

84-#942-13044

COMINCO LTD.

EXPLORATION
NTS: 9205E

WESTERN DISTRICT

ASSESSMENT REPORT
ON
DIAMOND DRILLING

TK 4,5,6 BCCFr 3
MINERAL CLAIMS AT FISH LAKE
Record Nos. 30884, 5, 6 and 971
CLINTON MINING DIVISION

Latitude: 50°28' Longitude: 123°37'

Operator: Cominco Ltd.
700-409 Granville St.
Vancouver, B.C. V6C 1T2

Workdates: August 15 to 31st, 1984

GEOLOGICAL BRANCH
ASSESSMENT REPORT

REPORT BY:

13,044

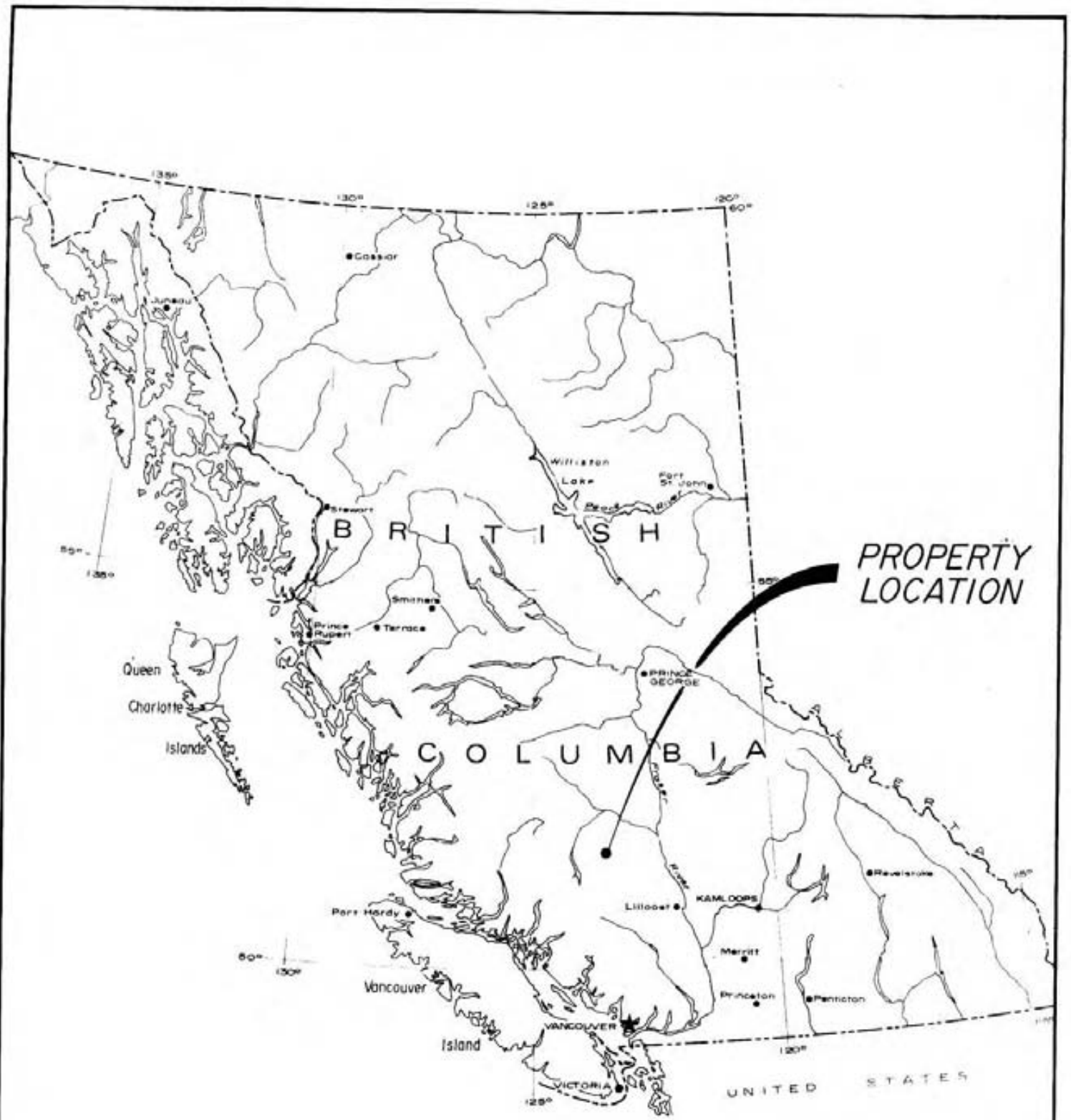
A.M. PAUWELS

TABLE OF CONTENTS

| | <u>Page</u> |
|--|-------------|
| I. INTRODUCTION | 1 / |
| II. DRILLING | 1 / |
| III. CONCLUSIONS AND RECOMMENDATIONS | 2 / |

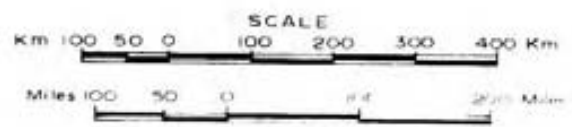
ATTACHMENTS

| | |
|--------------|---|
| APPENDIX I | -EXPENDITURES AND COST DISTRIBUTION / |
| APPENDIX II | -AUTHORS QUALIFICATIONS / |
| APPENDIX III | -DRILL LOGS AND ASSAYS / |
| FIGURES 1. | FISH LAKE LOCATION 1 - 10,000,000 in text / |
| 2. | DRILL HOLES 1984 LOCATION 1 - 2,500 / |



**PROPERTY
LOCATION**

FISH LAKE PROPERTY
CLINTON M.D.
92 0-5/E



COMINCO LTD.

EXPLORATION
NTS: 9205E

WESTERN DISTRICT

ASSESSMENT REPORT

ON

DIAMOND DRILLING

TK 4,5,6 BCCFr 3

MINERAL CLAIMS AT FISH LAKE

Record Nos. 30884, 5, 6 and 971

CLINTON MINING DIVISION

I. INTRODUCTION

The Fish Lake property is located southwest of Williams Lake (See Figure 1). The property is accessible by gravel road via Hanceville to the Davidson Bridge on Taseko River; from the Davidson Bridge 18 km of secondary gravel road reaches Fish Lake. The property is situated on the Chilcotin plateau 15 km east of the edge of the Coast Mountain. Topography on the claims is gentle and elevation averages 1450 m above sea level.

II. DRILLING

Extensive drilling has been done in Fish Lake from 1962 to 1982. In 1984 1003 m of diamond drilling was done in five holes (NQ size) all directed at -50° to 55° easterly. The drilling was done to intersect the Fish Lake Copper Gold Porphyry deposit in an easterly direction. Previous drilling was confined to vertical and northerly trending holes.

Drilling was done from August 15 to 31, 1984 by J.T. Thomas drilling of Smithers, B.C. All core was split and 3m long samples were assayed for copper and gold. Copper assays were done at Cominco's Exploration and Research Lab, 1486 E. Pender St., Vancouver. Gold assays were done by Bondar Clegg & Co. Ltd., 130 Pemberton St., North Vancouver. A location map showing drill holes in relation to claims is included with this report (See Figure 2). Expenditures and cost distribution per claim are illustrated in Appendix I. The drill programme was supervised by A. Roberts, senior technician. A.M. Pauwels, geologist logged the core in early September. (See Appendix III). All core is stored on the property 1.5km northwest of Fish Lake, together with core from previous years.

III. CONCLUSIONS AND RECOMMENDATIONS

Drilling was successfully completed and as expected copper and gold values of similar magnitude to the ones found in previous drilling were intersected and better definition of the mineralization at Fish Lake was obtained. More drilling will be necessary in the future if additional definition of the mineralization is required.

Report By: A. Pauwels
A.M. Pauwels, Project Geologist

Endorsed By: M. Osatenko
M.J. Osatenko, Senior Geologist

Approved for
Release By: M. G. Mease for
G. Harden, Manager
Exploration, Western District

AMP/mm1

APPENDIX 1

EXPENDITURES

| | | | | | |
|--|-------------------------------|---|--|-----------|-------------------|
| COST OF DRILLING: as per invoice, J.T. Thomas Diamond Drilling Ltd. (1002.6 m)(August 15-August 31, 1984) | | | \$ | 85,618.80 | |
| SALARIES: | A.P. Roberts | preparation, supervision sampling, travel time | August 10-September 5 25 days @ \$170/day | \$ | 4,250.00 |
| | A.M. Pauwels | logging, travel time | September 84 10 days @ \$219.12 | \$ | 2,191.20 |
| | | report/drafting | September 84 5 days @ \$219.12 | \$ | 1,095.60 |
| | Travel Expenses | A.P. Roberts | August 84 | \$ | 450.00 |
| | Travel Expenses/Camp Expenses | A.M. Pauwels | September 84 | \$ | 550.00 |
| | Truck Rental & Repairs | August | A.P. Roberts | \$ | 950.00 |
| | | September | A.M. Pauwels | \$ | 400.00 |
| ANALYSIS: | 277 Samples for Copper/Gold | Cominco Labs | @ \$17/sample | \$ | 4,709.00 |
| | Sampling supplies | | | \$ | 120.75 |
| | Sample freight | | | \$ | 600.00 |
| | Core splitter - rental | | | \$ | 63.00 |
| | | | | \$ | <u>100,998.35</u> |

APPENDIX 1
CONTINUED

COST DISTRIBUTION PER CLAIM

Cost of drilling/m is: $\frac{100,998.35}{1002.6} = \100.736

| <u>Claim</u> | <u>Amount Drilled</u> | <u>\$ Cost</u> |
|--------------|-----------------------|----------------------|
| TK 4 | 242.6 m | 24,438.66 |
| TK 5 | 190.0 | 19,139.92 |
| TK 6 | 536.0 | 53,994.72 |
| BCCFr 3 | 34.0 m | 3,425.05 |
| | <u>1002.6 m</u> | <u>\$ 100,998.35</u> |

Note: The amounts shown above are slightly higher than the amounts declared on statements of exploration and development submitted in Vancouver on September 26, 1984. Not all costs were accurately known at that time.

