

REPORT ON  
DIAMOND DRILLING

by  
I. G. Sutherland, B.Sc.

on the  
Bull Mineral Claims

situated north of Metsantan Lake  
in the Liard Mining Division

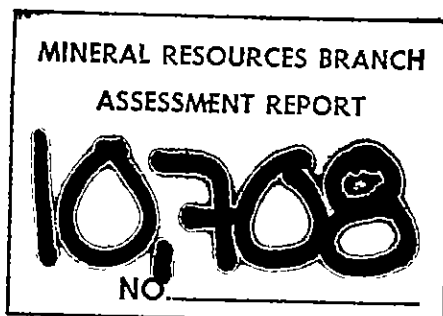
57°29'N, 127°24'W  
NTS 94E/6W

owned by  
KIDD CREEK MINES LTD.

work by  
KIDD CREEK MINES LTD.

part 1  
of 2

November, 1982



Vancouver, B.C.

## INTRODUCTION

### Location, Access and Terrain

The Bull Claim is located east of the Stikine River and directly northeast of Metsantan Lake, in north-central British Columbia (Figure 1). The nearest supply and transportation centres are Smithers, some 300 km due south, and Watson Lake in the Yukon, some 300 km to the north.

Access to the claims is by a combination of fixed wing aircraft from Smithers or Watson Lake to the Sturdee Valley airstrip 30 km southeast of the property, and local helicopter charter thereafter. Float equipped aircraft can also land at Metsantan Lake. There is no road access although it has been suggested that the Omineca mining road to the south may be extended into the Toodoggone River area in the future.

The claim is located near the eastern margin of the Spatsizi Plateau and covers an area of gentle to moderate relief with elevations ranging from 1600 m to 1800 m (Figure 2). The property is covered by extensive areas of alpine grassland, occurring above 1500 m and minor spruce and scrub willow in lower parts. Water supplies may become scarce and all but the lowest elevations during midsummer.

