GEOCHEMICAL AND GEOPHYSICAL ASSESSMENT REPORT

On the FEN 1-4 & TSALIT 4-8 MINERAL CLAIMS

Omineca M.D. 93L/2W

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For Owner & Operator Baril Developments Ltd.



Delta, B.C. S. Zastavnikovich, Geochemist Sept., 1993 S.J. Visser, Geophysicist GEOLOGICAL BRANCH ASSESSMENT REPORT

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in pocket

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GEOCHEMICAL ASSESSMENT REPORT ON THE FEN AND TSALIT MINERAL CLAIMS

SUMMARY

The contiguous FEN and TSALIT Groups of claims consist of the Fen 1-4 and Tsalit 4-8 mineral claims as described below. The claims are presently owned by Baril Developments Ltd., and lie straddling the Fenton and Code Creeks 4 km south of Morice River, 30 km southeast of Houston, in the Omineca M.D. on map sheet NTS 93L/2W.

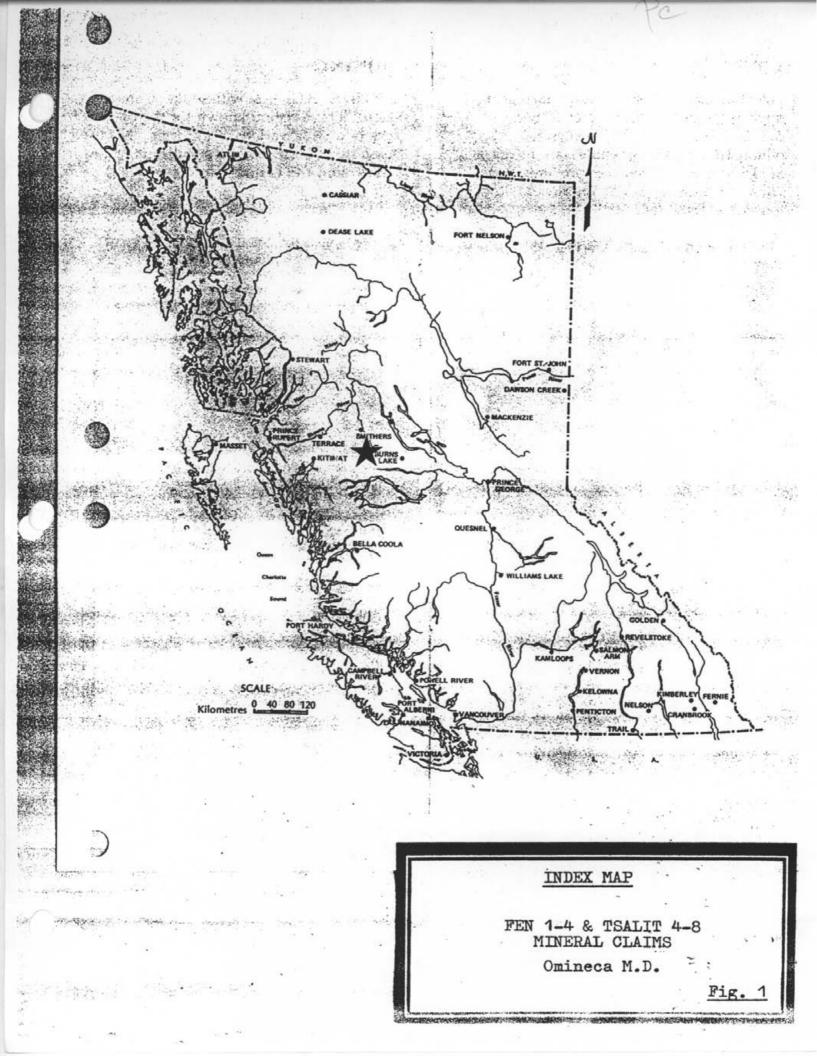
<u>Claim</u>	Record#	<u>Units</u>	Expiry Date
Fen 1	12630	20	Sept. 25, 1995*
Fen 2	10873	20	June 25, 1995*
Fen 3	12631	20	Sept. 24, 1994*
Fen 4	12751	16	Oct. 24, 1994*
Tsalit 4	13066	14	Mar. 21, 1995*
Tsalit 5	13067	16	Mar. 21, 1995*
Tsalit 6-8	13068-70	1 each	Mar. 21, 1995*
Fen1 Fr,2 Fr		1 each	June 19, 1995*
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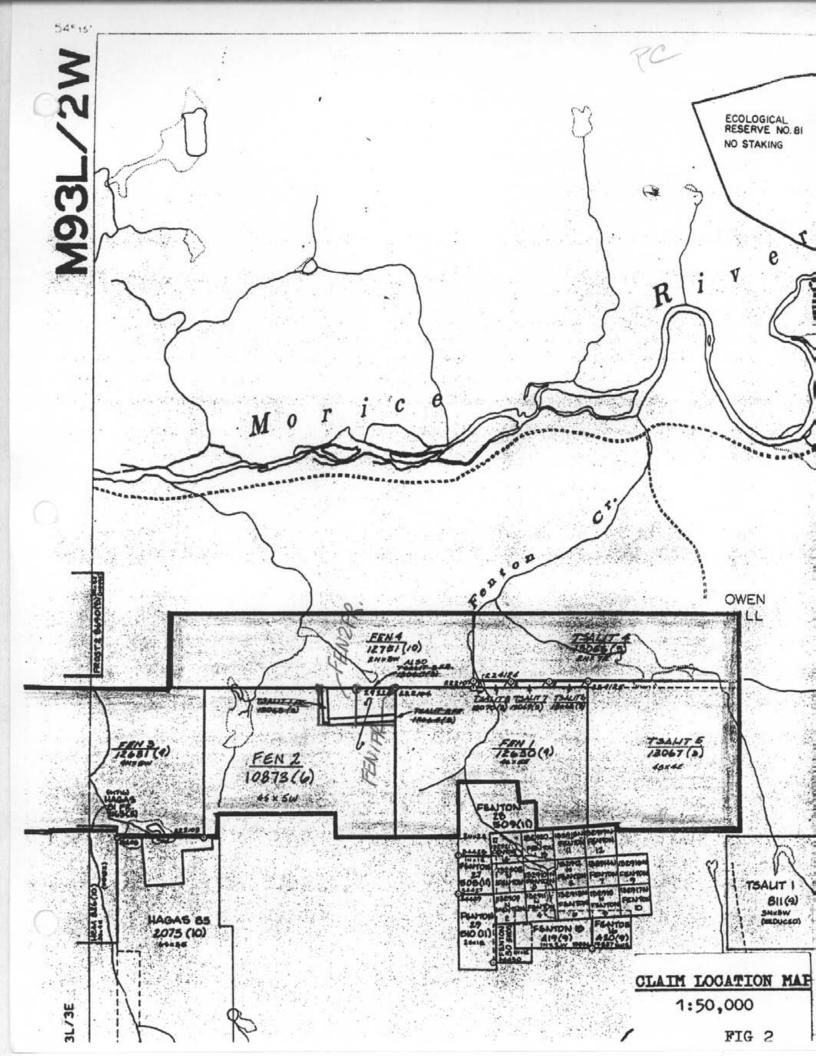
* Upon approval of this report.