APPENDIX II

STATEMENT OF QUALIFICATIONS

Andre M. Pauwels, 4900 Mariposa Court, Richmond, B.C. hereby declare that I:

1. Graduated from State University of Ghent, Belgium with a B.Sc., Geology in July, 1970.
2. Have been engaged in mineral exploration as a Geologist:
 - in Ontario from September, 1970 until April, 1972 with Union Miniere Explorations and Mining Corporation Limited.
 - in British Columbia and Yukon Territory since May, 1972 until December, 1980 with Union Miniere Exploration and Mining Corporation Limited.
 - with Bethlehem Copper Corporation from January until May 1, 1981
 - presently with Cominco Limited since May 1, 1981.
3. Was engaged from 1970 until present in numerous geochemical, geophysical and drilling programmes for mineral exploration in Ontario, British Columbia, the Yukon Territory, Arizona and Peru.
4. Am a Fellow of the Geological Association of Canada.



A.M. PAUWELS

Dated this 10th day of October 1984.

APPENDIX III
DRILL LOGS AND ASSAYS

Drill Hole Record



Property **Fish Lake** District **W.D.** Hole No. **F-84-1**
 Commenced **19 Aug. 84** Location Tests at Hor. Comp. **--**
 Completed **21 Aug. 84** Core Size **NQ** Corr. Dip **- 50°** Vert. Comp. **--**
 Co-ordinates **10,000 N 10,440 E (not surveyed)** True Brg. **0.90°** Logged by **A.M.P.**
 Objective **Intersection of Fish Lake** % Recov. Date **Sept. 84**
Main deposit in an easterly direction

Claim **TK5 - TK6**
 T Brg. **90°**
 Collar Dip **- 50°**
 Elev.
 Length **200 m.**
 Hole No. **F-84-1** Sheet **1**

| Meterage From To | Description | Interval | Analysis | |
|---------------------|--|----------------|----------|---------|
| | | | Cu % | Au oz/T |
| 0 - 9.14 | Overburden | 9.1 - 12.0 m. | 0.06 | 0.004 |
| 9.14 - 48.8 | Medium to fine grained Diorite. | 12.0 - 15.0 m. | 0.33 | 0.010 |
| | A few small (1 x 2 mm) feldspar phenocrystals are visible, all sericitized. Spots and blotches (up to 2 cm. diameter, median is 2 x 2 mm) of chlorite with magnetite and rare chalcopryite dot the groundmass. Groundmass is pervasively sericitized. Chalcopryite | 15.0 - 18.0 m. | 0.37 | 0.006 |
| | 0.5 to 1%, magnetite 2%, pyrite 2%. At 43.7 thin sericite-quartz vein with chalcopryite, pyrite and tetrahedrite. Magnetite occurs mostly disseminated but also as thin veinlets (0.5 to 1 mm) in many directions but not frequent. | 18.0 - 21.0 m. | 0.41 | 0.008 |
| | | 21.0 - 24.0 m. | 0.43 | 0.012 |
| | | 24.0 - 27.0 m. | 0.49 | 0.010 |
| | | 27.0 - 30.0 m. | 0.25 | 0.006 |
| | | 30.0 - 33.0 m. | 0.25 | 0.008 |
| 48.8 - 49.9 | Bleached (sericite-clay) medium diorite with a few seams (1 cm) of coarse pyrite. | 33.0 - 36.0 m. | 0.31 | 0.010 |
| 49.9 - 132 | Same medium diorite as above but spots with chlorite/magnetite gradually disappear. Vein magnetite also diminishes. Pyrite disseminated in small 1/2 to 1 mm finely crystalline aggregates (2% pyrite). | 36.0 - 39.0 m. | 0.23 | 0.006 |
| | Disseminated magnetite less than 1%. | 39.0 - 42.0 m. | 0.31 | 0.009 |
| | Rare carbonate/pyrite veins. | 42.0 - 45.0 m. | 0.23 | 0.006 |
| | Rare thin quartz, sericite, pyrite veins. | 45.0 - 48.0 m. | 0.15 | 0.005 |
| | Some vuggy pyrite quartz veins with bleached rims at 127, 127.5, 128.6, 131, 131.6 (Gold bearing?) | 48.0 - 51.0 m. | 0.20 | 0.009 |
| | | 51.0 - 54.0 m. | 0.23 | 0.008 |
| | | 54.0 - 57.0 m. | 0.19 | 0.006 |
| | | 57.0 - 60.0 m. | 0.17 | 0.009 |
| | Chalcopryite rare (greater than 0.3%). | 60.0 - 63.0 m. | 0.17 | 0.010 |
| | Chlorite 30%. | 63.0 - 66.0 m. | 0.33 | 0.010 |
| | | 66.0 - 69.0 m. | 0.16 | 0.008 |
| | | 69.0 - 72.0 m. | 0.11 | 0.004 |
| | | 72.0 - 75.0 m. | 0.06 | 0.006 |

Drill Hole Record



| | | | |
|--------------|-----------|-----------|-------------|
| Property | District | Hole No. | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Meterage From To | Description | Interval | Analysis | |
|---------------------|--|------------------|----------|---------|
| | | | Cu % | Au oz/T |
| 132 - 190 | Same Diorite as above. | 75.0 - 78.0 m. | 0.07 | 0.004 |
| | Section of bleached (sericite/clay) diorite alternates with more chlorite rich (chlorite-sericite) and magnetite containing diorite. | 78.0 - 81.0 m. | 0.12 | 0.006 |
| | | 81.0 - 84.0 m. | 0.09 | 0.003 |
| | Bleached Sections 132 - 134 | 84.0 - 87.0 m. | 0.10 | 0.004 |
| | 137.3 - 141.4 | 87.0 - 90.0 m. | 0.11 | 0.008 |
| | 147.5 - 149.8 | 90.0 - 93.0 m. | 0.07 | 0.002 |
| | 155.5 - 156 | 93.0 - 96.0 m. | 0.09 | 0.006 |
| | 157.3 - 158 | 96.0 - 99.0 m. | 0.06 | 0.006 |
| | 159 - 164.2 | 99.0 - 102.0 m. | 0.03 | 0.002 |
| | 173.5 - 173.8 | 102.0 - 105.0 m. | 0.07 | 0.002 |
| | 177 - 177.5 | 105.0 - 108.0 m. | 0.05 | 0.005 |
| | @ 151.6 2, 4 cm. thick pyrite stringers, pyrite quartz in short bleached sections. | 108.0 - 111.0 m. | 0.12 | 0.002 |
| | Veins consist of pyrite, quartz, sericite, trace of chalcopyrite. Heavily disseminated pyrite in bleached rims. | 111.0 - 114.0 m. | 0.13 | 0.002 |
| | | 114.0 - 117.0 m. | 0.09 | 0.009 |
| | Like veins with high grade gold in Albert and Dol zone. | 117.0 - 120.0 m. | 0.07 | 0.004 |
| | From 155 - 164.2 Several small 1 to 3 mm. thick pyrite chalcopyrite stringers. | 120.0 - 123.0 m. | 0.13 | 0.004 |
| | 177 - 177.5 Four thin stringers with massive pyrite. | 123.0 - 126.0 m. | 0.12 | 0.004 |
| | | 126.0 - 129.0 m. | 0.12 | 0.022 |
| | | 129.0 - 132.0 m. | 0.08 | 0.005 |
| | | 132.0 - 135.0 m. | 0.08 | 0.004 |
| | | 135.0 - 138.0 m. | 0.05 | 0.002 |
| | | 138.0 - 141.0 m. | 0.08 | 0.002 |

Claim
Y Brg.
Collar Dip
Elev.
Length
Hole No. F-84-1 Sheet 2

Drill
Collar
& Pipe

Drill Hole Record



| Property | District | Hole No. | Claim | Collar Dip | Elev. | Length |
|--------------|--|---------------|-------------|------------|-------|--------|
| Commenced | Location | Tests at | Hor. Comp. | | | |
| Completed | Core Size | Corr. Dip | Vert. Comp. | | | |
| Co-ordinates | | True Brg. | Logged by | | | |
| Objective | | % Recov. | Date | | | |
| Meterage | Description | Interval | Analysis | | | |
| From To | | | Cu % | Au gZ/T | | |
| 190 - 200 | Grey to white coarse feldspar porphyry. | 141.0 - 144.0 | 0.06 | 0.006 | | |
| | Siliceous groundmass with 2-4 mm. feldspar phenocrystals, all sericitized. Similar to quartz - feldspar porphyries elsewhere in the deposit but no quartz eyes noted. Rare disseminated pyrite and chalcopyrite. | 144.0 - 147.0 | 0.07 | 0.004 | | |
| | | 147.0 - 150.0 | 0.08 | 0.010 | | |
| | | 150.0 - 153.0 | 0.09 | 0.011 | | |
| | | 153.0 - 156.0 | 0.05 | 0.007 | | |
| 200 | EDH Casing pulled. | 156.0 - 159.0 | 0.07 | 0.002 | | |
| | | 159.0 - 162.0 | 0.06 | 0.002 | | |
| | | 162.0 - 165.0 | 0.09 | 0.003 | | |
| | | 165.0 - 168.0 | 0.06 | 0.003 | | |
| | | 168.0 - 171.0 | 0.05 | 0.004 | | |
| | | 171.0 - 174.0 | 0.06 | 0.002 | | |
| | | 174.0 - 177.0 | 0.05 | 0.004 | | |
| | | 177.0 - 180.0 | 0.09 | 0.004 | | |
| | | 180.0 - 183.0 | 0.11 | 0.005 | | |
| | | 183.0 - 186.0 | 0.11 | 0.004 | | |
| | | 186.0 - 189.0 | 0.06 | 0.004 | | |
| | | 189.0 - 192.0 | 0.13 | 0.006 | | |
| | | 192.0 - 195.0 | 0.43 | 0.011 | | |
| | | 195.0 - 198.0 | 0.08 | 0.007 | | |
| | | 198.0 - 200.0 | 0.05 | 0.004 | | |

Hole No. F-84-1 Sheet 3

Scale
From Feet
& Over

Drill Hole Record



| | | | | | |
|--------------|---|-----------|------------------|-----------|----------------|
| Property | FISH LAKE | District | Western District | Hole No. | F84-2 |
| Commenced | 17 August 1984 | Location | | Tests at | Hor. Comp. |
| Completed | 18 August 1984 | Core Size | NQ | Corr. Dip | -50° |
| Co-ordinates | 10,000 N | 10285 E | | True Brg. | 090° |
| Objective | Intersect Fish Lake Main Deposit in an Easterly Direction | | | % Recov. | Date |
| | | | | | September 1984 |

| | | | |
|------------|-------|-------|-------|
| Claim | TKS | 200 M | Sheet |
| F Brg. | 090° | | |
| Collar Dip | -50° | | |
| Elev. | | | |
| Length | 200 M | | |
| Hole No. | F84-2 | | |

| Meterage From To | Description | Interval | Analysis | |
|---------------------|---|-------------|----------|--------|
| | | | Cu % | AU G/T |
| 0 - 15.2 | Overburden | 15.2 - 18.2 | 0.23 | 0.010 |
| 15.2- 24 | Very weathered rock. Thick malachite stains on fractures original rock was probably sericitized fine grained andesite or sediment. | 18.2 - 21.2 | 0.25 | 0.014 |
| | | 21.2 - 24.2 | 0.38 | 0.014 |
| 24 - 62.5 | Fine grained to very fine grained pervasively sericitized sediments or andesite, grey to white in colour. (sericite-clay alteration) relic bedding at 32 m. | 24.2 - 27.2 | 0.51 | 0.015 |
| | | 27.2 - 30.2 | 0.41 | 0.014 |
| | Relic spots and clusters of ex-chlorite or exbiotite, only partly sericitized, | 30.2 - 33.2 | 0.23 | 0.010 |
| | these spots contain some chalcocopyrite associated with chlorite. | 33.2 - 36.2 | 0.38 | 0.045 |
| | Up to 10 but more often 5 quartz veins (1/2-1 mm) ^{per metre} with sericite and chalcocopyrite and pyrite. | 36.2 - 39.2 | 0.17 | 0.010 |
| | | 39.2 - 42.2 | 0.27 | 0.015 |
| | Disseminated chalcocopyrite 0.5 - 1%, 0 to 0.5% disseminated pyrite. | 42.2 - 45.2 | 0.20 | 0.014 |
| | Thin stringers of hematite 1 to 10 m. | 45.2 - 48.2 | 0.30 | 0.023 |
| | Some magnetite/chlorite spots at 38.5m. | 48.2 - 51.2 | 0.38 | 0.028 |
| 62.5- 63.4 | Very fine grained green andesite (?) no visible bedding. No pervasive sericitization as above. | 51.2 - 54.2 | 0.23 | 0.020 |
| | | 54.2 - 57.2 | 0.24 | 0.012 |
| | Rock is greenish (chloritization) and has 2% disseminated magnetite in 1/2 mm clusters. | 57.2 - 60.2 | 0.26 | 0.012 |
| | A few thin veins of chlorite (1/2 mm) with chalcocopyrite. | 60.2 - 63.2 | 0.26 | 0.016 |
| | | 63.2 - 66.2 | 0.23 | 0.017 |
| 63.4 - 64.6 | 2.5 cm wide white vuggy clear quartz veins, oriented along the core with bleached rims | 66.2 - 69.2 | 0.19 | 0.010 |
| | Contains minor pyrite and chalcocopyrite. | 69.2 - 72.2 | 0.27 | 0.019 |
| | | 72.2 - 75.2 | 0.36 | 0.019 |
| 64.6 - 67.2 | Melange of quartz feldspar porphyry and sericitized fine grained diorite. | 75.2 - 78.2 | 0.47 | 0.023 |
| | Feldspar porphyry has 40% feldspar phenocrysts 2 to 4 mm in diameter, 1% quartz eyes, rest is sericitized groundmass. Chalcocopyrite in thin clear quartz veins (10 to 15/m) less than 1%, pyrite rare. | 78.2 - 81.2 | 0.61 | 0.033 |

Drill Hole Record



| | | | | | |
|--------------|-----------|----------|------------------|-------------|-------|
| Property | FISH LAKE | District | Western District | Hole No. | F84-2 |
| Commenced | Location | | Tests at | Hor. Comp. | |
| Completed | Core Size | | Corr. Dip | Vert. Comp. | |
| Co-ordinates | | | True Org. | Logged by | |
| Objective | | | % Recov. | Date | |

| Elevation From To | Description | Interval | Analysis | | TK6 | Collar Dip | Elev. | Length | Hole No. F84-2 | Sheet |
|----------------------|--|---------------|----------|---------|-----|------------|-------|--------|-------------------|-------|
| | | | Cu % | Au oz/t | | | | | | |
| 67.2 - 68.7 | Very fine grained white coloured sediments, pervasively sericitized (sericite-clay alteration). | 81.2 - 84.2 | 0.26 | 0.012 | | | | | | |
| | Veining prominent, all veins thin (1/4-1/2 mm). | 84.2 - 87.2 | 0.24 | 0.011 | | | | | | |
| | Types of veins: clear quartz with pyrite and chalcopyrite; vuggy quartz, no sulphides, clear quartz with pyrite, chlorite, pyrite chalcopyrite often sericitized. | 87.2 - 90.2 | 0.25 | 0.012 | | | | | | |
| | Veins are 10-20/n. | 90.2 - 93.2 | 0.34 | 0.022 | | | | | | |
| | | 93.2 - 96.2 | 0.38 | 0.020 | | | | | | |
| 68.8 - 87.4 | Fine grained quartz diorite, light coloured, bleached. | 96.2 - 99.2 | 0.29 | 0.016 | | | | | | |
| | Feldspar phenocrystals 1/4 to 1 mm, crowded 20-30% crystals are sericitized. | 99.2 - 102.2 | 0.28 | 0.016 | | | | | | |
| | Spots (2 mm - 2 cm in diameter) of chlorite with minor pyrite, chalcopyrite and magnetite or hematite are only partly sericitized and recognizable as such. | 102.2 - 105.2 | 0.26 | 0.012 | | | | | | |
| | Disseminated chalcopyrite and pyrite (1 to 1.5% sulphides) in small, finely crystalline clusters. | 105.2 - 108.2 | 0.32 | 0.019 | | | | | | |
| | | 108.2 - 111.2 | 0.24 | 0.015 | | | | | | |
| | A few clear quartz veins (1/2 mm) with chalcopyrite and pyrite (5/n). | 111.2 - 114.2 | 0.24 | 0.012 | | | | | | |
| | Disseminated magnetite at 87. | 114.2 - 117.2 | 0.27 | 0.014 | | | | | | |
| 87.4 - 90 | Very fine grained sediments, pervasively sericitized (sericite and clay). Numerous hairline pyrite veinlets and varied directions, little chalcopyrite. A few quartz pyrite, chalcopyrite, chlorite veins. | 117.2 - 120.2 | 0.27 | 0.019 | | | | | | |
| | | 120.2 - 123.2 | 0.38 | 0.020 | | | | | | |
| | | 123.2 - 126.2 | 0.29 | 0.024 | | | | | | |
| | | 126.2 - 129.2 | 0.37 | 0.020 | | | | | | |
| 90 - 99 | Medium grained quartz diorite. | 129.2 - 132.2 | 0.21 | 0.014 | | | | | | |
| | Feldspars 20-30% in partly sericitized groundmass with 5% chlorite. Pyrite disseminated | 132.2 - 135.2 | 0.35 | 0.019 | | | | | | |
| | 1.5%, chalcopyrite 0.5%. Pyrite stringer 2 mm at 96.3 | 135.2 - 138.2 | 0.24 | 0.016 | | | | | | |
| | | 138.2 - 141.2 | 0.40 | 0.020 | | | | | | |
| | | 141.2 - 144.2 | 0.35 | 0.020 | | | | | | |