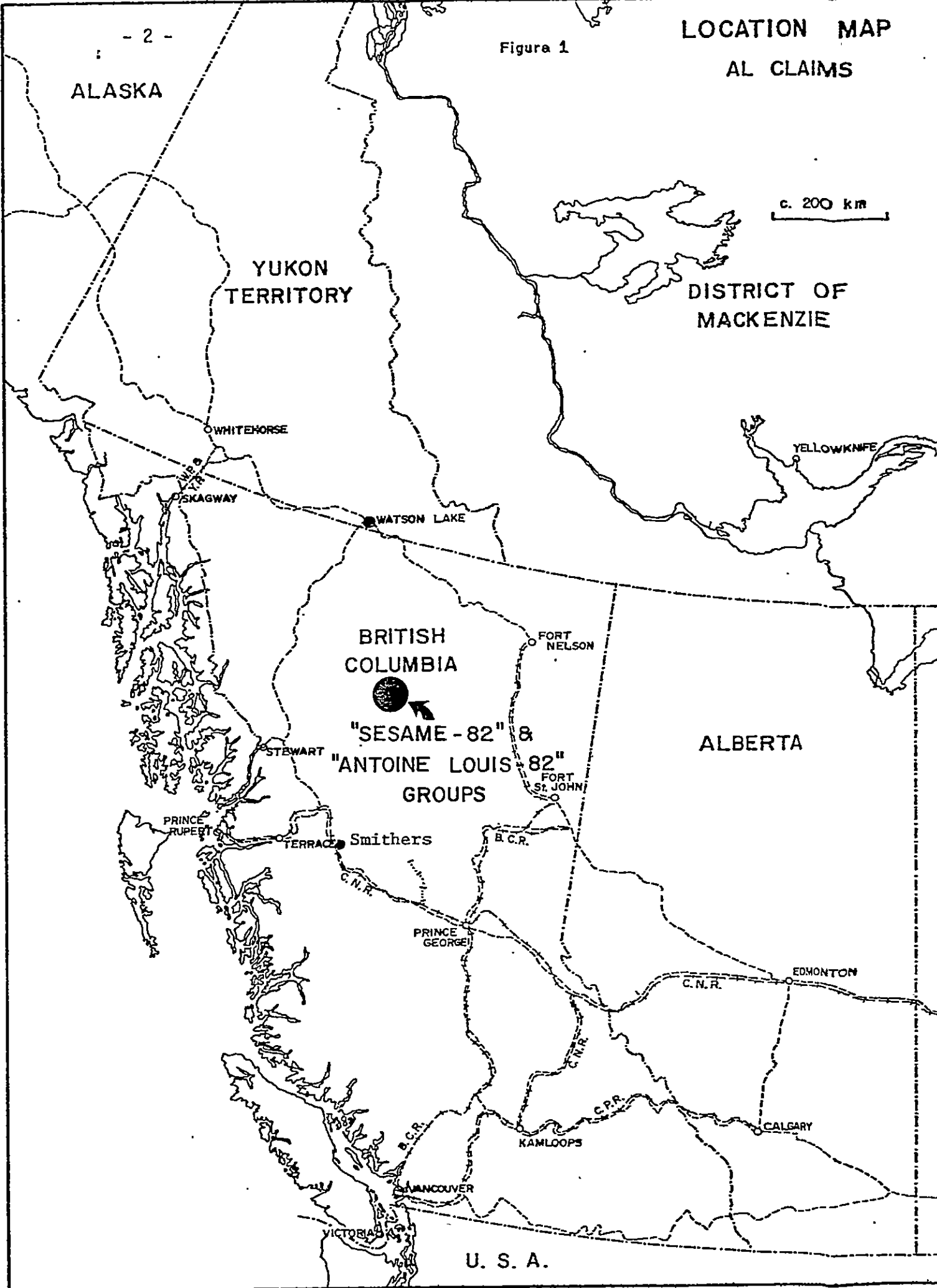
### Property History and Definition

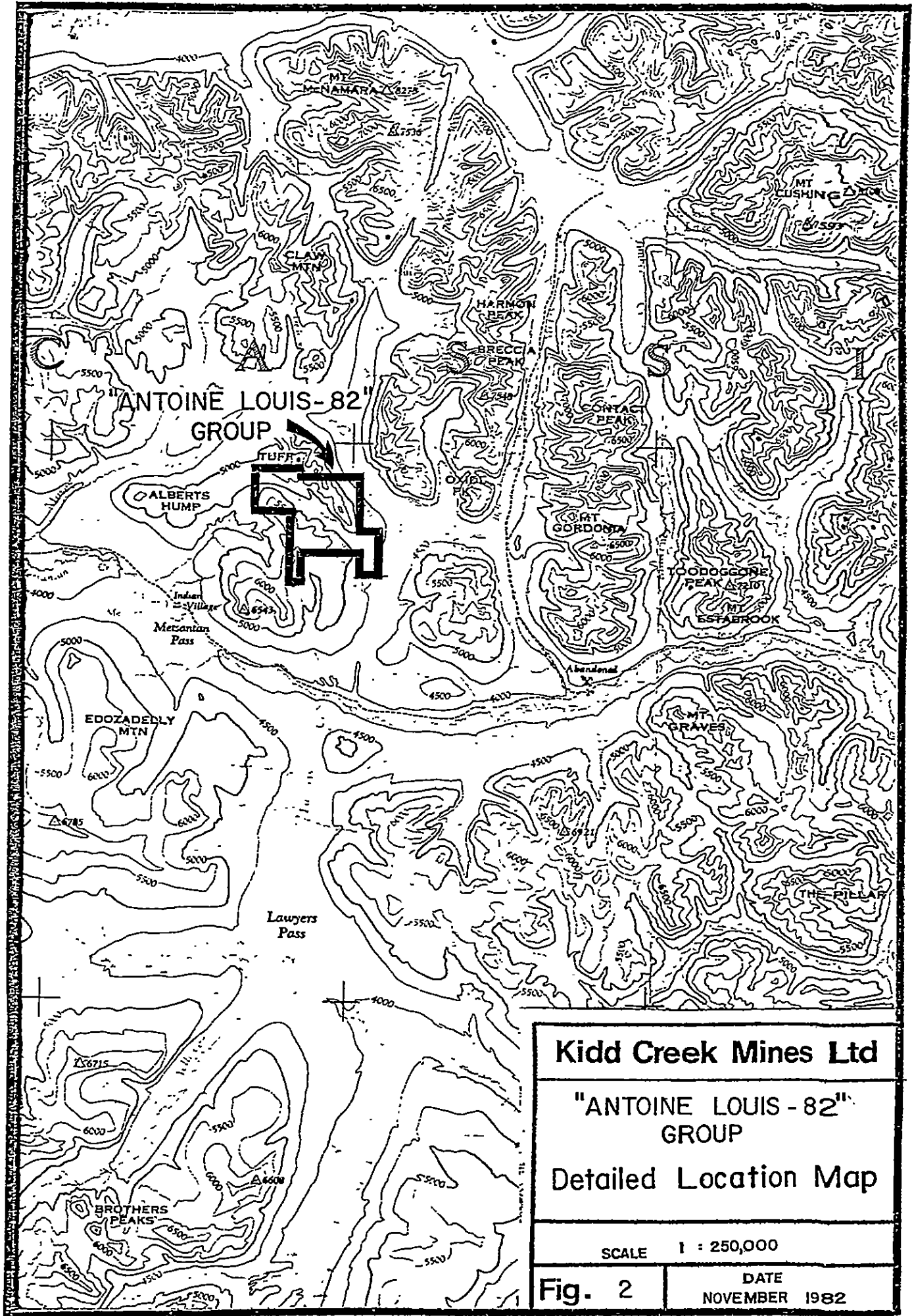
The area was originally staked by Texasgulf Canada Ltd. (now Kidd Creek Mines Ltd.) in July of 1981. The similarities in host rock geology and alteration styles with the adjacent "A1" property and, in particular, the "Ridge Zone" (see Sutherland 1982a, 1982b; Sutherland and Clark 1982) prompted this staking. The discovery of a small showing of visible gold initiated a program of trenching, mapping and sampling later in the 1981 field season, as well as the recent diamond drill program.

