85-47-13473

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,473

NEWMONT EXPLORATION OF CANADA LIMITED

GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE

DARY CLAIM GROUP

Slocan
~~KASLO~~ MINING DIVISION, BRITISH COLUMBIA

N.T.S. 82K/11E AND 82K/10W

BY

DENNIS BOHME

February 6, 1985

LOCATION:	85 kilometres north of Kaslo, B.C. Latitude 50° 34', Longitude 117° 00'
CLAIMS OWNED BY:	Sipald Resources Ltd.
WORK DONE BY:	Newmont Exploration of Canada Limited
WORK DONE BETWEEN:	June 12 - October 28, 1984

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SUMMARY

This assessment report presents and describes the results of geological mapping, rock chip sampling, soil sampling, and heavy mineral sediment sampling conducted on the Dary claim group between June 12 to October 28, 1984.

The property is located 85 kilometers north of Kaslo, B.C. along the northeast side of Duncan Lake in southeastern British Columbia. In total, 107 contiguous claim units are held under option by Newmont Exploration of Canada Limited from Sipald Resources Ltd. or principals of that firm.

The property is underlain by upper Proterozoic clastic metasediments of the Horsethief Creek group. Principal rock types include impure quartzite and muscovite schist, amphibolite (meta-volcanic?), dolomitic limestone and marble. A dark green mafic rock, possibly an intrusive unit, was mapped as a meta-gabbro.

Two types of disseminated and two types of veinlet-related scheelite mineralization are recognized either within or in close proximity to the broad amphibolite unit. Soil geochemistry displays a lithologically controlled 350 m wide by 2600 m long tungsten anomaly coinciding with the amphibolite.

The most significant type of mineralization, up to 1.120% WO_3 over 2 metres, is associated with fluorite and tourmaline-rich scheelite bearing skarn? zones in concordant carbonate horizons either within or close to the amphibolite unit. A pneumalolytic reaction is postulated for the deposition of the scheelite.

INTRODUCTION

The Dary claim group is located 85 km north of Kaslo, B.C. along the northeast side of Duncan Lake. Initially, 41 claim units were optioned by Newmont Exploration of Canada Limited from Sipald Resources Ltd. and G. Sipos in July, 1984. Additional claims situated to the southeast were optioned in September and October, 1984 from J. Sipos, and H. Aldinger under separate agreements. The adjacent claims to the northwest were acquired by staking when the prior claims lapsed. In total, 107 contiguous claim units are held under option by Newmont Exploration of Canada Limited.

To eliminate the possibility of internal fractional claims, the Act #1-8 two-post claims were abandoned and restaked with 11 units known as the Black Bear 1 and Black Bear 2 claims. Between June 12 to June 15, July 17 to August 3 and September 13 to October 28, 1984, the following field work was carried out by a three to five man crew led by D. Bohme and C. Boyle: chain and compass grid surveying, heavy mineral stream sediment sampling, rock chip sampling, soil sampling, prospecting, geological mapping and minor trenching. Field personnel included B. Lane, J. Laird, L. Marchak, S. Seney, M. Read and C. Kottmeier.

As there are a number of scattered scheelite occurrences on the property, the Dary claim group is being explored primarily for its tungsten potential. A total of 692 soil samples, 3 silt samples, 164 rock-chip samples, and 16 heavy mineral stream sediments were collected; in addition, 26.3 kilometres of grid line was laid out. Most of the field work was concentrated near the central portion of claims, specifically on the Virgo #1, Dary Dismuth, Dary 1, Black Bear 1 and Black Bear 2 claims where several tungsten showings were discovered earlier by the vendors. Limited prospecting, heavy mineral sampling, and soil sampling were carried out on the Beartrap, N.E.#1, N.E.#2, Dary 2, Silver Gable and Dunn claims. All geologic and geochemical data were plotted on 1:5000 scale maps.

LOCATION AND ACCESS

The Dary claim group is located in the Purcell Mountains of southeastern B.C., 85 kilometres north of Kaslo, B.C. (see Figure 1). The claims are situated along the northeastern margin of Duncan Lake.

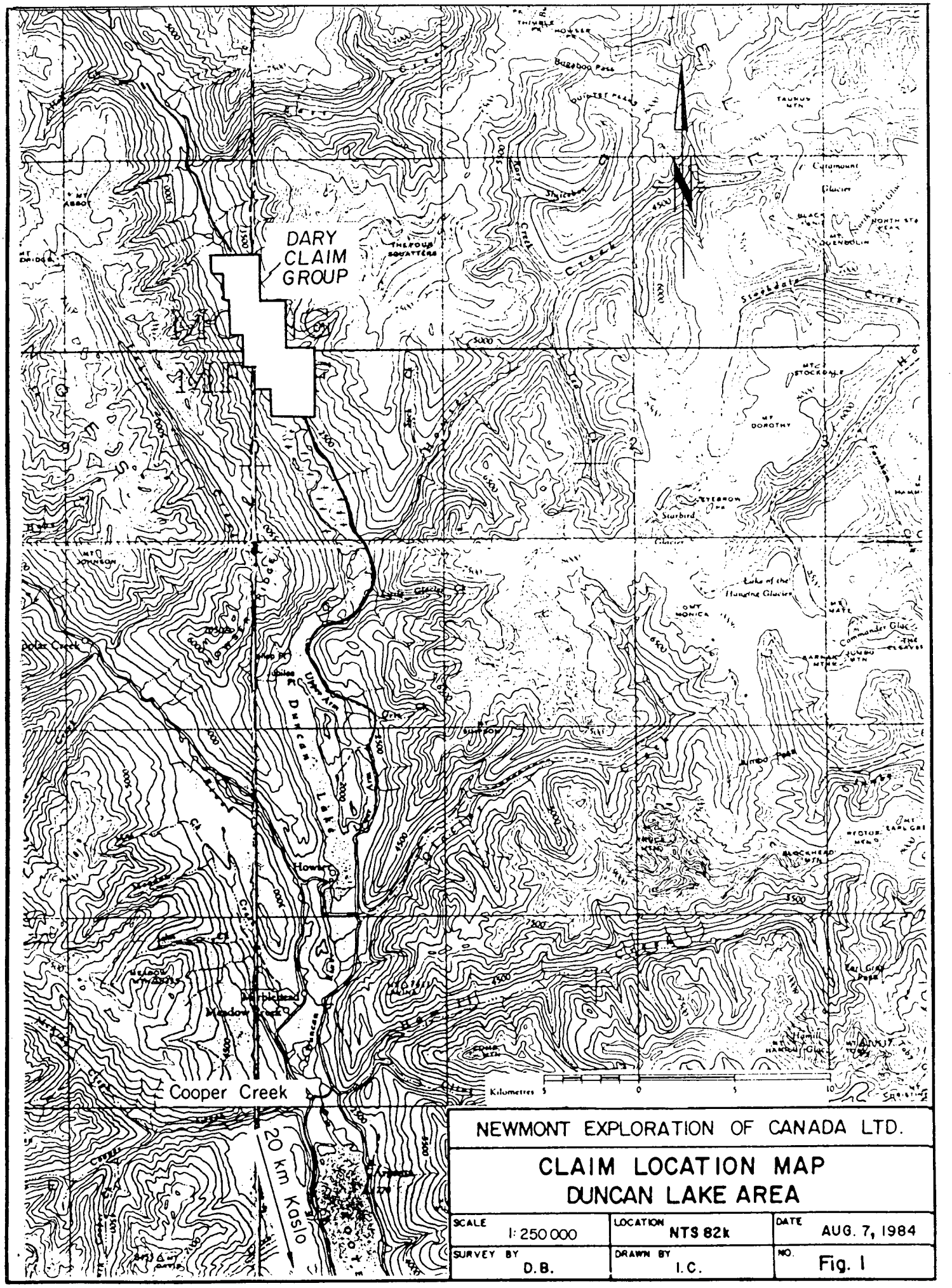
Access to the property is via Highway 31 north from Kaslo to Cooper Creek and branching off onto a forestry access logging road to the 56 km mark. This good all-weather road, locally known as the Duncan Lake logging road, runs through the property at the 2000 ft. elevation.

On the north part of the claim group, a two kilometre long forestry access road branches off at Beartrap Creek to reach an elevation of 3100 feet. Upper elevations of the property are reached via old pack trails leading up Cockle Creek and Dunn Creek.

TOPOGRAPHY AND VEGETATION

The property covers a moderately to steeply dipping slope along the northeastern portion of the Duncan Lake valley. Elevations range from 1890 feet at lake level to over 6000 feet on the ridges. Deep ravines and cliff faces form the canyon walls of fast-flowing streams. The Duncan Lake Dam causes fluctuations in the lake level at various times during the year.

The entire hillside is heavily treed by spruce, aspen, fir and cedar with locally thick underbrush. At lower elevations, tag alder and devils club are common. Outcrop exposure is generally poor to moderate.



NEWMONT EXPLORATION OF CANADA LTD.

CLAIM LOCATION MAP
DUNCAN LAKE AREA

SCALE	LOCATION	DATE
1:250 000	NTS 82k	AUG. 7, 1984
SURVEY BY	DRAWN BY	NO.
D.B.	I.C.	Fig. 1

CLAIM INVENTORY

The claims covered by this report are recorded in the ~~Kamloops~~ Slocan D.D. Mining Division. (see Figure 2). For assessment purposes, the claims have been sub-divided into the D.D.1 and D.D. 2 groups. (see Figure 3). Details are as follows:

GROUP D. D. 1

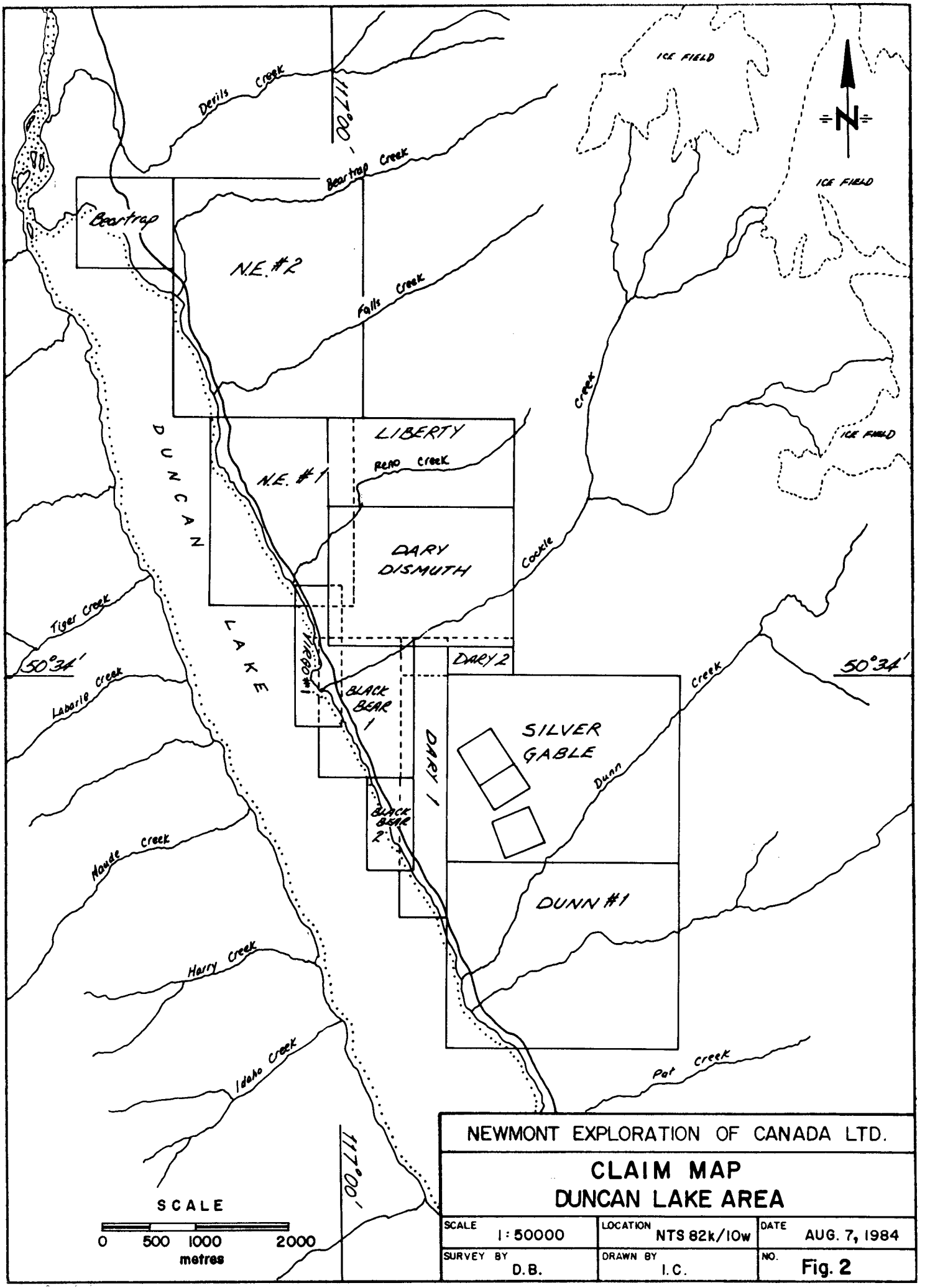
Claim	No of Units	Record Date	Record #	Recorded Owner
Dary Dismuth	12	Feb 18/80	1750	Sipald*
Liberty	8	June 1/81	2539	Sipald*
Virgo #1	3	Sept 30/81 D.D.	4113	Sipald*
Beartrap	4	May 31/84	4345	Sipald*
N.E.#1	12	Sept 27/84	4522	N.E.C.L.*
N.E.#2	20	Sept 27/84	4523	N.E.C.L.*

GROUP D. D. 2

Claim	No of Units	Record Date	Record #	Recorded Owner
Silver Gable	16	May 16/84	4332	H. Aldinger
Dunn #1	16	May 16/84	4338	J. Sipos
Black Bear 1	6	Aug 15/84	4461	G. Sipos
Black Bear 2	2	Aug 15/84	4462	G. Sipos
Dary 1	6	Aug 15/84	4463	Sipald*
Dary 2	2	Oct 31/84	4544	Sipald*

*Sipald - Sipald Resources Ltd.
*N.E.C.L. - Newmont Exploration of Canada Limited

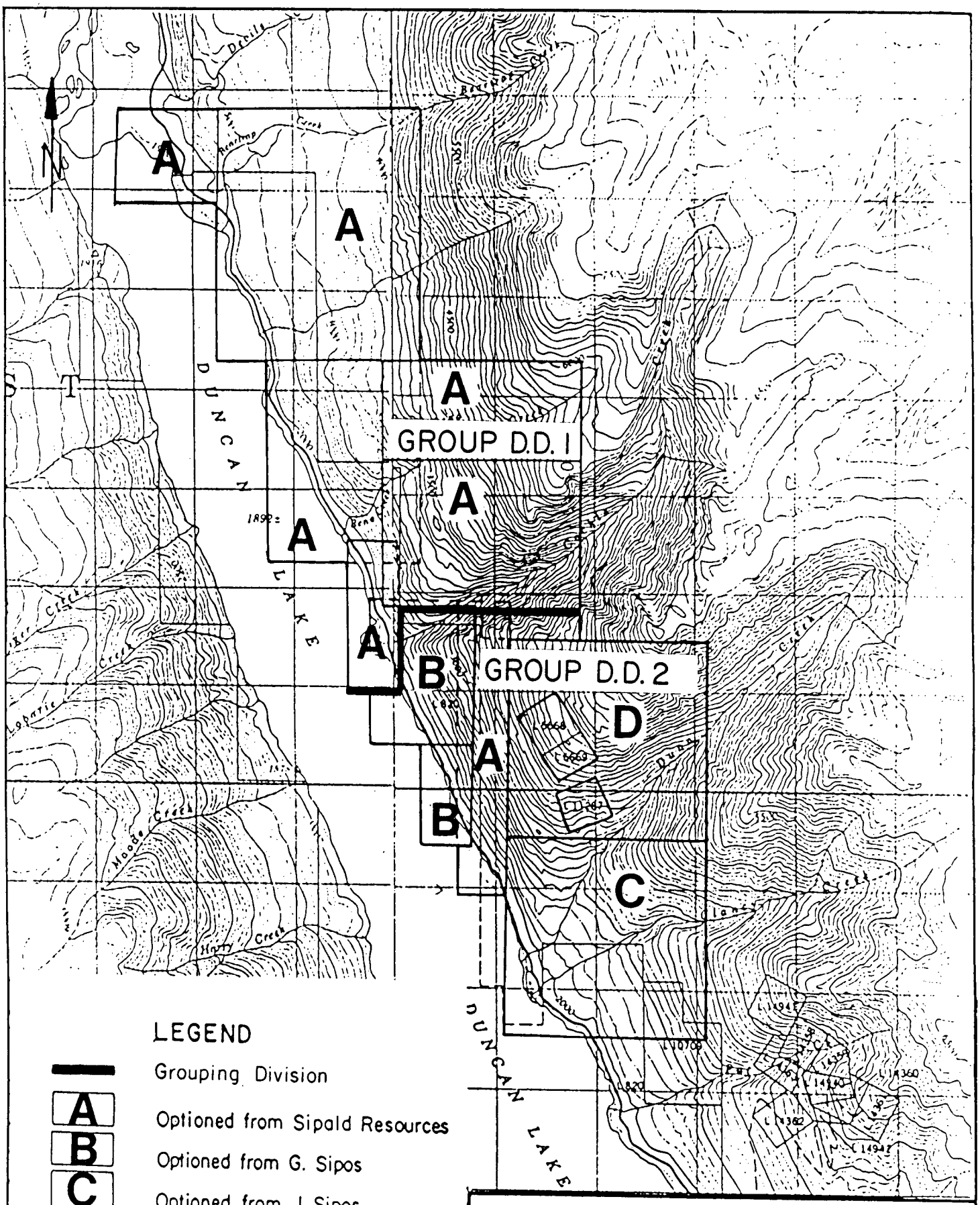
The Crown granted claims situated within the Silver Gable claim are held by other individuals and consequently were not part of the option agreement.



NEWMONT EXPLORATION OF CANADA LTD.

CLAIM MAP
DUNCAN LAKE AREA

SCALE 1 : 50000	LOCATION NTS 82k/10w	DATE AUG. 7, 1984
SURVEY BY D.B.	DRAWN BY I.C.	NO. Fig. 2



NEWMONT EXPLORATION OF CANADA LTD.

CLAIM MAP

SCALE 1:50,000	LOCATION NTS 82k/10w	DATE NOV. 1984
SURVEY BY D. Bohme	DRAWN BY I. Casldy	NO. Fig.3

HISTORY

The property dates back to the early 1900's when it was known as the "Dary" and "Dismuth" claims. Old workings at the 4900 ft elevation consisted of an inclined shaft, several open cuts, and three short adits driven along quartz-Pb-Zn vein leads. A brief description of the workings is recorded in the Minister of Mines Report, 1920. A small log cabin still stands in good condition.

In 1945, five contiguous claims were staked in the vicinity of lower Cockle Creek on a northwesterly trend. They were known as the Tin City, Canyon, Old Glory, Cyclone, and Erbeck claims. The Tin City claim was staked to cover a discovery showing of tin, beryllium, and scheelite mineralization. Assays of 0.04% Sn, 0.04% Be, and 1.90% W were reported (Minister of Mines Report, 1945). Many of the old workings and claim posts were located during this past years work.

During 1983, Sipald Resources Limited staked the ground near the Dary and Dismuth workings and carried out limited prospecting, and rock and soil sampling. Soil geochemistry outlined several Cu, Pb, Zn and W anomalies with rock assays reported to be in the range of 0.35% to 2.21% tungsten.

WORK SUMMARY

A total of 26.3 kilometres of north-south grid lines were established on the property for a soil geochemistry survey. Lines were spaced 100 metres apart, with stations marked with flagging at 50 metre or 25 metre intervals. All lines were surveyed and were slope-corrected using a clinometer, compass, and chain. Two east-west baselines were initially laid out on either side of the Cockle Creek ravine. The origin baseline (BLO + 00) follows the north claim line of the Black Bear 1 claim.

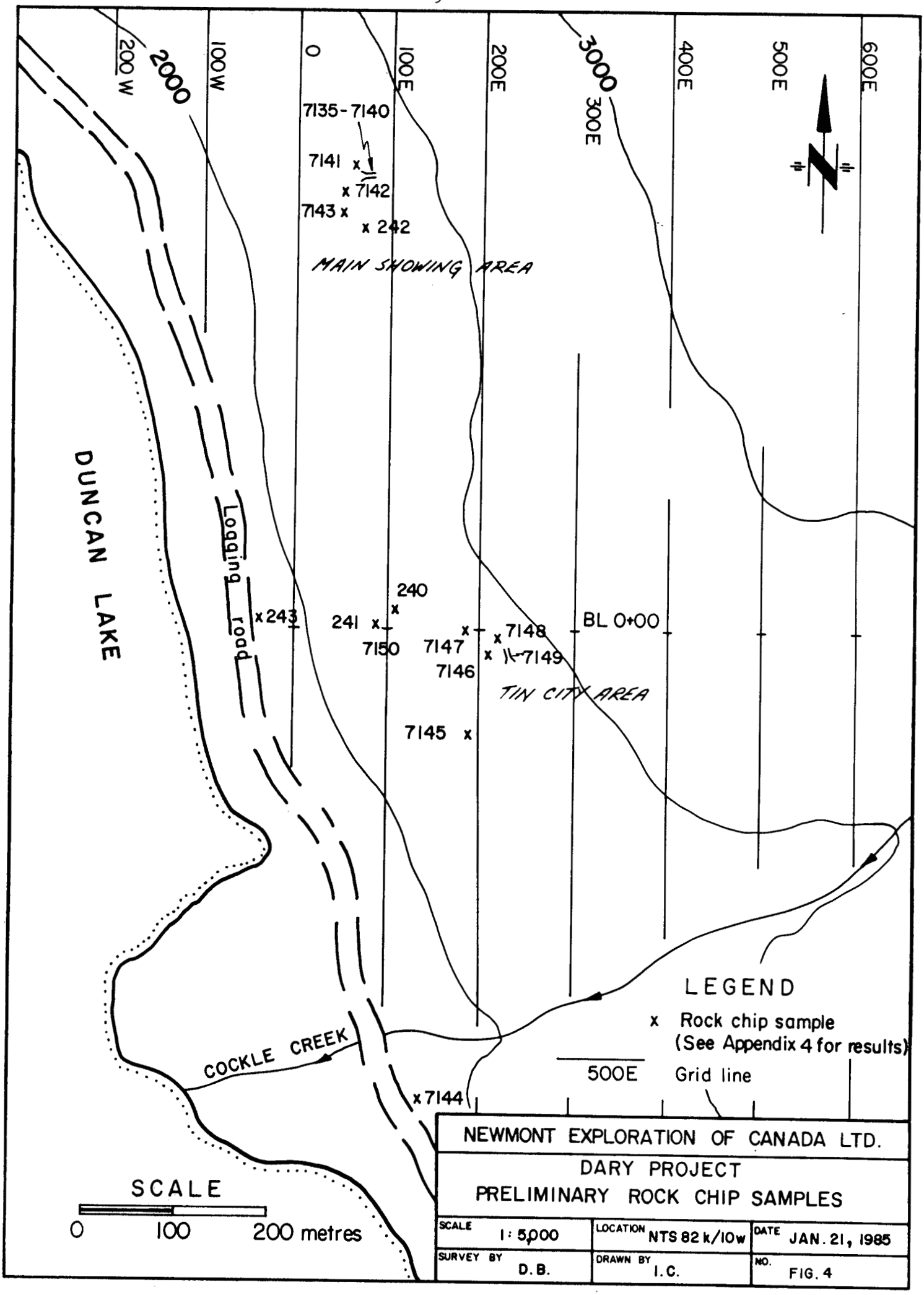
One hundred and sixty-four rock samples were taken over a 10-week period, including 20 samples taken on the preliminary property examination (see Figure 4). All rock chip sample results together with a brief geologic description, are included in Appendix 2. Detailed chip sampling was carried out in areas of greater concentrations of scheelite mineralization. A total of 640 soil samples were collected over the entire grid; in addition, thirteen soil samples near the Dary-Dismuth workings and 39 soils on the Beartrap claim were also collected. Limited hand trenching was carried out on the Main showing.