Draw
 Contour Plan
 & Date

Drill Hole Record



| | | | | | |
|--------------|-----------|----------|------------------|----------|-------------|
| Property | FISH LAKE | District | Western District | Hole No. | F84-2 |
| Commenced | Location | | Tests at | | Hor. Comp. |
| Completed | Core Size | | Corr. Dip | | Vert. Comp. |
| Co-ordinates | | | True Brg. | | Logged by |
| Objective | | | % Recov. | | Date |

| | | | | | | |
|-------|-----|------------|-------|--------|----------------|---------|
| Claim | TK6 | Collar Dip | Elev. | Length | Hole No. F84-2 | Sheet 3 |
| | | | | | | |

| Meterage | | Description | Interval | Analysis | |
|----------|-------|---|---------------|----------|---------|
| From | To | | | Cu % | Au oz/t |
| 99 | 105 | Fine grained green quartz diorite. | | | |
| | | Chlorite 10-20% mostly in blotches and spots. These spots contain most of sulphides, oxides; 1% magnetite 0.5% chalcopryrite, 1% pyrite. | 144.2 - 147.2 | 0.20 | 0.010 |
| | | Groundmass contains feldspar/sericite/chlorite. Feldspar phenocrystals barely visible. | 147.2 - 150.2 | 0.33 | 0.022 |
| | | | 150.2 - 153.2 | 0.22 | 0.012 |
| 105 | 110.9 | Same as above but pervasively bleached, blotchy texture still visible. | 153.2 - 156.2 | 0.21 | 0.012 |
| | | From 99-110.9 veinlets of quartz pyrite, minor chalcopryrite occupy 5% of rock in varied directions. | 156.2 - 159.2 | 0.17 | 0.008 |
| | | | 159.2 - 162.2 | 0.20 | 0.010 |
| 110.9 | 126.8 | Very fine grained sediments or andesite. No more feldspar phenocrystals visible, but no bedding either. This rock is pervasively altered to sericite and clay. Veining all very thin occupies 10% of rock mass. | 162.2 - 165.2 | 0.24 | 0.017 |
| | | | 165.2 - 168.2 | 0.18 | 0.008 |
| | | | 168.2 - 170.0 | 0.18 | 0.008 |
| | | Most frequent is partly sericitized thin chlorite veins with pyrite and chalcopryrite. | 170.0 - 172.5 | 0.27 | 0.016 |
| 126.8 | 130 | Fine to medium quartz diorite. | 172.5 - 173.2 | 0.31 | 0.266 |
| | | As before, sericitized. | 173.2 - 176.2 | 0.22 | 0.013 |
| | | Some thin quartz veins with chalcopryrite, pyrite (1.5/m). | 176.2 - 179.2 | 0.13 | 0.008 |
| 130 | 169.6 | Very fine grained rocks with bleached (sericite-clay) sections. | 179.2 - 182.2 | 0.16 | 0.010 |
| | | Green-chloritic sections have disseminated magnetite. | 182.2 - 185.2 | 0.28 | 0.017 |
| | | 130 - 132.7: chloritic: 1% disseminated chalcopryrite; 1% magnetite disseminated. | 185.2 - 188.2 | 0.19 | 0.010 |
| | | Some (2/m) veins quartz-pyrite-chalcopryrite). | 188.2 - 191.2 | 0.57 | 0.017 |
| | | 132.7-142.7: Bleached (quartz veins: 3 to 4 m. (1/2-2mm thick) with pyrite chalcopryrite. | 191.2 - 194.2 | 0.14 | 0.010 |
| | | 142.7-145.6: chloritic, spots of chlorite | 194.2 - 197.2 | 0.10 | 0.006 |
| | | 150 -162.6: chloritic - spots (chlorite) 20 to 50% of rockmass) | 197.2 - 199.9 | 0.18 | 0.018 |
| | | chalcopryrite 0.5%. | | | |

Scale
1:1000

Drill Hole Record



| | | | | | |
|--------------|-----------|-----------|------------------|-----------|-------------|
| Property | FISH LAKE | District | Western District | Hole No. | F84-2 |
| Commenced | | Location | | Tests at | Hor. Comp. |
| Completed | | Core Size | | Corr. Dip | Vert. Comp. |
| Co-ordinates | | | | True Brg. | Logged by |
| Objective | | | | % Recov. | Date |

| | |
|------------|-----|
| Claim | TK6 |
| Y Brg. | |
| Collar Dip | |
| Elev. | |
| Length | |
| Hole No. | |
| Sheet | |

| Meterage From To | Description | Interval | Analysis | |
|---------------------|--|----------|----------|---------|
| | | | Cu % | Au oz/t |
| | 162.6-169.6: Short bleached and chloritic sections alternative. Some disseminated biotite magnetite, chlorite, pyrite 1%, chalcopyrite 1%. | | | |
| 169.6- 185.3 | Fine grained bleached andesite. Veining occupies 15% of rock, and consists mostly of chlorite/sericite/pyrite/chalcopyrite hairline fractures. | | | |
| | Pyrite-chalcopyrite seam 1 cm with bleached rims at 172.8. | | | |
| 185.3- 200 | Quartz Feldspar porphyry. Quartz in groundmass, 20% feldspar phenocrystals 2-6 mm, 1% quartz eyes. Poorly mineralized trace of chalcopyrite. Also a few quartz-chalcopyrite veins, thin. Raft of sericitized fine grained rocks at 191.4-193.1 | | | |
| 200 | END OF HOLE - Casing Pulled | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Scale
1:1000
4 Dec

Drill Hole Record



| | | | | | |
|--------------|--|-----------|------|-----------|-----------|
| Property | Fish Lake | District | W.O. | Hole No. | F-84-3 |
| Commenced | 21 Aug. 1984 | Location | | Tests at | 200 m 51° |
| Completed | 23 Aug. 1984 | Core Size | NQ | Corr. Dip | - 50° |
| Co-ordinates | 10010N, 10137E | True Brg. | 90° | Logged by | A.M.P. |
| Objective | Intersect Fish Lake "Main deposit" in an easterly direction % Recov. | | | Date | Sept. 84 |

| | |
|------------|----------------|
| Claim | TK 6 |
| T Brg. | 090 |
| Collar Dip | - 50° |
| Elev. | |
| Length | 200 m. |
| Hole No. | F-84-3 Sheet 1 |

| Elevation From To | Description | Interval (m) | Analysis | |
|-------------------------|--|---------------|----------|--------|
| | | | Cu % | Au g/t |
| 0 - 61 | Overburden. | 61.0 - 64.0 | 0.35 | 0.021 |
| 61 - 64.1 | Very fine grained greenish andesite : | 64.0 - 67.0 | 0.30 | 0.016 |
| | Chlorite 30%, some disseminated biotite: | 67.0 - 70.0 | 0.28 | 0.019 |
| | 2% finely disseminated pyrite, 1% disseminated chalcopyrite, 2% disseminated magnetite. | 70.0 - 73.0 | 0.35 | 0.016 |
| | short bleached sections. | 73.0 - 76.0 | 0.28 | 0.014 |
| | | 76.0 - 79.0 | 0.29 | 0.016 |
| 64.1 - 65 | Coarse grained quartz diorite porphyry, pervasively bleached (sericite-clay). | 79.0 - 82.0 | 0.28 | 0.020 |
| | 15%, 2 x 3 mm. subidiomorphic feldspar phenocrystals. | 82.0 - 85.0 | 0.29 | 0.022 |
| | 10% of core consists of chlorite-quartz veins with chalcopyrite and pyrite. | 85.0 - 88.0 | 0.30 | 0.026 |
| | Disseminated magnetite and hematite (approx. 1%) | 88.0 - 91.0 | 0.25 | 0.016 |
| | | 91.0 - 94.0 | 0.18 | 0.017 |
| | | 94.0 - 97.0 | 0.15 | 0.008 |
| 65 - 70 | Fine grained andesite, pervasively altered to sericite and clay. | 97.0 - 100.0 | 0.28 | 0.022 |
| | Disseminated pyrite 2%, chalcopyrite 0.5%. | 100.0 - 103.0 | 0.39 | 0.031 |
| | Veins form 5% of rock mass and consist of clear quartz with chalcopyrite and pyrite, a few barren opaque quartz veins. | 103.0 - 106.0 | 0.36 | 0.028 |
| | | 106.0 - 109.0 | 0.41 | 0.027 |
| | | 109.0 - 112.0 | 0.37 | 0.020 |
| 70 - 93.3 | Fine grained andesite: spotty and blotchy appearance due to partial chloritization, also some biotite in some spots. | 112.0 - 115.0 | 0.24 | 0.015 |
| | Magnetite is disseminated and in hairline veinlets. Some very finely disseminated | 115.0 - 118.0 | 0.38 | 0.023 |
| | chalcopyrite and trace of bornite. Chalcopyrite ± 1%, magnetite 2-3%, little pyrite. | 118.0 - 121.0 | 0.27 | 0.013 |
| | A few hairline fractures with chalcopyrite, pyrite from 97.1 - to 89.6 bleached section | 121.0 - 124.0 | 0.32 | 0.015 |
| | | 124.0 - 127.0 | 0.26 | 0.018 |

