MAP NO.: 106C 13

ASSESSMENT REPORT
PROSPECTUS
CONFIDENTIAL X
OPEN FILE

DOCUMENT NO: 093180
MINING DISTRICT: MAYO
TYPE OF WORK: GEOLOGICAL, GEOCHEMICAL

REPORT FILED UNDER: PAMICON DEVELOPMENTS

DATE PERFORMED: JULY 6, 1993 **DATE FILED:** MARCH 1, 1994

LOCATION: **LAT.:** 64°56'N **AREA:** FAIRCHILD LAKE

LONG.: 133°41'W **VALUE $:** 3,250

CLAIM NAME & NO.: WHALE 1-10(YB29152-161)

WORK DONE BY: M.A. STAMMERS

WORK DONE FOR: INTERNATIONAL PRISM

DATE TO GOOD STANDING:	

REMARKS: 20 SOILS AND 7 ROCK SAMPLES WERE COLLECTED

Indian and Northern Affairs Canada | Affaires indiennes et du Nord Canada

M.R. file no.

R.M.M.R. file no.

Date forwarded: 28 Feb 94

TRANSMITTAL FORM

From ▶ Mining Recorder at: Mayo

To ▶ Regional Manager, Mineral Rights at Whitehorse, Y.T.

For action are:

- ☐ NEW APPLICATION FOR PLACER LEASE TO PROSPECT — Name
- ☐ RENEWAL APPLICATION PLACER LEASE TO PROSPECT — Name — Lease no.
- ☐ AFFIDAVIT OF EXPENDITURE ON PLACER LEASE — Name — Lease no.
- ☐ SECURITY DEPOSIT
- ☐ FINANCIAL ABILITY
- ☐ ASSIGNMENT OF PLACER LEASE NO. — From — To
- ☐ GROUPING APPLICATION UNDER SEC. 52(2) PLACER MINING ACT. — Owner
- ☐ DIAMOND DRILL LOGS — Claims — Claim sheet no.
- ☑ QUARTZ ASSESSMENT REPORT — Claims: Whale 1-10 — Claim sheet no.: 106-C-13
  - Type of report: Geological / Geochemical
  - Submitted by: M.A. Stammers, Pamicon Developments Limited.
  - Cls. work performed on: Whale 1-10
  - $ req. for ren. application: 3250.00

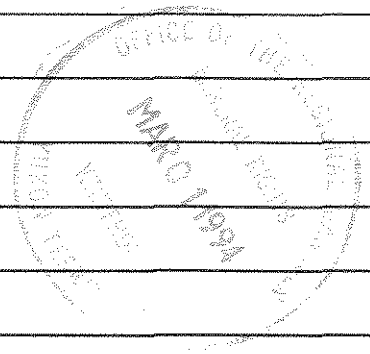
Please return one numbered report and a Index card for our files.
Thank you.

Signature

Date returned

REPLY ACTION

093180



Signature

802-6027-26 (6-86)

1993 GEOLOGICAL & GEOCHEMICAL REPORT

ON THE WHALE CLAIMS

Fairchild Lake Area

NTS 106C/13

Located at 64° 56' North Latitude

133° 41' West Longitude

- Prepared For -

INTERNATIONAL PRISM EXPLORATION LTD.

- Prepared By -

PAMICON DEVELOPMENTS LIMITED

M.A. Stammers, P.Geo., FGAC

Work Completed: July 6, 1993

Report Date: February, 1994

1993 GEOLOGICAL & GEOCHEMICAL REPORT ON THE WHALE CLAIMS

TABLE OF CONTENTS

LIST OF FIGURES

APPENDICES

1.0 INTRODUCTION

The Whale mineral claims are located in the Bonnet Plume River valley approximately 182 kilometres north-northeast of Mayo in east central Yukon (Figure 1). The property, located in the Wernecke Mountains and accessible by air or winter cat road is situated 6 kilometres southeast of Fairchild Lake near the Bonnet Plume River valley. Geologically, the claim group is underlain by a faulted and folded sequence of Proterozoic sedimentary Quartet Group strata of the Wernecke Supergroup that has been intruded by one or more small hematite breccia bodies and cut by several quartz veins.

Recent publication of data on the giant Olympic Dam copper-gold-silver-uranium deposit in Australia lead to the development of applying this deposit model to the Wernecke Supergroup strata and related hematite breccia complexes with its widely documented copper-uranium-gold-cobalt occurrences. It was on this basis that the Whale 1 - 10 claims were acquired by staking in October 1992.

A brief exploration program comprising preliminary geological mapping, lithogeochemical sampling and soil geochemistry was completed on the property on July 6, 1993. There is no record of any previous work on the property. Results from the limited program demonstrate that much of the claim group is underlain by unmineralized and monotonous Quartet Group stratigraphy. Minor copper mineralization was discovered on the Whale 9 and 10 claims and appears to be associated with a hematite breccia body and related jasper horizon.

All work programs and property acquisition have been jointly conducted by Pamicon

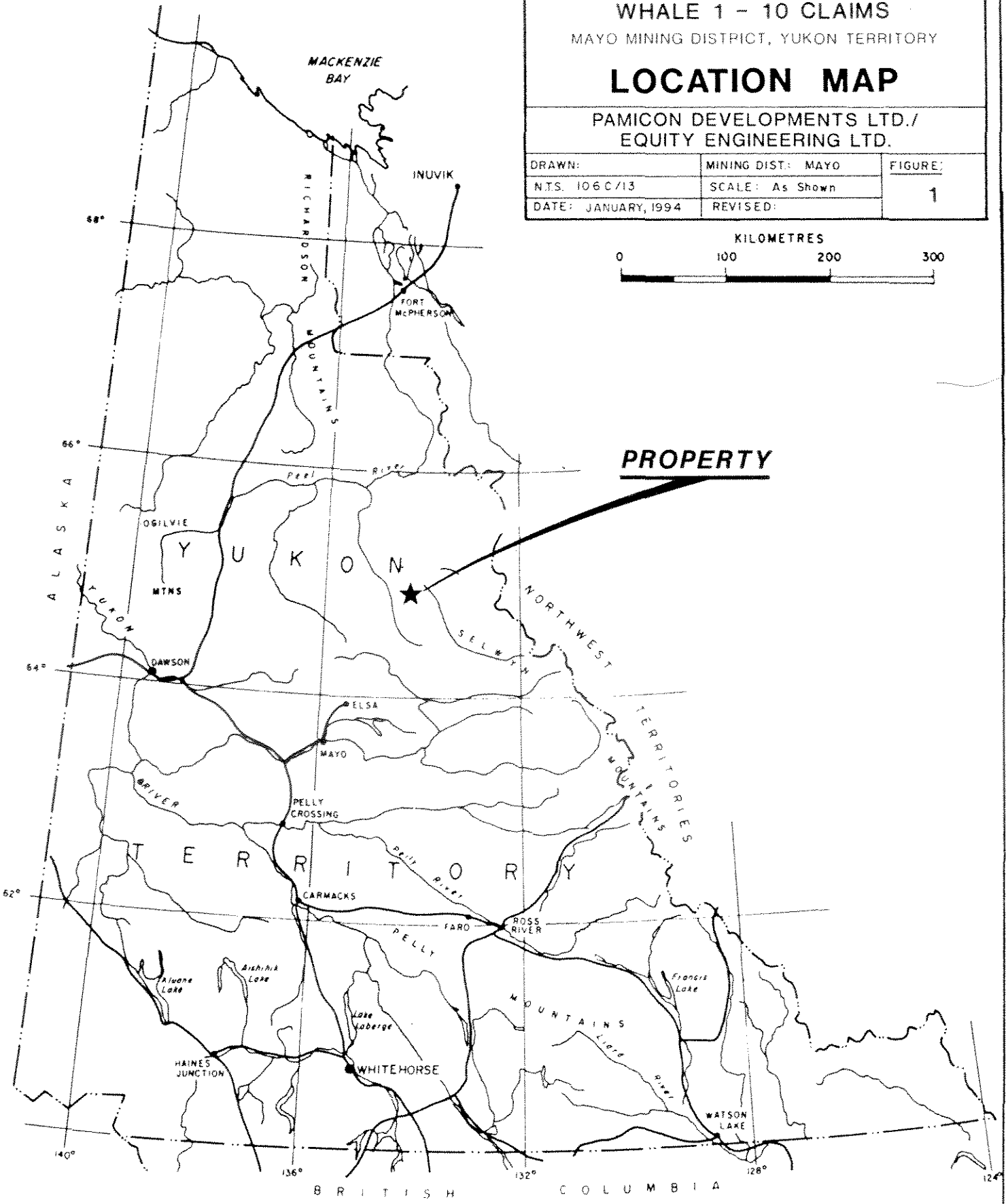
INTERNATIONAL PRISM EXPLORATION LTD.

DOLORES PROJECT
WHALE 1 - 10 CLAIMS
MAYO MINING DISTPICT, YUKON TERRITORY

LOCATION MAP

PAMICON DEVELOPMENTS LTD./
EQUITY ENGINEERING LTD.

DRAWN:	MINING DIST: MAYO	FIGURE: 1
N.T.S. 106 C/13	SCALE: As Shown	
DATE: JANUARY, 1994	REVISED:	



Developments Ltd. and Equity Engineering Ltd. The claims were optioned to International Prism Exploration Ltd in the spring of 1993. The same companies have been retained to report on the fieldwork activities.

2.0 LIST OF CLAIMS

The Whale property comprises 10 contiguous quartz mineral claims located in the Mayo Mining District (Figure 2). Government records indicate that the claims are owned 50% each by Pamicon Developments Ltd. and Equity Engineering Ltd. of Vancouver, B.C. Separate documents indicate that the claims are held under option by International Prism Exploration Ltd. of Calgary, Alberta.

