RECEIVED
16 JAN 1978
MINING RECORDER
LAND AGENT
MAYO, Y.T.
I.A. & N.D.

Office Of The Supervising Mining Recorder
FEB 10 1978
WHITEHORSE
Yukon Territory

MOUNTAINEER MINES LTD. - PAN OCEAN OIL LTD.

JOINT VENTURE

ASSESSMENT REPORT

ON THE

LOON 1-12 AND WOLF 1-60 MINERAL CLAIMS

N.T.S. 106-E-1 and 106-E-8

65°14'N 134°28'W

YUKON TERRITORY

RECEIVED
FEB 13 1978
MINING
INSPECTORS OFFICE
WHITEHORSE, Y.T.

by

R. Yorston - Geologist

D. Yeager - Geologist

C. Ikona - P. Eng.

November, 1977

090286

090286

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of $7200.00

Resident Geologist or
Resident Mining Engineer

Considered as representation work under Section [illegible] (4) Yukon Quartz Mining Act.

B. R. BAXTER
Supervising Mining Recorder

for Commissioner of Yukon Territory

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LIST OF APPENDICES

1.0 INTRODUCTION

The LOON 1-12 mineral claims were staked on September 19, 1976 by Harman Management Ltd. to cover uranium showings discovered by prospectors Doug Fulcher and Ward Harrison during a regional prospecting program carried out for Mountaineer Mines Ltd. A brief investigation of the property was conducted by Harman Management Ltd. subsequent to staking the ground. Pan Ocean Oil Ltd. of Calgary acquired majority interest in the claims in the fall of 1976.

The WOLF 1-60 claims were staked on November 20, 1976 by a Mountaineer Mines - Pan Ocean Oil joint venture to cover favourable ground adjoining the LOON claims.

During the period July 8 to July 18, 1977, a preliminary prospecting and geologic investigation was carried out on the property. Hand trenching was undertaken on the claims from September 7 to September 12, 1977. The work program was carried out by Pamicon Developments Ltd. under the field supervision of R. Darney.

2.0 LIST OF CLAIMS

CLAIM NAME	STAKING DATE	RECORDING DATE	GRANT NO.
LOON 1-12	September 19/76	September 24/76	YA7160-7171 incl.
WOLF 1-60	November 20/76	November 25/76	YA14183-14242 incl.

Claim posts examined by the authors appear to conform with the Yukon Quartz Mining Act regulations.

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3.0 LOCATION AND ACCESS

The LOON-WOLF claims are located on N.T.S. sheets 106-E-1 and 106-E-8, approximately six miles north of Quartet Lakes in the northeastern Yukon Territory. Approximate co-ordinates of the claim group are 65°14'N latitude, 134°28'W longitude.

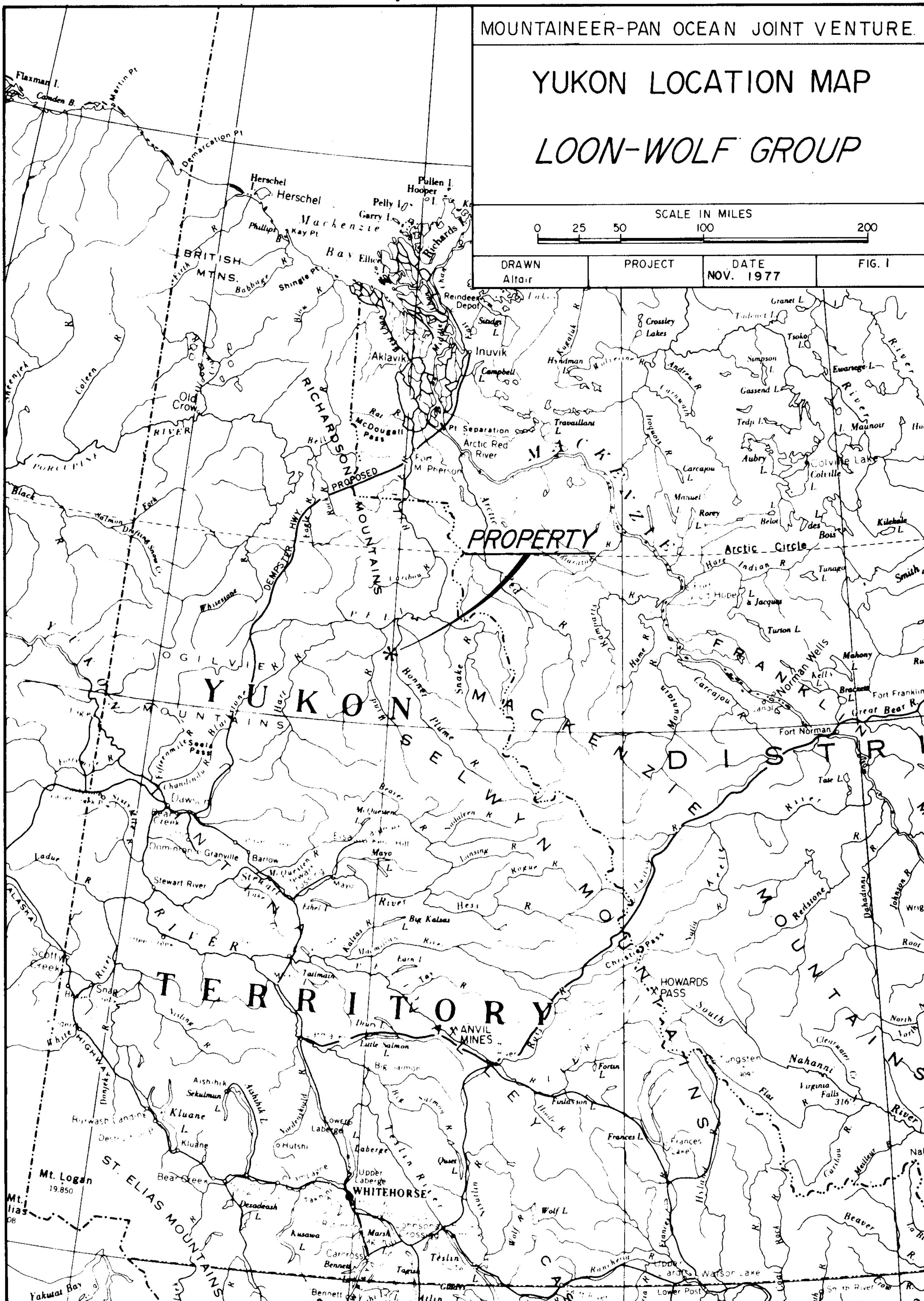
Access to the property is by fixed wing aircraft from Mayo to Quartet Lakes, a distance of 120 miles, then by helicopter to the property. Both helicopter and fixed wing aircraft as well as full expediting services are available in Mayo.