State
County
City

Drill Hole Record



| | | | |
|--------------|-----------|-----------|-------------|
| Property | District | Hole No. | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Verl. Comp. |
| Co-ordinates | True Brg. | Logged by | |
| Objective | % Recov. | Date | |

Claim
T Brg.
Collar Dip
Elev.
Length
Hole No. F-84-J Sheet 2

| Elevation From To | Description | Interval | Analysis | |
|----------------------|--|----------|----------|---------|
| | | | Cu % | Au oz/t |
| 70 - 93.3 cont'd | no disseminated sulphides, some pyrite/chalcopyrite in thin clear quartz veins. | | | |
| 89.6 - 93.3 | Medium grained quartz diorite, 5% feldspar phenocrystals 2 mm. Groundmass partly bleached some finely disseminated biotite and chlorite, trace of disseminated pyrite; disseminated chalcopyrite 0.5%; disseminated magnetite 2%. | | | |
| 93.3 - 94.8 | Greenish post mineral quartz diorite dyke. 20% feldspar pheno's, 2mm - 3mm, thin 1/2 mm. hornblende needles 10% in grey green groundmass. | | | |
| 94.8 - 99.5 | Medium to coarse grained porphyritic quartz diorite. Feldspar phenocrystals measure 0.5 x 0.5 to 1.5 x 3 mm., 5 to 10% of rockmass. Groundmass feldspathic with chlorite and rare biotite, partly bleached. Chalcopyrite and magnetite are disseminated and occur as fracture coatings, little pyrite. 0.5% chalcopyrite, 2% magnetite. | | | |
| 99.5 - 103.6 | Same diorite as above but pervasively altered to sericite and clay, feldspars 15%. A few thin quartz veins with chalcopyrite. Minor disseminated pyrite and chalcopyrite in small clusters, pyrite 0.5%, chalcopyrite 0.4%. | | | |

State
 Section
 & Date

Drill Hole Record



| | | | |
|--------------|-----------|-----------|-------------|
| Property | District | Hole No. | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| | |
|------------|--|
| Claim | |
| T Brg. | |
| Collar Dip | |
| Elev. | |
| Length | |

Hole No. 2-91.1 Sheet 1

| Elevation From To | Description | Interval | Analysis | |
|----------------------|---|---------------|----------|---------|
| | | | Cu % | Au oz/l |
| 103.6 - 115.2 | Medium to fine grained quartz diorite. | 127.0 - 130.0 | 0.24 | 0.015 |
| | Two sizes of feldspar phenocrystals. 10% at approx. 1/2 mm. and 5% at 2 x 2 mm. Magnetite disseminated (3%) in blebs up to 1 mm. | 130.0 - 133.0 | 0.27 | 0.016 |
| | Disseminated chalcopyrite and rare bornite; 1%. | 133.0 - 136.0 | 0.28 | 0.019 |
| | 20% of rock consists of spots and blotches with biotite and chlorite. | 136.0 - 139.0 | 0.30 | 0.018 |
| | | 139.0 - 142.0 | 0.21 | 0.010 |
| 115.2 - 124.9 | Fine to very fine grained andesite boundary with above gradual. Bleached, pervasive sericitization. Disseminated chalcopyrite 0.8%, traces of pyrite (0.5%) | 142.0 - 145.0 | 0.19 | 0.008 |
| | Pyrite mostly in thin carbonate - pyrite veins and thin quartz veins. | 145.0 - 148.0 | 0.19 | 0.012 |
| | | 148.0 - 151.0 | 0.41 | 0.020 |
| | | 151.0 - 154.0 | 0.17 | 0.012 |
| 124.9 - 132 | Medium to fine quartz diorite porphyry pervasively bleached to sericite and clay. | 154.0 - 157.0 | 0.42 | 0.021 |
| | A few (10%) coarse feldspar phenocrystals 2 x 4 mm. are also sericitized. Chalcopyrite is disseminated, a few specs of bornite at 129.4 m. Disseminated hematite 1%. Thin quartz veins with disseminated pyrite and chalcopyrite (2-5%). | 157.0 - 160.0 | 0.40 | 0.020 |
| | | 160.0 - 163.0 | 0.22 | 0.010 |
| 132.9 - 148 | Medium to coarse quartz diorite porphyry. | | | |
| | Feldspars 10%, unequigranular (.5 x .5 to 1.5 x 3 mm) in dark blotchy, chlorite-biotite groundmass. Chalcopyrite (10%) is finely disseminated. A few (less than 1%) quartz veinlets with chalcopyrite, also some thin chalcopyrite, hematite veinlets. Magnetite disseminated 1%. | | | |
| | | | | |

Area
Corner Post
& Pipe

Drill Hole Record



| Property | District | Hole No. | Claim | T. Brg. | Collar Dip | Elev. | Length | Hole No. F-85-3 Sheet 4 |
|----------------------|--|---|--------------------------------------|---|------------|-------|--------|-------------------------|
| Commenced | Location | Tests at | Hor. Comp. | | | | | |
| Completed | Core Size | Corr. Dip | Vert. Comp. | | | | | |
| Co-ordinates | | True Brg. | Logged by | | | | | |
| Objective | | % Recov. | Date | | | | | |
| Reference From To | Description | Interval | Analysis | | | | | |
| | | | Cu % | Au oz/T | | | | |
| 148 - 155 | Fine grained andesite. Feldspars 1/4 mm. approx. 30%. Whole rock is bleached and altered to sericite and clay. Veining 10% of rock mass, principally quartz-chalcopyrite, pyrite. A few barren clear quartz; all veins thin. | | | | | | | |
| 155 - 158 | Greenish fine grained andesite. Abundantly disseminated pyrite 2% some chalcopyrite (1.0%). Disseminated magnetite (2%). A few thin veins of magnetite, a few thin quartz veins. | | | | | | | |
| 158 - 168.5 | Andesite, as above but pervasively altered to sericite and clay. Disseminated, hematite and chalcopyrite. Veining (2 - 5% of rock) predominantly thin quartz with pyrite and chalcopyrite, a few thin magnetite stringers, some carbonate-pyrite veins (2 mm), some very thin chlorite coated fractures with pyrite and chalcopyrite. Veining more abundant 162 - 163.5 | 163.0 - 166.0 166.0 - 169.0 169.0 - 172.0 172.0 - 175.0 175.0 - 178.0 | 0.24 0.28 0.29 0.29 0.33 | 0.020 0.013 0.019 0.030 0.030 | | | | |
| 168.5 - 169.5 | Fine grained dark green andesite. Chlorite 50% of rock mass, very small feldspars (1/4 mm) 40%. Veining 10%, veins consist of thin clear quartz, quartz-hematite, thin films of sericite. | | | | | | | |
| 169.5 - 176 | Andesite light coloured bleached to sericite clay. As 158 - 168.5. | | | | | | | |

Scale
1:1000
1:2000
1:5000

Drill Hole Record



| | | | |
|--------------|-----------|-----------|-------------|
| Property | District | Hole No. | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| | | | | |
|-------|--------|------------|-------|--------|
| Claim | Y Brg. | Collar Dip | Elev. | Length |
|-------|--------|------------|-------|--------|

Hole No. F-84-1 Sheet 5

| Meterage From To | Description | Interval | Analysis | |
|--|---|---------------|----------|---------|
| | | | Cu % | Au oz/T |
| 176 - 181.3 | Green to dark green andesite. | 178.0 - 181.0 | 0.18 | 0.011 |
| | Disseminated chalcopryite, trace of bornite (0.5% chalco) | 181.0 - 184.0 | 0.11 | 0.004 |
| | Magnetite disseminated 2% | 184.0 - 187.0 | 0.14 | 0.008 |
| | Gypsum veining (1%) starts at 177 m. | 187.0 - 190.0 | 0.20 | 0.190 |
| | | 190.0 - 193.0 | 0.15 | 0.010 |
| 181.3 - 186 | Quartz diorite porphyry: | 193.0 - 196.0 | 0.34 | 0.016 |
| | Coarse unequigranular feldspar pheno's (15%) are up to 3 x 3 mm. | 196.0 - 200.0 | 0.39 | 0.014 |
| | Chlorite, fine grained forms up to 30% of rock. | | | |
| | A few recognizable chloritized hornblende needles. | | | |
| | Disseminated blebs (1%) of magnetite, no disseminated sulphides. A few thin quartz veins with chalcopryite. | | | |
| Rare gypsum veins (0.5%) | | | | |
| 186 - 200 | Extremely fine grained andesite. | | | |
| | Disseminated magnetite (2%) in small 1/2 mm. blebs and disseminated chalcopryite (0.3%) | | | |
| | Gypsum veins (2%) 1/2 cm. wide. | | | |
| | Chlorite in groundmass 30-50%. | | | |
| | A few pyrite-quartz veins with bleached rims. | | | |
| 3 cm. wide quartz-carbonate-pyrite, chalcopryite vein with bleached rims at 187.6. | | | | |
| 200 | EOH Casing pulled | | | |

Scale
Colour Plot
& Dip

Drill Hole Record



Property FISH LAKE District Western District Hole No. F84-4
 Commenced 24 August 1984 Location Tests at 200 m 53° Hor. Comp.
 Completed 26 August 1984 Core Size NQ Corr. Dip Vert. Comp.
 Co-ordinates 10,000 N 10,006 E True Brg. 090° Logged by A.M. Pauwels
 Objective To intersect the Fish Lake Main Deposit in an Easterly % Recov. Date September 1984
 Direction.