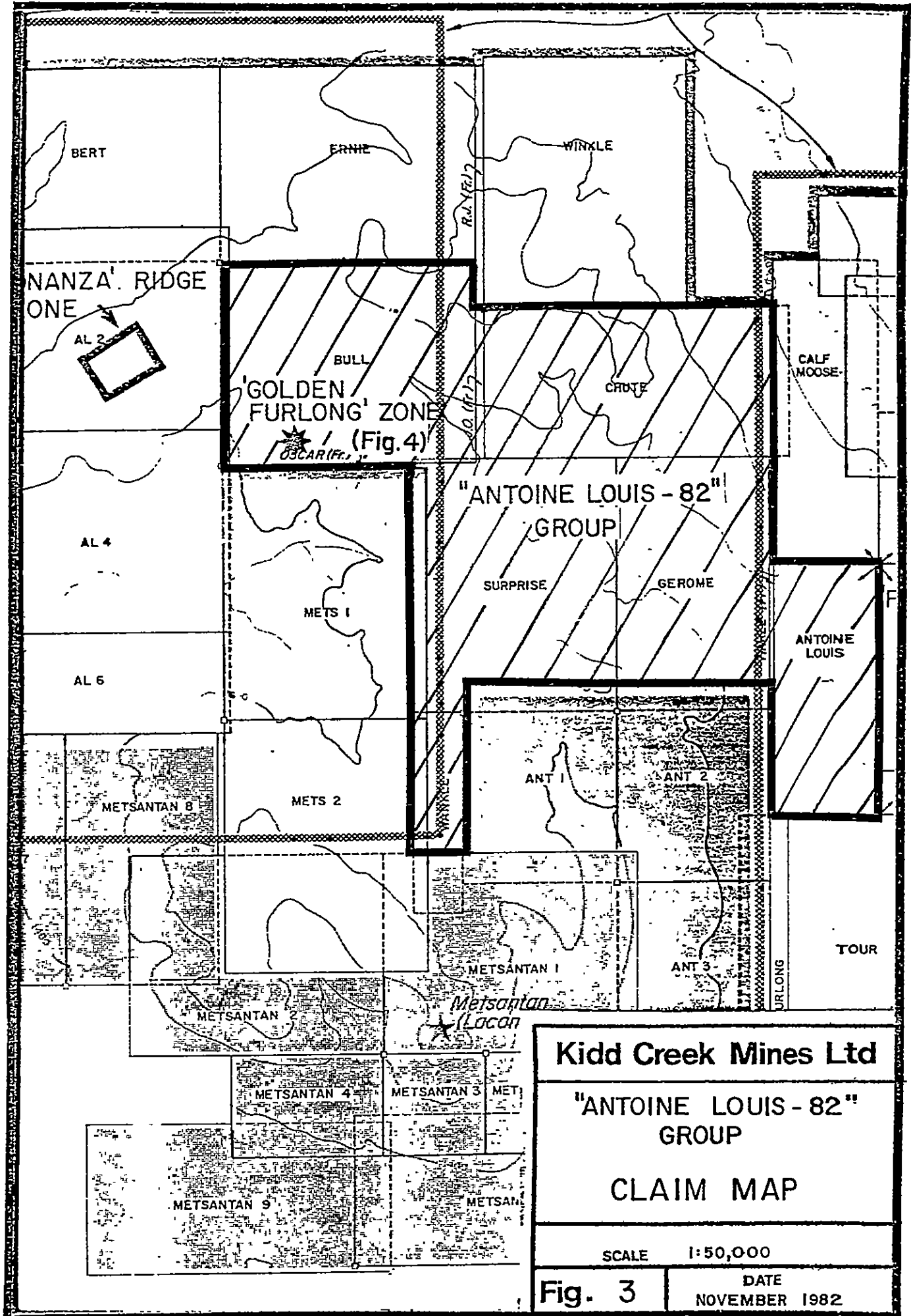
# LOCATION MAP AL CLAIMS

Figure 1

c. 200 km







BERT

ERNE

WINKLE

NANZA' RIDGE ONE

AL 2

BULL

'GOLDEN FURLONG' ZONE  
OSCAR (Fr.) (Fig. 4)

CHUTE

CALF MOOSE

"ANTOINE LOUIS - 82"  
GROUP

AL 4

SURPRISE

GEROME

METS 1

ANTOINE LOUIS

AL 6

METSANTAN 8

METS 2

ANT 1

ANT 2

METSANTAN 2

METSANTAN 1

ANT 3

TOUR

METSANTAN 2

Metsantan  
(Lacan)