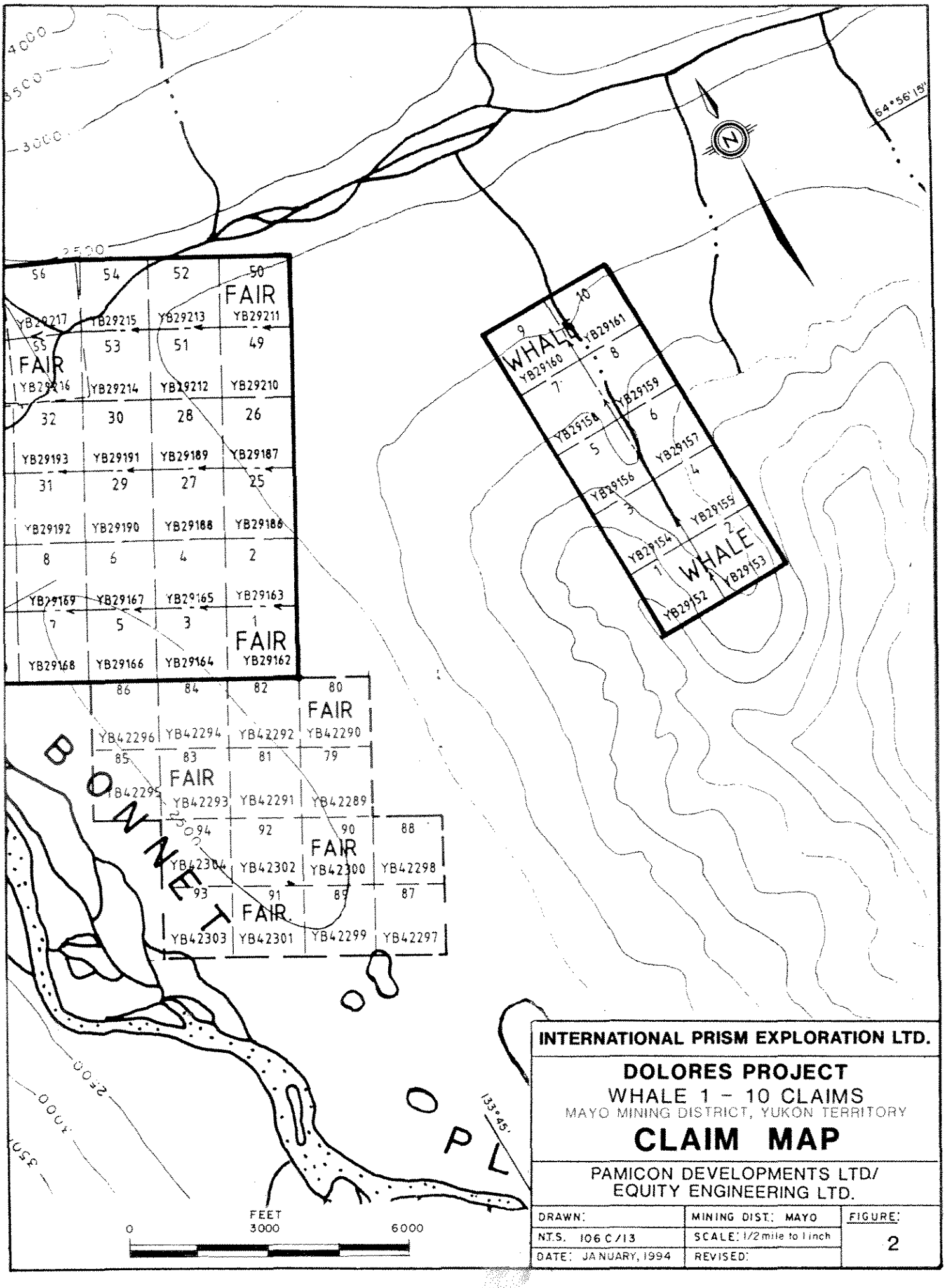
The following table lists the claims by name, number, record date, and pending expiry date:

Claim Name	Claim Numbers	Record Numbers	Record Date	Expiry Date
Whale	1 - 10	YB29152-161	10/19/92	12/31/96*

*** Pending acceptance of work filed with this assessment report.**

3.0 LOCATION, ACCESS AND PHYSIOGRAPHY

The Whale property is located in the Wernecke Mountains of east central Yukon, approximately 182 kilometres northeast of Mayo (Figure 1). Approximate coordinates of the claims are 64°56' North longitude and 133°41' West latitude on NTS map sheet 106C/13. The property may be accessed from Mayo by float plane



INTERNATIONAL PRISM EXPLORATION LTD.

DOLORES PROJECT

WHALE 1 – 10 CLAIMS

MAYO MINING DISTRICT, YUKON TERRITORY

CLAIM MAP

PAMICON DEVELOPMENTS LTD/
EQUITY ENGINEERING LTD.

DRAWN:	MINING DIST.: MAYO	FIGURE:
NTS. 106 C/13	SCALE: 1/2 mile to 1 inch	2
DATE: JANUARY, 1994	REVISED:	

to Fairchild Lake, 6 kilometres to the northwest of the claims. Helicopter support is necessary to the property from Fairchild Lake. Access during the 1993 work program was by wheeled aircraft to the Bear River airstrip located 28 kilometres west-southwest of the property and then by helicopter to a basecamp shared with Westmin Resources on Breccia Creek. From Breccia Creek, access was by helicopter, 19 kilometres east to the property.

In the late 1960's, a spur trail was built to the property area from the Wind River winter tote road. The Wind River tote road was built during the late 1950's to access oil and gas exploration sites to the north and in the early 1960's was utilized again during work on the Snake River (Crest) iron deposit.

Elevations on the Whale property range between 910 and 1,550 metres above sea level. The topography is mountainous and typical of alpine glaciated terranes, with deep valleys and serrated ridges. Relief ranges from gentle to steep. The majority of the area is above tree line, which lies at approximately 900 metres. Thick stands of spruce are found only in the major river valleys. Above tree line, vegetation consists of alpine grasses and moss with local concentrations of dwarf birch and alder. Work on the claim holdings could proceed from early June to late September.

This part of the Yukon did not receive continental Pleistocene glaciation, but was subjected to significant alpine glaciation to form the wide U-shaped valleys of the Bonnet Plume and Wind Rivers. A few receding alpine glaciers are present on north facing slopes.

4.0 AREA HISTORY

The first copper occurrences were noted by trappers working in the region at the turn of the century. In 1935, the McCluskey Lake copper occurrences were staked and the Bonnet Plume and Wind River area received sporadic exploration for copper over the next 20 years. Exploration activity was stimulated in the late 1950's when Crest Exploration Limited built a winter road from Elsa into their banded iron deposit in the Snake River area. Work on the Snake River Iron deposit outlined 18.6 billion tonnes averaging 47% iron in the Hadrynian Rapitan Group (Yeo, 1986).

In the early 1960's, the first copper showing was found at Dolores Creek by L. Brown. Bonnet Plume River Mines Ltd. conducted exploration from 1967 to 1969, at which time limited diamond drilling was completed (Laznicka and Edwards, 1979).

In 1971, the discovery of zinc-lead showings in the Mackenzie Mountains to the east brought exploration activity to the southeastern portion of the Wernecke Mountains. Continued lead-zinc exploration in the Proterozoic basin led to the discovery of uranium mineralization in 1974 by Archer, Cathro and Associates Ltd. In the period 1975 to 1980, a number of major companies (i.e. Urangesellschaft, Noranda) and joint ventures (i.e. Wernecke Joint Venture, Mountaineer Mines- Pan Ocean Oil Ltd.) were involved in exploration of breccia-related uranium mineralization. At this time, Pan Ocean staked and drilled coal reserves to outline in excess of 500 million tonnes of low sulphur, high volatile bituminous coal in Cretaceous strata in the Bonnet Plume Basin located north of the Wernecke Mountain Range.