Sixteen panned concentrate sediment samples were collected on drainages running through the claims. Three silt samples were taken on Reno Creek.

Geologic mapping was concentrated in the immediate area of the grid; in addition, outcrops along the road between Dunn and Beartrap Creeks and accessible banks along Dunn and Cockle Creeks were also mapped. Significant scheelite showings were mapped in some detail. Prospecting for scheelite was done carrying a MSL-48 multiband ultra-violet lamp and a large sheet of black plastic.

REGIONAL GEOLOGY

The property lies on the western margin of the northerly plunging Purcell Anticlinorium and is underlain by a thick sequence of late Proterozoic meta-sedimentary clastic rocks (Reesor, 1973). Numerous discordant Mesozoic plutons, ranging from small stocks to large batholiths, intrude the complexly folded and faulted metamorphic rocks of the Kootenay Arc. The Bugaboo Batholith, the nearest such intrusive, lies 15 km north of the property.


200 W
2000
100 W
0
100E
200E
3000
300E
400E
500E
600E
7135-7140
7141
7142
7143
242
MAIN SHOWING AREA
DUNCAN LAKE
Logging road
243
240
241
7150
7147
7148
7149
7146
BL 0+00
TIN CITY AREA
7145
COCKLE CREEK
7144
LEGEND
x Rock chip sample
(See Appendix 4 for results)
500E Grid line
SCALE
0 100 200 metres
NEWMONT EXPLORATION OF CANADA LTD.
DARY PROJECT
PRELIMINARY ROCK CHIP SAMPLES
SCALE 1:5000
LOCATION NTS 82 k/10w
DATE JAN. 21, 1985
SURVEY BY D.B.
DRAWN BY I.C.
NO. FIG. 4

Scheelite occurrences are numerous and widely distributed in this Proterozoic belt in the Cordillera. Past and present producers mined deposits which were scheelite skarns close to granitoid rocks.

PROPERTY GEOLOGY

Principal rock types on the claims include amphibolite, dolomitic limestones and marbles, quartz-muscovite schists, impure quartzites, and micaceous phyllites of the Horsethief Creek Group of Hadrynian age (see Map 1 in pocket). The meta-sediments have a prominent NW-SE strike. A dark green mafic rock found near the Dary-Dismuth workings, possibly an intrusive unit, was mapped as a meta-gabbro. To assist in identifying some of the rock units, a petrographic study was prepared by C. H. B. Leitch and is included as an appendix in this report (see Appenidix 1).

The amphibolite (Unit 1) generally outcrops as well-foliated masses which form a large concordant unit in the enclosing schistose rocks. Hand specimens are dark green with a slightly rusty weathered surface caused by the finely disseminated pyrrhotite. A thin section shows they are composed mainly of hornblende, quartz, plagioclase and chlorite with minor biotite, clinozoisite, carbonate and sphene. In a few localities parallel lenses and horizons of calc-silicate altered limestones are found to be mixed within the amphibolite. Soil geochemistry displays a lithologically-controlled tungsten anomaly coinciding with this broad amphibolite unit.

Crystalline, grey to buff coloured limestones, dolomitic limestones and marbles (Unit 2) form narrow but extensive bands within the quartzitic muscovite schists. Contacts are commonly intercalated. Thin section work reveals the presence of bladed

crystals of tremolite in a calcite or dolomite-rich matrix. Minor phlogopite and plagioclase (An_{22}) was noted. Some of these altered carbonates may represent the product of regionally metamorphosed impure limestones.

Thin lenses and horizons of skarny-altered carbonate found either within or close to the amphibolite appear to represent a scheelite-bearing skarn. Minerals identified in thin section include fluorite, scheelite, oligoclase feldspar (An_{22}), phlogopite, beryl?, apatite and calcite. At Tin City, the altered amphibolite-limestone contact is marked by a massive network of tourmaline needles; this zone is about 0.2 to 2 m wide. A thin section of this rock confirmed a amphibole-free, tourmaline-muscovite fluorite skarn? with scheelite.

The concentrated nature of the fluorine and boron-rich mineralogy suggest pneumatolytic processes formed the scheelite-bearing skarn? zones in carbonate horizons. In the formation of skarns, a granitic mass is not necessarily nearby but may occur at considerable distances (Mulligan, 1983).

A generally siliceous series of complexly interlayered biotite quartzites, chlorite-biotite schists, muscovite schists, chlorite schists, and argillaceous or micaceous phyllites were grouped together (Unit 3). No distinct lithologies were mapped within these quartzose rocks.

The predominant quartz-muscovite and chlorite schists are generally fine-grained, light to dark-green rocks with a well-developed schistosity. White, grey, purple and black colours are common in the fine to gritty textured quartzites. Fine pyrite or pyrrhotite is sometimes present. Thin layers of argillaceous phyllites are found locally.

The dark green to black meta-gabbro (Unit 4) is exposed near the Dary-Dismuth workings where it can be traced for several hundred metres conformable to the enclosing strata. Contacts are sharp. In thin section, this mafic rock is composed of mainly dark hornblende with lesser amounts of white plagioclase, clinozoisite, biotite, and chlorite. A weakly developed foliation suggests that the hornblende gabbro intrusive is probably pre-metamorphic.

STRUCTURE

Schistosity and bedding of the meta-sedimentary units follow a regular NW-SE structural trend and dip about 50°-80° to the southwest. Minor folding is suggested in areas displaying variable northeasterly dips.

A prominent zone of flexure was noted just north of Cockle Creek in the Tin City area (near L250E + 25S) where the regional trend changes from a N30°W strike and 70° dip to the southwest to a N85°W strike and 45° to 75° dip to the north. A monocline or anticlinal fold structure is suggested. The most significant structural feature is a uniform northeasterly-striking fracture system. Fracture orientations are predominantly N30°E with dips in the 40° to 70° range to the southeast and probably developed from tension build-up within the arcuate flexure.

The fracture density in the Tin City area is moderately strong, in contrast to fracture concentrations elsewhere on the property which appear lower. A more random, but fairly consistent, north to northeast striking and southeast dipping fracture pattern is present in the other geologic units away from this zone, particularly within the amphibolite unit.

No faults were mapped on the property although some shearing related to mineralization occurs in the old Dary-Dismuth and Old Glory workings.

MINERALIZATION

Tungsten showings on the property are widespread but occur either within or very close to the amphibolite unit. Scheelite mineralization on the Dary property has been classified as follows:

1) Disseminated scheelite in skarny-altered limestones

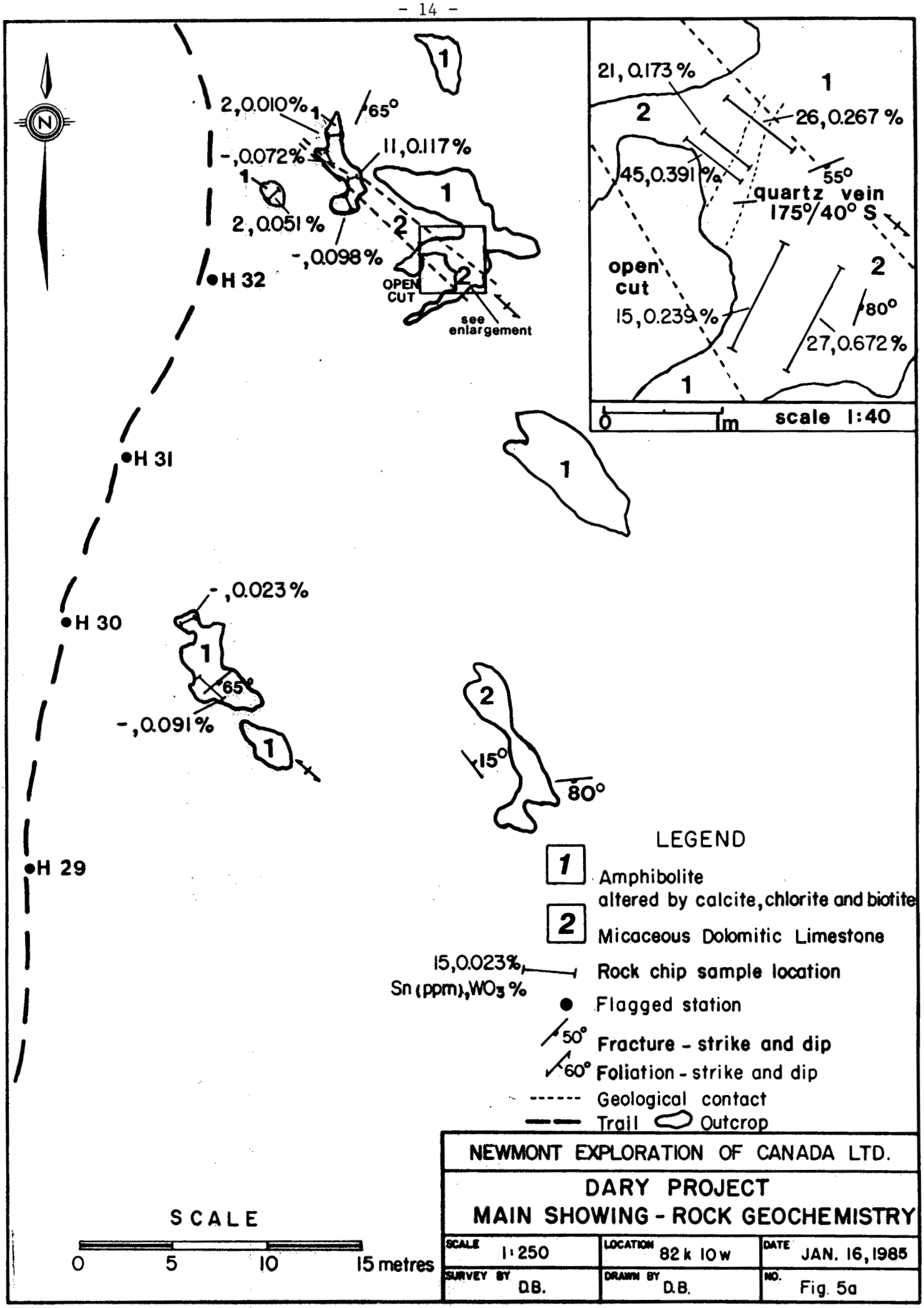
2) Fine to coarse scheelite in a contact-skarn? tourmalinite

3) Scheelite in fracture-filling quartz-oligoclase-tourmaline veinlets

4) Coarse scheelite in quartz-sericite-feldspar? veinlets

The Main showing (near L100E + 490N) and the Cyclone showing (near L800E + 1050S) may indicate the possibility of extensive skarn?-type scheelite mineralization (see Figures 5a and 5b). Masses of fine to coarse crystals of scheelite are disseminated throughout the skarn matrix as indicated by thin section. Assays from the Main showing taken over widths of up to 1 m range from 0.173% to 0.672% WO_3. The corresponding tin values were between 15 and 45 ppm. Minor galena was also noted in place. Samples taken near the amphibolite-carbonate-altered contact ran 0.117% WO_3 or less.

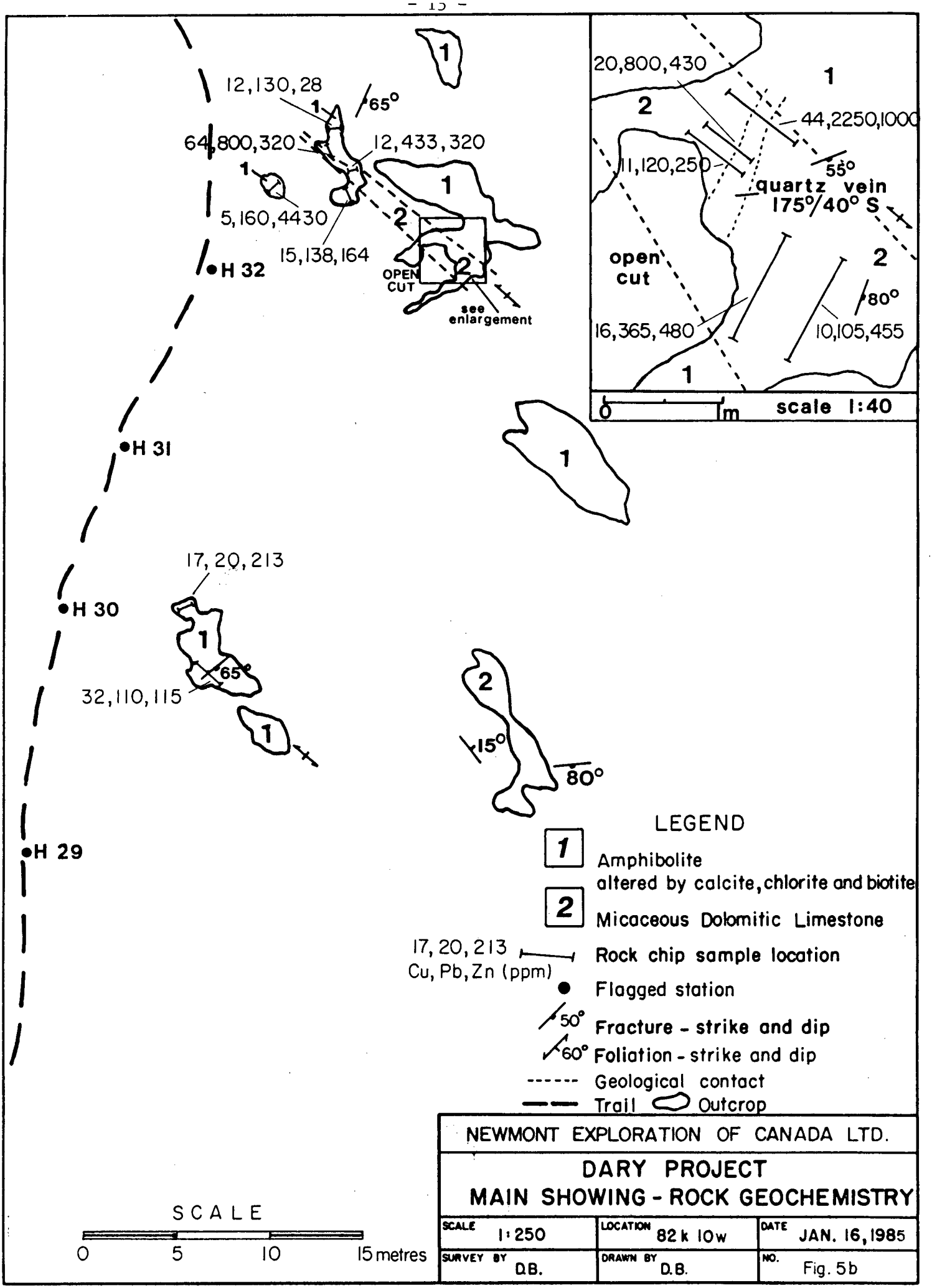
A similar skarn?-type host occurs at the Cyclone showing in the enclosing amphibolite unit (see Figures 6a and 6b). The best assay obtained was 1.680% WO_3 over a 1.3 metre width, with other samples returning considerably lower values.



NEWMONT EXPLORATION OF CANADA LTD.

DARY PROJECT
MAIN SHOWING - ROCK GEOCHEMISTRY

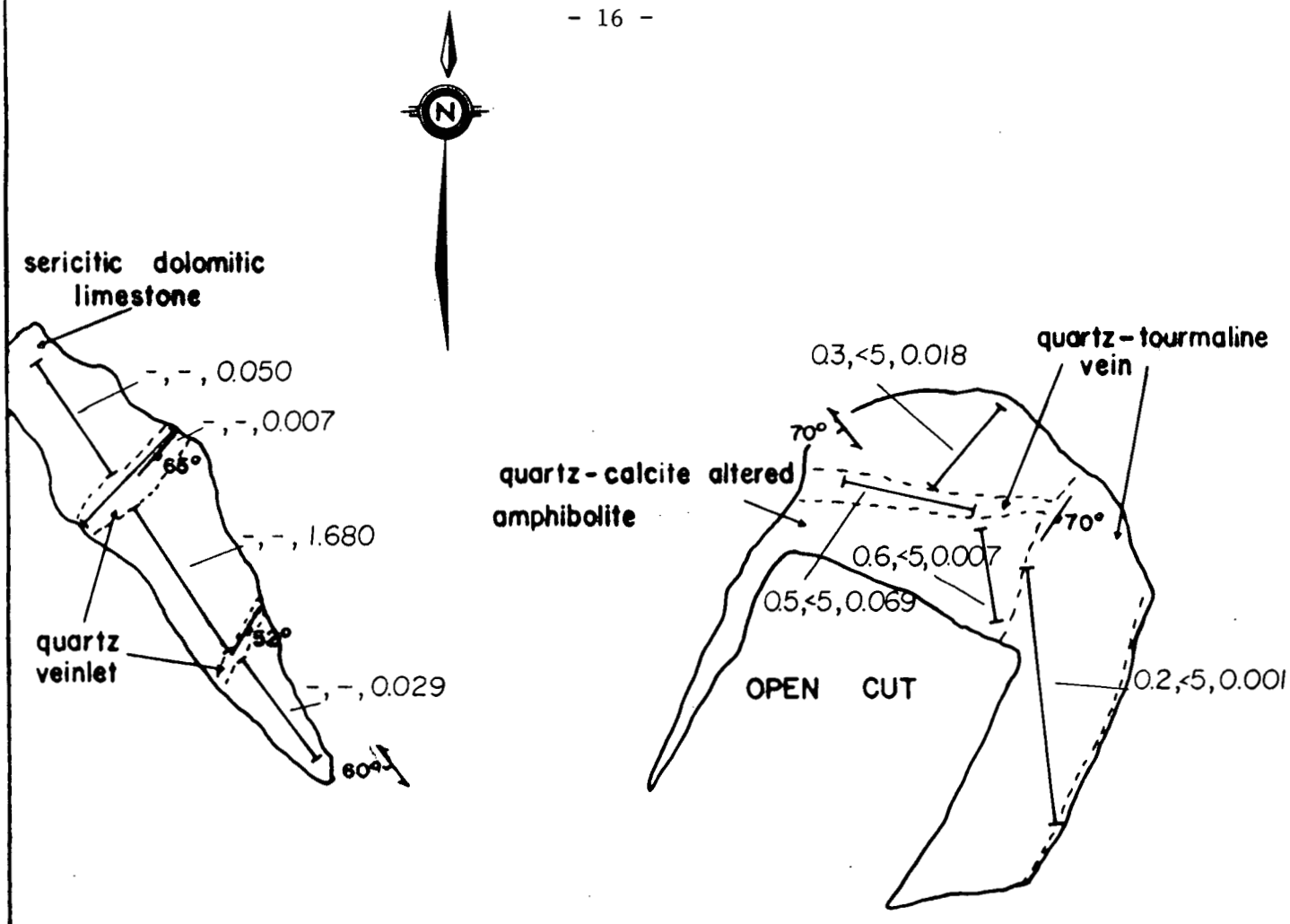
SCALE	LOCATION	DATE
1:250	82 k 10 w	JAN. 16, 1985
SURVEY BY D.B.	DRAWN BY D.B.	NO. Fig. 5a



NEWMONT EXPLORATION OF CANADA LTD.

DARY PROJECT
MAIN SHOWING - ROCK GEOCHEMISTRY

SCALE 1:250	LOCATION 82 k 10w	DATE JAN. 16, 1985
SURVEY BY D.B.	DRAWN BY D.B.	NO. Fig. 5b



LEGEND

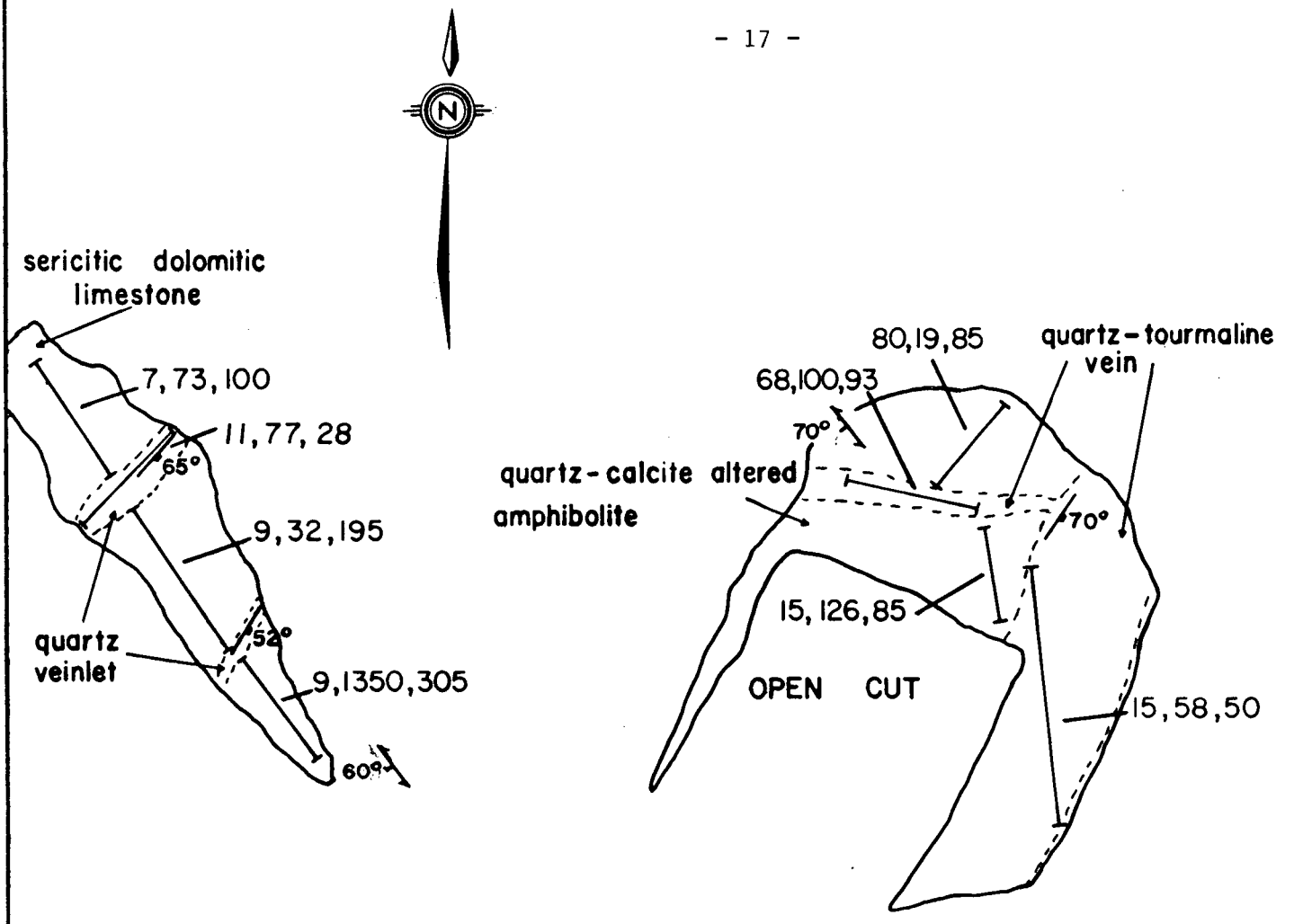
- Outcrop
- 40° Foliation - strike and dip
- 70° Fracture - strike and dip
- Rock chip location