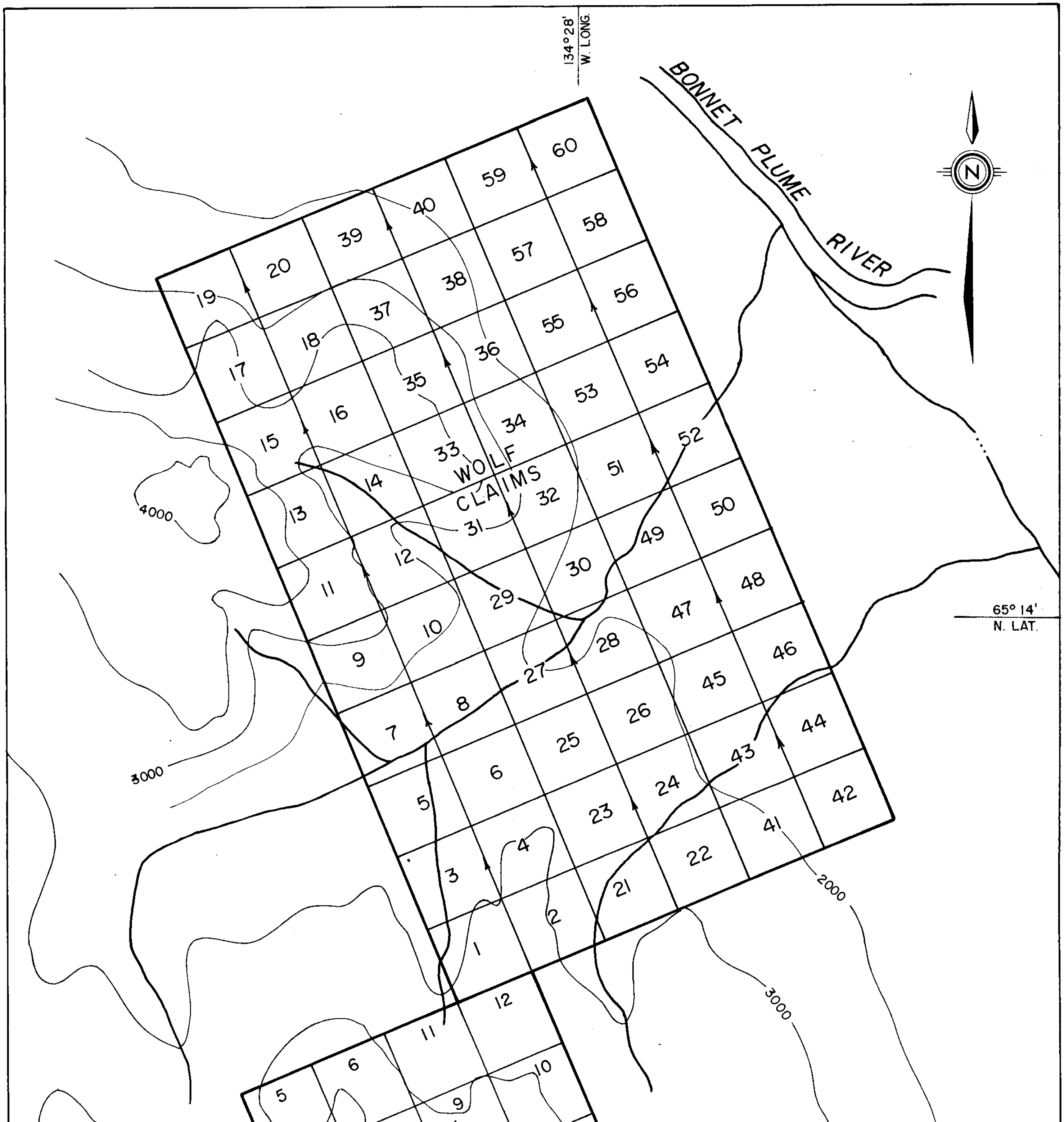
4.0 TOPOGRAPHY AND VEGETATION

Elevations on the property range from 1,900 feet to 5,000 feet A.S.L. and topography ranges from gentle at the lower elevations to extreme at the higher levels. Only 50% of the property has any outcrop exposure as overburden and talus cover is extensive on the lower portions of the area.

Tree level in the claims area is at approximately 3,500 feet A.S.L. on the south facing slopes and approximately 2,500 feet on the north facing slopes. Vegetation consists of black spruce and dwarf birch with willow thickets in the stream beds. Above tree line, vegetation consists entirely of lichens, low grasses, and moss.

3 ...