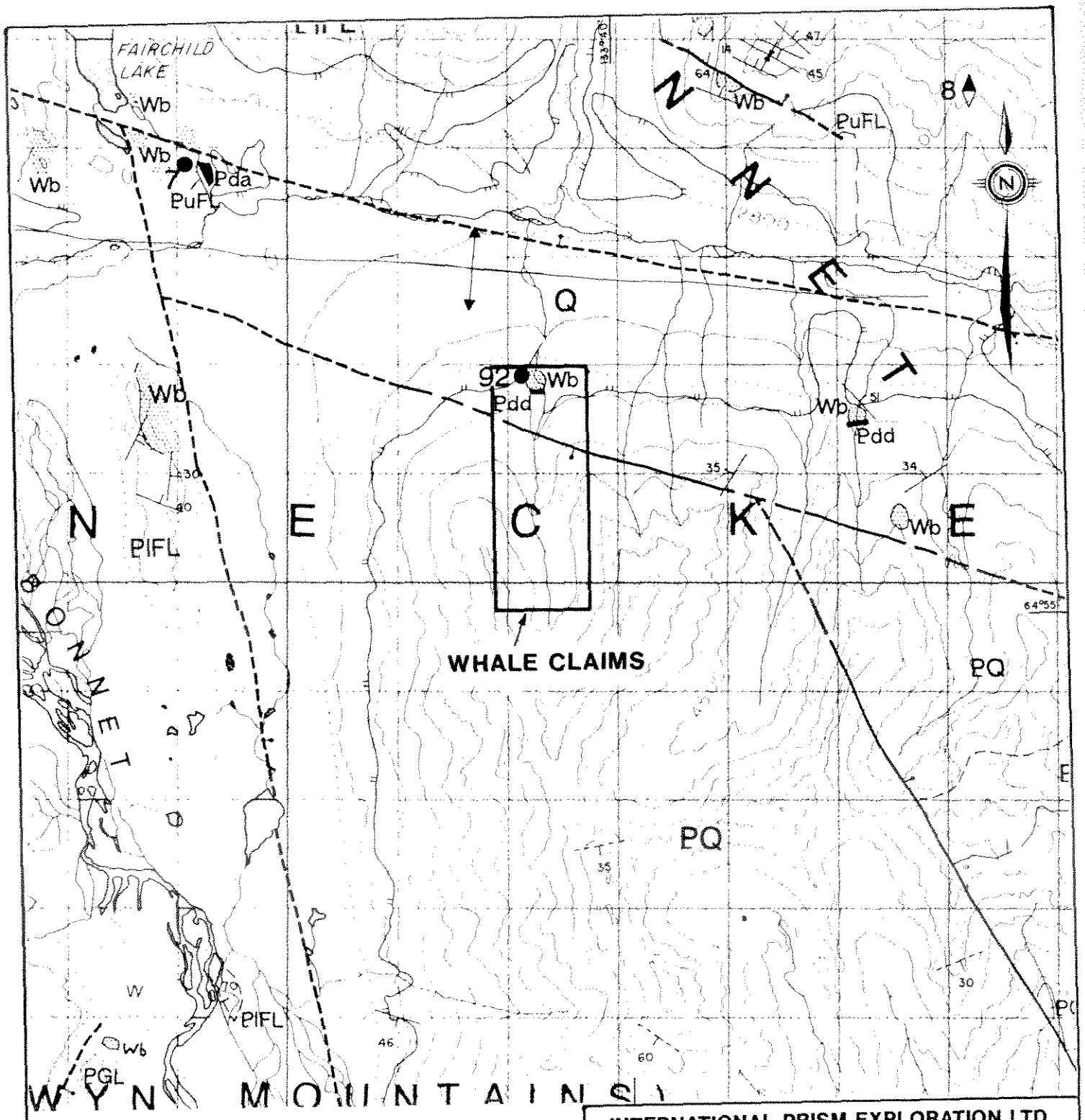
The 1980's saw very limited exploration throughout the project area. Archer Cathro, Texaco and Cyprus Gold embarked on limited exploration campaigns to test the gold potential of some known uranium and copper occurrences. The lack of recent exploration activity has allowed most of the staked areas to come open.

No prior work is reported in the Whale claims area.

5.0 REGIONAL GEOLOGY (Figure 3)

The Wernecke Mountains are cored by at least 14,000 metres of generally fine-grained terrigenous and carbonate rocks of Helikian age that have been penetrated by mineralized breccias and cut by mafic sills and dykes. The entire succession has been named the Wernecke Supergroup and has been divided into three groups (oldest to youngest): Fairchild Lake Group, Quartet Group and Gillespie Lake Group. To the east and south, the Hadrynian Pinguicula Group unconformably overlies the Wernecke Supergroup. Palaeozoic strata bound the western margin and Cretaceous and Tertiary sediments fill the area to the north in the Bonnet Plume Basin.

Delaney (1985) provides the most updated discussion of the Proterozoic stratigraphy whereas, Bell (1977, 1978, 1982, 1986a, 1986b, 1987) focused on the mineralogy, morphology and genesis of the breccia complexes. In addition to this published work, many stratigraphic sections were measured by Pamicon Developments Ltd. during their work programs. The following lithological discussion combines the detailed Pamicon work and that of Delaney. Where applicable, the **Fairchild**,



LEGEND LOCATED ON FOLLOWING PAGE

Geology Map from Thorkelson and Wallace

Open File 1994-6 (G)

Indian and Northern Affairs Canada

Exploration and Geological Services Division,

Yukon Region.

INTERNATIONAL PRISM EXPLORATION LTD.

DOLORES PROJECT

WHALE 1 - 10 CLAIMS

MAYO MINING DISTRICT, YUKON TERRITORY

REGIONAL GEOLOGY

PAMICON DEVELOPMENTS LTD./
EQUITY ENGINEERING LTD.

DRAWN:	MINING DIST.: MAYO	FIGURE: 3
N.T.S. 106C/13	SCALE: 1:50,000	
DATE: FEBRUARY, 1994	REVISED:	

LEGEND

(to accompany Figure 3)

STRATIFIED ROCKS

Quaternary

Q Alluvium, colluvium, and glacial deposits

Middle Proterozoic

Gillespie Lake Group

PGL Undivided Gillespie Lake Group; orange, brown and grey weathering dolostone and silty dolostone, locally stromatolitic, locally hosting chert nodules and sparry karst infillings, interbedded with subordinate black weathering siltstone and shale, green, grey and brown weathering laminated mudstone, and grey to white weathering quartzose sandstone

Quartet Group

PQ Black weathering shale, finely laminated dark grey weathering siltstone, and planar to cross laminated light grey weathering siltstone and fine grained sandstone. In upper part of succession, siltstone and fine grained sandstone interbedded with subordinate orange weathering dolostone grades upward into basal Gillespie Lake Group

Fairchild Lake Group

PuFL Upper Fairchild Lake Group: black weathering siltstone, buff to light grey weathering dolomitic siltstone, orange to brown weathering dolostone

PlFL Lower Fairchild Lake Group: Greenish grey to pink and green weathering calcareous laminated siltstone, grey weathering fine grained sandstone, and minor brown weathering carbonate

INTRUSIVE ROCKS

Middle Proterozoic

Wernecke Breccia

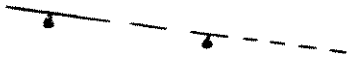
WB Mottled red, green and grey weathering hematitic and dolomitic breccia, and related metasomatized country rock

Igneous Dykes

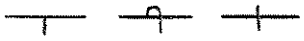
Pd Fine to medium grained, mafic to intermediate dykes. **Pdd**, greenish grey weathering, fine to medium grained diorite to gabbro; **Pda**, grey weathering, biotitic andesite to basalt, locally spherulitic and amygdaloidal

SYMBOLS

stratigraphic or intrusive contact
known, approximate, assumed

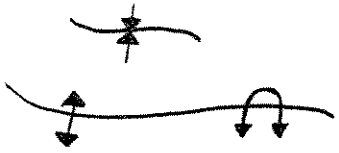


normal or strike-slip fault (pegs on downthrown side)
known, approximate, assumed



bedding
inclined, overturned, vertical

cleavage
inclined, vertical



fold
syncline

anticline: inclined; overturned

GEOLOGY

106C/13 After Derek J. Thorkelson and Carol A. Wallace, OPEN FILE 1994-6 (G) Geological Map of Fairchild Lake Map Area, Wernecke Mountains, Yukon, Canada/Yukon Mineral Development Agreement, Geoscience Office

Quartet and **Gillespie** subgroups of Delaney (1985) have been bracketed after the Pamicon description.

Recent publication of 1:50000 scale mapping of NTS mapsheet 106C/13 by Thorkelson and Wallace (1994a), along with its accompanying report (Thorkelson and Wallace (1994b) provide excellent additional information on the region. Figure 3 is taken directly from this work.

The Fairchild Lake Group outcrops along the western edge of the Bonnet Plume River, at Bond Creek and near the headwaters of the Little Wind River. The thickness is greater than 4,000 metres and the base of this sequence has not been observed. The lowest members of the Fairchild Lake Group consist of light to dark green, fractured, chloritic siltstone grading upwards into light grey, massively bedded, siliceous siltstone (**F-1**). The remainder of the section consists of alternating repetition of the grey siltstone described above and an interbedded unit of narrow limestone (20%) and siltstone (80%) beds (**F-2**). The interbedded unit is recognized by its "ribbed" weathering. Overlying these units is a sequence of massively bedded, green calcareous siltstone, brown weathering dolomite and a coarser, light green sandstone or quartzite with local magnetite (**F-3, F-4**). The top of this section is marked by a 12.0 metre massively bedded, calcareous white quartzite overlain by thin bedded, green calcareous siltstone and minor limestone. The transitional (**F-Tr**) upper part of the Fairchild Lake Group is measured from the appearance of a well developed phyllite. Overlying the phyllite is a bed of black, soft silty shale, followed by 170 metres of thick, massively interbedded section of brown weathering dolomite with black shale and topped by 120 metres of pyritic, rusty weathering, black shale. Near

the top of the dolomite sequence is a distinctive 12 metre thick marker horizon of white, recrystallized limestone. This sequence is typical of a thick miogeoclinal succession.

The Quartet Group consists of greater than 5,000 metres of monotonous dark-grey weathering, fine-grained siliclastic sediments. Immediately above the red brown weathering shale of the Fairchild Lake Group is a 330 metre thick section of dark grey to black weathering, laminated shales and silty shales (**Q-1**). The balance of the section is comprised of dark grey weathering siltstone and sandstone with interbeds of shale and quartzite (**Q-2**). Primary structures include cross and graded bedding, ripple marks and load casts. Massively bedded quartzites increase in frequency towards the top of the group. The base of Q-2 is marked by a 180 metre thick, rusty weathering, pyritic quartzite unit. The base of the Quartet Group is interpreted by Delaney (1985) to have accumulated in a sediment starved basin with the thicker bedded siliclastic sediments of Q-2 being typical of shallow marine sediments.

The Gillespie Lake dolomitic rocks exhibit a gradational contact with the underlying Quartet Group. The thickness of the transition zone varies from 25 metres to as much as 700 metres (Delaney, 1981) and consists of massively interbedded, brown to orange weathering dolomite and dark grey to black, calcareous siltstone or shale giving a striped appearance to this unit (**G-TR**). Delaney (1981) has subdivided the remainder of the group into **G-2** through **G-7,** although none of these subgroups can be followed along strike due to dramatic facies changes. Above the transition zone, the Gillespie Lake Group is dominated by bright orange-weathering, grey dolomite with minor black shale, maroon shale

and lesser quartzite. Stromatolites, oolites and molar tooth structures occur near the top of the section. The Gillespie Lake Group is a 4,000 metre thick section of terrigenous siliclastic sediments and shallow marine platformal dolomites.