0.3, 5, 0.001 Ag (ppm), Au (ppb), WO_3(%)

SCALE

1 .5 0 1 2 meters

NEWMONT EXPLORATION OF CANADA LTD.		
DARY PROJECT CYCLONE WORKINGS- ROCK CHIP VALUES		
SCALE 1: 50	LOCATION 82 k 10 w	DATE JAN. 18 1985
SURVEY BY D. B	DRAWN BY D. B.	NO. Fig. 6a



Station L 800E+ 1050 S
40 m to the South

LEGEND

	Outcrop
40°	*Foliation - strike and dip*
70°	*Fracture - strike and dip*
	Rock chip location
15,32,85	*Cu(ppm), Pb(ppm), Zn(ppm)*

SCALE

1 .5 0 1 2 meters

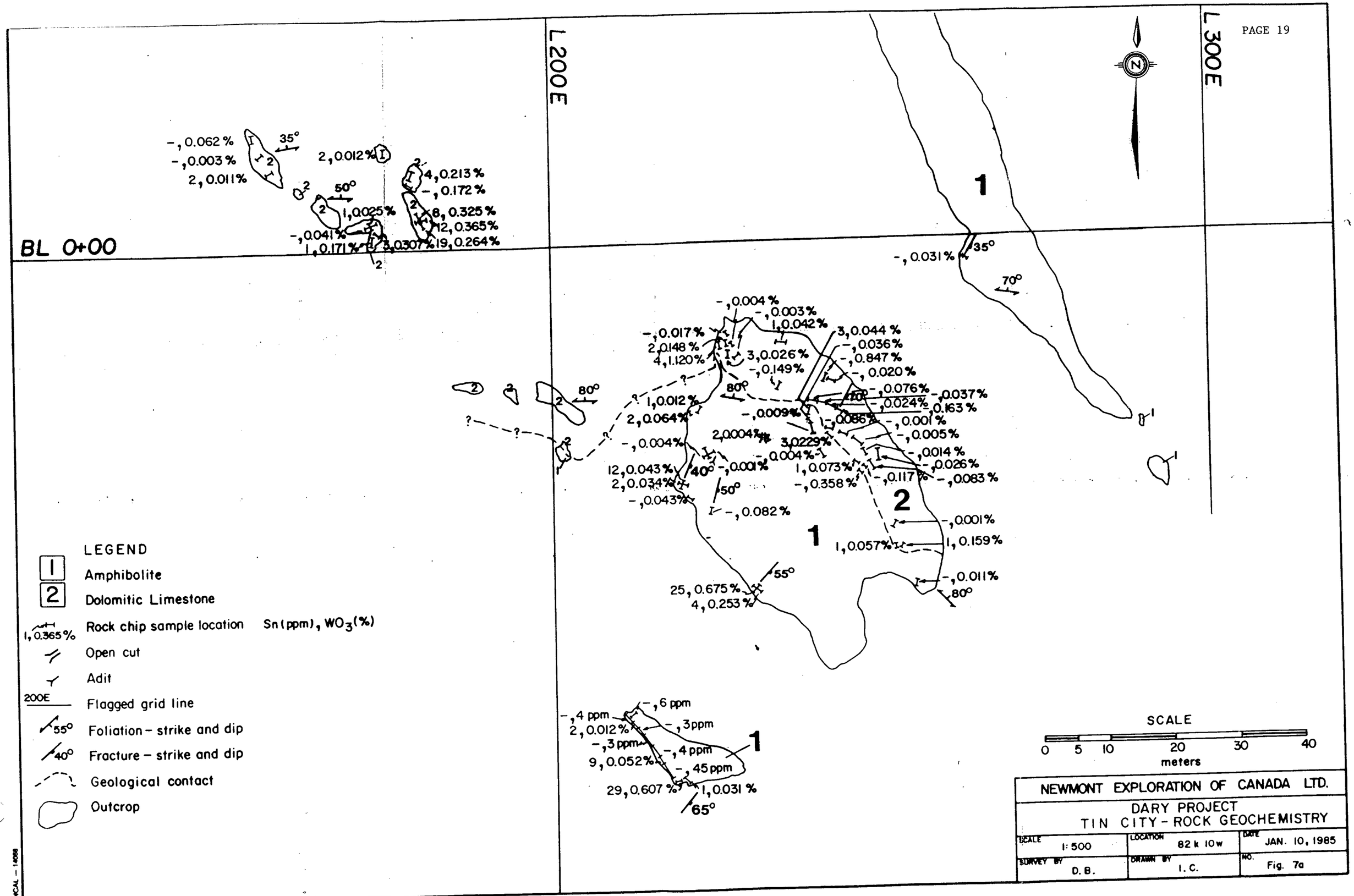
NEWMONT EXPLORATION OF CANADA LTD.		
DARY PROJECT CYCLONE WORKINGS- ROCK CHIP VALUES		
SCALE 1: 50	LOCATION 82 k 10 w	DATE JAN. 18 1985
SURVEY BY D. B	DRAWN BY D. B.	NO. Fig. 6b

A skarny-altered tourmalinized rock is associated with the limestone-amphibolite contact cutting across the Tin City area (see Figures 7a and 7b). A thin section of this rock confirms it to be a tourmaline-rich-muscovite-fluorite skarn? or tourmalinite. Hand specimens exhibit fine to coarse scheelite grains throughout the matrix. One tourmalinite sample assayed 1.120% WO_3 over 2 metres. Other samples taken over the contact ran between 0.057% and 0.358% WO_3 over 1 m widths or less. A contact-metasomatic (pneumatolytic) origin of the scheelite is postulated, although a syn- or diagenetic concentration of the scheelite cannot be ruled out.

Very fine to coarse-grained scheelite occurs in widely-spaced, fracture-related, quartz-feldspar-tourmaline veinlets principally found in the amphibolite unit. In thin section, unusual vein mineralogy shows up to 50% oligoclase feldspar and apparently only 40% combined quartz and tourmaline. Coarse apatite is a further unusual constituent.

At Tin City, scheelite bearing fracture veinlets between 5 and 30 cm wide are concentrated with a density of 1 veinlet per 3 metres. Detailed chip sampling over widths of 0.5 to 2 m perpendicular to the northeasterly strike of these veinlets yielded grades in the 0.012% to 0.365% WO_3 range. Two of the higher samples taken along strike ran 0.847% and 0.675% WO_3 over 1 metre widths. Tin values were 29 ppm or less.

Both barren and mineralized veinlets occur as fracture fillings over a wide area elsewhere on the property. Assays of vein material only were in the 0.1% to 0.4% WO_3 range. One noteworthy sample along the Duncan Lake logging road (sample no. 8000) ran 3.880% WO_3 over 1.5 m; however, samples of adjacent wallrock perpendicular to the veinlet yielded results of only 0.111% and 0.048% WO_3.



LEGEND

- 1 — Amphibolite
- 2 — Dolomitic Limestone
- 1,0.365% — Rock chip sample location — Sn(ppm), WO_3(%)
- Open cut
- Adit
- 200E — Flagged grid line
- 55° — Foliation – strike and dip
- 40° — Fracture – strike and dip
- Geological contact
- Outcrop

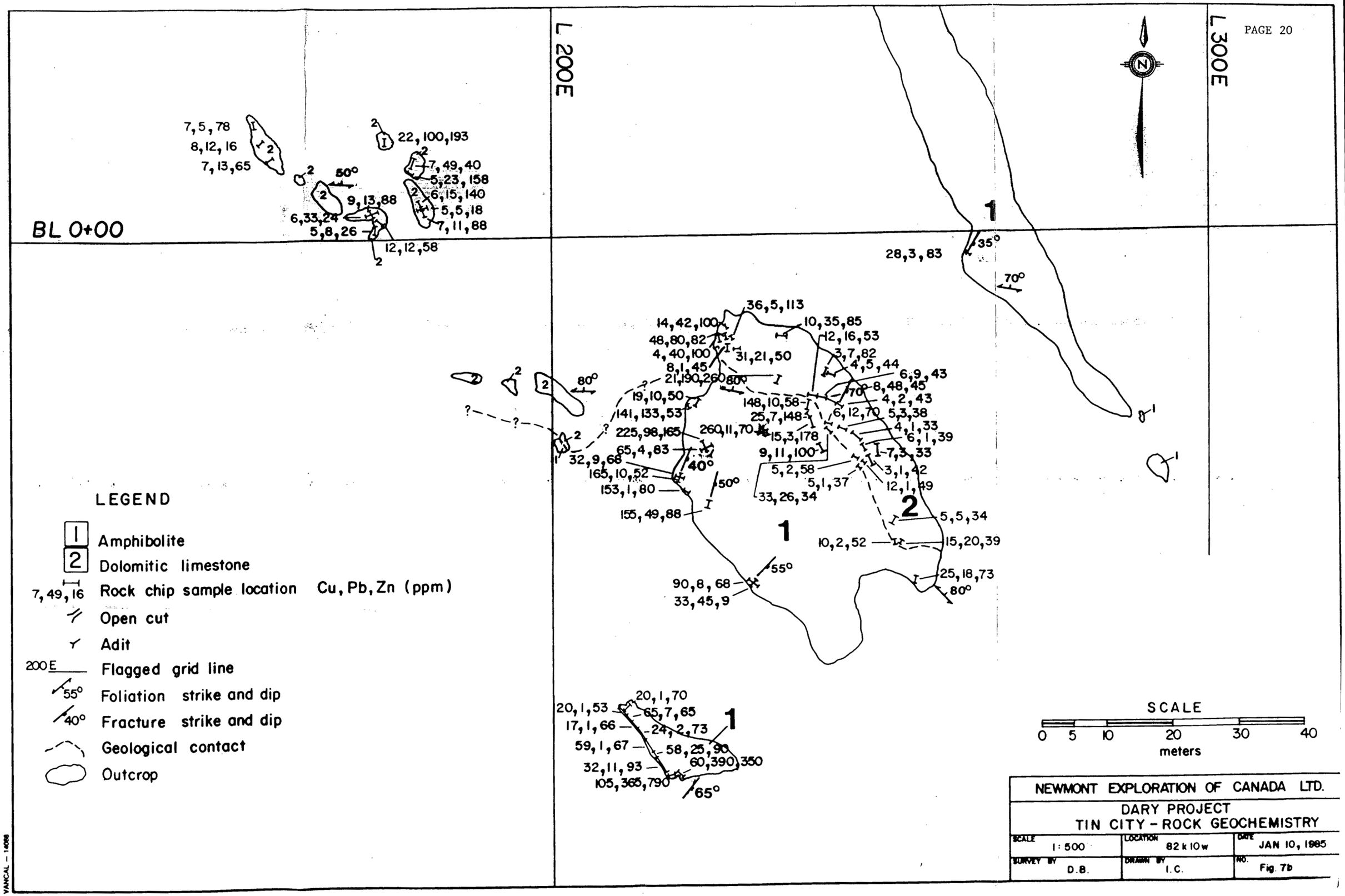
SCALE

0 5 10 20 30 40

meters

NEWMONT EXPLORATION OF CANADA LTD.		
DARY PROJECT TIN CITY – ROCK GEOCHEMISTRY		
SCALE: 1:500	LOCATION: 82 k 10w	DATE: JAN. 10, 1985
SURVEY BY: D. B.	DRAWN BY: I. C.	NO.: Fig. 7a

VANCAL – 14088



LEGEND

- 1 — Amphibolite
- 2 — Dolomitic limestone
- 7,49,16 — Rock chip sample location Cu, Pb, Zn (ppm)
- Open cut
- Adit
- 200E — Flagged grid line
- 55° — Foliation strike and dip
- 40° — Fracture strike and dip
- Geological contact
- Outcrop

SCALE

0 5 10 20 30 40

meters

NEWMONT EXPLORATION OF CANADA LTD.		
DARY PROJECT TIN CITY - ROCK GEOCHEMISTRY		
SCALE 1:500	LOCATION 82 k 10 w	DATE JAN 10, 1985
SURVEY BY D.B.	DRAWN BY I.C.	NO. Fig. 7b

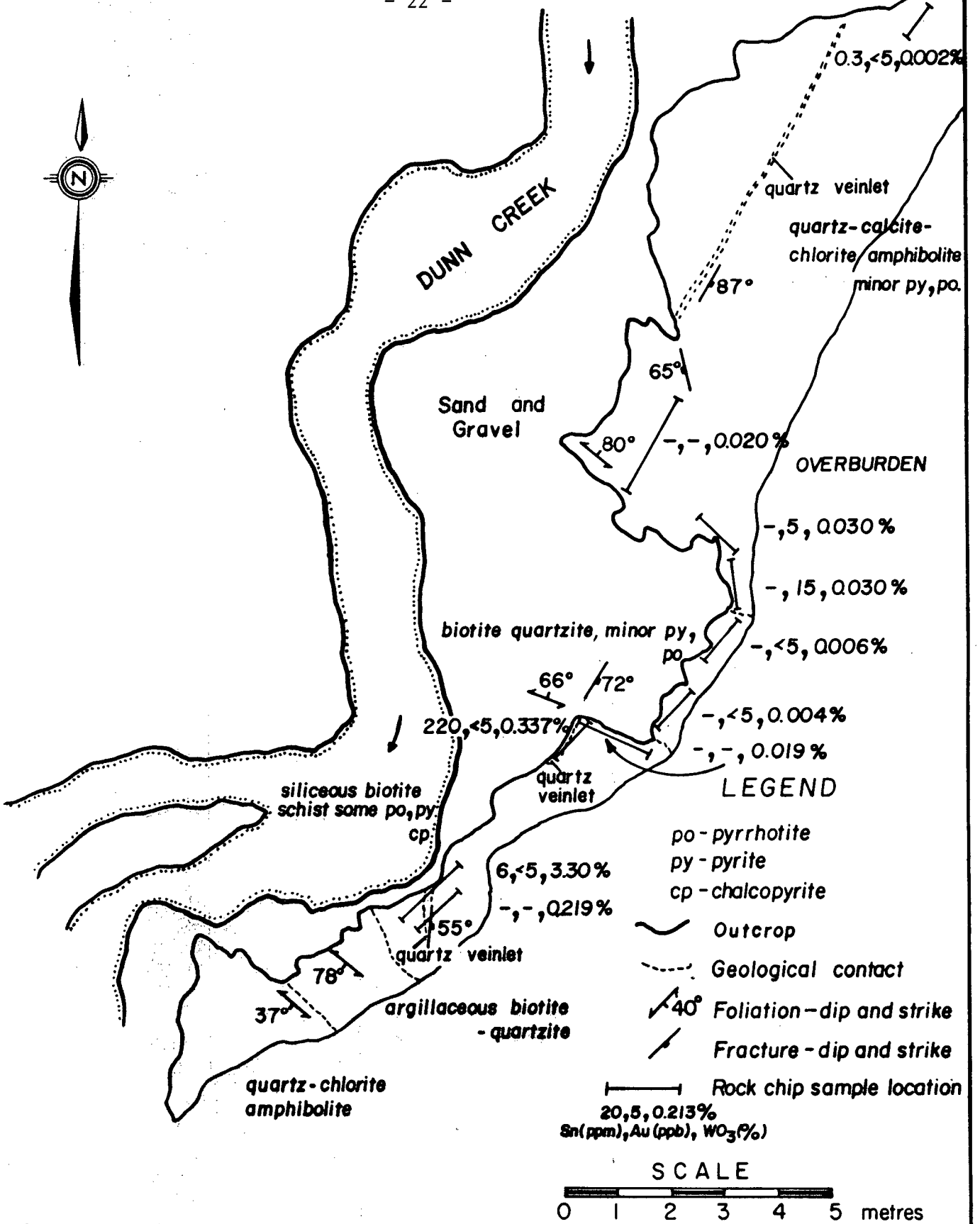
YANCAL — 14088

Very coarse scheelite crystals, up to 2 cm wide, were discovered in two discordant quartz-sericite-feldspar veinlets at the 3200 ft elevation along Dunn Creek (see Figures 8a and 8b). The host rock was a pyrrhotite-pyrite bearing biotite quartzite. One grab sample assayed 3.300% WO_3 but a more representative chip perpendicular to the 30 cm wide veinlet only ran 0.219% WO_3. The other veinlet analyzed 0.337% WO_3 and 220 ppm Sn.

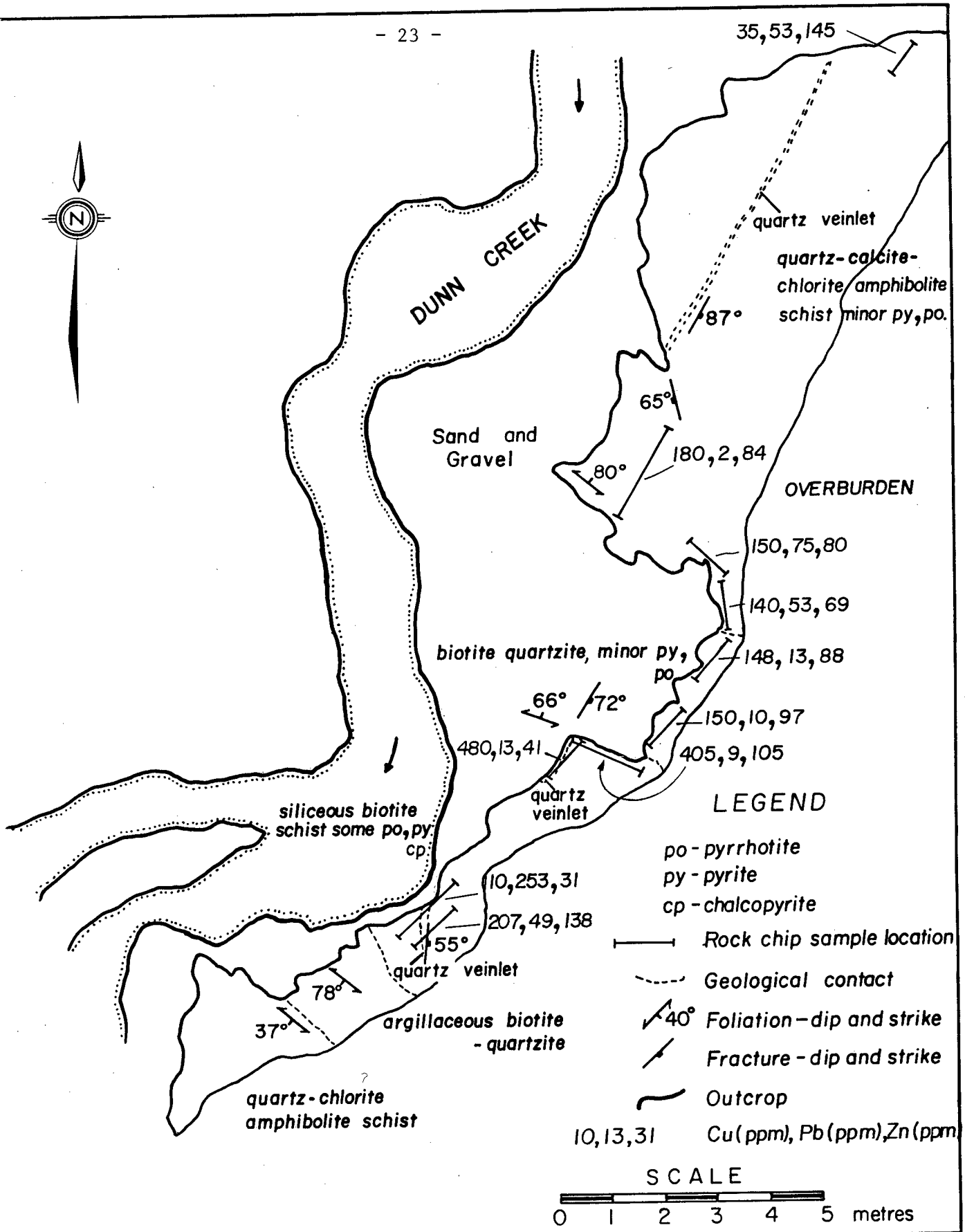
The highest tin value was obtained from a quartz vein along the Duncan Lake logging road north of Reno Creek. It assayed 950 ppm tin. Sample no. 7962 from a quartz vein in the Dunn Creek showing ran 345 ppm in bismuth.

Adits on the Kootenay Bell, Dunn Creek and Old Glory workings all appear to be driven on pyrite-pyrrhotite-galena vein leads in micaceous-carbonate lenses. Lamping turned up some fine scheelite in an old trench by the Kootenay Bell workings. Two 1-metre samples taken along the friable, carbonate-rich trench wall yielded 0.264% and 0.282% WO_3. Traces of scheelite were also found in the altered wallrock inside the adit. A grab sample of quartz-pyrite-pyrrhotite-galena rubble material from the Dunn Creek adit assayed 0.024% WO_3.

Two short adits following shear zones containing massive arsenopyrite make up the Old Glory workings (near 600E + 630S). Three samples analyzed by inductively coupled plasma methods yielded tungsten values in the 20 ppm range. The Erbeck workings (150 m east of 1200E + 1720S) consist of two shallow pits in a sheared carbonate-quartzite contact bearing pyrite, pyrrhotite, chalcopyrite and galena. A sample of quartz vein material ran 10,000 Pb, 19.5 ppm Ag and 0.067% WO_3. Overall, fine chalcopyrite and pyrrhotite is generally common within the amphibolite unit.



NEWMONT EXPLORATION OF CANADA LTD.		
DARY PROJECT DUNN CREEK SHOWING - ROCK CHIP VALUES		
SCALE 1:100	LOCATION 82k10w	DATE JAN 17 1985
SURVEY BY D.B	DRAWN BY I.C.	NO. Fig. 8a



NEWMONT EXPLORATION OF CANADA LTD.		
DARY PROJECT		
DUNN CREEK SHOWING - ROCK CHIP VALUES		
SCALE 1:100	LOCATION 82k10w	DATE JAN 17 1985
SURVEY BY D.B	DRAWN BY I.C.	NO. Fig. 8b

The average geochemical abundance of tungsten in granitoid rocks in the 'tungsten belt' of the Cordilleran Region is 4 ppm or less (Mulligan, 1983). Four samples taken of the meta-gabbro unit near the Dary-Dismuth workings gave results of 1050, 400, 125 and 10 ppm tungsten (see Figures 9a and 9b). A very high background in tungsten is recognized for this mafic intrusive.