The history, physiography, general geology and mineralization for the central portion of the claims, where the bulk of present work described in this report was conducted, are described by geologist B.N. Church in GEM 1972 Annual Report as quoted overleaf. In the central area of the claims the local geology, as described by B.N. Church p. 373-378, consists of an 1x2 km easterly-elongated window of Mesozoic Hazelton Group volcanics located between Mineral Hill and Fenton Creek, Fig. 4, within volcanic rocks of Tertiary age present on the rest of the property.

In order to help identify possible mineralizing structures in the area, this summer the writer carried out linecutting, geochemical and geophysical reconnaissance surveys in the central, eastern and western portions on Fen 1-3 and Tsalit 5 claims, consisting of B-horizon soils and stream sediment sampling, and VLF-EM16 readings. The owner, J. Barakso accompanied the writer and collected the rock samples described in Appendix II, mostly from the eastern portion of the Fen 1 claim. The sample numbers and geophysical lines are shown on the 1:10,000 scale sample location map, Fig 4, in pocket. The geophysical readings were taken by the writer at 25m intervals, as plotted on the VLF-EM16 profiles and interpreted by geophysicist, S.J. Visser, SJ Geophysics Ltd., whose geophysical Report is attached as Appendix IV. The rock, soil and silt samples collected were analyzed for fire-geochemical gold. 32 elements by ICP, mercury, and total barium at Min-En Laboratories, N. Vancouver, using standard analytical methods, Appendix II. Complete analytical results are inscribed on the sample location map, Fig 4, and enclosed at the back of the report, Appendix III.

The geochemical sampling has identified anomalous gold values of up to <u>310ppb Au</u> present in epithermally silicified Hazelton volcanics bedrock located in the central FEN claims area.





INTRODUCTION

Th most comprehensive description of the general geology of the claims area is to be found in the BCDMPR 1972 GEM Report by B.N. Church, who did extensive geological mapping and rock sampling investigations, as quoted below, including descriptions of the physiography, prospecting history, general geology, structural geology and mineralization on the Fen property.

From the 1972 GEM Annual Report, p. 373-379, by B.N. Church, on the FEN claims area:

CODE, Fen	(No.89,Fig.D)		By B.N. Church
LOCATION:	Lat.54 Degrees 10.2' Long. 126 Degrees	57'	(93L/2W)
	Omineca M.D. At approximately 3,000 feet e	levatio	n northwest of
	Nadina Mountain, 2 to 4 miles south of Morie	e Rive	<i>r</i> .
CLAIMS:	CODE, FEN, COF, totalling 148.		
ACCESS:	By road from Houston, 25 miles.		
OWNER:	Anaconda American Brass Limited.		
OPERATOR;	HELICON EXPLORATIONS LIMITED, 1520	Alberi	ni Street, Vanc.
METALS:	Silver, lead, zinc.		
DESCRIPTION:			

INTRODUCTION: A study of the geology of the Tsalit Mountain and the Code property, described in Geology, Exploration, and mining in British Columbia, 1970, has been extended westward in response to an increase in exploration activity in the area. This report concerns the results of field work completed by the writer in the latter part of July and early August 1971 plus a brief visit to the area in the summer of 1971.

<u>PHYSIOGRAPHY:</u> The map-area is a 50-square-mile strip of sloping terrain of modest relief lying just south of Morice River (elevation about 2,200 feet) and east of Lamprey Creek (Fig.40).

Code Creek, a small tributary of the Morice, springs from the low marshy central section of the map-area, the area of recent and current prospecting interest. This stream is paralleled just to the east by Fenton Creek which drains the westerly slopes of Owen Hill and Tsalit Mountain near the east boundary of the map-area. Tributaries of an unnamed stream drain the area west of Code Creek including the north slope of Pimpernel Mountain near the south boundary (the highest topographic feature with an elevation of about 5,000 feet).

The last pulse of regional Pleistocene glaciation moved easterly across the area scraping the high bedrock exposures leaving a mean striation direction of 094 degrees. Blankets of morainal debris accumulated in numerous small valleys and depressions. Granite boulders strewn westward from Owen Hill and Tsalit Mountain are believed to be the products of a period of local valley glaciation which postdated the last regional ice advance. Residual valley glaciers on the northerly slopes of Nadina and Tsalit Mountains at first drained westerly, as recorded by esker-like sand and gravel deposits near the headwaters of Code Creek, then northerly where meltwaters eventually carved a deep gully into outwash sands along the course of Fenton Creek.

A peculiar area of humocky terrain noted near the 3.500 feet contour of Pimpernel Mountain does not appear to be due to glacial activity. This may be a side deposit resulting from a seismic event centred somewhere on the extensive fracture system known to traverse the region.

The area once heavily wooded below the 4,000-foot elevation level has been extensively logged in recent years. As a result the west-central and northeastern parts are clear cut in places and now provide excellent summer grazing land for wild animals.

PROSPECTING HISTORY: In June 1965 Julian Mining Co. Ltd. located a block of 20 claims in response to the discovery of a silver-lead-zinc geochemical anomaly on Code Creek. After some preliminary work the company was joined by Anaconda American Brass Limited, in the years 1966 to 1971, in an intensive investigation which included induced polarization and magnetometer surveys, a silt-soil geochemical programme, and geological mapping. Other supporting work includes line-cutting, bulldozer trenching and construction of an extensive system of access roads. In 1972 Helicon Explorations Limited resumed this investigation with detailed induced polarization and Afmag surveys and more geochemical sampling. This concluded with a diamond-drill programme of 25 holes totalling 11,000 feet in a target area in the north-central part of the property.

<u>GENERAL GEOLOGY</u>: The bedded units are mainly volcanic comprising rocks thought to be a part of the Hazelton assemblage, and cover rocks equivalent to the Tip Top Hill, Buck Creek, and younger Tertiary formations. Igneous intrusions consist of a granite stock, a small gabbroic intrusion, and an assortment of dykes.

Bedded Rocks: Rocks believed to be aprt of the Hazelton Group crop out near the east boundary, mainly on Tsalit Mountain, in the west and northwest parts, and locally in the north-central part of the map-area. Most of these rocks are mottled greenish grey and epidote bearing. They display vestiges of primary volcanic structures such as amygdales and breccia textures. A distinctive brownish maroon pyroclastic phase commonly charged with small feldspar laths was found on the ridges east of Lamprey Creek and near the main access roads in the northwest part of the maparea.

A frequency plot of artificially prepared glass from representative samples shows a broad composition range consisting of 35 per cent basalt, 20 per cent andesite, 20 per cent dacite, and 15 per cent rhyolite (Fig.41).

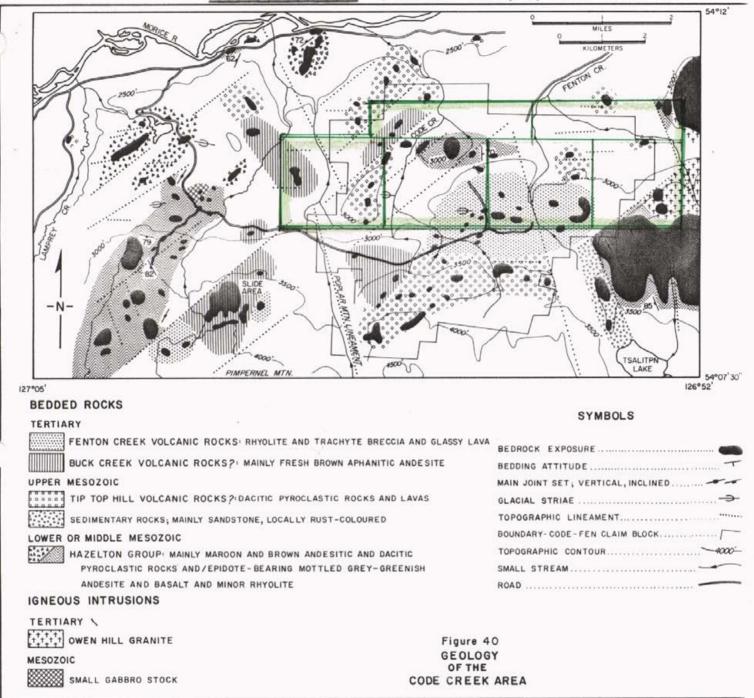
Some shaly beds, apparently intercalations in the Hazelton volcanic pile, were reportedly intersected by drilling in the central area. On the whole, however, these sedimentary facies are rarely exposed.

Rocks thought to be the equivalent of Tip Top Hill lavas and pyroclastics (Upper Cretaceous) are seen on the bluffs and ridges in the south part of the Code-Fen property, on numerous knolls and low ridges near the northwest corner of the claim block, and to lesser extent on the northeast claims.

Generally the rocks are light or medium brown, often somewhat rusted on weathered surfaces. The most common phase has numerous small feldspar laths 1 to 3 millimetres long mixes with a few hornblende prisms and biotite books. Arc fusion analysis performed on 15 samples shows that the rocks are essentially dacites having an average refractive index of 1.517.

A wedge of sedimentary rock, mainly brown quartz feldspar wacke, is exposed on a low ridge just northwest of Tsalitpn Lake at the western extremity of Tsalit Mountain. These rocks are well indurated, however, unlike many Hazelton units there is little evidence of catac; asos/ The relative stratigraphic position of these beds is in doubt. It appears that the material was initially deposited prior to the eruption of much volcanic debris in Late Cretaceous time. It seems clear from the petrography of this rock that the clastics were derived at least in part from a granitic provenance; a terrain soon to be covered with thick volcanic accumulations.

Tertiary volcanic rocks tentatively correlated with the Eocene Houston phase of the BuckCreek assemblage are exposed on scattered knolls in the central part of the map-area and on the slopes of Pimpernel Mountain to the south. These lavas and volcanic breccias are commonly medium or dark brown and aphanitic. In thin section the rocks are found to consist largely of tiny plagioclase GENERAL GEOLOGY (In GEM 1972, by B.N. Church)



THE FEN MINERAL PROPERTY

Omineca M.D.

Fig. 3

microlites and clusters of small pyroxene crystals in a glassy matrix. X-ray analysis shows an average of less than 2 per cent quartx; this is in contrast with the older volcanic rocks of the area which range to as much as 40 per cent quartz in some cases. Arc fusion analysis of 10 samples shows that the rocks are typically andesitic having an average refractive index of 1.552. The youngest formation, here tentatively named 'Fenton Creek volcanic rocks', is found mainaly in a 1.5 by 2.5-mile laterally elongated zone in the east-central part of the map-area. This unit consists of volcanic breccias, lava, tuff, and dykes, that are very fresh and probably of post-Miocene age. In places, especially east of Fenton Creek, the unit is mostly glassy rhyolite lava and breccia (see the accompanying chemical analysis); immediately to the northwest this volcanic complex changes to predominately feldspar porphyry trachyte and to the south to quartz porphyry rhyolite. Arc fusion analysis of three samples of trachyte gives an average refractive index of 1,492.

A few scattered outliers of similar rocks possibly related to the trachyte are found on Pimpernel Mountain.

Intrusive Igneous Rcoks: The Owen Hill granite, the largest intrusion in the map-area, outcrops at the east boundary where it cuts Hazelton volcanic rocks. This is a medium-grained leucocratic stock probably correlative with the young (Tertiary) plutonic bodies on Nadina Mountain.

Modal analysis of seven samples shows the following composition:

Quartz	29 per cent
Perthitic orthoclase	27 per cent
Plagioclase(zoned,mainly oligoclase)	39 per cent
Biotite	5 per cent
Chlorite	5 per cent
Magnetite	5 per cent
Apatite	5 per cent

It is noted that if the albite component of the plagioclase is removed it will combine in roughly equal proportions with the orthoclase and quartz with total residuals less than 20 per cent. According to Tuttle and Bowen (1958, pp. 127, 128) such rocks which approach eutectic or thermal minimum composition must be unequivocably classed as true granites as distinguished from other rocks of the granite clan.

The only other intrusion worthy of description is a small fine to medium-grained gabbroic stock, about one-quarter mile in diameter, found cropping out just northeast of main access logging road in the west-central part of the map-area. This section study of two samples of feldspathic phase of this rock shows an average of 85 per cent plagioclase (An_{40} to An_{50}), 14 per cent pyroxene and

equivalent alteration products, and 1 per cent magnetite and other accessories. A minor occurrence of chalcopyrite has been reported in the vicinity of this body.

STRUCTURAL GEOLOGY: The area is characterized by a reticulate pattern of small valleys and draws which evidently mark a system of important fractures. The so-calleTTPoplar Mountain lineament which originates near the centre of the map-area is the most conspicuous regionally. This line can be traced approximately 15 miles to the southeaststriking about 165 degrees, to Tagetochlain Lake. It sharply defines the west side of Poplar Mountain which proves to be a large fault block. Somewhat weaker subparallel lineaments are observed near Tsalitpn Lake and Tsalit Mountain.

A second series of prominent lineaments coincides with a number of small but important faults trending about 050 degrees. Movement on these has chopped the geology in the northwest sector into a number of northeasterly elongated panels. Some offset in the northern extension of the Poplar Mountain lineament is also apparent.

Examination of the data gathered in the field shows the prevalence of minor fractures. The main attitudes are as follows:

Developement	Attitude
Very Strong	strike 100 degrees , dip 90 degrees
Strong	strike 140 degrees, dip 80 degrees southwest

Intermediate Weak strike 025 degrees, dip 60 degrees northwest strike 065 degrees, dip 80 degrees northwest

The strongest direction (1) is parallel to a set of well-developed easterly trending lineaments. (These are readily confused with glacial grooves displayed by photographs.) The remaining fractures cannot be easily correlated with known lineament directions, possibly because of the extent of glacial cover in the area and limitations in photographic resolutions. <u>MINERALIZATION</u>: The zone of mineralization on the Code-Fen property is coincident with an elliptical window of Hazelton acid pyroclastic rocks about 0.5 mile wide extending 1.2 miles eastward from Mineral Hill and centred about 1.5 miles south of the Morice River road (Fig. 40). Owing to extensive till deposites in this region visible bedrock is restricted to trenches, a few areas near the crest of Mineral Hill amd along Code Creek. Where exposed the rocks are uniformly bleached dacitic tuffs and tuff breccias; these appear to be massive except just southeast of the gully on the east fork of Code Creek where a section of well-bedded tuff was found striking 005 degrees dipping 65 degrees easterly. Fine-grained pyrite and dark specks of sphalerite are widely disseminated accompanied by intense clay alteration, silicification in places, and manganese encrustation on cracks. A few narrow veinlets of dark sphalerite and pyrite are visible in some samples.

Knowledge of the nature and origin of mineralization is incomplete. No igneous intrusion has been found in the immediate area that could be attributed as being the source of metal-bearing solutions. In fact the only intrusions known to cut Hazelton rocks are fresh Tertiary dykes that certainly postdate mineralizing events. (Scattered pyrite reported as occurring in the quartz porphyry phase of the Fenton Creek rhyolite is not considered part of or related to the main mineralization.)

GEOCHEMISTRY

In order to identify mineralizing structures possibly present under deep overburden on the Fen and Tsalit mineral claims the writer, accompanied by a helper G. Edmunds, and Barakso, the owner, spent June 9-20 this summer conducting geochemical sampling and taking geophysical VLF-EM16 readings over selected portions of the property, as shown on the 1:10,000 scale sample location map. Fig 4, in pocket.

Three grids, the eastern in the NW corner of Tsalit 5 claim, and the central and western in the NE corners of the Fen 2 & 3 claims respectively, were located as extensions of the previous surveys (see Sept. 1991 Assmt. Report by Zastavnikovich & Bzdel), and soil sampled at 50m. intervals, while the VLF-EM16 readings were taken at 25m. spacings, for a total of some 10 line-kilometers, resulting in 170 B-horizon soil samples, collected with a grubhoe at depths of 10-30cm. A half dozen sediment samples from the streams crossing the lines were field-sieved in order to obtain uniformly lithic silt material, which results in repeatable analytical values, and enhances the geochemical interpretation. J. Barakso collected some 30 rock float and bedrock samples, from the freshly exposed outcrops along the new logging road traversing the property from north to south close to the Fen 1 Fen 2 boundary, which yielded several gold-bearing outcrop samples with up to <u>310 ppb Au</u> and strongly supporting trace elements geochemistry from the central grid area, as shown on Fig 4, in pocket.

Rock Samples Geochemistry

As described in Appendix II, rock float and bedrock samples, where available, were selected on presence of sulfides, alteration, rusty fracturing, and silicification, considered as possible indicators of precious metals content. Most of the rocks were collected from and around a newly discovered outcrop, present along the new logging road, some 100m south of the Fen 1 & 2 LCP, Fig 4, in pocket, which is located in an otherwise heavily overburdened area.

The altered Hazelton volcanics outcrop is brecciated and strongly fractured, with quartz, carbonate, limonite, pyrite and sphalerite veinlets and disseminations present. All of the half-dozen rock samples bearing anomalous gold values are from this outcrop and it's immediate vicinity. The highest gold values are present in samples of silicified Hazelton volcanics, #HJ9, HJ12, HJ23 and #1, with <u>110 ppb Au</u>, <u>311 ppb Au</u>, <u>310 ppb Au</u>, and <u>34 ppb Au</u> present respectively. All four gold bearing samples are also strongly anomalous in silver, lead, zinc, arsenic, antimony, mercury, and potassium, with up to <u>19.0 ppm Ag</u>, <u>517 ppm Pb</u>, <u>1666 ppm Zn</u>, <u>1881 ppm As</u>, <u>145 ppm Sb</u>, <u>750 ppb Hg</u>, and <u>0.63%K</u> present in the trace elements analytical values.

Other outcrop samples carry similar and even stronger trace elements signatures, but are lacking in anomalous gold values or strong silicification. Thus rock sample number HJ7 from a Hazelton pyroclastics outcrop, located some 500m. to the south, carries a highly anomalous <u>42.6 ppm Ag</u> silver value, accompanied by very anomalous trace element values of <u>2247 ppm Ba</u> and <u>6670 ppm total Ba</u>, <u>7.44% Fe</u>, <u>7422 ppm Mn</u>, <u>1252 ppm Pb</u>, <u>297 ppm Sb</u>, <u>3604 ppm Zn</u> and <u>1010 ppb Hg</u>, but only <u>4 ppb Au</u>. Evidently epithermal silicification is an important criterion for the presence of geochemically anomalous gold values, in the silver, antimony, and base metals-enriched Hazelton volcanics.

Soil Samples Geochemistry

Of the 170 B-horizon soil samples taken, 60 were collected on the Eastern grid (Grid#1), 80 samples on the Central grid (Grid#2) and 30 samples on the small Western grid (Grid #3), as shown on the 1:10,000 scale sample location map, Fig 4, in pocket.

In absence of geochemical gold values greater than 25 ppb Au in the soil and silt samples taken, geochemical values of 10 ppb Au and greater are considered anomalous, as plotted on the sample locations map, Fig 4.

Eastern grid (#1): As plotted on the geochemical sample locations map, Fig 4, of the 60 soil samples taken, only two have above background analytical values, with <u>10 ppb Au</u> present in sample #L20E-250S, and <u>23 ppb Au</u> present in #L3S-1650E. Neither of the very weakly anomalous gold values is associated with any anomalous trace elements, indicating that the sources of the gold values are likely related to glacial overburden, rather than to any nearby mineralized bedrock.

Anomalous trace elements soils geochemistry on the grid is restricted to structural zones of weakness, as topographically indicated by swamp edges in samples #2200E on Line 5S and #2250E on Line 3S, where strongly anomalous values of <u>63ppm Mo</u> and <u>33ppm Mo</u>, <u>0.14% Na</u> and <u>0.25% Na</u>, <u>1130 ppm P</u> and <u>1090 ppm P</u>, <u>205 ppm Sr</u> and <u>175 ppm Sr</u>, plus <u>120 ppb Hg</u> and <u>65 ppb Hg</u>, are respectivley associated with strongly anomalous <u>2.77% Ca</u> and <u>2.59% Ca</u>, plus <u>4305 ppm Mn</u> and <u>385 ppm Ba</u> in the first sample. Based on anomalously low values of the other major trace elements in the two samples, a band of limestone, or very sandy overburden, may be present to the east of the two sampled sites at the end of the Lines 5S and 3S.

Weakly anomalous trace elements geochemistry, with up to <u>1.8 ppm Ag</u>, <u>448 ppm Ba</u>, <u>1.41% Ca</u>, <u>53 ppm Cu</u>, <u>3.77% Fe</u>, <u>0.59% Mg</u>, <u>2026 ppm Mn</u>, <u>36 ppm Ni</u>, <u>217 ppm Zn</u>, is associated with break-in-slope hillsides at samples 400S-500S and 800S-850S on L-20E, and samples 1800E-1850E on L-10S, which may indicate fault zones or lithological contacts.

Of the half dozen stream sediment samples taken on and near the grid, as plotted in Fig 4, none are anomalous, except for molybdenum values of <u>13 ppm Mo</u>, <u>6 ppm Mo</u>, and <u>4 ppm Mo</u>, in silt samples #2501, 2504, and 2506 respectively, indicating possible proximity to intrusive contacts and/or presence of regional structures in the area, which could be responsible for very weakly anomalous arsenic and zinc values of up to <u>20 ppm</u> <u>As</u>, and <u>156 ppm Zn</u> present in silt samples #2502 to #2505 inclusively.

Central grid (#2): Several weakly anomalous gold values of up to 22 ppb Au are present on the central grid, as plotted on sample location map, Fig 4, in pocket. Values of <u>11 ppb</u> <u>Au</u>, <u>12 ppb Au</u>, and <u>12 ppb Au</u> at sample sites #1475W and #600W on Line 200N and #1450W on Line 200S respectively are associated with strongly anomalous trace elements values of up to <u>7.1 ppm Ag</u>, <u>34 ppb As</u>, <u>1.5 ppm Be</u>, <u>58 ppm Cu</u>, <u>0.19% K</u>, <u>1510 ppm P</u>, <u>211 ppm Pb632 ppm Zn</u>, and <u>295 ppb Hg</u>, plus <u>15.3 ppm Cd</u>, <u>7 ppm Mo</u>, <u>213 ppm Ni</u>, <u>26 ppm Sb</u> and greater than <u>10,000 ppm Zn</u> at the gossanous sample #L200S-1450W. These samples also contain up to <u>2.75% Fe</u> and <u>1870 ppm Mn</u>, and at the gossan <u>9.18% Fe</u> and greater than <u>10,000 ppm Mn</u>, indicating that in these samples both precious metals values and the anomalous trace element values are most likely tied up hydromorphically in the Fe/Mn hydroxides.