The overlying Pinguicula Group of Hadrynian age consists of a basal andesitic flow overlain by coarse unsorted conglomerate, alternating red and green siltstones/sandstones, and, finally by stromatolitic dolomite. This poorly studied group has been correlated to the Coates Lake Group or "copper cycle" in the upper part of the MacKenzie Mountains Supergroup (Jefferson and Ruelle, 1986). Its lower contact and upper contact, which is marked by glacial deposits of the Rapitan Group (Windermere or Ekwi Supergroup), are both erosional unconformities.

Strata of the Wernecke Supergroup are cut by numerous hematitic breccia complexes that are enriched in iron, uranium, barium, fluorine, copper, cobalt, rare earths and gold. At least 86 breccias have been identified, which represents about 2% of the surface exposure in the region (Archer and Schmidt, 1978). No breccias cut the younger Pinguicula Group rocks.

The Wernecke Supergroup is cut by gabbro dykes/sills and one body of peridotite. Several lamprophyre dykes approximately 1.0 metre wide, with books of fresh biotite up to 4.0 centimetres in diameter are found northwest of Fairchild Lake (Archer and Schmidt, 1978). K-Ar dating of biotite points to a Late Proterozoic age for these dykes (Delaney, 1981). Diabase dykes, tentatively assigned a Helikian age, occur in the southern half of the map-area.

The main structural components of the Wernecke terrane are the southeast trending fault splays (Deslauriers, Knorr and Snake River Faults) of the Richardson Fault Array. These faults are interpreted to be deep-seated, long-lived, vertical structures which have undergone considerable right lateral and vertical movement. These faults separate the Wernecke Supergroup from younger Proterozoic rocks to the east. In the western part of the area, Lower Palaeozoic rocks unconformably overlie the Wernecke Supergroup, forming spectacular angular unconformities. On a regional scale, sediments dip away from the Bonnet Plume valley causing the Proterozoic rock units to be exposed in a northwest trending anticlinal structure.

The Bonnet Plume valley is considered to be an expression of a major fault splay from the Knorr Fault and the Wind River from the Deslauriers Fault. A secondary northerly set of faults likely controls the topographic linears such as the Slats Creek pass and Fairchild Lake valley.

At least two early major orogenic events affected the Proterozoic strata in the Werneckes. These include the "Racklan orogeny" at the base of the Pinguicula Group (1.2 Ga) and a major rifting event at the base of the Rapitan Group (0.8 Ga), the "Hayhook orogeny" (Young et al, 1979).

Deformation due to the Racklan orogeny consists mainly of intense cross block faulting with steep reverse and normal block faulting and subsequent rotation of large blocks. Folding is normally an open style and the Richardson Fault Array was probably active (Delaney, 1981). This deformational phase is consistent with an extensional rifting environment producing mafic volcanic flows at the base of the Pinguicula Group and development of the breccia complexes.

Within the Lower Fairchild Lake Group, the deformation is more intense as folds are normally tight, isoclinal and occasionally recumbent. A large portion of the group is overturned south of Fairchild Lake. Since the degree of alteration and structural complexity of the Quartet and Gillespie Lake Groups is much less, it is suspected that another orogeny, compressional in nature, affected the Lower Fairchild Lake Group, perhaps marking the boundary between the Aphebian and Helikian. Bell (1982) feels that these structural features were produced by the interaction of transcurrent faults producing areas of tension and compression creating variations in style and intensity of deformation.

Four styles of nonferrous metallic mineralization have been identified in Proterozoic rocks of the Wernecke Mountains: (1) Hematite breccia and vein related copper-uranium-gold-silver-cobalt, (2) Sedimentary copper, (3) Shale-hosted lead-zinc-silver, and (4) Carbonate hosted lead-zinc-silver. To date, the greatest exploration effort has been concentrated on the breccia mineralization, but even this effort has been really limited to the period 1975-1980 and almost solely targeted at the uranium.

6.0 1993 WORK PROGRAM

An exploration program comprising geological mapping, lithogeochemistry, soil geochemistry and prospecting was completed on the Whale 1 - 10 claims on July 6, 1993.

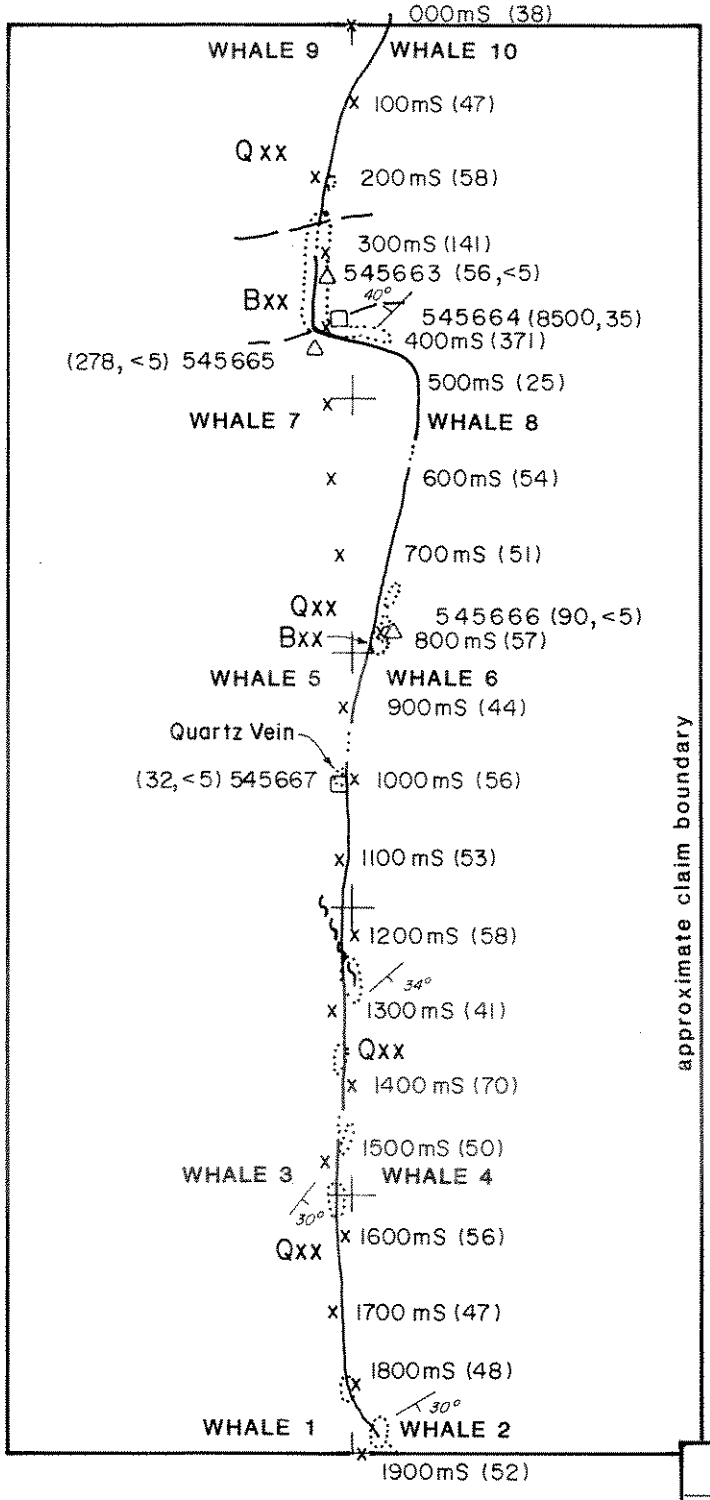
Preliminary geological mapping at one inch to one-half mile scale was carried out

over portions of the property and surrounding area. A total of 3 lithogeochemical and 4 grab samples was taken during the course of mapping and limited prospecting.

A total of 20 soil samples was collected every 100 metres on the claim line. Samples were taken, where possible from the "B" horizon at depths ranging from 10 to 30 centimetres and averaging about 20 centimetres. The sample site was marked in the field with plastic flagging tape. The sampler recorded notes pertaining to sample horizon, colour, texture, vegetation, and local physiography. Samples were partially dried in camp then shipped along with rock samples to Chemex Labs, North Vancouver B.C. for preparation and analysis. Analytical procedures, rock description forms and a complete set of results for gold, lanthanum and 24 elements by ICP geochemistry are listed in the appendices.

7.0 **PROPERTY GEOLOGY AND MINERALIZATION** (Figures 4 and 5)

The Whale claim group is underlain by Quartet group dark grey to black, siliclastic sediments including shale, slate, siltstone, argillite and quartzite. Exposure is very good in the southern claims area but becomes poor to the north as one enters the wide till covered valley of Louis (Ram) Creek. Most lithologies are finely laminated with prominent crossbedding features with tops up. Quartzite is thick bedded and blocky weathering while other units are progressively medium to thin bedded. Fine grained, diagenetic pyrite is common in many of the Quartet Group lithologies. Stratigraphy strikes generally north-northeast with east-southeasterly dips. Steeply dipping faults and shear zones were observed along both north-south and east-west trends.



133° 40'W

N

LEGEND

- Post Location
- x Soil Location-Sample No. (ppm Cu)
- △ Litho Location-Sample No. (ppm Cu, ppb Au)
- □ Grab Location No. (ppm Cu, ppb Au)
- Outcrop
- Bedding, strike, dip
- Fault

64° 55'N

LITHOLOGIES

Qxx - Quartet Group: black siltstone quartzite

Bxx - Wernecke Breccia

METRES

0 100 200 300 400

INTERNATIONAL PRISM EXPLORATION LTD.