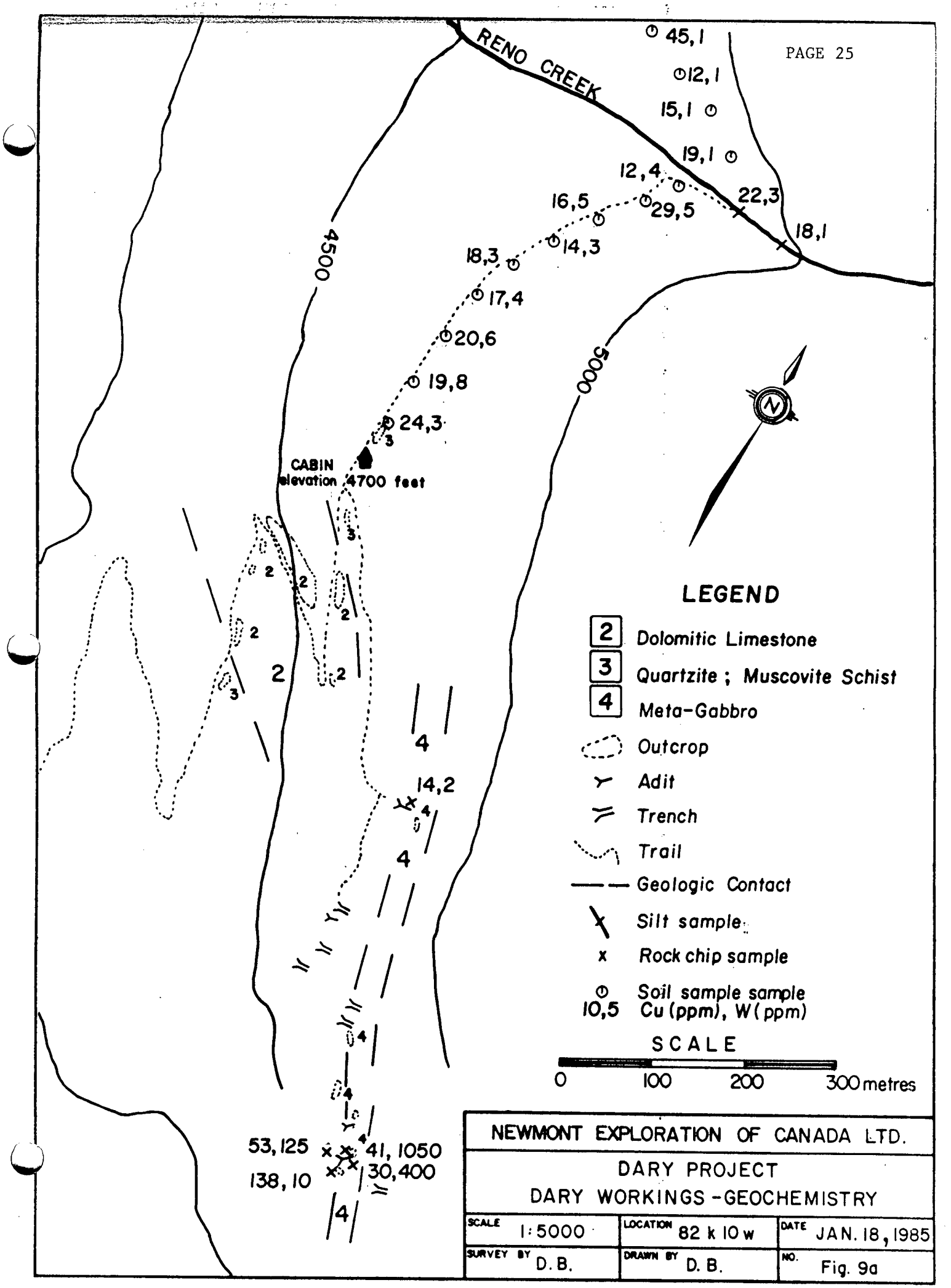
GEOCHEMISTRY

All soil, silt, heavy mineral and rock chip samples were prepared and analysed by Chemex Labs Ltd. in North Vancouver, B.C. A total of 692 soil samples and 3 silt samples were collected and analysed for Cu, Pb, Zn and W in ppm units. This includes 640 soil samples collected on the grid lines, 13 soil samples taken near the Dary workings, 39 soils taken on the Beartrap Claims, and 3 silt samples from Reno Creek.

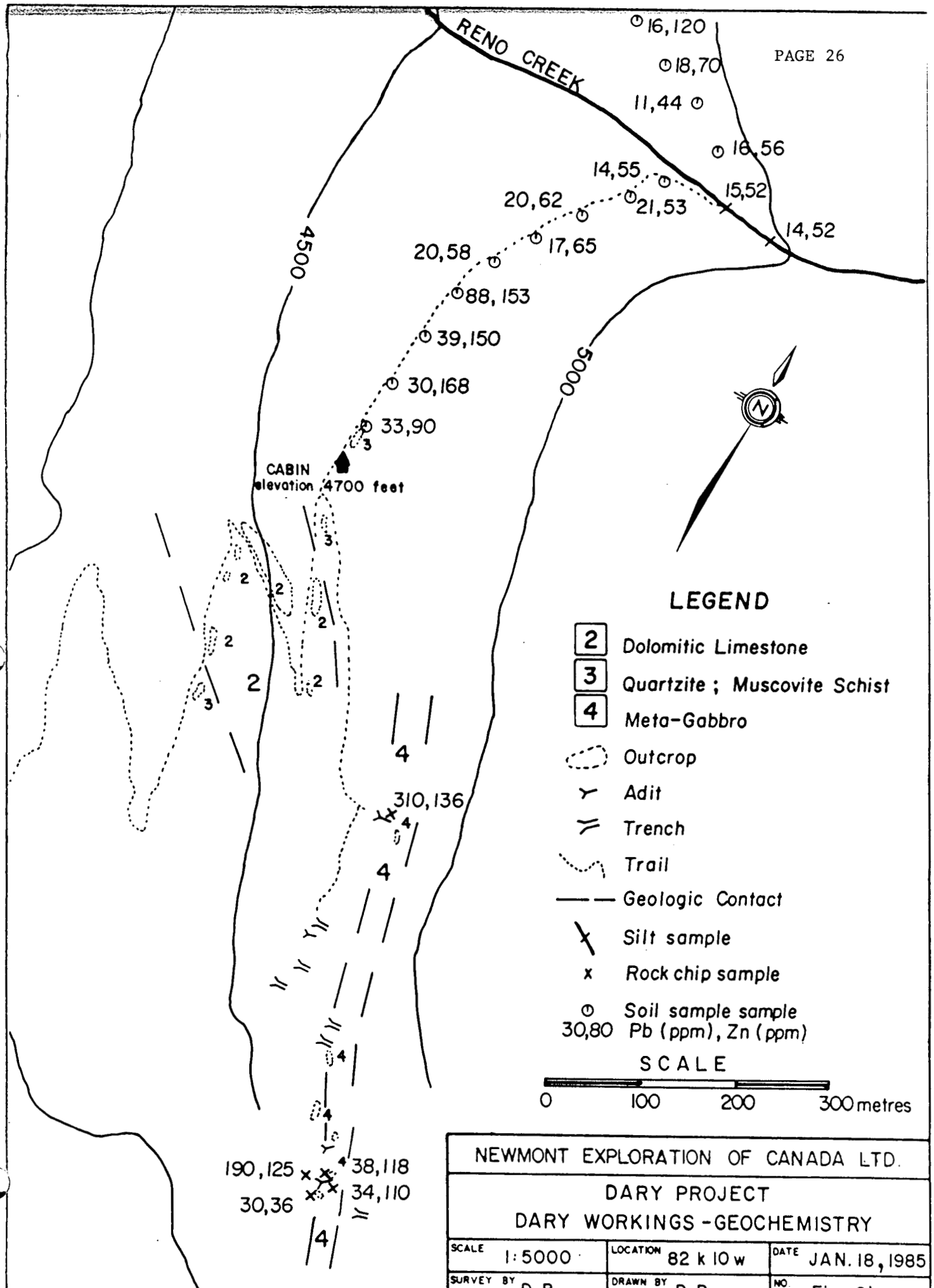
In addition, a total of 164 rock chip samples were taken, of which 141 samples were analysed for Cu, Pb, Zn and assayed for percent tungsten trioxide ($\%WO_3$). Selected samples were analysed for gold, silver and tin. Three samples were also run for inductively coupled plasma analysis at Chemex Labs.

To investigate the occurrence of trace or pathfinder elements, 32 pulps were selected and sent to Acme Analytical Laboratories Ltd. in Vancouver for multi-element inductively coupled argon plasma analysis. A few high values in titanium and one in bismuth are noteworthy (see Appendix 2).

Sixteen panned concentrate samples were collected on drainages running through the claims and analysed for Cu, Pb, Zn, Ag, Au, Sn and W.



NEWMONT EXPLORATION OF CANADA LTD.		
DARY PROJECT DARY WORKINGS - GEOCHEMISTRY		
SCALE 1:5000	LOCATION 82 k 10 w	DATE JAN. 18, 1985
SURVEY BY D. B.	DRAWN BY D. B.	NO. Fig. 9a



NEWMONT EXPLORATION OF CANADA LTD.		
DARY PROJECT DARY WORKINGS - GEOCHEMISTRY		
SCALE 1:5000	LOCATION 82 k 10 w	DATE JAN. 18, 1985
SURVEY BY D. B.	DRAWN BY D. B.	NO. Fig. 9b

FIELD PROCEDURE

Standard soil sampling techniques were used throughout the geochemical survey. At each sample point a hole was dug with a mattock to a depth of 20-40 centimetres. With the aid of a trowel, a soil sample was then taken from the bottom of the hole and placed in a numbered 9 x 15 cm Kraft paper envelope. The objective was to sample the B horizon of podzols; hence, the sample depth varied according to the depth of the B horizon. Organic material in the samples were generally less than 10%. Three silt samples were also taken with the use of a trowel.

To collect a heavy mineral sample, about 15 kilograms of stream gravel were taken from active gravel bars at a depth of 5-30 cm and were processed by means of one of J. Barakso's specially designed pans. The material was screened to -20 mesh and then panned down to fit into a 9 x 15 cm Kraft paper envelope. This procedure was carried out each time at four different sand and gravel bars for each sample.

Most of the rock chip samples were taken with either a moil or a chisel. Sampled widths are marked by two lines spray-painted perpendicular to the sample line. Veinlets were usually sampled both along and perpendicular to the strike.

LABORATORY PROCEDURE

Silt and soil samples were dried in their envelopes and sieved to obtain a -80 mesh fraction. Then 1 gram of each sample was digested with a mixture of $HClO_4$ and HNO_3 and the Cu, Pb, Zn content determined by atomic absorption. Tungsten was analysed by the dithiol colourmetric method after 0.20 grams of sample were fused with potassium bisulphate and leached with hydrochloric acid.

Similarly, rock samples were crushed, dried, and pulverized to -100 mesh and analyzed for Cu, Pb, and Zn by atomic absorption; however, percent tungsten trioxide assays were determined by neutron activation. A one gram sample is irradiated at the Triumf Facility at U.B.C. in a thermal neutron flux. The gamma activity of the resulting tungsten isotopes is determined by gamma spectroscopy to quantify the tungsten content to a detection of 0.001% WO_3.

In the laboratory, the heavy mineral sample was sieved to obtain a -32 to +80 mesh fraction from which the heavy minerals were separated with tetrabromoethane (SG 2.96). The magnetic minerals were then removed and a portion of the non-magnetic fraction was pulverized and analyzed for Cu, Pb, Zn, Ag, W, Sn and gold. For tin a 1 gram sample was sintered with ammonium iodide and leached with a mixture of hydrochloric and ascorbic acids. The TOPO complex was then extracted into MIBK and analyzed by atomic absorption. Analysis for gold was done by fusing 5 grams of sample, digesting with aqua regia and taking up in 25% HCl, and then either fire assaying or extracting as the bromide complex into MIBK and analyzing with atomic absorption.

For multi-element analysis by inductively coupled argon plasma method, a 0.5 gram sample is digested with 3 ml 3-1-3 HCL-HNO3-H2O at 95 deg. C for one hour and is diluted to 10 ml with water. This leach is partial for Mn, Fe, Ca, P, Cr, Mg, Ba, Ti, B, Al, Na K, W, Si, Zr, Ce, Sn, V, Bi and La. Au detection limit by ICP is 3 ppm.

DATA PRESENTATION

With the aid of Newmont's Burroughs computer system and Calcomp plotter, three geochemical maps were produced at 1:5000 scale. They are plotted at the same scale as the geology map for direct correlation. On all maps, true north is plotted as 'N+' south as 'N-', east as 'E+' and west as 'E-' while the title block and legend were drawn manually.

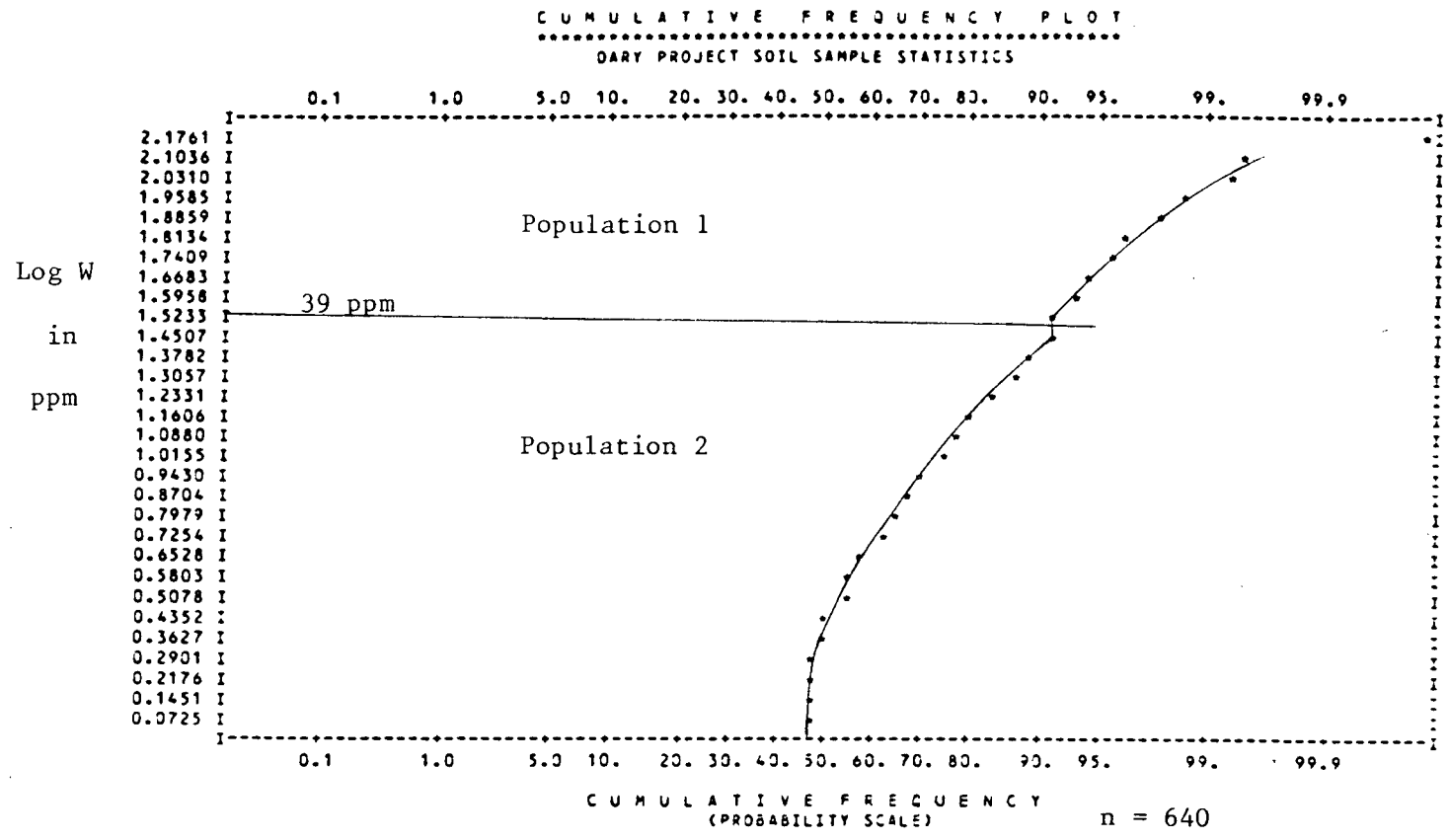
The first two maps (see Map 2a and Map 2b in pocket) show all 640 soil sample locations and their corresponding Cu, W or Pb, Zn values. The third map (see Map 3 in pocket) is a contoured plot for W only based on the statistical treatment of the raw data.

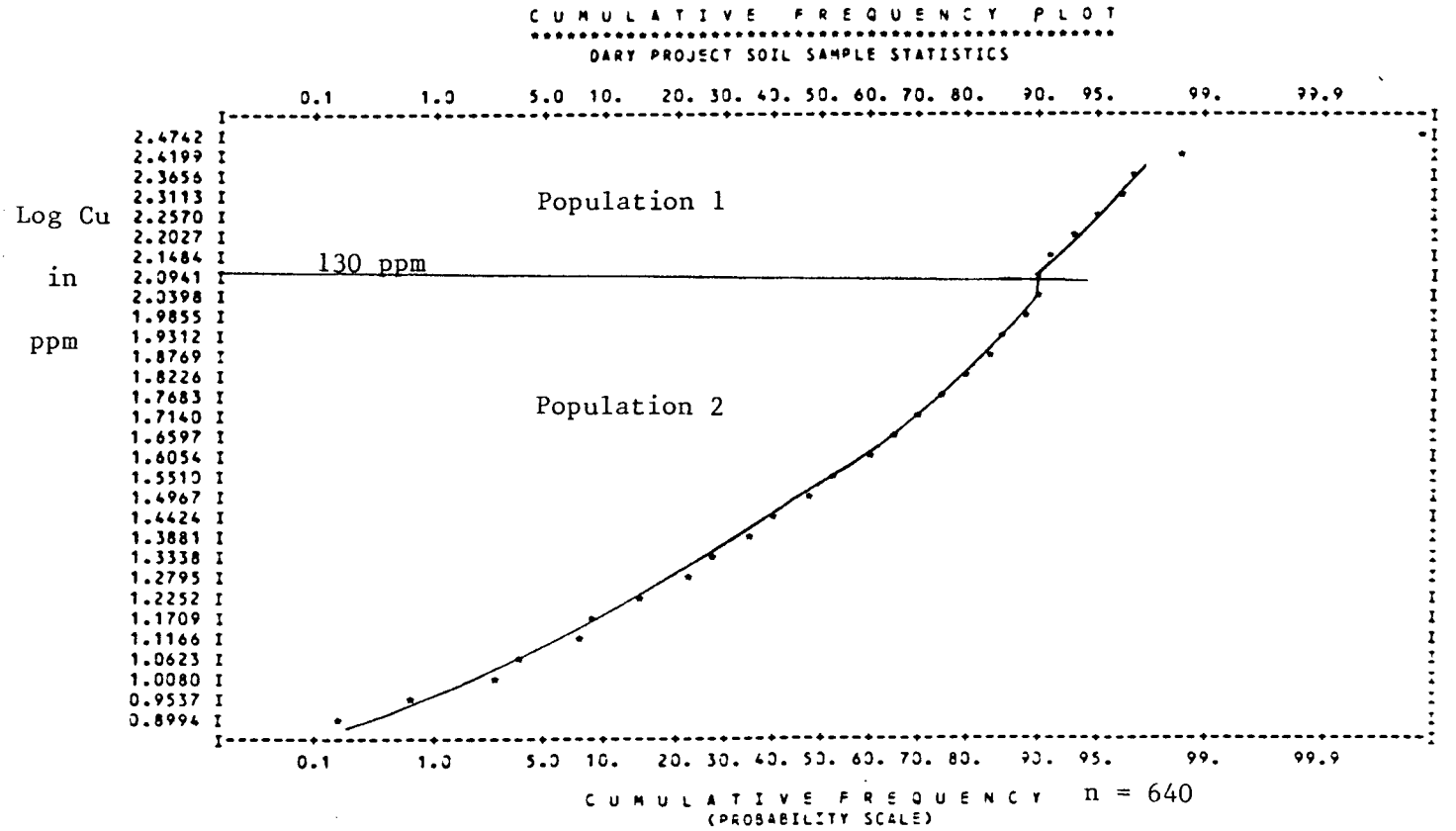
STATISTICAL ANALYSIS

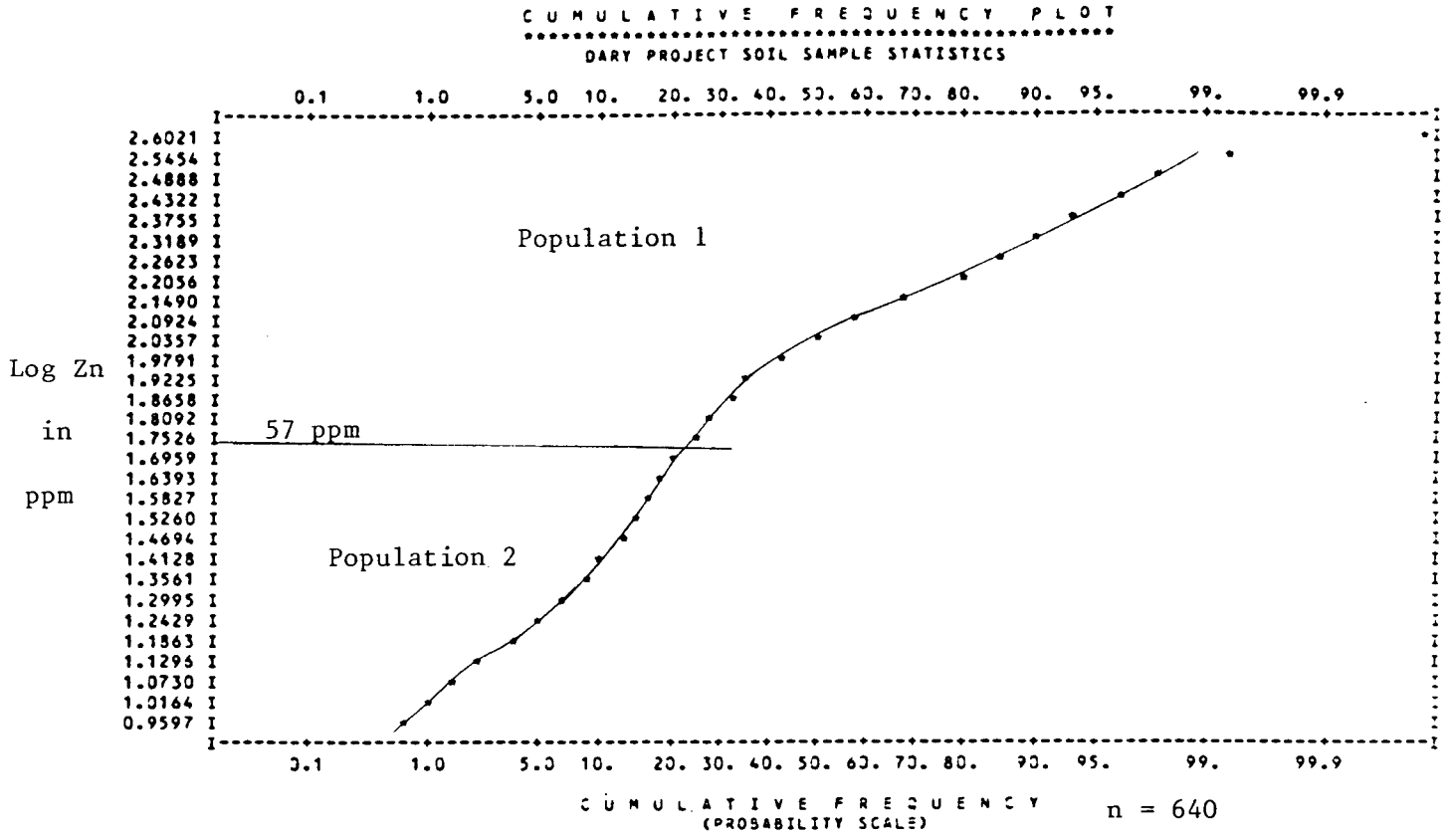
Soil geochemical data for all 4 elements were statistically compiled using Newmont's DUNIV statistics computer program so as to exhibit distinct characteristics of the raw data. A lognormal cumulative frequency graph to base 10 is presented for each element (see Figures 10a and 10b).

