-bearing material.

For control, samples were also taken of three main varieties of material which can occasionally be distinguished in the high-grade zone: massive chlorite, hematitic gouge and jarositic gouge. These were assayed with the following results:

Sample	Assay (g/t)	Assay (opt)	Description
S7037	4.70	0.137	Massive fine-grained chloritic material
S7038	5.97	0.174	Hematitic clay gouge
S7039	40.12	1.172	Jarositic yellow clay gouge

While the number of samples is minimal, the results suggest that the better gold values occur with limonitic clays perhaps derived from sulphides.

The trenching in 1988 shows that the clay altered zone (which apparently carries the best gold values) occurs as two pods, both 2 m wide and 10 and 6 m long, respectively. If the mineralization extends to a depth of 5 m, there is about 160 about cubic metres (500 tonnes) of material in the two pods. Because

the 1988 program could not be completed due to bad weather, systematic sampling of the two pods has not been done to determine a probable average grade. Random samples from the showing have produced extremely variable assays ranging from nil to over 350 g/t (10 opt) gold.

Vindicator Zone

The Vindicator zone is located 1000 m west along strike from the Margarete vein. Old bulldozer trenches in this area were not completely cut to bedrock but they did expose a narrow (0.2 m) quartz carbonate vein (called the Red Fox showing) containing minor galena, specimens of which assayed up to 5800 g/t (171 opt) silver and 70% lead. Part of one trench sampled in 1968 assayed 3.78 g/t (0.11 opt) gold and 620 g/t (18.1 opt) silver over 1.22 m. A specimen of limonite stained quartz vein float probably collected from the same location in 1986 assayed 3.84 g/t (0.11 opt) gold. This occurrence lies toward the northwestern end of a 500 m long soil geochemical anomaly that extends off the present grid. Reconnaissance sampling done in 1981 suggests the anomaly extends a further 500 m northwest beyond the Vindicator zone.

Minor Occurrences

1. A minor quartz carbonate vein in Trench G-10, about 70 m south of the Margarete vein, assayed 5.9 g/t (0.17 opt) gold and 32.0 g/t (0.93 opt) silver over 5 m. Although this is a minor structure, it is definitely distinct from the Margarete vein.

2. At the north end of Trench G-10, a porphyry dyke cuts chlorite gneiss. A highly altered exposure of porphyry assayed 1.31 g/t (0.038 opt) gold and 54.0 g/t (1.58 opt) silver across 10.0 m (true width is likely much less). This occurrence is at least 50 m north of the main skarn and is a new zone.

3. Along the southern boundary of the grid, a number of pits and shafts have been located. All the workings have caved and been overgrown with vegetation but one specimen of quartz carbonate vein material from a dump assayed 4.59 g/t (0.134 opt) gold. This vein zone occurs along the contact of the metamorphic basement rocks and granodiorite.

4. No modern exploration has been conducted around the Cabin porphyry zone which is located 300 m south of the 1987 grid. This zone has been described in 1969 by Yukon Revenue as an altered breccia but mapping in 1981 indicated the alteration is actually leaching due to intense weathering. An area with moderately anomalous gold soil geochemical assays occurs nearby. Narrow quartz veins near the zone produced specimens assaying up to 15.77 g/t (0.46 opt) gold and 187.9 g/t (5.48 opt) silver (Yukon Revenue).

5. The Liberty and Castle zones lie 500 and 1000 m north of the 1987 grid. They are both poorly explored zones of intense hydrothermal alteration which host small occurrences of gold and base metal mineralization. Limited soil geochemical surveys over the occurrences returned low values but neither zone has been systematically explored for bulk tonnage, low grade gold mineralization.

MINERAL INVENTORY

Margarete Vein

Three programs of drilling have tested the Margarete mineralization and the results are summarized as follows.

a) Conwest Exploration Co. (1959) - One additional hole did not intersect the vein and is not listed.

Hole	Length (m)	Dip(°)	Azimuth(°)	Interval (m)	Gold (g/t)
F-1	54.9	-45	35	2.6	11.66
F-2	68.6	-60	35	2.1	2.06
F-3	61.6	-45	0	1.2	4.11
F-4	68.9	-60	0	2.4	0.35
		Weighted Average:		2.1 (6.7′)	4.47 (0.13 opt)

b) Dynasty Explorations Ltd. (1974) - As part of an extensive geochemical, geophysical and trenching program, eight holes were drilled of which five were along the Margarete vein. Only three of the holes intersected the vein:

Hole	Length (m)	Dip (°)	Azimuth (°)	Interval (m)	Gold (g/t)	Silver (g/t)
G-1	106.7	-50	13	3.1	1.85	48.0
G-6	76.8	-50	20	1.5	4.45	39.8
G-7	70.7	-55	17	1.5	0.68	6.2
		Weighted Average:		2.0 (6.6′)	2.20 (0.06 opt)	35.7 (1.04 opt)

c) Big Creek Joint Venture (1987) - The first stage of the drill program tested the oxidized surface portion of the Margarete vein. The holes were sited at 50 m intervals. This drilling (and trenching) showed that the Margarete vein was in a significantly different position from that assumed by Dynasty. Because drill sites were based on the Dynasty interpretation,

four of the nine 1987 drill holes missed the vein. The successful holes had the following results:

Hole	Length (m)	Dip (°)	Azimuth (°)	Interval (m)	Gold (g/t)	Silver (g/t)
87-1	39.0	-60	180	12.2	3.09	45.3
87-2	27.4	-50	355	1.6	4.80	97.4
87-4	29.2	-50	10	2.2	9.60	95.3
87-5	36.9	-50	10	1.5	3.83	82.6
87-6	27.7	-50	10	6.4	4.45	13.4
		Weighted average:		4.78 (15.7')	4.21 (0.12 opt)	47.2 (1.38 opt)

The 1987 drill holes were drilled with larger size core than used in previous drill programs and hence were used as the basis for calculating the following mineral inventory. Although the average vein intersection is 4.78 m in core, the true thickness is about 3.3 m. Vein intersections from previous drilling are often narrower but commonly have better grades. Ore reserves have only been computed for the 250 m segment of the Margarete vein centered on the Margarete #1 shaft and no reserves have been calculated for the strike extensions. The inventory assumes mining from an idealized pit with 45° walls. Specific gravity is assumed to be 2.5 for both ore and waste.

Geological Inventory
Margarete Vein, Goldstar Property

Depth (m)	Tonnes	Contained gold (g)	Contained silver (g)	Waste:Ore
5	10,315	43,400	486,500	0.9:1
10	20,630	86,800	973,000	1.8:1
20	41,260	173,600	1,946,000	3.5:1
30	61,890	260,400	2,919,000	5.2:1
60	123,780	520,800	5,838,000	10.4:1

FURTHER EXPLORATION

Margarete Vein

The most immediate exploration target is the identification of potentially mineable reserves along the Margarete vein and its strike extensions. This would involve bulldozer stripping along the 250 m length already identified, plus additional trenching or stripping along project extensions in each direction. The vein should be mapped and channel sampled at 5 m intervals for its entire length with deep excavator pits dug every 50 m to produce material for metallurgical samples. Additional closer spaced test pits may be required, depending upon metallurgical characteristics. Once the vein is well located on surface, it should be rotary drilled at 10 m intervals with holes designed to intersect the vein at a depth of about 10 m below surface. Two metallurgical samples were collected in 1988 but have not been processed. These samples should be processed before further work is done.

The program described above would require about 150 hours with a D8 bulldozer, 50 hours with an excavator and about 400 m of drilling at a total cost of about $180,000.

Augusta Showing

The erratic, but occasionally very high grade, mineralization at the Augusta showing should continue to be explored by excavator. A wide and deep trench should be cut in stages along the zone. As the trench is being cut deeper, each exposure of the trench floor should be mapped and sampled and some of the excavated material should be selectively treated (crushed and/or ground) so that any free gold can be extracted by gravity concentration techniques. The trench should be cut down as deeply as possible, using blasting if

necessary. It may be possible from this exercise to determine the distribution of the high grade material and whether the grade decreases with depth. A 5 m wide trench, cut to a depth of 10 m for a length of 50 m, would produce over 5,000 tonnes of material. At least 500 tonnes of well mineralized material has already been identified. Excavation of the trench would require about 100 hours of excavator time at a cost of about $35,000 with perhaps an additional $10,000 required for contract blasting. The percentage of excavated material that would require processing cannot be determined at this time. Determining the cost of gravity extraction using a small placer operation would require more detailed study.

There are a number of other exploration targets on the Goldstar property. The occurrences with known gold mineralization - the Vindicator, Cabin and Liberty zones - should all receive bulldozer trenching to attempt to determine the extent and nature of mineralization. Any veins discovered should receive additional trenching and sampling. The initial exploration of these zones would require 200 hours of D8 bulldozer time at a cost of $85,000.

A geochemical survey conducted in 1986 shows a number of anomalous gold soil anomalies, as described in previous reports. Additional data is required to evaluate these targets. Of the 1986 samples, 600 were not analyzed for gold and all 2,000 samples should be analyzed for arsenic, which appears to be an excellent indicator for gold mineralization along vein faults. This reanalysis, assuming the arsenic analysis was by ICP techniques (which would provide information about other trace elements), would cost about $20,000.

There are at least two areas from the 1986 geochemical survey that have significant, if spotty, gold geochemical anomalies. These zones, in Porcupine Gulch and Liberty Gulch, as well as any new anomalies found during reanalyses, should receive further bulldozer exploration. This work should be deferred until the initial exploration described above has been completed.

APPENDIX ONE

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Charles A. Main, geologist, with business addresses in Whitehorse, Yukon Territory and Vancouver, British Columbia and residential address in Vancouver, British Columbia, hereby certify that:

1. I graduated from the University of British Columbia in 1971 with a B.Sc. majoring in Geological Sciences and Chemistry.
2. I have been actively engaged as a geologist in mineral exploration since 1971 and as a partner of Archer, Cathro & Associates (1981) Limited since June 1, 1981.
3. I have personally participated in or supervised the field work reported herein.

Charles A. Main

Charles A. Main, B.Sc.

APPENDIX TWO

LIST OF EMPLOYEES

LIST OF EMPLOYEES

Name	Position
C.A. Main	Project Manager, Geologist
T. Becker	Geologist

ARCHER, CATHRO
& ASSOCIATES LIMITED
CONSULTING GEOLOGICAL ENGINEERS

VANCOUVER, B.C. (604) 688-2568 BOX 4127, WHITEHORSE, Y.T. Y1A 3S9 (403) 667-4415

1016 - 510 WEST HASTINGS STREET
VANCOUVER, B.C. V6B 1L8

AFFIDAVIT

I, Joan Mariacher, of Whitehorse, Yukon make oath and say:

That to the best of my knowledge the attached Statement of Expenditures for exploration work on the Goldstar Group (see att. for details) mineral claims on Claim Sheet 115I/6 is accurate.

Joan Mariacher

Sworn before me at Whitehorse, Yukon

this 25th day of November, 1988

092699

Notary, Yukon Territory

Statement of Expenditures
Augusta, Margareta, Goldstar, Peerless, Protection Fr., Shearzone 1-2
Vindicator 1-2, Liberty, Excelsior 1-3, Progress 1-2
Greenstone 1-6F and Goldstar Fr
November 25, 1988

Contract Bulldozer	
Ibex Contracting Limited - 32 1/2 hours 225 Hoe at $123/hr	$3,997.50
Expenses	
Rental Knelson gold concentrator - 2 months at $2000/month	4,000.00
	$7,997.50

IBEX CONTRACTING LIMITED

Box 5225 668-5617
Whitehorse, Yukon
Y1A 4Z1

SOLD TO: Archer, Carters (1981) **DATE:** Sept 19/88
№ 895

Quantity	Description	Unit Price		Total
	BCJV Nuclear -	7011.00		
	Foster Cr. -	4612.50		
131	hr 225 hoe @ 123/hr Out -	1722.		16113.00
	Sedgten -	2767.50		
27	hr D8H @ 170/hr - Nuclear			4590.00
				20703.00

2% per month over 30 days

IBEX CONTRACTING LIMITED

Box 5225 668-5617
Whitehorse, Yukon
Y1A 4Z1

SOLD TO: Archer, Cathro (1981)

DATE: Apr 24 / 88

№ 898

Quantity	Description	Unit Price		Total
	BCJV { 10 [illegible] - 1230.			
	47 Cant - 5781.			
88½ hrs.	225 Hoe { 15 Huclean - 1845.	123/hr		10885.50
	16½ Foster Cr - 2029.50			
130½ hrs	D8H { 56 [illegible] - 9520.	170/hr		22185.00
	45 Cant - 7650			
	17 Foster Cr - 2890.			
	12½ Huclean - 2125. pd Sept 7/88			
	#740			
				33070.50

2% per month over 30 days

In Account With

Project — BIG CREEK JOINT VENTURE

Date — JULY 31, 1988

CONSULTING FEES			
	A.R. BECKER - 8 hr @ 55/hr	440.00	
LABOUR			440.00
Field			
	C.A. MAIN - 54 hr @ 40/hr	2160.00	
	T. BECKER - 1 day @ 158/d	158.00	
	N. MACKEY - 1 day @ 113/d	113.00	
	S. WETLAUFER - 1 day @ 143/d	143.00	
	G. MacINTOSH - 1 day @ 128/d	128.00	
Secretarial	M. COOKE - 5 1/4 hr @ 23.28/hr plus		
	R. BEITEL - 1 3/4 hr @ 24/hr	164.22	
Accounting & Expediting	J. MANIACHER - 40 3/4 hr @ 35/hr.	1426.25	
	A. GELLING - 1/2 hr @ 35/hr	17.50	
OTHER SERVICES			4309.97
Room & Board in Whitehorse	5 days @ 60/d	300.00	
Field equipment from AC stock			
Photocopies, 599 copies at 25 ¢/copy		149.75	
Rentals from AC - RENTAL GOLD CONCENTRATOR MACHINE FOR JULY		2000.00	
Blueprinting, sq.ft. Ozalid at ¢/ft, plus sq.ft. Dilar at $ /ft.			
Drafting, 3 1/2 hrs at $ 28. /hr.		98.00	
LOOMIS COURIER - 10 trips @ 9/trip		90.00	
EXPENSES			2637.75
Petty Cash 19.97 D1, 6.50 D2, 2.80 C2		29.27	
Telephone			
William + Mackie		17.95	
LOAN FROM AC 81		5000.00	
			5047.22
MANAGEMENT - 6% OR EXPENSES ABOVE LESS CREDITS BELOW & LESS $5000 LOAN		(43.67)	
- 6% OR EXPENSES PAID FROM FIELD ACCT.		3642.77	
			3599.10
Credit Fuel given sold to: Mary J.V.		(775.00)	
			(775.00)
			15,259.04

In Account With

Project — BIG CREEK JOINT VENTURE

Date — AUG. 31, 1988

CONSULTING FEES			
	A. R. ARCHER - 7 hr @ $55/hr	385.00	
LABOUR			385.00
Field			
	C. A. IRWIN - 81 hr @ $40/hr	3240.00	
	G. ELCOCK - 3 days @ $120/d	360.00	
	T. BECKER - 9 days @ $158/d	1422.00	
	S. WETTLAUFER - 11 days @ $143/d	1573.00	
	F. ANDERSON - 1 day @ 150/d	150.00	
	G. MacINTOSH - 3 days @ 128/d	384.00	
Secretarial	R. BEITEL - 2 1/4 hr @ $24/hr.	54.00	
Accounting & Expediting	J. MARINACHER - 29 1/4 hr @ $35/hr	1023.75	
	A. GELLING - 3 hr @ 35/hr	105.00	
OTHER SERVICES			8311.75
Room & Board in Whitehorse	7 days @ $60/d	420.00	
Field equipment from AC stock		38.94	
Photocopies, 669 copies at 25 ¢/copy		167.25	
Rentals from AC			
	BINOC, MIKE - AUG 21-31 @ $60/mo	20.00	
	SKW RL. GENERATOR - 11 DAYS @ $30/d	330.00	
	LAB GOLD CONCENTRATOR	2000.00	
Blueprinting, sq.ft. Ozalid at ¢/ft, plus sq.ft. Dilar at $ /ft.			
Drafting, 15 hrs at $ 28 /hr.		420.00	
LOOMIS COURIER - 2 trips @ $9 ea		18.00	
EXPENSES			3414.19
Petty Cash 34.95 D1, 20 D4 +8.90 D2		63.85	
Telephone 3.85		3.85	
INTERGRAPHICS		2.04	
			69.74
MANAGEMENT - 6% OF EXPENSES ABOVE LESS CREDITS		(142.99)	
- 6% OF EXPENSES PAID FROM FIELD ACCT.		2255.31	
			2112.32
CREDIT			
TRANSIT RENTAL PAID IN JULY		(133.33)	
SETHWELL BILL PAID BY BCTU IN ERROR		(16.06)	
Credit for generator rental from Instrumental		(1797.50)	
WHITE PASS, DRUM RETURNS 15 Drums		(506.00)	
			(2452.89)
			11,840.11