DOLORES PROJECT

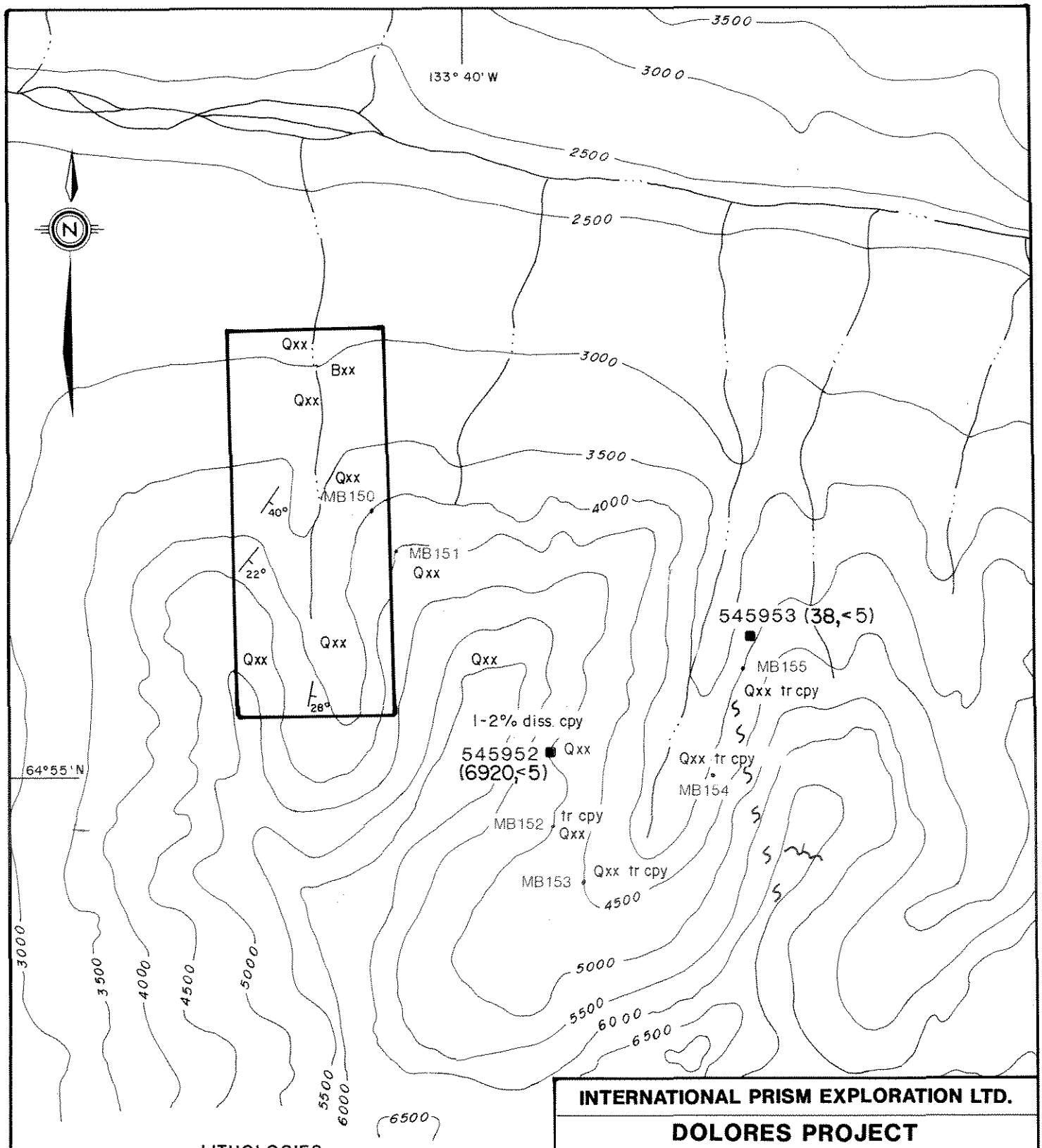
WHALE 1 - 10 CLAIMS

MAYO MINING DISTRICT, YUKON TERRITORY

SOIL GEOCHEMISTRY, ROCK SAMPLING AND PRELIMINARY GEOLOGY MAP

PAMICON DEVELOPMENTS LTD./
EQUITY ENGINEERING LTD.

DRAWN:	MINING DIST.: MAYO	FIGURE:
N.T.S. 106C/13	SCALE: 1 : 10,000	4
DATE: FEBRUARY, 1994	REVISED:	



LITHOLOGIES

Qxx Quartet Group: black siltstone quartzite

Bxx Wernecke Breccia

cpy Chalcopyrite Mineralization in Quartz Veins

Symbols

Bedding, strike,dip

■ Grab Rock Sample (Copper ppm, Gold ppb)

MB155 • Geological Reference Station

Feet 0 1500 3000 4500 Feet

INTERNATIONAL PRISM EXPLORATION LTD.

DOLORES PROJECT

WHALE 1 - 10 CLAIMS

MAYO MINING DISTRICT, YUKON TERRITORY

AREA GEOLOGY AND ROCK SAMPLING TRAVERSE MAP

PAMICON DEVELOPMENTS LTD./
EQUITY ENGINEERING LTD.

DRAWN:	MINING DIST.: MAYO	FIGURE:
N.T.S. 106C/13	SCALE: 1/2mile = 1inch	5
DATE: FEBRUARY, 1994	REVISED:	

Quartet Group rocks are locally crosscut by small to medium size quartz veins and occasional quartz-carbonate veins. Minor chalcopyrite and/or pyrite mineralization is infrequently associated with these veins and attendant silicified zones. Two samples plotted on Figure 5, 545952 (chalcopyrite-bearing) and 545953 (pyrite-bearing) returned respective copper values of 6920 and 38 ppm Cu. Gold values for both samples were below detection limits. A 5 metre wide, 90° trending quartz vein is exposed in the main creek in the middle of the claim group. Grab sample 545667 returned values of 32 ppm Cu and <5 ppb Au.

A small hematite breccia body is partially exposed in the main creek cut on the Whale 9 and 10 claims. Both heterolithic and homolithic members are present as well as a spatially related 1 cm thick jasper horizon. The heterolithic breccia includes two clast types. A brown, laminated sandy clasts are present, as well as a black argillite component. Carbonate alteration is very strong and lithogeochemical sample 545663 containing 5-7% specularite and <1% pyrite returned values of 56 ppm Cu and <5 ppb Au. A second lithogeochemical sample, 545665 with 3% specularite and trace chalcopyrite ran 278 ppm Cu and <5 ppb Au. Grab sample 545664, a carbonate and jasper altered thinly laminated siltstone with about 3% chalcopyrite returned values of 8,500 ppm Cu and 35 ppb Au. A second, very small homolithic breccia body outcropping near the Whale 5 - 8 claim posts was sampled (545666) for lithogeochemical purposes and ran 90 ppm Cu and <5 ppb Au.

8.0 SOIL GEOCHEMISTRY (Figure 4)

A total of 20 soil samples was collected along the claim line which basically runs down the centre of the main creek valley. Samples were collected every 100 metres on alternating sides of the creek.

Results of this small sampling program are shown for copper on Figure 4. Values for copper ranged from 25 to 371 ppm. The two highest values of 141 and 371 ppm Cu (0300M S and 0400M S) correspond to chalcopyrite mineralization discovered in and immediately adjacent to the largest hematite breccia body.

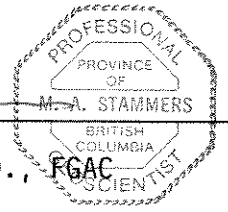
Geochemically anomalous manganese values of 2,930 and 5,630 ppm are coincident with the highest copper results. No other elements report any significant or anomalous values.

9.0 CONCLUSIONS AND RECOMMENDATIONS

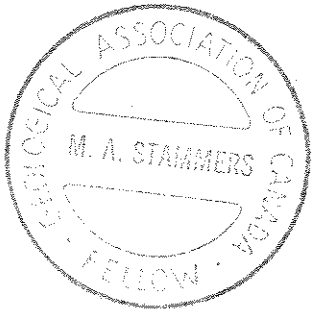
The Whale 1 - 10 claims were staked to cover favourable geology and reported copper mineralization outlined by a regional exploration program completed by Pamicon Developments Ltd. in the late 1970s. A minimal geological and geochemical work program completed in 1993 failed to identify significant copper mineralization or geology favourable for locating bulk tonnage Cu-Au deposits of the Olympic Dam model.

No further work is recommended on the claims at this time.

Respectively submitted,



M.A. STAMMERS, P.GEO., FGAC



APPENDIX A

BIBLIOGRAPHY

BIBLIOGRAPHY

Archer, A.R., Bell, R.T. and Thorpe R. (1986): Age Relationships from U-Th-Pb isotope studies of uranium mineralization in Wernecke breccias; in Current Research, Part A, Geological Survey of Canada, Paper 86-1A, p. 385-391.

Archer, A.R. and Schmidt, U. (1978): Mineralized Breccias of Early Proterozoic Age, Bonnet Blume River District, Yukon Territory; CIM Bulletin, vol. 71, p. 53-58.

Bell, R.T. (1978): Breccias and uranium mineralization in the Wernecke Mountains, Yukon - a progress report ; in Current Research, Part A, Geological Survey of Canada, Paper 78-1A. p. 317-322.

Bell, R.T. (1982): Comments on the geology and uraniferous mineral occurrences of the Wernecke Mountains , Yukon and District of MacKenzie; in Current Research, Geological Survey of Canada, Paper 82-1B. p. 279-284.

Bell, R.T. (1986a): Geological map of northeastern Wernecke Mountains, Yukon Territory; Geological Survey of Canada, Open File 1027.

Bell, R.T. (1986b): Megabreccias in northeastern Wernecke Mountains, Yukon Territory; in Current Research, Part A, Geological Survey of Canada, Paper 86-1A. p. 375-384.