MOUNTAINEER-PAN OCEAN JOINT VENTURE
YUKON LOCATION MAP
LOON-WOLF GROUP
SCALE IN MILES
0 25 50 100 200
DRAWN
Altair
PROJECT
DATE
NOV. 1977
FIG. 1
PROPERTY
YUKON
TERRITORY
MACKENZIE DISTRICT
OGILVIE MOUNTAINS
SELWYN MOUNTAINS
MACKENZIE MOUNTAINS
FRANKLIN MOUNTAINS
RICHARDSON MOUNTAINS
ST. ELIAS MOUNTAINS
BRITISH MTNS.
DEMPSTER HWY PROPOSED
Arctic Circle
Herschel
Inuvik
Aklavik
Old Crow
Fort McPherson
Arctic Red River
Dawson
Mayo
WHITEHORSE
ANVIL MINES
HOWARDS PASS
Norman Wells
Fort Norman
Fort Franklin
Watson Lake
Lower Post
Mt. Logan
19,850



MOUNTAINEER-PAN OCEAN JOINT VENTURE

LOON-WOLF CLAIM GROUP

NTS 106 E I

CLAIM MAP

YUKON TERRITORY

0 1/4 1/2 MILES 1

0 0.5 1 1.5 2.0 KILOMETRES

PAMICON DEVELOPMENTS LIMITED

DRAWN:	PROJECT:	DATE:	FIGURE:
Altair	Quartet-Fairchild	DEC. 1977	2

5.0 REGIONAL GEOLOGY

The Quartet-Fairchild region lies in the Wernecke Mountains of the north eastern Yukon Territory. In the general area, the Werneckes consist of local ranges which include the Rackla Range, Bonnet Plume Range and Knorr Range. Topography is normally moderate to rugged with elevations ranging from 2,000 to 6,500 feet. The major river valleys are broad, timbered and extensively overburden covered, while most mountain slopes present greater than 60% outcrop above the 4,000 foot level.

The entire area has been mapped by the Geological Survey of Canada and three separate publications are presented. The following memoir and open file reports give 1" = 4 miles geological coverage of the Nash Creek, Nadaleen River, Wind River and Snake River map areas.

(1) Geology of Nash Creek, Larsen Creek and Dawson Map-Area, Yukon Territory by L.H. Green 1972 (Memoir 364).

(2) Open File 205 (Geology of Nadaleen River and Bonnet Plume Lake Map sheets by S. Blusson) 1975.

(3) Open File 279 (Geology of Snake River and Wind River sheets by D.K. Norris) 1975.

In the Quartet-Fairchild-Gillespie Lakes region Helikian rocks are exposed over an area of some 1,500 sq. miles in a roughly circular fashion centered near Longitude 134°00W and Latitude 65°00'N.

These rocks have been described as Units 1 & 2 by L. Green on the Nash Creek Sheet.

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Recent G.S.C. stratigraphic work by Bell and Delaney (1976) has redesignated Units la, 1 and 2 (Green 1972) as Units A, B, and C respectively. The unit designations as established by Bell and Delaney will be used in this report.

Unit A whose base is not exposed, is composed of a thick succession of moderately metamorphosed fine grained clastic sediments with interbedded carbonates. The overlying Unit B consists of thinly interbedded slates and argillites with occasional quartzite beds.

Unit C, which conformably overlies the uppermost slate-quartzite section of Unit B, consists mainly of thickly bedded orange weathering dolomites. The base of the unit is marked by a series of transitional beds of alternating buff weathering dolomites and interbedded slates and quartzites.

Erratically distributed throughout the Proterozoic metasediments are irregularly shaped breccia bodies. The breccia zones vary from tens of feet to several thousand feet in size and appear as cross cutting pipe-like features at all levels in the stratigraphic column. Several varieties exist, but all exhibit an assortment of angular clasts derived from rock types common to the area. Hornfels margins observed at several localities indicate an intrusive origin.

A common association with many of the breccia bodies are zones of veining or locally pervasive feldspar alteration seen as internal features within the breccias or in host rocks adjacent to them.

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The alteration zones are pink in colour due to either K-spar or strong hematization and in some instances contain varying amounts of specularite, chalcopyrite and minor uranium mineralization.

5.1 Structure

Two major periods of deformation have taken place within the Wernecke Mountain region. During the first period or Racklan Orogeny, the Proterozoic rocks of Units A, B, and C underwent intense folding and faulting. Folds are tight to isoclinal with the development of strong axial plane cleavage and commonly an almost vertical foliation.

A major unconformity of Lower Hadrynian age forms the upper contact of Unit C. In many localities, erosion beneath this unconformity has resulted in the complete removal of Unit C and the strong angular relationship between the relatively flat lying Cambrian and younger rocks directly overlying Units A and B is apparent.

Further unconformities near the Upper Hadrynian, Lower Cambrian and Upper Cambrian margins leave Devonian carbonates directly over the Helikian section.

The second period of deformation, which involves both Paleozoic and Proterozoic strata, is weak compared to the first. This is particularly evident in the younger Carbonate sections to the west and southwest where deformation consists mainly of broad open folding and minor overthrusting.

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6.0 GEOLOGY

6.1 Introduction

Preliminary mapping of the LOON-WOLF claims was carried out at a scale of 1 inch to 1/2 mile (see Figure 3 this report). A sketch map of a portion of the mineralized zone was compiled at a scale of 1 inch to 200 feet and is presented in Figure 4 of this report.

The property is underlain by a succession of Unit A sedimentary and metasedimentary rocks generally striking northeasterly and dipping steeply to the northwest. Alteration and metasomatism is common in the southern portion of the claims. Faulting is the predominant structural feature in the area and has led to widespread, shearing, fracturing, and veining. Breccia bodies were noted on the LOON claims.

Good grade uranium mineralization was encountered in a quartzite/phyllite unit located in the central portion of the LOON cliams.