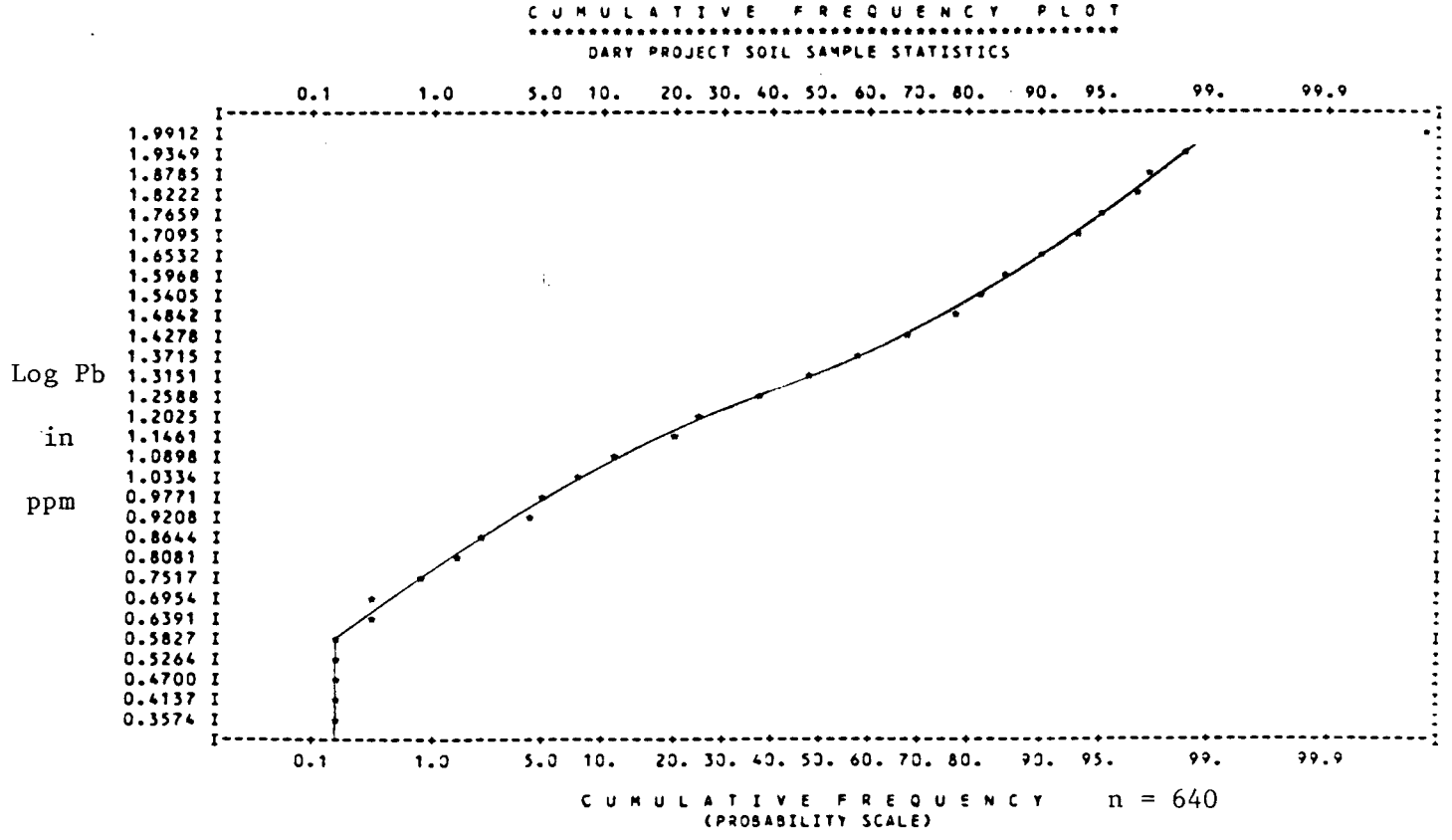
From the plots, two distinct or bimodal populations are defined for the elements copper, tungsten and zinc. The Pb-plot is considered a unimodal distribution. Correlation with the geology map conclusively shows population 1 to be largely restricted to the amphibole unit while population 2 outlines scattered anomalous zones in the quartzite and dolomitic limestone units. Discrete highs on the tungsten plot reflect localized veinlet-type mineralization.

Figure 10a


CUMULATIVE FREQUENCY PLOT
DARY PROJECT SOIL SAMPLE STATISTICS
0.1 1.0 5.0 10. 20. 30. 40. 50. 60. 70. 80. 90. 95. 99. 99.9
Log W in ppm
2.1761
2.1036
2.0310
1.9585
1.8859
1.8134
1.7409
1.6683
1.5958
1.5233
1.4507
1.3782
1.3057
1.2331
1.1606
1.0880
1.0155
0.9430
0.8704
0.7979
0.7254
0.6528
0.5803
0.5078
0.4352
0.3627
0.2901
0.2176
0.1451
0.0725
Population 1
39 ppm
Population 2
CUMULATIVE FREQUENCY
(PROBABILITY SCALE)
n = 640


CUMULATIVE FREQUENCY PLOT
DARY PROJECT SOIL SAMPLE STATISTICS
0.1 1.0 5.0 10. 20. 30. 40. 50. 60. 70. 80. 90. 95. 99. 99.9
Log Cu in ppm
2.4742
2.4199
2.3656
2.3113
2.2570
2.2027
2.1484
2.0941
2.0398
1.9855
1.9312
1.8769
1.8226
1.7683
1.7140
1.6597
1.6054
1.5510
1.4967
1.4424
1.3881
1.3338
1.2795
1.2252
1.1709
1.1166
1.0623
1.0080
0.9537
0.8994
Population 1
130 ppm
Population 2
CUMULATIVE FREQUENCY
(PROBABILITY SCALE)
n = 640


CUMULATIVE FREQUENCY PLOT
DARY PROJECT SOIL SAMPLE STATISTICS
0.1 1.0 5.0 10. 20. 30. 40. 50. 60. 70. 80. 90. 95. 99. 99.9
2.6021
2.5454
2.4888
2.4322
2.3755
2.3189
2.2623
2.2056
2.1490
2.0924
2.0357
1.9791
1.9225
1.8658
1.8092
1.7526
1.6959
1.6393
1.5827
1.5260
1.4694
1.4128
1.3561
1.2995
1.2429
1.1863
1.1296
1.0730
1.0164
0.9597
Log Zn in ppm
Population 1
57 ppm
Population 2
CUMULATIVE FREQUENCY (PROBABILITY SCALE)
n = 640


CUMULATIVE FREQUENCY PLOT
DARY PROJECT SOIL SAMPLE STATISTICS
0.1 1.0 5.0 10. 20. 30. 40. 50. 60. 70. 80. 90. 95. 99. 99.9
1.9912
1.9349
1.8785
1.8222
1.7659
1.7095
1.6532
1.5968
1.5405
1.4842
1.4278
1.3715
1.3151
1.2588
1.2025
1.1461
1.0898
1.0334
0.9771
0.9208
0.8644
0.8081
0.7517
0.6954
0.6391
0.5827
0.5264
0.4700
0.4137
0.3574
Log Pb in ppm
CUMULATIVE FREQUENCY (PROBABILITY SCALE)
n = 640

By inspection of the data, it is considered that tungsten values below 10 ppm are background while the 20, 50 and 100 ppm intervals are considered definitive of the anomalous portion of the population. The tungsten contour map was generated based on this interpretation.

GEOCHEMISTRY INTERPRETATION

The soil survey disclosed a pronounced NW-SE trending tungsten anomaly about 350 m wide and 2600 m long that can be correlated with the amphibolite unit. To the northwest, the anomaly follows the area of flexure to where it is cut-off by Duncan Lake. It is still open to the southeast. Tungsten values range from 1 to 575 ppm, with the majority of them running between 10 and 100 ppm W.

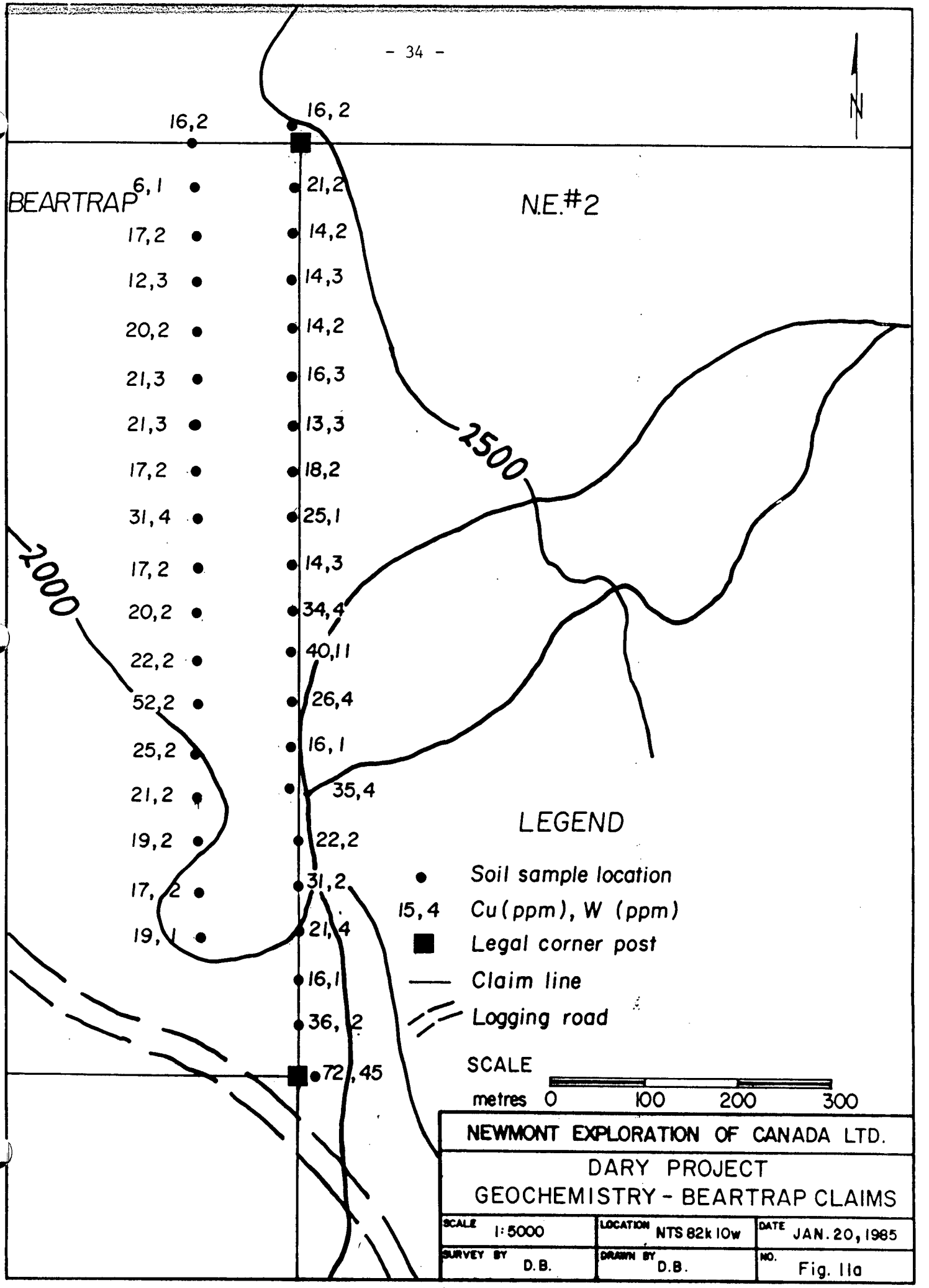
On the tungsten contour map, highly anomalous zones show a 'smeared' east-west orientation reflecting mechanical gravitational dispersion downslope. Prospecting with the ultra-violet lamp usually identified some fracture-controlled scheelite mineralization in rocks within the outlined anomalous zone. A recognizable tungsten anomaly correlates with the area of structural flexure, particularly near Tin City. Several small areas marked by the 10 ppm W contour are scattered in the north portion of the grid.

The Main showing is identified by a 10 ppm contour line. Just south of the Main showing, a 350 x 60 m wide zone containing up to 73 ppm tungsten, marks a narrow, talus-filled gully. Limited prospecting turned up traces of disseminated scheelite in the talus and in nearby outcrops. About 100 m southwest of the Main showing, an irregularly shaped anomaly is indicated by values up to 38 ppm tungsten. Small outcrops of

dolomitic limestone and quartzite were mapped but have not yet been lamped or sampled for scheelite. Soil sample results from the Dary-Dismuth workings and the Beartrap claim were insignificant (see Figures 9a, 9b and 11a, 11b).

Moderate to highly anomalous copper and zinc values, ranging from 7 to 1000 ppm and 8 to 1000 ppm respectively, are generally coincident with the broad tungsten anomaly. Lead values, ranging from 2 to 800 ppm, generally show a more random distribution.

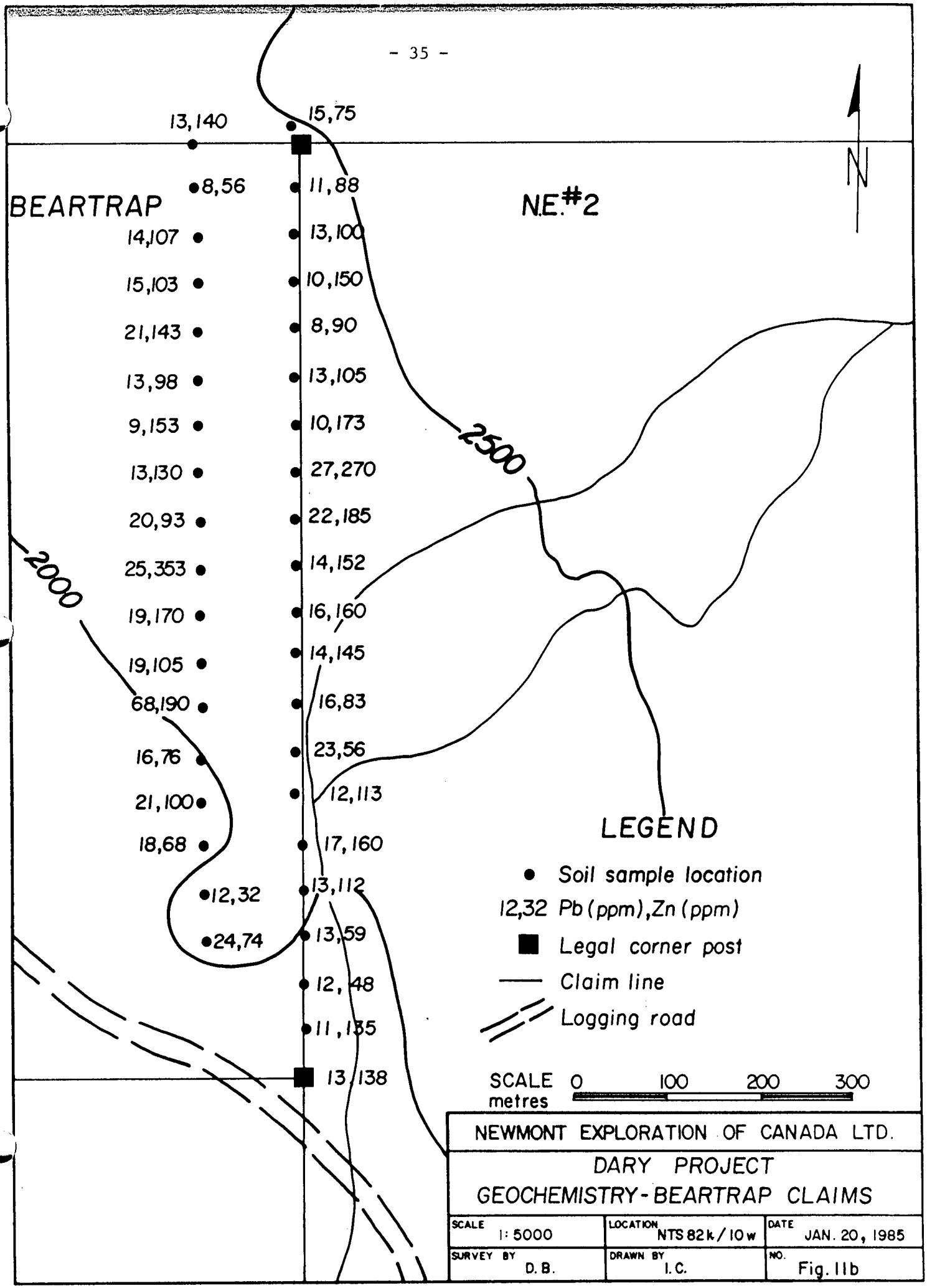
The best tungsten values in heavy mineral samples were found in the central and southern portions of the property, specifically on Cockle, Dunn, and Clancy Creeks (see Figures 12a, 12b, 12c and 12d). Values ranged from 26 to 450 ppm tungsten. Tin values were quite low. Spot lead and gold anomalies occur on Beartrap, Cockle and Dunn Creeks.



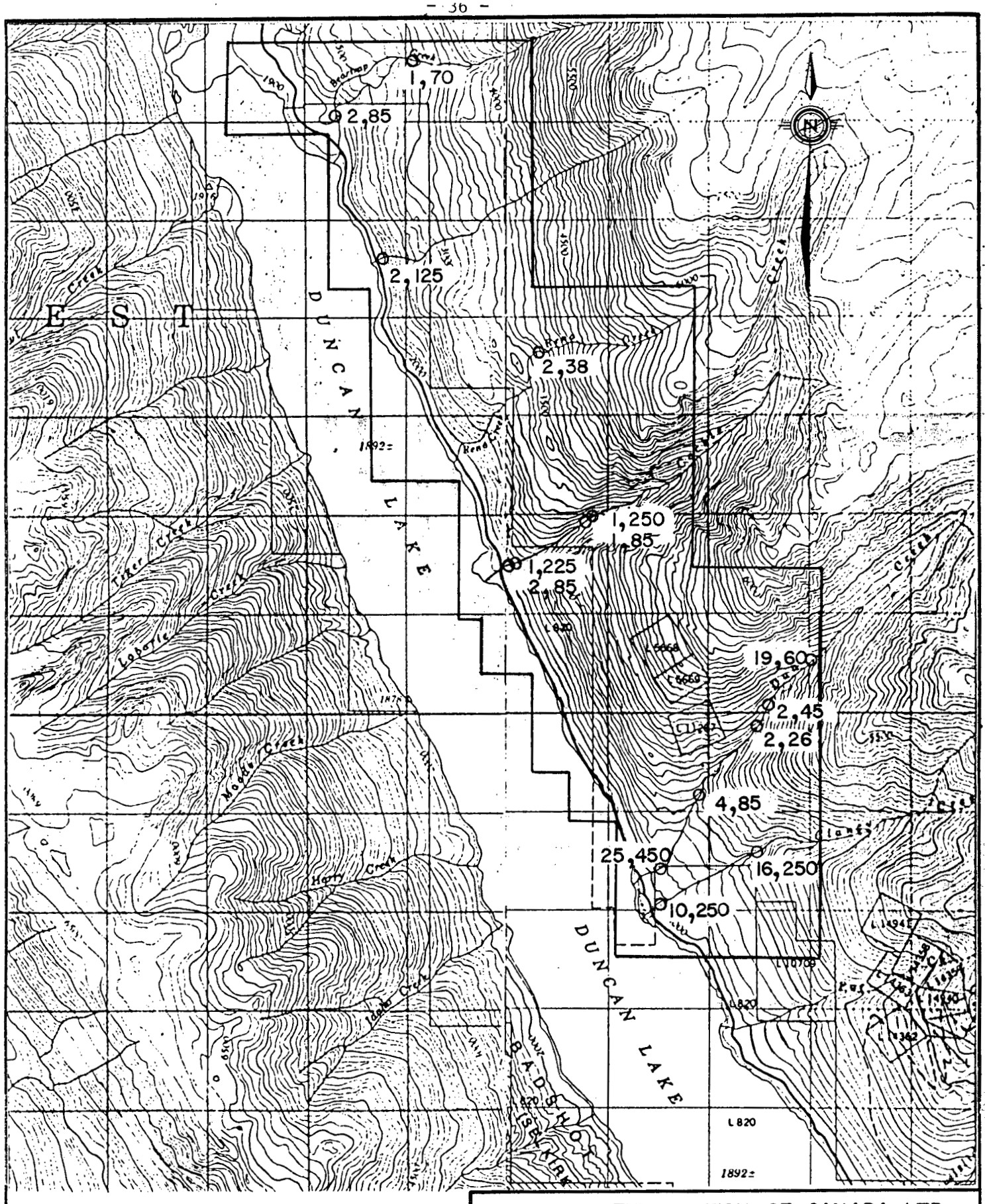
NEWMONT EXPLORATION OF CANADA LTD.

DARY PROJECT
GEOCHEMISTRY - BEARTRAP CLAIMS

SCALE 1:5000	LOCATION NTS 82k 10w	DATE JAN. 20, 1985
SURVEY BY D.B.	DRAWN BY D.B.	NO. Fig. 11a



NEWMONT EXPLORATION OF CANADA LTD.		
DARY PROJECT GEOCHEMISTRY - BEARTRAP CLAIMS		
SCALE 1:5000	LOCATION NTS 82k/10w	DATE JAN. 20, 1985
SURVEY BY D.B.	DRAWN BY I.C.	NO. Fig. 11b



LEGEND

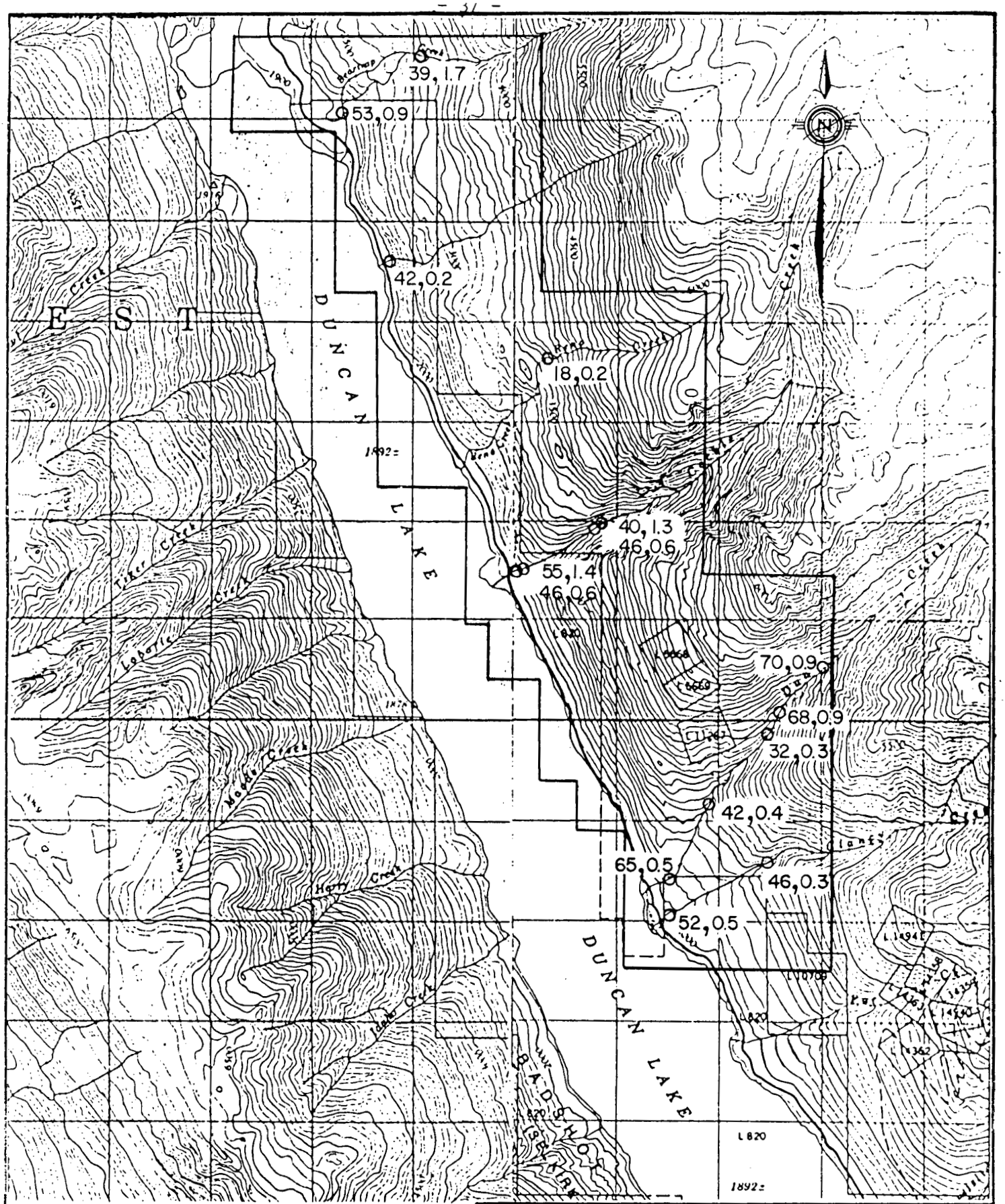
Ø Panned concentrate sample location
values in ppm Sn, W

0 1 2 3 km.

NEWMONT EXPLORATION OF CANADA LTD.

DARY PROJECT
DARY CLAIM GROUP - GEOCHEMISTRY

SCALE 1:50,000	LOCATION NTS 82k 10	DATE JAN. 9, 1985
SURVEY BY D. Bohme	DRAWN BY I. Casidy	NO. Fig 12a



LEGEND

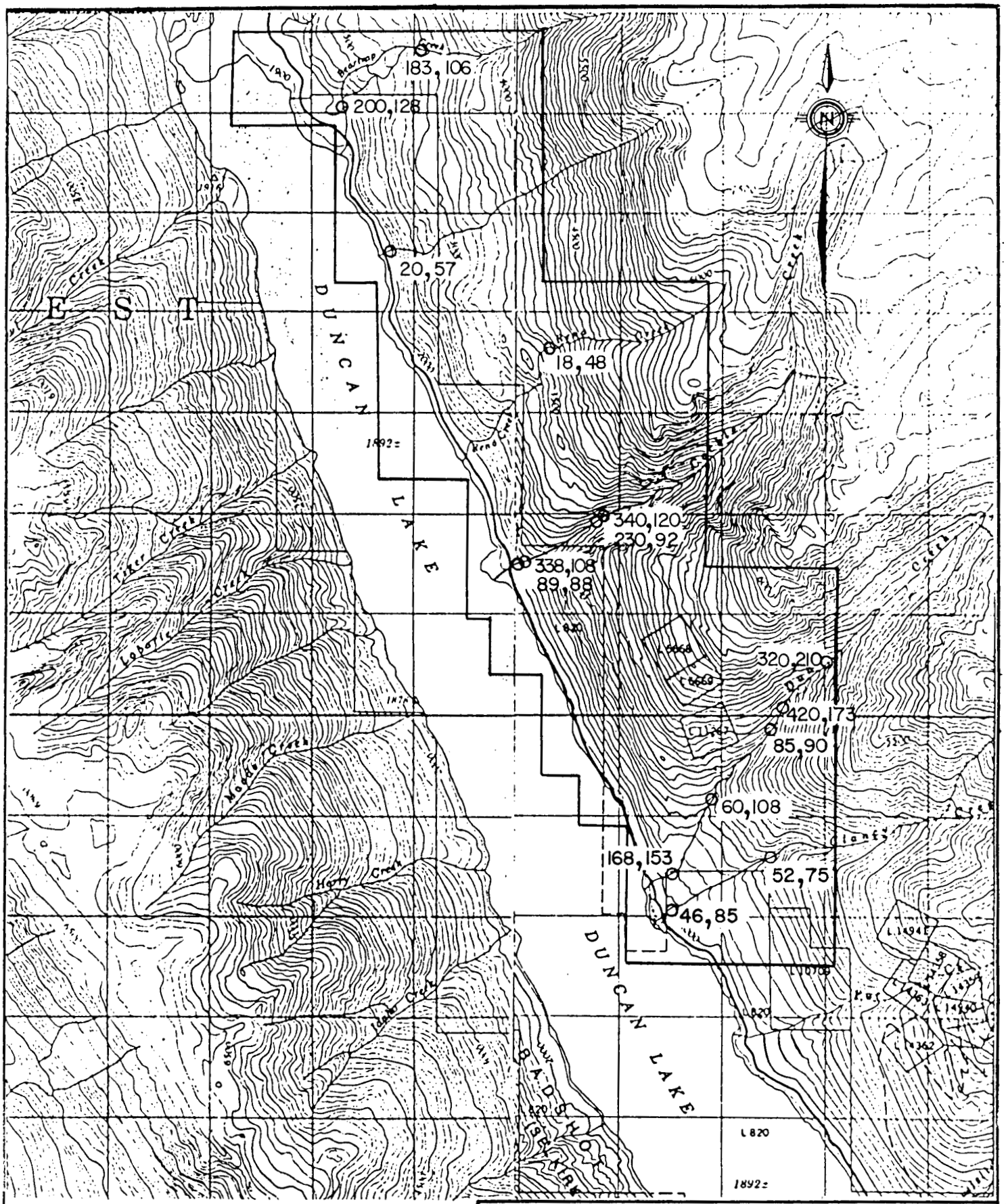
Ø Panned concentrate sample location
values in ppm Cu, Ag

0 1 2 3 km.

NEWMONT EXPLORATION OF CANADA LTD.

DARY PROJECT
DARY CLAIM GROUP-GEOCHEMISTRY

SCALE	LOCATION	DATE
1:50,000	NTS 82k 10	JAN. 9, 1985
SURVEY BY D. Bohme	DRAWN BY I. Casidy	NO. Fig. 12 b



LEGEND

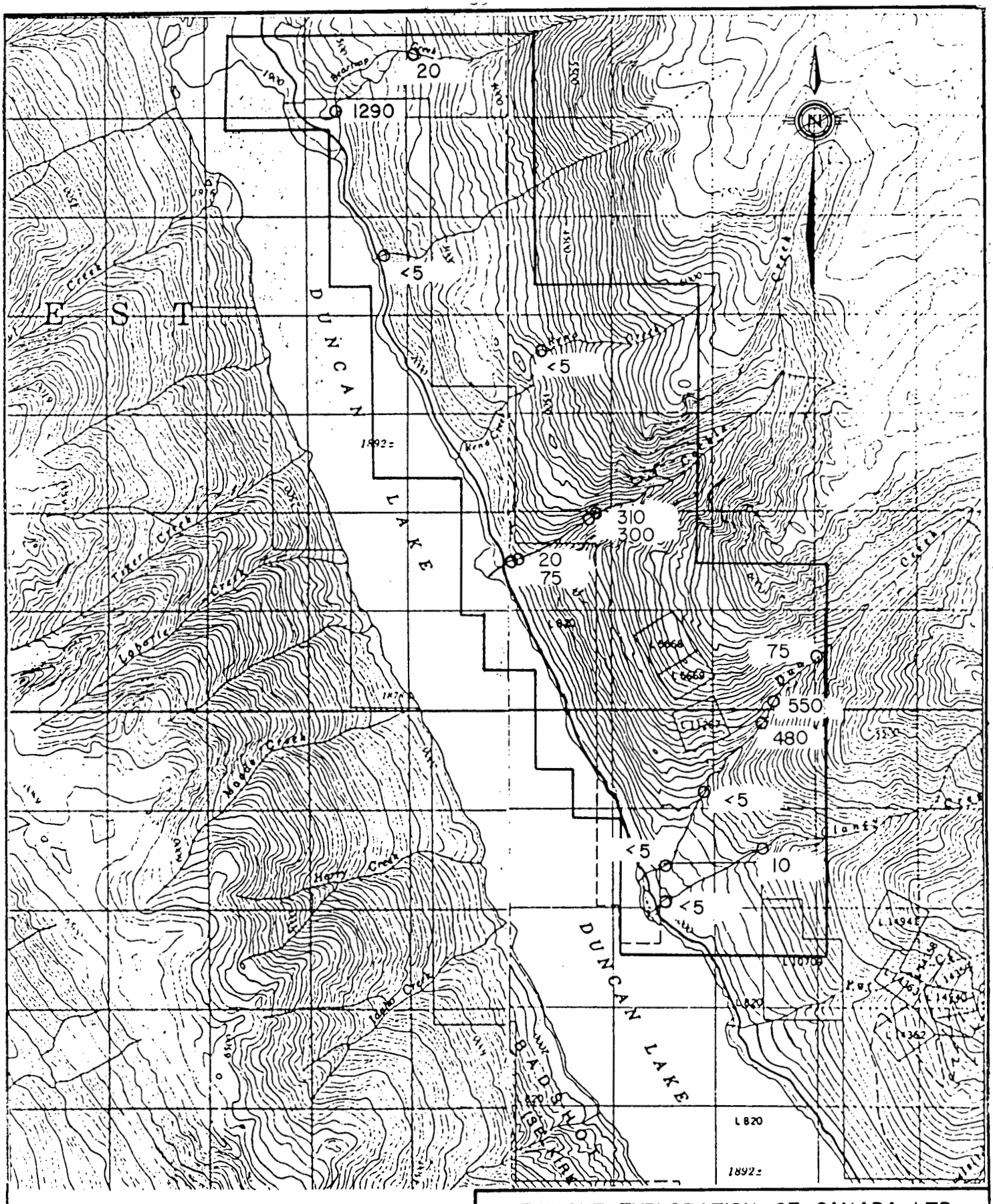
Ø Panned concentrate sample location
values in ppm Pb, Zn

0 1 2 3 km.

NEWMONT EXPLORATION OF CANADA LTD.

DARY PROJECT
DARY CLAIM GROUP - GEOCHEMISTRY

SCALE	LOCATION	DATE
1:50,000	NTS 82k 10	JAN. 9, 1985
SURVEY BY D. Bohme	DRAWN BY I. Casidy	NO. Fig. 12c



LEGEND

Ø Panned concentrate sample location
value in ppb Au

0 1 2 3 km.

NEWMONT EXPLORATION OF CANADA LTD.		
DARY PROJECT DARY CLAIM GROUP - GEOCHEMISTRY		
SCALE 1:50,000	LOCATION NTS 82k 10	DATE JAN. 9, 1985
SURVEY BY D. Bohme	DRAWN BY I. Casidy	NO. Fig. 12d

CONCLUSIONS

The host rocks on the Dary property represent a stratified mixture of metasediments and metavolcanics (marbles, schists and amphibolites). The coincidental outline of the tungsten anomaly suggests a strata-bound, lithological, and stratigraphical preference of the scheelite mineralization for the amphibolite unit. Numerous syngenetic, strata-bound tungsten ore deposits in Austria and in the Mediterranean region are thought to be genetically related to underlying basic volcanic rocks as products of associated hydrothermal activity (Holl and Maucher, 1972).

Four types of scheelite mineralization are recognized and all occur either within or in close proximity to the amphibolite unit. The presence of boron and fluorine-bearing minerals and some unusual accessory minerals, suggests a pneumatolytic reaction forming scheelite-bearing skarn-type mineralogy within concordant carbonate lenses and horizons. It should be noted that scheelite skarns are not necessarily limited to a nearby granite contact but also may occur at some distance from a granitic source.

The fracture-associated and strata-bound character of the veinlets yields speculation that the scheelite has been derived by re-mobilization from a primary volcanic-sedimentary source. Geochemically high background levels in tungsten of the hornblende-gabbro intrusive and amphibolite unit on the property appear to support this conclusion.

RECOMMENDATIONS

The following exploration work is recommended for the Dary Project:

1. Additional grid soil sampling to trace the extension of the the tungsten anomaly to the southeast. Mapping and prospecting on the Silver Gable and Dunn claims should also be carried out concurrently.

2. Field work consisting of soil sampling, rock sampling, mapping and prospecting should be carried out on the N.E.#1 and N.E.#2 claims to define any anomalous zones north of the main tungsten anomaly.

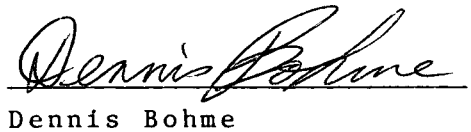
3. Several small tungsten anomalies outlined by the 50, 20 or 10 ppm tungsten contours just north of the main anomaly should be investigated for scheelite mineralization, specifically at L200E + 680N, L200E +260N, and a 60 m wide zone extending east from L100W + 350N to L200E + 390N.

4. Detailed mapping and sampling of skarny-altered tungsten showings with particular attention to carbonate, tremolite, mica, and tourmaline alteration assemblages.

5. A proton magnetometer survey over the entire grid to aid the geologic interpretation of scheelite-bearing skarns near or within the amphibolite and to investigate the possible presence of intrusives at depth.

6. Blasting or cat trenching is warranted on significant scheelite showings to establish drill targets and to assist in more accurately determining the dimensions, structural controls, grade continuity, mineralogy, and alteration of the mineralization.

7. Dependent upon favourable results of the preceding work a provision for diamond drilling is recommended.



Dennis Bohme

February 6, 1985, Vancouver, B.C.

REFERENCES CITED

HOLL, R. & MAUCHER, A. 1972, Synsedimentary-diagenetic ore fabrics in the strata-and time-found scheelite deposits of Kleinartal and Felbertal in the eastern Alps; Mineralium Deposita, V.7, P. 217-226.

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DARY PROPERTY

STATEMENT OF COSTS

1. PERSONNEL

Project Geologist	July 17 - Aug. 3 Sept. 13 - Sept. 20 Oct. 12 - Oct. 28 Nov. 29 - Feb. 13	= 97 days @ $102.50 =	$9,942.50
Geologist	July 19 - July 30 Oct. 12 - Oct. 28	= 29 days @ $137.50 =	$3,987.50
Geologist	Sept. 20 - Oct. 7 Oct. 9 - Oct. 28	= 38 days @ $ 97.50 =	$3,705.00
Senior Geologist	June 12 - June 15	= 4 days @ $200.00 =	$ 800.00
Research Geologist	June 12 - June 15 Jan. 21, 22 Feb. 4	= 7 days @ $158.00 =	$1,106.00
Senior Assistant	Sept. 13 - Oct. 7	= 25 days @ $100.00 =	$2,500.00
Field Assistant	July 17 - Aug. 1	= 16 days @ $ 65.00 =	$1,040.00
Field Assistant	July 17 - Aug. 3	= 18 days @ $ 72.50 =	$1,305.00
Field Assistant	Sept. 13 - Oct. 28	= 46 days @ $ 77.50 =	$3,565.00
Field Assistant	Sept. 13 - Oct. 7	= 25 days @ $ 90.00 =	$2,250.00
Draftsman	Dec. 20, Jan. 9,10, 11,18,21 & Feb. 7,8	= 8 days @ $ 96.75 =	$ 774.00
		SUB TOTAL =	$30,975.00

Statement of Costs

2. TRANSPORTATION			
Van rental - 22 vehicle days @ $57.00/day	= $1,254.00		
4x4 truck rental - 54 vehicle days @ $64.00/day	= $3,456.00		
Air fare & bus sample transportation to & from Vancouver	= $ 774.50		
SUB TOTAL		=	$ 5,484.50
3. MEALS & GROCERIES			
Groceries	= $ 3,028.28		
Meals	= $ 1,087.68		
SUB TOTAL		=	$ 4,115.96
4. ACCOMMODATION			
Hotels	= $ 740.52		
SUB TOTAL		=	$ 740.52
5. CAMP COSTS			
Communications	= $ 452.00		
Lumber, hardware, equipment, etc.	= $ 461.56		
Fuel for stoves, heaters, etc.	= $ 330.45		
SUB TOTAL		=	$ 1,244.01
6. FUEL			
Gasoline for vehicles	= $ 1,436.43		
SUB TOTAL		=	$ 1,436.43

Statement of Costs

7. ASSAY & GEOCHEMICAL CHARGES - Chemex Labs

692 Soil samples for Cu, Pb, Zn, W	@ $8.50/sample	=	$5,882.00
3 Silt samples for Cu, Pb, Zn, W	@ $8.50/sample	=	$ 25.50
16 Heavy mineral stream sediment samples for Cu, Pb, Zn, Ag, Au, Sn, W	@ $22.95/sample	=	$ 367.20
14 Rock samples for geochemical analysis for Cu, Pb, Zn, W	@ $10.30/sample	=	$ 144.20
5 Rock samples for geochemical analysis for Cu, Pb, Zn, Ag, W, Au	@ $17.45/sample	=	$ 87.25
3 Rock samples for 24-element I.C.P.	@ $13.00/sample	=	$ 39.00
47 Rock samples for Cu, Pb, Zn, $\%WO_3$	@ $15.05/sample	=	$ 707.35
43 Rock samples for Cu, Pb, Zn, Sn, $\%WO_3$	@ $19.05/sample	=	$ 819.15
6 Rock samples for Cu, Pb, Zn, Au, $\%WO_3$	@ $21.30/sample	=	$ 127.80
14 Rock samples for Cu, Pb, Zn, Ag, Au, $\%WO_3$	@ $22.20/sample	=	$ 310.80
3 Rock samples for Cu, Pb, Zn, Sn, Au, $\%WO_3$	@ $25.30/sample	=	$ 75.90
5 Rock samples for Cu, Pb, Zn, Ag, Sn, $\%WO_3$	@ $26.20/sample	=	$ 131.00
3 Rock samples for Au, $\%WO_3$	@ $17.50/sample	=	$ 52.50
1 Rock sample for Cu, Au, %Pb, %Zn, $\%WO_3$, oz/ton Ag	@ $38.00/sample	=	$ 38.00
20 Rock samples for $\%WO_3$	@ $11.25/sample	=	$ 225.00
32 Samples for 30-element I.C.P. at Acme Labs Ltd.	@ $ 7.00/sample	=	$ 192.00
5 Thin sections at Coots Petrographic	@ $6.00/sample	=	$ 30.00
	SUB TOTAL		= $9,254.65

Statement of Costs

8. FIELD SUPPLIES

Flagging, bags, paint, etc.	$ 300.00	
Equipment charges - UV lamps, microscope, etc.	$ 150.00	
SUB TOTAL		= $ 450.00

9. REPORT PREPARATION

Reproductions, map blow-up	$ 700.00	
Computer & plotting time	$ 80.00	
Typing, copying, etc.	$ 200.00	
SUB TOTAL		= $ 980.00
GRAND TOTAL		$54,681.07

We hereby certify that:

1. Fifty-four per cent of the work described in this report was done on the claims comprising the D.D.1 Group amounting to $29,527.78.

2. Forty-six percent of the work described in this report was done on the claims comprising the D.D.2 Group amounting to $25,153.29.

3. At least $13,000 of work was done after September 14, 1984, which is the staking date of N.E. #1 and N.E. #2 claims.

Dennis Bohme
D. Bohme

G. D. Delane
G. D. Delane

STATEMENT OF QUALIFICATIONS

I, Dennis Martin Bohme, of the city of Vancouver, in the Province of British Columbia, do hereby certify that:

1. I am a graduate of the British Columbia Institute of Technology with a Diploma in Mining Technology, 1980.

2. I am very close to completing graduation requirements from the Montana College of Mineral Science and Technology, with the degree of Bachelor of Science in Geological Engineering expected in May, 1985.

3. I have been employed in mining exploration as a technician and geological engineer with Newmont Exploration of Canada Limited since 1980, except for 18 months when I was attending university.

4. I personally carried out and supervised much of the work described in this report.

Dennis M. Bohme

Dennis M. Bohme

I, Gerald D. Delane, do hereby certify that the work described in this report was carried out under my supervision.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
G. D. DELANE

Gerald D. Delane

Gerald D. Delane, P.Eng.

APPENDIX II

DARY PROJECT - Thin Section Descriptions

1 (MAIN SHOWING) Phlogopite-Fluorite-Oligoclase Skarn

Hand specimen: Buff-brown foliated metamorphic rock containing abundant carbonate and ?phlogopitic mica. Coarse (0.1-1.0 mm) grains of scheelite disseminated, particularly in carbonate-rich sections. No sulfides apparent.

Thin section: Granular, foliated mosaic of mica, carbonate, and quartz, with grains and stringers of scheelite along foliation. Mica shows preferred orientation in various parts of the slide (similar interference colours in separate domains).

(40%) Mica: mainly colourless to pale brown, absorption low, 2V very small, negative. Muscovite or phlogopite. Some pleochroic haloes around ?allanite or zircon.

(10%) Quartz: slightly strained, small grains with feldspars.

(20%) Carbonate: mainly calcite according to easy solubility in dilute HCl (cold). Well twinned.

(10%) Plagioclase: clear, like quartz but dark grain gives optic axis figure, 2V = 80°, negative. Another grain also shows synthetic twinning; another, perfectly centered biaxial figure 2V = 40°. Well centered section 1x, Y 010 = 3° (An_{22}). Slight alteration to very fine clay/sericite.

(15%) Fluorite (CaF_2): Coarse aggregates of grains, 1-2 mm across, elongate along foliation. Isotropic, very low relief, rough texture.

(3%) Scheelite ($CaWO_4$): very high relief, "pebbly" surface, moderate birefringence, bipyramidal shapes common. Grains up to 1.0 mm. Strong blue fluorescence.

(2%) ?Beryl: moderate relief, possibly uniaxial, low birefringence. One large optically continuous grain. Could be apatite.

(1%) Apatite: very small (0.1 mm) equant grains.

Trace: unidentifiable opaques.

Traces: epidote (small 0.3 mm euhedral grains, lime-green pleochroism (possibly also some zoisite).

In summary, it is difficult to say for certain whether this rock represents a pneumatolytic "skarn" (calcite, fluorite, scheelite) or merely a regionally metamorphosed limy sediment. For the moment (until some other more definitive evidence of skarns is found) I would prefer to treat this rock as a product of pneumatolytic action on a marble. It is interesting to note the high F activity implied by the fluorite and apatite (as in the tourmaline of other specimens). The carbonate does not appear to be dolomite.

#2 QUARTZ-OLIGOCLASE-TOURMALINE VEIN IN AMPHIBOLITE

Hand specimen: A 1 cm thick vein composed of 80% slightly rusty quartz and 20% black tourmaline (schorl) is parallel to foliation in a dark green amphibole-quartz gneiss or schist. No scheelite visible under UV light, and no sulfides visible.

Thin section: The rock is composed of oriented (70%) laths of amphibole (max $c \wedge Z = 17°$, pleochroic Z = sea-green, Y = pale yellowish-green), with (10%) finer-grained interstitial quartz, and (2%) rare brown biotite. There are two other minerals, not readily identifiable:

(1%) a) Colourless, moderate relief, index above quartz, equant grains under 0.1 mm across. Almost isotropic, or dark grey interference colours in elongate sections up to 0.2 mm long which show parallel extension and are length-fast. Probably apatite, $Ca_5(PO_4)_3$ (F, OH, Cl).

(2%) b) Brownish, very high relief, moderately high birefringence. Rhomb-shaped subhedral grains up to 0.2 mm long. Probably sphene, $CaTiSiO_5$.

Actually, mixed with the interstitial quartz there appears to be a good deal of feldspar, (10%) probably mostly plagioclase (index about the same as quartz, some vague twinning and zoning apparent, roughly An_{22}).

(3%) All along the vein, masses of chlorite replace the amphibole. Clinozoisite is also present as fine grains near the veins edge.

(2%) Opaques are not identifiable; they look like magnetite or ilmenite but are not magnetic. They could be oxidized magnetite (limonite is visible in thin section).

The vein is composed of quartz (?30%), plagioclase (50%, twinned, altering to sericite), tourmaline (10%, blue-brown, colour zoned) actinolite (3%, green), and apatite (7%) in coarse crystals (1-5 mm across). Rare opaques occur. Tourmaline appears to be altering to needle-like actinolite. The tourmaline appears to belong to the elbaite-schorl series, based on its blue colouration. Elbaite is the lithian tourmaline.

#3 (WHITE MARBLE) Tremolite-Phlogopite Marble

Hand specimen: White ?marble (almost entirely calcite, reacts vigorously to cold dilute HCl) with a prominent radial pattern - possibly aragonite? Minor brown phlogopite in a band. Very minor scheelite associated only with the phlogopite band. Similar to specimen #1, but with more carbonate.

Thin section: The slide is composed principally (50%) of carbonate (calcite or ?dolomite - two twin directions visible) and tremolite (40%) which shows amphibole X-sections, moderate to strong birefringence, and oblique extinction ($C \wedge Z = 12°$). Phlogopite is present in the band crossing the section, with a few grains of scheelite (very high relief, moderate birefringence). Some minor ?quartz is also present as small interstitial grains (although this could be plagioclase or cordierite), since some is altered to a reddish stain.

The tremolite forms bladed crystals averaging 2-3 mm long, in a matrix of carbonate.

In summary, although this is similar in appearance to #1, it is a tremolitic marble with some phlogopite and minor scheelite.

#4 (GABBRO-DIORITE) Hornblende Gabbro

Hand specimen: Dark green mafic rock with an igneous texture, apparently composed of mainly dark green amphibole and lesser amounts of intersertal white plagioclase. Dark black? tourmaline may be present. No scheelite is apparent in UV light.

Thin section: Essentially a hornblende gabbro, about 80% amphibole and 20% fine-grained interstitial plagioclase/quartz mixed (?50/50). The amphibole is only very weakly pleochroic in green, $C \wedge Z = 17°$. The plagioclase shows twinning and rare zoning (so therefore is probably not cordierite). A centred figure 1 optic axis suggests 2V = 80°, (positive sign) which indicates a calcic composition (or albite, which is not likely). It is probably andesine, about An_{45} ($Y \wedge 010 = 22°$).

Minor clinozoisite (anomalous interference colours, high relief) and rare brown biotite is present. Traces of sphene and also tiny zircons occur.

Occasional masses of chlorite (associated with the clinozoisite and minor ?epidote) appear to replace the amphibole.

The character of the plagioclase, in fine grained domains, probably indicates recrystallization during regional metamorpism. Thus this hornblende gabbro is probably pre-metamorphic. Deuteric alteration (or regional metamorphism) may have produced the epidote group minerals and the chlorite. The elevated geochemical levels in tungsten (1000 ppm) are hard to explain.

#5 (SCHEELITE-BEARING "AMPHIBOLITE") Tourmaline-muscovite-fluorite skarn?

Hand specimen: Dark amphibolite with matrix of soft white ?carbonate mineral. Grains of scheelite to 2 mm diam. in an elongate zone. Altered appearance, minor rust spots after ?sulfide.

Thin section: The rock is not an amphibolite; there is no amphibole. The dark mineral is tourmaline (50%), colour zoned similarly to that in the vein specimen (#2), i.e. blue rims around brown cores.

The white interstitial mineral is mainly muscovite (15%), mixed with fine-grained quartz (3%).

Large grains of colourless fluorite (30%) are also present. The smaller scheelite grains appear to be particularly associated with the fluorite.

Minor opaques are present (not identifiable).

In summary, this rock may represent a mineralized tourmaline-muscovite-fluorite skarn. The high fluorine and boron activity indicates proximity to a strong mineralizing event.

A.B. Reid Feb. 4 '85

APPENDIX II - ROCK CHIP SAMPLE RESULTS

Abbreviations

Rocks		Minerals		Other	
sch	- schist	cp	- chalcopyrite	⊥	-perpendicular
qtzite	- quartzite	po	- pyrrhotite	alt'd	-altered
lst	- limestone	As	- arsenopyrite	meta	-metamorphosed
amph	- amphibolite	py	- pyrite	x-cutting	-cross-cutting
vnlet	- veinlet	bio	- biotite		
qtz	- quartz	chlor	- chlorite		
vn	- vein	ser	- sericite		
dol	- dolomitic	tourm	- tourmaline		
		musc	- muscovite		

DARY PROPERTY – Rock chip sample results in ppm; WO_3 in %; Au in ppb

Sample No.	Location		Description	Width (metres)	Cu	Pb	Zn	Ag	Au	Sn	WO_3
7901	Duncan Lake Rd.	Map 1	⊥ to sample 8000 (wallrock)	1.0	40	2300	43	–	–	4	0.111
7902	Duncan Lake Rd.	Map 1	⊥ to sample 8000 (wallrock)	1.0	13	268	23	–	–	1	0.048
7903	" " "	Map 1	qtz. py. vnlet.	0.5	45	155	6	0.4	<5	1	0.001
7904	" " "	Map 1	⊥ to sample 7903 (wallrock)	0.5	48	173	16	0.6	<5	1	0.001
7905	" " "	Map 1	qtz vnlet in bio-chlor sch	1.0	12	62	8	0.2	<5	1	<0.001
7906	" " "	Map 1	qtz vnlet in chlor-bio sch	1.0	21	210	50	2.5	<5	950	0.005
7907	Duncan Lake Rd.	Map 1	bio-qtzite with py/po	1.0	25	37	47	0.3	<5	3	<0.001
7908	L900E +1650S	Map 1	along a 1m qtz veinlet	1.0	11	1200	30	1.2	<5	–	0.024
7909	L900E + 1650 S	Map 1	along a 1m qtz veinlet	1.5	9	98	20	0.2	<5	–	0.014
7910	L 900E + 1650 S	Map 1	across amphibolite wallrock	1.5	32	58	60	0.1	<5	–	0.001
7911	Duncan Lake Rd.	Map 1	across qtz vnlet.	1.5	15	395	18	0.3	<5	–	<0.001
7912	Cyclone Showing	Fig. 6a, 6b	across 2m wide qtz vn	2.0	15	58	50	0.2	<5	–	0.001
7913	Cyclone Showing	Fig. 6a, 6b	carbonate, qtz and tourm. wallrock	0.70	15	126	85	0.6	<5	–	0.007
7914	" "	Fig. 6a, 6b	along 20cm wide qtz vnlet	1.0	68	100	93	0.5	<5	–	0.069
7915	" "	Fig. 6a, 6b	across foliation of alt'd amphibolite	0.80	80	19	85	0.3	<5	–	0.018
7916	" "	Fig. 6a, 6b	parallel foliation of skarny alt'd lst.	1.0	9	1350	305	–	–	–	0.029
7917	" "	Fig. 6a, 6b	along strike of 20cm wide qtz vnlet	1.0	11	77	28	–	–	–	0.007
7918	" "	Fig. 6a, 6b	along foliation of skarny alt'd lst.	1.30	9	32	195	–	–	–	1.680
7919	Cyclone Showing	Fig. 6a, 6b	along foliation of skarny alt'd lst.	1.0	7	73	100	–	–	–	0.050
7920	Tin City area	Fig. 7a, 7b	calcareous amphibolite	2.5	32	11	93	–	–	–	45 ppm
7921	Tin City area	Fig. 7a, 7b	fractured calcareous amphibolite	2.0	59	1	67	–	–	–	4 ppm
7922	" " "	Fig. 7a, 7b	" " "	2.0	24	2	73	–	–	–	3 ppm
7923	" " "	Fig. 7a, 7b	" " "	1.4	17	1	66	–	–	–	3 ppm
7924	" " "	Fig. 7a, 7b	amphibolite with qtz vnlets	1.6	20	1	70	–	–	–	6 ppm
7925	Tin City area	Fig. 7a, 7b	calcareous amphibolite	1.6	20	1	53	–	–	–	4 ppm
7926	L1200E + 2100S	Map 1	⊥ to qtz vnlet in amphibole sch	1.5	175	4	60	–	–	–	0.308
7927	L0 + 200N	Map 1	⊥ to 30cm wide qtz vnlet	1.5	44	>10,000	865	55	<5	–	6 ppm
7928	L0 + 200N	Map 1	amphibolite - vnlet margins	0.6	48	500	418	–	–	–	14 ppm
7929	Tin City area	Fig. 7a, 7b	qtz vnlet parallel to foliation	1.3	25	18	73	–	–	–	0.011
7930	Tin City area	Fig. 7a, 7b	⊥ to qtz vnlet in lst	0.70	15	20	39	–	–	1	0.159
7931	Tin City area	Fig. 7a, 7b	⊥ to qtz-vnlet in tourm-rich lst	0.80	10	2	52	–	–	1	0.057

DARY PROPERTY – Rock chip sample results in ppm; WO_3 in %; Au in ppb

Sample No.	Location		Description	Width (metres)	Cu	Pb	Zn	Ag	Au	Sn	WO_3
7932	Tin City	Fig. 7a, 7b	⊥ to qtz vnlet in tourm-rich lst.	1.0	5	1	37	–	–	–	0.358
7933	Tin City	Fig. 7a, 7b	⊥ to qtz vnlet in dol. lst.	1.0	12	1	49	–	–	–	0.117
7934	Tin City	Fig. 7a, 7b	⊥ to qtz vnlet in lst.	2.0	3	1	42	–	–	–	0.083
7935	" "	Fig. 7a, 7b	tourmaline-rich zone with qtz vnlet.	1.0	5	2	58	–	–	1	0.073
7936	" "	Fig. 7a, 7b	⊥ to qtz. vnlet.	0.70	6	1	39	–	–	–	0.014
7937	" "	Fig. 7a, 7b	tourmaline-rich contact zone	1.4	33	26	34	–	–	3	0.229
7938	" "	Fig. 7a, 7b	⊥ to qtz. vnlet. in dol. lst	1.5	6	12	70	–	–	–	0.086
7939	" "	Fig. 7a, 7b	⊥ to qtz. vnlet. in dol. lst	1.2	4	2	43	–	–	–	0.163
7940	" "	Fig. 7a, 7b	" " " " " " "	2.0	12	16	53	–	–	–	0.076
7941	" "	Fig. 7a, 7b	tourmaline-rich contact zone	2.0	148	10	58	–	–	3	0.044
7942	" "	Fig. 7a, 7b	⊥ to 10cm wide qtz vnlet	1.2	25	7	148	–	–	–	0.036
7943	" "	Fig. 7a, 7b	qtz vnlet in chloritic amphibolite	1.8	15	3	178	–	–	–	0.009
7944	" "	Fig. 7a, 7b	along strike of qtz vnlet	1.4	3	7	82	–	–	–	0.847
7945	" "	Fig. 7a, 7b	⊥ to sample 7944 in lst.	1.4	4	5	44	–	–	–	0.020
7946	" "	Fig. 7a, 7b	thin qtz vnlets in lst.	2.0	4	1	33	–	–	–	0.005
7947	" "	Fig. 7a, 7b	qtz vnlet in lst.	1.5	5	3	38	–	–	–	0.001
7948	" "	Fig. 7a, 7b	⊥ to qtz vnlet in amphibolite	1.2	9	11	100	–	–	–	0.004
7949	Tin City	Fig. 7a, 7b	qtz vnlet in tourm-alt'd lst	1.5	21	190	260	–	–	–	0.149
7950	Tin City	Fig. 7a, 7b	tourmaline-rich zone with qtz vnlet.	2.0	10	35	85	–	–	–	0.042
7951	L 80E + 800S	Map 1	several qtz vnlets in amphibolite	1.0	67	95	500	–	–	–	8 ppm
7952	Dary-Dismuth	Fig. 10a, 10b	along strike of qtz vein	1.3	14	310	136	–	–	–	2 ppm
7953	Dary-Dismuth	Fig. 10a, 10b	inside Adit; meta-gabbro	1.0	41	38	118	–	–	–	1050 ppm
7954	" "	Fig. 10a, 10b	" " ; " "	1.0	30	34	110	–	–	–	400 ppm
7955	Dary-Dismuth	Fig. 10a, 10b	Adit entrance; qtz meta-gabbro	2.0	53	190	120	–	–	–	125 ppm
7956	Dary-Dismuth	Fig. 10a, 10b	Adit entrance; qtz vnlet in meta-gabbro	1.0	138	30	36	–	–	–	10 ppm
7957	Dunn Crk. showing	Fig. 8a, 8b	calcareous bio qtzite; py	1.0	150	75	80	–	5	–	0.030
7958	Dunn Crk. showing	Fig. 8a, 8b	qtz vnlets in bio qtzite; py	1.0	140	53	69	–	15	–	0.030
7959	" " "	Fig. 8a, 8b	calcareous bio qtzite; py, po	1.0	148	13	88	–	<5	–	0.006
7960	" " "	Fig. 8a, 8b	" " " " "	1.0	150	10	97	–	<5	–	0.004
7961	" " "	Fig. 8a, 8b	qtz vnlet in bio qtzite; cp, py	1.10	480	13	41	–	<5	220	0.337
7962	Dunn Crk. showing	Fig. 8a, 8b	qtz vnlet in bio qtzite; py	1.10	110	253	31	–	<5	6	3.300

DARY PROPERTY – Rock chip sample results in ppm; WO_3 in %; Au in ppb

Sample No.	Location		Description	Width (metres)	Cu	Pb	Zn	Ag	Au	Sn	WO_3
7963	Kootenay Bell	Map 1	calcareous friable bio sch	1.0	76	360	280	–	< 5	–	0.264
7964	Kootenay Bell	Map 1	calcareous friable bio-ser sch	1.0	59	1400	218	–	< 5	–	0.282
7965	Kootenay Bell	Map 1	qtz vn, 0.7m wide	1.0	110	3.26%	0.56%	0.14 oz/ton	< 5	–	0.016
7966	Clancy Crk.	Map 1	dark phyllite with qtz vnlets	1.0	23	13	70	0.2	< 5	–	6 ppm
7967	Kootenay Bell	Map 1	qtz alt'd bio-ser sch	1.5	250	1550	90	1.5	< 5	–	9 ppm
7968	Old Glory	Map 1	qtz-carbonate vn; As, py	1.0	–	1180	191	–	–	–	20 ppm
7969	Old Glory	Map 1	alt'd amphibolite wallrock; py, As	0.5	–	265	191	–	–	–	20 ppm
7970	Old Glory	Map 1	alt'd amphibolite wallrock	grab	–	68	75	–	–	–	30 ppm
7971	575E + 520S	Map 1	tourmalinized amphibolite	0.5	25	27	58	–	–	2	0.174
7972	575E + 520S	Map 1	qtz vnlet with tourm in amphibolite	0.4	11	23	5	–	–	1	0.134
7973	575E + 520S	Map 1	tourmalinized amphibolite	0.5	38	13	75	–	–	2	0.011
7974	900E + 1160S	Map 1	qtz-tourm. vnlet	0.4	32	10	92	–	–	1	0.011
7975	Tin City area	Fig. 7a, 7b	⊥ to qtz. vnlet	1.0	33	45	9	–	–	4	0.253
7976	Tin City area	Fig. 7a, 7b	parallel to qtz vnlet	1.0	90	8	68	–	–	25	0.675
7977	" " "	Fig. 7a, 7b	⊥ to vnlet in chlor-amphibolite	1.0	32	9	68	–	–	2	0.039
7978	" " "	Fig. 7a, 7b	parallel qtz vnlet	0.75	166	10	52	–	–	12	0.043
7979	" " "	Fig. 7a, 7b	⊥ to vnlet in qtz-bio amphibolite	0.75	260	11	70	–	–	2	0.004
7980	" " "	Fig. 7a, 7b	across foliation in bio-amphibolite	1.0	19	10	50	–	–	1	0.012
7981	" " "	Fig. 7a, 7b	⊥ to 30cm wide qtz vnlet	1.7	141	133	53	–	–	2	0.069
7982	" " "	Fig. 7a, 7b	⊥ to qtz vnlet	1.1	68	390	350	–	–	1	0.031
7983	" " "	Fig. 7a, 7b	across two qtz vnlets	1.2	105	365	790	–	–	29	0.607
7984	" " "	Fig. 7a, 7b	parallel foliation of qtz amphibolite	1.0	58	25	90	–	–	9	0.062
7985	" " "	Fig. 7a, 7b	parallel foliation of fractured amphibolite	1.3	65	7	65	–	–	2	0.021
7986	" " "	Fig. 7a, 7b	along qtz vnlet in amphibolite	1.5	12	12	58	–	–	3	0.307
7987	" " "	Fig. 7a, 7b	⊥ to qtz vnlet in amphibolite	1.7	5	8	26	–	–	1	0.171
7988	" " "	Fig. 7a, 7b	6-10cm wide qtz vnlet	2.0	5	5	18	–	–	12	0.365
7989	" " "	Fig. 7a, 7b	across foliation of carbonate	1.0	7	11	88	–	–	19	0.264
7990	" " "	Fig. 7a, 7b	across foliation of carbonate	1.0	6	15	140	–	–	8	0.325
7991	Tin City area	Fig. 7a, 7b	across foliation of bio-1st. zone	1.0	7	13	65	–	–	2	0.011
7992	Main showing	Fig. 5a, 5b	⊥ to foliation of chlor-amph sch.	0.80	5	160	4430	–	–	2	0.051
7993	Main showing	Fig. 5a, 5b	⊥ to foliation of alt'd 1st.	0.70	44	2250	1000			26	0.267

I.C.P. Analysis

DARY PROPERTY – Rock chip sample results in ppm; WO_3 in %; Au in ppb

Sample No.	Location		Description	Width (metres)	Cu	Pb	Zn	Ag	Au	Sn	WO_3
7994	Main Showing	Fig. 5a, 5b	across foliation of alt'd lst.	0.50	20	800	430	–	–	21	0.173
7995	Main Showing	Fig. 5a, 5b	across foliation of alt'd lst.	0.60	11	120	250	–	–	45	0.391
7996	" "	Fig. 5a, 5b	" " " " "	1.0	16	365	480	–	–	15	0.239
7997	" "	Fig. 5a, 5b	" " " " "	1.0	10	105	455	–	–	27	0.672
7998	" "	Fig. 5a, 5b	⊥ to foliation of qtz-chlor-amph. sch.	0.65	12	433	320	–	–	11	0.117
7999	Main Showing	Fig. 5a, 5b	across foliation of qtz-bio-amph. sch.	1.0	12	130	28	–	–	2	0.010
8000	Duncan Lake Rd	Map 1	10–25 cm wide qtz-scheelite vnlet.	1.5	9	20	13	–	–	2	3.880
6341	Main Showing	Fig. 5a, 5b	qtz vnlet in bio-chlor-amphibolite	2.0	32	110	115	–	–	–	0.091
6342	Main Showing	Fig. 5a, 5b	marble layer in bio-amphibolite	1.0	17	20	213	–	–	–	0.023
6343	Main Showing	Fig. 5a, 5b	qtz vnlet in amphibolite	1.0	64	800	320	–	–	–	0.072
6344	Main Showing	Fig. 5a, 5b	taken along strike of vnlet in 6343	1.0	15	138	164	–	–	–	0.098
6345	Dunn Crk. Showing	Fig. 8a, 8b	x-cutting qtz-tourm vnlet in bio-qtzite	1.5	207	49	138	–	–	–	0.219
6346	Dunn Crk. Showing	Fig. 8a, 8b	qtz-tourm. vnlet in bio-py-qtzite	1.5	405	9	105	–	–	–	0.019
6347	Dunn Crk Showing	Fig. 8a, 8b	qtz-vnlets in chlor-bio qtzite	2.0	180	2	84	–	–	–	0.020
6348	Tin City area	Fig. 7a, 7b	⊥ to qtz-tourm. vnlet in amph.	1.0	153	1	80	–	–	–	0.043
6349	Tin City area	Fig. 7a, 7b	along strike of qtz-tourm vnlet	2.0	155	49	88	–	–	–	0.082
6350	Tin City area	Fig. 7a, 7b	barren qtz vn	1.5	65	4	83	–	–	–	0.004
6387	" " "	Fig. 7a, 7b	⊥ to qtz-tourm vnlet in dol. lst.	1.1	14	42	100	–	–	–	0.017
6388	" " "	Fig. 7a, 7b	tourmalinized zone in dol. lst.	1.8	48	80	82	–	–	2	0.148
6389	" " "	Fig. 7a, 7b	⊥ to qtz-tourm vnlet in dol. lst.	1.0	36	5	113	–	–	–	0.004
6390	" " "	Fig. 7a, 7b	two qtz-vnlets x-cutting each other in lst.	1.0	8	1	45	–	–	–	0.003
6391	" " "	Fig. 7a, 7b	qtz-tourm alt'd zone	1.3	31	21	50	–	–	3	0.026
6392	" " "	Fig. 7a, 7b	tourmalinite; lst-amphibolite contact	2.0	9	40	100	–	–	4	1.120
6393	" " "	Fig. 7a, 7b	⊥ to qtz-tourm vnlet in amph.	1.0	28	3	83	–	–	–	0.031
6394	" " "	Fig. 7a, 7b	⊥ to qtz-tourm vnlet in alt'd lst.	1.0	5	23	158	–	–	–	0.172
6395	" " "	Fig. 7a, 7b	along strike of vnlet in 6394	1.2	7	49	40	–	–	4	0.213
6396	" " "	Fig. 7a, 7b	qtz-tourm vnlet in alt'd carbonate	1.0	22	100	193	–	<5	2	0.012
6397	" " "	Fig. 7a, 7b	⊥ to vnlet in 6398	1.2	9	13	88	–	–	1	0.025
6398	" " "	Fig. 7a, 7b	along qtz vnlet in alt'd lst.	1.5	6	33	24	–	–	–	0.041
6399	Tin City area	Fig. 7a, 7b	tourm.-rich zone in alt'd lst.	1.3	7	5	78	–	–	–	0.062
6400	Tin City area	Fig. 7a, 7b	Very siliceous zone in alt'd lst.	1.5	8	12	16	–	–	–	0.003