Bell, R.T. (1989): A Conceptual Model for Development of Megabreccias and Associated Mineral Deposits in Wernecke Mountains, Canada, Copperbelt, Zaire, and Flinders Range, Australia; in Uranium Resources and Geology of North America, International Atomic Energy Agency, p. 149-169.

Bell, R.T. and Delaney, G.D. (1977): Geology of some uranium occurrences in Yukon Territory; in Current Research, Part A, Geological Survey of Canada, Paper 77-1A. p. 33-37.

Bell, R.T. and Jefferson, C.W. (1987): An Hypothesis for an Australian-Canadian Connection in the Late Proterozoic and the Birth of the Pacific Ocean; Pacific Rim Congress 87, p. 39-50.

Bell, R.T. and Jones, L.D. (1979): Geology of some Uranium Occurrences in Western Canada; in Current Research, Part A, Geological Survey of Canada, Paper 79-1A. p. 397-340.

Delaney, G.D. (1981): The Mid-Proterozoic Wernecke Supergroup, Wernecke Mountains, Yukon Territory; in Proterozoic Basins of Canada, Geological Survey of Canada, Paper 81-10, p. 1-23.

Delaney, G.D. (1985): The Middle Proterozoic Wernecke Supergroup, Wernecke Mountains, Yukon Territory; Unpublished Ph.D. Thesis, University of Western Ontario, 373 pp.

Eisbacher, G.H. (1978): The Major Proterozoic Unconformities, Northern Cordillera; in Current Research, Part A, Geology Survey of Canada, Paper 78-1A, p. 53-58.

Green, L.H. (1972): Geology of Nash Creek, Larsen Creek and Dawson map-areas, Yukon Territory; Geological Survey of Canada, Memoir 364, 157 pp.

Hitzman, M.W., Oreskes, N. and Einaudi, M.T. (1992): Geological Characteristics and Tectonic Setting of Proterozoic Iron Oxide (Cu-U-Au-Ree) Deposits, unpublished.

Jefferson, C.W. and Ruelle, J.D.L. (1986): The late Proterozoic Redstone Copper Belt, Mackenzie Mountains, N.W.T.; in Morin, J.A., ed., Mineral Deposits of Northern Cordillera; Canadian Institute of Mining and Metallurgy, Special Publication 37, p. 154-168.

Lalor, J.H. (1991): Discovery of the Olympic Dam Copper-Uranium-Gold-Silver Deposit; in Case Histories of Mineral Discoveries, Society for Mining, Metallurgy, and Exploration, Inc., Vol. 3, p. 219-221.

Laznicka, P. and Edwards, R.J. (1979): Dolores Creek, Yukon - a Disseminated Copper Mineralization in Sodic Metasomatites; in Economic Geology, vol. 74, p. 1352-1370.

Parish, R.R. and Bell, R.T. (1987): Age of the Nor breccia pipe, Wernecke Supergroup, Yukon Territory; in Radiogenic Age and Isotopic Studies: Report 1, Geological Survey of Canada, Paper 87-2, p. 39-42.

Reeve, J.S. (1990): The discovery and evaluation of the Olympic Dam deposit; in Geological Aspects of the Discovery of Important Minerals in Australia, Australasian Institute of Mining and Metallurgy, mon. 17, p. 125-133.

Reeve, J.S., Cross, K.C., Smith, R.N. and Oreskes N. (1990): Olympic Dam Copper-Uranium-Gold-Silver Deposit; in Geology and Mineral Deposits of Australia and Papua New Guinea, Australasian Institute of Mining and Metallurgy, mon.14, p. 1009-1035.

Roberts, D.E. and Hudson, G.R.T. (1983): The Olympic Dam Copper-Uranium-Gold Deposit, Roxby Downs, South Australia; in Economic Geology, vol. 78, p. 799-822.

Thorkelson, D.J. and Wallace, C.A. (1994a): Geological map of Fairchild Lake Map Area (106C/13), Wernecke Mountains, Yukon; Exploration and Geological Services Division Yukon; Indian and Northern Affairs Canada, Open File 1994-6(G).

Thorkelson, D.J. and Wallace, C.A. (1994b): Geological setting of mineral occurrences in Fairchild Lake map area (106C/13), Wernecke Mountains, Yukon; in Yukon Exploration and Geology, 1993; Exploration and Geological Services Division, Indian and Northern Affairs Canada.

Young, G.M., Jefferson, C.W., Delaney, G.D. and Yeo, G.M. (1979): Middle and late Proterozoic evolution of the northern Canadian Cordillera and Shield; in Geology, vol. 7, p. 329-330.

Youles, I.P. (1984): The Olympic Dam copper-uranium-gold Deposit, Roxby Downs, South Australia - a discussion; in Economic Geology, vol. 79, p. 1941-1944.

APPENDIX B

LIST OF PERSONNEL

LIST OF PERSONNEL

Michael Stammers (Sr. Geologist)
#711 - 675 West Hastings Street
Vancouver, B.C. V6B 1N4

Mark Baknes (Sr. Geologist)
#207 - 675 West Hastings Street
Vancouver, B.C. V6B 1N2

David Caulfield (Sr. Geologist)
#207 - 675 West Hastings Street
Vancouver, B.C. V6B 1N2

APPENDIX C

STATEMENT OF EXPENDITURES

STATEMENT OF EXPENDITURES
WHALE 1 - 10 MINERAL CLAIMS

CANADA) In the matter of an evaluation program on the
) Whale 1 - 10 Mineral Claims

I, Mike Stammers for Pamicon Developments Limited, #711 - 675 West Hastings Street, Vancouver, B.C. and Equity Engineering Ltd., #206 - 675 West Hastings Street, Vancouver, B.C. do solemnly declare that a program consisting of geological mapping, lithogeochemical sampling, soil geochemistry and prospecting work was carried out on the Whale 1 - 10 Mineral Claims on July 6, 1993.

The following expenses were incurred during the course of this work and in the compilation and reporting of the results:

PROFESSIONAL FEES AND WAGES:

M. Stammers, P.Geo.	1.0 days @ $375	$ 375.00	
D. Caulfield, P.Geo.	1.0 days @ $375	375.00	
M. Baknes, P.Geo.	1.0 days @ $300	300.00	
			$ 1,050.00

EXPENSES:

Maps & Reproductions		13.15	
Drafting		19.45	
Travel:	Airfare	10.60	
	Mob/Demob Costs	125.20	
Rentals:	Camp	79.66	
	Radio	12.60	
	Truck	49.59	
Camp Food		44.85	
Field Supplies		2.07	
Telephone		9.27	
Freight		1.94	
Fixed Wing		126.23	
Helicopter:	Direct	420.00	
	Fuel	94.81	
Assays		416.25	
Report Cost		121.45	
Recording Fees		41.73	
Management Fees		135.78	
			1,724.63
SUBTOTAL			3,824.63
		GST	267.72
TOTAL PROGRAM COST:			**$ 4,092.35**

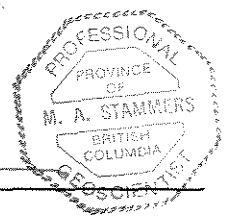
.../2

Notes:

1. Wages are based on actual man days spent on the property.
2. Helicopter charges and based on actual hours flown.
3. Assay charges are based on actual numbers of samples from the property.
4. General expenses (all other costs) are prorated according to many days allocated to each property.

And I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

Declared at Vancouver in the)
Province of British Columbia this)
)
22 day of FEBRUARY, 19 97)



APPENDIX D

ROCK SAMPLE DESCRIPTIONS

MINERALS AND ALTERATION TYPES

AB	albite	AD	adularia
AK	ankerite	AS	arsenopyrite
AZ	azurite	BA	barite
BI	biotite	BO	bornite
BR	brannerite	CA	calcite
CB	Fe-carbonate	CC	chalcocite
CL	chlorite	CO	cobaltite
CP	chalcopyrite	CY	clay
DI	diopside	DO	dolomite
EP	epidote	ER	erythrite
GA	garnet	GE	goethite
GL	galena	GR	graphite
HE	earthy hematite	HS	specularite
JA	jarosite	KF	potassium feldspar
MC	malachite	MG	magnetite
MN	Mn-oxides	MR	mariposite
MS	muscovite/sericite	NE	neotocite
PO	pyrrhotite	PY	pyrite
QZ	quartz	SI	silica
SP	sphalerite	TT	tetrahedrite

ALTERATION INTENSITIES

m	medium	s	strong	tr	trace
vs	very strong	vw	very weak	w	weak

Sample No.	UTM :		Type : Grab	Alteration : sCB, wMS	Au	Ag	Co	Cu	La	Ni
		N								
		E	Strike Length Exp. : >50 m	Metallics : 6%HS, <1%PY	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
545663	Elevation: 3150 ft		Sample Width : 4x1 m	Secondaries: None	<5	1.0	14.	56.	50.	24.
	Orientation: /		True Width : ? m	Host : Heterolithic hematitic breccia						

Comments : Breccia outcrop in creek 320m south of No. 2 post, Whale 9-10.

Sample No.	UTM :		Type : Grab	Alteration : sCB	Au	Ag	Co	Cu	La	Ni
		N								
		E	Strike Length Exp. : 1.5 m	Metallics : 3%CP	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
545664	Elevation: 3225 ft		Sample Width : 5.0 cm	Secondaries: trMC, wNE	35.	3.0	9.	8502.	130.	18.
	Bedding : 050 / 68 NW		True Width : 5.0 cm	Host : Carbonate-jasper altered thinly laminated siltstone						

Comments : Disseminated chalcopyrite found in carbonate altered siltstone in envelope surrounding jasper horizon.