Anomalous gold values of <u>14 ppb Au</u> and <u>22 ppb Au</u> in samples #700W and #1000W on Line 200N, and of <u>15ppb Au</u> in #375S on Line 8W are not associated with other anomalous trace elements, thus probably lacking a nearby bedrock source, but are instead more likely related to detrital sources in the overburden.

The strongly anomalous multi-trace elements geochemistry present in the surface soils samples on the Central grid located within the mineralized Hazelton volcanics "window" stands in contrast to the lack of anomalous gold values in these soils. A more productive, though costly, exploration method of basal till sampling based on overburden drilling to

bedrock is needed for this area, which could locate gold-bearing silicified pods of mineralization that may be present under the masking overburden.

<u>Western grid #3</u>: The smallest of the three grids sampled contains no anomalous gold values. Weakly anomalous trace elements Ag, As, Ba, Be, Cu, K, Mg, and Hg are associated with anomalous 1.46% Ca and <u>618 ppm Mn</u> values in sample #125W on Line DHL2N, located at the edge of swamp, as shown on the sample location map, Fig 4. In addition, anomalous zinc and arsenic values of up to <u>400 ppm Zn</u> and <u>24 ppm As</u> are present in the western hillside in samples #150W and 350W on Line DHL2N, and #200W and 225W on Line DHLO. Absence of anomalous gold values in the soil samples suggests no additional soil sampling is needed on the grid.

Instead, overburden drilling to bedrock with sampling of the basal till horizon could identify the cause of the geophysical conductors present in this area.

CONCLUSIONS:

- 1. Bedrock sampling of a newly discovered silicified Hazelton volcanics outcrop bearing up to <u>310 ppb Au</u> geochemical gold values establishes potential for precious metals mineralization in the Central grid area on the FEN mineral claims.
- 2. The strongly anomalous multi-trace elements geochemistry present within the Hazelton volcanics "window" on the property is likely related to strong hydromorphic accumulation of trace elements by Fe/Mn hydroxides, which may be indicative of base metals mineralization at some depth under the thick overburden cover.
- 3. Heavy liquids pre-concentration of the surficial B-horizon samples is needed for effective detection of weakly anomalous gold values that may be present in the remnant glacially dispersed overburden in the area of interest on the FEN claims.

RECOMMENDATIONS

- 1. Fill in soil sampling for heavy minerals in the central claims area in order to identify the best locations for overburden sampling to bedrock.
- 2. Use of overburden drilling techniques capable of reaching bedrock, in order to identify epithermally silicified gold-bearing horizons and/or base metals mineralization possibly present in the Hazelton volcanic rocks in the central claims area.
- 3. Extend the geophysical coverage where indicated by previous surveys.

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REFERENCES

Church, B.N., Geology, Exploration and Mining in British Columbia, GEM Annual Report, 1972, pages 373 - 379.

Zastavnikovich, S., and Bzdel, L.M., Geochemical & Geophysical Assessment Report, Sept. 1991.

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CERTIFICATE

I, Sam Zastavnikovich, do hereby certify that:

- 1. I am a consulting geochemist with offices at 5063-56th Street, Delta, B.C., V4K 3C3, and am a 1969 graduate of the University of Alberta, with B. Ed. degree in Physical Sciences.
- 2. I have been continuously employed from 1969 to 1982, and seasonally since 1966, by Falconbridge Ltd. of Toronto and Vancouver as field geochemist working in Canada, U.S.A., the Carribean and S. America.
- 3. Since 1982 to the present I have continuously practiced as a consulting geochemist in the mineral exploration industry.
- 4. I am a voting member of the Association of Exploration Geochemists.
- 5. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia, Canada.
- 6. I have no direct nor indirect interest in the subject properties or the client company.
- 7. This report is based on my own fieldwork, supervision and observations on the property.

stavnikovich, P. Geo. Consulting Geochemist

APPENDIX I Statement of Expenditures

FEN and TSALIT Mineral Claims - June 9-20, 1993

Fieldwork - S. Zastavnikovich, 12 days @ 350/d J. Barakso, 5 days @ 350/d	4200.00 1750.00
G. Edmunds, 6 days @ 120/d	720.00
Food and Lodging, 12 days @ 100/d, 2 men	1200.00
Transport - 4x4 Truck and Cycle, 12 days @ 60/d	720.00
- Gas and Mileage	660.00
Instrument rental, Geonics VLF-EM 16	240.00
Field Supplies, delivery, telephone	160.00
Analysis - 176 soils and sed.s, prep @ 1.25/sample	220.00
30 rocks prep @ 3.75/sample	112.50
206 samples for ICP, fire Au, Hg, tot Ba, @ 30.50/s	6283.00
Reports - Geochemical, S. Zastavnikovich, 4 days @ 350/d	1400.00
Maps, typing and reproduction	230.00
Mileage and Parking	65.00
- Geophysical, S. Visser, S J Geophysics	850.00
Total Expenditures,	\$ 18,810.50

APPENDIX II

ROCK SAMPLE DESCRIPTIONS - Fen and Tsalit Mineral Claims

SAMPLE NO.

HJ-1	- (Float), Fine grained andesite (Hazelton group) with specs of pyrite and sphalerite
HJ-2	- Hazelton rhyolite, with 2% pyrite and fracture-sealing silica
HJ-3	- Hazelton pyroclastics, with specs of pyrite and sphalerite, minor introduced silica veinlets
HJ-4	- Felsic volcanics, with specularite and 1-2% pyrite
HJ-5	- (Float), Feldspar porphyry with large quartz eyes and 2-3% minor sulfide veinlets
HJ-6	- (Float), Felsic volcanics with specs of sphalerite and/or galena, plus 1-2% py
HJ-7	- Hazelton pyroclastic outcrop with minor veinlets of goethite
HJ-8	- Altered Hazelton felsic rock with specs of py and sphalerite and/or galena
HJ-9	- Highly altered gossanous Hazelton rock, pyritized, with quartz veinlets
HJ-10	- Hazelton volcanics, highly gossanous material, specs of sphalerite
HJ-11	- Brecciated and fractured felsic volcanic, with specks of py and sphalerite
HJ-12	- Brecciated Hazelton felsic rock, with vuggy quartz veinlets
HJ-13	- Volcanic sedimentary rock, with traces of py, sph., and galena
HJ-14	- Hazelton rhyolitic tuff, gossanous, limonite coated fractures
HJ-15	- Grab sample of heavy limonitic coatings on felsic volcanic rock
HJ-16	- Layered felsic volcanic with quartz eyes and veinlets
HJ-17	- Brecciated felsic volcanic with heavy coating of manganese and limonite
HJ-18	- Altered volcanic tuff, with tiny specks of pyrite
HJ-19	- Highly brecciated altered rhyolite to sericite
HJ-20	- Layered highly altered mafic volcanic, with specks of py and vuggy qtz veinlets
HJ-21	- Altered rhyolite, sericite and carbonate with quartz eyes
HJ-22	- Limestone with manganese fracture coating
HJ-23	- Fractured, brecciated Hazelton rock at 80m N of the baseline, on the road
HJ-24	- Clay material from a small shear
HJ-25	- Hazelton tuff, with specks of disseminated sulfides
HJ-26	- (Float), Brecciated Hazelton rock, with sulfide and hematite boxworks
HJ-27	- Volcanic sinter, very light carbonate material
HJ-28	- Hazelton tuff, with mafic specs and hematite
#1	- Silicified Hazelton volcanic outcrop, with specks of pyrite and sphalerite
SZ01	- (Float), Silicified mafic volcanic rock, with quartz-carbonate veinlets

PHONE: (604) 980-5814 or 988-4524

APPENDIX III

TELEX: 04-352828

MIN-EN Laboratories Ltd.

Specialists in Mineral Environments

Corner 15th Street and Bewicke 705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

FIRE GOLD GEOCHEMICAL ANALYSIS BY MIN-EN LABORATORIES_LTD.

Geochemical samples for Fire Gold processed by Min-En Laboratories Ltd., at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95 °C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed and pulverized by ceramic plated pulverizer.

A suitable sample weight 15.00 or 30.00 grams are fire assay preconcentrated.

After pretreatments the samples are digested with Aqua Regia solution, and after digestion the samples are taken up with 25% HCl to suitable volume.

Further oxidation and treatment of at least 75% of the original sample solutions are made suitable for extraction of gold with Methyl Iso-Butyl Ketone.

With a set of suitable standard solution gold is analysed by Atomic Absorption instruments. The obtained detection limit is 1 ppb. <u>Analytical Procedure</u> - The samples were analyzed by Min-En Laboratories Ltd. of 705 West 15th St., N.Vanc, as follows:

The stream sediments were oven-dried in their original water-resistant kraft paper bags at 95°C and screened to obtain the minus 80 mesh fraction for analysis. The rock samples were crushed and pulverized in a ceramic-plated pulverizer.

A suitable weight og 5.0 or 10.0 grams is pretreated with HNO3 and HClO4 mixture.

After pretreatment the samples are digested with Aqua Regia solution, then taken up with 25% HCl to suitable volume and aliquot used for the 26 element ICP trace element analysis.

From the major remaining portion of the sample, Gold is preconcentrated by standard fire assay methods, then extracted with Methyl Iso-Butyl Ketone and analyzed by Atomic Absorption.

For Mercury analysis, 1 gram of sieved material is sintered at 90°c for 4 hours, then digested in HNO₃ and HCl acids mixture, and analyzed by the Hatch and Ott flameless AA method.

APPENDIX IV

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Analytical Results

COMP: GEOCKEMICAL CONSULTING

PROJ: FEN CLAIMS

MIN-EN LABS - ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE NO: 3V-0280-RJ1+2

DATE: 93/07/12

ATTN: J. BARAKSO / S. ZASTAVNIKOVICH

(604)980-5814 OR (604)988-4524

*	ROCK	٠	(ACT:F31)
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ALLAL DI DANA					(004											· · ·	
SAMPLE NUMBER	AG AL AS PPM % PPM		BE BI CA PPM PPM %	CD CO PPM PPM	CU FE PPM X	K LI MO % PPM	i nn ma 6 ppm ppn		P PPM	PB SB SR PPM PPM PPM		TI V Pm PPm	PPM P	GA SN PM PPM I	W CR PPM PPM	HG A PPB	U-FIRE PPB
HJ-01 HJ-02 HJ-03 HJ-04 HJ-05	.7 .78 12 .6 .53 54 1.1 .44 1 .9 .62 1 .4 .28 5	1 84 1 93	.4 3 1.14 .1 2 .09 .1 2 .19 .4 2 .10 .3 2 .15	.1 5 .1 4 9.1 8 .7 7 .1 3	8 1.44 21 2.98 26 3.17 14 2.36 3 1.11		600 2859 3996 459	.05 3 .01 1 .01 1 .01 7 .02 2	530 540	8 1 67 76 19 26 149 3 19 185 4 13 9 2 12	9 15 1 81	54 12.9 13 10.7 16 9.5 10 8.8 21 6.3	1807 375 74	2 2 1 4 1 1 1 1 1 1	1 45 3 72 2 52 1 23 4 89	30 185 210 30 15	1 3 1 8 2
HJ-06 HJ-07 HJ-08 HJ-09 HJ-10	1.0 .22 7 42.6 .45 1 2.8 .43 1 8.6 .43 1881 .5 .56 17	187 495 1 2247 1 190 1 621 192 74	.1 1 .07 .1 1 .10 .1 3 .31 .1 14 .05 .1 2 .27	.8 4 .1 9 .8 6 .1 5 .5 5	16 1.37 45 7.44 15 2.83 15 4.28 18 2.66	.14 1 .0; .17 2 .03 .31 2 .14 .43 1 .03 .34 3 .14	3 7422 3 3326 3 125 3 3120	0 .01 2 1 .01 1 1 .01 4 1 .02 1 1 .01 6	310 450 1 760 340 790	10 12 15 257 297 39 215 14 18 253 70 48 37 8 25		11 3.4 9 22.6 11 13.2 12 7.2 13 9.7	133 3604 699 86 373	1 1 1 3 1 3 2	5 136 3 50 2 49 2 77 2 51	10 1010 95 100 70	1 4 6 110 3
HJ-11 HJ-12 HJ-13 HJ-14 HJ-15	.6 .58 17 4.9 .59 844 1.2 .55 60 2.4 .74 1 1.3 .62 46	1 216 1 267 4 52	.1 2 .18 .1 6 .02 .1 1 .02 .1 4 .27 .1 2 .11	.1 5 .1 5 .1 5 6.3 6 .6 6	30 3.57	.34 2 .03 .47 1 .04 .34 2 .03 .49 2 .29 .36 2 .09	5 2774 167 5 142 5 4930 671	3 .01 2 1 .01 1 1 .01 1 1 .01 2 4 .01 1	710 400	57 4 28 216 23 53 58 6 31 177 3 17 53 10 19	10	19 10.7 32 6.1 28 5.9 35 10.7 31 8.8	444 255 219 1715 629	1 1 1 4 1 3 1 3	4 113 2 84 3 82 2 79 3 94	165 635 295 350 255	4 311 25 6 2
HJ-16 HJ-17 HJ-18 HJ-19 HJ-20	1.6 .71 20 1.2 .80 9 1.1 .85 103 1.1 .68 1 3.1 .62 22	1 281 23 89	.2 1 .06 .3 3 .12 .2 2 .02 .1 1 .03 .2 2 .03	.1 3 7.0 4 .1 5 .1 7 .4 4	14 2 12	.34 2 .04 .41 2 .05 .41 3 .05 .40 4 .04 .37 2 .04	1073 170 360 1487 1578	2 .01 1 3 .01 4 5 .01 1 2 .01 1 2 .01 1	420 690 700 800 150	138 10 20 62 4 14 37 11 18 54 6 30 157 15 34	37 39 47 3 37	22 3.8 27 11.0 35 11.5 23 10.1 19 3.9	1180 381 559	1 1 1 2 1 3 1 2	1 38 3 80 6 129 3 77 3 54	340 155 250 190 330	1 3 8 1 1
HJ-21 HJ-22 HJ-23 HJ-24 HJ-25	.5 .40 27 .6 .61 4 19.0 .56 1841 1.2 1.83 38 1.6 .74 49	1 63 1 179 1 165 1 74	.2 4 .02 .2 1 .55 .1 22 .08 .1 3 .34 .2 1 .11	.1 1 .1 1 .1 5 .1 5	2 .43 3 .25 12 4.05 21 2.28 19 2.62	.19 1 .0 .32 1 .0 .45 1 .0 .37 5 .2 .38 1 .0	45 39 234 250 446	2 .01 2 1 .43 1 1 .02 1 2 .02 1 5 .01 2	500 680	10 9 11 10 1 27 517 145 49 159 7 47 88 10 25	35 82 2 32 32 1 5 24	19 1.9 19 4.8 22 7.2 54 33.4 34 11.1	17 111 100 415	2 1 3 1 1 3 2 2 1 1	2 52 1 15 2 60 2 63 2 77	780 65 750 210 320	1 1 310 3 29
HJ-26 HJ-27 HJ-28 HJ-29 HJ-30	.1 1.32 1 .4 1.02 1 .5 .70 11 1.5 .79 1 .1 .75 106	1 114	.1 1 1.33 .3 2 .75 .1 1 .57 .1 2 .27 .1 2 .16	.1 23 .1 1 .1 2 1.0 5 2.1 9	11 6.86 3 .29 3 .65 7 2.76	.40 2.04	4245 5 4830	1 .57 1 5 .09 1 1 .01 7 1 .01 3	1470 80 210 780 730	10 1 69 9 1 35 11 1 203 119 2 27 33 1 21	82 5 49 7 1 1	11 92.8 33 7.5 26 3.8 22 14.8 24 11.3	559 14 10 852 1014	1 4 2 1 1 1 1 1 1 1	2 43 1 11 1 38 2 74 1 52	40 70 50 60 55	1 1 2 4
HJ-31 HJ-32 HJ-33 HJ-34 #1	.7 1.35 1 .5 1.51 1 3.8 1.64 1 .7 .49 8 5.5 1.04 156		.1 7 1.02 .1 3 .75 .1 24 1.22 .1 4 .40 .1 6 .18	.1 18 .1 17 .1 46 .1 6 6.6 8	54 3.87 40 4.22 531 6.35	.20 4 .20	2 1062 5 873 5 243	1 .06 12 1 .08 67 1 .07 9 1 .01 1	3580 1730 1210 670 720	7 1 114 1 1 32 16 1 25 2 1 19 186 5 21	2 14 6 5 1 48 9 62 6	34 117.4 59 101.9	132 84 96 31	1 3 1 4 3 10 1 2 1 3	2 31 3 68 8 113 4 84 2 83	205 25 15 30 285	2 3 13 1 34
SZ01	3.2 3.88 2	1 •57	.1 28 3.02	.1 19	18 1.86	.14 12 .2	3 304	1.30 36	1320	9 1 12	5 1 39	00 59.8	38	19 5	4 67	15	2
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COMP: GEOCHEMICAL CONSULTING