6.2 Lithology

The most abundant rock type is a green chloritic phyllite (with lesser siltstone) which commonly contains cross-cutting, non-mineralized, coarse white bull quartz lenses. Other less abundant units include a dark green to black silty shale, a thinly interbedded siltstone and dolomite and a chocolate brown weathering dolomite. The dolomite unit is of variable thickness but is at least thirty feet thick. Also noted was a yellow to tan coloured, fine grained, feldspathic

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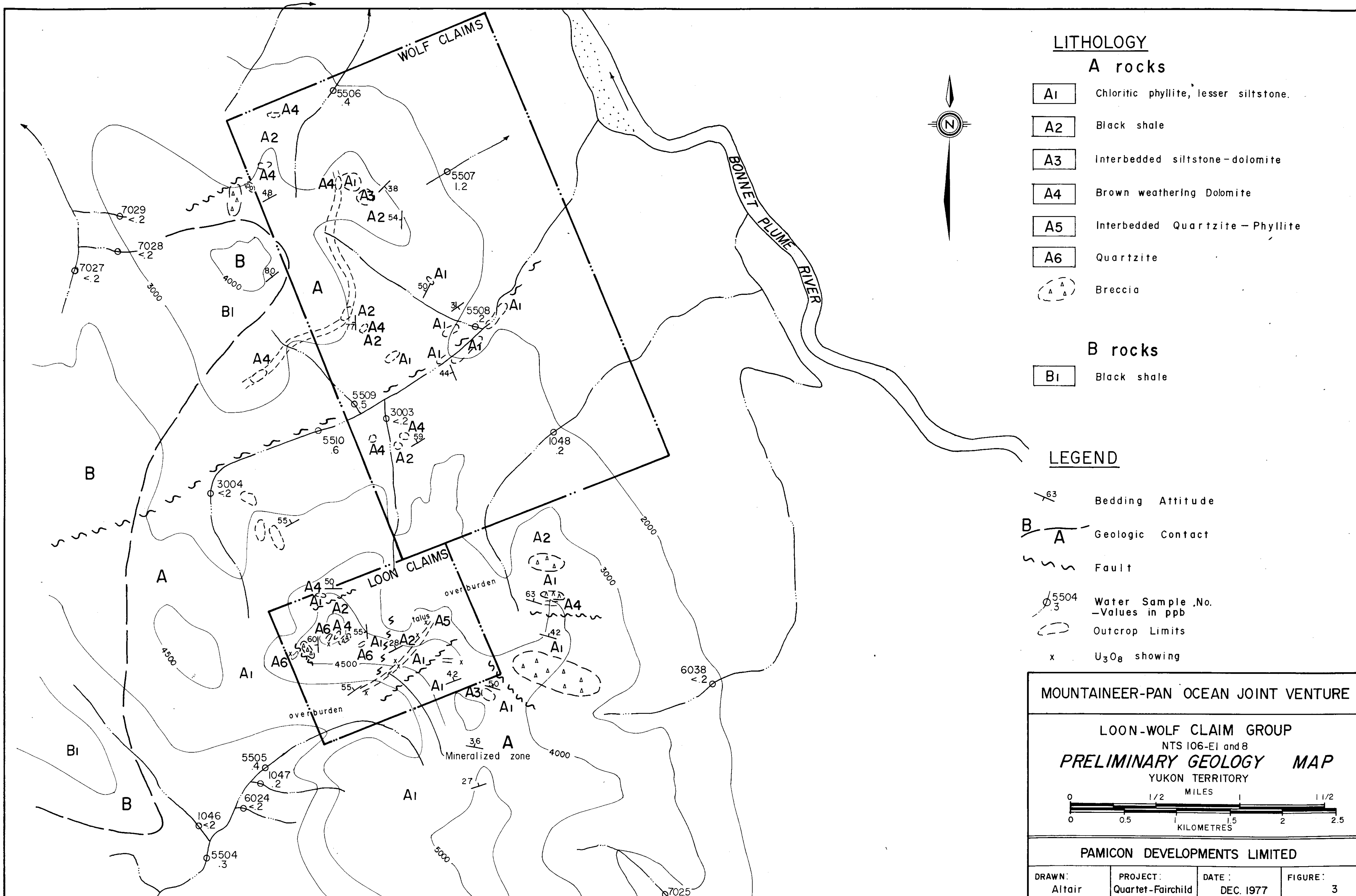
LITHOLOGY
A rocks
A1 Chloritic phyllite, lesser siltstone.
A2 Black shale
A3 Interbedded siltstone-dolomite
A4 Brown weathering Dolomite
A5 Interbedded Quartzite-Phyllite
A6 Quartzite
Breccia
B rocks
B1 Black shale
LEGEND
Bedding Attitude
Geologic Contact
Fault
Water Sample No. -Values in ppb
Outcrop Limits
U3O8 showing
WOLF CLAIMS
LOON CLAIMS
BONNET PLUME RIVER
overburden
talus
Mineralized zone
MOUNTAINEER-PAN OCEAN JOINT VENTURE
LOON-WOLF CLAIM GROUP
NTS 106-E1 and 8
PRELIMINARY GEOLOGY MAP
YUKON TERRITORY
MILES
KILOMETRES
PAMICON DEVELOPMENTS LIMITED
DRAWN: Altair
PROJECT: Quartet-Fairchild
DATE: DEC. 1977
FIGURE: 3

quartzite which locally exhibits minor pink feldspathic alteration. In some areas the quartzite appears to be a metasomatic product of what originally was a greenish coloured, thinly bedded siltstone. Relict thin bedding is present in the quartzite and the unit was noted to grade along strike from the yellow/tan quartzite into a softer green coloured siltstone.

The best mineralization seen to date is hosted in a white to slightly transparent quartzite with interbeds of a pale green, bleached, thin splitting phyllite. Individual beds in this unit reach thicknesses of up to two feet but generally are in the order of a few inches thick. This unit is only exposed in the central portion of the LOON claims.

Several small breccia bodies are present in the LOON portion of the claims, particularly near the faults. The breccias occur as elongated, cross-cutting structures, the largest of which measures approximately 800 feet by 2,500 feet on the surface. They are very tough, siliceous and resistant to weathering.

Metasomatism or lesser alteration including silicification, hematization and chloritization is common in the southern part of the property, particularly on the LOON portion of the claims. Bleaching is evident as a result of this alteration.