Claim TK6, TK4,
 RCC Fr. 3
 T Brg. 090°
 Collar Dip -50°
 Elev. -
 Length 199.5 m
 Hole No. F84-4
 Sheet 1

| Meterage From To | Description | Interval | Analysis | |
|---------------------|--|--|--|--|
| | | | Cu % | Au oz/T |
| 0 - 73.5 | Overburden | 71.0 - 74.0 | 0.21 | 0.024 |
| 73.5 - 89.5 | Quartz diorite, medium to coarse grained, porphyritic. Subidiomorphic feldspar phenos (35%). Unequal in size average 1.5 x 3 mm and range up to 2 x 8 mm. Small hornblende needles, chloritized, measure .5 x 5 mm. Pyrite (20%) and chalcopyrite (0.5%) are disseminated groundmass is sericitized and chloritized (+ 10% chlorite). Veining occupies 2% of rockmass and consists of thin quartz-sericite veins with pyrite, hematite and chalcopyrite. Magnetite in fractures and disseminated (2% magnetite). Quartz vein with pyrite and bleached rim at 81.5. | 74.0 - 77.0 77.0 - 80.0 80.0 - 83.0 83.0 - 86.0 86.0 - 89.0 89.0 - 92.0 92.0 - 95.0 | 0.39 0.36 0.28 0.35 0.28 0.34 0.25 | 0.026 0.022 0.016 0.014 0.017 0.025 0.018 |
| 89.5 - 93.3 | Very fine grained grey to white rock (Andesite?) Pervasive sericite-clay alteration. Some slickensides. Pyrite disseminated (0.5%). Some thin quartz veins with chalcopyrite and pyrite. Very fine hairline veinlets with hematite. Veins 5% of rockmass. Veins in many directions. | 95.0 - 98.0 98.0 - 101.0 | 0.27 0.26 | 0.028 0.018 |
| 93.3 - 112 | Quartz diorite as 73.5-89.5 Sericitized to 94, and 104.7-105. Feldspar pheno's 25%, groundmass chlorite 5-10% veining approximately 2% of rock; clear thin (max 2 mm) quartz veins and thin quartz sericite veins both with chalcopyrite. Little disseminated sulphides. Minor disseminated chalcopyrite. Some disseminated biotite in groundmass. Some hematite-chalcopyrite veinlets. Increased veining were bleached (104.7-105). Magnetite is disseminated (2.5%) in fine grained clusters and as coatings on hairline fractures. | 101.0 - 104.0 104.0 - 107.0 107.0 - 110.0 110.0 - 113.0 113.0 - 116.0 116.0 - 119.0 119.0 - 122.0 122.0 - 125.0 | 0.21 0.27 0.40 0.32 0.26 0.28 0.24 0.22 | 0.018 0.021 0.026 0.014 0.011 0.013 0.014 0.014 |
| 112-138.2 | Medium to fine grained quartz diorite, pervasively altered to sericite and clay. All mafics are gone. | 125.0 - 128.0 | 0.31 | 0.018 |

Scale
Colour Photo
& Draw

Drill Hole Record



| | | | | | |
|--------------|-----------|-----------|------------------|-----------|-------------|
| Property | FISH LAKE | District | Western District | Hole No. | F84-4 |
| Commenced | | Location | | Tests at | Hor. Comp. |
| Completed | | Core Size | | Corr. Dip | Vert. Comp. |
| Co-ordinates | | | | True Brg. | Logged by |
| Objective | | | | % Recov. | Date |

| Meterage From To | Description | Interval | Analysis | | Claim T Brg. | Collar Dip | Elev. | Length | Hole No. F84-4 | Sheet |
|---------------------|---|---------------|----------|---------|-----------------|------------|-------|--------|-------------------|-------|
| | | | Cu % | Au oz/T | | | | | | |
| | Disseminated pyrite (1%) and chalcopyrite (0.5%). Feldspar phenocrystals 1 mm (5%) sericitized in sericitized groundmass. | 128.0 - 131.0 | 0.36 | 0.025 | | | | | | |
| | Hematite as hairline veinlets and disseminated rare quartz - pyrite veinlets. | 131.0 - 136.0 | 0.36 | 0.024 | | | | | | |
| | At 126, 128.9: at both places vuggy, 1.5 cm wide, quartz-vein with pyrite and galena. | 134.0 - 137.0 | 0.35 | 0.019 | | | | | | |
| | At 126 vein runs along axis at 129 vein irregular angle. | 137.0 - 140.0 | 0.28 | 0.016 | | | | | | |
| | After 130 bleaching, veining diminishes. | 140.0 - 143.0 | 0.35 | 0.024 | | | | | | |
| 138.2-172 | Coarse grained quartz-diorite porphyry. Similar to previous unequal partly removed feldspar crystals (25%) up to 0.5 cm, average 1.5 x 2 mm. Most show very little mineralization (0.5% pyrite especially after 18 m. A few quartz veins with chalcopyrite pyrite and a few fractures coated with chalcopyrite, pyrite. | 143.0 - 146.0 | 0.35 | 0.014 | | | | | | |
| | | 146.0 - 149.0 | 0.05 | 0.004 | | | | | | |
| | | 149.0 - 152.0 | 0.07 | 0.006 | | | | | | |
| | | 152.0 - 155.0 | 0.04 | 0.002 | | | | | | |
| 172. - 176 | As above but pervasively bleached. Trace of disseminated pyrite no disseminated chalcopyrite. A few thin veinlets with pyrite and chalcopyrite. | 155.0 - 158.0 | 0.09 | 0.008 | | | | | | |
| 176 - 178.3 | As 138.2-172 little sulphides, a few coatings on fractures. | 158.0 - 161.0 | 0.09 | 0.006 | | | | | | |
| 178.3-184.5 | Fine grained sediments, relic bedding is visible. Reticular network of thin sericitic veinlets with pyrite and chalcopyrite forms 10% of rock. | 164.0 - 167.0 | 0.20 | 0.009 | | | | | | |
| | Also disseminate and vein magnetite, hematite and chalcopyrite. | 167.0 - 170.0 | 0.24 | 0.028 | | | | | | |
| | | 170.0 - 173.0 | 0.10 | 0.005 | | | | | | |
| 184.5- 186 | Cream coloured, post mineral quartz-diorite porphyry dyke. Feldspar pheno's (sericitized) occupy 20% of volume. | 173.0 - 176.0 | 0.11 | 0.013 | | | | | | |
| | | 176.0 - 179.0 | 0.13 | 0.007 | | | | | | |
| | Groundmass is light coloured sericite/clay/quartz. No sulphides. | 179.0 - 182.0 | 0.32 | 0.011 | | | | | | |
| 188.2-189.8 | Similar Post mineral dyke. | 182.0 - 185.0 | 0.23 | 0.014 | | | | | | |
| 189.8-199.5 | As 178.3-184.5 and 184-188.2 | 185.0 - 188.0 | 0.17 | 0.006 | | | | | | |
| 199.5 | END OF HOLE Casing Pulled | 188.0 - 191.0 | 0.14 | 0.015 | | | | | | |

State
County
& Date

Drill Hole Record



| | | | | | |
|--------------|-----------|----------|------------------|-------------|-------|
| Property | FISH LAKE | District | Western District | Hole No. | F84-4 |
| Commenced | Location | | Tests at | Hor. Comp. | |
| Completed | Core Size | | Corr. Dip | Vert. Comp. | |
| Co-ordinates | True Brg. | | Logged by | | |
| Objective | % Recov. | | Date | | |

| | | | | | | |
|-------|--------|------------|-------|--------|-------------------|------------|
| Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. F84-4 | Sheet 1 |
|-------|--------|------------|-------|--------|-------------------|------------|

| Meterage From | To | Description | Interval | Analysis | |
|------------------|----|-------------|---------------|----------|---------|
| | | | | Cu % | Au oz/T |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | 191.0 - 194.0 | 0.20 | 0.006 |
| | | | 194.0 - 197.0 | 0.33 | 0.016 |
| | | | 197.0 - 199.3 | 0.27 | 0.018 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Scale
 1:1000
 1:5000

