GEOLOGIC SKETCH, LITHOLOGIES AND ROCK SAMPLE DESCRIPTIONS

DORE ROAD IRON FORMATION
GARNET TOWNSHIP
ONTARIO

FOR
NORAMCO EXPLORATION

BY: GLEN PRIOR

NORWIN RESOURCES LTD.

NOVEMBER 1986

#63.4912

OM 86-5-P-32

THIS SUBMITTAL CONSISTED OF VARIOUS REPORTS, SOME OF WHICH HAVE BEEN CULLED FROM THIS FILE. THE CULLED MATERIAL HAD BEEN PREVIOUSLY SUBMITTED UNDER THE FOLLOWING RECORD SERIES (THE DOCUMENTS CAN BE VIEWED IN THESE SERIES):

GEOLOGICAL SURVEY REPORT, WESTERN PACIFIC ENERGY CORP., B.L. MASSON, SEPTEMBER 1986 ⟹ SEE TORONTO OFFICE FILE # 2.9422, REPORT OF WORK # 306 FOR 1986

LITHOLOGIES

3 Gabbro: Equigranular, medium-grained, non-magnetic rock consisting of approximately 60% light green to white feldspars and 40% dark green, weakly chloritic pyroxenes. Both feldspars and pyroxenes occur as primarily subhedral crystals up to 4 mm long. The rock is weakly jointed and non-foliated. Very trace amounts of disseminated, very fine-grained pyrite were observed. Weathered surfaces have somewhat mottled appearances and indicate the presence of two types of pyroxenes in roughly equal amounts. One type, probably an iron-rich orthopyroxene, weathers recessively and is strongly stained by iron-oxide while the other phase, probably a clinopyroxene, is non-recessive and weathers to a medium green. Feldspars weather white to light green.

2 Iron Formation: Very fine-grained, massive to semi-massive magnetite iron formation that may be weakly to moderately-well banded on a centimeter scale. Semi-massive varieties contain beds from 0.5 to 2 cm thick of massive, very fine-grained magnetite alternating with very fine-grained, weakly to strongly magnetic, black argillaceous horizons containing disseminated, fine-grained muscovite.

1a Mafic Volcanic: Very fine-grained, dark green, dark green weathering mafic volcanic rock that is non-magnetic and contains very trace amounts of disseminated, very fine-grained pyrite. The rocks are weakly chloritic, commonly contain 0.5 to 2% calcite veinlets, and the exposure north of the road is weakly foliated.

1b Porphyritic Mafic Volcanic: Similar to unit 1a but contains about 5% subhedral feldspar phenocrysts up to 4 mm long and the rock weathers to a medium green.

ROCK SAMPLE DESCRIPTIONS

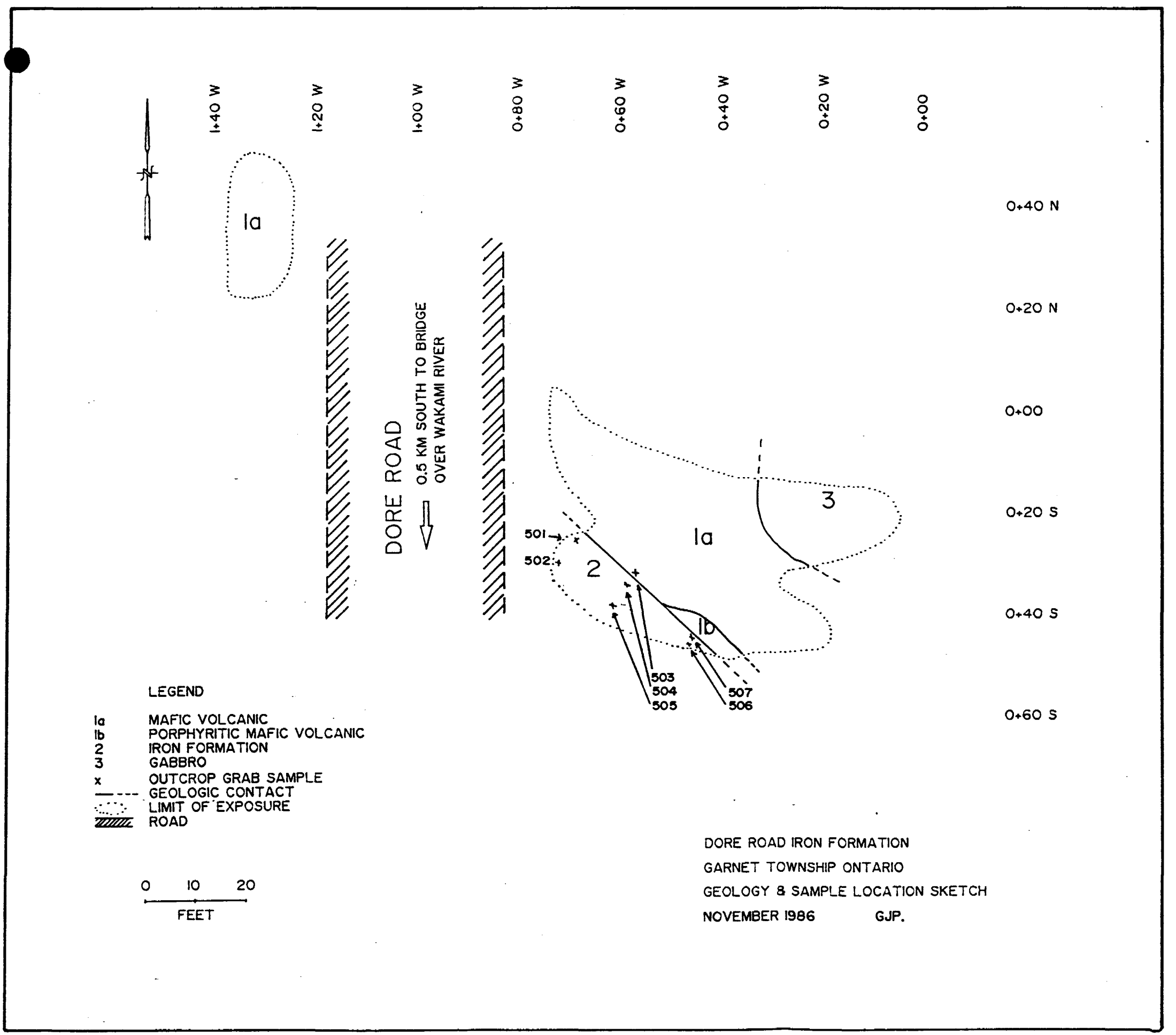
GT-R-501	Very fine-grained, massive magnetite iron formation cross-cut by 1 to 2% hairline veinlets of calcite and narrow veionlets of quartz. contains approximately 0.5% fine-grained pyrite in discontinuous, hairline sulphide veinlets and as disseminated, anhedral grains. The outcrop is moderately stained by Fe-oxide.
GT-R-502	Very fine-grained, massive magnetite iron formation weakly banded on a 0.5 to 3 cm scale. Cross-cut by less than 1% quartz veinlets. Weak Fe-oxide stain.
GT-R-503	Sample of strongly quartz veined zone lying along shear contact between mafic volcanics and iron formation. Over the 35 feet (10.5m) of contact exposed by stripping this zone varies from a few centimeters to 25 cm in width. At the location of sample GT-R-503 the zone is 15 to 20 cm wide. The sample contains about 80% white, very fine-grained quartz, 10% narrow, irregular veinlets and lenses of chlorite (some of which may represent small, strongly chloritized, mafic volcanic fragments) and 10% blebs of light brown Fe-oxide up to 2 cm across. The Fe-oxide blebs, which are cross-cut by both quartz and chlorite veinlets, probably represents intensely oxidized breccia fragments of the magnetite iron formation. The sample also contains less than 0.25% hairline calcite veinlets. The outcrop is strongly stained by Fe-oxide.
GT-R-504	Very fine-grained, massive magnetite iron formation containing about 0.5% irregular, narrow, Fe-oxide veinlets and 0.25 to 0.5% veinlets less than 1 mm wide of very fine-grained quartz.
GT-R-505	Very fine-grained, massive magnetite iron formation containing approximately 1% multidirectional veinlets up to 1 mm wide of quartz-Fe-oxide, calcite, and possibly Fe-carbonate.