6.3 Structure and Stratigraphy

The property is underlain by sedimentary and meta-sedimentary rocks belonging to Unit A. A more detailed breakdown of the stratigraphy is difficult as individual units which are exposed along the ridges usually cannot be traced more than a few tens of feet down the slopes before they are covered by large talus blocks of mixed lithology and eventually by overburden.

Strong tectonic activity has occurred in the area and faulting appears to have been the primary mode of deformation. The most prominent fault on the property crosses the central portion of the WOLF block and is marked by a creek gorge cutting in an east-northeasterly direction through the area. (See Figure 3 this report). Several smaller faults exist on the LOON block, two of which have the same east-northeasterly orientation as the major fault crossing the WOLF block. The faulting may be an important structural control for mineralization in the area as the breccias appear to be spatially related with faulting and faulting was noted near the mineralized quartzite/phyllite unit.

Although the faulting has caused rotation and local fluctuations of bedding attitudes, the sediments in the claim area generally strike northeasterly and dip steeply to the northwest. Large scale folding is not evident but minor S-curves were noted in the brown weathering dolomite.

The contact with the overlying Unit B siltstone/slate sequence lies immediately to the west of the property.

6.4 Mineralization

Uranium mineralization was found at several locations on the LOON portion of the claims. The yellow to tan weathering

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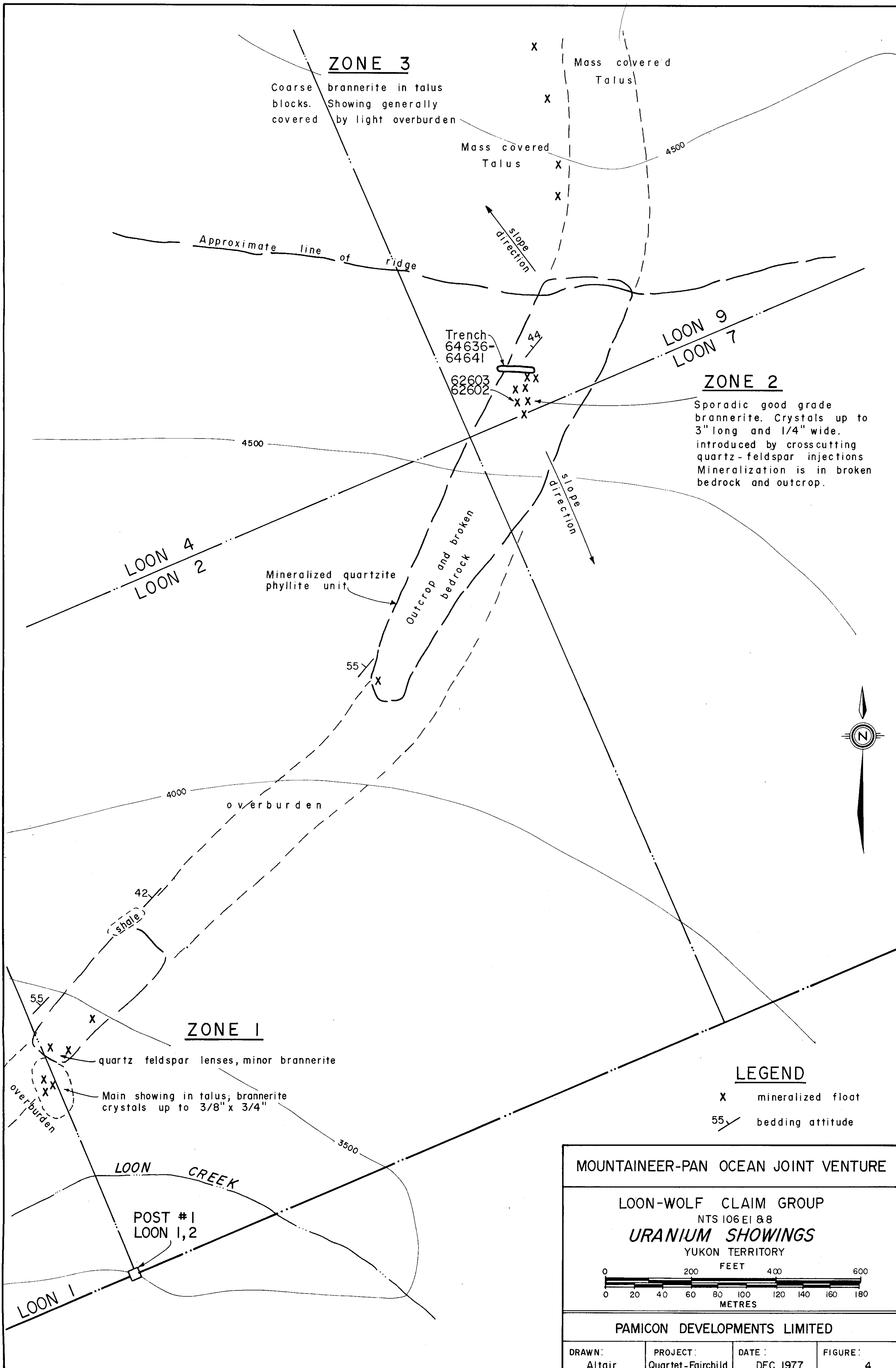
ZONE 3
Coarse brannerite in talus blocks. Showing generally covered by light overburden
Mass covered Talus
Mass covered Talus
4500
slope direction
Approximate line of ridge
Trench 64636-64641
44
62603
62602
LOON 9
LOON 7
ZONE 2
Sporadic good grade brannerite. Crystals up to 3" long and 1/4" wide. introduced by crosscutting quartz-feldspar injections Mineralization is in broken bedrock and outcrop.
4500
slope direction
LOON 4
LOON 2
Mineralized quartzite phyllite unit
Outcrop and broken bedrock
55
4000
overburden
42
shale
55
ZONE 1
quartz feldspar lenses, minor brannerite
Main showing in talus; brannerite crystals up to 3/8" x 3/4"
overburden
3500
LOON CREEK
POST #1
LOON 1,2
LOON 1
N
LEGEND
X mineralized float
55 bedding attitude
MOUNTAINEER-PAN OCEAN JOINT VENTURE
LOON-WOLF CLAIM GROUP
NTS 106 E1 & 8
URANIUM SHOWINGS
YUKON TERRITORY
FEET
0 200 400 600
0 20 40 60 80 100 120 140 160 180
METRES
PAMICON DEVELOPMENTS LIMITED
DRAWN: Altair
PROJECT: Quartet-Fairchild
DATE: DEC. 1977
FIGURE: 4

quartzite contains very low grade sporadic disseminations of radioactive material. Minor low grade mineralization is also present in the massively chloritized siltstone where it is cut by faults.

