

FINAL REPORT ON GEOPHYSICAL SURVEY AND DRILLING
ON THE
SILVER PROPERTY (SILVER 1,4,5,6,7 and 8)
OMINECA MINING DIVISION NEAR BURNS LAKE, B.C.
⁹³
92-K-6/W

LOCATION:

The central part of the claim is located at coordinates 54°, 26 minutes N latitude, 125° 25 minutes W longitude, approximately 60 km northwest of Burns Lake, B.C.

WORK PERIOD

October 1, to December 31, 1984

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,975

January 10, 1985

B. Y. Kim
Geologist
New Westminster, B.C.

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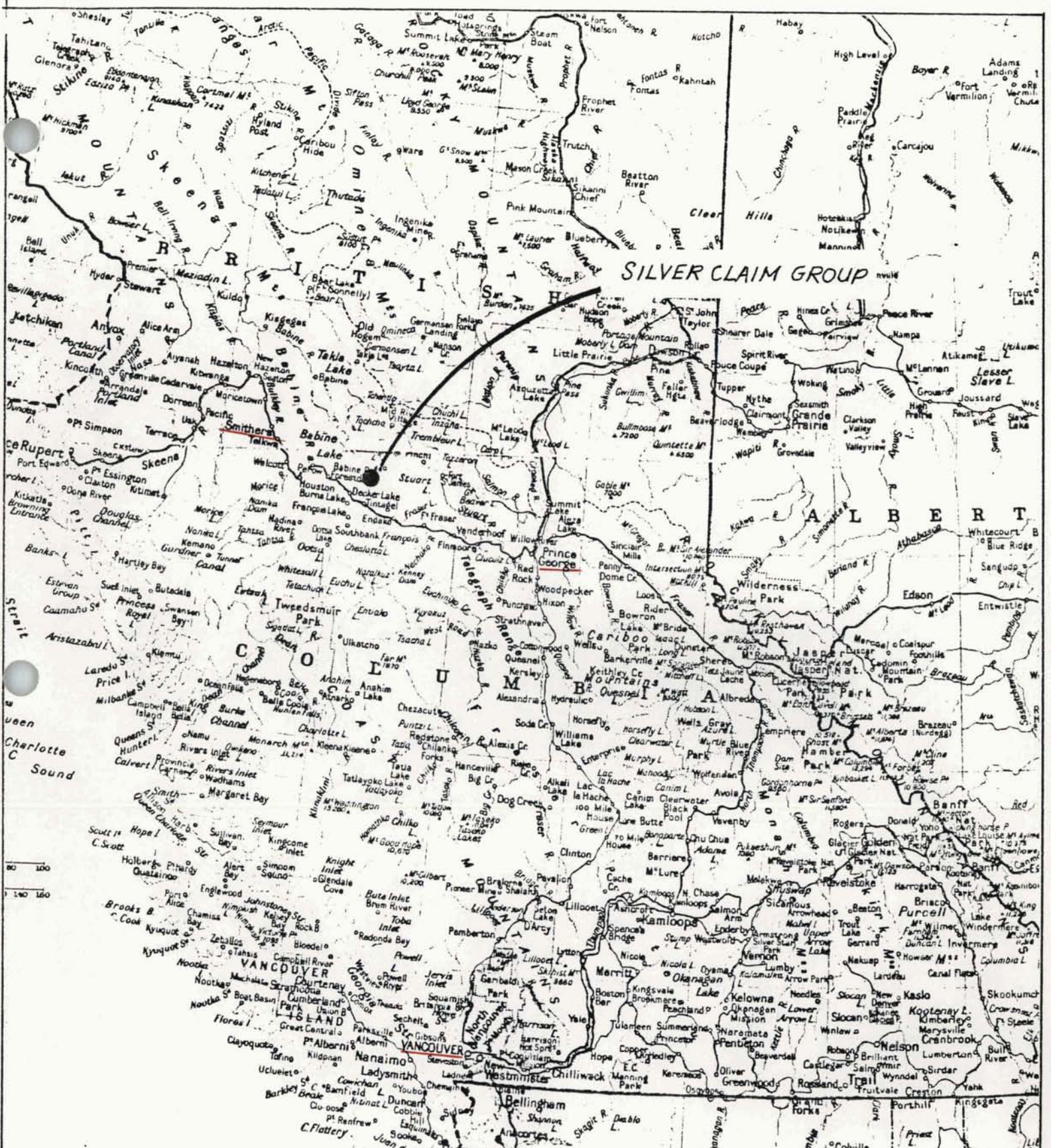
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SILVER CLAIM GROUP

TROYMIN RESOURCES LTD.

LOCATION MAP
Silver Claim Group

Date 10/1/85 Scale 1:5,000,000

Drwn by B.Y.K Drwg No. MAP-A

Gullwing Cr.

NORA
103(8)
2803E

N 6666
EAGLE
C 3
6666
EAGLE
C 3

SILVER 2
4829(10)
(1484W)

SILVER 3
4830(10)
(1588E)

Babine

Silver I.

SILVER 1
4828(10)
(1584W)

BELL 1 BELL 2
3763(5) 3764
(5)

Silver Island

BELL 3 BELL 4
3765(5) 3766(5)

No Staking
Min. or Placer
9/6 2nd July 7, 1984

SILVER 4
5870(10)
(1582E)

L 6285
L O

SILVER 6
5872(10)
(1638E)

SILVER 7
5873(10)
(1638E)

SILVER 8
5874(10)
(1638E)

SILVER 5
5871(10)
(1638E)

WIND 1

L 4097
C.G.
L 4098
4987(2)

ALSO:
BETSY BURDEIGH
3333A(10)

3333(10)

TROYMIN RESOURCES LTD.

INDEX MAP

Silver Property

Date Oct. 1 / '84 Scale 1:50,000

Drwn by BYK Drwg No. Map-3

N 8358
SONY
C 12
6385
SONY
SONY
13

I SUMMARY

- i) The 1984 prospecting program on the Silver claim group consisted of a geophysical survey (VLF EM survey) and diamond drilling (6 holes 3,458 ft. in total).
- ii) The geophysical survey revealed numerous northeast trending anomalies.
- iii) Six of the highest grade anomalies were drilled, all at a -50° angle and to an average depth of 580 ft., with no significant mineralization being encountered.
- iv) One of the most interesting anomalies, under the lake near Silver Island, could not be drilled because there was no ice.

II INTRODUCTION

The Silver claim group, located approximately 60 km northeast of Burns Lake, B.C. consists of six original M.G.S. claims (88 units in total) which were staked in October 1983.

The 1984 program conducted on the Silver claims was initiated as a result of a reconnaissance EM survey carried out in March 1984. The survey located a number of significant anomalies in the drift-covered area. A detailed EM survey was, therefore, carried out and was followed by a drilling program during December of 1984.

i) Location, Access and Physiography

The Silver claim group is situated at coordinates $50^\circ 26'$ N latitude, $125^\circ 25'$ W longitude (N.T.S. 92K/6W) in Omineca Mining Division, B.C. The claims are located around Silver Island, a small island in the southern part of Babine Lake, and immediately south of the island on the mainland. (Map 3)

The area is easily accessible by any motor vehicle from Burns Lake. The driving distance is approximately 60 km on gravel road which is well maintained by Federal Fisheries Pinkut Creek Hatchery.

The claims are centred on the south shore of Babine Lake in an area of gentle relief with many small lakes and swamps. Vegetation consists mainly of immature pine, spruce and aspen with moderate underbrush.

ii) Property Status

The original property consists of six M.G.S. claims (88 units in total) that were staked and recorded in October 1983. (Map-3).

<u>Claim Name</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Record Date</u>
Silver 1	20	4828 (10)	October 1983
Silver 4	6	5870 (10)	October 1983
Silver 5	8	5871 (10)	October 1983
Silver 6	18	5872 (10)	October 1983
Silver 7	18	5873 (10)	October 1983
Silver 8	18	5874 (10)	October 1983

iii) History of Work Done

Although the area had been staked many times, there is no record of prospecting activities. A few small trenches have been noticed near the southern shore of the Babine Lake.

The objective of Troymin Resources Ltd.'s 1984 program was to define the nature of widespread geophysical anomalies detected by the government airborne magnetometer survey and a subsequent reconnaissance EM survey.

During Oct. 1 - Dec. 31, 1984, Troymin Resources Ltd. conducted an exploration program which consisted of:

- i) Ground EM survey - a detailed survey of the central part of the claim block, approximately 2.5 x 3.5 Km.
- ii) Diamond drilling of 3.458 ft. (1054^M) in six holes.

III GEOLOGY

Most of the claim area is underlain by regionally metamorphosed volcanic rocks and minor clastic sediments belonging to Late Paleozoic Cache Creek group and minor intrusive rock on the south-eastern corner of the claim area. The intrusive rock belongs to Topley intrusions probably of pre-Jurassic and post-Permian age (J.E. Armstrong 1965).

Since the central area of claim group is extensively covered by drift, no geological study could have been done. More than 3,000 ft. of drill core from the present work furnished the valuable geological information which is described below.

The metamorphosed rock consists largely of greenschist originating from an andesitic volcanic unit and composite gneiss with variable degrees of metamorphism. The degree of metamorphism is spatially associated with the intimate intrusion of various igneous bodies. This contact type metamorphism is considered to be a succeeding episode of the regional greenschist phase.

1) Lithology

The following lithological units are established from distinctive rock types seen in the drill core.

i) Greenschist - Schist (Paraschist)

In handspecimen from the drill core the greenschist is gray to dark greenish gray, mostly fine grained, foliated andesitic rock. Texture, grain size and degree of foliation are all quite variable.

In extreme the rock appears to be just massive andesite but usually well foliated chloritic greenschist with local concentration of epidote.

ii) Diorite

The southeastern corner of the claim block has been mapped as diorite (J.E. Armstrong 1965). The diorite drill core is predominantly coarse grained, idiomorphic to hypidiomorphic textures. The principal minerals are hornblende (\pm 40%) and plagioclase (\pm 50%). The zonal change of the diorite is so severe and abrupt that its appearance is locally pegmatitic. This unit appears to be post-metamorphism since no obvious foliation has been developed.

iii) Orthogneiss (Granodiorite-Diorite dykes and sills)

Felsic igneous rocks with gneissic textures ranging from a biotite gneiss to a weakly foliated leucocratic dyke are quite common throughout the drill core. These orthogneisses are so intimately and frequently intercalated in the gradational contact with greenschist unit that a more detailed classification is difficult.

iv) Basic Dyke

A late stage basic dyke occurs in DDH 84-5. It is a fine grained dark gray lamprophyritic dyke with porphyritic texture. Fine, sparse hornblende phenocrysts are scattered in fine to aphanetic dark gray groundmass. This occurrence might be related to the above diorite intrusion, possibly as a small off-shoot of the body.

ii) Structure and Metamorphism

The most prominent topographical lineation trends northeasterly to easterly. Most of the geophysical (electromagnetic) anomalies coincide with these trends. Previous regional study on glaciation (J.E. Armstrong) indicates the trend is the same for glacial movement. Bedrock exposures are entirely lacking for local structural study.

A prominent fault structure has been disclosed by drilling (DDH 84-4). The hole has penetrated a major broken and gouged zone with a drilling width of 120 M. This wide fault zone contains abundant fragments of various size which was reconsolidated with multiple-stage quartz-calcite veining. It is not clear whether this structural feature also trends northeasterly coinciding with the surface lineation.

Metamorphism is shown by a variable assemblage of metamorphic minerals and development of foliation. Principally there are two lithological units of metamorphic rock.

- i) Greenschist - Schist - Amphibolite
- ii) Gneiss (orthogneiss)

These two different types are mainly predetermined by the type of original rocks.

Regional metamorphism, prevailing over all types of rock in the drill core except diorite and basic dyke, is generally weak and greenschist phase. In addition to this regional metamorphism, some greenschists exhibit contact type metamorphism in their relation with the diorite bodies of the Topley intrusion. The contact metamorphism which is observed in DDH 84-1 and 84-2 is locally demonstrated with strong clusters of epidote and minor magnetite.

iii) Mineralization

Pyrite is the only common metallic mineral in the drill core. Local concentration of pyrite associated with epidote-magnetite in contact metamorphic environment were noticed and sampled for assay, but results were not encouraging.

A few specks of chalcopyrite, tetrahedrite and molybdenite were recognized in the drill core.

IV GEOPHYSICS

Approximately 90 line Km were surveyed using a Phoenix VLF(2) EM. Most of the survey stations were established on chain-saw cut line and readings were taken every 50 M for initial survey. More detailed surveys were carried out for the selection of drill targets. (Map - 1 and 2) Geophysical work is described in a separate report by James M.L. Brown.

V. DRILLING

The six most highest grade anomalies, based on the EM survey, were drilled with -50° angle holes down to depths of 440 to 600 ft. (Map-3, Figures 2-8) The drilling contract was awarded to Coates Enterprise Ltd. which company completed 3,458 ft. of drilling during the period of Dec. 4 - Dec. 29, 1984.

The work procedure was as follows:

<u>Hole No.</u>	<u>Total Depth</u>	<u>Date Started</u>	<u>Date Completed</u>
DDH 84-1	554 ft. (168.86 ^M)	Dec. 4, 1984	Dec. 7, 1984
2	576 (175.57 ^M)	Dec. 7, 1984	Dec. 10, 1984
4	556 (169.47 ^M)	Dec. 10, 1984	Dec. 13, 1984
7	601 (183.19 ^M)	Dec. 14, 1984	Dec. 19, 1984
6	586 (178.61 ^M)	Dec. 20, 1984	Dec. 24, 1984
5	585 (178.00 ^M)	Dec. 24, 1984	Dec. 29, 1984

The widespread minor pyrite in regionally metamorphosed rock along with local magnetite-pyrite in contact metamorphic environment is considered the cause of anomalies. The prominent fault zone disclosed in DDH 84-4 may also be the source of anomalies. (Map 2, Appendix - Drilling log)

VI CONCLUSION

- i) The 1984 program on the Silver property delineated a large number of geophysical (EM) anomalies trending northeast.

- ii) Drilling at six selected sites verified the regional and contact metamorphism but gained no encouragement in metallic mineralization.

- iii) The geophysical anomalies were not completely tested. Various types of anomalies with higher intensity have been drilled with negative results, but there are at least 9 other significant anomalies left to drill as well as the anomaly extending out from Silver Island.

VII REFERENCE

- (1) Armstrong, J.E. (1965)
Fort St. John Map-Area G.S.C. Memoir 252

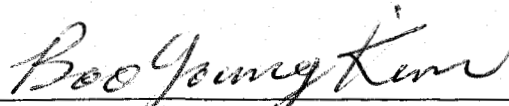
STATEMENT OF EXPENDITURES

(Project on Silver claims - 1984)

Drilling	\$ 66,552.11
Transportation and Truck Rental	3,500.00
Geological Supervision	4,500.00
Room and Board	1,800.00
Assays	<u>970.00</u>
TOTAL	\$ 77,322.11

I certify the above expenditure to be a true and accurate account of expenses incurred.

Dated on October 27, 1984


Boo Young Kim, Geologist

C E R T I F I C A T E

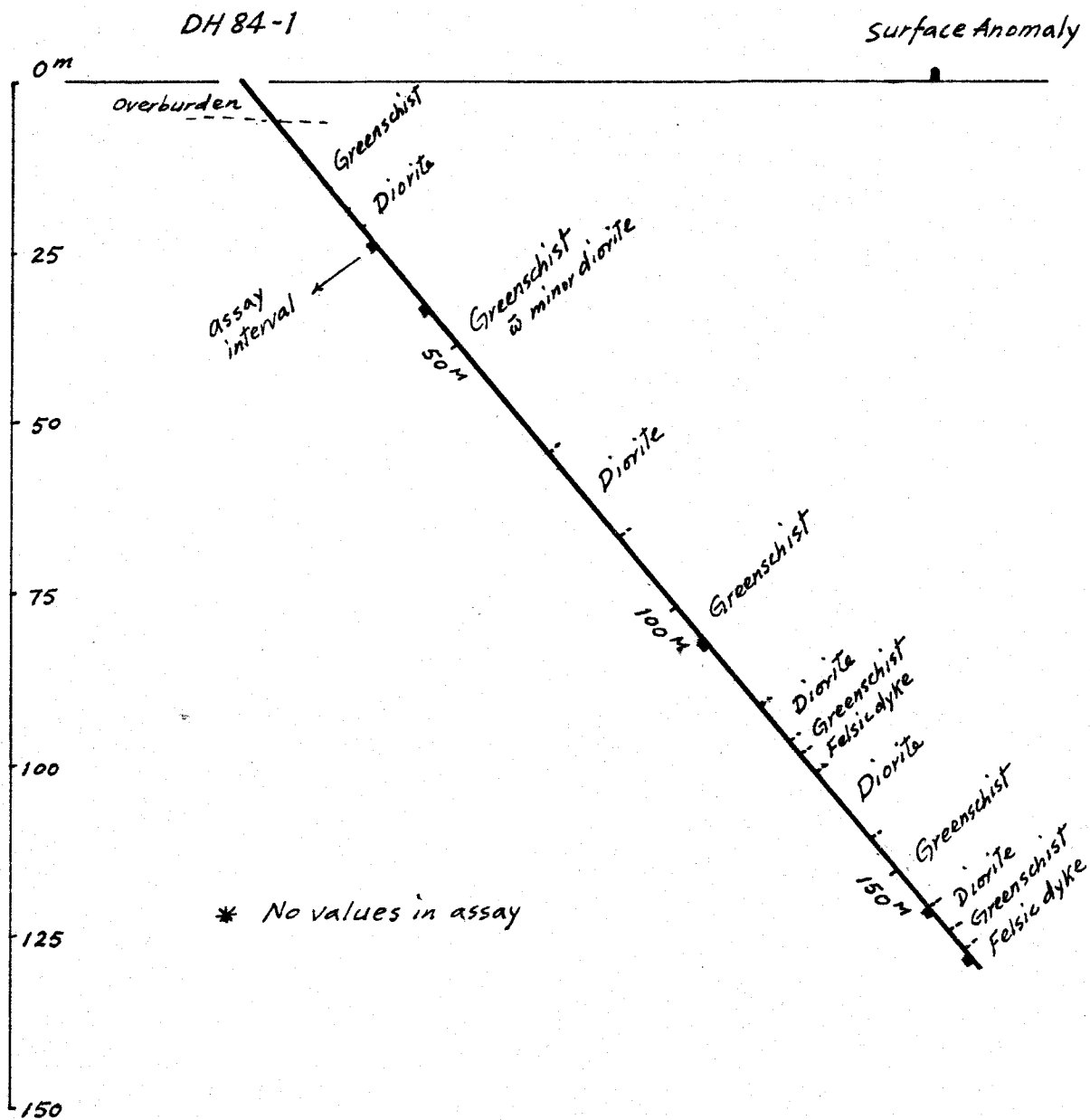
I, Boo Young Kim, of the City of New Westminster, in the Province of British Columbia, certifies as follows:

1. That I am a geologist, residing at 222 Ash Street, New Westminster, B.C.
2. That I have practised my profession continuously since graduating in 1964 with B.Sc. in Geology from Seoul National University in Seoul, Korea.
3. That I have continuously engaged in mining exploration work in Canada, U.S.A. and Spain-Portugal, for the past nineteen years.
4. That I have no interest in the property herein described.

DATED at New Westminster, British Columbia, this 28th day of January 1985.

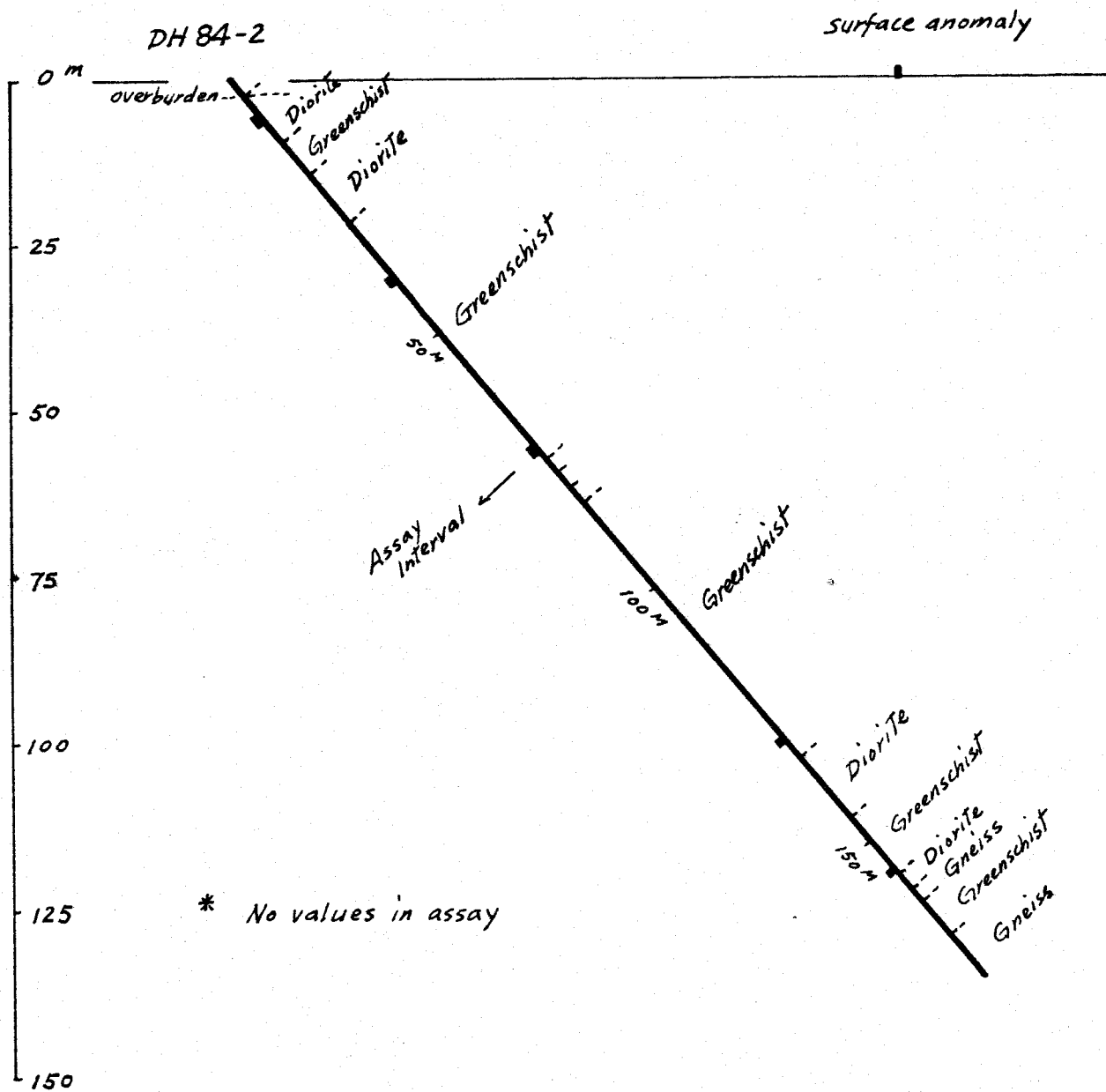


Boo Young Kim



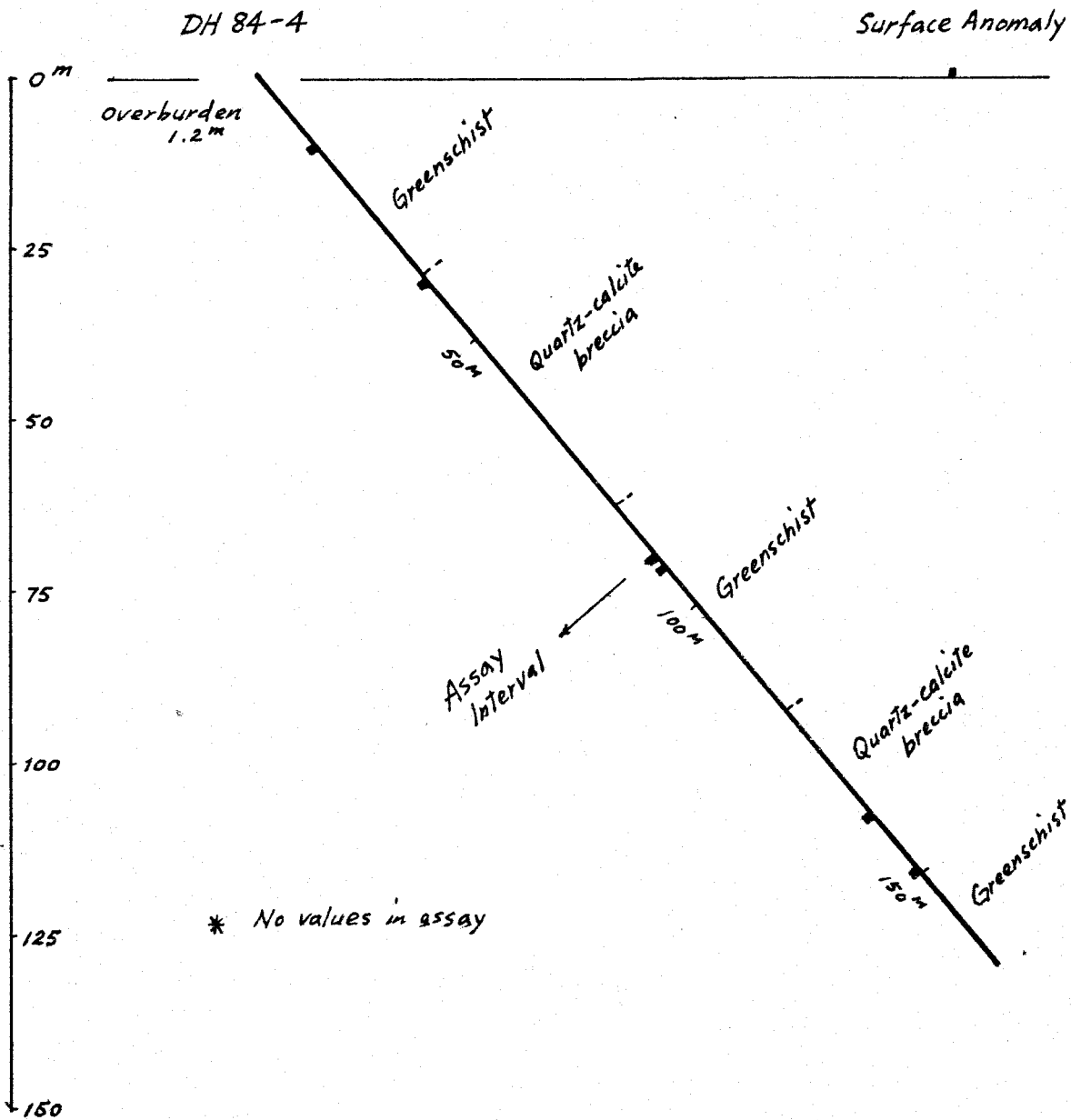
Drill Hole Section (looking S.W)

Hole No. 84-1
 Direction N 45° W
 Angle -50°
 Depth 168.86 M



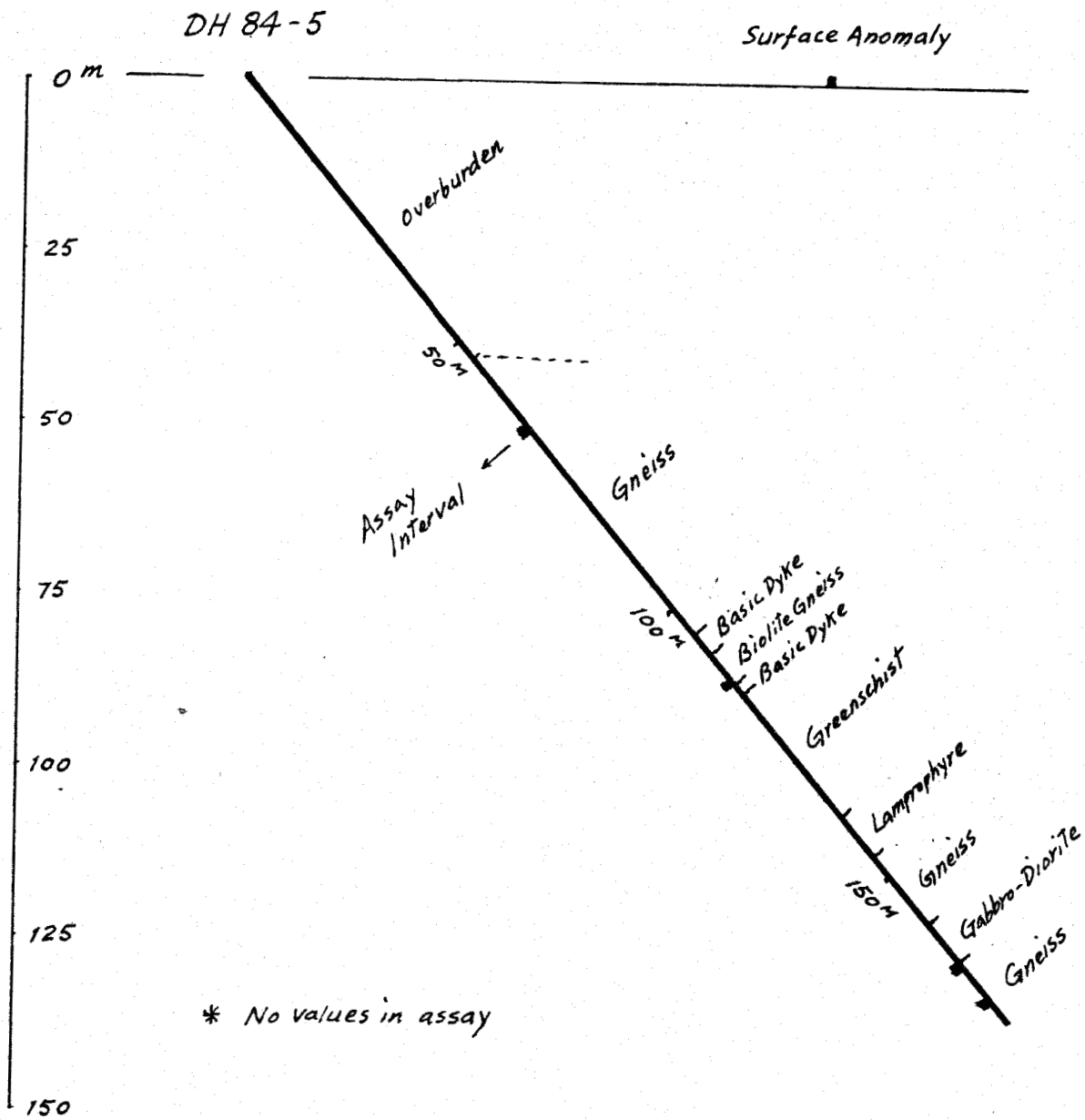
Drill Hole Section (looking S.W.)

Hole No. 84-2
 Direction N 45° W
 Angle -50°
 Depth 175.57 M



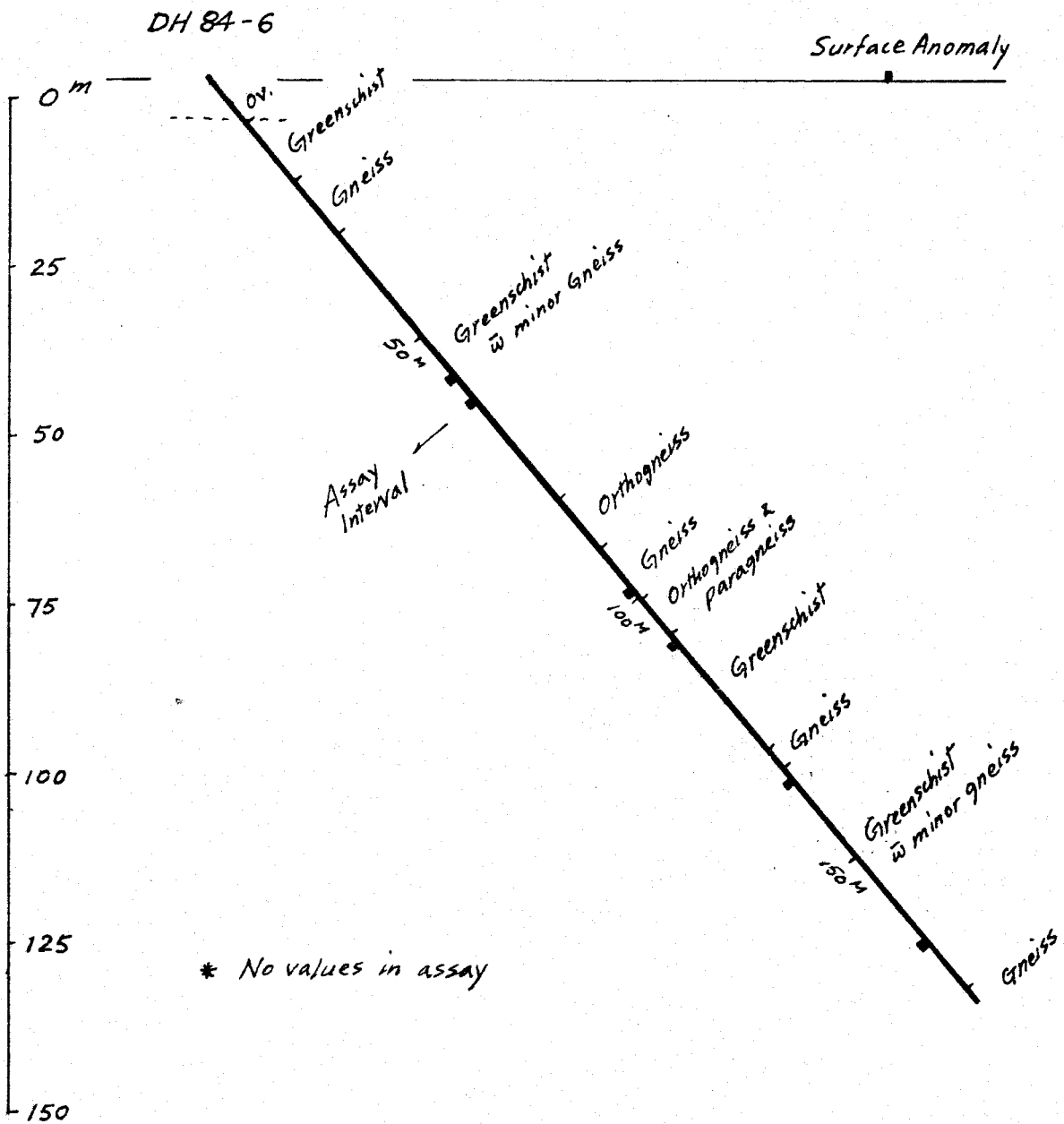
Drill Hole Section (looking S.W)

Hole No. 84-4
 Direction N 45° W
 Angle -50°
 Depth 169.47 M



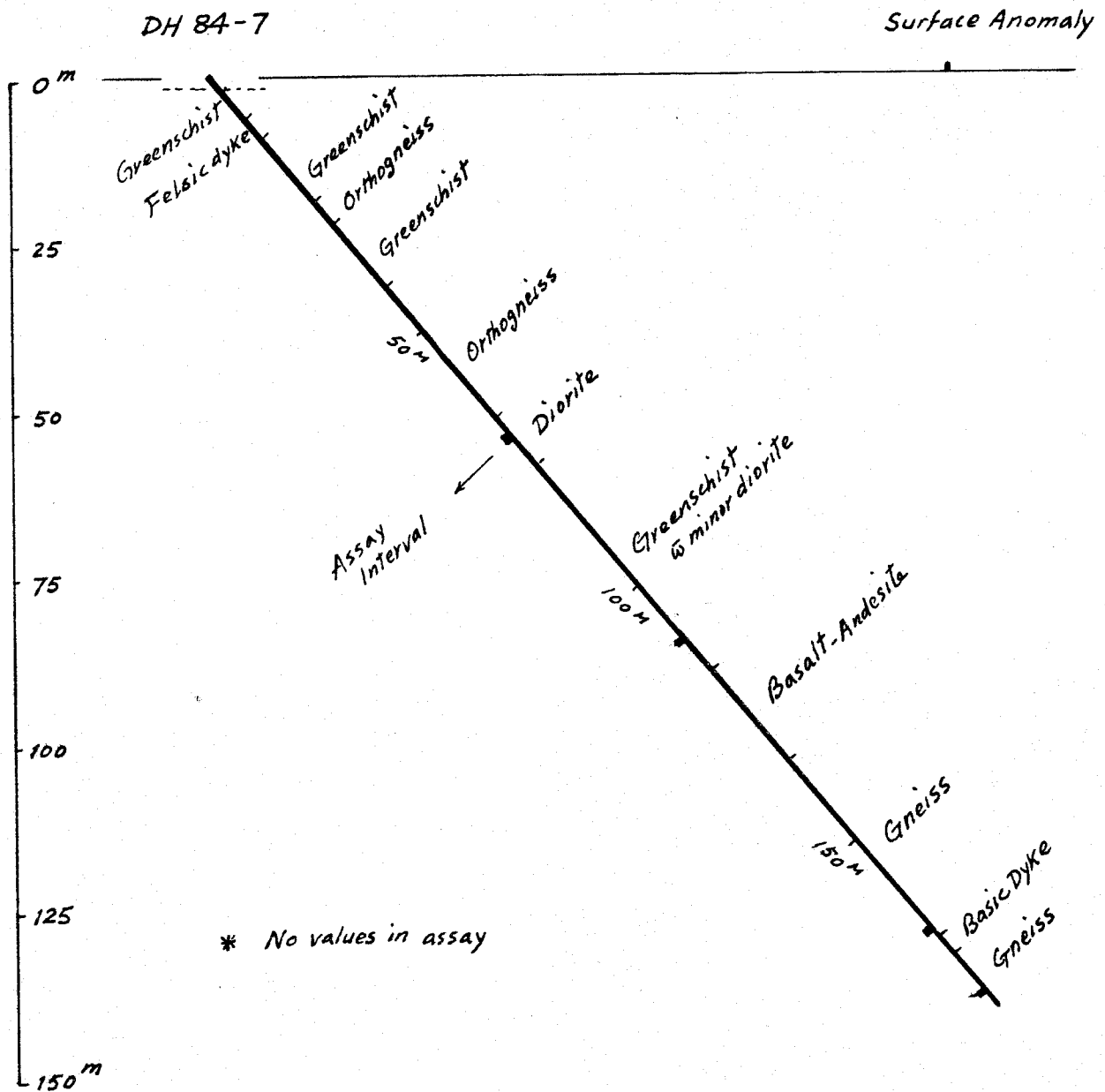
Drill Hole Section (looking S.W)

Hole No. 84-5
 Direction N45°W
 Angle -50°
 Depth 178.00^M



Drill Hole Section (looking S.W.)

Hole No. 84-6
 Direction N45°W
 Angle -50°
 Depth 178.61 M



Drill Hole Section (looking S.W.)

Hole No. 84-7
 Direction N45°W
 Angle -50°
 Depth 183.19 M

DIAMOND DRILL LOG

CLAIM: Silver

LOCATION: Burns Lake, B.C.

MINING DIVISION: Omineca

HOLE NO: 84-1

ANGLE: -50° DIRECTION: $N 45^{\circ} W$ DEPTH: 168.86^M

GRID NO:

CO-ORDINATES: 1460 S + 2380 E

DATE STARTED: Dec. 4 1984 FINISHED: Dec. 7 1984 LOGGED BY: B. Y. Kim

DRILLED BY: D. W. Coates Enterprises Ltd.

DEPTH		DESCRIPTION OF CORE
FROM	TO	
0	9.5	Overburden
9.5	25.3	Greenschist <p>Gray to dark greenish gray, fine grained, variably foliated andesitic greenschist with abundant chlorite. Minor epidote patches and fractures. Variable in texture, grain size and frequent alternating change. Besides pervasive chlorite-epidote, many types of stockwork-like veinlets & stringers with minor alteration envelope (epidote-chlorite-calcite-quartz). Pyrite content is minor. Oxidation is only restricted on fracture faces with usual hematite staining.</p> <p>9.45 - 14.78 Andesitic greenschist with frequent short intervals of coarse to fine grained, gray to dark greenish gray diorite, usual criss-crossing veinlets of 45° to core axis.</p> <p>14.78 - 15.12 Quartz vein, milky white, barren.</p> <p>15.12 - 18.59 Andesitic greenschist</p> <p>18.59 - 25.30 Broken zone, reconsolidated with</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE No:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
25.30	28.04	<p>quartz-calcite veinlets (minor breccia texture) Slip faces are usual, Rare sulphide (pyrite). Diorite Coarse, idiomorphic with abundant large hornblende (giving breccia appearance) Pegmatitic due to sharp zonal change with large hornblende and quartz-feldspar.</p>
28.04	31.24	<p>Greenschist Same as above greenschist, Broken & weakly brecciated with late stage quartz veining. Local heavy sulphide (pyrite) fingers concordant to schistosity</p>
31.24	39.32	<p>Greenschist & Diorite Near-contact alternating zone of the above two types of rock, Local massive pyritic fingers. Occasional quartz-felsitic dykes & veins Minor breccia texture due to large crystals in diorite with criss-crossing quartz vein.</p>
39.32	41.91	<p>Greenschist Similar to above andesitic greenschist, Locally</p>

DIAMOND DRILL LOG

CLAIM

LOCATION:

MINING DIVISION

HOLE No:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
41.91	61.57 ^M	<p>Well-foliated ($\pm 60^\circ$ to core axis). Fractures of calcite-chlorite cross-cutting the foliation.</p> <p>Greenschist & Diorite</p> <p>Massive core with abundant epidote-chlorite, locally brecciated (tectonic breccia). Occasional heavy magnetite blebs (48.00^M of hole depth) associated with epidote. Contact metamorphic environment is prevailing.</p> <p>Usual large euhedral hornblende in dioritic zone. Minor massive pyritic fingers along with weak pervasive dissemination.</p> <p>(sampled for assay 42.37 - 43.59)</p>
61.57	70.26 ^M	<p>Greenschist</p> <p>Same as the above greenschist.</p> <p>Well-foliated, 20-30° to core axis. Frequent injected arm of dioritic rock. Abundant hair-line to 1 cm epidote fractures.</p>
70.26	87.48 ^M	<p>Diorite</p> <p>Similar to above diorite, abundant epidote on fractures.</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE NO:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		<p>Very coarse to pegmatitic section at 71.32 , 77.12 - 78.33 .</p> <p>Near-vertical (to core axis) vuggy quartz at 77.12^M</p> <p>Near-vertical calcite fracture and drusy calcite with thin envelope of hematite at 79.55 - 79.86</p> <p>Finer grained 79.86 - 87.48 , poorly defined zonal change .</p>
87.48	119.74	<p>Greenschist</p> <p>Fine grained to aphanetic , andesitic , locally broken due to abundant slip faces of calcite- chlorite-hematite , Pyrite content is minor except fair amount (less than 1%) of large cubes 114 - 119.74^M . Foliation weak , $\pm 60^\circ$ to core axis . Occasional quartz-aplite vein</p> <p>Black aphanetic dense basalt-andesite 32.92 - 33.71^M .</p> <p>Near-horizontal (to core axis) calcite-epidote with associated pyrite stringers 106.38 - 107.90^M (sampled for assay)</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE NO:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
119.94	125.58	<p><i>Diorite</i></p> <p>Same as above coarse diorite, consisting mostly of hornblende (weakly chloritized) and feldspar with strong fracture epidote. Abrupt zonal change with obvious contact (intrusion) between greenschist & diorite at 125.58 M. Calcite fractures usual, Pyrite content is minor. Aplitic veining at 399.5 M.</p>
125.58	127.71	<p><i>Greenschist</i></p> <p>Fine grained andesitic, strong epidote-chlorite with minor late-stage calcite fractures. Pyrite content is minor occurring as dissemination and on fractures with epidote.</p>
127.71	131.37	<p><i>Felsic dyke</i></p> <p>Light pinkish white, mostly of feldspar (minor K-spar) and minor quartz. Usual calcite fractures and minor pyrite on fractures. Very minor magnetite.</p>
131.37	135.8	<p><i>Greenschist</i></p> <p>Similar to above greenschist at 125.58 - 127.71 M.</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION:

HOLE NO.:

ANGLE:

DIRECTION:

DEPTH:

GRID No.:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		Stronger (than ever) magnetite fracture with epidote (contact metamorphism) Pyrite content is very minor
135.8	136.7	Felsic dyke Same as above dyke at 127.71 - 131.37 M
136.7	144.0	Diorite Similar to above diorite. Textures very variable, strong epidote-chlorite throughout. Gradational contact (assimilated) to darker greenschist. Very minor pyrite. A speck of molybdenite in coarse grained (pegmatitic) zone at 458 ft (139.6 M)
144.0	157.2	Greenschist Similar to above greenschist. 145.70 - 147.52: broken and weakly gouged (core recovery ± 70%) Poorly defined aplitic dyke vein 149.5 - 150 M

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE No:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
157.2	162.2	<p><i>Diorite</i></p> <p><i>Hornblende-rich, more uniformly granular than above occurrences. Usual epidote fractures mostly 70-90° to core axis.</i></p> <p><i>Short broken zone with fault gouge at 161.1 M</i></p>
162.2	166.0	<p><i>Greenschist</i></p> <p><i>Similar to above schist (greenschist). Slightly darker with strong chlorite-epidote. Very minor pyrite.</i></p>
166.0	168.86	<p><i>Dyke (Gneissic granodiorite - diorite)</i></p> <p><i>Gray white, fine to medium grained with gneissic textures. Occasional dark-colored inclusions of greenschist.</i></p> <p><i>Obviously different from the above hornblende-rich diorite</i></p> <p><i>Weak fracture-controlled alteration where more broken.</i></p> <p><i>Steeply-dipping ($\pm 20^\circ$ to core axis) quartz-calcite veining is usual. Pyrite content is minor and insignificant.</i></p>

DIAMOND DRILL LOG

CLAIM: Silver

LOCATION: Burns Lake, B.C.

MINING DIVISION: Omineca

HOLE NO: 84-2

ANGLE: -50°

DIRECTION: N45°W

DEPTH: 175.57^M

GRID NO:

CO-ORDINATES: 1670 S + 1970 E

DATE STARTED: Dec. 7 1984 FINISHED: Dec. 10 1984 LOGGED BY: B. Y. Kim

DRILLED BY: D. W. Coates Enterprises Ltd.

DEPTH		DESCRIPTION OF CORE
FROM	TO	
0	3.10 ^M	Overburden
3.10 ^M	5.60 ^M	Diorite gray to dark greenish gray, granular hornblende diorite, variable in grain size and texture. Abundant euhedral to subhedral hornblende up to 3 cm long. Poorly defined assimilated contact with frequent dyke swarm and occasional inclusions. Abundant magnetite disseminations and local heavy magnetite bands associated with epidote fractures. Pyrite content is minor and insignificant. Oxidation is minor, restricted on fracture faces down to 19.50 ^m A near-vertical (to core axis) quartz-calcite vein makes the sharp contact with underlying greenschist.
5.60	10.30 ^M	Greenschist Greenish gray, foliated, andesitic with variable texture. The variation is mainly due to intrusion of dioritic dyke. Strong chlorite-epidote throughout. Thin carbonate-hematite fractures.

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE No.:

ANGLE:

DIRECTION:

DEPTH:

GRID No.:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		<p>A lobe of tetrahedrite at 7.3^m (sampled for assay) associated with felsic dyke.</p> <p>Broken core with frequent oxidized slip faces with carbonate coating.</p> <p>Felsic dyke swarm at 7.70-8.40, 8.8 & 10.3^m.</p>
10.30	13.60 ^m	<p>Diorite</p> <p>Same as above diorite (3.1-5.6^m). Frequent flat-lying (to core axis) epidote fractures with magnetite envelope. Minor pyrite as dissemination and on fracture faces.</p>
13.60	19.50 ^m	<p>Greenschist</p> <p>Well-foliated, dark greenish gray to light gray. Abundant carbonate fractures cross-cutting the banded texture. black-green slipped fractures due to crushed carbonate-chlorite with minor smeared sulphide (pyrite)</p>
19.50	29.30	<p>Diorite</p> <p>Same as above diorite, locally very coarse idiomorphic hornblende gives a breccia appearance.</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE No:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
27.30	74.70	<p>A few specks of tetrahedrite on felsic vein around the lower contact. Only insignificant pyrite in minor amount.</p> <p>Greenschist</p> <p>Light gray to gray, mostly foliated, variable from massive andesitic to well-banded gneissic. Gneissic section may be originated from sedimentary unit. Weakly broken due to dark-colored slip faces, criss-crossing quartz and/or calcite veinlets are usual.</p> <p>Very minor disseminated pyrite with only occasional pyrite-rich bandings (sampled 38.58 - 40.08 M)</p> <p>Fine grained epidote-rich sharp greenish gray andesitic greenschist (40.10 - 50.50 M)</p> <p>Well-developed gneissosity from 50.5 M. Usual alternating core between gray gneissic type and chlorite-epidote-rich massive greenish type.</p> <p>A near-vertical calcite vein (3 CM thick) with horsetails carrying dark crushed and slipped pyrite envelope at 73 M.</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION:

HOLE No:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
74.7	77.0	<p>Felsic dyke (aplite)</p> <p>Slightly pinkish white with very minor crushed pyrite on steeply-dipping (to core axis) slipped fracture.</p>
77.0	79.6	<p>Greenschist</p> <p>Similar to above, mixture of the above two types - andesitic and gneissic, weakly foliated, gray to dark greenish gray. Strong epidote and minor disseminated pyrite.</p>
79.6	83.5	<p>Diorite</p> <p>Not so coarse grained as above diorites. Broken at 82.30^M with minor calcite breccia. Pyrite is very minor.</p>
83.5	133.7	<p>Greenschist</p> <p>Light gray to gray, foliated with frequent quartz-aplitic vein or dyke, locally broken and altered to greenish tinted clay. Insignificant & rare pyrite.</p> <p>10^{CM} black chert intercalated at 86.72.</p> <p>Quartz-aplitic veins at 85.04 - 86.26, 88.09 - 88.39, 90.22 - 90.83, 103.63 and many small occurrences.</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE No:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		<p>Sections which are originated from sedimentary unit show less pyrite than andesitic schist or gneissic diorite.</p> <p>Stronger epidote 96.01 - 98.76, Granitic dyke swarm around 106 & 107.5^M</p> <p>3 CM gouge at 108.2^M, Soft (light green in color) chlorite-carbonate with flat-lying banded texture.</p> <p>Sharp foot-wall contact with andesite schist, contact 80° to core axis.</p> <p>Fine grained apple-green greenschist 110.03 - 116.43, more pyrite than usual. Granitic dyke at 110.34 & 116.43^M, coinciding with the above contacts</p> <p>Below 116.43 dark gray greenschist predominant, variable in texture, content of epidote & calcite veining. Minor disseminated pyrite with rare heavier pyrite on fractures. Epidote fractures are usual throughout.</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION:

HOLE No.:

ANGLE:

DIRECTION:

DEPTH:

GRID No.:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		<p>Granitic dyke 124.05 - 125.27, showing well-developed gneissosity.</p> <p>Occasional short interval of felsic bands down to 131.06 M, probably associated with the above granitic dyke.</p> <p>Minor pyrite-rich banding at 130.15 M.</p> <p>Random-oriented calcite veining usual, some are near-vertical (to core axis) and well-defined.</p> <p>Distinctive pyrite cubes on footwall contact of a well-defined quartz vein.</p> <p>Overall pyrite content is minor and insignificant, much less than 1% in volume.</p>
133.66	146.30 ^M	<p>Diorite</p> <p>Partially assimilated inclusions of dark-colored andesitic schist, Variable textures.</p> <p>Abundant hornblende (70%), pervasively and weakly chloritized (locally strong)</p> <p>Abundant epidote on fractures. Pyrite content</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE No:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		is minor.
		145.2 - 145.9 ^M quartz-feldspar (felsitic) vein with hairline cracks, barren and containing inclusions of diorite.
146.30	156.52	<p>Greenschist & Diorite</p> <p>Dark greenish gray, fine grained greenschist in frequent contact with the above diorite. Pyrite content is very minor.</p>
		Gneissic 147.98 - 148.74 with gneissosity 60 - 70° to core axis.
		Breccia texture due to assimilated by minor dyke 147.98 - 152.10 M.
		Quartz-feldspar (pegmatitic) vein 154.99 - 155.75 ^M with minor pyrite and a few specks of chalcopyrite.
156.52	158.80	<p>Diorite</p> <p>Similar to above diorite at the top of hole. Hornblende-rich, wide variation in grain size.</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE No:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		texture & degree of assimilation, Weak foliation, Very minor amount of pyrite, Epidote fractures are common.
158.80	161.54	<p>Greenschist</p> <p>Usual dark gray - greenish gray andesitic greenschist with weak foliation, Usual epidote & local carbonate fractures. Minor insignificant pyrite.</p>
161.54	167.34	<p>Gneiss</p> <p>Light gray, well-foliated (60° to core axis). Dark-colored inclusion near the bottom contact. Likely to be originated from felsic dyke rock. Minor aplitic sections, Rare and insignificant pyrite.</p>
167.34	168.25	<p>Greenschist</p> <p>Same as above greenschist at 158.80 - 161.54 M. Intimately intruded by felsic dykes. Only very occasional pyrite.</p>
168.25	169.01	<p>Gneiss</p> <p>Same as the above gneiss at 161.54 - 167.34</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION:

HOLE No:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
169.01	171.30	<p><i>Diorite & minor greenschist</i></p> <p><i>Variable type of rock, change is gradational and obscure due to intimate intrusion and metamorphism.</i></p>
171.30	173.28	<p><i>Gneiss</i></p> <p><i>Same as the above gneiss</i></p>
173.28	175.57	<p><i>Gneiss (low grade composite gneiss)</i></p> <p><i>Mixed section of the above 3 types of low grade metamorphic rock. Rare pyrite.</i></p>

DIAMOND DRILL LOG

CLAIM: Silver

LOCATION: Burns Lake, B.C.

MINING DIVISION: Omineca

HOLE NO: 84-4

ANGLE: -50° DIRECTION: $N 45^{\circ} W$ DEPTH: 169.47^M

GRID NO: -

CO-ORDINATES: 1480 S + 870 E

DATE STARTED: Dec. 10 1984 FINISHED: Dec. 13 1984 LOGGED BY: B. Y. Kim

DRILLED BY: D. W. Coates Enterprises Ltd.

DEPTH		DESCRIPTION OF CORE
FROM	TO	
0	1.22 ^M	Overburden
1.22	38.41 ^M	Greenschist <p>Greenish gray to dark greenish gray, fine grained well-foliated greenschist with abundant crisscross calcite fractures, mostly made up of alteration chlorite-calcite. Occasional quartz veining of variable thickness, mostly concordant to foliation (foliations $50 - 70^{\circ}$ to core axis) Oxidation is minor, only fracture-limited down to 10.67^m. Very weak oxidized staining around 22.5^m of the hole depth. Pyrite occurrence is very minor throughout.</p> <p>Hematite staining as thin envelope of calcite vein is common around 13.7^m</p> <p>Frequent and irregular alternation of rock type.</p> <p>Non-foliated section 12.19 - 13.81^m due to aphanetic massive andesitic greenschist</p> <p>Strong gneissosity 15.09 - 20.59, apparently of intrusive origin.</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION:

HOLE No: 84-4

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		<p>Non-foliated, massive section 20.57 - 27.13 with abundant crisscrossing carbonates and occasional quartz veins of minor vuggy texture.</p> <p>Pyrite content is very minor, very occasional cluster and large cubes on fracture faces.</p> <p>Thinly foliated with strong near-vertical (to core axis) carbonate fractures and quartz veins, occasional aplitic or pegmatitic bands.</p> <p>Leucocratic gneiss 31.70 - 32.31, probably of felsic dyke origin, bearing fair quartz with vuggy texture. Pyrite is minor on fractures, Quartz itself is barren.</p> <p>Increased veining and alteration with well-developed foliation. Near the lower contact with breccia the foliation is almost vertical (to core axis)</p>
38.41	82.30 ^m	<p>Quartz-carbonate breccia</p> <p>Multiple-staged quartz-calcite veining with partially assimilated angular ~ rounded fragments of</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE No: 84-4

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		<p>darker greenschist. The fragments altered variably. Stock-work-like quartz veins are cracked and vugged with meandering and straight new quartz and/or carbonate veining.</p> <p>White to dark greenish gray depending on alteration intensity and amount of fragment. Quartz and carbonate (as matrix material) are apparently barren while fragments contain a little pyrite mostly as dissemination but total amount of pyrite is nowhere near 1% in volume.</p> <p>Greenish gray fault gouge 50.75 - 51.05</p> <p>Brecciation weakening below the above gouge zone due to weaker quartz veining and more frequent larger fragments (?) of andesitic greenschist. Disseminated pyrite showing weathering halo (limonite) and occasional minor spotty stain of oxidation on slipped fractures.</p> <p>74.68 ~ 77.27 ^M large fragments of andesitic greenschist with minor (compared with quartz breccia) quartz-carbonate veins.</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION:

HOLE NO: 84-4

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		<p>Fragments at 62.94 - 63.98^m assimilated by quartz flooding show pervasive phyllic alteration</p> <p>Occasional but persistent minor oxidation staining on fracture faces, particularly on vuggy quartz openings.</p> <p>Weaker breccia texture - gradational change from 82.30^m. Breccia appearance mostly due to strong criss-crossing calcite-quartz veining with occasional quartz lumps.</p> <p>Quartz and/or calcite have been introduced into broken zone, resulting to wide zone of breccia. Original rock type in the broken can be distinguished</p>
82.30	121.31 ^m	<p>Greenschist</p> <p>Andesitic with strong quartz-carbonate veining</p> <p>Principally same as above quartz-carbonate breccia, just decreased amount of introduced quartz-carbonate. host rock representing as predominant fragments show original textures. Still strong quartz-carbonate breccia locally.</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION:

HOLE No: 84-4

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		<p>Assay samples #3 (90.23 - 91.45) & #4 (91.75 - 93.26) have fair amount of pyrite on fractures.</p> <p>Weathering stains on fractures are not uncommon, local spotty blemish of weathering, probably from oxidized pyrite dissemination.</p>
121.31	151.49 ^M	<p>Breccia (Quartz-carbonate breccia)</p> <p>Gradual change from above greenschist, just improved breccia texture due to increased amount of quartz-carbonate veining. Pyrite is very minor, only carried by dark-colored fragments</p> <p>125.43 - 129.08 strong breccia texture with absorbed and rounded fragments in white felsic matrix. Minor pyrite in fragments but no pyrite in matrix material.</p> <p>Well-defined contact (20° to core axis) at 129.08 with light gray fine grained felsic dyke rock.</p> <p>Changing gradually to green colored, with weaker</p>

DIAMOND DRILL LOG

CLAIM

LOCATION:

MINING DIVISION

HOLE No: 84-4

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		brecciation.
		Breccia texture improves gradually from 136.25 ^M along with silicification (?)
		Small vuggy druse quartz is usual from 138.38 stronger silicification down to depth.
		Oxidized fragments at 144.48 ^M
		Foliated greenschist 148.44 - 149.66 with abundant concordant felsic veining & crisscrossing calcite-quartz veins.
		Rubby core at lower contact 151.49 ^M with minor oxidation on fractures.
151.49	169.47 ^M	Greenschist Dark greenish gray, fine to medium-grained andesitic greenschist with strong epidote as dissemination & heavy bandings. Gneissic textures in massive lighter-colored section. Pyrite content is minor (<< 1%), very occasional heavy pyrite

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE No: *84 - 4*

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		<i>cluster on fracture</i>

DIAMOND DRILL LOG

CLAIM: Silver

LOCATION: Burns Lake, B.C.

MINING DIVISION: Omineca

HOLE NO: 84-5

ANGLE: -50° DIRECTION: $N 45^{\circ} W$ DEPTH: 178.0^M

GRID NO:

CO-ORDINATES: 840S + 70E

DATE STARTED: Dec. 25 1984 FINISHED: Dec. 29 1984 LOGGED BY: B. Y. Kim

DRILLED BY: D. W. Coates Enterprises Ltd.

DEPTH		DESCRIPTION OF CORE
FROM	TO	
0	53.04	Overburden
53.04	105.16	<p>Gneiss</p> <p>Gray white to gray, fine grained with well-developed foliation ($10-35^{\circ}$ gneissosity to core axis)</p> <p>Variable textures & colors indicating complex origin for metamorphism (Composite gneiss). Occasional inclusions of dark gray fine grained andesitic rock (less foliated or massive) and minor felsic dyke or sill.</p> <p>Rare pyrite occurring as disseminations & on slipped fractures.</p> <p>Generally solid core with very minor blocky, broken section due to chlorite-calcite slips, minor magnetite & hematite tint on the slipped fracture.</p> <p>Aplitic or pegmatitic section with sparse poorly-lineated chloritized mafic 55.63 - 58.23^M</p> <p>20 cm andesitic inclusion within the above aplitic section at 57.15^M.</p> <p>Non-foliated dark gray andesitic inclusion (?) at 61.11 - 61.72^M</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE No:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		<p><i>Rubby & blocky core 65.84 - 67.67 M</i></p> <p><i>In general irregular alternation between leucogneiss (originated from felsic dyke or sill) and darker biotite gneiss. Pyrite content is minor and insignificant</i></p> <p><i>Dark slip faces with weak hematite tint, minor distinct cubes of pyrite associated with the slips at 75.29 M</i></p> <p><i>Original rock type of biotite gneiss is obscure due to strong metamorphism (partly due to assimilation prior to metamorphism?)</i></p> <p><i>Dark-colored small inclusions are abundant 95.71-100.89, which are only partially altered (both by assimilation & metamorphism)</i></p> <p><i>Partially assimilated granitic inclusions, showing no definite foliation 104.24</i></p> <p><i>A narrow aplitic dyke or sill with slicken-sided and brecciated banding with sharp chlorite-epidote matrix and hematite staining at 103.63 M.</i></p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE No:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
105.16	109.12 ^M	<p>Basic dyke</p> <p>Dark greenish gray, fine grained chlorite-rich andesite with frequent occurrence of granitic dyke swarm and (or inclusion) massive with no definite foliation.</p> <p>Rare pyrite as fine specks of dissemination.</p>
109.12	114.61 ^M	<p>Biotite gneiss</p> <p>Light gray, thinly foliated (70-80° to core axis) with aplitic or pegmatitic dyke swarm. Locally strong epidote both on fracture faces and as dissemination. Minor magnetite associated with it.</p> <p>Very minor specks of pyrite.</p> <p>Alternating zone with aplitic dyke 112.78-113.69</p>
114.61	116.43 ^M	<p>Basic dyke</p> <p>Same as above dyke at 105.16-109.12^M</p>
116.43	138.23	<p>Greenschist</p> <p>Dark greenish gray to dark gray with local strong foliation (steeply-dipping to core axis)</p> <p>Frequent aplitic or pegmatitic dyke intercalated with</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE No:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		<p>minor basic dykes. Foliation is stronger around the contacts with aplitic dykes.</p> <p>Pyrite content is minor, occurring as rare specks. Occasional slips of chlorite-calcite, which split the core.</p> <p>Aplitic-pegmatitic section 118.26 - 119.18, 126.49 - 127.71 - 128.63, 131.37, 133.81 - 134.42.</p>
138.23	146.61 ^M	<p>Lamprophyre dyke</p> <p>Gray - dark greenish gray. fine grained, mostly porphyritic, hornblende phenocrysts in fine grained to aphanitic matrix (groundmass)</p> <p>moderate calcite fractures and occasional epidote fractures.</p> <p>Sharp contact (lower) with slippage of black sulphide-smear fracture. Overall pyrite content is very minor, only as specks</p>
146.61	159.11 ^M	<p>Gneiss</p> <p>Similar to the above gneiss at 109.12 - 114.61. More variable textures. Foliations are steeply-oriented to core axis. Fine magnetite associated with felsic veining around 152.40^M</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION:

HOLE No.:

ANGLE:

DIRECTION:

DEPTH:

GRID No.:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
159.11	166.12	<p><i>Gabbro-diorite</i></p> <p><i>Dark gray, fine to medium grained, granular non-foliated with gabbroic igneous body with occasional felsic dyke swarm. Epidote fractures are common. Pyrite content is minor and insignificant.</i></p> <p><i>May be related intimately with the above lamprophyric dyke occurrence at 138.23-146.61.</i></p>
166.12	178.00 ^M	<p><i>Gneiss</i></p> <p><i>Variably textured gneisses as above occurrences. Alternation between felsic gneiss (Leucogneiss) & more massive darker & finer andesitic greenschist.</i></p> <p><i>Upper contact: broken, gouged (greenish tint) with hematite staining and pieces of felsic dyke.</i></p> <p><i>Slightly more broken at the end of the hole. Very minor pyrite. Epidote is locally strong.</i></p>

DIAMOND DRILL LOG

CLAIM: Silver

LOCATION: Burns Lake, B.C.

MINING DIVISION: Omineca

HOLE NO: 84-6

ANGLE: -50°

DIRECTION: N 45° W

DEPTH: 178.61 M

GRID No:

CO-ORDINATES: 570 S + 170 W

DATE STARTED: Dec. 20 1984 FINISHED: Dec. 24 1984 LOGGED BY: B. Y. Kim

DRILLED BY: D. W. Coates Enterprises Ltd.

DEPTH		DESCRIPTION OF CORE
FROM	TO	
0	9.60	Overburden
9.60	20.88	<p>Greenschist</p> <p>Gray to dark greenish gray chlorite-rich greenschist with well-developed thin foliation (20-40° to core axis) Frequent narrow felsic (aplitic) bandings and abundant hairline to fine fractures. Intimately contacted with underlying felsic intrusion (dyke(?) of granodioritic composition) Rare pyrite throughout. Epidote is usual pervasively with occasional fracture epidote. Very locally fine dissemination of garnet embedded in darker layer of foliation. Probably originated from clastic unit of Cache Creek group.</p> <p>13.87 - 14.02 M Dioritic dyke with sharp contact 30° to core axis.</p> <p>Broken at 14.17. Dyke of granodiorite-diorite composition</p>
20.88	30.63 ^M	<p>Gneiss</p> <p>Grey white - light gray leucocratic gneiss originated</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE No:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		<p>from dioritic dyke rock. Variably foliated with minor chloritized mafics. No significant pyrite in very minor amount.</p> <p>Broken & weakly brecciated with greenschist fragments at 28.96 M.</p>
30.63	39.01	<p>Greenschist</p> <p>Similar to the above greenschist at 9.60 - 20.88. Slightly weaker foliation than above with frequent occurrence of aplitic dyke or sill. Occasional magnetite-bearing dark bandings of foliation which is associated with intrusion of aplitic dykes. No - rare pyrite. In general foliation is weak (20 - 40° to core axis)</p>
39.01	42.06 ^M	<p>Gneiss</p> <p>Same as above gneiss at 20.88 - 30.63. Well-foliated (20 - 50° to core axis) with sharp well-defined contacts. Darker bandings of chloritized mafics and minor magnetite. Negligible rare pyrite specks.</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE NO:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
42.06	54.56	<p><i>Greenschist</i></p> <p>dark gray - light greenish gray, massive to well-foliated, variable andesitic greenschist. Pyrite content is very minor throughout. Noticeable amount of pyrite around 54.56 contact.</p> <p>Broken at 50.27 due to stronger fractures of carbonate with minor hematite stain.</p> <p>0.3 m of gneissic intercalation at 49.05 m.</p> <p>Very fine porphyritic texture in chert-like black massive andesite-basalt around 48.75 m.</p>
54.56	57.15	<p><i>Gneiss</i></p> <p>Light gray - light greenish gray well-foliated orthogneiss, probably originated from monzonite ~ diorite intrusive. Intimately intruded the surrounding greenschist and showing repeated contact. Pyrite is rare to nil.</p>
57.15	64.01	<p><i>Greenschist</i></p> <p>Similar to the above greenschist at 42.06 - 54.56.</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE NO:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		<p>Frequently intercalated with aplitic dyke or sill. Variably metamorphosed - strong contact-type around lower contact with 30-40% of epidote 60.96 - 63.40 M. Variable intensity of foliation local calcite-chlorite fractures & slips. Pyrite content is minor, Rare specks of chalcopyrite near the epidote-rich contact around 62.68 M.</p>
64.01	65.23 ^M	<p>Gneiss Same as the above gneiss at 54.56-57.15</p>
65.23	71.17 ^M	<p>Greenschist Dark gray to dark greenish gray, near-contact rock with variable assimilation by the near-by intrusion, Poorly foliated with usual epidote development. Fine grained amphibolite zone 66.60 - 67.82. Pyrite content is minor & insignificant.</p>
71.17	81.23 ^M	<p>Gneiss Same as the above gneiss, poor foliation due to weaker mafic. Pyrite content is minor and insignificant. Very local strong pyrite fractures.</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION:

HOLE NO.:

ANGLE:

DIRECTION:

DEPTH:

GRID No.:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
81.23	91.14 ^M	<p>Orthogneiss</p> <p>Light gray to dark gray, coarse (coarser than usual) grained gneiss, mostly originated from diorite-gabbro intrusion. Andesitic inclusions are usual with frequent veining of felsic dyke rock. Minor amphibolitic zone resulted from metamorphism of andesite.</p> <p>Pyrite is minor as dissemination, occasional fracture-filling pyrite.</p> <p>Epidote is very common, locally strong both as dissemination & fracture-filling.</p>
91.14	101.19 ^M	<p>Gneiss</p> <p>Generally dark gray, fine grained, foliated gneiss with minor amphibolite. Frequent gradational change due to assimilation by earlier intrusion along with swarm of dioritic dykes and felsic dykes. Epidote appears to be stronger toward the lower contact.</p> <p>Local heavier pyrite associated with epidote fracture. minor chalcopyrite noticed at 98.45</p>
101.19	107.59 ^M	<p>Gneiss (Mixture of orthogneiss & paragneiss)</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE NO:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		<p>Well-foliated, irregular mixture of the above two types of gneiss. Strong ^{disseminated} epidote with local heavy fracture bandings & clusters.</p> <p>Quartz vein with chlorite-epidote inclusion at 107.59 contact.</p>
107.59	129.85 ^M	<p>Greenschist Dark greenish gray, fine grained andesitic greenschist with weak foliation. Heavy epidote disseminations & fractures which crosscut the foliation.</p> <p>Narrow heavy pyrite banding enveloping a small quartz vein at 108.51 (sampled for assay)</p> <p>Gneissic section 116.43 - 118.87, 121.92 - 122.68</p> <p>Epidote is pervasive alteration product, carbonate fracture is usual. Pyrite is minor.</p>
129.85	134.57 ^M	<p>Gneiss Same as the above gneiss at 71.17 - 81.23^M</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION:

HOLE No:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
134.57	175.87 ^M	<p><i>Greenschist + Gneiss</i></p> <p><i>Irregular mixture of andesitic greenschist and orthogneiss. Greenschist is dark gray, very fine grained and poorly foliated while orthogneiss shows well-developed foliation with light gray, coarser grained textures. Epidote occurrence is pervasive on both type of rocks. The contacts are very intimate and some contacts are probably inclusions.</i></p> <p><i>Generally solid core with local minor slippage usually along the foliation.</i></p> <p><i>Pyrite is minor and insignificant, appears to be a little stronger on the intruded rock which may be originated from a sedimentary unit of Cache Creek group.</i></p> <p><i>Occasional hematite staining on slip faces with crushed chlorite-carbonate.</i></p> <p><i>Fine grained to aphanitic black massive basalt is predominant at 141.43 - 146.91^M.</i></p> <p><i>Strong biotite development making predominant darker bandings. Fair amount of pyrite associated with this biotite bandings (less than 1%)</i></p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION:

HOLE No: 84 - 6

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		<i>black aphanetic basalt as above occurrence at 171.39 - 171.84 M</i>
175.81	178.61 ^M	<p><i>Gneiss</i></p> <p><i>Light gray to gray white , fine to medium grained gneiss .</i></p> <p><i>massive solid core with occasional slips of crushed chlorite - calcite and minor epidote . Very minor pyrite occurring as fine dissemination .</i></p>

DIAMOND DRILL LOG

CLAIM: *Silver*LOCATION: *Burns Lake, B.C.*MINING DIVISION *Omineca*HOLE NO: *84-7*ANGLE: *-50°*DIRECTION: *N45°W*DEPTH: *183.19 M*

GRID No:

CO-ORDINATES: *840S + 470W*DATE STARTED: *Dec. 14 1984* FINISHED: *Dec. 19 1984* LOGGED BY: *B. Y. Kim*DRILLED BY: *D.W. Coates Enterprises Ltd.*

DEPTH		DESCRIPTION OF CORE
FROM	TO	
0	3.35 ^M	<i>Overburden</i>
3.35	8.53 ^M	<p><i>Greenschist</i></p> <p><i>Dark gray - dark greenish gray, fine - medium grained andesitic greenschist with weak foliation consisted predominantly of chlorite and minor epidote and strong carbonate fractures. Dyke swarm of felsic composition throughout. Rare pyrite & occasional weak hematite staining on slipped fractures. Moderately magnetic due to pervasive dissemination of magnetite.</i></p>
8.53	12.04 ^M	<p><i>Felsic dyke</i></p> <p><i>White gray - Ash gray, fine-grained with well-defined foliation ($\pm 30^\circ$ to core axis) Fairly broken (compared to the above greenschist) due to sharp chlorite-carbonate slip faces. Rare pyrite, dark-colored chloritic slip faces may have some smeared pyrite.</i></p>
12.04	24.54 ^M	<p><i>Greenschist</i></p> <p><i>Similar to above greenschist at 3.35 - 8.53 M</i></p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE No:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		Steeply dipping (to core axis) felsic dyke swarm around 17 ^m shows gneissic texture, Strong epidote as dissemination and fracture-filling, Rare pyrite.
24.54	28.96 ^m	Orthogneiss (diorite) Fine to medium grained, light gray gneiss originated from hornblende-rich dioritic dyke (?) rock. Strong epidote throughout both as dissemination & fracture-coating, Occasional hematite tint on fracture slips, Rare pyrite.
28.96	40.23 ^m	Greenschist Similar to above greenschist, Stronger epidote both on fractures and as dissemination, Contact type of metamorphism is prevailing, Calcite-hematite fractures with near-vertical orientation (to core axis) are more usual, Rare pyrite.
40.23	67.67 ^m	Orthogneiss (diorite) Similar to above gneiss at 24.54 - 28.96 ^m . Light greenish gray due to bandings of chloritized mafics. Weakly slipped fractures of chlorite-calcite-hematite

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE No:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		<p>with rare pyrite, Weak chilled contact with the above greenschist.</p> <p>Incompletely assimilated inclusions of greenschist with quartz veining 52.43 - 55.47 with chlorite-calcite slips.</p> <p>Minor fracture-controlled clay alteration (hydrothermal type) 58.22 - 59.44 m</p> <p>Slicken-sided fractures of dark chlorite are usual.</p>
67.67	76.96 ^M	<p>Diorite gneiss</p> <p>Similar to above orthogneiss, Coarser grained and stronger foliation (gneissosity $\pm 30^\circ$ to core axis) Appears to be originated from the contact zone diorite with abundant inclusions of darker greenschist and concordant felsic dykes & sills.</p> <p>Very minor pyrite but occasional heavier coating associated with carbonate fractures 67.06 - 73.15^M.</p> <p>Broken, gouged and weakly brecciated near the lower contact around 77^M.</p>
76.96	117.65 ^M	<p>Greenschist & minor diorite gneiss</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE No:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		<p>Gradual change from above, Predominantly darker-colored greenschist with well-developed foliation. Frequent appearance of felsic-aplitic bandings and minor dioritic sections. Pyrite is rare. Fine disseminated magnetite is usual in section which seems to be originated from intrusive rock.</p>
		<p>Broken, rubble core due to dark greenish gray fracture slips of chlorite-calcite 79.86 - 82.30</p>
		<p>Aplitic dykes 86.11 - 86.41, 87.48 - 87.94 Hairline fractures & slips of hematite staining are usual 86.26 - 90.22</p>
		<p>Broken, blocky core at 99.37, 100.28, 102.72^m Broken, cracked core near the lower contact - felsic banding at the contact 117.65^m</p>
117.65	134.57	<p>Basalt - Andesite Dark gray, aphanetic to fine grained, generally massive (locally amygdaloidal and spherulitic) basic volcanic or dyke with fine disseminated magnetite and very minor pyrite.</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION

HOLE NO:

ANGLE:

DIRECTION:

DEPTH:

GRID No:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
		<p>Foliation development is weak and only local.</p> <p>Gneissic zone 124.36 - 124.97</p> <p>Rubby core of fine-grained andesitic rock 129.69 - 130.45 . Poor core recovery 131.98 - 132.89 (approximately 70%)</p>
134.57	169.62 ^m	<p>Gneiss</p> <p>Predominantly well-foliated gneiss of intrusive origin, with minor dark poorly-foliated section of volcanic origin. Solid core in orthogneiss (dioritic) section, while more broken in andesitic(?) gneissic section. Rare pyrite throughout.</p> <p>Short gouged zone at 152.71, 153.31</p> <p>Broken and rubby core 161.24 - 161.85, 164.29, 166.12, 167.64.</p> <p>A near-vertical (to core axis) slipped fracture of chlorite-calcite-hematite (stain) with weak selvage alteration, minor quartz is associated with it, Sulphide (pyrite) is very rare.</p>

DIAMOND DRILL LOG

CLAIM:

LOCATION:

MINING DIVISION:

HOLE NO.:

ANGLE:

DIRECTION:

DEPTH:

GRID No.:

CO-ORDINATES:

DATE STARTED:

FINISHED:

LOGGED BY:

DRILLED BY:

DEPTH		DESCRIPTION OF CORE
FROM	TO	
169.62	172.52	<p><i>Basic dyke</i></p> <p><i>dark greenish gray to black, aphanetic to fine porphyritic lamprophyric dyke with no foliation. Apparently of later stage (than most of rock types) No pyrite visible. Minor hairline crisscrossing calcite fractures. Both contacts (upper & lower) are sharp. 20° to core axis for upper contact & 65° to core axis for lower contact.</i></p>
172.52	183.19	<p><i>Gneiss with minor greenschist</i></p> <p><i>Solid core predominantly of gray well-foliated coarse grained gneiss with short aplitic or pegmatitic intercalation & poorly foliated dark gray andesitic greenschist. Very minor pyrite as disseminations and locally as heavier dissemination on foliation fractures.</i></p> <p><i>Coarse grained, dark gray orthogneiss (dioritic) with intercalated aplitic dyke or sill. Fine grained dissemination of epidote is strong.</i></p>

COMPANY

Troymin Resources Ltd.

CORRECTED DIP TESTS

DIAMOND DRILL RECORD

DATE BEGAN Dec. 7 1984 DATE COMPLETED Dec. 10 1984

PROPERTY Silver PROJECT No _____ DEPTH 175.57 m

HOLE No 84-2 CO-ORD 1670 S HORIZONTAL LENGTH 112.86 m

SHEET No 1 1970 E DIRECTION N 45° W

CLAIM No Silver 7 ELEVATION 914.40 m ANGLE -50°

RESIDENT GEOLOGIST

DEPTH (m)	NUMBER	WIDTH	ASSAY				WIDTH X ASSAY				AVERAGES					
			AU ^{oz} / _T	AG ^{oz} / _T	CU	ZN	PB	NI	WIDTH	AU	AG	CU	ZN	PB	NI	
0 - 3.1			Overburden													
3.1 - 6.4			not sampled													
6.4 - 8.4	6956D	2.00	.001	.02												
8.4 - 38.58			not sampled													
38.58 - 40.08	6957D	1.50	.001	.01												
40.08 - 71.80			not sampled													
71.80 - 73.30	6958D	1.50	.001	.02												
73.30 - 122.54			not sampled													
122.54 - 130.45	6959D	0.91	.001	.01												
130.45 - 155.00			not sampled													
155.00 - 155.75	6960D	0.75	.001	.01												
155.75 - 175.57			not sampled													
End of hole																

COMPANY

Troymin Resources Ltd.

CORRECTED DIP TESTS

DIAMOND DRILL RECORD

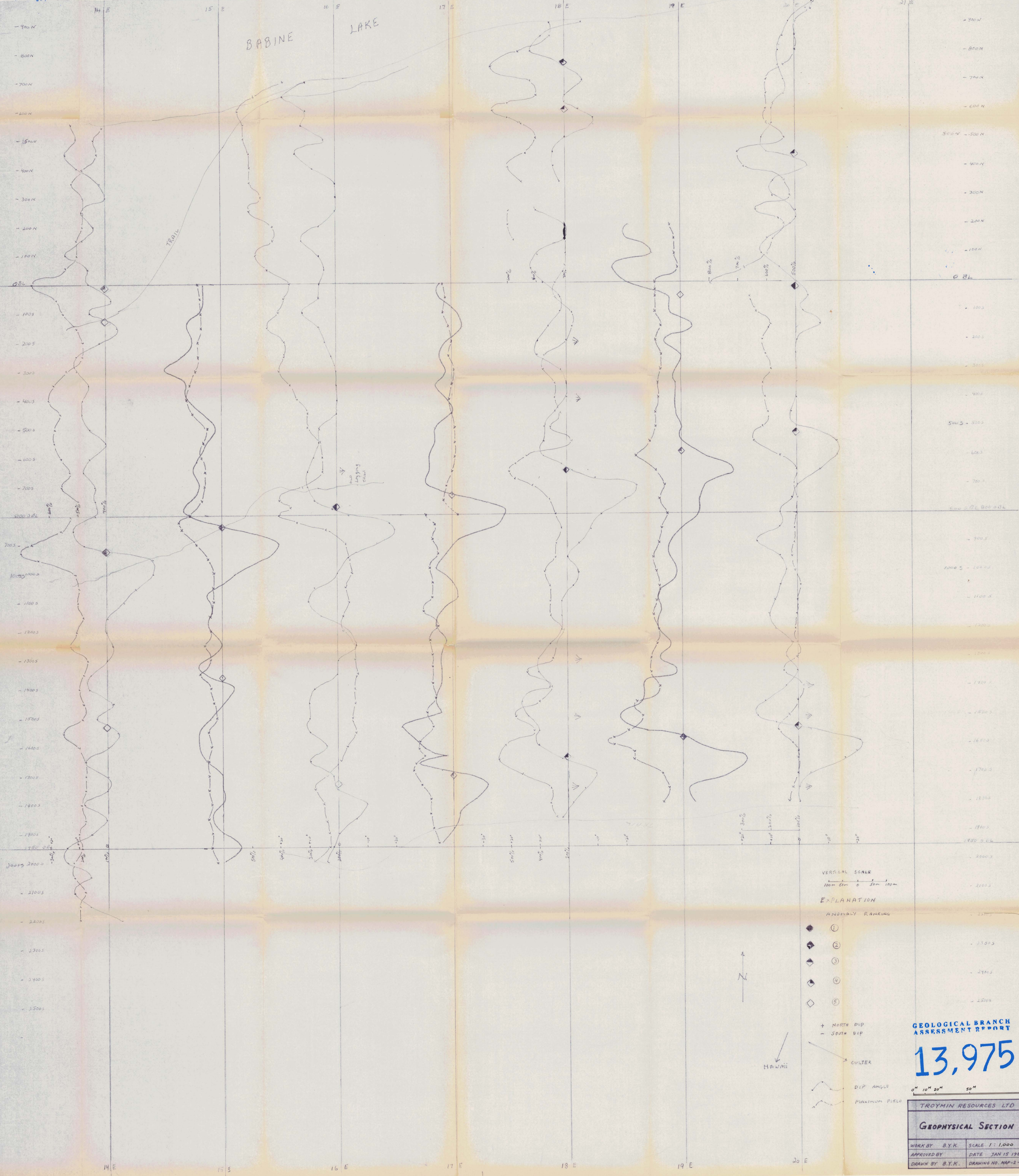
DATE BEGAN Dec. 25 1984 DATE COMPLETED Dec. 29 1984

PROPERTY Silver PROJECT No _____ DEPTH 178.00 m
 HOLE No 84-5 CO-ORD 8405 HORIZONTAL LENGTH 114.42^m
 SHEET No 1 70 E DIRECTION N 45° W
 CLAIM No Silver 6 ELEVATION 853.44^M ANGLE -50°

RESIDENT GEOLOGIST

DEPTH(M)	NUMBER	WIDTH	ASSAY				WIDTH X ASSAY				AVERAGES					
			AU ^{oz} / _T	AG ^{oz} / _T	CU	ZN	PB	NI	WIDTH	AU	AG	CU	ZN	PB	NI	
0 - 53.04			Overburden													
53.04 - 65.84			not sampled													
65.84 - 67.06	6977D	1.22	.001	.01												
67.06 - 113.69			not sampled													
113.69 - 114.61	6978D	0.92	.001	.01												
114.61 - 166.12			not sampled													
166.12 - 167.49	6979D	1.37	.001	.02												
167.49 - 172.52			not sampled													
172.52 - 173.58	6980D	1.06	.001	.01												
173.58 - 178.0			not sampled													
End of hole																