GT-R-506

Semi-massive magnetite iron formation bedded on a scale of 0.5 to 2 cm. The rock alternates between layers of very fine-grained, massive magnetite and layers of very fine-grained, black, weakly to strongly magnetic argillite containing fine-grained, disseminated muscovite. Bedding drips at a shallow angle to the south which, given the near-vertical attitude of the iron formation-volcanic contact, indicates a fault contact. The sample is cross-cut, generally at a high angle to bedding, by quartz-Fe-carbonate +/- Fe-oxide +/- calcite veinlets up to 3 mm wide. The wider veinlets consist of a fine-grained quartz core rimmed by fine-grained Fe-carbonate. Approximately 0.5% fine-grained pyrite is disseminated throughout the sample along with some possible, very fine-grained, striated arsenopyrite.

GT-R-507

Sample collected from 25 cm wide, strongly quartz veined zone along shear contact between volcanics and iron formation (cf. sample GT-R-503). Rock consists of very fine-grained, massive magnetite iron formation cross-cut by about 10% multidirectional Fe-oxide +/- calcite veinlets up to 1 mm wide. The rock has a light brown, Fe-oxide weathering rind a few millimeters to 1 cm thick.


1+40 W
1+20 W
1+00 W
0+80 W
0+60 W
0+40 W
0+20 W
0+00
0+40 N
0+20 N
0+00
0+20 S
0+40 S
0+60 S
DORE ROAD
0.5 KM SOUTH TO BRIDGE
OVER WAKAMI RIVER
1a
1b
2
3
501
502
503
504
505
506
507
LEGEND
1a MAFIC VOLCANIC
1b PORPHYRITIC MAFIC VOLCANIC
2 IRON FORMATION
3 GABBRO
x OUTCROP GRAB SAMPLE
GEOLOGIC CONTACT
LIMIT OF EXPOSURE
ROAD
0 10 20
FEET
DORE ROAD IRON FORMATION
GARNET TOWNSHIP ONTARIO
GEOLOGY & SAMPLE LOCATION SKETCH
NOVEMBER 1986 GJP.

ASSAY RESULTS

Sample No.	Assay (oz gold/t)
501	Nil
502	Tr
503	0.01
504	0.005
505	0.02
506	0.112
507	0.01

EXPLORATION SUMMARY

GARNET LAKE PROPERTY

GARNET TOWNSHIP

ONTARIO

FOR

WESTERN PACIFIC ENERGY CORPORATION

L.D.S. Winter
B.A.Sc., M.Sc., F.G.A.C.
October 3, 1986

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1. INTRODUCTION

The Garnet Lake property of Western Pacific Energy Corporation is located in the east-central part of Garnet township in the Swayze greenstone belt of northeastern Ontario (Figure 1).

The claims were acquired for their potential for gold mineralization and following preliminary evaluation work a 2-phase programme of exploration was recommended.

The writer has been requested by the company to evaluate and summarize the results to date and to review recommendations for completion of the work programme.

2. SUMMARY AND RECOMMENDATIONS

To date an exploration programme consisting of airborne geophysical surveys (magnetometer and VLF), line-cutting, ground geophysics (magnetometer, VLF and Self-potential surveys), geological mapping and sampling and diamond drilling has been completed on the property.

This work confirmed the presence of the main zone of iron formation and associated units trending southeasterly across the property and bounded by metavolcanics to the north and south. Along the northern edge of the zone of iron formation from the central part of the claims eastward for approximately 13,000 feet an area of quartz and sulphide veining, carbonatization and silicification and pyrite, arsenopyrite and gold mineralization has been identified. The best value obtained was 4940 ppb gold - 0.144 oz. gold per ton from a trench in iron formation within this zone adjacent to the main road and containing quartz veining and sulphide mineralization.