The best mineralized unit is the interbedded white quartzite/pale green, thin splitting phyllite. Uranium mineralization was found non-continuously within the unit over a strike length of approximately 3,000 feet. The unit is approximately 200 feet thick, however, the showings are confined to the upper 50 feet of the unit where it contacts the overlying black shales (see Figure 4 this report). The mineralization has been exposed in three main zones.

Within the mineralized zones, sporadic high grade brannerite has been introduced by coarse, cross-cutting quartz-feldspar injections. In the best exposed showing (Zone 2, Figure 4), the injections were seen to range from 6 inches to 2 feet in width and were spaced from 6 feet to 20 feet apart across a total exposed width of approximately 150 feet. Brannerite occurs in greatest concentrations within the pink feldspathic contact alteration zones between the injections and the quartzite/phyllite country rock. The contact zones range in width from 1 inch to 12 inches depending on the size of the accompanying intrusion; the average width was approximately 6 inches. The brannerite occurs as randomly oriented needle-like laths up to a maximum length of 3 inches and a maximum diameter of 0.25 inches. The laths are pseudo-hexagonal in cross section and exhibit a strong basal cleavage. These may be original brannerite crystals but it is also suggested that they could be pseudomorphs after some as yet unidentified mineral, possibly ilmenite or rutile. Some minor amounts of brannerite occur in the quartz/feldspar injections themselves as well as trace amounts within the quartzite beds where they have been intersected.

As the injections approach the overlying shales they become smaller and more numerous and flood off in random directions into fractures and along bedding planes in the surrounding interbedded quartzite/phyllite. The contact zones in this upper portion of the showing are narrower but contain the same amount of brannerite. At their highest point of intrusion, the injections exist mainly as small criss-crossing stringers and are virtually barren. A preliminary trench was excavated across the top of the mineralized zone (see Figures 4 & 5, this report) where the injections begin to flood off into fractures and bedding planes. At this level, a large number of dark green, highly chloritized pods of metasomatized material (presumably siltstones) were noted to contain abundant disseminated brannerite. These pods are only tentatively identified as metasiltstones as exposure in the trench bottom was too poor to determine their true nature. The pods were partly exposed across a 20 foot width in the trench. They ranged in size from 6 inches to 18 inches and were spaced from 2 feet to 6 feet apart. The surrounding interbedded quartzite/phyllite was completely flooded by the

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quartz/feldspar injections.

Little is known about the other two mineralized areas in the quartzite/phyllite unit (Zones 1 and 3, Figure 4) as they are largely covered by overburden. In Zone 1, quartz-feldspar lenses occur with minor brannerite in the quartzite/phyllite unit. The best grade mineralization is seen in talus originating in overburden immediately beneath the unit. Here, brannerite laths up to 3/8 inch by 3/4 inch occur in the quartz-feldspar flooded quartzite/phyllite. The mineralized portion of the talus train appears to originate in an area approximately 150 feet by 50 feet. In Zone 3, coarse brannerite occurs in talus blocks of pink feldspathized material similar in appearance to the contact alteration zones in Zone 2. The talus originates in a mossy, overburden covered area approximately 150 feet by 50 feet in size.

Very little mineralized float was found in the overburden covered areas between the mineralized zones. However, that which was seen was similar to the mineralized contact rocks in Zone 2.

No uranium mineralization was discovered on the WOLF block although several float boulders in the main creek did give slightly anomalous scintillometer readings.

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Table 6.4.1 - Assay Results

Samle No.	% U_3O_8	Description
62602	5.03	Grab sample from float of best grade material from Zone 2. Sample weight approx. 10 lb.
62603	0.73	Grab sample from float over area approx. 100 ft x 50 ft. Attempt at representative assay of float area. Sample weight approx.10 lb.
64636	0.340	Continuous chip sample across 18 inches from bedrock in wall and floor of southeast end of mineralized portion of trench-Zone 2.
64637	0.480	Continuous chip sample across 16 inches from bedrock in wall and floor of southeast end of mineralized portion of trench - Zone 2
64638	0.470	Continuous chip sample across 16 inches from bedrock in floor of southeast end of mineralized portion of trench - Zone 2.
64639	0.430	Continuous chip sample across 18 inches from bedrock in wall of central part of mineralized portion of trench - Zone 2.
64640	0.096	Continuous chip sample across 16 inches from bedrock in floor of northwest end of mineralized portion of trench - Zone 2.
64641	0.410	Continuous chip sample across 12 inches from bedrock in floor of northwest end of mineralized portion of trench - Zone 2.