Sample No.	UTM :		Type : Float	Alteration : sCB, wKF	Au	Ag	Co	Cu	La	Ni
		N								
		E	Strike Length Exp. : m	Metallics : trCP, 3%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
545665	Elevation: 3250 ft		Sample Width : m	Secondaries: None	<5	1.0	<1	278.	20.	13.
	Orientation: /		True Width : m	Host : Carbonate altered homo-heterolithic breccia						

Comments : Few specks of chalcopyrite noted in breccia matrix in Fe-carbonate clasts. Sample located 420 m south of No. 2 posts, Whale 9 - 10.

Sample No.	UTM :		Type : Grab	Alteration : sCB, wMS	Au	Ag	Co	Cu	La	Ni
		N								
		E	Strike Length Exp. : ? m	Metallics : 1%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
545666	Elevation: 3380 ft		Sample Width : 6.0 m	Secondaries: None	<5	2.0	<1	90.	<10	15.
	Orientation: /		True Width : ? m	Host : Carbonate altered homolithic breccia						

Comments : Breccia is exposed on east side of creek for approximately 6m on creek bottom.

Sample No.	UTM :		Type : Grab	Alteration : QZ	Au	Ag	Co	Cu	La	Ni
		N								
		E	Strike Length Exp. : 8.0 m	Metallics : trPY	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
545667	Elevation: 3525 ft		Sample Width : 30 cm	Secondaries: None	<5	<0.2	<1	32.	<10	10.
	Vein : 090 / 68 N		True Width : 30 cm	Host : Quartz vein						

Comments : Outcrop of bull quartz with trace of pyrite crossing creek bottom. Located approximately 1000m south of No. 2 post, Whale 9 - 10.

Sample No.	UTM :		Type : Float	Alteration : wCB, wCL, sQZ	Au	Ag	Co	Cu	La	Ni
		N								
		E	Strike Length Exp. : m	Metallics : 2%CP	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
545952	Elevation: 1520 m		Sample Width : m	Secondaries: HE	<5	2.0	108.	6921.	<10	56.
	Orientation: /		True Width : m	Host : Grey argillite						

Comments : 15x30x30cm angular boulder in talus 20 metres north of gully. Drusy quartz vugs parallel to vein. Fe-carbonate and minor chlorite also occurs in veins. Chalcopyrite occurs as 1-3mm patches.

Sample No.	UTM :	N	Type : Float	Alteration :	wCB, sQZ	Au	Ag	Co	Cu	La	Ni
		E	Strike Length Exp. : m	Metallics :	trCP, 7%HS, 2%PY	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
545953	Elevation: 1190 m		Sample Width : m	Secondaries:	None	<5	<0.2	3.	38.	20.	16.
	Orientation: /		True Width : m	Host :	Green siltstone						

Comments : 40x40cm boulder in talus. Specular hematite as coarse veins within siltstone. Pyrite as finely disseminated cubes.

APPENDIX E

CERTIFICATES OF ANALYSIS & ANALYTICAL PROCEDURES

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: PAMICON DEVELOPMENTS LIMITED

711 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N4

Project : Whale
Comments: ATTN: M. STAMMERS CC: EQUITY ENG. LTD.

Certificate Date: 04-AUG-93
Invoice No. :19317874
P.O. Number :
Account :BM

CERTIFICATE OF ANALYSIS A9317874

SAMPLE	PREP CODE		Au ppb FA+AA	Ag ppm AAS	Al % (ICP)	Ba ppm (ICP)	Be ppm (ICP)	Bi ppm (ICP)	Ca % (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Cr ppm (ICP)	Cu ppm (ICP)	Fe % (ICP)	K % (ICP)	Mg % (ICP)
WHALE 0000M S	201	285	< 5	< 0.2	7.32	450	0.5	< 2	0.14	< 0.5	9	75	38	2.77	2.83	0.86
WHALE 0100M S	201	285	< 5	< 0.2	8.34	520	0.5	< 2	0.58	< 0.5	11	104	47	3.14	3.13	1.14
WHALE 0200M S	201	285	< 5	< 0.2	8.07	540	0.5	2	0.66	< 0.5	13	90	58	3.11	2.99	1.09
WHALE 0300M S	201	285	< 5	< 0.2	8.27	820	< 0.5	4	0.36	< 0.5	16	84	141	4.30	2.82	0.74
WHALE 0400M S	201	285	< 5	< 0.2	7.92	1110	< 0.5	< 2	0.62	< 0.5	15	84	371	4.69	2.53	0.93
WHALE 0500M S	201	285	< 5	< 0.2	6.81	550	< 0.5	4	0.30	< 0.5	11	86	25	5.75	2.06	0.65
WHALE 0600M S	201	285	< 5	< 0.2	8.41	580	0.5	2	0.25	< 0.5	15	96	54	4.48	2.88	0.98
WHALE 0700M S	201	285	< 5	< 0.2	7.24	600	< 0.5	< 2	1.24	< 0.5	15	84	51	3.09	2.56	1.36
WHALE 0800M S	201	285	< 5	< 0.2	7.43	750	1.0	< 2	0.80	< 0.5	13	90	57	3.35	2.62	1.03
WHALE 0900M S	201	285	< 5	< 0.2	7.78	560	< 0.5	< 2	1.04	< 0.5	13	84	44	3.10	2.73	1.37
WHALE 1000M S	201	285	< 5	< 0.2	6.90	710	< 0.5	< 2	1.06	< 0.5	12	84	56	3.19	2.50	1.18
WHALE 1100M S	201	285	< 5	< 0.2	7.72	660	0.5	4	0.64	< 0.5	12	88	53	3.49	3.03	1.08
WHALE 1200M S	201	285	< 5	< 0.2	6.69	830	< 0.5	< 2	1.15	< 0.5	12	83	58	3.47	2.34	1.04
WHALE 1300M S	201	285	< 5	< 0.2	7.13	720	< 0.5	6	0.71	< 0.5	12	87	41	3.67	2.36	0.91
WHALE 1400M S	201	285	< 5	< 0.2	7.68	740	< 0.5	< 2	0.62	< 0.5	12	92	70	3.71	2.66	1.04
WHALE 1500M S	201	285	< 5	< 0.2	6.54	930	< 0.5	< 2	1.19	< 0.5	12	79	50	3.26	2.10	1.02
WHALE 1600M S	201	285	< 5	< 0.2	8.04	830	< 0.5	8	0.68	< 0.5	12	92	56	3.67	2.59	0.99
WHALE 1700M S	201	285	< 5	< 0.2	8.13	660	< 0.5	6	0.49	< 0.5	21	94	47	3.77	2.63	1.15
WHALE 1800M S	201	285	< 5	< 0.2	7.17	750	< 0.5	< 2	0.57	< 0.5	15	83	48	3.21	2.08	0.83
WHALE 1900M S	201	285	< 5	< 0.2	7.98	790	< 0.5	< 2	0.54	< 0.5	13	93	52	3.36	2.35	0.96
545663	205	274	< 5	1.0	7.23	690	0.5	< 2	3.56	< 0.5	14	111	56	6.90	3.17	0.83
545664	205	274	35	3.0	4.83	250	1.0	< 2	4.55	< 0.5	9	118	8500	2.45	0.79	1.30
545665	205	274	< 5	1.0	6.27	540	< 0.5	< 2	4.41	0.5	< 1	99	278	5.49	0.81	0.47
545666	205	274	< 5	2.0	5.63	500	< 0.5	< 2	5.58	< 0.5	< 1	74	90	3.86	2.64	1.78
545667	205	274	< 5	< 1.0	0.61	40	< 0.5	30	0.07	< 0.5	< 1	299	32	0.76	0.09	0.41
545952	205	274	< 5	2.0	1.31	20	< 0.5	< 2	0.12	< 0.5	108	161	6920	2.93	0.30	0.68
545953	205	274	< 5	< 1.0	1.62	3200	< 0.5	< 2	0.89	< 0.5	3	314	38	4.88	0.05	0.07

CERTIFICATION: Stuart Bichlen

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

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

To: PAMICON DEVELOPMENTS LIMITED

711 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N4

Project : Whale
Comments: ATTN: M. STAMMERS CC: EQUITY ENG. LTD.

Page Number :1-B
Total Pages :3
Certificate Date: 04-AUG-93
Invoice No. : I9317874
P.O. Number :
Account :BM