BABINE LAKE



VERTICAL SCALE
100m 50m 0 50m 100m

EXPLANATION
ANOMALY RANKING

- ◆ ①
- ◆ ②
- ◆ ③
- ◆ ④
- ◇ ⑤

+ NORTH DIP
- SOUTH DIP

HAWAII

CUTLER

~ DIP ANGLE
~ MAXIMUM FIELD

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,975

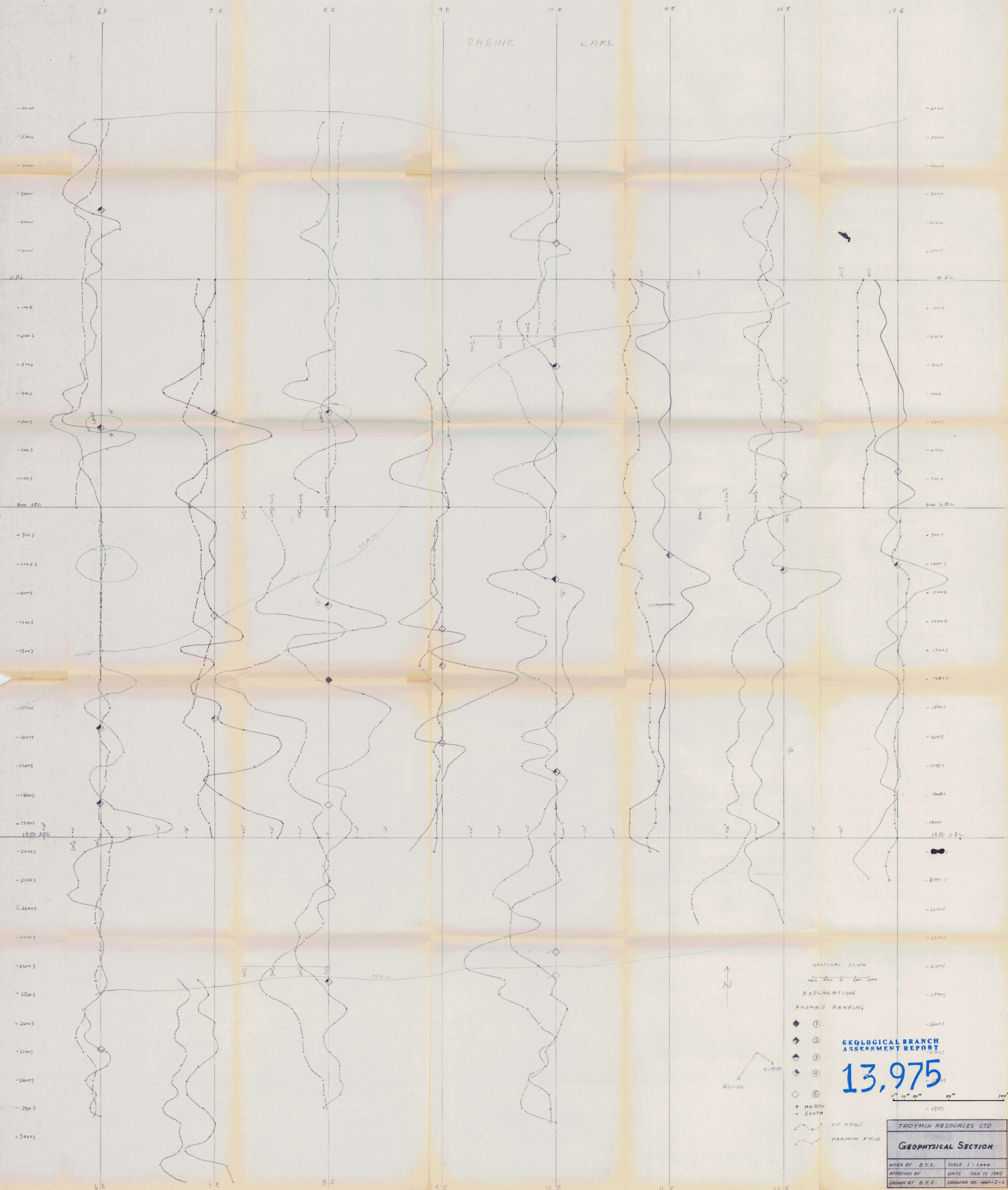
0m 10m 20m 50m 100m

TROYMIN RESOURCES LTD

GEOPHYSICAL SECTION

WORK BY B.Y.K.	SCALE 1:1,000
APPROVED BY	DATE JAN 15 1985
DRAWN BY B.Y.K.	DRAWING NO. MAP-2-D

BABINE LAKE



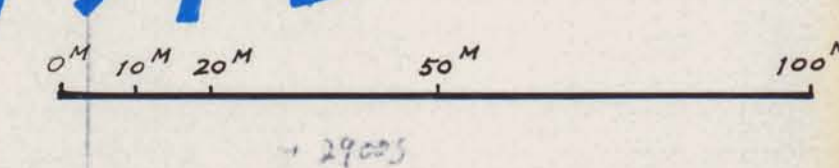
VERTICAL SCALE
100m 200m 0 200m 400m

EXPLANATION
ANOMALY RANKING

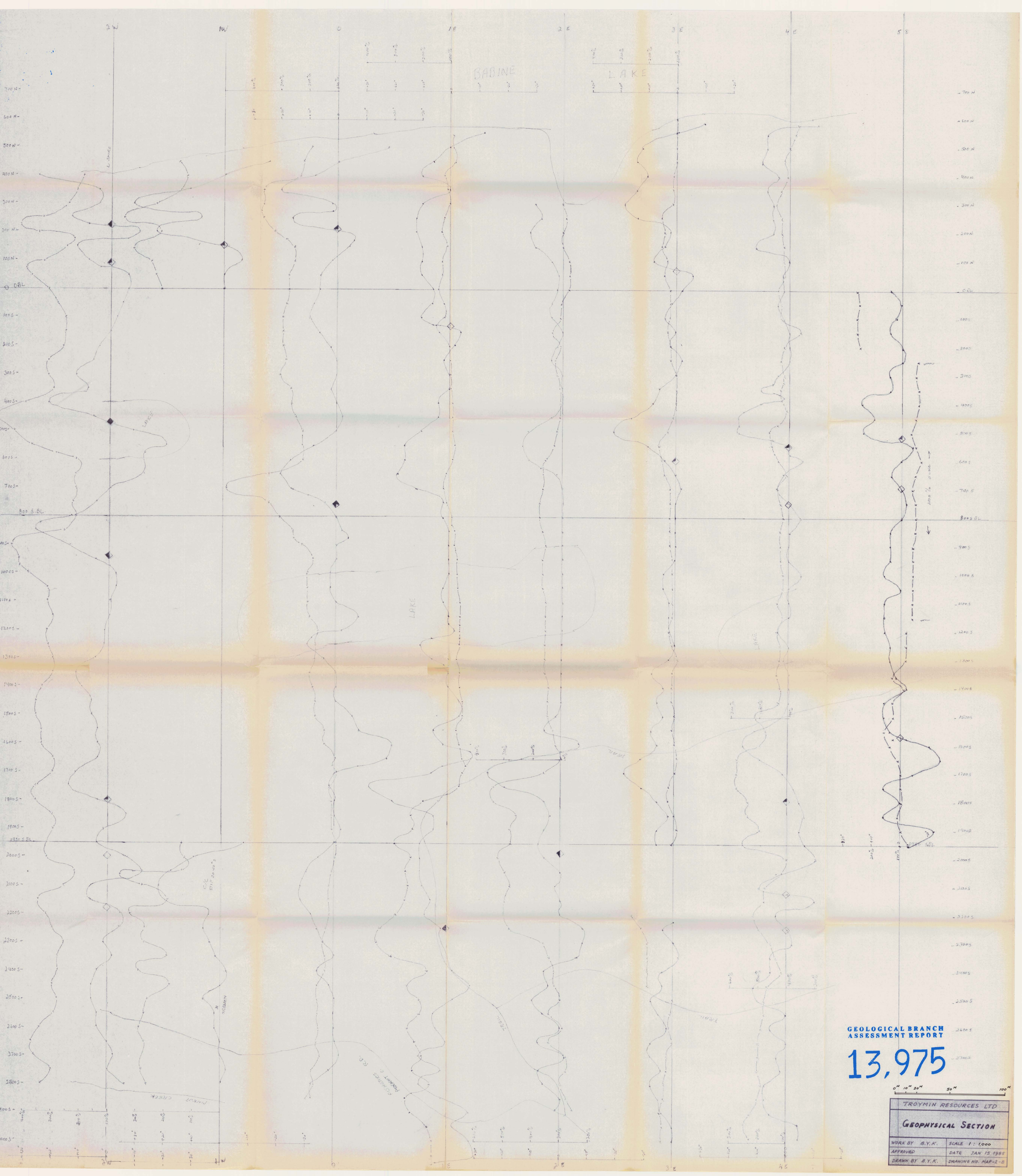
- ◆ (1)
- ◆ (2)
- ◆ (3)
- ◆ (4)
- ◇ (5)
- + NORTH
- SOUTH
- DIP ANGLE
- - - MAXIMUM FIELD

GEOLOGICAL BRANCH
ASSESSMENT REPORT

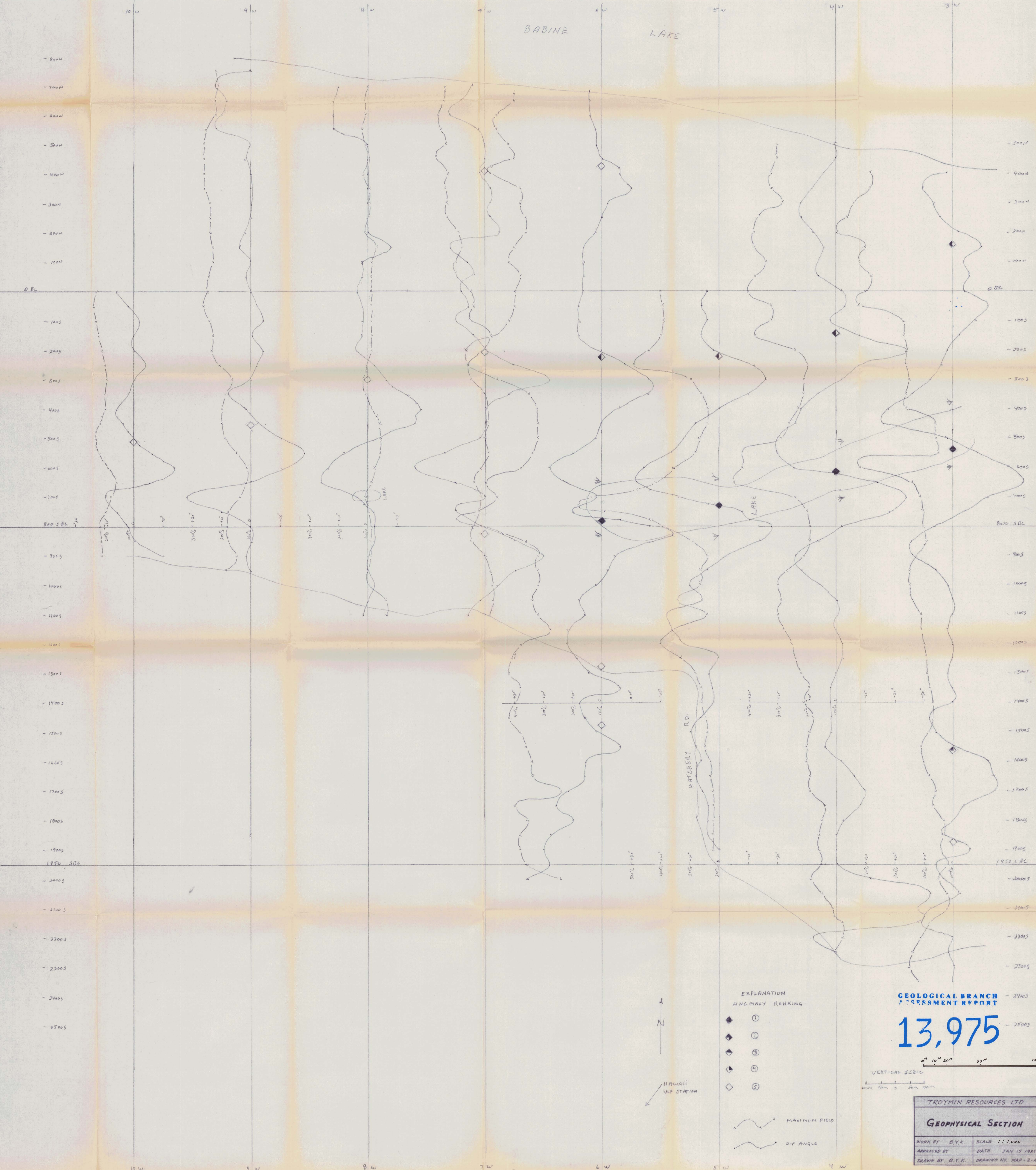
13,975



TROYMIN RESOURCES LTD	
GEOPHYSICAL SECTION	
WORK BY B.Y.K.	SCALE 1:1,000
APPROVED BY	DATE JAN 15 1985
DRAWN BY B.Y.K.	DRAWING NO. MAP-2-C



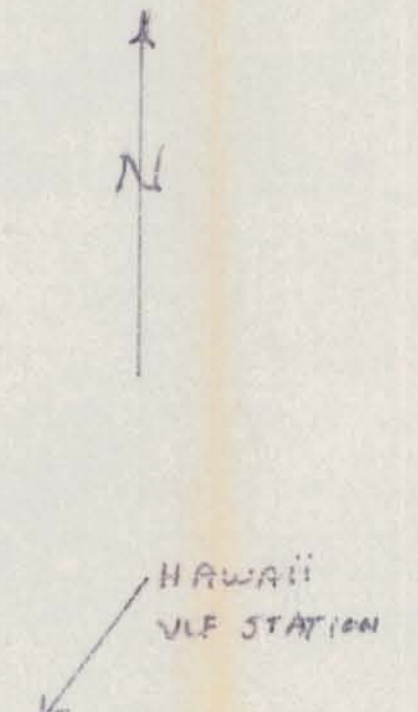
BABINE LAKE



EXPLANATION
ANOMALY RANKING

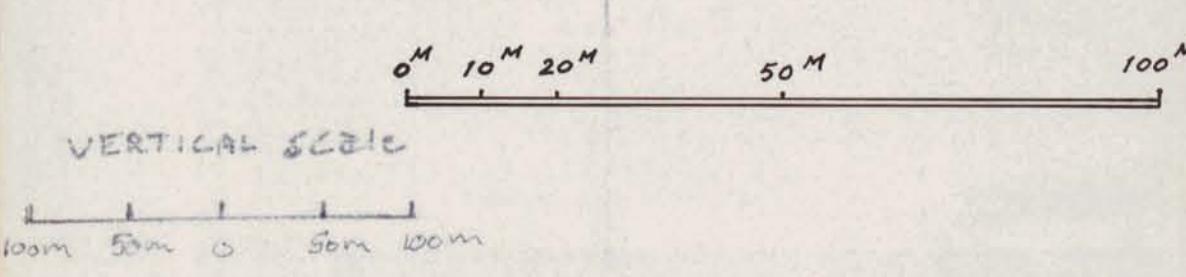
- ◆ ①
- ◆ ②
- ◆ ③
- ◆ ④
- ◆ ⑤

— MAXIMUM FIELD
— DIP ANGLE



GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,975



TROYMIN RESOURCES LTD	
GEOPHYSICAL SECTION	
WORK BY B.Y.K.	SCALE 1:1,000
APPROVED BY	DATE JAN 15 1985
DRAWN BY B.Y.K.	DRAWING NO. MAP-2-A

1000 W | 500 W | 00 | 500 E | 1000 E | 1500 E | 2000 E

Babine Lake



Base Line

L.C.P. Silver 7

L.C.P. Silver 8

800 South Line

FISHERY

ROAD

Core Storage

DH 84-1

DH 84-2

DH 84-4

DH 84-5

DH 84-7

DH 84-6

Lake

Lake

Lake

Lake

Explanation

Anomaly ranking

- ◇ ① excellent
- ◆ ②
- ◆ ③
- ◆ ④
- ◇ ⑤ poor

GEOLOGICAL BRANCH ASSESSMENT REPORT

13,975
Scale

100 0 100 200 m

TROYMIN RESOURCES LTD.

DRILLING SITE & GEOPHYSICAL ANOMALY

WORK BY	B.Y.K.	SCALE	1 : 5000
APPROVED BY		DATE	JAN 15 1985
DRAWN BY	B.Y.K.	DRAWING NO.	MAP-1