METSANTAN 4

METSANTAN 3

**Kidd Creek Mines Ltd**

"ANTOINE LOUIS - 82"  
GROUP

**CLAIM MAP**

METSANTAN 5

METSANTAN 6

SCALE 1:50,000

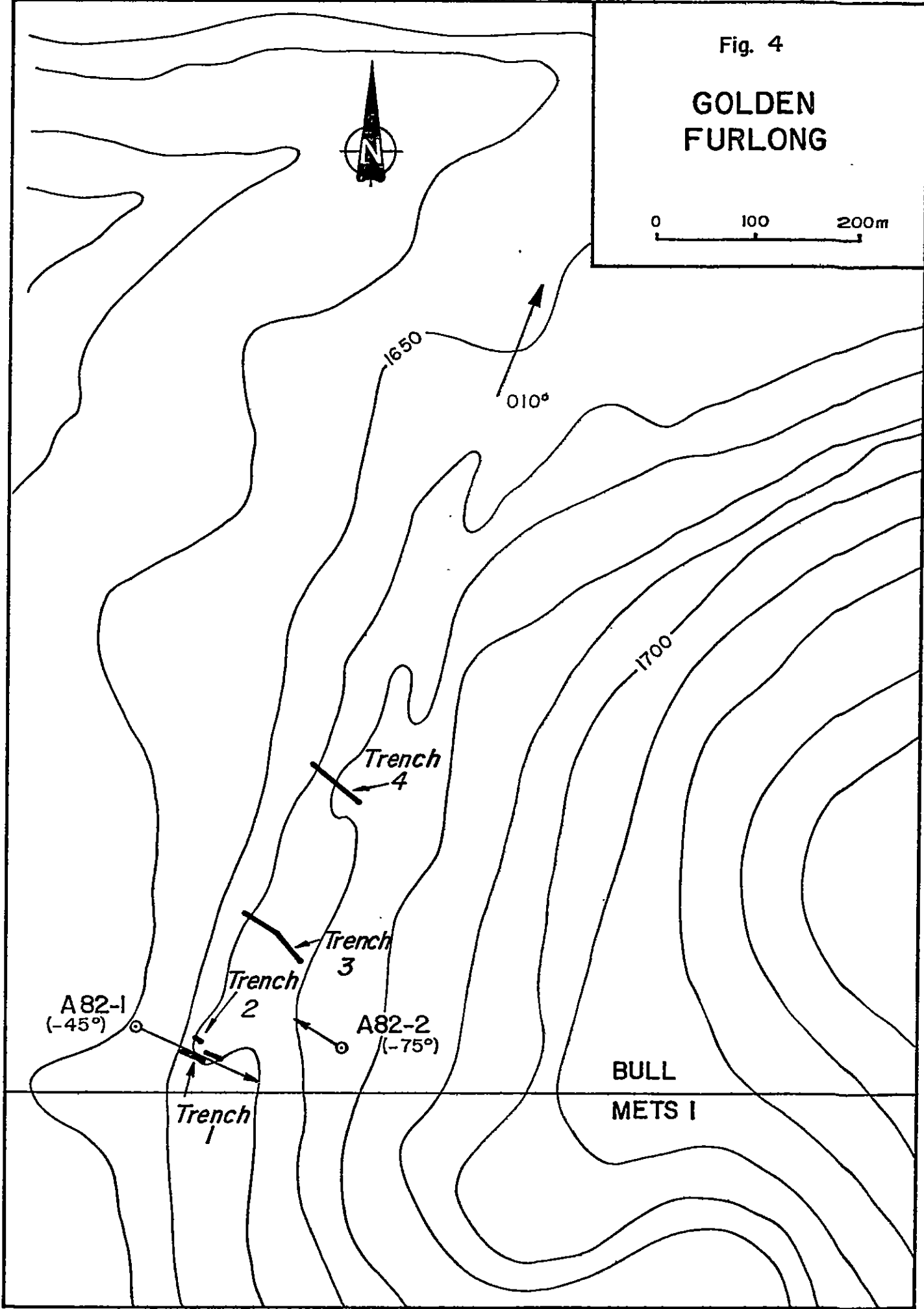
Fig. 3

DATE  
NOVEMBER 1982

Fig. 4

# GOLDEN FURLONG

0 100 200m



The "Antoine Louis-82" group consists of 7 MGS claims and 3 fractional claims totalling 96 units. Bull, Chute, Antoine Louis, Surprise, Winkle, Gerome and Tinkle (Fr) were recorded in August 1981; Furlong, Oscar (Fr) and J.D. (Fr) were recorded in September 1981. Figure 3 indicates the claim positions and group boundaries.