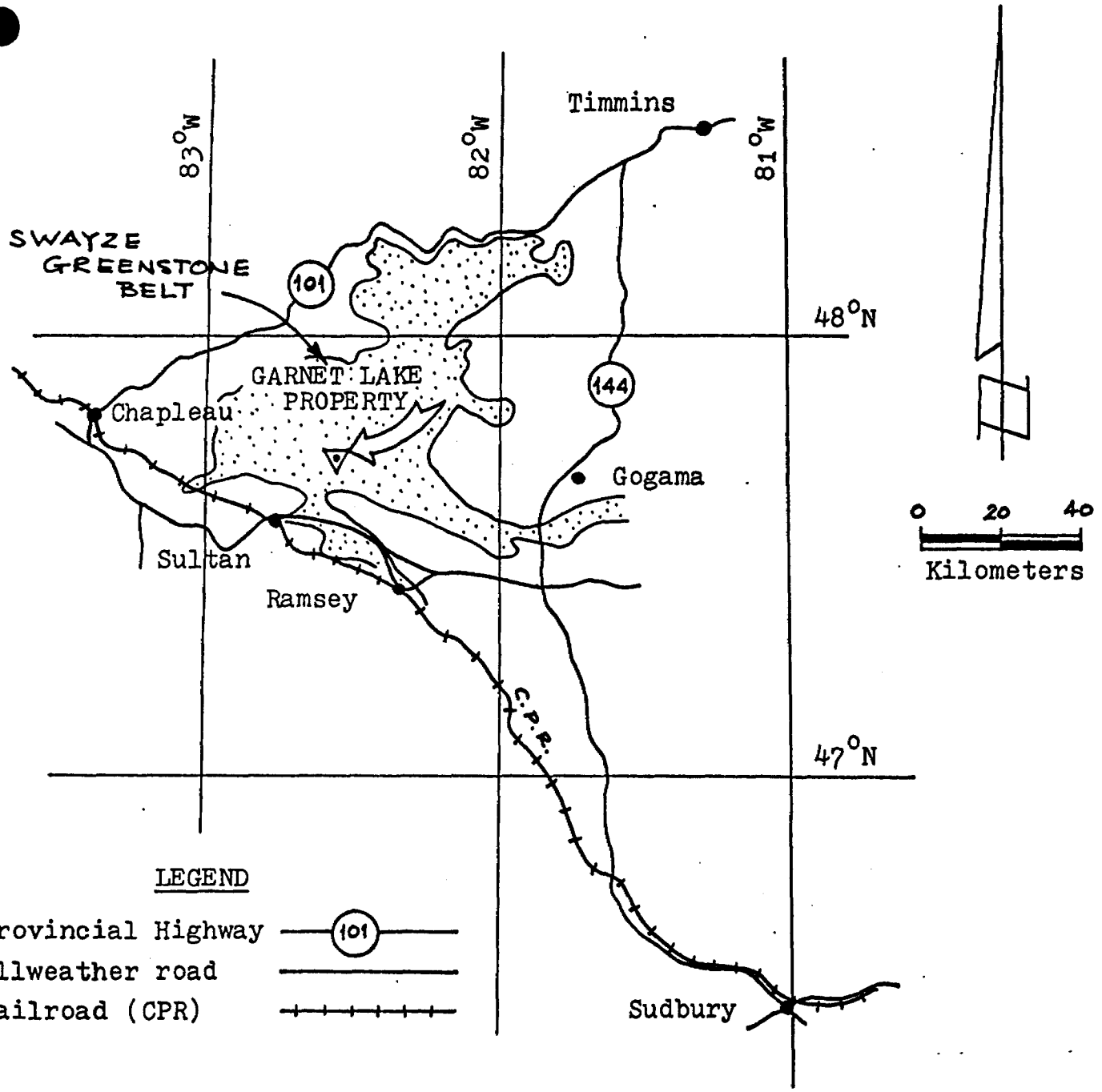


FIGURE 1

GENERAL LOCATION MAP
GARNET LAKE PROPERTY
DISTRICT OF SUDBURY
ONTARIO

To accompany the report for
WESTERN PACIFIC ENERGY CORPORATION

OCTOBER 3: 86

GEOLOGICAL ASSOCIATION OF CANADA
L. D. S. Winter
FELLOW

To complete the property evaluation a programme of surface stripping, trenching, mapping and sampling of mineralized areas within the favourable zone is recommended with an estimated cost of $12,000.

Respectfully submitted,

L.D.S. Winter
B.A.Sc., M.Sc., F.G.A.C.
October 3, 1986

GEOLOGICAL ASSOCIATION OF CANADA
L. D. S. Winter
FELLOW

3. PROPERTY, LOCATION AND ACCESS

3.1 Claim Group

The property consists of 141 unpatented contiguous mining claims in good standing as shown in Figure 2 and as listed below after Plan M.829 Garnet Township as issued by the Surveys and Mapping Branch of the Ontario Ministry of Natural Resources. The claim numbers are as follows:

CLAIM NUMBERS	NO. OF CLAIMS
P.797501 to 797575 inclusive	75
P.798029 to 798048 inclusive	20
P.798055 to 798072 inclusive	18
P.798080 to 798099 inclusive	20
P.839741 to 839748 inclusive	8
TOTAL	141

3.2 Location and Access

Garnet Township is located in the District of Sudbury, Porcupine Mining Division of northeastern Ontario at 47° -43' N latitude, 82° -30' W longitude (Figure 1) approximately 75 miles southwest of Timmins.

A good gravel road crosses the property and leads south 9 miles then west a distance of 18 miles to Sultan on the transcontinental line of the Canadian Pacific Railway. Highways 667 and 129 connect Sultan to Chapleau, 40 miles to the northwest.