CERTIFICATE OF ANALYSIS A9317874

SAMPLE	PREP CODE	Mn ppm (ICP)	Mo ppm (ICP)	Na % (ICP)	Ni ppm (ICP)	P ppm (ICP)	Pb ppm AAS	Sr ppm (ICP)	Ti % (ICP)	V ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)	La ppm ICP
WHALE 0000M S	201 285	540	< 1	0.66	20	210	8	37	0.32	67	< 10	38	50
WHALE 0100M S	201 285	690	< 1	0.73	31	430	8	40	0.31	77	< 10	46	50
WHALE 0200M S	201 285	665	< 1	0.72	23	520	10	65	0.35	84	< 10	58	60
WHALE 0300M S	201 285	2930	2	1.31	28	570	10	43	0.31	80	< 10	54	50
WHALE 0400M S	201 285	5630	1	1.53	31	760	12	62	0.30	86	< 10	62	40
WHALE 0500M S	201 285	800	1	0.60	16	460	26	64	0.38	133	< 10	106	40
WHALE 0600M S	201 285	600	< 1	0.59	28	590	14	50	0.32	89	< 10	74	40
WHALE 0700M S	201 285	700	2	0.82	27	550	12	93	0.31	79	< 10	64	50
WHALE 0800M S	201 285	745	< 1	0.87	27	640	16	107	0.33	99	< 10	88	40
WHALE 0900M S	201 285	620	< 1	0.71	25	550	12	74	0.33	80	< 10	58	70
WHALE 1000M S	201 285	690	< 1	0.88	24	700	18	110	0.34	93	< 10	84	50
WHALE 1100M S	201 285	760	< 1	0.79	24	530	28	80	0.34	93	< 10	88	60
WHALE 1200M S	201 285	875	2	0.82	26	740	32	105	0.28	103	< 10	120	30
WHALE 1300M S	201 285	730	< 1	0.83	21	770	18	99	0.33	110	< 10	98	40
WHALE 1400M S	201 285	640	1	0.83	28	490	22	99	0.34	109	< 10	106	40
WHALE 1500M S	201 285	690	1	1.08	27	810	24	147	0.30	110	< 10	116	30
WHALE 1600M S	201 285	705	< 1	0.79	29	870	18	95	0.29	118	< 10	104	30
WHALE 1700M S	201 285	565	< 1	0.81	25	880	20	95	0.32	114	< 10	94	40
WHALE 1800M S	201 285	695	< 1	1.01	26	580	18	126	0.34	110	< 10	84	30
WHALE 1900M S	201 285	435	< 1	1.03	30	460	20	123	0.39	116	< 10	88	30
545663	205 274	3380	3	2.27	24	790	< 8	31	0.26	83	< 10	16	50
545664	205 274	3170	28	2.85	18	4110	33	39	0.11	50	< 10	24	130
545665	205 274	4920	< 1	3.92	13	760	< 8	37	0.28	63	< 10	14	20
545666	205 274	4120	1	3.10	15	650	< 8	49	0.16	50	< 10	12	< 10
545667	205 274	275	< 1	0.12	10	30	< 8	13	0.01	< 1	< 10	36	< 10
545952	205 274	275	3	0.05	56	70	< 8	4	0.03	6	< 10	28	< 10
545953	205 274	640	< 1	1.04	16	90	< 8	205	0.06	10	< 10	14	20

CERTIFICATION: Stewart Buchler

Chemex Labs Ltd.

Analytical Chemists *Geochemists* *Registered Assayers*

212 Brooksbank Ave.
North Vancouver, B.C.
Canada V7J 2C1

Phone: (604) 984-0221
Telex: 04-352597
Fax: (604) 984-0218

Gold

Fire Assay Collection/ Atomic Absorption Spectroscopy (FA-AA)

Chemex Code: 100

A 10g sample is fused with a neutral lead oxide flux inquarted with 6mg of gold-free silver and then cupelled to yield a precious metal bead.

These beads are digested for 30 mins in 0.5ml concentrated nitric acid, then 1.5ml of concentrated hydrochloric acid are added and the mixture is digested for 1 hr. The samples are cooled, diluted to a final volume of 5ml, homogenized and analyzed by atomic absorption spectroscopy.

Detection limit: 5 ppb

Upper Limit: 10,000 ppb

Chemex Labs Ltd.

Analytical Chemists *Geochemists* *Registered Assayers*

212 Brooksbank Ave.
North Vancouver, B.C.
Canada V7J 2C1
Phone: (604) 984-0221
Telex: 04-352597
Fax: (604) 984-0218

24-Element Geochemistry Package (24-ICP)

Inductively-Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

The 24 element rock geochemistry package provides quantitative analysis of all major elements (except silicon) as well as most important trace elements.

A prepared sample (0.50g) is digested with perchloric, nitric and hydrofluoric acids to dryness. The residue is taken up in a volume of 25ml of 10% hydrochloric acid and the resulting solution is analyzed by inductively-coupled plasma atomic emission spectroscopy. Results are corrected for spectral interelement interferences.
For this project only uranium and lanthanum were also analyzed.

Chemex Code	Element	Detection Limit	Upper Limit
573	Aluminum	0.01 %	15 %
565	Barium	10 ppm	1 %
575	Beryllium	0.5 ppm	0.01 %
561	Bismuth	2 ppm	1 %
576	Calcium	0.01 %	25 %
562	Cadmium	0.5 ppm	0.05 %
569	Chromium	1 ppm	1 %
563	Cobalt	1 ppm	1 %
577	Copper	1 ppm	1 %
566	Iron	0.01 %	15 %
560	Lead	2 ppm	1 %
570	Magnesium	0.01 %	15 %
568	Manganese	5 ppm	1 %
554	Molybdenum	1 ppm	1 %
564	Nickel	1 ppm	1 %
559	Phosphorus	10 ppm	1 %
584	Potassium	0.01 %	10 %
578	Silver	0.5 ppm	0.02 %
583	Sodium	0.01 %	10 %
582	Strontium	1 ppm	1 %
579	Titanium	0.01 %	10 %
556	Tungsten	10 ppm	1 %
572	Vanadium	1 ppm	1 %
558	Zinc	2 ppm	1 %
	Uranium	10 ppm	1 %
	Lanthanum	10 ppm	1 %

APPENDIX F

GEOLOGIST'S CERTIFICATE

GEOLOGIST'S CERTIFICATE

I, MICHAEL A. STAMMERS, of 941 Kennedy Avenue, North Vancouver, in the Province of British Columbia, DO HEREBY CERTIFY:

1. I am a graduate of McMaster University (1977) and hold a combined Honours B.A. in Geology and Geography.

2. I have practiced in my profession with various mining companies in Yukon, British Columbia, the Northwest Territories, Nova Scotia and Venezuela for 20 years.

3. I am duly registered as a Professional Geoscientist in the Province of British Columbia (#18883).

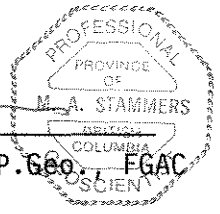
4. I am a Fellow of the Geological Association of Canada.

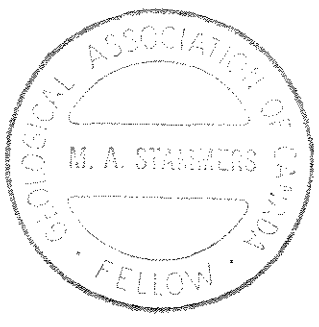
5. This report is based on property work I personally completed and supervised on July 6, 1993 combined with four years experience in the Wernecke terrain.

6. THAT I have no interest in the property described herein, nor in securities of any company associated with the property, nor do I expect to receive any such interest.

7. THAT I hereby grant permission to International Prism Exploration Ltd. for the use of this report in any prospectus or other documentation required by any regulatory authority.

DATED at Vancouver, B.C., this 22 day of FEBRUARY, 1994.





Michael A. Stammers, P.Geo., FGAC

needs approval Copy

YUKON MINFILE
STANDARD REPORT
EXPLORATION AND GEOLOGICAL SERVICES DIVISION, DIAND
WHITEHORSE

NAME(S): Fairchild
MINFILE #: 106C 007
MAJOR COMMODITIES: Cu, U
MINOR COMMODITIES:
TECTONIC ELEMENT: Mackenzie Platform
NTS MAP SHEET: 106 C 13
LATITUDE: 64°57'23"N
LONGITUDE: 133°45'14"W
DEPOSIT TYPE: Wernecke Breccia
STATUS: Drilled prospect

CLAIMS (PREVIOUS AND CURRENT)

TYANA, FAIR, WHALE

WORK HISTORY

Staked as Tyana cl (Y6997) in Oct/67 by L. Brown and optioned to Hercules E Corp L, a subsidiary of Cyprus E Corp L, which conducted a program of mapping, soil sampling and mag and IP surveys in 1969, then did some bulldozer trenching on IP anomalies.

Restaked as Fair cl (Y87521) in Mar/74 by Magni Dev L, which performed a VLF-EM survey and drilled 2 holes (138 m) later in the year and transferred the property to Menika Mg L in 1975.

Restaked as Fair cl (YA30243) in May/78 by Energex Mls L, which explored with mapping, geochem and radiometric surveys in 1978, hand trenching in 1979, and orthophoto map preparation, geology and geophysics in 1981.

Restaked as Fair 1-78 cl (YB29152) in Oct/92 by Pamicon Developments Ltd. Pamicon staked Whale 1-10 claims (YB29152) as a separate group 1.5 km to the east, also in Oct/92. The Fair 79-84 cl (YB42289) were added in Oct/93 by Pamicon Developments Ltd. Pamicon Developments and Equity Engineering Ltd. performed a program of geological mapping and lithogeochemistry and soil sampling on the Fair and Whale cl in 1993.

GEOLOGY

A small outcrop of mafic volcanic rocks contains minor copper oxide and bornite. Representative samples over an outcrop length of 107 m averaged 0.17% Cu. Trenches by Hercules showed the IP chargeability anomalies were caused by shale. A magnetic anomaly trends northwest across the grid and is apparently caused by the disseminated magnetite in the volcanic rock. No significant geochemical response was obtained.

The host rock is an altered porphyritic mafic dyke cutting Middle Proterozoic limy argillite of the Fairchild Lake Group. Surrounding rocks are strongly faulted, contain zones of breccia, and exhibit chloritic alteration and enrichment in magnetite and hematite. Minor brannerite mineralization has been located in eight feldspathized and hematized areas within the limy argillite. The best assays were 0.061% U_3O_8 across 0.9 m and 0.072% from a selected specimen, and 0.38% Cu across 13 m of fractured hornfels.

The 1993 program of soil geochemistry returned copper values as high as 371 ppm, which corresponded to an area of chalcopyrite mineralization adjacent to a large hematite breccia body.

REFERENCES

ENERGEX MINERALS LTD, Dec/81. Assessment Report #091026 by K.V. Campbell & C.K. Ikona.

HERCULES EXPLORATION CORP. LTD, Aug/68. Assessment Report ##019049 by J.G. Baird.

REFERENCES (continued)

MINERAL INDUSTRY REPORT 1978, p. 11-12.

PAMICON DEVELOPMENTS LTD., Feb/94. Assessment Report #093180 by M.A. Stammers.

YUKON GEOLOGY AND EXPLORATION 1979-80, p. 223.

YUKON EXPLORATION AND GEOLOGY 1982, p. 175-176.