Drill Hole Record



| | | | | | |
|--------------|---|-----------|------------------|-----------|----------------|
| Property | FISH LAKE | District | Western District | Hole No. | FR4-5 |
| Commenced | August 26, 1984 | Location | | Tests at | 200 |
| Completed | August 29, 1984 | Core Size | NQ | Corr. Dip | 36° |
| Co-ordinates | 10.000N 9850E | True Brg. | 099° | Logged by | AMP |
| Objective | To intersect Fish Lake main deposit in an easterly direction. | | | % Recov. | --- |
| | | | | Date | September 1984 |

| | | | | | |
|--------|------|------------|------|----------|---------|
| Claim | TK4 | Collar Dip | -55° | Length | 203.1 m |
| T Brg. | 090° | Elev. | | Page No. | 184-5 |
| | | | | Sheet | 1 |

| Meterage From To | Description | Interval | Analysis | |
|---------------------|--|-----------|----------|---------|
| | | | Cu % | Au oz/T |
| 0-22.5 | OVERBURDEN | | | |
| 22.5-24.9 | -Medium to coarse grained quartz diorite porphyry. Light green, bleached near bottom 0.5 m. Feldspar phenocrystals maximum 1.5x4 mm, many smaller (25%). A few very small chloritized hornblende needles visible. -Disseminated magnetite (1.5%), chalcopyrite (1%), traces of bornite. Veining is sparse, a few carbonate hairline fractures. | 22.5-26.0 | 0.22 | 0.016 |
| 24.9-37.4 | -Fine-grained sediments. White coloured, some relic bedding, pervasively sericitized (sericite and clay). Veins occupy 5% of rock volume and form reticular network. Most are 0.1 to 1 mm quartz vein with sericitic rims and chlorite; pyrite, chalcopyrite filling, also some thin clear quartz veins. -Chalcopyrite estimated at 0.6%. -From 29.0-30.0 some unbleached fine-grained rock with fine chlorite and some biotite. -Last two metres shows some white veining (albite?) and minor carbonate veining. | 26.0-29.0 | 0.36 | 0.026 |
| | | 29.0-32.0 | 0.35 | 0.025 |
| | | 32.0-35.0 | 0.21 | 0.012 |
| | | 35.0-38.0 | 0.22 | 0.005 |
| | | | | |
| 37.4-45.0 | -Quartz diorite porphyry as 22.0-24.9 but pervasively bleached to sericite and clay (yellow and greenish sericite). Texture of rock is much obliterated by alteration and boundary with above not certain. | 38.0-41.0 | 0.25 | 0.020 |
| | | 41.0-44.0 | 0.24 | 0.016 |
| | | 44.0-47.0 | 0.28 | 0.022 |

Scale
Colour Photo
& Dip

Drill Hole Record



| | | | | | | | | | | | | | | | | | | | | |
|--------------|-----------|--|-----------|-----------|---------|-------------|--------|------------|-------|--------|----------|-------|---|--|--|--|--|--|--|--|
| Property | FISH LAKE | District | | Hole No. | F84-5 | | | | | | | | | | | | | | | |
| Commenced | | Location | | Tests at | | Hor. Comp. | | | | | | | | | | | | | | |
| Completed | | Core Size | | Corr. Dip | | Vert. Comp. | | | | | | | | | | | | | | |
| Co-ordinates | | | | True Brg. | | Logged by | | | | | | | | | | | | | | |
| Objective | | | | % Recov. | | Date | | | | | | | | | | | | | | |
| Meterage | | Description | Interval | Analysis | | Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet | 2 | | | | | | | |
| From | To | | | Cu % | Au oz/t | | | | | | | | | | | | | | | |
| 37.4 | 45.0 | -Feldspars in sections were well recognizable, form 35% of groundmass, all pheno's unequal sizes. Veining: quartz veins with pyrite and chalcopryite in center are 0.1 to 1 mm thick and form up to 20% of rock mass (1-20%), thickest are 1 cm wide. | | | | | | | | | | | | | | | | | | |
| Continued | | -Some disseminated hematite and/or magnetite (2%). A few small chloritized hornblend ghost crystals. | | | | | | | | | | | | | | | | | | |
| | | -Little disseminated pyrite or chalcopryite outside of veins overall estimate 0.5% chalcopryite. | | | | | | | | | | | | | | | | | | |
| 45.0 | 49.8 | -Same quartz diorite porphyry but only some sections pervasively sericitized. Were less bleached, disseminated magnetite instead of hematite and groundmass contain 10-20% clusters of chlorite-biotite. Little disseminated sulphides. Chalcopryite and pyrite occur in thin quartz vein. Increased quartz veining where bleached. Not all quartz veins carry chalcopryite. | 47.0-50.0 | 0.21 | 0.023 | | | | | | | | | | | | | | | |
| 49.8 | 51.9 | -Quartz diorite porphyry bleached as 37.4-45.0. | | | | | | | | | | | | | | | | | | |
| 51.9 | 55.9 | -Very fine-grained pale green andesite (?). Very veined, sericite and quartz veins in reticular pattern. Rock is partially bleached (50% rock mass). | 50.0-53.0 | 0.20 | 0.012 | | | | | | | | | | | | | | | |
| | | -Some relic, partly bleached chloritization in spots and blotches. Sulphides in thin quartz veins pyrite >> chalcopryite, magnetite also in thin, 1 mm veins. Magnetite also disseminated in thin-grained clusters (2%). Fault slickenslides at 54.0-55.0. | 53.0-56.0 | 0.21 | 0.014 | | | | | | | | | | | | | | | |

1000
 1000
 1000

Drill Hole Record



| | | | | |
|--------------|-----------|-----------|-------------|-------|
| Property | FISH LAKE | District | Hole No. | F84-5 |
| Commenced | Location | Tests at | Hor. Comp. | |
| Completed | Core Size | Corr. Dip | Vert. Comp. | |
| Co-ordinates | True Brg. | Logged by | | |
| Objective | % Recov. | Date | | |

| | | | | | | |
|-------|--------|------------|-------|--------|----------|-------|
| Claim | Y Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
| | | | | | | 3 |

| Meterage From To | Description | Interval | Analysis | |
|---------------------|--|-----------|----------|---------|
| | | | Cu % | Au oz/T |
| 55.9-68.2 | -Post Mineral Dyke | 56.0-59.0 | <.01 | <0.002 |
| | Quartz diorite porphyry. Light green in colour in centre of dyke, bleached at rims. | 59.0-62.0 | <.01 | <0.002 |
| | -Similar texture (unequal sized feldspar pheno's, minor small hornblend phenocrystals) | 62.0-65.0 | <.01 | <0.002 |
| | to above quartz diorite porphyry. No chalcopyrite mineralization, no veining, little pyrite. | 65.0-68.0 | <.01 | <0.002 |
| 68.2-73.5 | -Fine-grained andesite (?). Pervasively sericitized. | 68.0-71.0 | 0.23 | 0.010 |
| | -Abundant (10-20%) thin quartz veins .1 to 3 mm thick, pyrite 1%, chalcopyrite 0.5%. | | | |
| | -Remnants of secondary biotite finely disseminated at 71 m. Disseminated magnetite and hematite, some magnetite in veinlets. | | | |
| 73.5-79.0 | -As above but less bleaching; chloritic alteration predominates. | 71.0-74.0 | 0.29 | 0.020 |
| | -Pyrite increases from 2% to 5% locally (75-79). | 74.0-77.0 | 0.25 | 0.018 |
| | -Chalcopyrite 0.5%. Magnetite or hematite occur in clusters, small irregular blobs or in thin hairline veins. | 77.0-78.0 | 0.63 | 0.098 |
| | | 78.0-79.0 | 1.44 | 0.107 |
| 79.0-90.2 | -As 68.2-73.0. Pale green sericite gives pale green colour to core. Veining, quartz vein, clear, 0.1 to 1 mm thick form 5% of rock volume also hematite in hairline fractures. | 79.0-82.0 | 0.17 | 0.012 |
| | -Disseminated chlorite usually less than 5% often 0%. | 82.0-85.0 | 0.27 | 0.030 |
| | -Chalcopyrite in quartz vein 0.5%, pyrite disseminated and in quartz vein 1.5%. | 85.0-88.0 | 0.36 | 0.022 |
| | | 88.0-91.0 | 0.30 | 0.015 |

Scale
Color Plate
& Photo

Drill Hole Record



| | | | | | | | | | |
|--------------|-----------|-----------|-----------|-------|-------------|--|--|--|--|
| Property | FISH LAKE | District | Hole No. | F84-5 | | | | | |
| Commenced | | Location | Tests at | | Hor. Comp. | | | | |
| Completed | | Core Size | Corr. Dip | | Vert. Comp. | | | | |
| Co-ordinates | | | True Brg. | | Logged by | | | | |
| Objective | | | % Recov. | | Date | | | | |

| Elevation From To | Description | Interval | Analysis | | Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|----------------------|---|-------------|----------|---------|-------|--------|------------|-------|--------|----------|-------|
| | | | Cu % | Au oz/T | | | | | | | |
| 90.2-100.0 | -Quartz Feldspar Porphyry | 91.0-94.0 | 0.19 | 0.011 | | | | | | | |
| | -Feldspar phenocrystals measure 2x4 mm (40%), quartz eyes (1 to 2 mm) rare groundmass in sericite quartz. Sulphides are poorly disseminated mostly chalcopyrite (0.5%), trace of pyrite. Lot of rock has lost texture through alteration or is mixture of QFP and fine-grained, sericitized host rock. 99.5-100, 0.4 m of altered black shales. | 94.0-97.0 | 0.21 | 0.022 | | | | | | | |
| | -Fault zones at 91.6 to 93.5 m. | 97.0-100.0 | 0.18 | 0.018 | | | | | | | |
| 100.0-167.0 | -Medium to fine-grained quartz diorite. | 100.0-103.0 | 0.21 | 0.016 | | | | | | | |
| | -Rock counts for 20% of subidiomorph feldspar phenocrystals measuring .5 to 1 mm long. Groundmass is dark green to brown (chlorite, biotite). Pyrite and chalcopyrite are disseminated also along fractures sometimes with hematite. 0.4% to 1% chalcopyrite, 0.2% to 2.5% pyrite. | 103.0-106.0 | 0.13 | 0.013 | | | | | | | |
| | | 106.0-109.0 | 0.19 | 0.008 | | | | | | | |
| | | 109.0-112.0 | 0.08 | 0.006 | | | | | | | |
| | | 112.0-115.0 | 0.13 | 0.012 | | | | | | | |
| | -Two bleached sericite-clay alteration from 100 to 123.5 and 157 to 167 m. Both bleached zones have 2% of quartz veins .5 to 3 mm thick with some pyrite and chalcop-rite in the veins from 157-167 m, also some disseminated chalcopyrite (0.3%) and pyrite (0.5%). | 115.0-118.0 | 0.22 | 0.009 | | | | | | | |
| | | 118.0-121.0 | 0.27 | 0.008 | | | | | | | |
| | | 121.0-124.0 | 0.28 | 0.011 | | | | | | | |
| | | 124.0-127.0 | 0.20 | 0.012 | | | | | | | |
| | | 127.0-130.0 | 0.12 | 0.008 | | | | | | | |
| | | 130.0-133.0 | 0.13 | 0.011 | | | | | | | |
| | | 133.0-136.0 | 0.14 | 0.008 | | | | | | | |
| | | 136.0-139.0 | 0.10 | 0.008 | | | | | | | |
| | | 139.0-142.0 | 0.11 | 0.006 | | | | | | | |
| | | 142.0-145.0 | 0.15 | 0.010 | | | | | | | |

State

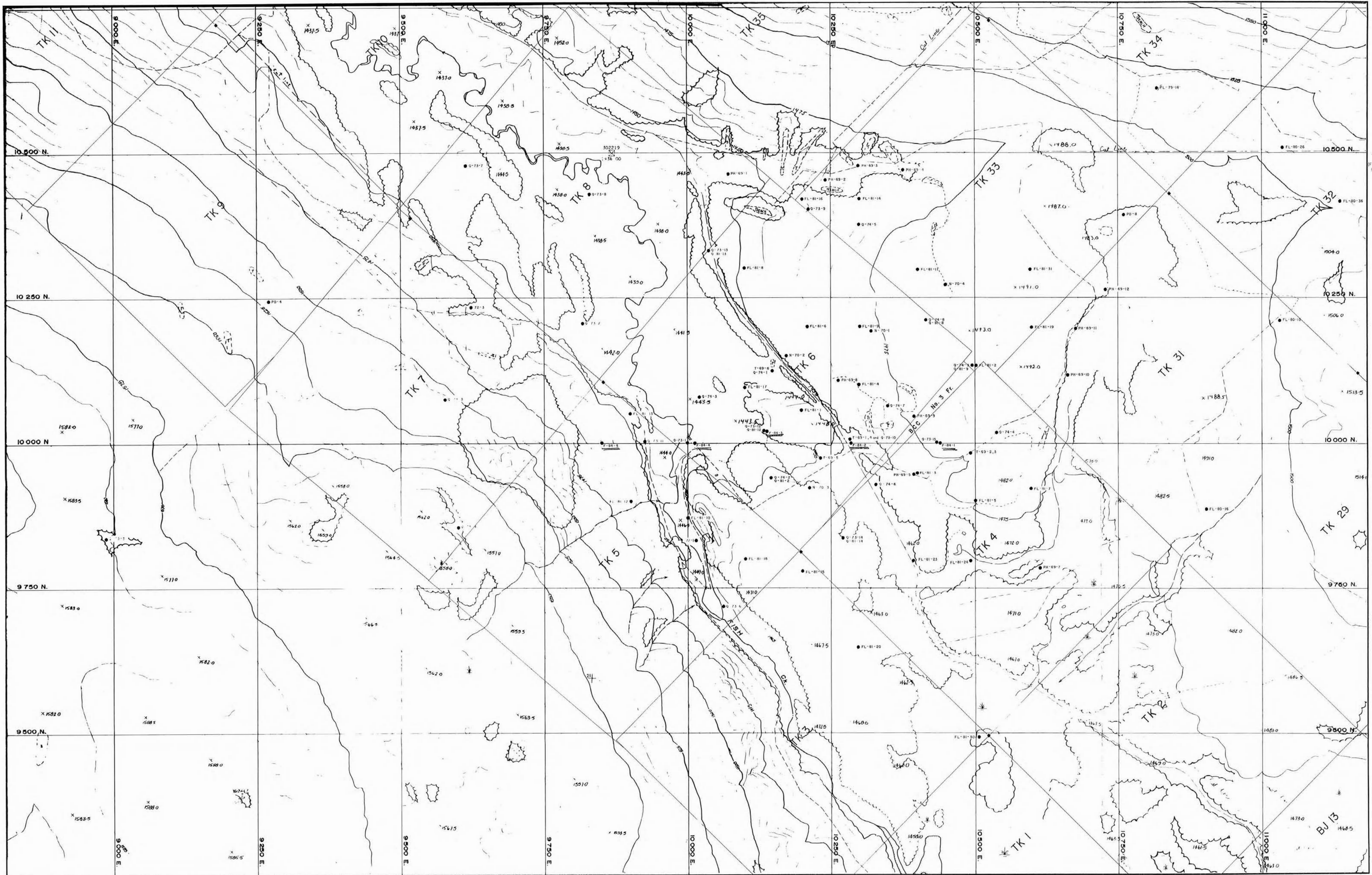
C.N.M. Plat
& Dip

Drill Hole Record



| | | | | |
|--------------|-----------|-----------|-----------|-------------|
| Property | FISH LAKE | District | Hole No. | F84-5 |
| Commenced | | Location | Tests at | Hor. Comp. |
| Completed | | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by | |
| Objective | | % Recov. | Date | |

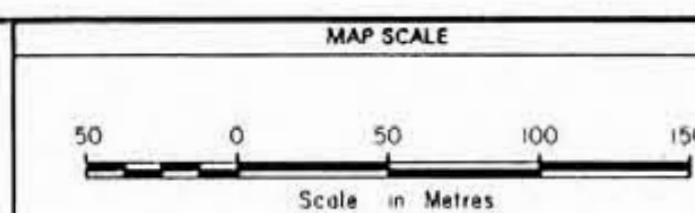
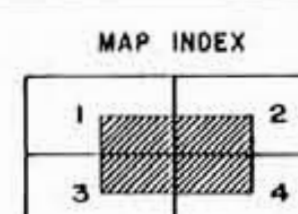
| Meterage From To | Description | Interval | Analysis | | Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|---------------------|---|-------------|----------|---------|-------|--------|------------|-------|--------|----------|-------|
| | | | Cu % | Au oz/T | | | | | | | |
| 100.0-167.0 | | 145.0-148.0 | 0.15 | 0.008 | | | | | | | |
| Continued | | 148.0-151.0 | 0.17 | 0.013 | | | | | | | |
| | | 151.0-154.0 | 0.26 | 0.035 | | | | | | | |
| | | 154.0-157.0 | 0.17 | 0.015 | | | | | | | |
| | | 157.0-160.0 | 0.23 | 0.009 | | | | | | | |
| | | 160.0-163.0 | 0.20 | 0.010 | | | | | | | |
| | | 163.0-166.0 | 0.22 | 0.011 | | | | | | | |
| | | 166.0-169.0 | 0.04 | 0.004 | | | | | | | |
| 167.0-178.0 | -Post Mineral Dykes as 55.9-68.2 m. | 169.0-172.0 | <.01 | <0.002 | | | | | | | |
| 192.0-203.5 | -Post Mineral Dykes as 55.9-68.2m. | 172.0-175.0 | <.01 | <0.002 | | | | | | | |
| | | 175.0-178.0 | <.01 | <0.002 | | | | | | | |
| 178.0-192.0 | -Bleached diorite as in parts 100 to 167 m. | 178.0-181.0 | 0.17 | 0.004 | | | | | | | |
| | -Disseminated chalcopyrite (0.5%) pyrite. | 181.0-184.0 | 0.14 | 0.009 | | | | | | | |
| | -Less veining than usual in bleached zones. | 184.0-187.0 | 0.15 | 0.011 | | | | | | | |
| | -Two quartz-sericite-carbonate-pyrite veins at 183 to 184, 0.3 cm wide each (py). | 187.0-190.0 | 0.15 | 0.025 | | | | | | | |
| | -Slickensides from 189.6 to 192.0 m. | 190.0-193.0 | 0.13 | 0.008 | | | | | | | |
| | | 193.0-196.0 | <.01 | <0.002 | | | | | | | |
| | | 196.0-199.0 | <.01 | <0.002 | | | | | | | |
| 203.5 | E.O.H. - Casing pulled. | 199.0-202.7 | <.01 | <0.002 | | | | | | | |



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,044

- DIAMOND DRILL SITE
- DRILL ROADS (Constructed and Reconstructed) FOR ACCESS
- INITIAL POST



| No | Date | MADE BY | DESCRIPTION |
|----|---------|---------|------------------------------|
| 1 | 22/4/79 | J.B.C. | COPY TO FORESTRY - ALEXIS C. |
| 2 | 3/9/78 | M.H.B. | SA. D.D.R. |
| 3 | | | |
| 4 | | | |
| 5 | | | |

| DATE | DRAWN BY | CHECKED | APPROVED |
|-----------|----------|---------|----------|
| Dec, 1980 | m.b. | | |

**BETHLEHEM
COPPER
CORPORATION**

OFFICE: VANCOUVER
DEPARTMENT: EXPLORATION

FISH LAKE PROJECT
DRILL HOLE LOCATIONS

| MAP INDEX NUMBER | SCALE | DRAWING NUMBER |
|------------------|--------|----------------|
| 13,044 | 1:2500 | |