DARY PROPERTY – Rock chip sample results in ppm; WO_3 in %; Au in ppb

Sample No.	Location		Description	Width (metres)	Cu	Pb	Zn	Ag	Au	Sn	WO_3
5770	Cockle Crk.	Map 1	calcareous bio qtzite with py vnlets	0.3	5	115	5	0.3	5	–	1ppm
5771	L 520E + 500S	Map 1	X-cutting qtz-tourm vnlet	grab	10	4	10	0.1	<5	–	68 ppm
5772	Duncan Lake Rd.	Map 1	along strike of qtz vnlet	1.3	–	–	–	–	–	–	0.245
5773	Duncan Lake Rd.	Map 1	⊥ to qtz-vnlet (sample 5772)	0.6	45	11	64	0.3	<5	–	0.069
5818	Tin City	Fig. 7a, 7b	⊥ to vein in sample 6350	1.5	225	98	165	–	–	–	<0.001
5819	L 70E + 990S	Map 1	qtz-vnlet in amphibolite	0.5	305	420	400	–	–	–	0.149
5820	L 70E + 950S	Map 1	qtz-vnlet in amphibolite	0.5	72	103	38	–	–	–	0.344
5821	Cockle Crk.	Map 1	along strike of qtz vnlet in bio qtzite	0.80	21	20	38	–	–	–	0.892
7851	Cockle Crk.	Map 1	qtz vnlet in calcareous qtzite	0.50	10	8	12	0.3	<5	–	0.026
7852	Cockle Crk	Map 1	qtz lenses in banded lst.	2.0	22	1100	880	2.0	<5	–	0.002
7853	Dunn Crk. Adit	Map 1	massive arsenopyrite-pyrite pods	grab	640	>10,000	510	87.0	<5	–	0.024
7854	Dunn Crk. showing	Fig. 8a, 8b	chlor-bio qtzite	0.75	35	53	145	0.3	<5	–	0.002
7855	Erbeck Workings	Map 1	along strike of 1.0m wide qtz vn	1.5	108	>10,000	65	19.5	<5	–	0.067
7856	Erbeck Workings	Map 1	⊥ to strike of qtz vn (sample 7855)	1.5	26	1000	193	2.0	<5	–	0.001
7857	Tin City area	Fig. 7a, 7b	alt'd dol. lst.	1.3	5	5	34	–	–	–	0.001
7858	Tin City area	Fig. 7a, 7b	qtz vnlet. in alt'd dol lst.	2.0	7	3	33	–	–	–	0.026
7859	Tin City area	Fig. 7a, 7b	alt'd dol. lst.	1.2	6	9	43	–	–	–	0.037
7860	Tin City area	Fig. 7a, 7b	alt'd dol. lst.	1.4	8	48	45	–	–	–	0.024
7861	Dunn Crk.	Map 1	sericitic qtzite with fine qtz vnlets	2.0	8	34	45	–	–	–	12 ppm
7135	Main Showing	Fig. 4	altered lst.	0.7	–	–	–	–	–	–	0.147
7136	Main Showing	Fig. 4	" "	0.4	–	–	–	–	–	–	1.720
7137	" "	Fig. 4	" "	0.9	–	–	–	–	–	–	0.864
7138	" "	Fig. 4	" "	grab	–	–	–	–	–	–	2.980
7139	" "	Fig. 4	" "	grab	–	–	–	–	–	–	1.040
7140	" "	Fig. 4	altered lst.	grab	–	–	–	–	–	–	0.173
7141	" "	Fig. 4	altered amph.	0.6	–	–	–	–	–	–	0.326
7142	" "	Fig. 4	alt'd carbonate just below	0.5	–	–	–	–	–	–	0.025
7143	Main showing	Fig. 4	alt'd carbonate just below	grab	–	–	–	–	–	–	0.008
7144	Duncan Lake Rd.	Fig. 4	qtz vnlet	0.3	–	–	–	–	–	–	0.117
7145	Tin City area	Fig. 4	alt'd carbonate	0.9	–	–	–	–	–	–	0.028
7146	Tin City area	Fig. 4	alt'd carbonate	grab	–	–	–	–	–	–	0.087

DARY PROPERTY – Rock chip sample results in ppm; WO_3 in %; Au in ppb

Sample No.	Location		Description	Width (metres)	Cu	Pb	Zn	Ag	Au	Sn	WO_3
7147	Tin City area	Fig. 4	alt'd carbonate	0.75	–	–	–	–	–	–	0.121
7148	" " "	Fig. 4	" "	grab	–	–	–	–	–	–	0.328
7149	" " "	Fig. 4	alt'd carbonate	grab	–	–	–	–	–	–	0.493
7150	" " "	Fig. 4	alt'd amphibolite	0.50	–	–	–	–	–	–	0.162
240	" " "	Fig. 4	alt'd carbonate	1.70	–	–	–	–	–	–	0.050
241	Tin City area	Fig. 4	" "	grab	–	–	–	–	–	–	0.006
242	Main Showing	Fig. 4	alt'd carbonate	1.20	–	–	–	–	–	–	1.060
243	Duncan Lake Rd.	Fig. 4	alt'd amphibolite	0.30	–	–	–	–	–	–	0.003

ACME ANALYTICAL LABORATORIES LTD. 852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6 PHONE 253-3158 DATA LINE 251-1011

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-3 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR Mn.Fe.Ca.P.Cr.Mg.Ba.Ti.B.Al.Na.K.W.Si.Zr.Ce.Sn.Y.Nb and Ta. Au DETECTION LIMIT BY ICP IS 3 ppm.
- SAMPLE TYPE: PULP

NEWMONT EXPLO

DATE RECEIVED: NOV 28 1984 DATE REPORT MAILED: Nov 30/84 ASSAYER. D. Toye .DEAN TOYE. CERTIFIED B.C. ASSAYER

NEWMONT EXPLORATION FILE # 84-3487 PAGE 1

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
5821	5	23	26	41	.3	11	3	180	.92	25	5	ND	5	64	1	2	2	3	1.43	.03	12	38	.06	16	.01	25	.18	.02	.06	548
6341	3	33	114	110	4.1	9	3	829	1.24	13	5	ND	9	29	1	4	23	9	5.70	.05	22	16	2.37	139	.05	33	1.67	.05	1.36	624
6344	4	16	178	171	.2	17	6	725	2.16	13	5	ND	8	16	1	3	2	29	.92	.04	14	21	1.95	252	.07	10	2.22	.03	1.29	665
6345	9	205	59	133	1.4	44	18	844	5.05	11	5	ND	2	27	1	2	48	120	2.97	.08	9	71	2.22	78	.24	4	2.52	.03	1.62	925
6346	11	381	23	101	.5	59	24	1322	7.63	14	5	ND	2	48	1	2	2	177	5.75	.12	29	48	2.59	135	.36	2	3.22	.03	2.06	79
6392	6	8	41	102	.2	7	1	1326	1.78	15	5	ND	3	31	1	4	2	13	5.93	.06	12	35	3.22	179	.05	53	1.16	.03	1.21	2486
6396	3	19	109	176	.6	18	5	756	1.95	10	5	ND	6	10	1	3	2	19	1.80	.03	14	65	1.68	360	.15	26	1.16	.01	.91	89
7859	2	2	10	33	.2	3	1	930	1.12	6	5	ND	2	101	1	2	5	5	16.49	.02	5	7	6.79	38	.01	2	.43	.01	.37	137
7860	2	4	56	39	.2	6	3	1601	1.69	17	5	ND	4	67	1	4	3	5	11.17	.06	8	10	5.01	42	.01	14	.24	.01	.25	134
7906	2	20	258	56	2.3	8	2	118	.66	7	5	ND	2	4	1	2	13	5	.38	.02	5	127	.13	48	.02	37	.49	.02	.22	39
7912	1	12	69	52	.2	5	2	36	.34	24	5	ND	2	1	1	2	2	2	.09	.01	2	95	.03	7	.01	9	.03	.01	.01	8
7916	2	4	1222	275	4.2	6	2	996	1.03	9	5	ND	2	203	5	5	18	19	13.39	.03	7	19	3.79	177	.05	2	1.16	.02	.91	170
7918	3	3	37	201	.5	10	2	1168	1.77	10	5	ND	2	74	1	3	3	24	10.21	.16	11	27	4.73	268	.08	7	1.96	.04	2.03	1209
7919	2	2	77	111	1.4	9	2	985	1.53	11	5	ND	2	95	1	2	8	25	9.50	.02	10	24	4.61	194	.08	5	1.57	.05	1.58	328
7920	4	30	20	80	.1	25	12	573	3.27	5	5	ND	2	43	1	3	2	97	3.54	.17	2	35	1.48	188	.24	2	1.64	.06	.70	25
7932	2	1	3	20	.1	2	1	725	.81	7	5	ND	2	51	1	4	3	4	11.41	.02	4	7	5.63	38	.01	5	.35	.01	.38	1040
7933	2	2	4	38	.1	3	1	913	1.00	5	5	ND	2	61	1	4	4	6	13.57	.02	5	7	6.71	81	.01	14	.80	.02	1.01	583
7934	1	1	7	25	.1	1	1	610	.63	3	5	ND	2	43	1	3	5	4	10.05	.02	2	4	4.96	37	.01	4	.40	.01	.45	315
7935	2	2	7	41	.1	4	2	1172	1.52	9	5	ND	2	85	1	3	3	9	15.25	.02	8	6	6.45	33	.01	3	.55	.01	.24	285
7953	3	37	36	100	.2	49	11	312	1.98	42	5	ND	2	18	1	2	2	35	1.65	.02	2	166	1.40	29	.09	13	1.73	.10	.40	661
7954	3	35	29	91	.2	72	17	374	2.46	26	5	ND	2	14	1	2	2	35	1.74	.02	2	175	1.61	39	.09	11	1.80	.05	.50	330
7957	7	148	75	66	2.3	47	19	5362	7.57	2139	6	ND	2	46	1	2	6	81	7.45	.08	29	53	1.90	61	.12	16	1.76	.03	1.06	131
7962	2	103	272	24	18.4	19	7	265	1.71	16	5	ND	2	18	1	3	345	26	1.34	.02	2	73	.52	21	.04	15	.58	.01	.36	314
7964	5	60	1262	197	2.1	10	4	1351	3.45	7	5	ND	8	33	2	6	3	18	2.81	.10	19	68	1.30	128	.08	30	1.42	.02	.75	1688
7975	5	32	13	93	.1	26	13	680	4.89	13	5	ND	2	33	1	2	2	136	2.33	.17	10	47	2.69	301	.34	7	2.81	.07	1.70	1444
7976	6	93	7	74	.1	22	8	751	4.49	12	5	ND	2	35	1	14	2	93	2.43	.16	13	61	2.20	367	.35	32	2.54	.12	1.69	3615
7980	2	19	13	57	.1	27	9	461	2.90	7	5	ND	8	8	1	3	2	33	.52	.08	14	85	1.54	368	.16	19	2.07	.03	1.19	68
7988	2	4	3	21	.1	5	1	256	.52	8	5	ND	2	8	1	5	2	3	1.85	.04	5	111	.38	108	.01	54	.78	.03	.39	2276
7989	2	3	11	81	.1	3	1	1591	1.22	5	5	ND	3	66	1	8	4	7	15.74	.04	10	16	2.13	183	.04	16	1.10	.03	.93	1130
7993	5	48	2326	896	4.4	18	6	1236	2.10	23	5	ND	11	12	9	11	2	9	1.65	.08	40	65	.83	161	.02	45	1.23	.02	.72	1753
7997	5	13	128	409	.4	19	9	1355	3.96	7	5	ND	10	13	1	11	2	25	1.50	.08	37	40	3.98	650	.08	14	3.41	.05	2.56	1940
8000	1	7	25	11	.2	6	2	251	.41	7	5	ND	2	26	1	2	2	2	1.54	.05	2	50	.04	11	.01	12	.19	.01	.05	197
STD C	20	56	40	125	6.5	64	25	1062	3.94	38	20	7	33	48	15	16	19	57	.44	.14	35	55	.88	173	.07	38	1.72	.06	.12	12

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CERTIFICATE OF ANALYSIS

TO : NEWMONT EXPLORATION OF CANADA LTD.

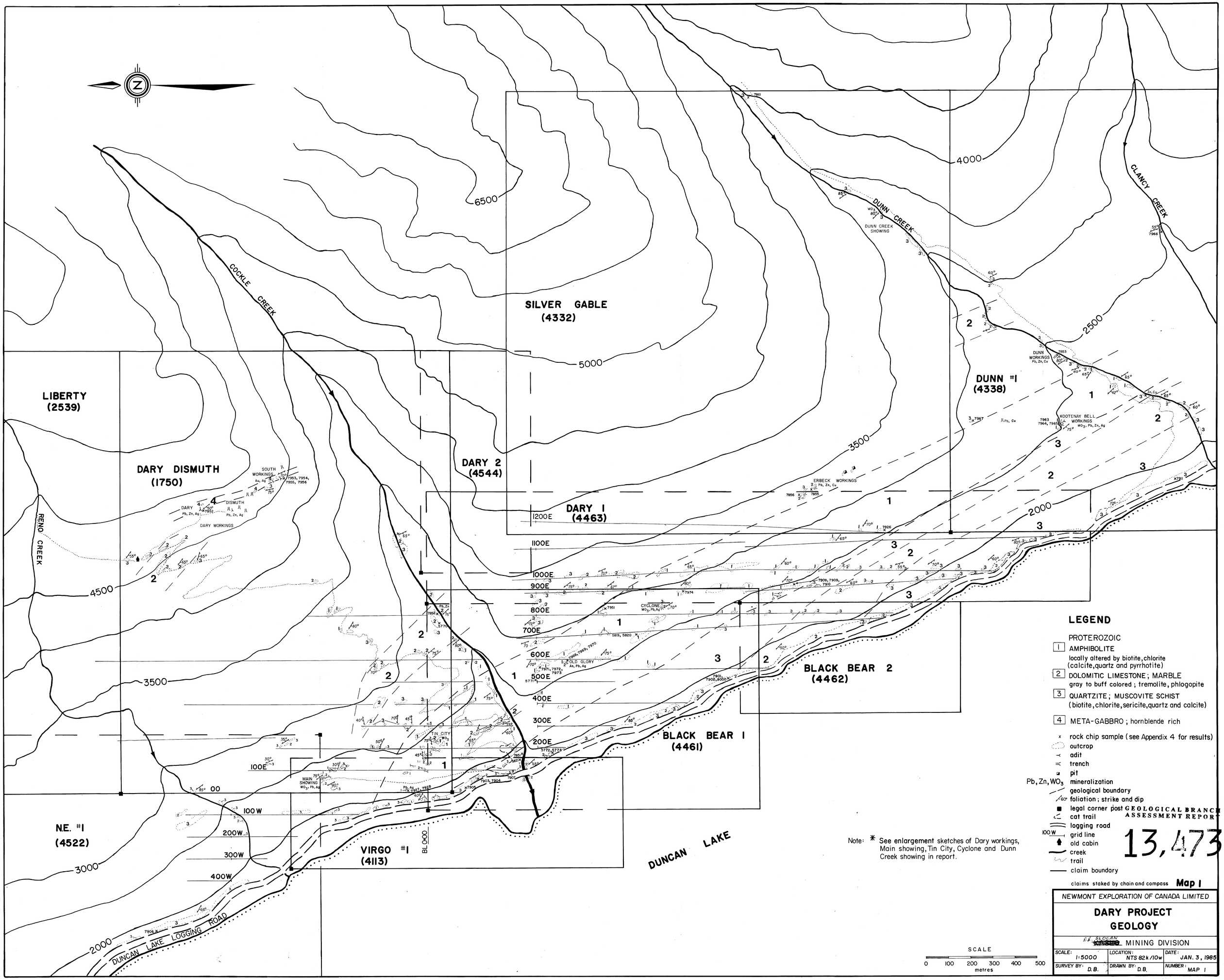
900 - 808 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 3A4

CERT. # : A8416962-001-A
INVOICE # : I8416962
DATE : 18-OCT-84
P.O. # : NONE

Sample description	Mo ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)	P ppm (ICP)	Pb ppm (ICP)	Bi ppm (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Ni ppm (ICP)	Ba ppm (ICP)	Fe % (ICP)	Mn ppm (ICP)	Cr ppm (ICP)	Mg % (ICP)	V ppm (ICP)	Al % (ICP)	Be ppm (ICP)	Ca % (ICP)	Cu ppm (ICP)	Ag ppm AAS	Ti % (ICP)	Sr ppm (ICP)	Na % (ICP)	K % (ICP)
R 07968	3	20	191	350	1180	20	6.5	550	25	60	16.30	2850	145	0.57	51	1.74	7.0	0.65	32	14.0	0.105	76	0.25	0.38
R 07969	<1	20	191	1370	265	9	4.0	35	40	85	9.40	2910	135	3.11	360	6.53	12.0	5.50	144	4.8	1.350	166	1.90	1.17
R 07970	<1	30	75	1100	68	<2	2.0	20	20	275	6.05	2200	105	5.16	182	5.43	12.0	6.24	32	1.2	0.799	220	1.78	2.19

Cross-cutting quartz-oligoclase-tourmaline veinlet in dolomitic limestone. Red crayon marks the extend of scheelite mineralization
A 2m chip along the strike of the veinlet assayed 0.365% WO_3 (sample 7988).

Red spray paint marks the sample width perpendicular to the fracture-controlled quartz-oligoclase-tourmaline veinlet in dolomitic limestone. This sample assayed 0.117% WO_3 over 1m (sample 7933). The skarny-altered tourmalinized rock is in lower right corner.



Note: * See enlargement sketches of Dary workings, Main showing, Tin City, Cyclone and Dunn Creek showing in report.

LEGEND

PROTEROZOIC

1 AMPHIBOLITE
locally altered by biotite, chlorite (calcite, quartz and pyrrhotite)

2 DOLOMITIC LIMESTONE; MARBLE
gray to buff colored; tremolite, phlogopite

3 QUARTZITE; MUSCOVITE SCHIST
(biotite, chlorite, sericite, quartz and calcite)

4 META-GABBRO; hornblende rich

- x rock chip sample (see Appendix 4 for results)
- outcrop
- adit
- trench
- pit
- Pb, Zn, WO_3 mineralization
- geological boundary
- 60° foliation; strike and dip
- legal corner post
- cat trail
- logging road
- 100W grid line
- old cabin
- creek
- trail
- claim boundary

claims staked by chain and compass **Map 1**

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,473

SCALE
0 100 200 300 400 500
metres

NEWMONT EXPLORATION OF CANADA LIMITED

DARY PROJECT GEOLOGY

~~KAMLOOPS~~ SLOCAN MINING DIVISION

SCALE:	LOCATION:	DATE:
1:5000	NTS 82k/10w	JAN. 3, 1985
SURVEY BY: D.B.	DRAWN BY: D.B.	NUMBER: MAP 1

RENO CREEK

COCKLE CREEK

DUNCAN LAKE

LEGEND

Survey type — Soil

13. ⏲ 150. — Pb ⏲ Zn (ppm) (ppm)

Sample depth - 15 to 30 cm
Sampled horizon - B horizon and inpart C
Sampling method - mattock and trowel
Sample prep - dry sieve -80 mesh
Digestion - $HClO_4$-HNO_3 digestion
Analysis - Atomic absorption

⏲ Soil sample
▲ Silt sample

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,473

SCALE

0 100 200 300 400 500 meters

NEWMONT EXPLORATION OF CANADA LIMITED

DARY PROJECT

GEOCHEMISTRY Pb, Zn (ppm)

~~SLOCAN~~ KASLO MINING DIVISION

SCALE: 1:5000	LOCATION: NTS 82k/10w	DATE: JAN. 5, 1985
SURVEY BY: C.B & D.B	DRAWN BY: I.C.	NUMBER: MAP 2a

Map 2a

LEGEND

Survey type — Soil

28. ⏲ 4. — Cu ⏲ W (ppm) (ppm)

Sample depth - 15-30 cm
Sampled horizon - B horizon and inpart C
Sampling method - mattock and trowel
Sample prep - dry sieve -80 mesh
Digestion (for Cu) - $HClO_4$- HNO_3 digestion
Analysis - Atomic absorption
Digestion (for W) - fused with potassium bisulfate and leached with HCl
Analysis - dithiol colorimetric method

⏲ Soil sample
▲ Silt sample

SCALE

0 100 200 300 400 500 meters

NEWMONT EXPLORATION OF CANADA LIMITED

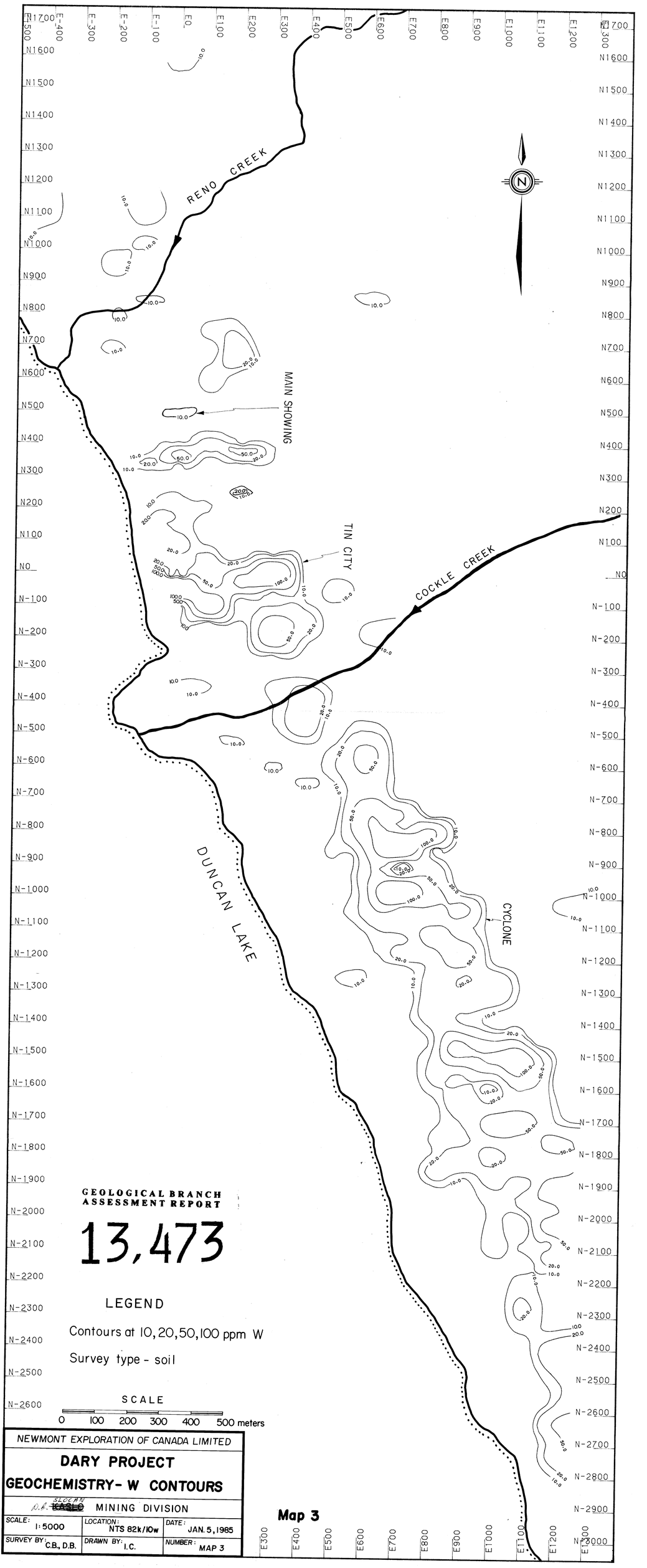
DARY PROJECT

GEOCHEMISTRY Cu, W (ppm)

~~SLOCAN~~ KASLO MINING DIVISION

SCALE: 1:5000	LOCATION: NTS 82k/10w	DATE: JAN. 5, 1985
SURVEY BY: C.B. & D.B.	DRAWN BY: I.C.	NUMBER: MAP 2b

Map 2b



GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,473

LEGEND

Contours at 10, 20, 50, 100 ppm W

Survey type - soil

SCALE

0 100 200 300 400 500 meters

NEWMONT EXPLORATION OF CANADA LIMITED

DARY PROJECT

GEOCHEMISTRY - W CONTOURS

~~D.A. EAGLE~~ D.A. SLOCAN MINING DIVISION

SCALE: 1:5000	LOCATION: NTS 82k/10w	DATE: JAN. 5, 1985
SURVEY BY: C.B., D.B.	DRAWN BY: I.C.	NUMBER: MAP 3

Map 3