### Summary of Work Completed

#### Diamond Drilling

During the period July 21 to July 28, a total of 2 diamond drill holes, totalling 395.5 m, were completed on the Bull M.C. All cores were split and sampled then analysed geochemically for Au, Ag, Cu, Pb and Zn.

#### Work Distribution

All work was done on the Bull M.C., part of the "Antoine Louis-82" group.

### GEOLOGY

The property is underlain by a thick succession of subaerial and lesser subaqueous andesitic ash, crystal and crystal-lapilli tuffs, tuff-breccias, and flows and associated hypabyssal phases. These rocks belong to the "Toodoggone Volcanics" of Jurassic age. Mineralization is hosted in structurally controlled, generally linear zones of multiphase alteration. A more complete description of the local geology can be found in previously submitted assessment reports (Sutherland, 1982). The relevant portion of the property showing the approximate drill hole locations, as well as 1981 trench locations is illustrated in Figure 4.

DIAMOND DRILLING

This report presents the results of a preliminary diamond drilling programme undertaken in 1982 on the Bull M.C. The 2 NQ holes are considered as follows (see Figure 4):

<u>D.D.H.</u>	<u>Azimuth</u>	<u>Dip</u>	<u>Depth</u>
A82-1	115°	-47°	185.1 m
A82-2	300°	-75°	210.4 m

Detailed logs and geochemical results are included together in Appendix C. The core is stored in camp on the Moose 3 M.C.

The holes were drilled to test existing concepts regarding the nature and distribution of mineralization within the large alteration zone and to test for additional gold and/or possible silver mineralization at depth.

GEOCHEMISTRY

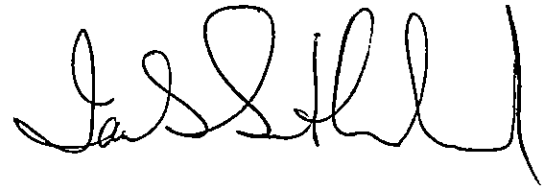
Drill core was routinely split and sampled, the standard sample interval being approximately 1.0 m. Changes in alteration and/or lithology also influenced this sample interval considerably. A total of 476 samples were shipped to Min-En Laboratories Ltd. in North Vancouver where they were analysed geochemically for Au, Ag, Cu, Pb and Zn. A summary of the extraction and analytical techniques for these metals follows:

<u>Element</u>	<u>Extraction</u>	<u>Analysis</u>
Ag, Pb, Zn, Cu	Nitric, perchloric digestion	Atomic Absorption
Au	Hot Aqua Regia	Atomic Absorption



CONCLUSIONS

The results shown in the logs indicate rapid variations in the nature of the alteration assemblages and in the distribution of base and associated precious metals values. Grades encountered are, for the most part, sub-economic though of sufficient interest to encourage further work.

A handwritten signature in black ink, appearing to read 'I.G. Sutherland', written in a cursive style.