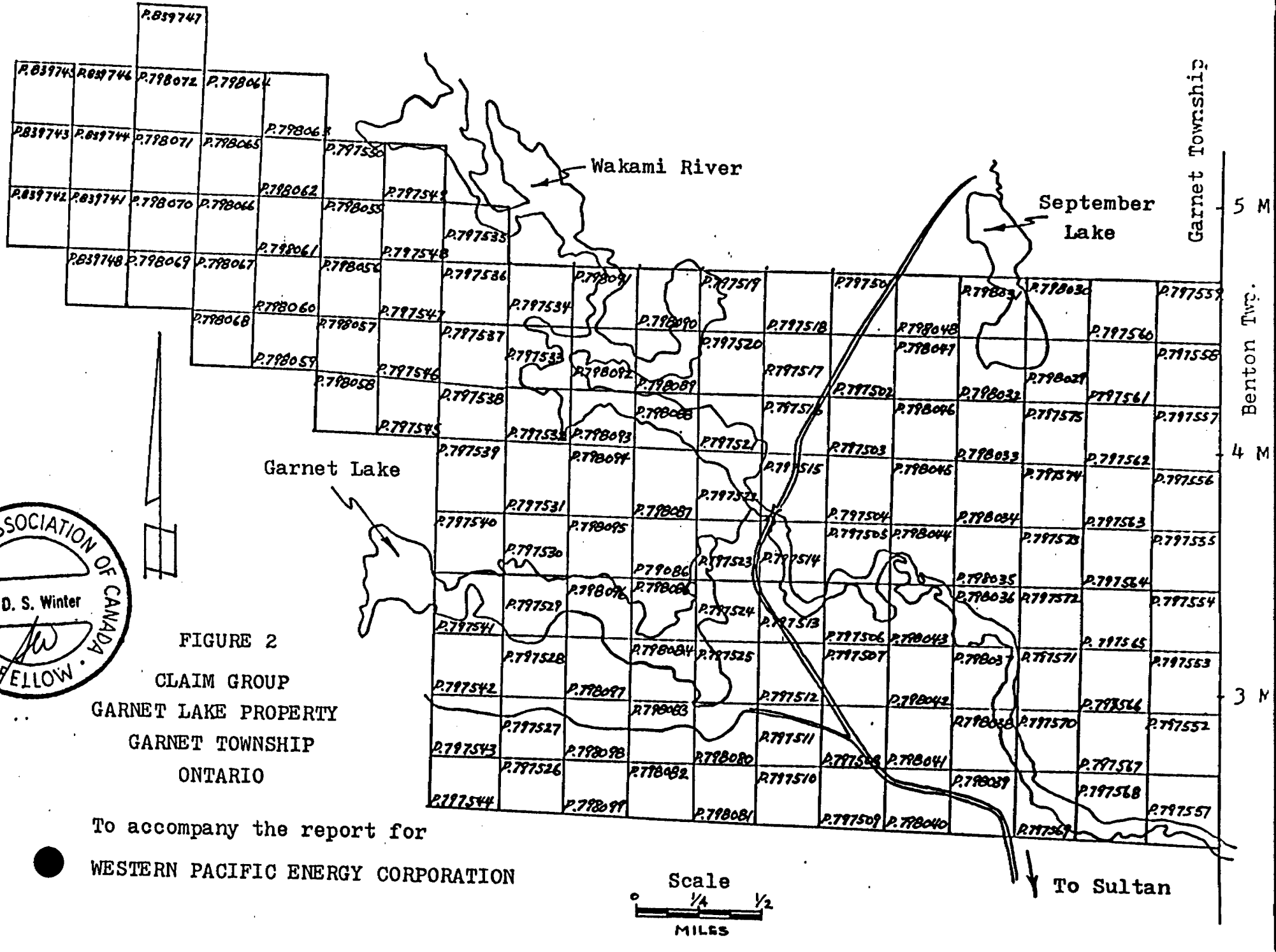


FIGURE 2

CLAIM GROUP

GARNET LAKE PROPERTY

GARNET TOWNSHIP

ONTARIO

To accompany the report for

WESTERN PACIFIC ENERGY CORPORATION

4. GEOLOGY

4.1 Regional Geology

The Garnet property occurs in the south-central section of the Swayze greenstone belt (Figure 1). In the Garnet, Cunningham and Benton Townships the belt is made up of a sequence of metamorphosed (greenschist facies) early Precambrian (Archean) volcanic rocks. The sequence is composed dominantly of basaltic flows and tuffs, with subordinate units of felsic porphyritic tuffs, clastic metasediments and by chemical metasediments represented by graphitic cherts and various facies of iron formation. The volcanic sequence has been intruded by gabbro-peridotite bodies, felsic porphyritic intrusions and diabase and lamprophyre dykes. Flanking the sequence to the south are granitoid intrusions and migmatites. Winter (1985) has outlined a more detailed account of the regional geology in an earlier report for Western Pacific Energy Corp.

4.2 Property Geology

The Garnet Lake property in east-central Garnet township is underlain by a west-northwest trending and steeply dipping sequence of metavolcanics that range from massive to porphyritic flows to tuffs and agglomerates. These metavolcanics are generally green to dark green in colour, range from fine to medium grained and when porphyritic contain phenocrysts of white plagioclase or quartz. Pillowed varieties are present in both the east-central and southwestern parts of the claim group. The composition appears to range from intermediate to mafic.

Ferruginous chert to magnetite iron formation with associated graphite occurs in the northwestern part of the property and trends east-southeasterly across the claims.

In the eastern part of the claim group possibly three units, each approximately 1000 feet wide, of porphyritic felsic metavolcanics trend approximately east-west and dip steeply south. One unit is a feldspar porphyry and two units are quartz porphyries.

In the central and eastern part of the property sill-like to somewhat discordant bodies of mafic composition have intruded the metavolcanics and associated metasediments. These intrusives are gabbroic to dioritic in composition, massive and with a diabasic texture. A small nose of this material also occurs in the southwestern corner of the property.

Outcrops of agglomerate or volcaniclastic conglomerate and associated finer grained units trending at 110° occur in the southwestern corner of the property. These units show considerable carbonate alteration.

In summary, the property consists of a sequence of west-northwest trending metavolcanics of intermediate to mafic composition containing intercalated chert, iron formation and associated sediments across the central region of the claims. Three bodies of porphyritic felsic metavolcanics, possibly sub-volcanic intrusives, occur in the eastern part of the claims and sill-like bodies of gabbro and diorite have intruded the sequence, in the central and eastern part of the claims.

5. PREVIOUSLY RECORDED ASSESSMENT WORK

The only recorded assessment work is that reported by INCO Limited in the mid-1960s when 5 drill holes, numbers 31911, 31912, 31913, 31914 and 31915 were drilled along the northwest trending zone of chemical metasediments in the search for base metals (Assessment Files, Timmins, Ontario).

6. REVIEW OF EXPLORATION WORK 1985-1986

6.1 Phase 1

The Phase 1 exploration programme was initiated in November 1985 and included:

1. Linecutting: 56.22 line miles were cut at 400 ft. spacing with pickets at 100 ft. intervals. Five baselines and tielines were also cut.
2. Geophysics: Ground Magnetometer (18.5 line-miles), VLF-EM (19.2 line-miles) and Self Potential (S.P.) surveys (14.7 line-miles) were done over selected parts of the grid.
3. Geological Mapping: The area covered by the grids was mapped with particular emphasis on lithologic, structural and metamorphic elements. Rock units were sampled and mineralized areas were prospected and sampled.

As indicated by Goodwin (1986) the recommended basal till sampling programme was not carried out due to time constraints and the availability of equipment. Due to the deep and often erratic overburden depths neither the humus till geochemical soil sampling programme nor the induced polarization survey were carried out.

Eighteen VLF-EM conductors with coincident magnetics and/or self potential (SP) association were identified (Winter, 1986A). A number of other VLF-EM anomalies considered to be due to conductive overburden and/or structural features were also identified. In the western part of the property the VLF-EM, magnetic and SP anomalies are associated with the iron formation stratigraphy. The geology in the eastern part of the claims is much more complex and the cause of the geophysical anomalies is considered to be more variable.

6.2 Phase 2

The second phase of the exploration programme consisted of diamond drilling of 14 holes, for a total of 5,630 ft. of BQ core, between December 1, 1985 and February 14, 1986 and completion of the geological mapping.

Seven holes (Figure 3) were drilled on the western part of the grid testing geophysical targets. These holes intersected cherty to graphitic to sulphide-rich iron formation with intercalated metavolcanics and gabbro-diorite intrusives. Anomalous copper (1325 ppm) and zinc (600 ppm) values were obtained in hole G-85-3 between 74 and 79 feet but no other values of significance were obtained from this part of the property (Winter, 1986B).

Seven holes were also drilled on the eastern grid testing geophysical anomalies. In general iron formation, mafic metavolcanics, porphyries and gabbro-diorite intrusives were intersected. Hole G-85-7 intersected 1 ft. from 379 to 380 ft. of carbonatized and silicified metavolcanic containing pyrite and arsenopyrite that assayed 930 ppb gold. Iron formation in holes G-85-10 and G-85-11 showed elevated gold values from 110 to 380 ppb. Hole G-85-13 penetrated 140 ft. of overburden and was abandoned at this point due to caving.

The geological work by Masson (1986) clarified the geology of the property, was very useful in interpreting the geophysical results and outlined areas of particular economic potential.

This work confirmed the zone of iron formation, metavolcanics and gabbro-diorite sills approximately 3000 ft. wide trending southeasterly across the property. The northeastern part of the claims was found to be underlain by an easterly plunging anticline syncline par containing intercalated metabasalts, quartz-feldspar porphyries and

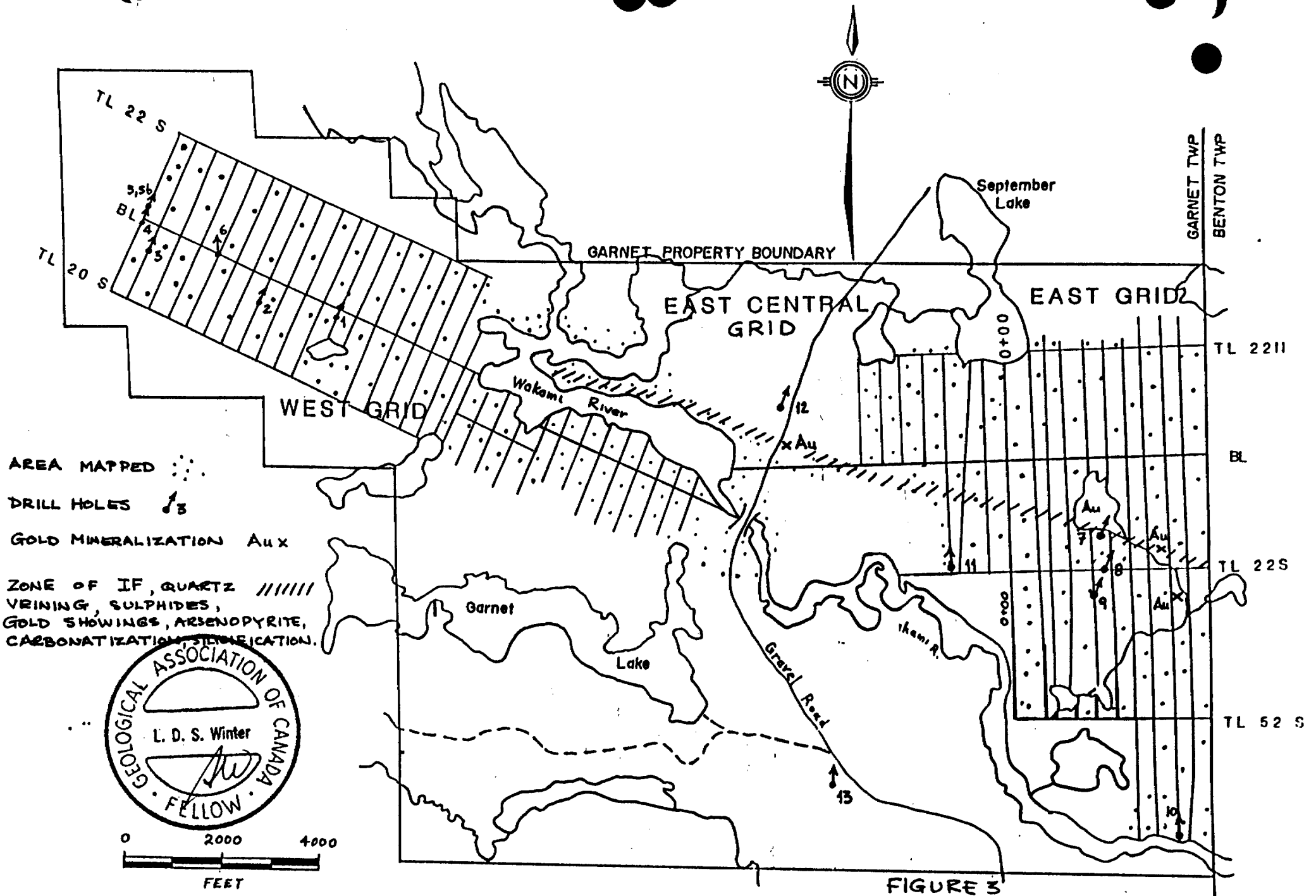


FIGURE 3
GARNET LAKE PROPERTY
GRID AND DRILL HOLE
LOCATIONS

pyroclastics. The southern half of the claims is underlain mainly by metabasalts with iron formation and gabbro sills along the southern claim boundary. Masson (1986) has also identified a series of east-northeast trending faults crossing the property.

During the mapping programme gold-copper mineralization associated with iron formation and quartz veining was located along the north side of the Wakami River and for about 4000 ft. west of the main access road. Iron formation within this horizon at the main road gave 3 samples assaying 484,926 and 4940 ppb gold (0.144 oz. gold per ton).

6.3 Expenditures

The total expenditure on Phase 1 amounted to approximately $62,000 while the expenditures in Phase 2 were $182,300 for the drilling programme. This is an all inclusive cost including supervision, logging, sampling and assaying. The completion of the geological mapping in Phase 2 resulted in a cost of $11,800 for a total Phase 2 expenditure of $194,100.

7. CONCLUSIONS

The geological mapping, geophysics and diamond drilling has provided considerable detail on the zone of iron formation trending southeasterly across the property. However, except for one area, the results have generally shown only very low values in gold and base metals. The exception is the area along the northern edge of the iron formation horizon, north of the Wakami River for 4000 ft. west of the road and southeastward 9000 ft. to the eastern claim boundary. This area contains the iron formation horizon cut by quartz veining and gold and copper mineralization (4940 ppb gold) adjacent to the main road, quartz veining and low gold values (685 ppb) to the west and the anomalous gold values in

carbonatized and silicified metavolcanics containing pyrite and arsenopyrite to the southeast (drill hole G-85-7 and surface samples).

It is considered that this zone of economic interest which has been identified by the work to date is worthy of further evaluation. In particular, the surface showing adjacent to the road and containing the gold samples with elevated values (4940 ppb gold or 0.144 oz. gold per ton) in iron formation should be assessed. To accomplish this a programme of surface stripping, sampling and assaying of the showing is proposed at an estimated cost of $12,000.

L.D.S. Winter
B.A.Sc., M.Sc., F.G.A.C.
October 3, 1986.

REFERENCES

1. GOODWIN, J.R., 1986
Exploration Summary, Garnet Lake Property, Garnet Township, District of Sudbury, Ontario for Western Pacific Energy Corporation, 5p.

2. MASSON, S.L., 1986
Geological Survey Report on the Garnet Lake Property, Garnet Township, District of Sudbury, Ontario for Western Pacific Energy Corporation, 20p.

3. WINTER, L.D.S., 1985
Geological Report on the Garnet Lake Property, Garnet Township, District of Sudbury, Ontario for Western Pacific Energy Corporation. 18p.

4. WINTER, L.D.S. 1986A
Report on the Exploration Programme on the Garnet Township Property, Ontario for Western Pacific Energy Corporation, 11p.

5. WINTER, L.D.S. 1986B
Report on the Diamond Drilling Programme on the Garnet Township Property, Ontario for Western Pacific Energy Corporation, December 1985 - February 1986, 9p.

CERTIFICATE OF QUALIFICATION

I, Lionel Donald Stewart Winter do hereby certify:

1. that I am a geologist and reside at 1849 Oriole Drive, Sudbury, Ontario, P3E 2W5,
2. that I am a Fellow of the Geological Association of Canada,
3. that I graduated from the University of Toronto in Mining Engineering in 1957 with a Bachelor of Applied Science and from McGill University, Montreal in 1961 with a Master of Science (Applied) in Geology,
4. that I have practised my profession continuously for 25 years,
5. that my report on the Garnet Lake Property, Garnet Township, Ontario is based on my personal knowledge of the geology of the area, work on the property, and on a review of published and unpublished information on the property and surrounding area.
6. that I have no personal, direct or indirect interest in the Garnet Lake Property, Garnet Township, Ontario or any adjacent properties, nor do I hold or intend to hold any shares of Western Pacific Energy Corporation and I have written this report as a totally independent consultant.

L.D.S. Winter
B.A. Sc., M.Sc., F.G.A.C.
October 3, 1986

L.D.S. Winter

GEOLOGICAL ASSOCIATION OF CANADA
L. D. S. Winter
FELLOW

LETTER OF CONSENT

I, L.D.S. Winter, consulting geologist, 1849 Oriole Drive, Sudbury, Ontario, do hereby consent to Western Pacific Energy Corporation using in whole or in part my report on the Garnet Lake Property, Garnet Township, Ontario in a prospectus or statement of material facts or for filing with government regulatory bodies as is deemed necessary.

L.D.S. Winter

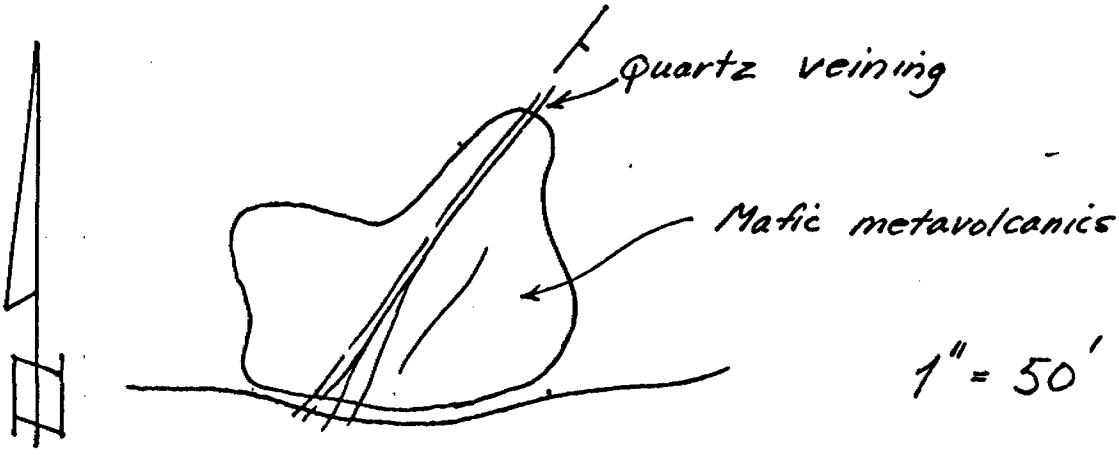
GEOLOGICAL ASSOCIATION OF CANADA · L. D. S. Winter · FELLOW ·

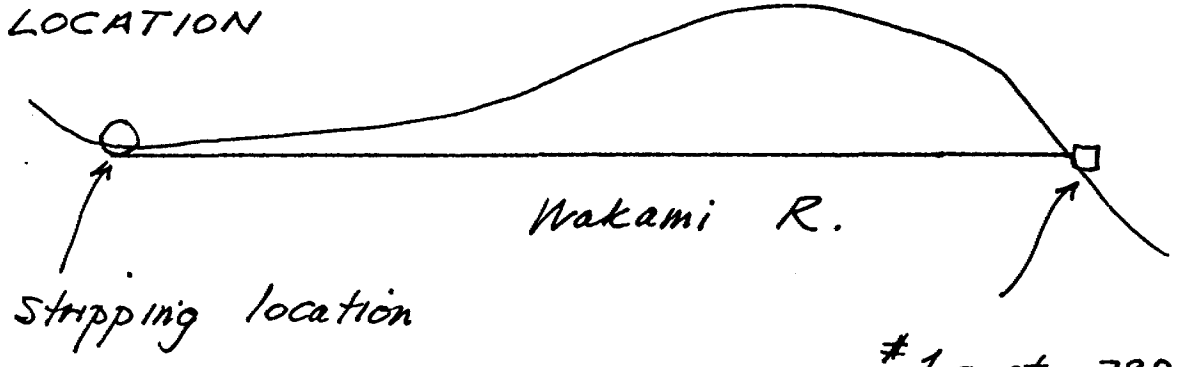
Dated at Sudbury, Ontario
October 3, 1986

L.D.S. Winter
B.A.Sc., M.Sc., F.G.A.C.

STRIPPING - GARNET LAKE PROPERTY

AREA # 1. - Cl. 798089





#1 post - 798088.

#2 post - 798089.

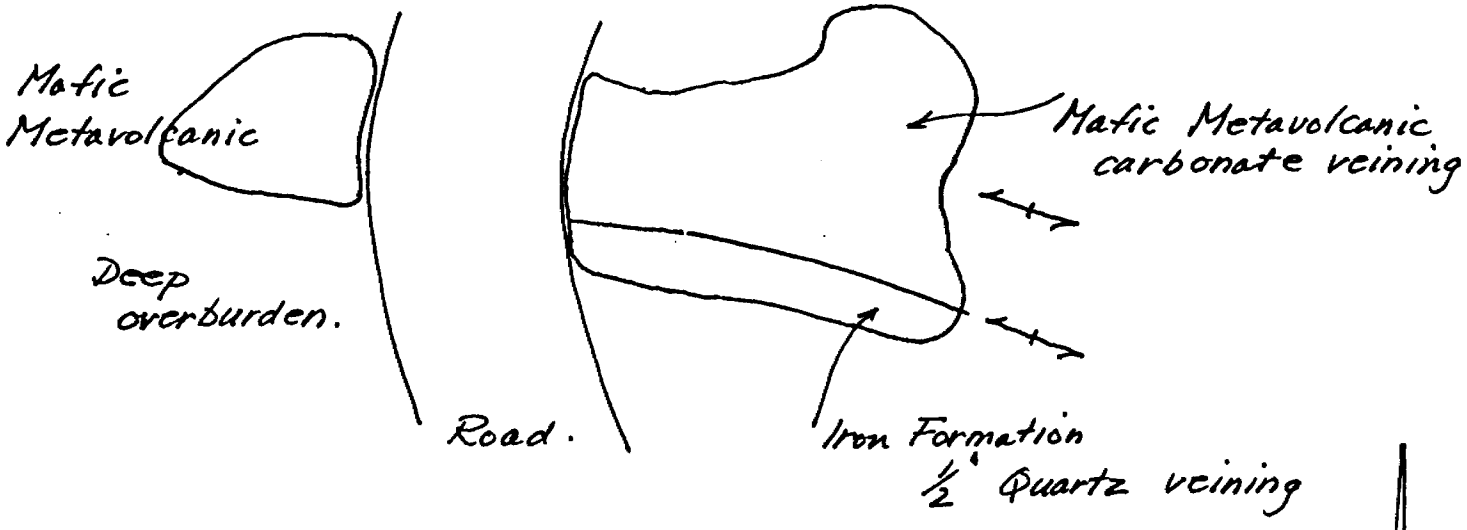
L.D.S. Wenitz

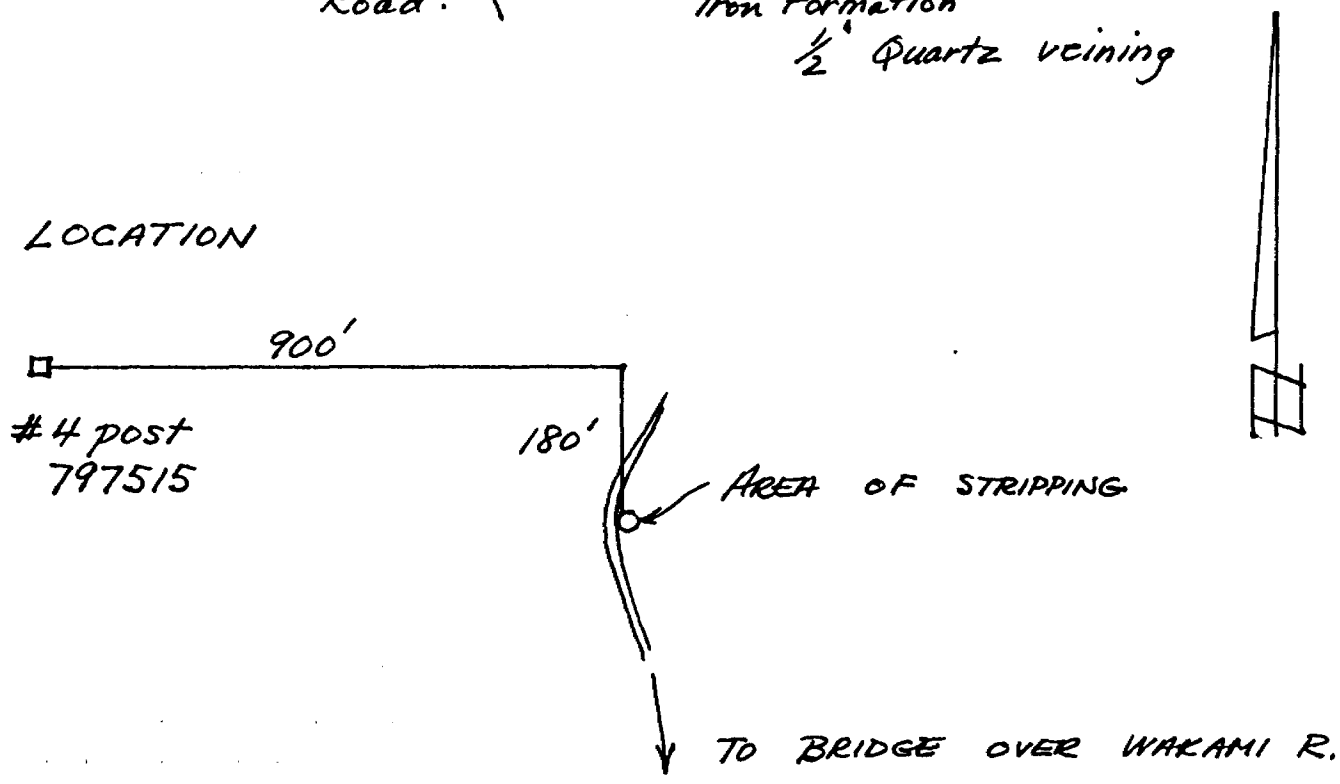
October 31, 1986

STRIPPING - GARNET LAKE PROPERTY

AREA # 2 - Cl. 797515

1" = 50'



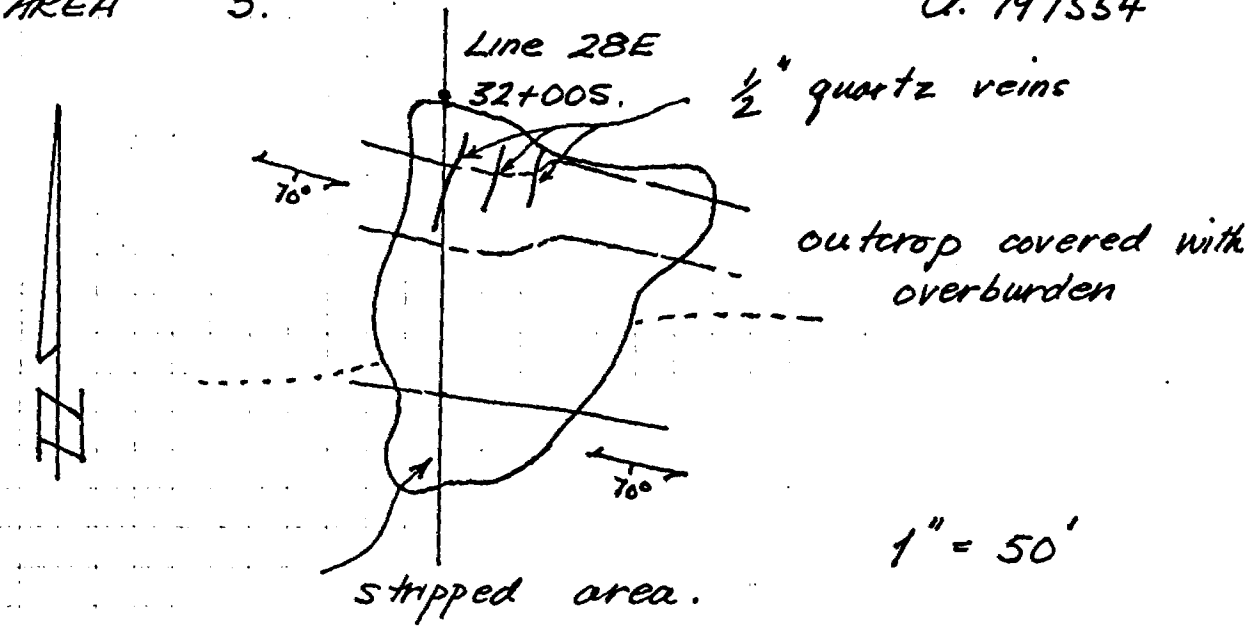


L.D.S. Winter

October 31, 1986

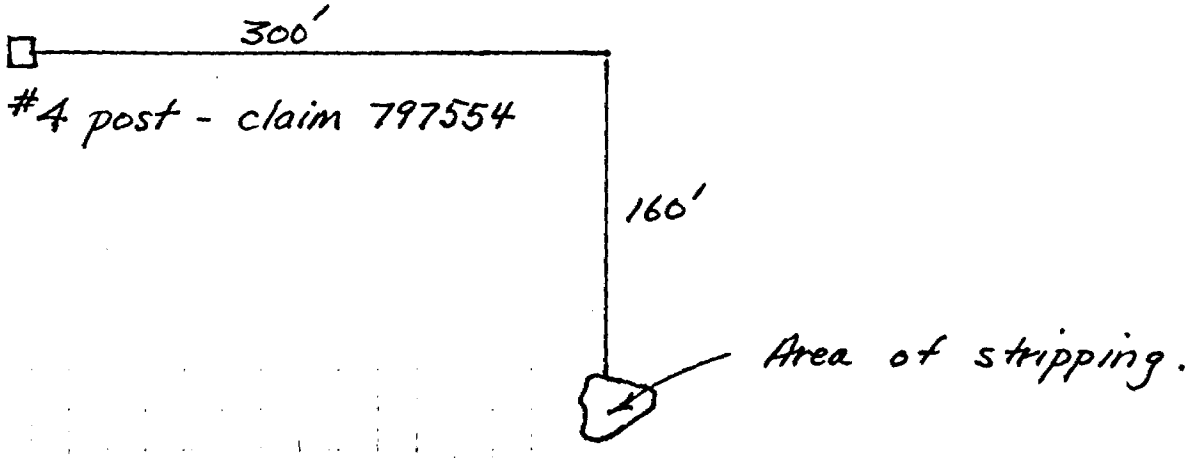
STRIPPING - GARNET LAKE PROPERTY.

AREA # 3. Cl. 797554



all rock is foliated mafic metavolcanic -

LOCATION.



L.D.S. Winter

October 31, 1986.

Ministry of Natural Resources

Report of Work

W.R. # 341/86

The Mini

41009NW0081 63.4912 GARNET

900

Name and Postal Address of Recorded Holder

D.G. Innes | C-32477

1275 Main St. W. North Bay, Ontario P1B 2W7

Summary of Work Performance and Distribution of Credits

Total Work Days Cr. claimed ~~882~~ 910 Days

for Performance of the following work. (Check one only)

- [ ] Manual Work
- [ ] Shaft Sinking Drifting or other Lateral Work.
- [ ] Compressed Air, other Power driven or mechanical equip.
- [x] Power Stripping
- [ ] Diamond or other Core drilling
- [ ] Land Survey

Mining Claim Prefix	Mining Claim Number	Work Days Cr.	Mining Claim Prefix	Mining Claim Number	Work Days Cr.	Mining Claim Prefix	Mining Claim Number	Work Days Cr.
	839741	100		~~797574~~	~~10~~			
	839742	100		~~797575~~	~~10~~			
	839743	100		~~798029~~	~~10~~			
	839744	100		~~797522~~	~~27~~			
	839745	100		797535	~~10~~ 25			
	839746	100						
	839747	100						
	839748	100						

All the work was performed on Mining Claim(s): 798089, 797515, 797554

Required Information eg: type of equipment, Names, Addresses, etc. (See Table Below)

Power Stripping and trenching with backhoe and wajax pump between Oct. 22nd and 30th, 1986

Ivan Collins

Alquest Exploration Services
637 Algonquin East
Timmins, Ontario
P4N 7N2

(705) 264-3311

RECORDED
NOV - 3 1986

Date of Report	Recorded Holder or Agent (Signature)
Oct. 31, 1986	M. Dubeau

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying

Quinterra Resources

1275 Main St. W. North Bay, P1B 2W7

Date Certified	Certified by (Signature)
Oct. 31, 1986	M. Dubeau

Table of Information/Attachments Required by the Mining Recorder

Type of Work	Specific Information per type	Other Information (Common to 2 or more types)	Attachments
Manual Work Shaft Sinking, Drifting or other Lateral Work	Nil	Names and addresses of men who performed manual work/operated equipment, together with dates and hours of employment.	Work Sketch: these are required to show the location and extent of work in relation to the nearest claim post.
Compressed air, other power driven or mechanical equip.	Type of equipment		
Power Stripping	Type of equipment and amount expended. Valid Proof of actual cost must be submitted		

PORCUPINE MINING DIVISION
RECEIVED
NOV 3 1986

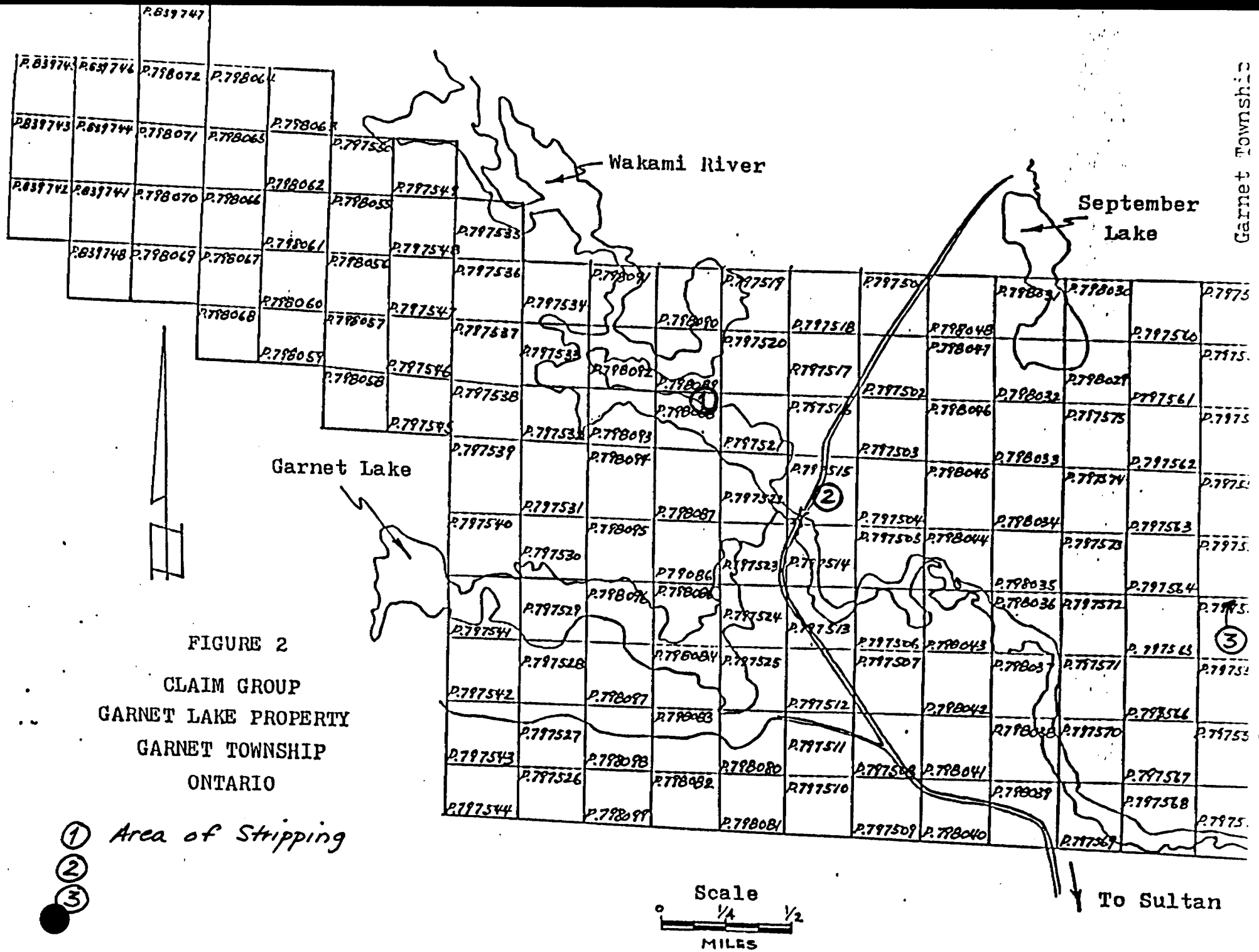


FIGURE 2

CLAIM GROUP

GARNET LAKE PROPERTY

GARNET TOWNSHIP

ONTARIO