7.0 TRENCHING

A hand trenching program was initiated on September 7, 1977 in the LOON 7 and LOON 9 area to facilitate mapping and sampling of the Zone 2 showing. Due to the onset of snow

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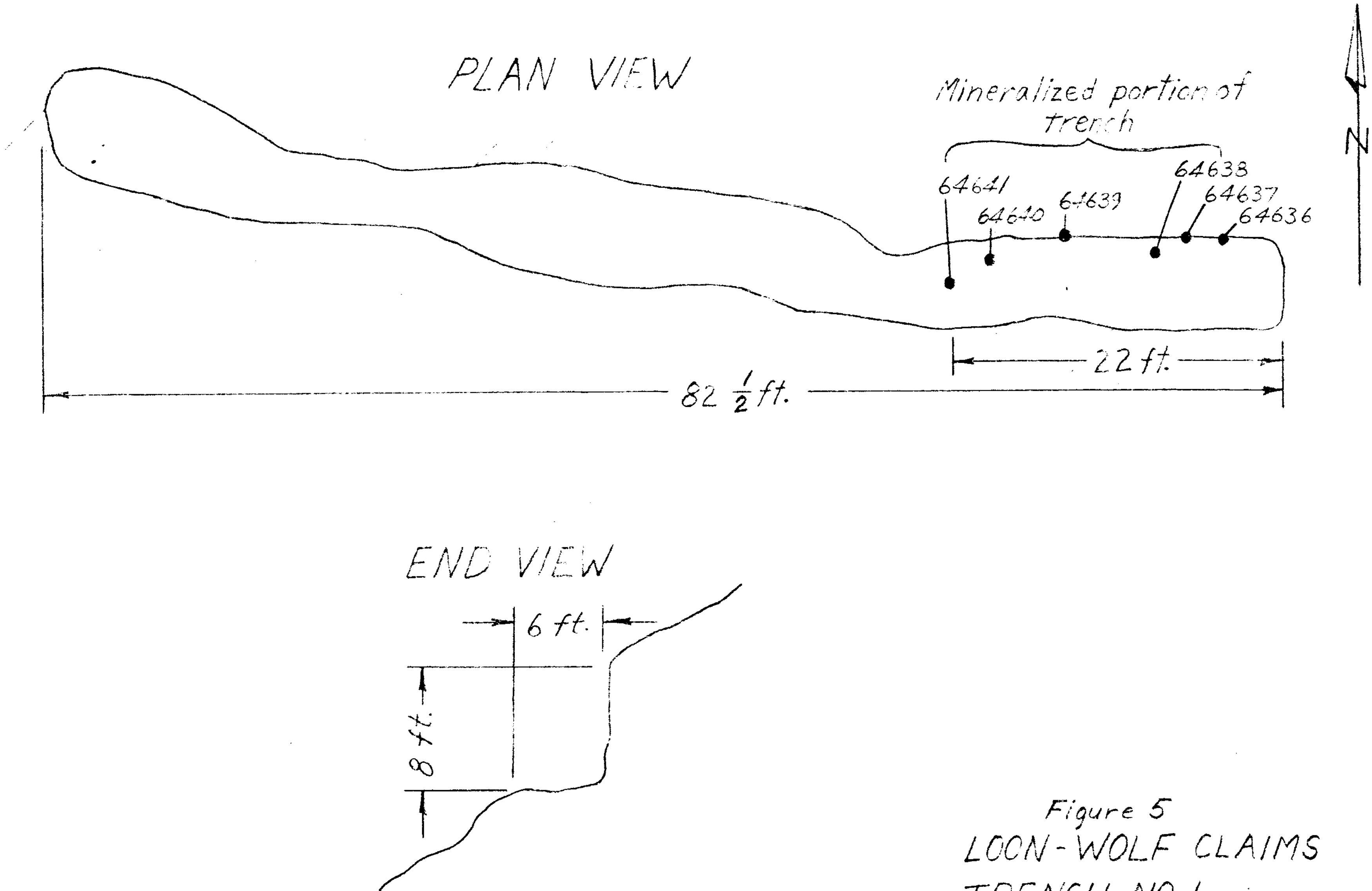

Figure 5
LOON-WOLF CLAIMS
TRENCH NO. 1
SKETCH MAP
Scale: 1 inch = 10 feet
Date of Sketch: Sept. 11, 1977

and freezing conditions it was only possible to complete the first trench.

In the area of the trench, overburden depth was 6 feet to 8 feet in mixed soil and talus (see Figures 4 & 5, this report). No frozen material was encountered in the trench but due to the high percentage of large rock fragements in the soil, blasting was required to loosen the overburden prior to removal by hand. Explosives were also placed in natural crevices and fissures to remove the top layer of broken bedrock. Shallow blast holes were drilled at approximately 2.5 foot intervals in the mineralized portion of the trench in order to freshen up the bedrock for sampling purposes, however, work ceased due to bad weather before the holes could be loaded and blasted.

Six assay samples were taken from bedrock in the mineralized portion of the trench (see Figure 5 and Table 6.4.1 for locations and results.)

8.0 GEOCHEMISTRY

The geochemical program on the LOON/WOLF claims consisted of reconnaissance water sampling of the drainages carried out in conjunction with the prospecting. All streams in the general area of the claims were sampled (see Figure 3, this report, for sample locations, Appendix VI for Certificates of Analysis). Samples were collected in

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numbered, acid cleansed, plastic sample bottles and sent for analysis to Chemex Labs. Ltd. in North Vancouver, B.C. Upon receipt at Chemex the samples were analysed for uranium using standard fluorometric procedures (see Appendix II for complete descriptions of procedure).

Eighteen samples were collected during the survey and the values ranged from 0.2 to 1.2 parts per billion uranium. Twelve samples were at or below detection limits for the analysis method. In view of this generally low trend in values, those values above detection limits must be considered high and the highest value, 1.2 ppb., must be considered anomalous.

9.0 DISCUSSION AND CONCLUSIONS

The LOON/WOLF claims lie in a belt of structurally favourable Proterozoic sediments belonging to Unit A. Uranium mineralization occurs in contact zones in a white to pale green quartzite/phyllite unit where it has been intruded by swarms of large quartz-feldspar injections. Large portions of the mineralized unit are completely covered by overburden so more work is definitely required to evaluate the potential of the unit. Geologic mapping using aerial photographs enlarged to a scale of 1 inch to 1,000 feet would aid in compiling a detailed geologic section for the property as well as analysing the structural events present. Detailed maps of the showing areas should be prepared using plane table methods.