I.G. Sutherland

9273  
10226

BIBLIOGRAPHY

- BARR, D.A. 1980. Gold in the Canadian Cordillera. CIM Bulletin, June 1980, pp. 59-76.
- CARTER, N.C. 1972. Toadoggone River area. in Geology, Exploration and Mining in British Columbia 1981. British Columbia Department of Mines and Petroleum Resources, Victoria, pp. 63-64.
- GABRIELSE, H., DODDS, C.J., AND MANSY, J.L. 1975. Geology - Toadoggone River (94E). Geological Survey of Canada, Open File 306.
- GABRIELSE, H., WANLESS, R.K., ARMSTRONG, R.L. and ERDMAN, L.R. 1980. Isotopic dating of Early Jurassic volcanism and plutonism in northcentral British Columbia, in Current Research, Part A, Geological Survey of Canada, Paper 80-1A, pp. 27-32
- PEATFIELD, G.R. 1981. Assessment report for geological and geochemical surveys done on the A1 1-6 M.C. Report submitted for assessment work credit to the British Columbia Ministry of Energy, Mines and Petroleum Resources, Victoria, June 1981.
- SCHMITT, H.R. and PEATFIELD, G.R. 1980. Assessment report for geological and geochemical surveys done on the A1 1-4 M.C. Report submitted for assessment work credit to the British Columbia Ministry of Energy, Mines and Petroleum Resources, Victoria, June, 1980.
- SCHROETER, T.G. 1982. Toadoggone River (94E) in Geological Fieldwork 1981. British Columbia Department of Energy, Mines and Petroleum Resources, Victoria, pp. 122-123.
- SUTHERLAND, I.G. 1982(a). Assessment report for examination of trenches on the A1 2 and Bull M.C. Report submitted for assessment work credit to the British Columbia Ministry of Energy, Mines and Petroleum Resources, Victoria, May, 1982.
- SUTHERLAND, I.G. 1982 (b) Assessment report on diamond drilling on the A1 2 M.C. Report submitted for assessment work credit to the British Columbia Ministry of Energy, Mines and Petroleum Resources, Victoria; November, 1982.
- SUTHERLAND, I.G. and CLARK, J.R. 1982. Assessment report for geological and geochemical surveys done on the A1 1-6 M.C. Report submitted for assessment work credit to the British Columbia Ministry of Energy, Mines and Petroleum Resources, Victoria, April 1982.

APPENDIX A

Statements of Qualifications

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### I.G. Sutherland - Geologist

I.G. Sutherland holds a B.Sc. (Hons) Degree in Geology from the University of Western Ontario, granted in 1976. Since that time he has held several positions in Industry and Government, and has been employed by Kidd Creek Mines Ltd. in Vancouver since March 1981.

### J.R. Clark - Geologist

J.R. Clark holds a B.Sc. (Hons) Degree in Geology from McGill University, granted in 1979. He has wide exploration experience and was employed by Kidd Creek Mines Ltd. for the 1981 and 1982 field seasons. He is presently enrolled in a M.Sc. program at McGill, where his research will concern aspects of the geology of properties in this region.

### P.R. Leriche - Geologist

P.R. Leriche holds a B.Sc. Degree in Geology from McMaster University, granted in 1980. He has considerable experience in Industry and has held his present position with Kidd Creek Mines Ltd. since March 1982.

APPENDIX B

Statement of Expenditures

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Statement of Expenditures

A. DIAMOND DRILLING AND SUPPORT

DIAMOND DRILLING

D.W. Coates invoice charges for drilling, \$34,053.53  
 survey, core boxes, supplies and equipment,  
 moving time, etc. applicable to the holes  
 covered in this report.

Mobilization costs  
 (10.5% pro-rate of \$11,915.50) 1,251.13

\$35,304.66. \$35,304.66

ROOM AND BOARD

D.W. Coates personnel 32 days @ \$80/day 2,560.00

HELICOPTER

ALC Hughes 500D 16 hrs @ \$492/hour (incl. fuel) 7,872.00

\$ 45,736.66

(Note: Of this total only \$37,500 was claimed for assessment.)

APPENDIX B

Statement of Expenditures - Cont'd.

B. FIELD REPORTING ON DIAMOND DRILL CORE  
EXAMINATIONS AND ANALYTICAL WORK

SALARIES AND FRINGE BENEFITS, KIDD CREEK MINES LTD.

J.R. Clark - Geologist		
Period: Aug 1 - 9, 19825 days @ \$105/day	525.00	
P.R. Leriche - Geologist		
Period: July 29-Aug 3 4 days @ \$ 95/day	380.00	
	<u>905.00</u>	905.00

ROOM AND BOARD

Kidd Creek personnel 9 days @ \$ 80/day		720.00
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ANALYTICAL COSTS

476 Au, Ag, Cu, Pb and Zn analyses @ \$12.20		<u>5,807.20</u>
		<u>\$7,432.20</u>

(Note: Of this total only \$6,000 was claimed for assessment)

Total expenditures		\$53,168.86
Total assessment claimed		43,500.00