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PROJ: FEN CLAIMS

MIN-EN LABS - ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE NO: 3V-0280-SJ1+2

DATE: 93/07/12

ATTN: J. BARAKSO / S. ZASTAVNIKOVICH

(604)980-5814 OR (604)988-4524

* SOIL * (ACT:F31)

SAMPLE	AG	AL	AS	В	BA	BE	BI	CA	CD	СО	CU	FE	ĸ	LI	MG	MN	MO	NA	NI	P	PB	SB	SR	ГН	TI	v	ZN	GA	SN	W	CR	HG ALL	-FIRE
NUMBER L20E 025S	PPM	%	PPM 1		PPM 87	PPM	PPM	.36	PPM	PPM 6	PPM	1.65		PPM 7	.35	209			PPM	PPM 430	<u>PPM 1</u> 5		<u>РРМ Р</u> 10	PM	PPM	<u>РРЙ</u> 35.7	PPM		PPM P		PPM P	PB	PPB
L20E 023S L20E 050S L20E 100S L20E 150S L20E 200S	.5 .7	1.06 1.05 1.03 1.09 .79	1 1 1 1	1 1 1	75 81 127 132	.2 .2 .1 .2	471444	.30 .32 .35 .97 .74	.1 .1 .1 .1 .1	6 7 8	11 9 11	1.53 1.65 1.55 1.62	.04 .04 .03 .04	6 5 6 5	.30 .33 .33 .35	209 224 318 146 321	1 1	.01 .01 .02 .02	65477	450 370 350 440 660	13 7 13 8	1 1 1	9 11 30 64	1 1 9	516 624 522	33.1 37.1 39.1 37.8	65 70 50 43 43	1 1 1 1	22234	1 1 1 1	11 11 14	55 20 15 35 30	1 2 1 1 1
L20E 250S L20E 350S L20E 400S L20E 450S L20E 550S	.6 1.8 1.0	1.16 1.09 2.46 1.53 1.05	1 1 1 2	1 1 1 1	76 119 275 188 113	22842	44334	.20 .43 .92 .77 .38	.1 .1 .1 .1	7 8 10 8 8	9 44 36	2.24 1.70 2.79 2.47 2.26	.03 .04 .11 .08 .06	6 11 8 8	.22 .40 .50 .43 .32	183 136 739 627 284	1	.01 .01 .04 .03 .02	2 63 14 5	860 690 1010 830 490	7 12 16 21 14	1 1 1 1 1	14 17 43 42 18	8 15 7	439 287 331	48.6	97 68 217 164 140	1 1 1 1	33543	1	13 30 23	25 15 55 55 15	10 9 1 2 1
L20E 600S L20E 650S L20E 700S L20E 750S L20E 750S L20E 800S	.6 .9 .7	1.43 1.07 1.13 .86 2.23	1 1 1 3	1 1 1 1	167 63 56 104 288	.3 .2 .1 .8	35553	.53 .32 .32 .56 1.18	.1 .1 .1 .1	9 8 7 7 13	10 8 10	2.47 1.99 2.01 1.44 2.98	.06 .04 .05 .05 .09	8 5 6 13	.38 .28 .23 .37 .59	341 239 166 266 833	1	.01 .01 .01 .01 .03	9 6 5 8 25	580 760 910 460 760	22 11 10 11 16	1 1 1 1	20 15 14 19 41	1 7 6	639 659 531	50.8 43.3 44.6 38.6 60.8	123 68 85 58 144	1 1 1 1 1 1 1	33425	1	14 14 14	35 10 35 25 65	1 2 1 1 3
L20E 850S L20E 900S L20E 950S L20E 1000S L10S 1300E	1.4	2.45 1.92 1.54 .91 .72	1 1 1 1	1 1 1 1	272 264 133 120 62	.7 .2 .2 .2	3 6 7 6 5	.86 .55 .36 .54 .26	.1 .1 .1 .1	13 12 10 9 6	53 12 12 12	3.09 2.83 2.56 2.19 1.70	.09 .17 .07 .07 .06	10 11 6	.57 .39 .35 .34 .34	927 629 202 435 162		.04 .01 .01 .01 .01	27 14 9 8 7	680 4470 820 630 340	14 7 4 9 14	1 1 1 1	29 61 22 27 12	1 8 1	991 978 783	60.9 63.6 55.8 49.2 40.7	142 119 62	1 1 1 1	54342	1	27 20 15	50 35 30 20 10	3 2 1 1
L10S 1350E L10S 1400E L10S 1450E L10S 1500E L10S 1550E	.8 .9 .8 1.3	1.57 1.18	1 6 2 1	1 1 1 1	194 77 99 156 99	.7 .3 .25 .3	2 4 3 2 5	1.30 .44 .43 .52 .70	.1 .1 .1 .1	7 7 6 10 9	9 14 32	1.70 1.97 1.63 2.51 2.35	.07 .05 .05 .09 .06	6 5 10	.49 .28 .32 .50 .41	572 284 200 722 278	1 1 1 1	.08 .03 .03 .05 .04	17 6 9 15 12	1060 440 480 640 710	20 20 16 21 23	1 ' 1 1 1	116 21 21 35 29	9 5 1	384 367 : 364 :	31.6 45.3 37.0 54.9 55.2	130 85 136	1 1 1 1	5 3 2 3 3	1 1 1 1	17 14 24	75 25 15 40 20	1 3 1 2 2
L10S 1600E L10S 1650E L10S 1700E L10S 1750E L10S 1800E	.7	2.20 2.18 1.24 1.91 2.38	1 1 1 1	1 1 1 1	226 145 99 182 195	.4 .4 .1 .5 .2	6 5 5 5 5 3	.60 .51 .59 .57 .64	.1 .1 .1 .1	12 11 10 11 12	17 13 28	3.19 3.49 2.46 2.78 3.77	.08 .07 .07 .07 .05	7	.38 .38 .43 .46 .36	461 277 470 586 264	1 1 1 1	.03 .01 .02 .03 .03	18 20 12 18 33	1480 3060 700 520 780	18 7 15 13 5	1 1 1 1	37 40 23 43 36	26 6 7	834 837 699	75.2 54.6 66.4	254 99 79 128 184	32111	54345	1 1 1	27 25 26	20 10 10 15 15	3 1 4 2 1
