

830610

GEOLOGICAL REPORT

ON THE

E-D 1 PROPERTY

Barriere Lakes - Birk Creek Area
Kamloops Mining Division
British Columbia

Latitude 51 21' North
Longitude 119 59' West

FOR

FORAN MINING ~~INC.~~ *Corporation.*

BY

N.C. CARTER, PH.D. P.ENG.
January, 1994

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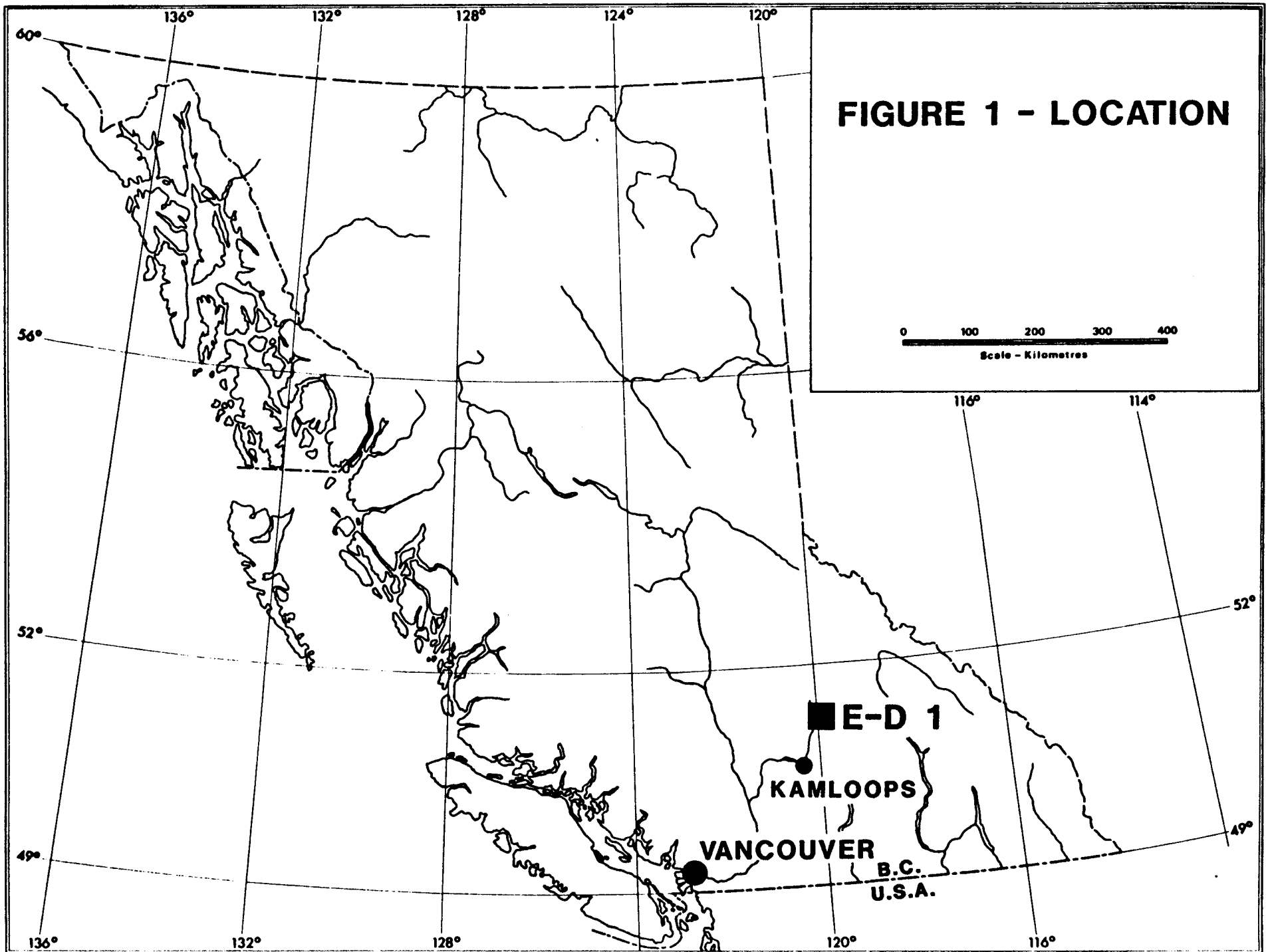
SUMMARY

Foran Mining ~~Inc.~~^{Corp.} holds an option on the E-D #1 Modified Grid mineral claim and 28 2-post claims comprising the E-D 1 property situated in the Barriere Lakes area of south-central British Columbia.

The E-D 1 property covers a fault contact between Paleozoic Fennell Formation and Eagle Bay Assemblage sedimentary and volcanic rocks, a geological terrane known to be prospective for both volcanogenic massive sulphides and polymetallic vein deposits.

Both styles of mineralization, including interesting gold values, have been identified by limited previous work on the 2-post claims. ^P Geophysical and geochemical surveys of the E-D #1 claim indicate that anomalous values in soils for copper, lead, zinc and silver are coincident with conductive zones defined by electromagnetic surveys in the area of the fault contact between Fennell Formation rocks and the Eagle Bay Assemblage. Anomalous gold values in soils appear to be related to transverse structures which are normal to the northwest structural grain of the area.

Additional exploratory work is warranted and a Phase I program is recommended to include geological mapping, geochemical and geophysical surveys, excavator trenching and overburden and diamond drilling at an estimated cost of \$400,000.



INTRODUCTION

2 post mineral claims Foran Mining Inc. holds title to ~~mineral claims~~ *which comprise* ~~comprising~~ the the E-D 1 property ~~which is~~ situated west of North Barriere Lake in south-central British Columbia.

the ED#1 one UG (4-post) and 2B

This report, prepared at the request of Foran Mining Inc. is a revision of an earlier one dated August 27, 1990 which was based principally on results of exploration programs proposed by the writer for the ED #1 mineral claim in 1989 and 1990. A thorough review was also undertaken at that time of published and unpublished reports and maps pertaining to the geological setting of the property and results of exploration work conducted on other properties in the vicinity of the E-D #1 claim. The writer visited the property on four occasions between July 14 and October 4, 1989 while the ~~1989~~ *initial* exploration program was in progress.

The Company has recently entered into agreements for the acquisition of a number of 2-post mineral claims immediately south of the original ED #1 claim. These claims include the Energite and North Star mineral showings which have undergone sporadic investigation since the 1920's. This revised report provides a description of these additional claims based mainly on available records of previous work. The writer briefly examined the Energite showings in 1989.

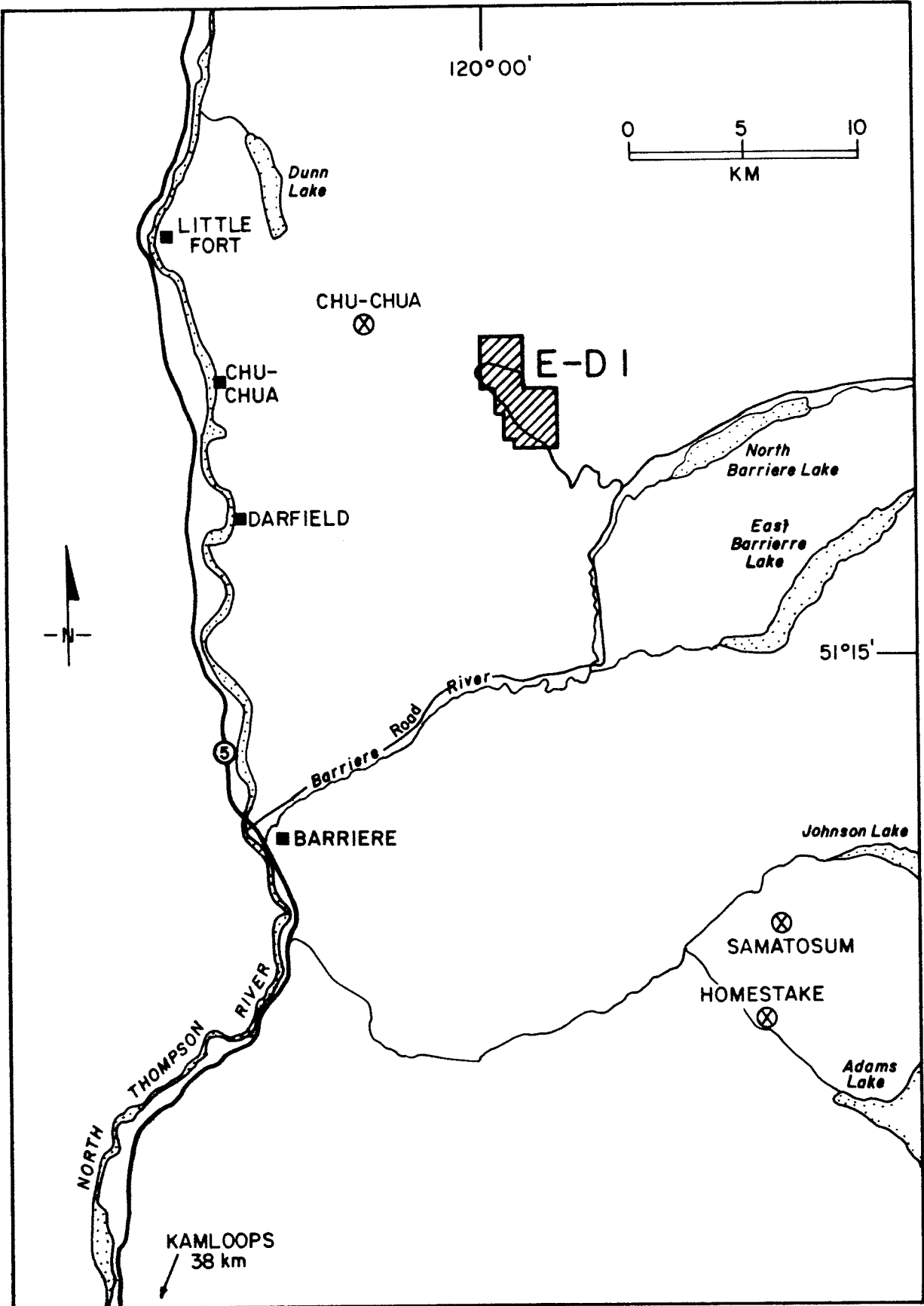


FIGURE 2 - LOCATION - E-D 1 PROPERTY

LOCATION AND ACCESS

The E-D 1 property is situated 80 km north-northeast of Kamloops in south-central British Columbia (Figure 1). The mineral claims comprising the property are located between 6 and 10 km northwest of North Barriere Lake at the headwaters of Birk Creek (Figure 2) and straddle the boundary of NTS map-areas 82M/5W and 92P/8E. The geographic centre of the property is at latitude 51 21' North and longitude 119 59' West.

Access is from Barriere on provincial highway 5 via the paved Barriere Lakes road and secondary logging roads (Figure 2). Road distance from Barriere is 35 km.

Several logging and various tote roads provide access to most parts of the property.

MINERAL PROPERTY

The E-D 1 property consists of one Modified Grid (4-post) and 28 2-post mineral claims located in the Kamloops Mining Division.