The trenching program proved very valuable in revealing the presence of unsuspected mineralization and enabling continuous chip assay sampling to be undertaken. The trenching program should be continued as a means of determining the mode of mineralization, however, diamond drilling will be required to test for continuity of mineralization both down dip and beneath overburden covered areas of interest.

Detailed soil sampling in the area of the quartzite/phyllite unit on the LOON block should serve to evaluate the uranium potential of the overburden covered portions of the unit. A close spaced picket grid will provide sufficient control for this purpose.

The generally low water sample values in the property area can probably be attributed to the uranium occurring in the form of brannerite, which is relatively insoluble. Further detailed stream geochemistry is needed to follow up the high values encountered on the property, especially on the WOLF block. Silt sampling rather than water sampling is recommended.

10.0 RECOMMENDATIONS

1. A close spaced silt sampling program should be undertaken on all drainages in the property area.

2. A detailed soil sample survey should be undertaken in the overburden covered areas of interest on the LOON block. Location and spacing of the grid should be decided in the field.

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3. Aerial photograph enlargements at a scale of 1 inch to 1,000 feet for the property area should be obtained. Mapping at this scale should be carried out over the claims area.

4. Detailed plane table mapping should be carried out in the showing areas on the LOON on a scale to be decided in the field.

5. The hand trenching program should be continued on selected showings starting with the Zone 2 area on the LOON block. Trenches should then be excavated on the Zone 1 and 3 areas to evaluate the float and overburden covered occurrences in those areas. Assay samples should be taken from all the trenches.

6. Contingent upon the results of preliminary trenching and soil sampling, preparations should be made to initiate a diamond drilling program on the property.

Respectfully submitted,

R. K. Yorston - Geologist

D. A. Yeager - Geologist

C. K. Ikona - P. Eng.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
CHARLES K. IKONA

URANIUM

Analytical methods for uranium presently in use at Chemex have been modified from procedures developed by the USGS and GSC. For uranium at PPB and PPM level, fluorometric methods of analyses are highly acceptable in terms of accuracy, cost and turn around time.

The following methods are used extensively to determine uranium potential in a variety of material.

(a) Water Samples - By Fluorescence Analysis

Clean 100 or 200 ml plastic bottles are provided for field use. If a portion of the water is to be stored we require a 200 ml sample.

A 75 ml aliquot is transferred to a clean 100 ml pyrex beaker. 3 ml of concentrated HNO_3 is added and the solution is evaporated to dryness at low uniform temperature. The dry residue after ashing is dissolved in 3 ml of warm 4M HNO_3. An aliquot of the dissolved residue is transferred to a small platinum dish, dried, and fused with an 0.50g tablet of carbonate-fluoride flux at 650° C. The fused disc is removed from the platinum dish and uranium fluorescence is determined using a G. K.Turner III Fluorometer or Jarrell-Ash 26-000 Fluorometer. Detection limit is 0.20 PPB U. Analytical capability approx. 200 samples per day including check samples and quality control standards.

(b). Soil, Silt, Lake Bottom Sediments & Rocks - By Fluorescence Analysis

These materials normally arrive unprepared. Preparation requires drying @ 60° C and screening to obtain the -80 mesh fraction. Coarse material is retained if the screened fraction is small. A 0.25 gm sample of -80 mesh material is weighed into a 100 ml pyrex beaker. The sample is ashed at 550° C to remove organics. The ashed residue is digested in 5 mls 4M HNO_3 and taken to dryness twice. The residue is leached in 50 mls 1% HNO_3. The solution is swirled and allowed to settle. A few microlitres of

. . . . 2

the clear solution is transferred by micropipette to a platinum dish. The sample is evaporated to dryness and an 0.50 gm tablet of carbonate - fluoride flux is added to the sample dish. Fusion and fluorometric determination of uranium is as described for water samples. Detection limit is 0.50 PPM U. Analytical volume approx. 400 samples per day including duplicates and quality control standards. Upper limit of analytical method - 400 PPM U.

(c). Assay Materials (% U_3O_8) By Colorimetric Methods

1 gram of homogenized sample pulp is weighed into a Teflon dish and digested with 10 mls 52% HF, 5 mls 70% $HClO_4$ and 5 mls conc. HNO_3 to dryness. The residue is dissolved in 25 mls 9M HCl. The uranium is separated from interfering elements by anion exchange procedures. The adsorbed uranium is eluted form the resin and a suitable portion of the uranium bearing solution is reduced, filtered and then complexed using Arsenazo III reagent. Absorbance is measured using "Spectronic 700" Spectrophotometer. The U_3O_8 concentration is evaluated by correlation with a standard reference curve. Analytical volume - 40 samples/day. Concentration range 0.001% U_3O_8 to 10.0% U_3O_8.

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604
TELEX 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 32766
INVOICE NO. 21366
RECEIVED July 30/77
ANALYSED Aug. 16/77

TO: Pamicon Developments Ltd.,
610 - 850 W. Hastings
Vancouver, B.C.

ATTN:

cc: D. Yeager, Mayo

SAMPLE NO. :	% U_3O_8	Oz/Ton Gold
62602	5.03	0.005
62603	0.73	

CERTIFIED BY: [signature]
Registered B.C. Assayer

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

CERTIFICATE NO. 33060
INVOICE NO. 22367
RECEIVED September 24, 1977
ANALYSED October 18, 1977

TO: Pamicon Developments Ltd.,
610 - 850 W. Hastings St.,
Vancouver, B.C.
V6B 1P1

ATTN: Mr. R. Darney

SAMPLE NO. :	% U_3O_8
62561	0.280
62562	0.053
64634	0.700
64635	0.690
64636	0.340
64637	0.480
64638	0.470
64639	0.430
64640	0.096
64641	0.410

CTA
MEMBER
CANADIAN TESTING
ASSOCIATION

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA