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SUMMARY, EVALUATION AND RECOMMENDED DIAMOND DRILL PROGRAM, INCORPORATED'S KELLAR LAKE GOLD PROSPECT

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SUMMARY, EVALUATION AND RECOMMENDED DIAMOND DRILL PROGRAM ON MESTON LAKE RESOURCES (MLR) INCORPORATED'S KELLAR LAKE GOLD PROSPECT, GUETTARD TOWNSHIP, CHIBOUGAMAU MINING DISTRICT, QUEBEC, CANADA

by

T. Hashimoto

February 25, 1980

INTRODUCTION

General Statement

This report on Meston Lake Resources Incorporated's Kellar Lake gold prospect in Guettard township, Quebec, contains: -

(i) a description of the property;
(ii) general geology;
(iii) exploration history of the property;
(iv) an evaluation of the exploration potential of the property;
(v) recommended exploration program and estimated costs.

Location

The Kellar Lake gold prospect is located in the northeast corner of Guettard township - 45 miles west of the mining town of Chibougamau, Quebec and 340 miles north of Montreal (see Figure 1 on page 2). The nearest permanent settlement to the property is the town of Chapais, 28 miles to the southeast.

Size of Property, Claim Numbers and Expiry Dates

This gold prospect in Guettard township is made up of 20 contiguous claims totalling 800 acres (320 hectares) and the license numbers, claim numbers, size of each claim and expiry dates are as follows: -

License Number	Claim Numbers	Size in Hectares	Expiry Date
382756	1-5 (inclusive)	16 hectares each	May 25, 1980
382757	4 and 5	16 hectares each	May 25, 1980
382757	1-3 (inclusive)	16 hectares each	May 26, 1980
382758	1-5 (inclusive)	16 hectares each	May 28, 1980
382759	1-5 (inclusive)	16 hectares each	May 29, 1980

Figure 1. Index map showing location of Kellar lake gold prospect, Guettard township, Chibougamau mining district, Quebec, Canada.

The distribution of this claim-group is shown on Figure 2 on page 4.

Access

The most convenient means of access to the property are: -

(i) via float-plane - the nearest float-plane base is at Lac Cache (just south of Chibougamau), 45 miles to the east;

(ii) by road to Lac La Treve and than by boat to the property via Lac La Treve.

The Chibougamau-Senneterre highway and a Canadian National Railway line pass 12 and 20 miles to the south respectively of this gold prospect.

Setting and Exploration Target

According to the government regional geological map (see Figure 3 on page 5) much of this property is underlain by metamorphosed basic volcanic rocks and some felsic pyroclastics which are intruded locally by basic sills and dykes.

Two gold and 1 copper showings are known to occur on the property and these showings are indicated as 1 and 2 on Figure 4 on page 8. The gold showings are of the quartz vein variety and these gold-bearing quartz veins either cut or parallel the foliation of an acidic to intermediate volcanic rock. The small copper-showing occurs as a fracture-filling type of chalcopyrite mineralization in a fractured acidic volcanic rock.

Based on the findings to date the exploration target on the Kellar Lake prospect is an economic gold (gold-copper) deposit associated with quartz veins in fracture-zones in metamorphosed volcanic rocks.

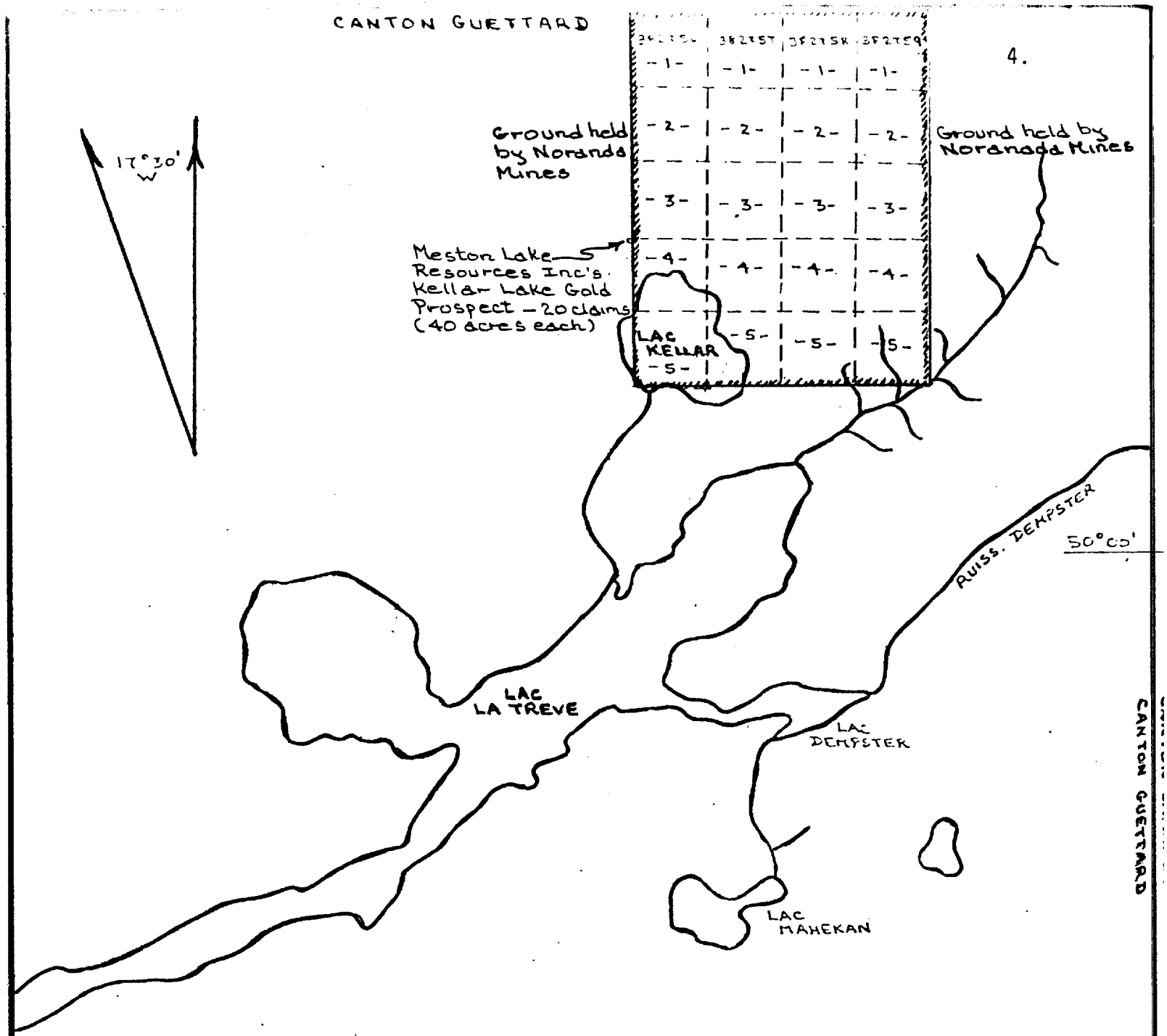


Figure 2. Map showing location and distribution of claims – Meston Lake Resources Inc's. Kellar Lake Gold Prospect Guettard township, Chibougamau mining district, Quebec, Canada.

Scale: 1" to ½ mi.

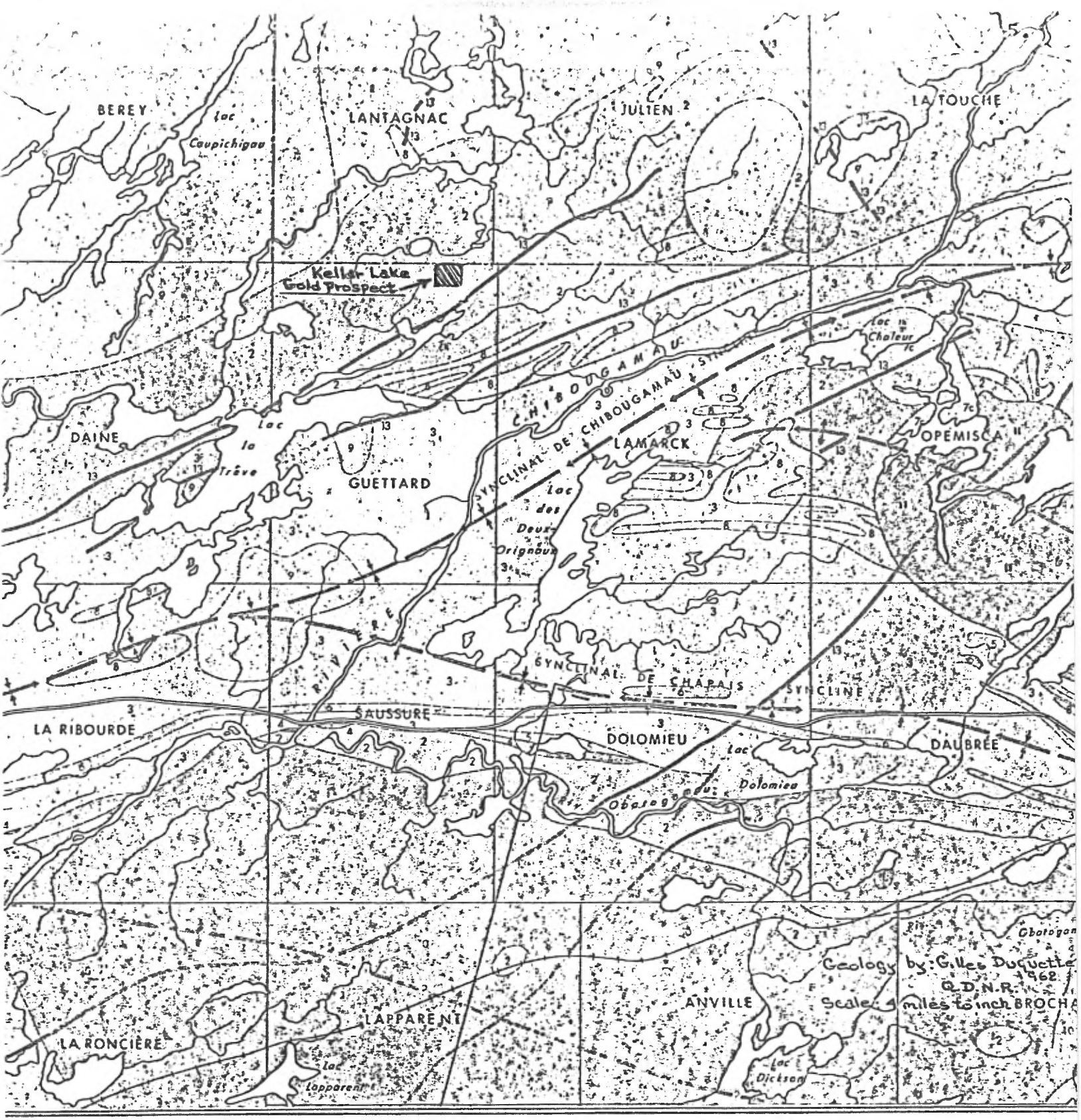


Figure 3. Map showing location of Keller lake gold prospect and regional geology.

LEGEND

13 – Diabase dyke
11 – Granodiorite
9 – Undetermined granitic assemblage
8 – Gabbro, diorite
7c – Lac Michwacho anorthositic complex
6 – Bourbeau gabbro sill
5 – Ventures gabbro sill
4 – Pyroxenite, serpentinized peridotite and dunite.
3 – Blondeau Formation: Felsic pyroclastic and related sedimentary rocks; minor mafic lavas.
2 – Gilman Formation: mafic lavas; minor felsic pyroclastics.
1 – Waconichu Formation: Felsic pyroclastics and related sedimentary rocks; mafic lavas in the bottom quarter.

EXPLORATION HISTORY OF THE PROPERTY

A review of the assessment work filed with the Quebec Department of Natural Resources and government publications has shown that since the discovery of gold on this property by George Kellar (prospector) in 1936 virtually all the exploration work on this gold prospect has been done by 6 exploration companies - Prospectors Airways Limited, Central Chibougamau Mines Limited, Brunswick Quebec Development Limited, Diomar Mining Exploration Syndicate, Fortunata Mines Limited and Power Gold Mines Incorporated. There is no record of the work done by Prospectors Airways Limited except for a note that some sampling work was done. Except for an induced polarization (I.P.) survey done by Phoenix Geophysics Limited for Power Gold Mines Inc. in 1976, the recorded work done by the other 4 companies on this property was carried out from 1953-1957 and included prospecting, trenching, sampling, a limited amount of geological mapping and drilling of 2 holes near the east and southwest shores of Kellar lake. The hole on the east side is reported to have intersected disseminated pyrite while the one on the southwest side intersected disseminated magnetite. In addition to these 2 holes drilled by Diomar Mining in 1956 a limited amount of diamond drilling work was done by Fortunata Mines Limited (1956). The results of the drilling work done by Fortunata are not known and this work has not been filed with the Quebec Department of Natural Resources. There are no records of exploration work having been done on this property from 1958 to 1975.

Of all the exploration work done since the discovery of the main gold-showing, the induced polarization (I.P.) survey done for Power Gold Mines Incorporated is perhaps the most significant work done to date as: -

(i) it represents the first application of a modern geophysical technique in exploring for an economic gold deposit on this property;

(ii) one of the I.P. zones (Zone A North and Zone A South) correlates approximately with some of the old trenches where interesting gold assays were obtained - Zone A North has a strike length of approximately 800 feet and Zone A South has a strike length of approximately 500 feet.

As for as the writer knows no diamond drilling work was done to test the interesting induced polarization (I.P.) anomalies outlined and no additional exploration work has been done on this property since this I. P. Survey (1976).

PREVIOUS ASSAY RESULTS

The only sampling work done prior to 1975 was all concentrated on gold-showing number 1 (for location see Figure 4 on page 8). Some samples were taken by the writer in 1975 from showing number 2. The assay results obtained are summarized below and are considered interesting.

A. Samples Recorded in Report by J.L. Hendricks, 1953

The assays obtained from 6 grab samples from gold-showing number 1 contained in J.L. Hendricks' 1953 report for Brunswick Quebec Development Limited are as follows: -

(i) 0.185 oz./T.Au (quartz plus wall rock);
(ii) 0.099 oz./T.Au (almost all wall rock);
(iii) 0.378 oz./T.Au (almost all wall rock);
(iv) 0.295 oz./T.Au (all quartz);
(v) 0.693 oz./T.Au (all quartz);
(vi) 0.125 oz./T.Au (all quartz).

B. Samples Taken by J. McAdam, 1971

These grab samples taken by J. McAdam (geologist) from the

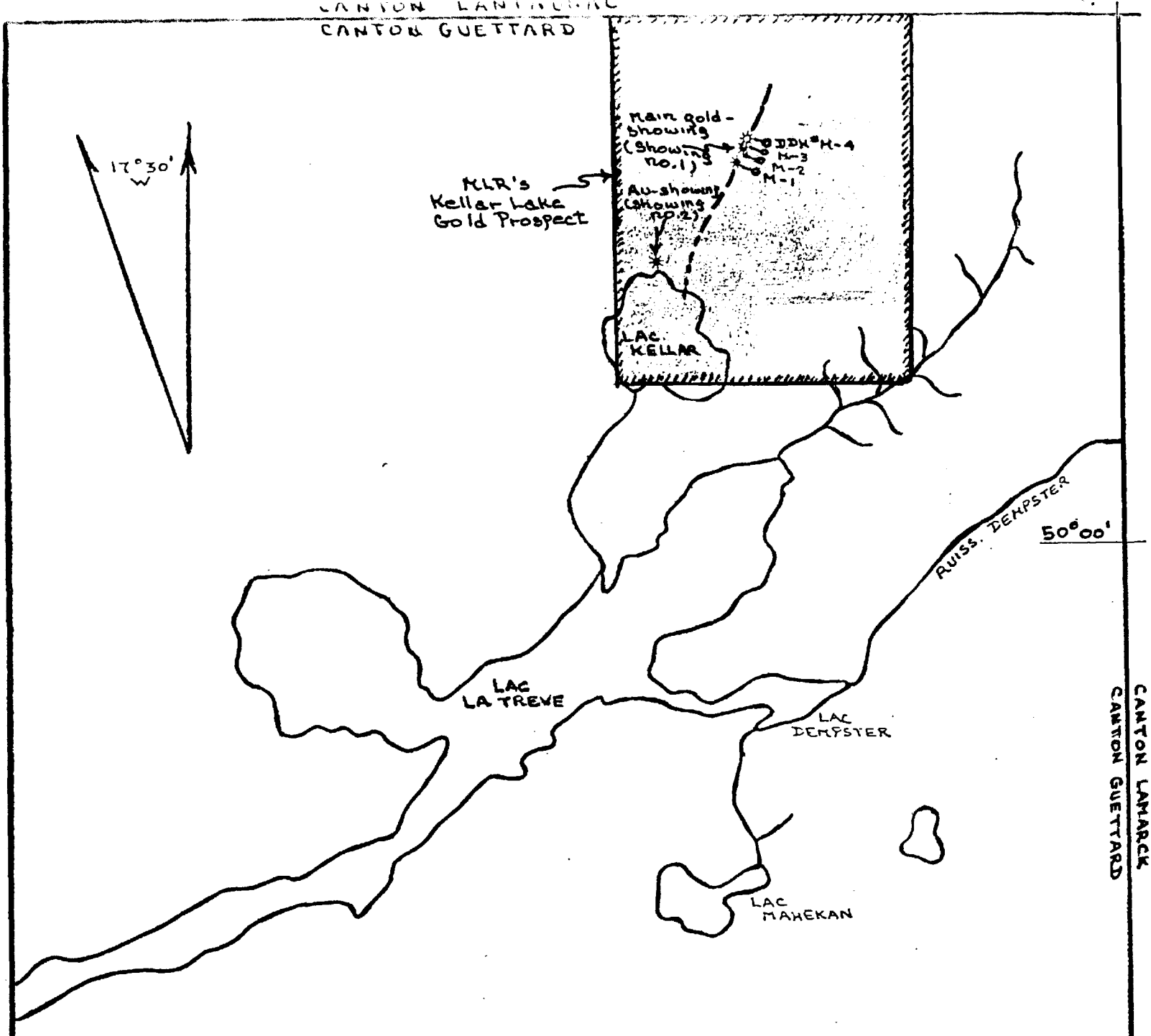


Figure 4. Map showing locations of copper (1) and gold-showings (2), induced polarization (IP) anomaly and proposed diamond drill holes on Keston Lake Resources Inc's. Keller Lake gold prospect, Guettard township, Chibougamau mining district, Quebec, Canada.

Scale: 1" to ½ mile

☼ – copper showing
✱ – gold showings
▦ – area covered by induced polarization (IP) survey
/ – induced polarization (IP) anomaly
⌐ – proposed diamond drill holes (DDH)

main gold-bearing quartz vein returned assays of: -

(i) 0.14 oz./T.Au (quartz);
(ii) 0.14 oz./T.Au (quartz);
(iii) trace/T.Au (wall rock containing pyrite).

C. Samples Taken by M.-A. Dupuis, 1974

Eight grab samples of quartz vein material taken by A. Dupuis (prospector) from this gold-bearing quartz vein (showing number 1) gave the following assays: -

(i) 0.083 oz./T.Au;
(ii) 0.275 oz./T.Au;
(iii) 0.054 oz./T.Au;
(iv) 0.82 oz./T.Au;
(v) 0.22 oz./T.Au;
(iv) 0.30 oz./T.Au;
(vii) 0.13 oz./T.Au;
(viii) 0.17 oz./T.Au.

Samples (i) to (iv) were assayed at the Laboratories Branch, Quebec Department of Natural Resources while (v) to (viii) were analysed by Bourlamaque Assay Office Reg'd.

D. Samples Taken by J. Mann and T. Hashimoto, 1975

(i) Gold-Showing Number 1

The gold-showings collectively referred to as showing number 1 represent the most promising gold occurrences on this 20 claim-block and the gold occurs in quartz veins cutting or paralleling the foliation of volcanic rocks. These volcanic rocks are acidic to intermediate in composition and are in places sideritic. The principal gold-bearing quartz vein varies in width from a few inches to 5 feet and has been traced off and on by trenching for a distance of approximately 300 feet. It has a vertical or near vertical dip and its general strike is 25° to

30°. In places this quartz vein contains pyrite which is gold-bearing. The main portion of this gold-bearing quartz vein is shown on Figure 5 on page 11. As shown on Figure 5 the gold assays obtained vary from 0.02 to 1.70 ounce per ton gold over widths varying from 2 to 8 feet. The average of the 12 channel samples taken is 0.47 ounce per ton gold and the average width of the channel samples is 3.91 feet.

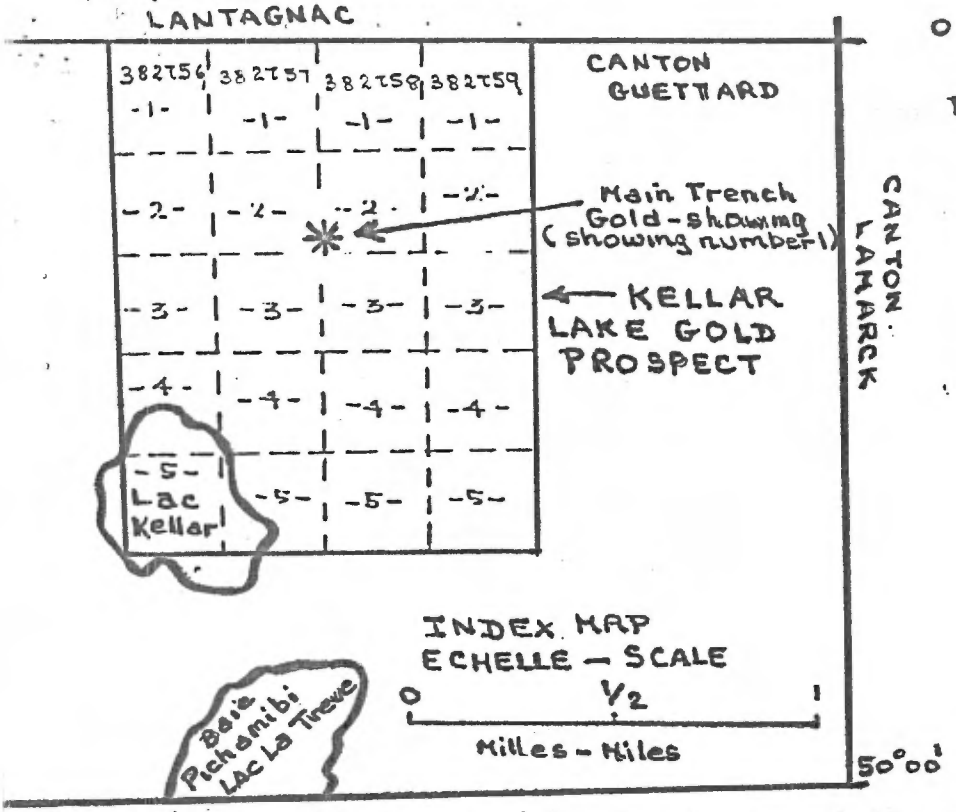
As described on Figure 5 grab samples (2) of an acidic volcanic rock taken from the northern-most pit contained small amounts of chalcopyrite along with pyrite and pyrrhotite. These 2 samples returned assays of 0.10 oz./T.Au, 0.07% Cu and 0.06 oz./T.Au, 0.14% Cu.

(ii) Gold-Showing Number 2

The location of gold-showing number 2 is shown on Figure 4 on page 8. This gold-bearing quartz vein has been exposed by stripping in 2 separate 80' sections separated by a 120' section covered by overburden. Where exposed the gold-bearing quartz vein is open on both ends and it can be assumed that its strike length exceeds 300 feet.

This quartz vein has a tendency to pinch and swell giving rise to variations in widths from 1 inch to a little over 1 foot. The most common width observed in the trench is in the order of 6 inches. The strike of the quartz vein also varies over short distances of only a few feet due to local folding but the general strike of the vein is 25° to 30°. In places, this gold-bearing quartz vein contains specks to a couple of per cent yellowish pyrite. The host rock of the quartz vein is a massive, fine-grained, dark green, pillowed basalt.

Due to the rather narrow width of the quartz vein it was decided to take chip samples along the strike of the vein from northeast to southwest. The first 4 samples (N-1,2,3,4) were taken from the north-



SKETCH MAPS — Location and map of the main trench on the KELLAR LAKE GOLD PROSPECT, Guettard township, Chibougamau mining district, Quebec, Canada & sample locations.
FIGURE 5

IIII — outline of main trench (gold showing number 1)
— quartz vein
A, B, C — channel and grab samples taken on June 26/75 (resampling work)

Descriptions of Samples Taken + Assay Results

A - 1.5 lbs. grab sample of 2"-6" quartz vein
Assay = 0.02 oz/T. Au

B - channel sample across 5' - mainly qtz. vein material + tuff (host rock)
Assay = 0.02 oz./T. Au
Between samples B & C 3' of acidic tuff

C - channel sample across 2' - 2' wide quartz vein with a little pyrite.
Assay = 0.40 oz/T Au

D - channel sample across 6' - mainly quartz vein material + some siderite host rock (tuff) ie. 2' wide qtz. vein + qtz. stringers + tuff. Occassional splashes of pyrite in qtz. stringers and tuff.
Assay = 1.10 oz./T. Au

E - channel sample across 8' - 40% quartz vein + 60% tuff. Occasional splashes of pyrite
Assay = 0.02 oz/T. Au

F - channel sample across 3' - qtz. vein with splashes of pyrite
Assay = 0.04 oz./T. Au

G - channel sample across 3' of siderite tuff
Assay = 0.04 oz./T. Au

H - channel sample across 3' - 50% qtz. stringers + 50% tuff. In places splashes of pyrite in qtz. vein & tuff - up to 5% pyrite noted.
Assay = 1.14 oz./T. Au
Sample F, G, H are continuous channel samples.

I - channel sample across 3' - 2' qtz. vein + 1' siderite tuff with 1% pyrite.
Assay = 1.64 oz./T. Au

J - channel sample across 2' - 2' qtz. vein containing a few specks of pyrite.
Assay = 0.02 oz./T. Au

K - channel sample across 6' - 70% qtz. + 30% tuff. Both contain pyrite & in places as high as 10%. Few specks chalcopyrite noted.
Assay = 0.40 oz./T. Au

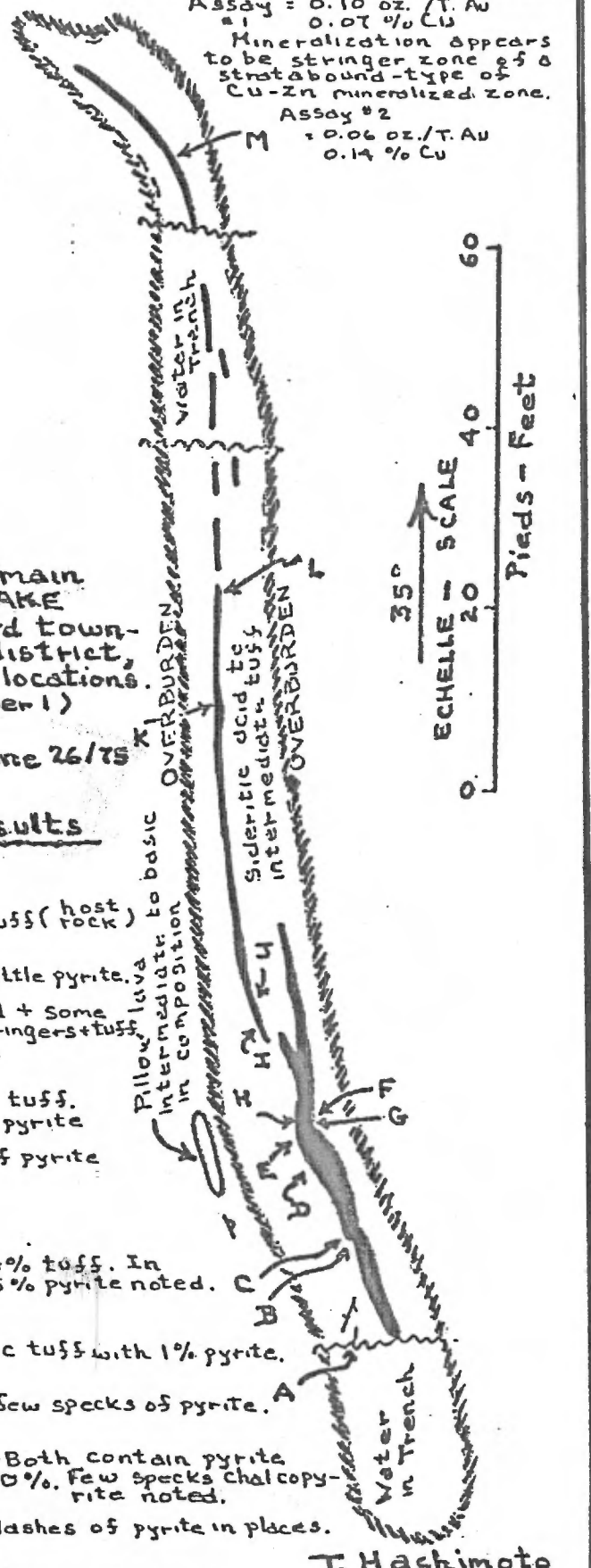
L - channel sample across 4' wide quartz vein with splashes of pyrite in places.
Assay = 0.24 oz./T. Au.

M - channel sample across 2' wide quartz. vein with specks of pyrite.
Assay = 0.04 oz./T. Au

N - grab sample. Assay = 0.01 oz./T. Au (Quartz vein)

O - grab sample of quartz vein taken 500' north of N end of trench.
Assay = 0.32 oz./T. Au

P - grab sample of acidic volcanic containing few per cent pyrrhotite + pyrite and a few specks of chalcopyrite. Sample taken 600' north of N end of trench.
Assay = 0.10 oz./T. Au
" 1 0.07 % Cu
Mineralization appears to be stringer zone of a stratabound-type of Cu-Zn mineralized zone.
Assay #2
= 0.06 oz./T. Au
0.14 % Cu



T. Hashimoto

ern 80' section of the vein and the other 3 were from the southern 80' section. The assays obtained are as follows: -

Sample No.	Length of Chip Sample Along Strike	Ounce/Ton Gold
N-1	6'	0.08
N-2	27'	0.01
N-3	22'	0.90
N-4	25'	1.08
S-1	25'	2.36
S-2	random grab samples	0.03
S-3	choice grab samples	0.04

The assays vary from 0.01 to 2.36 oz./T. gold and are of interest.

EXPLORATION POTENTIAL

The results of the limited diamond drilling work done by Fortunata Mines Limited (1956) in the immediate vicinity of gold-showing number 1 would have been helpful in evaluating the exploration potential of this 20 claim-block property. Unfortunately, these results are not available and consequently the writer's basis for considering this gold prospect as an interesting property are based on: -

(i) encouraging gold values obtained in the sampling work.

(a) Gold-Showing number 1:

- 7 out of 17 grab samples taken assayed greater then 0.20 oz./T.Au (see Previous Assay Results section on page 9);
- impressive results obtained in the 12 channel samples (see Figure 5 on page 11). Assays range from 0.02 to 1.70 oz./T.Au and the average of these 12 samples is 0.47 oz./T.Au over an

average width of 3.91 feet.

(b) Gold-showing number 2:

- interesting gold values were obtained in samples taken along this narrow but persistant gold-bearing quartz vein (see details on page 12). The range of the assay results are from 0.01 to 2.36 oz./T.Au.

(ii) indications that the gold-bearing quartz vein structure is strong and persistant - showings 1 and 2 are separated by a distance of 1/2 mile (see Figure 4 on page 8) and these 2 gold-bearing quartz veins have approximately the same strike (25° to 30°) and each has a strike length greater than 300 feet. Also opens up the possibility of other veins occurring parallel to or at the extensions of these 2 quartz veins.

(iii) gold in quartz vein in metamorphosed volcanic rocks is considered an interesting geological environment in which to explore for economic concentrations of gold.

(iv) in recent years the price of gold has increased dramatically from $35.00 per ounce (1970) to the present (February, 1980) $600.00 to $700.00 per ounce range.

(v) the induced polarization (I.P.) survey done by Pheonix Geophysics Ltd. in 1976 has shown that 1 of the I.P. zones outlined correlated approximately with some of the old trenches of the main gold-showing (showing number 1) where interesting gold values have been obtained.

(vi) the gold prospect held by Meston Lake Resources Inc. is located in the middle of an active area - Noranda is tied onto the western and eastern boundaries of this gold property and INCO is re-

ported to have acquired some ground in this immediate area recently.

The exploration potential of Meston Lake Resources Incorporated's gold prospect is rated high and a program of diamond drilling on this property is warranted.

RECOMMENDED DIAMOND DRILL PROGRAM AND ESTIMATED COST

In Phase 1 of the outlined diamond drill program the writer recommends that the initial holes be drilled to test (induced polarization anomaly) I.P. Zone A North and Zone A South which correlate approximately with portions of the main gold-bearing zone (see Figure 4 on page 8).

Phase 1

Hole No.	Target	Location of Hole	Direction and Angle	Length
M-1	IP anomaly	L-32-S; 150'E	W°;-45°	350'
M-2	Au-showing + IP anomaly	L-30-S; 250'E	W°;-45°	350'
M-3	IP anomaly	L-24-S; 700'E	W°;-45°	350'
M-4	Au-showing + IP anomaly	L-20-S; 900'E	W°;-45°	350'

		Estimated Cost
(i)	4 diamond drill holes totalling 1,400 feet- 1,400' @ $25.00/foot (estimated cost includes supervision, travel, accomodations, assays, etc.	$35,000.00
(ii)	contingencies	5,000.00
	TOTAL ESTIMATED COST PHASE 1	$40,000.00

Phase 2

The amount of follow-up diamond drilling will depend on the results obtained in the initial (Phase 1) diamond drilling work.

CONCLUSIONS

The results of the exploration work done to date indicate that this property is a promising gold prospect and the writer strongly recommends that Phase 1 of the recommended diamond drill program be carried out during the 1980 summer field season. The total estimated cost of this program is $40,000.00.

T. Hashimoto

T. Hashimoto
Consulting Geologist

February 25, 1980