The ED #1 Modified Grid claim, located by E.J. Foran and recorded September 16, 1983, was transferred by Bill of Sale in 1989 to 356584 B.C. Ltd. which company subsequently negotiated an option agreement with Foran Mining Inc. Part of the east boundary and the Legal Corner Post of this claim was

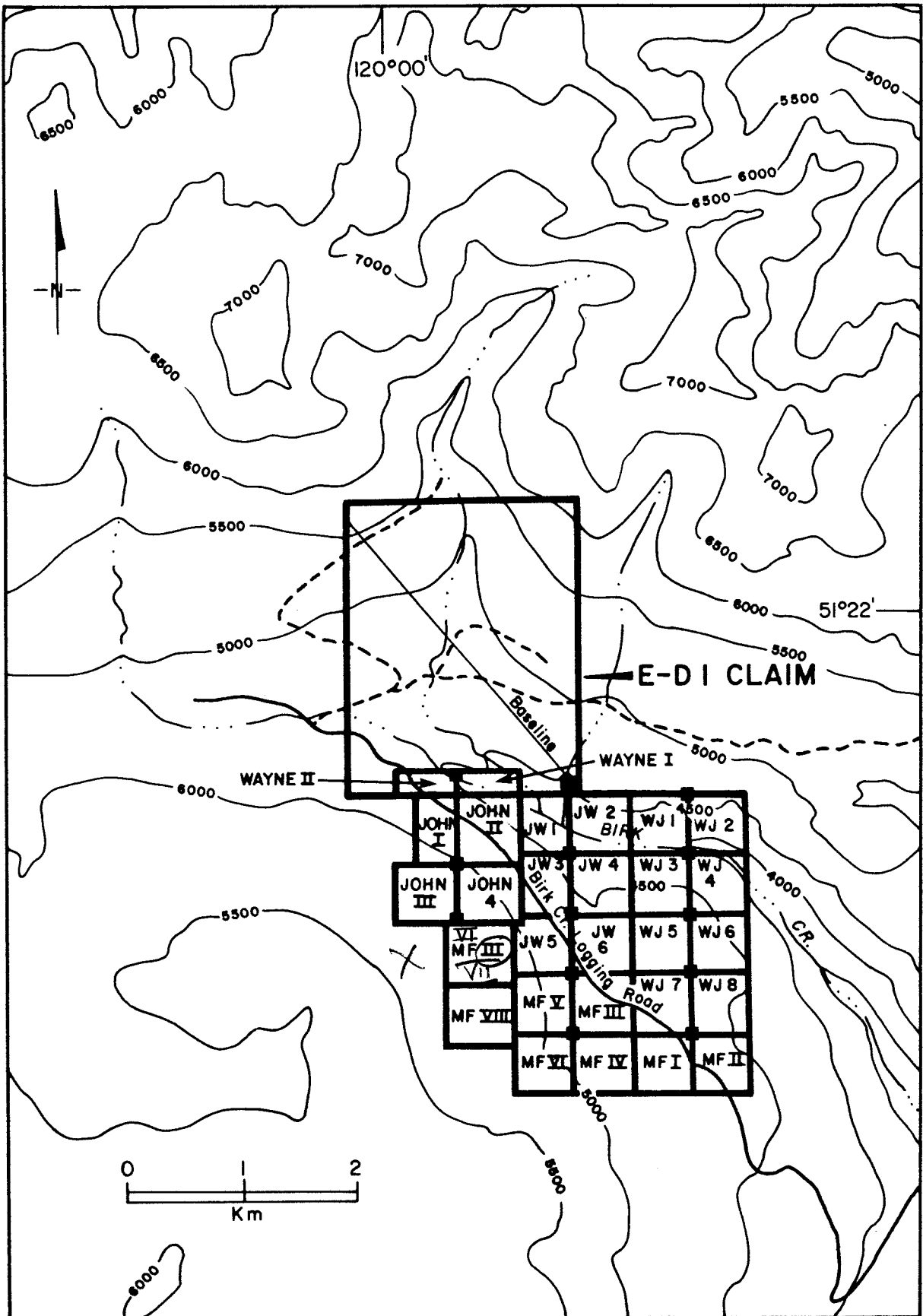


FIGURE 3 - E-D 1 MINERAL CLAIMS

examined by the writer August 3, 1989. According to Mineral Titles maps, a small portion of the western claim area may overlap a previously located claim.

The 2-post claims, located in 1992 and 1993, are subject to an option agreement between the property vendors and Foran Mining Inc. These and the ED #1 claim are believed to have been located in accordance with procedures as specified by the Mineral Tenure Act Regulations of the Province of British Columbia.

The position of the mineral claims are shown on Figure 3 and details are as follows:

<u>Claim Name</u>	<u>Record Number</u>	<u>Units</u>	<u>Expiry Date</u>
* E-D #1	217131	20	September 16, 1994
Wayne I	311605	1	July 28, 1994
Wayne II	311606	1	" "
John I	311391	1	July 22, 1994
John II	311392	1	" "
John III	311393	1	" "
John 4	311394	1	" "
WJ 1	318441	1	June 19, 1994
WJ 2	318442	1	" "
WJ 3	318443	1	" "
WJ 4	318444	1	" "
WJ 5	318445	1	" "
WJ 6	318446	1	" "
WJ 7	318447	1	" "
WJ 8	318448	1	" "
JW 1	318449	1	" "
JW 2	318450	1	" "
JW 3	318451	1	" "
JW 4	318452	1	" "
JW 5	318453	1	" "
JW 6	318454	1	" "

<u>Claim Name</u>	<u>Record Number</u>	<u>Units</u>	<u>Expiry Date</u>
MF I	319390	1	July 17, 1994
MF II	319391	1	" "
MF III	319392	1	" "
MF IV	319393	1	" "
MF V	319394	1	" "
MF VI	319395	1	" "
MF VII	319396	1	" "
MF VIII	319397	1	" "

PHYSICAL FEATURES

The E-D 1 property covers an area of predominantly moderate relief near the headwaters of Birk Creek (Figure 3). Steeper sections are present near the north and northeast property boundaries and within and adjacent to the deeply incised canyon of Birk Creek in the eastern claims area. Elevations range from 1160 metres (3,800 feet) in Birk Creek to slightly more than 1800 metres (6,000 feet) in the northeastern part of the ED #1 claim (Figure 3).

A forest cover of spruce and balsam extends over much of the property with the exception of clear-cut logged areas and the area underlain by granitic rocks in the northeast part of the ED #1 claim.

Overburden cover is locally extensive. Bedrock exposures are restricted to the steeper slopes south of Birk Creek and the northeastern property area which features near continuous exposures of granitic rocks. Isolated exposures are present along logging roads in the northwestern part of the ED #1

claim, in drainages tributary to Birk Creek and in a few trenches in the southwestern part of the ED #1 claim and in the vicinity of the Energite and North Star zones.

HISTORY

The earliest documented prospecting in the Birk Creek area dates back to the early 1900's. A number of prospects east of Birk Creek were explored in the 1920's by way of tunnelling and trenching and by geophysical and geochemical surveys between 1950 and 1970.

The area between Adams Lake and the North Thompson River, including the Barriere Lakes area, has been subjected to considerable exploration activity since the discovery of the Chu Chua massive sulphide deposit in 1978 and the Rea - Samatosum polymetallic deposits in 1983 (Figure 2).

Noranda Exploration Company Limited conducted a major exploration program immediately east of the E-D 1 property between 1984 and 1987. This work included airborne and surface geophysics, soil geochemistry, mechanical trenching and 14 diamond drill holes. Minnova Inc. has carried out geological, geochemical and geophysical surveys on claims adjoining the E-D 1 property on the west.

The Energite and North Star silver-lead-zinc prospects, now covered by the recently acquired claims, were initially

investigated in the 1920's. Work completed through the 1930's
X included 175 metres of underground development in 3 adits and X
the excavation of a number of hand trenches. Small shipments
of sorted material were made in 1954 and 1972 and some road
construction, grid work and mechanical trenching were
completed between 1974 and 1978.

Kam Creed Mines Limited undertook soil geochemical
sampling and a vertical loop electromagnetic survey over 21
km of cut grid in 1981 (Pasioka, 1981) and completed 5
diamond drill holes totalling 381 metres in 1984
(Pasioka, 1984; Cardinal, 1984).

Initial work within the area of the present ED #1 claim
reportedly included some investigation for placer gold
potential but there are no records of this work. A
reconnaissance soil geochemical and magnetometer survey
carried out by Craigmont Mines in 1973 covered the area of
this claim (Vollo, 1973).

Since the ^{original staking} location of the E-D #1 claim in 1983, work
done has included some mechanical trenching in the extreme
southwest corner of the claim. A 1989 program, carried out by
Foran Mining Inc., consisted of establishing 27 km of grid
(3.1 km of cut baseline; 24 km of flagged cross-lines,
principally at 200 metre spacings with several fill-in lines
at 50 and 100 metre spacings), the collection and analyses of

950 soil samples and VLF-EM and magnetometer surveys over 21.3 km of grid. A horizontal loop electromagnetic survey was conducted over 12 km of grid in the southwestern part of the claim in late June of 1990.

The Company has done no work on the recently acquired claims which include the Energite and North Star zones.

REGIONAL GEOLOGY AND MINERALIZATION

The Adams Lake - Barriere Lakes - North Thompson River area, near the western fault-bounded margin of the Omineca Crystalline Belt (Figure 4), is underlain principally by Paleozoic volcanic and sedimentary rocks. These include Cambrian to Mississippian Eagle Bay Assemblage metasedimentary and metavolcanic rocks and Devonian to Permian Fennell Formation sediments and volcanics. Both are intruded by mid-Cretaceous granitic rocks of the Baldy batholith and by younger felsic and basic dykes. Erosional remnants of Tertiary volcanic and sedimentary rocks locally overlie older rocks.

The Paleozoic sequences are contained in four structural packages separated by northwest striking, southwesterly directed thrust faults (Schiarizza and Preto, 1987). The upper three fault slices contain rocks of the Eagle Bay Assemblage while the lowest (and westernmost) includes Fennell Formation

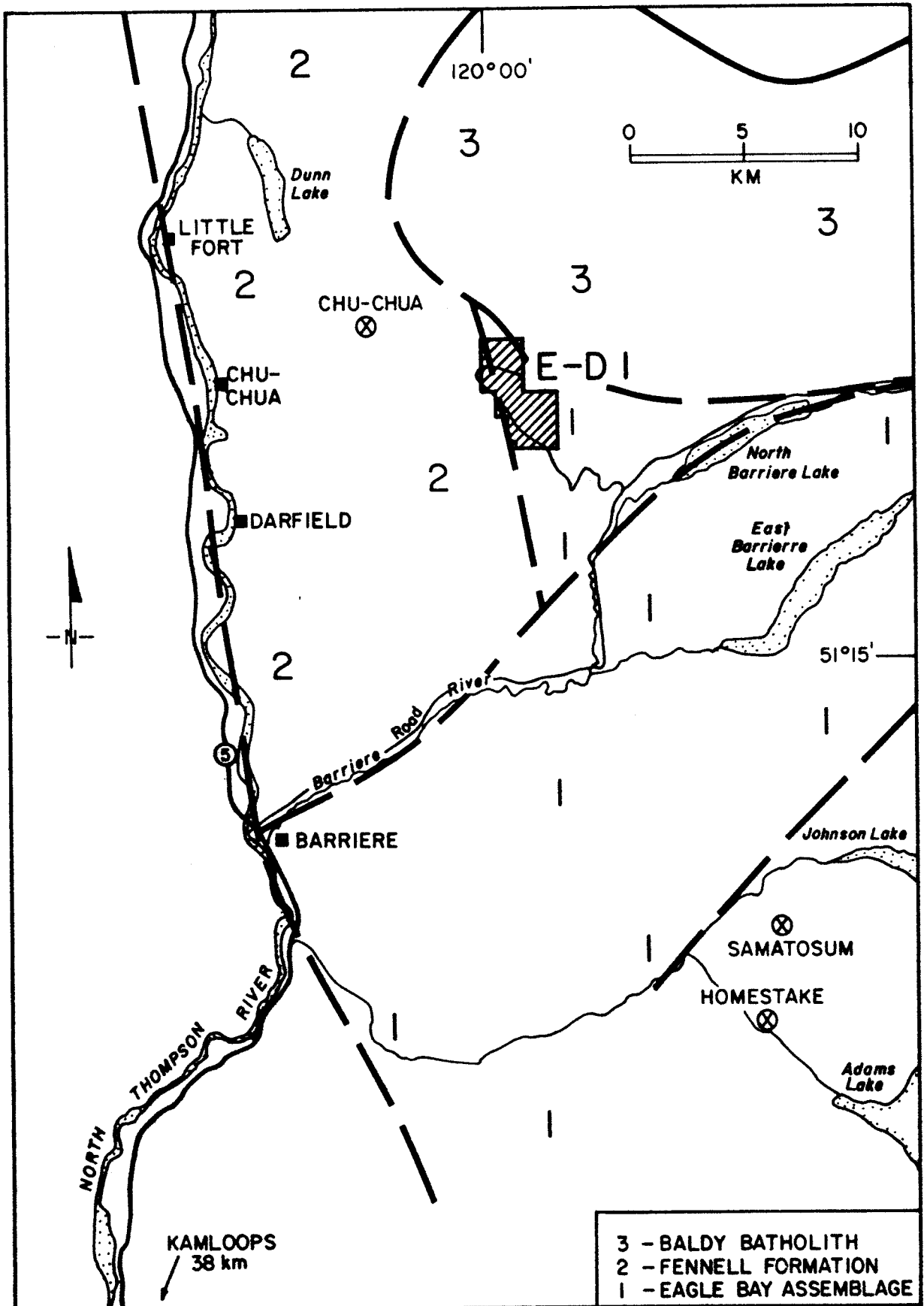


FIGURE 4 - REGIONAL GEOLOGIC SETTING

rocks which were tectonically emplaced over slightly younger units of the upper Eagle Bay Assemblage along a zone of north-striking, easterly directed thrust faults.

The predominantly northwest trending structural and stratigraphic grain of the area is offset by northeast faults, the largest of which extends up Barriere River and through North Barriere Lake (Figure 4).

A variety of mineral deposits and occurrences are hosted in Paleozoic rocks throughout the Adams Lake - Barriere Lakes - North Thompson River area. The most significant of these are volcanogenic massive sulphide deposits including polymetallic precious and base metals deposits in metavolcanic rocks of the Eagle Bay Assemblage and copper-zinc deposits in Fennell Formation volcanic rocks.

Examples of polymetallic massive sulphide deposits include showings east of Birk Creek and the Homestake, Rea and Samatosum deposits near Adams Lake (Figures 2 and 4).

The Homestake and Rea volcanogenic sulphide - barite deposits occur on opposite limbs of an overturned syncline developed in younger units of the Eagle Bay Assemblage (Hoy and Goutier, 1986). The Homestake polymetallic base and precious metal zones are contained in barite lenses in deformed quartz-sericite schists derived from felsic volcanic rocks within a thick succession of mafic volcanic tuffs and

flows. The Rea deposit, in slightly younger units of the Eagle Bay Assemblage, consists of two massive sulphide lenses near the top of a felsic tuff and chert sequence which overlies a thicker sequence of mafic volcanic rocks. One of the massive sulphide lenses is capped by massive barite (Hoy and Goutier, 1986).

Both the Homestake and Rea deposits feature extensive silicification, sericitization and pyritization in footwall alteration zones. Metallic minerals within the massive sulphide zones include pyrite, arsenopyrite, sphalerite, galena, chalcopryrite, tetrahedrite and native silver and gold.

The Samatosum deposit, recently mined under a joint venture including Minnova Inc. and Rea Gold Corporation, is adjacent to the Rea deposit. Reported reserves prior to mine start-up in mid-1989 were 670,800 tonnes grading 834 g/t silver (24.3 oz/ton), 1.6 g/t gold (0.046 oz/ton), 1% copper, 3% zinc and 1% lead. Mining operations between 1989 and 1992 included the milling of 565173 tonnes and the recovery of 639118 grams gold, 429356776 grams silver, 3678016 kg copper, 5069127 kg lead and 9538263 kg zinc.

Mineralization at Samatosum, consisting of tetrahedrite, sphalerite, galena and chalcopryrite within a larger body of pyritic material (Pirie, 1989), is best developed along a

contact between mafic pyroclastic volcanics and clastic sedimentary rocks which include graphitic horizons. Three styles of mineralization include massive sulphide bands with quartz, quartz veinlets with sulphide minerals and finely disseminated tetrahedrite in clastic sedimentary rocks. Sericite alteration is well developed in the mafic volcanics which form the structural hangingwall within the overturned sequence.

The association of most of the tetrahedrite (and most of the economic values) with areas of silicification and quartz veins which cut lower grade massive sulphide mineralization suggests that better mineralized sections at Samatosum were products of remobilization (Pirie, 1989).

Several occurrences east of Birk Creek and north of North Barriere Lake are stratiform lenses of massive to disseminated sulphides hosted by cherty horizons within Eagle Bay Assemblage quartz-sericite schists (Schiarizza and Preto, 1987) near the south margin of the Baldy batholith. Mineralization includes pyrite, pyrrhotite, galena, sphalerite, chalcopyrite and magnetite.

The second style of volcanogenic massive sulphide mineralization in the area is represented by the Chu Chua or CC deposit near the summit of Chu Chua Mountain (Figures 2 and 4). Upper Fennell Formation pillow and massive basalts

host two major and several minor stratiform massive sulphide lenses associated with a chert horizon and lenses of magnetite. Massive basalts on the east side of the near vertical closely spaced main sulphide lenses are variably altered to talc, carbonate and chlorite and are interpreted as being part of the footwall (Schiarizza and Preto, 1987).

The massive sulphide lenses consist of pyrite with chalcopyrite and minor sphalerite. The Chu Chua deposit is currently being considered for production by Minnova Inc. and open pit reserves are reported as being 1,049,000 tonnes grading 3% copper, 0.3% zinc, 10 g/t silver (0.29 oz/ton) and 0.58 g/t gold (0.017 oz/ton) (Heberlein and Pirie, 1990).

The BC-1 claim, adjoining the E-D 1 property on the east, includes pods of stratiform massive and stringer sulphides with silver lead and zinc values and associated barite (Miller, 1989). Work by Noranda Exploration Company Limited in 1984 and 1985 defined coincident EM conductors and magnetic highs in the south-central part of the claim 1 km east of the mutual boundary with the E-D #1 claim. Trenching and subsequent drilling (Wilson, 1986) disclosed the presence of a felsic fragmental volcanic sequence with intercalated graphitic argillite horizons containing disseminated and stringer pyrrhotite, pyrite and sphalerite. A 0.25 metre massive sulphide stringer exposed in a trench contained 33%

zinc, 4.3% lead, 29.2 oz/ton silver and 0.011 oz/ton gold.

Soil sampling in the southwestern part of the SC-1 claim, owned by Minnova Inc. and situated immediately west of the E-D #1 claim, defined a coincident copper-zinc-silver anomaly with zinc values of up to 231 ppm and silver in the 1.6 - 2.7 ppm range (Pirie,1988). Where exposed, bedrock in this area consists of graphitic argillaceous sediments, part of the Lower Fennell Formation. Elsewhere on this claim block, drilling intersected a felsic dome with gold values of 4.45 g/t (0.13 oz/ton) over 2.52 metres (Evans,1987).

The Joe claim covers the thrust fault contact between the Lower Fennell formation and the Eagle Bay Assemblage, a geological setting similar to that of the E-D 1 property 3 km northeast. A quartz vein near the fault contact contains sections of massive galena which yielded up to 2 g/t (0.06 oz/ton) gold (Moraal,1986). Values of 610-920 ppb gold in soils occur near the vein (Ovington and Elliott,1987).

PROPERTY GEOLOGY, GEOPHYSICS AND GEOCHEMISTRY

General Statement

The E-D 1 property is underlain by metasediments and lesser metavolcanics of the upper part of the Eagle Bay Assemblage which are in fault contact with Fennell Formation sediments in the western claim area. The Eagle Bay

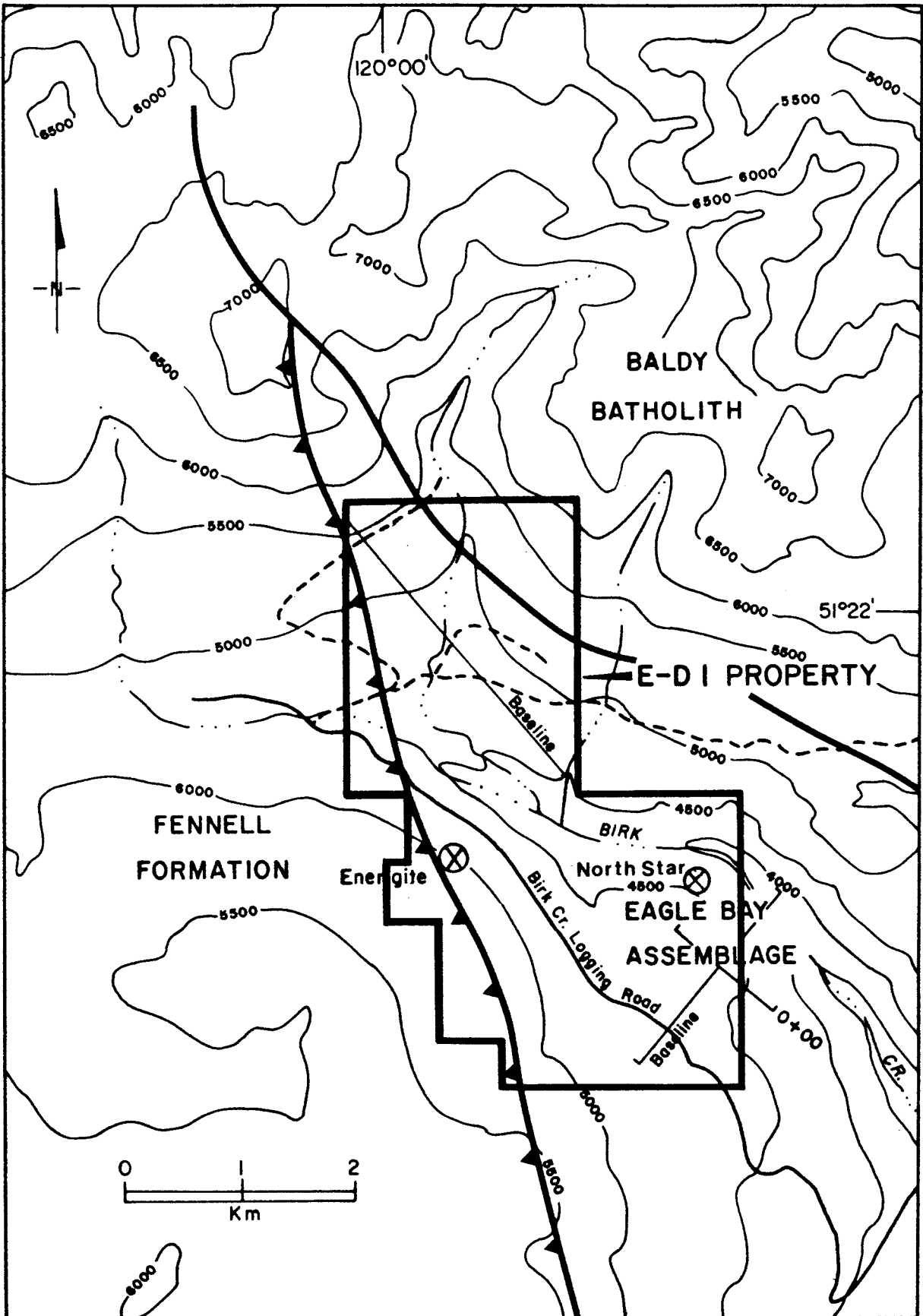


FIGURE 5 - GEOLOGIC SETTING - E-D 1 PROPERTY

Assemblage is intruded by granitic rocks of the Baldy batholith in the northeast part of the claim (Figure 5).

Dark grey to black phyllites and graphitic siltstones which underlie much of the E-D 1 property are part of the youngest unit of the Eagle Bay Assemblage, considered to be of Mississippian age. These occupy the west limb of the Slate Creek recumbent anticline, the axis of which trends north-northwest through the southeastern claims area (Schiarizza and Preto, 1987).

Eagle Bay rocks are in reverse or thrust fault contact with older Fennell Formation sequences in the western part of the property. These are believed to be part of the lower structural division of the Fennell Formation (Schiarizza and Preto, 1987) and are lithologically similar to Eagle Bay sequences.

The thrust fault separating the two sequences is well exposed in the vicinity of the Energite showings (Schiarizza and Preto, 1987 - Figure 5). Here, the zone is marked by brecciated rock with fragments of chert and siltstone. Several trenches near the southwest corner of the E-D #1 claim are on or adjacent to this fault zone. Buff to dark grey, rusty phyllites exhibit strong, north-northwest, steeply dipping schistosity and these rocks may be part of the Fennell Formation.

Granitic rocks of the Baldy batholith are well exposed in the northeastern property area where they are leucocratic, medium to coarse grained biotite quartz monzonites. Muscovite coats fractures in the quartz monzonite and Eagle Bay phyllites adjacent to the contact have been converted to biotite hornfels.

ED #1 Claim

Geology

Bedrock was observed in only a few localities and one of the best exposures is in the major drainage in the central part of the claim. Here, thinly bedded black shale strikes northeast and dips moderately northwest.

While most of the Eagle Bay Assemblage phyllites and graphitic siltstones seen in the claim area contain minor pyrite and some iron oxide staining, best evidence of mineralization in the limited exposures available is in trenches near the southwestern corner of the claim (Figure 13). Most rocks here display weak to intense iron oxide staining and some 4 mm pyrite cubes were noted. Most trenches expose one or more quartz veins which may be a metre or more wide and are irregular along strike. Several samples were collected from the trenches including three grab samples of rusty phyllite (TR3-1, TR1-2, TR2-1) and two samples of quartz vein material (TR2-2, TR1-1). Four showed slightly elevated

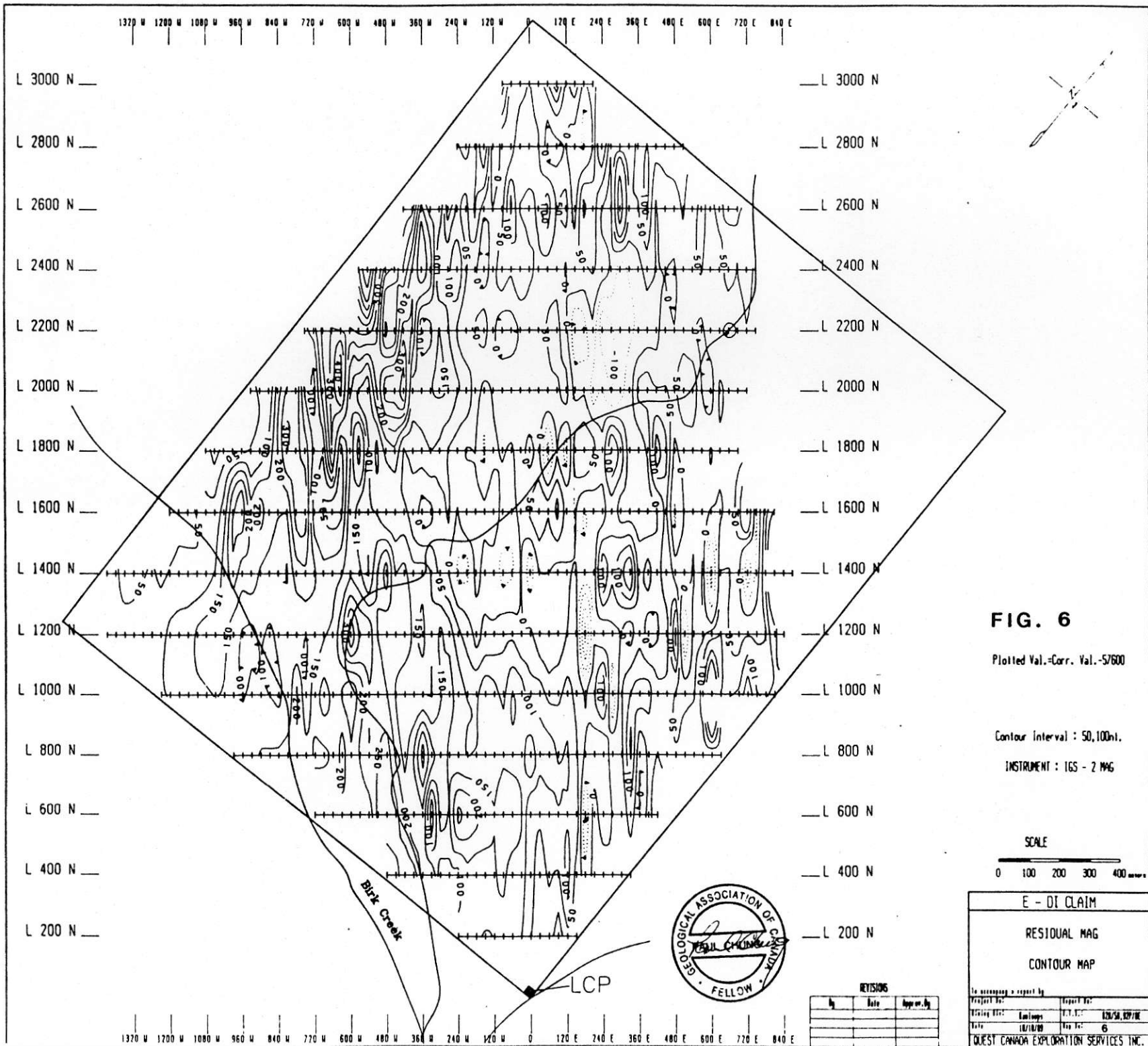
copper, lead and zinc values, but the best result was from TR1-2, rusty, sheared phyllite, which yielded 80 ppb gold, 1.2 ppm silver, 54 ppm lead, 112 ppm zinc and 16 ppm copper (Appendix I).

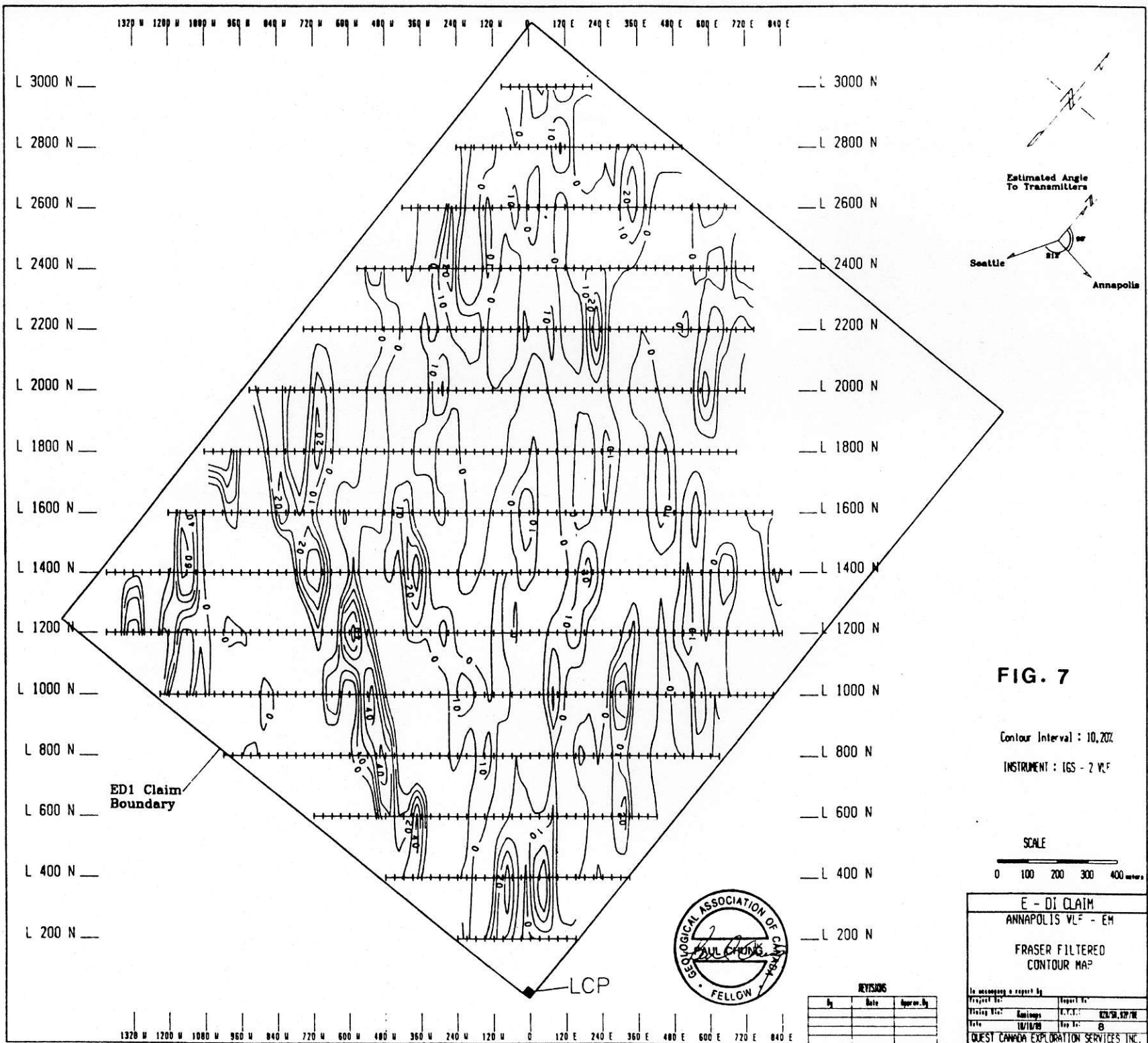
Geophysics

An airborne electromagnetic and magnetometer survey, carried out on behalf of Noranda Exploration Company Limited in 1985, covered a large area centred on Birk Creek including the E-D #1 claim. These data, compiled by Miller (1989), show a number of northwest trending EM conductors within an area of relatively low magnetic susceptibility in that part of the claim underlain by Eagle Bay Assemblage rocks. Strongest EM conductors are along the western claim boundary in the area believed to be underlain by rocks of the Fennell Formation.

X A surface VLF-EM and magnetometer survey, utilising an Integrated Geophysical System (IGS-2) and conducted on behalf of Foran Mining Inc. by Quest Canada Exploration Services Inc. in October of 1989 (Chung, 1989), essentially confirmed the results of the airborne survey and provided better definition of some of the conductive zones. The magnetometer survey (Figure 6) showed higher magnetic susceptibilities along the western claim boundary, probably reflecting Fennell Formation rocks in this area.

Northwest trending VLF-EM conductors were best defined





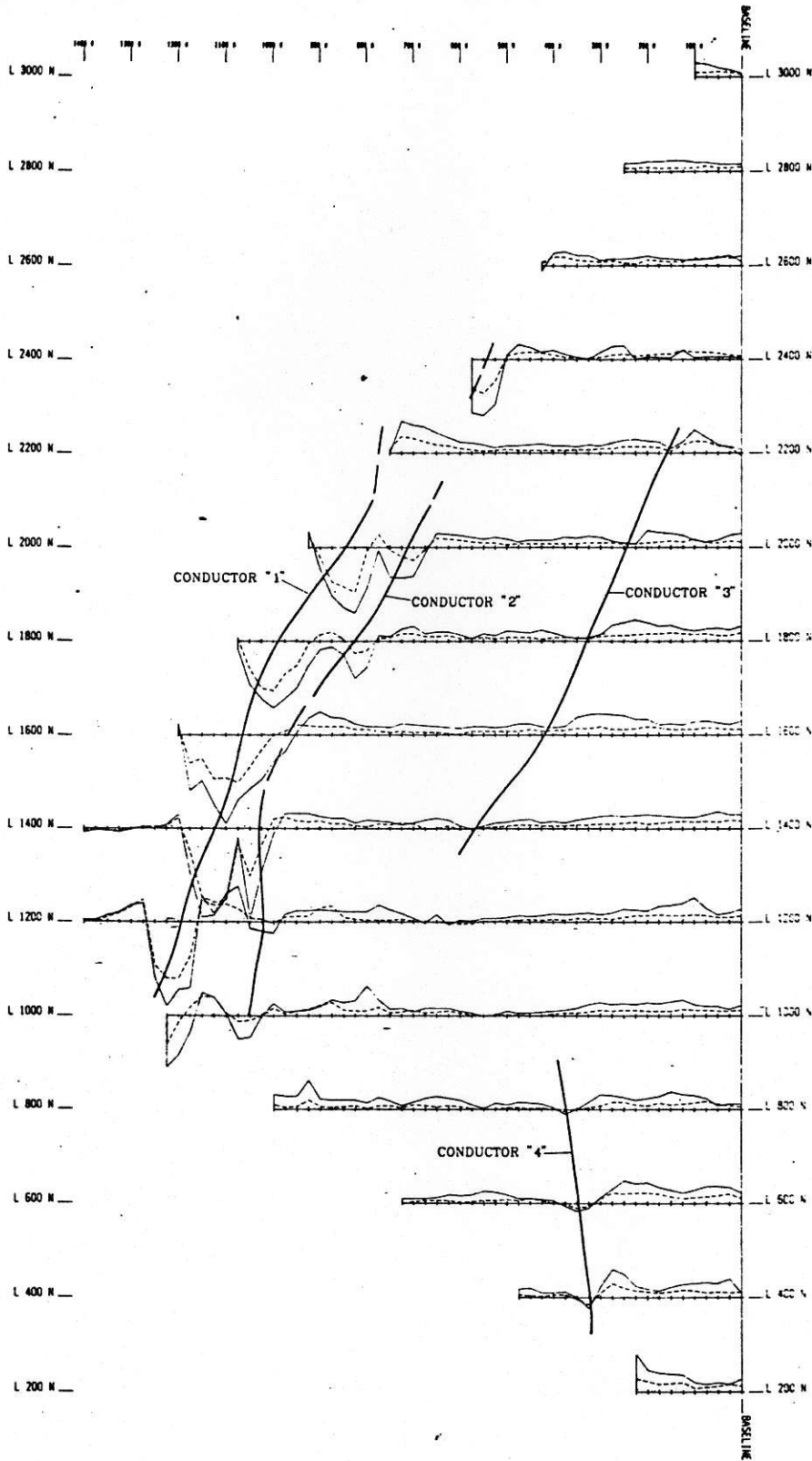
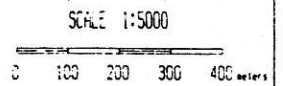
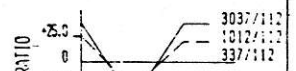


FIGURE 7A

INSTRUMENT : SCINTREX SE-88



E - DI CLAIM	
GENIE HLEM	
PROFILE MAP	
In accompany a report by	
Project No:	Report No:
Drawing No: 040000	C.I.S.: 078/58, 927/8E
Date: 07/16/95	Key No:
QUEST CANADA EXPLORATION SERVICES INC.	



REVISIONS

By	Date	Appr. by

by the Annapolis transmitter station (Chung,1989) and are mainly west of the baseline (Figure 7) where they are coincident with magnetic highs. Strongest conductors are in the southwest part of the claim.

A horizontal loop electromagnetic (HLEM) survey was undertaken by Quest Canada Exploration Services Inc. in late June of 1990 to further define the conductors indicated southwest of the baseline by the previous VLF-EM survey.

A total of 12 km of survey was completed along existing 200 metre spaced flagged lines using a Scintrex SE88 Genie instrument. Readings were taken at 25 metre stations along the lines. Coil spacing was maintained at 100 metres and data were recorded for three frequencies (Chung,1990).

Four conductive zones were identified by the HLEM survey (Figure 7A) and these are coincident, in part, and give further definition of, some of the VLF-EM conductors (Figures 7 and 13).

Conductors 3 and 4 are interpreted as indicating poor to moderate conductivity, possibly due to estimated overburden thicknesses of between 35 and 48 metres in these areas of the grid. These two conductors may indicate lithologic or fault contacts (Chung,1990). Conductor 4 is coincident with an area of slightly higher magnetic intensity (Figure 6).

Northerly trending conductors 1 and 2, parallelling the

western claim boundary between lines 1000 and 2400N (Figure 7A) and open in both directions along strike, were observed on all three frequencies recorded, indicating good conductivity at shallow depths (Chung, 1990). These two conductors, which may represent one conductive zone which diverges along strike, are interpreted to represent steeply east-dipping, thin, sheet-like bodies, possibly sulphide lenses.

The northern parts of conductors 1 and 2, between lines 1800 and 2400N, are coincident with the highest magnetic susceptibilities recorded on the E-D #1 claim (Figure 6).

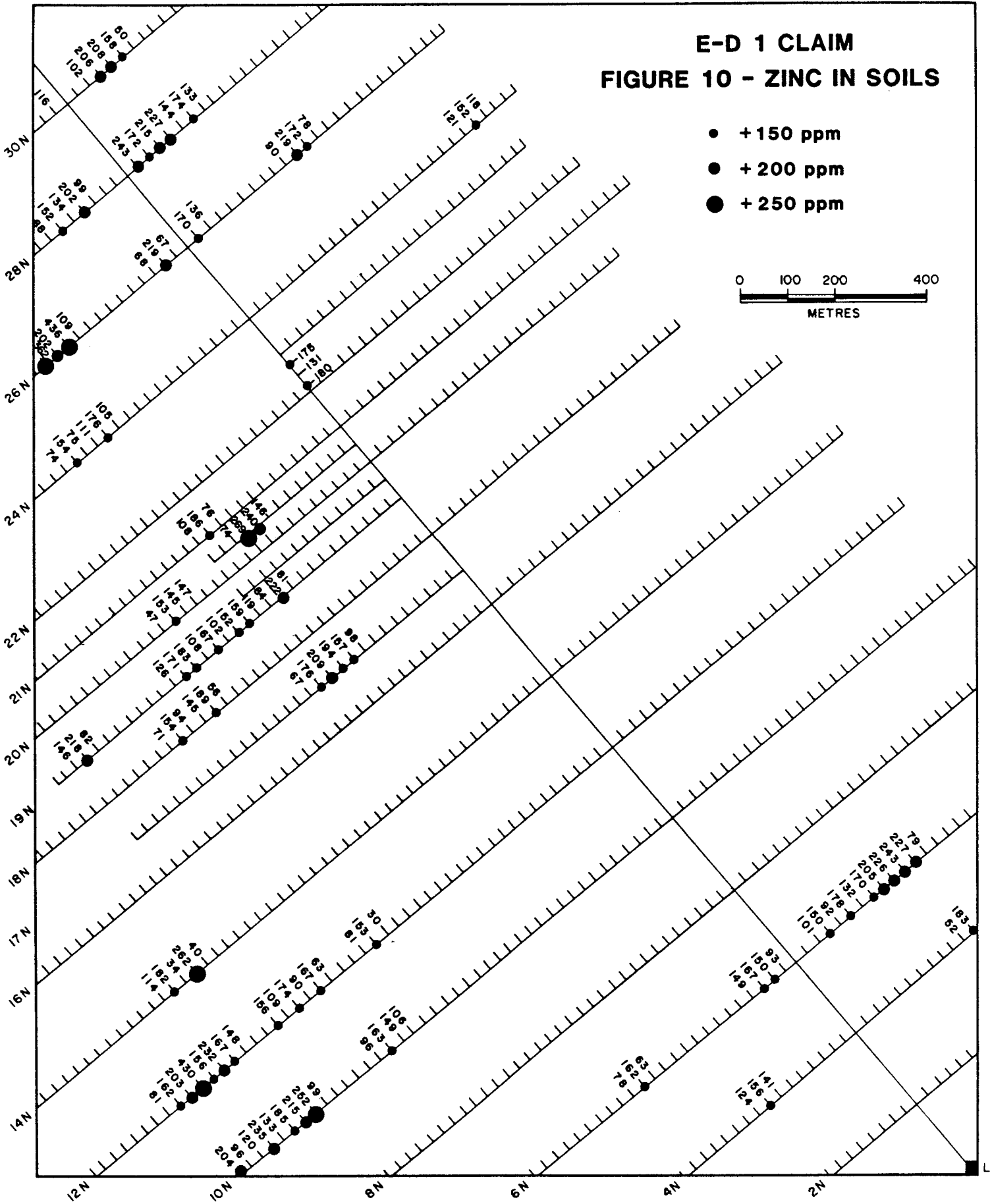
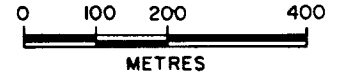
Geochemistry

Soil sampling was undertaken over 27 km of grid established on the E-D #1 claim. A cut baseline was initiated at the Legal Corner Post in the southeast part of the claim and extended northwest across the claim. Flagged northeast-southwest cross-lines at 200 metre intervals were extended to the south and west claim boundaries and to the granite contact in the northeast part of the claim.

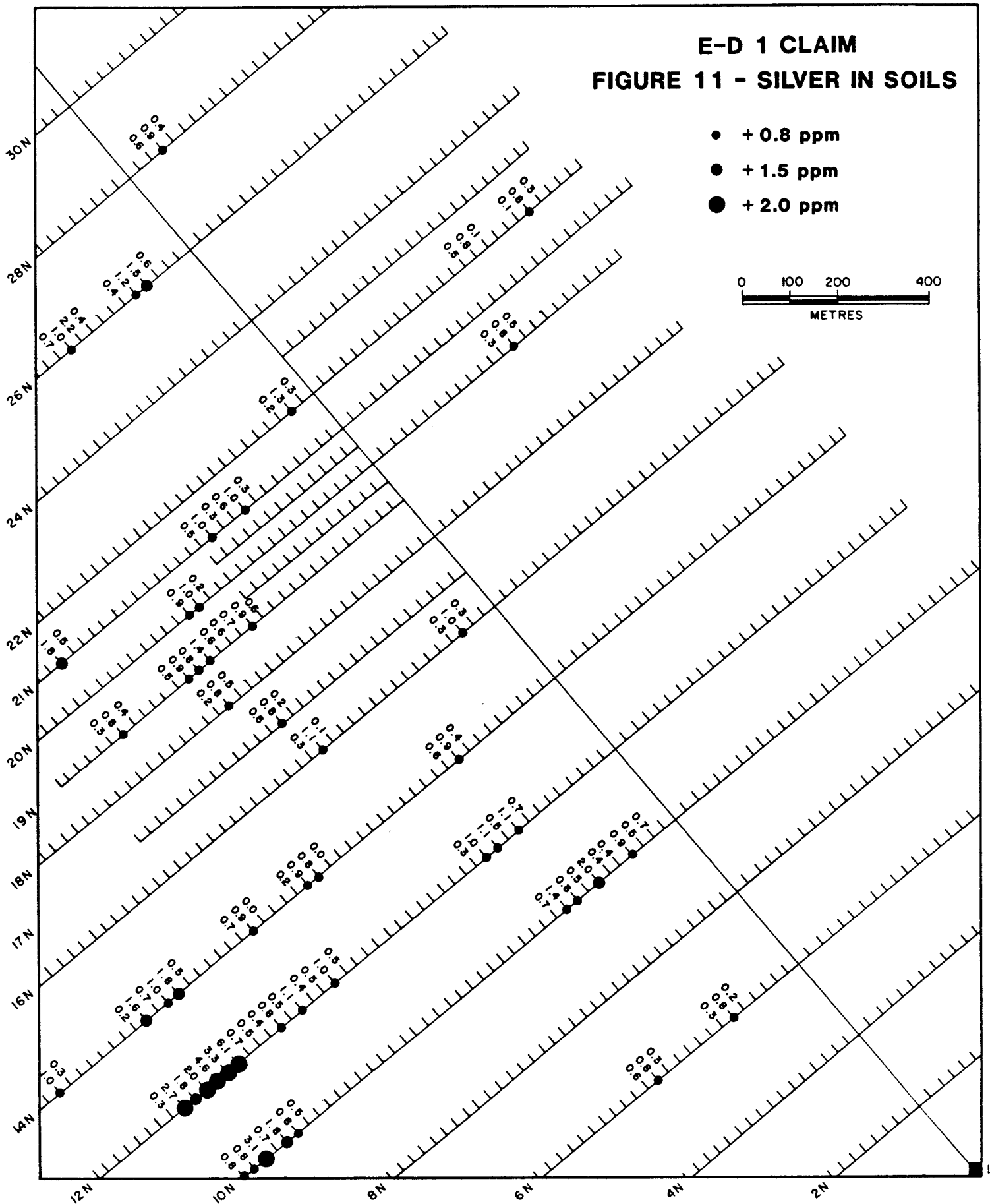
Soil samples were collected at 30 metre intervals along the flagged lines and subsequent fill-in cross-lines at 50 and 100 metre spacings which were established for follow-up sampling. Overburden on the property consists of glacial till featuring a variably well developed soil profile.

E-D 1 CLAIM FIGURE 10 - ZINC IN SOILS

- + 150 ppm
- + 200 ppm
- + 250 ppm



**E-D 1 CLAIM
FIGURE 11 - SILVER IN SOILS**



Samples were collected from the 'B' horizon at depths of between 20 and 30 cm.

Some 950 samples were analyzed for gold, silver, copper, lead and zinc by geochemical methods at Kamloops Research and Assay Laboratory Ltd. Results are contained in Appendix I and anomalous values for the 5 elements are shown on Figures 8-12 and described as follows:

Copper

Range: 3-95 ppm
Median: 17 ppm
Mean: 23 ppm
95th %ile:42 ppm

As noted on Figure 8, contour intervals of 35, 50 and 75 ppm were selected. Higher values (+75 ppm) are west of the baseline, in the southwest part of the claim. Weakly anomalous values (+50 ppm) are widespread in the northern claim area.

Lead

Range: 4 - 100 ppm
Median: 13 ppm
Mean: 18 ppm
95th %ile:25 ppm

Lead values were found to be fairly uniform throughout the claim area. Values of 50 ppm and above are moderately to strongly anomalous and these are contained in three areas west of the baseline in the southern claim area (Figure 9).

Zinc

Range: 14 - 436 ppm
Median: 74 ppm
Mean: 93 ppm
95th %ile: 176 ppm

Values in excess of 175 ppm are considered anomalous and are coincident with anomalous copper and lead values in the southwest and northwest parts of the claim (Figure 10). Higher values are also present on line 6N northeast of the baseline.

Silver

Range: 0.0 - 6.1 ppm
Median: 0.17 ppm
Mean: 0.33 ppm
95th %ile: 0.70 ppm

Values of more than 1 ppm are considered definitely anomalous and highest values are along line 12N in the southwest claim area (Figure 11) where they are coincident with anomalous base metal values. Lesser anomalous values are contained in several zones west of the baseline.

Gold

Range: 3 - 670 ppb
Median: 8 ppb
Mean: 18 ppb
95th %ile: 22 ppb

As indicated on Figure 12, contour intervals have been selected for values of 25, 50, 100 and 200 ppb. Again, anomalous values are principally west of the baseline and some of these trend in a northwesterly direction. However, it is significant that the two areas with the highest values

appear to be normal to the northwest structural grain. These areas include one in the central claims area (line 20N) which contains some of the highest values, and another in the northwest part of the claim between lines 26 and 30N.

Within these two areas, distinctly anomalous values are commonly separated by low values (Figure 12) which may simply be an expression of variable depths of overburden..

More detailed sampling was undertaken along intermediate lines northwest and southeast of the higher gold values obtained along line 20N (Figure 12). This sampling yielded no anomalous values due possibly to variable depths of overburden but more probably reflecting a northeast trend for this anomalous zone.

Four areas with isolated high gold values in soils on lines 6N, 8N (two areas) and 28N were further investigated by collecting 8 additional samples at 15 metre intervals around the perimeter of a 30 metre square centred on the original sample site. Anomalous results were confirmed for those sites on lines 6N and 8N (Appendix I).

Pulps of 99 samples within and adjacent to areas with anomalous gold values were submitted for multielement analysis by inductively coupled argon plasma (ICP) techniques and these data are contained in Appendix II.

The levels of concentration of copper, lead, zinc and

silver, originally determined by geochemical analysis, were generally confirmed by the ICP method. Note that the detection limit for gold by ICP is 3 ppm which explains the ND (not detected) signature for this element.

Anomalous gold values between lines 18 and 20N are locally accompanied by elevated arsenic (18-26 ppm) and barium (163-209 ppm). The 360 ppb gold result on line 26N at the western claim boundary (Figure 12) also contains 260 ppm arsenic, and 315 ppm barium. The sample result is also supported by nearby anomalous silver, lead and zinc values.

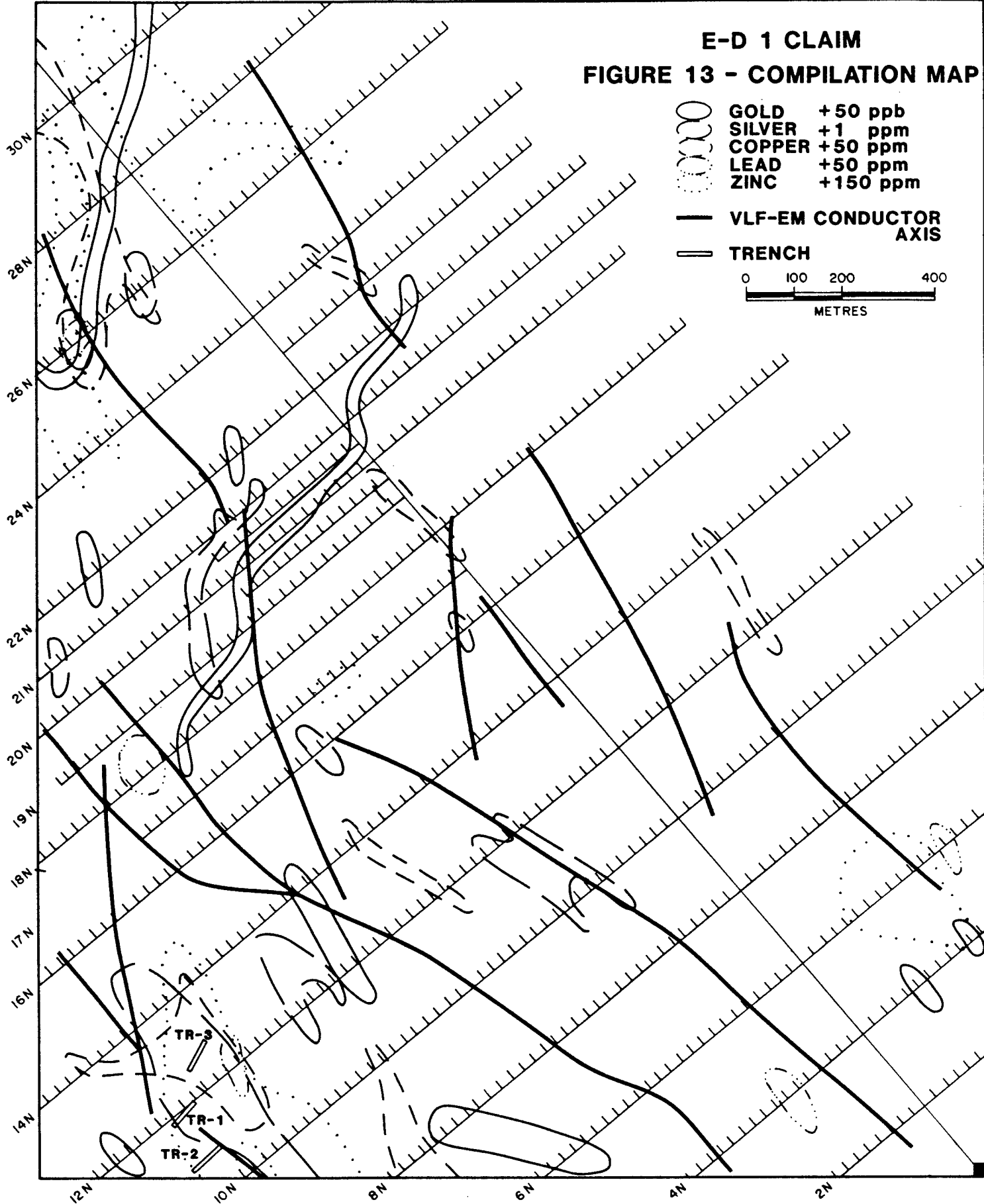
Elevated arsenic values (21-26 ppm) correspond to higher gold values on line 21N northeast of the baseline and the 530 ppb gold result near the southwest of line 12N (Figure 12) is accompanied by 22 ppm arsenic and 270 ppm barium. Significantly, this site is upslope from the trench area (Figure 13).

Discussion of Geochemical Results

The fluvio-glacial nature of the overburden in the Barriere Lakes - Birk Creek area makes interpretation of geochemical data difficult. As pointed out by Woodcock (1971), the 'B' horizon is fairly easy to identify but there are great variations in the depth of the glacial till and any interpretation of geochemical values must take this into

E-D 1 CLAIM

FIGURE 13 - COMPILATION MAP



account. Estimated overburden depths of between 35 and 48 metres were indicated near the baseline by the HLEM survey.

Notwithstanding these inherent problems, there are numerous case histories which attest to the usefulness of soil geochemistry in the Adams Lake - Barriere Lakes - Clearwater area. The original Rea Gold deposit has a strongly anomalous gold-arsenic soil geochemical signature while the Samatsum deposit, 600 metres northeast, features erratic high lead, zinc and silver values (Pirie,1989).

At the Chu Chua deposit, soil geochemistry has proven to be of little use although sampling below the deposit has yielded values of up to 275 ppm copper, 880 ppm zinc and 120 ppm lead (Pirie,1986).

A review of results from soil geochemical surveys conducted in the area between East Barriere Lake and Birk Creek (see References section) indicates anomalous for various elements as follows: copper, 30-118 ppm; lead, 20-100 ppm; zinc, 70-218 ppm; silver, 0.9-1.2 ppm; and gold 15-40 ppb.

Anomalous copper, lead, zinc, and silver values in soils collected from the E-D #1 claim correspond well with the regional ranges of values. Anomalous values for these elements on the E-D #1 claim are apparently best developed in the area of the Lower Fennell - Eagle Bay Assemblage contact

in the western claim area.

The locally high gold values determined by the 1989 survey are somewhat unique but this may simply be a reflection of the fact that many of the earlier geochemical surveys in the area did not include gold as part of the analytical package. Similar high gold values are reported in only a few other localities in the area, most notably the Joe claim, 4 km south, and referred to earlier (Ovington and Elliott, 1987). Some erratic high gold values in soils were obtained from the Twin claims between Adams Lake and the Rea Gold property (Pirie, 1985).

Energite - North Star Zones

Geology

The Energite and North Star zones, referred to in some previous reports as the "South" and "North" showings respectively, are believed to be wholly or mainly within the boundaries of the recently acquired claims. Approximate locations of the showings are illustrated on Figure 14.

The Energite or "South" showings consist of sulphide-bearing quartz veins and lenses developed along the regional fault contact between Fennell Formation rocks and those of the Eagle Bay Assemblage (Schiarizza and Preto, 1987). In detail, a system of quartz veins and disconnected lenses containing pods of coarse-grained

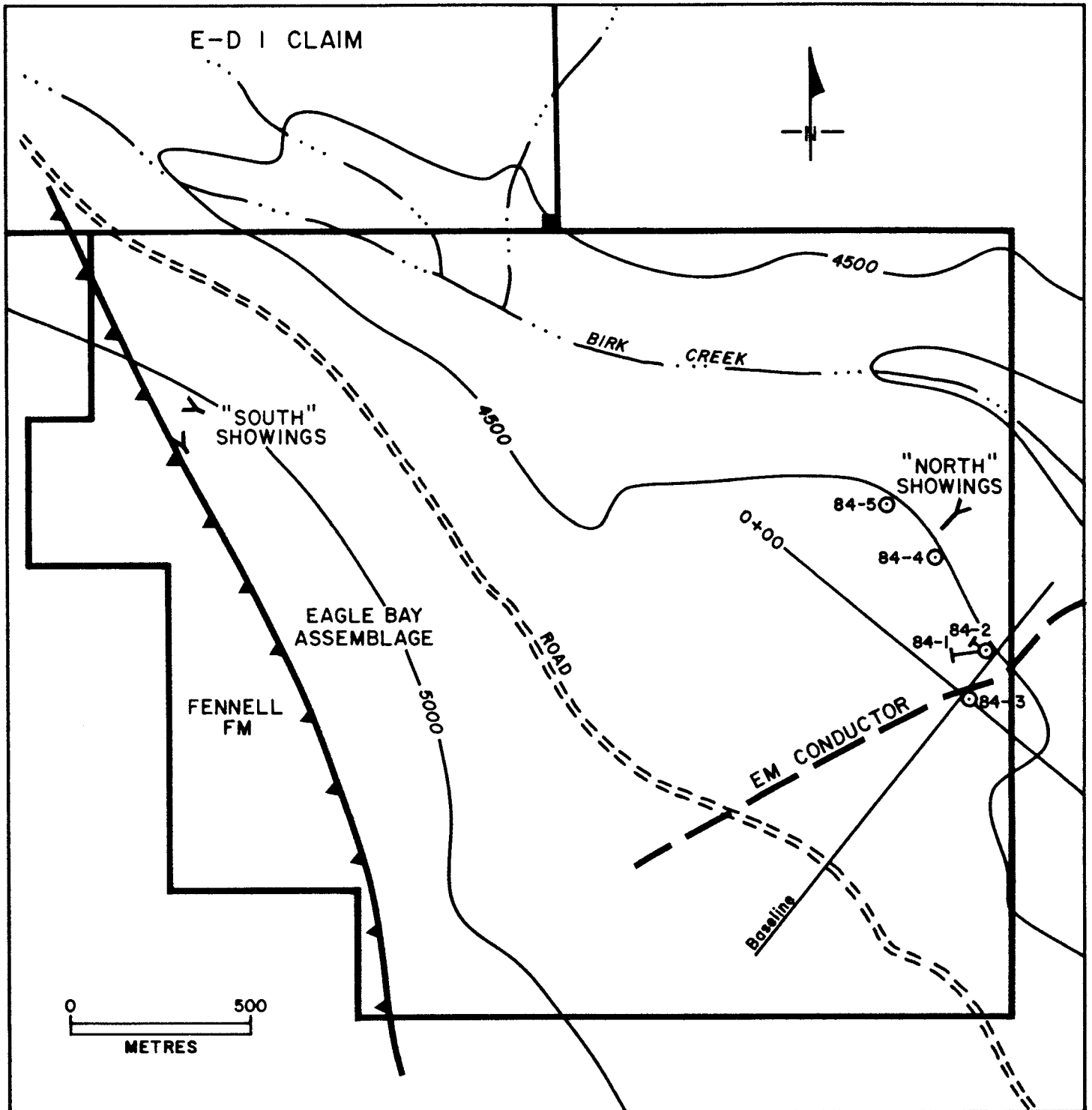


FIGURE 14 - ENERGITE-NORTHSTAR ZONES

galena and pyrite, sphalerite and chalcopyrite are exposed in a number of open cuts, trenches and two short adits within a northerly trending 200 x 100 metre zone. Individual veins and lenses have widths ranging from less than 10 cm to 1 metre and the greatest reported strike length for any one vein system is about 25 metres (Minister of Mines Annual Report, 1936). Most veins and lenses strike slightly west of north, or parallel to the major fault, and dip moderately east. Some veins near the known southern limits of the showings area are clearly discordant, striking northeasterly and dipping moderately to the southeast.

Six chip samples, collected in 1935 from a several veins and lenses throughout the showings area and over widths ranging from 30 cm to 1.8 metres, returned values ranging from trace to 12.3 g/t gold, trace to 1707 g/t silver, 9 to 63% lead and trace to 8% zinc. Two samples of sorted material assayed 18.5 - 21.9 g/t gold, 1392 - 1830 g/t silver and 62 - 74% lead (Minister of Mines Annual Report, 1935). A more recent channel sample, collected from a 0.6 metre width of vein material, reportedly contained 6.17 g/t gold, 1056 g/t silver, 19.83% lead and 8.29% zinc (George Cross Newsletter #2, Jan. 5, 1983).

Host rocks are north-northwest trending, steeply dipping cherts and sericite schists of the Fennell Formation and

Eagle Bay Assemblage variably sheared and brecciated phyllites and clastic sediments (Schiarizza and Preto, 1987).

The North Star or "North" showings, situated 2 km east of the Energite or "South" showings, are exposed in one short adit and open cuts on the north-facing slope above Birk Creek (Figure 14). These showings reportedly consist of parallel 2 - 30 cm wide quartz veins containing sphalerite, galena, pyrite and chalcopyrite and which are conformable with well developed north-northwest trending, vertical schistosity in graphitic phyllites, quartzites (cherts?) and banded iron-carbonate cherts and minor limestone and greenstone of the Eagle Bay Assemblage (Minister of Mines Annual Report, 1936; Cardinal, 1984).

Five diamond drill holes, completed in the vicinity of these showings in 1984, were designed to test EM conductors and some of the surface showings (Pasioka, 1984; Cardinal, 1984). Copies of drill logs are contained in Appendix II.

Best reported results were from hole 84-1 which was apparently drilled to test an EM conductor parallel to, and on the west flank of the principal conductor axis shown on Figure 14. (The location of this hole and hole 84-2, drilled from the same set-up, cannot be precisely determined from available data.) Three samples from a 0.94 metre hole length,

at a vertical depth of 72 metres and consisting of a quartz vein and graphitic siltstone with some quartz stringers and disseminated to massive pyrite, returned a weighted average grade of 7.65 g/t gold and 14.06 g/t silver (Pasiëka,1984). Some 2.3 metres below this interval, a 1.5 metre length of pale green quartzite (chert?) containing disseminated sulphides yielded 5.49 g/t gold and 1.03 g/t silver.

Hole 84-2 was apparently terminated short of its objective to test quartz veins noted on surface (Pasiëka,1984). Drill holes 84-3, -4, and -5 are reasonably well located relative to the grid (Cardinal,1984) but there is no indication as to the azimuths or inclinations of these holes nor is there any confirmation that they may be vertical holes.

Hole 84-3, drilled to test the principal EM conductor (Figure 14), intersected graphitic siltstone, phyllite and minor limestone throughout much of its length. Disseminated pyrite was noted and the best reported result was a 0.9 metre section grading 1.99 g/t gold (Cardinal,1984). Holes 84-4 and -5, drilled in the vicinity of the short adit to test quartz-sulphide shear zones, yielded only low gold values.

There are records of two ore shipments from the Energite - North Star zones although there is little information as to which zone(s) were the source of the material shipped.

Results reported in B.C. Ministry of Energy Mines and Petroleum Resources Minfile are as follows:

<u>Year</u>	<u>Tonnes</u>	<u>Silver(grams)</u>	<u>Copper(kg)</u>	<u>Lead(kg)</u>	<u>Zinc(kg)</u>
1954	31	280	158	-	-
1972	5	3452	-	1341	143

Additional information concerning the 1972 shipment (George Cross Newsletter #2, Jan. 5, 1983) indicates recovered grades of 5.49 g/t gold, 708 g/t silver, 0.25% copper, 27.4% lead and 13.3% zinc.

Geophysics

A vertical loop electromagnetic (EM) survey was carried out in 1981 over a grid with a baseline oriented in a northeast direction with northwest-southeast cross-lines at 90 metre (300 ft.) spacings (Pasiëka, 1981). This survey defined an 1800 metre long, moderate to strong conductive zone, the axis of which trends in a northeasterly direction, apparently oblique to the baseline (Figure 14). Two-thirds of the length of this conductive zone is within the boundaries of the present claims.

The significance of this conductive zone is not known. As indicated by Pasiëka(1981), there is no correlation with known surface mineralization although it is significant that drill hole 84-1, apparently drilled to test a parallel conductive zone, intersected graphitic phyllites containing quartz veins and stringers and disseminated to massive pyrite

which yielded some interesting gold values.

The grid orientation for this survey was reportedly selected in view of the 2-post claim configuration existing in the early 1980's. The cross-lines roughly parallel the regional north-northwest structural trend of this area and consequently there must be some doubt as to the significance of the defined EM conductor axis.

Geochemistry

Soil samples were collected at 30 metre (100 ft.) stations along the northwest-southeast cross-lines in 1981 and analyzed for silver, lead and zinc (Pasioka, 1981).

A cursory examination of the results of this survey by the writer indicates that lead and zinc values have ranges and means roughly similar to those determined by a soil geochemical survey of the ED #1 claim immediately north. Lead values from the 1981 survey range from 15 to 96 ppm, have a mean of approximately 20 ppm and a threshold of about 30 ppm. A greater spread of zinc values was noted with a range of between 14 and 940 ppm, an approximate mean of 40 ppm and a threshold around 100 ppm.

The average silver value of 1 ppm is higher than that determined for the ED #1 claim and, as noted by Pasioka (1981), spot highs were common. Coincident anomalous values for silver, lead and zinc appear to be concentrated

northwest of the baseline and southwest of line 0+00 (Figure 14) and crudely flank the EM conductor axis.

CONCLUSIONS

The E-D 1 property is underlain by Paleozoic sedimentary and lesser volcanic rocks which are known to host nearby polymetallic vein and volcanogenic massive sulphide deposits throughout the Adams Lake - Barriere Lakes area. The two principal Paleozoic sequences of this area, the Fennell Formation and the Eagle Bay Assemblage, are separated by a regional fault zone which extends through the western property area and provides the locus for exposed gold-silver-lead-zinc vein mineralization within and south of the presently held claims. Some of the stronger VLF-EM conductive zones and semi-coincident anomalous base metals and silver values in soils on the E-D #1 claim are also proximal to the trace of this regional fault.

Two styles of mineralization are known on the recently acquired claims. The Energite of "South" showings consist of a number of quartz veins and lenses containing galena and sphalerite which locally yield some good silver, lead and zinc values. The association of interesting gold values with this style of mineralization is considered to be significant. The North Star or "North" showings include, at least in part,

a second style of mineralization as evidenced by reported gold values in one 1984 drill hole (7.65 g/t/0.94 metre and 5.49 g/t/1.5 metre) which are associated with disseminated to massive pyrite lenses.

On the E-D #1 claim, a 1989 VLF-EM survey indicated a number of northwest to north trending conductive zones. A subsequent horizontal loop EM survey further defined and prioritized four conductive zones southwest of the baseline. Two of these conductive zones are interpreted as indicating lithologic boundaries and/or faults. One of these, in the central part of the claim, is partly coincident with with areas of anomalous gold and silver values in soils.

The two strongest conductors parallel the western claim boundary and are coincident with higher magnetic susceptibilities and with anomalous base metal and silver values in soils.

Geochemical soil sampling in 1989 identified a number of areas with anomalous gold, silver, copper, lead and zinc values. Coincident and/or contiguous areas with anomalous base metal and silver values in the southwest and northwest parts of the claim correlate well with stronger VLF-EM conductors (Figure 13). These anomalous areas are best developed within and west of the fault contact between the two principal Paleozoic sequences.

Areas with anomalous gold values are either adjacent to northwest trending multi-element anomalous areas or normal to them as is the case for two of the stronger gold in soils anomalies which trend northeasterly (Figure 13). The presence of northeast striking gold-bearing polymetallic vein structures in the Energite showings area to the south lends some credence to these two anomalies on the E-D #1 claim.

Results obtained from geophysical and geochemical surveys on the E-D #1 claim and records of previous work on the newly acquired claims confirm the potential for both stratiform polymetallic massive sulphides and gold-bearing discordant veins on the E-D 1 property. Additional exploration work is warranted to further assess this potential.

RECOMMENDATIONS

A program of detailed geological mapping, bedrock sampling, soil geochemistry and geophysics is recommended for the recently acquired claims which comprise the southern part of the E-D 1 property. To facilitate this work, a newly cut grid will be required, with the baseline oriented in a northwesterly direction and initial cross-lines at 200 metre spacings.

Initial work on these claims should be directed to accurately locating the two showings areas relative to claim boundaries, followed by detailed mapping and sampling of old trenches, underground workings and bedrock exposures in the immediate area of these zones. An attempt should be made to locate the 1984 drill sites; drill cores were reportedly stored on the property and may be available for re-sampling.

It is further recommended that soil samples be collected at 25 metre intervals along the grid and subjected to multi-element analyses plus gold. Results of previous soil sampling can provide a useful guide in planning additional work but these were analyzed for only three elements. VLF-EM and magnetometer surveys over the grid area will assist in defining targets for diamond drilling.

Additional surface work is also recommended as part of a Phase I program on the E-D #1 claim. An Induced Polarization survey will assist in detecting possible sulphide mineralization within the conductive zones delineated by the Horizontal Loop EM survey and will also give a better estimate of possible overburden thicknesses. A properly cut grid, with cross-lines at 100 metre spacings within the area southwest of the present baseline, will be required prior to the IP survey.

Detailed soil sampling should be undertaken within and adjacent to the area with the highest gold values in the central part of the E-D #1 claim along lines which are normal to the apparent northeast trend of this zone. Excavator trenching and reverse circulation overburden drilling are recommended to further evaluate the zones of anomalous soil geochemistry prior to a program of diamond drilling.

A Phase II program for the E-D 1 property, consisting of additional diamond drilling, would be predicated on the receipt of positive results from the initial phase exploration program.

COST ESTIMATE

Phase I

Grid Construction - 40km @ \$535/km	\$21,400.00
Geological mapping, bedrock sampling	\$25,000.00
Soil sampling - collection and analyses	\$26,750.00
VLF-EM and Magnetometer surveys - 30 km @ \$400/km	\$12,000.00
Induced Polarization Survey - 12 km @ \$1300/km	\$15,600.00
Excavator Trenching - 40 hours @ \$250/hour	\$10,000.00
Overburden Drilling - 1000 metres @ \$50/metre	\$50,000.00
Diamond Drilling - 1500 metres @ \$100/metre	\$150,000.00
Sample Analyses (drilling)	\$25,000.00
Supervision, reporting, etc.	\$25,000.00
Contingencies	<u>\$39,250.00</u>
Total	\$400,000.00

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REFERENCES

- Blanchflower, J.D. (1985): Geochemical and Trenching Report on the Russ Property, Kamloops Mining Division
BCMEMPR Assessment Report 13793
- Bradish, L. (1984): Report of Work - Geophysical Surveys on the BC-1 Property, Kamloops Mining Division, BCMEMPR Assessment Report 12200
- Cardinal, D.G. (1984): Diamond Drilling Assessment Report on the Energite Claims, Kamloops Mining Division
BCMEMPR Assessment Report 13776
- Chung, Paul P.L. (1989): Geophysical Report (VLF-EM, Magnetometer) on the E-D 1 Property, Kamloops Mining Division, private report for 368061 B.C. Ltd.
- _____ (1990): Geophysical Report (HLEM Genie) on the E-D 1 property, Kamloops Mining Division, private report for 368061 B.C. Ltd. Dickie, G.J. and
- Hodgson, G.D. (1984): Geology and Geochemical Exploration on the Aaron Claims, Kamloops Mining Division, BCMEMPR Assessment Report 13297
- Evans, Graeme W. (1987): Diamond Drilling Report-Bar Property (SC Group) Kamloops Mining Division, BCMEMPR Assessment Report 15856
- Gower, S.C. and Stevenson, R.W. (1976): Report on Soil Geochemical Survey, Barriere Lake IV Claim Group, Kamloops Mining Division, BCMEMPR Assessment Report 5973
- Gray, Michael J. (1988): Diamond Drilling and Geophysical Report-Bar Property, Kamloops Mining Division, BCMEMPR Assessment Report 16996
- Hall, B.V. and Walcott, P.E. (1980): Report on the Hall Claim Block, Kamloops Mining Division, BCMEMPR Assessment Report 8210
- Heberlein, D.R. and Pirie, I.D. (1990): Chu Chua - 1990 Snapshot" Review, B.C. and Yukon Chamber of Mines Cordilleran Roundup

- Hoy, T. and Goutier, F. (1986): Rea Gold (Hilton) and Homestake Sulphide-barite Deposits, southeastern B.C., BCMEMPR Geological Fieldwork 1985, Paper 1986-1, pp. 59-68
- Leishman, D.A. (1984): Geological and Geochemical Report on the Adon Property, East Barriere Lake, Kamloops Mining Division, BCMEMPR Assessment Report 13339
- Leishman, D.A. and Dawson, J.M. (1985): Report on NRM 1, Crown 1, Gold and Skwaam 1 Mineral Claims, Kamloops Mining Division, BCMEMPR Assessment Report 14129
- Miller, D.C. (1989): Report on the E-D 1 Claim, Kamloops Mining Division - private report for Wayne Tyner
- Minister of Mines, B.C., Annual Reports 1935, pp. D7-D8
1936, pp. D36-D37
- Moraal, Dirk (1986): Joe Mineral Claim Prospecting Report, Kamloops Mining Division, BCMEMPR Assessment Report 15123
- Ovington, L. and Elliott, B. (1987): Geochemical Report on the Joe Mineral Claim, Kamloops Mining Division, BCMEMPR Assessment Report 16884
- Pasieka, C.T. (1981): Report on Electromagnetic and Geochemical Surveys on the Energite Claims, Kamloops Mining Division, BCMEMPR Assessment Report 9963
- _____ (1984): Report on Diamond Drilling Program on the Energite Claims, Kamloops Mining Division, BCMEMPR Assessment Report 12774
- Pirie, I.D. (1984): Geophysical and Geochemical Report on the Bar Property (Dixon Lake grid), Kamloops Mining Division, BCMEMPR Assessment Report 13194
- _____ (1985): Soil Geochemical Survey of the Twin Claims Kamloops Mining Division, BCMEMPR Assessment Report 13614
- _____ (1984): Geology and Geochemistry of the SC-1 Claim, Kamloops Mining Division, BCMEMPR Assessment Report 13667

- _____ (1986): Chu Chua Option, Kamloops Mining Division, Report on 1986 Work Programs, BCMEMPR Assessment Report 15717
- _____ (1988): Geology, Geochemistry and Geophysics of the SC-1 Claim, Kamloops Mining Division, BCMEMPR Assessment Report 17475
- _____ (1989): The Samatosum Deposit, The Northern Miner Magazine Vol.4 No.6, pp.15-18
- Schiarizza, P. and Preto, V.A. (1987): Geology of the Adams Plateau-Clearwater-Vavenby Area, BCMEMPR Paper 1987-2
- Stewart, Alfred (1979): Geochemical, Geophysical and Diamond Drilling Report on the Lesley and TGI Claims, Kamloops Mining Division, BCMEMPR Assessment Report 7254
- Vollo, N.B. (1973): Geochemical and Geophysical Report on the 82M/5 BC Group, Kamloops Mining Division, BCMEMPR Assessment Report 4136
- Wilson, R.G. (1986): Diamond Drilling Report-BC-1 Claims-Loranger Option, Kamloops Mining Division, BCMEMPR Assessment Report 14387
- Wojdak, P.J. (1976): Geology, Geochemistry and Trenching on the Bet 1-5 Mineral Claims, Kamloops Mining Division, BCMEMPR Assessment Report 6202
- Woodcock, J.R. (1971): Geochemistry at Birk Creek (Fennell-Schilling Property), Kamloops Mining Division, BCMEMPR Assessment Report 3333

CERTIFICATE

I, NICHOLAS C. CARTER, of 1410 Wende Road, Victoria, British Columbia, do hereby certify that:

1. I am a Consulting Geologist, registered with the Association of Professional Engineers and Geoscientists of British Columbia since 1966.
2. I am a graduate of the University of New Brunswick with B.Sc.(1960), Michigan Technological University with M.S.(1962) and the University of British Columbia with Ph.D.(1974).
3. I have practised my profession in eastern and western Canada and in parts of the United States for more than 25 years.
4. The foregoing report on the E-D 1 Property is based on several visits to the E-D #1 claim in 1989, on results of geochemical and geophysical programs carried out on the claim in 1989 and 1990 and on a review of published and unpublished reports pertaining to the Energite and North Star zones and the geological setting and geochemical and geophysical signatures of the Barriere Lakes-Birk Creek area.
5. I hold no interest, directly or indirectly, in the mineral claims comprising the E-D 1 property, in 356584 B.C. Ltd. or in Foran Mining Inc. nor do I expect to receive any such interest.
6. Permission is hereby granted to Foran Mining Inc. to use the foregoing report in support of a Prospectus to be filed with the British Columbia Securities Commission.

N.C. Carter, Ph.D. P.Eng.

Victoria, B.C.
January, 1994