L10S 1825E L10S 1900E L10S 1950E L5S 1750E L5S 1800E	.7 .5 .7	2.69 1.17 1.59 1.79 1.97	1 2 1 1	1 1 1 1	448 119 139 105 115	1.0 .3 .4 .3	45545	1.41 .65 .42 .34 .35	.1 .1 .1 .1	13 9 10 8 10	18 17 12	2.79 2.32 2.91 2.44 2.63	.12 .06 .07 .04 .06	9 9 9	.61 .30 .43 .34 .30	2026 392 578 240 287	1 2 1 1	.13 .02 .04 .03 .03	7 12 10	1310 320 1150 640 1360	23 8 7 12 7	1 / 1 1 1	142 17 30 12 20	1 13 22	583 791 567	54.5 53.0 62.4 50.1 58.2	90 83	1111	63434	1 1	18 25 17	85 30 40 35 40	3 2 1 1 1
L5S 1850E L5S 1900E L5S 1950E L5S 2000E L5S 2050E	.8. .8. 1.2	2.06 1.09 1.48 1.64 1.49	1 1 2 27	* 1 1 1 1	149 88 105 198 158	42252	7 6 6 4 5	.30 .47 .47 .83 .74	.1 .1 .1 .1	12 8 8 10 9	10 12 36	2.73 1.93 2.18 2.76 2.27	.06 .05 .06 .10 .07	11 10 9	.28	220 219 220 713 347	11111	.04 .02 .01 .02 .02	12 4 7 19 7	610 330 650 730 640	4 9 8 24 22	1 1 1 1	17 35	2 6 9	958 836 571	59.7 45.8 48.5 55.7 50.0	99 137	3 2 2 1 1	43333	1	14 17 27	30 15 10 35 15	1 1 1 2
L5S 2075E L5S 2100E L5S 2150E L5S 2200E L5S 2250E	.8 .8 .3	1.65	1 1 1 1	1 1 6 1	80 77 160 385 250	.2 .1 .2 .1	5 6 7 3 4	.47 .38 .27 2.77 .99	.1 .1 .1 .1	8 6 11 3 8	10 18 17	2.12 1.52 2.58 .72 1.89	.07 .04 .07 .03 .07	6 9 1	.14 .29	251 147 333 4305 436	1 1 63 12	.03 .03 .03 .14 .05	5 3 9 8 10	480 310 900 1130 690	17 13 11 12 11	1 1 5 1		6 71 37	745 163 30	47.3 37.5 57.6 8.1 41.0	75 68 113 102 85	13312	3 2 4 8 4		11 18 15 1	20 15 15 20 50	5 1 1 2
L3S 1550E L3S 1600E L3S 1650E	.8	1.25 1.00 1.27	1 2 1	1 1 1	183 125 130	.4 .3 .3	5 5 5	.83 .64 .83	.1 .1 .1	9 8 9	- 18	2.41 2.25 2.31	.08 .07 .10	10 13 20	.50 .43 .58	554 404 352	1 1 1	.10 .03 .05	9 6 7	560 400 530	18 14 10	1 1 1	81 45 62	4	664 -	52.3 48.5 47.7	90	1 1 1	434	1 1 1	16	20 5 60	2 1 23
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COMP: GEOCHEMICAL CONSULTING

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PROJ: FEN CLAIMS

MIN-EN LABS --- ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE NO: 3V-0280-SJ3+4

DATE: 93/07/12

ATTN: J. BARAKSO / S. ZASTAVNIKOVICH

(604)980-5814 OR (604)988-4524

* SOIL * (ACT:F31)

ATTN: J. BARAKSU /	S. LASTAV	VIKUVICH						(004)90	JU-JUI	+ 01 (0	V4) 700 -	4324										. SOIL	- (A	ACT:F31)
SAMPLE NUMBER	AG AL PPM %		B BA M PPM	BE B PPM PP		CD PP M	CO C PPM PP		K X Pi	I MG PM X	MN PPM		NI PPM			SB SR PM PPM	TH T PPM PP			GA PPM		W CR	HG AL	J-FIRE PPB
L3S 1700E L3S 1750E L3S 1800E L3S 1850E L3S 1900E	1.0 1.40 1.2 1.61 1.0 1.56 1.1 1.99 .7 1.34	1 1 1 1	1 142 1 119 1 164 1 155 1 107	.1 .1	6 .55 6 .74 5 .76 6 .79 6 .45	.1 .1 .1 .1 .1	9 1 12 1 10 2	4 2.45 3 2.46 5 2.77 1 2.47 1 1.98	.05 .06 .08 .06	9.34 11.38 11.40 13.46 9.35	313 270 1217 861 231	1 .04 1 .01 1 .02 1 .02 1 .01	6 7 6	850 690 770 460 320	7 6 8 9 4	1 34 1 31 1 35 1 35 1 16	12 93	2 57.8 3 55.9 2 57.5 3 58.4 7 43.1	115 108 95 84 67	2 2 1 1 2	3 3 3 3 3 3 3	1 17 1 19 2 25 1 21 1 14	30 25 55 25 15	2 3 3 1 1
L3S 1950E L3S 2000E L3S 2050E L3S 2100E L3S 2150E	.9 1.02 .6 1.21 .6 1.47 .9 1.11 1.0 1.02	1 1 1 1	1 71 1 117 1 103 1 111 1 79	.1	5.30 4.52 5.29 5.30 5.34	.1	10 1 8 1 7 7	7 2.52 1 2.44 6 1.94 7 1.91	.07 .05 .04 .05	7 .23 5 .39 8 .27 8 .16 7 .19	129 303 345 148 160	1 .01 1 .01 1 .01 1 .01 1 .01	2 3 1 1	330 650 810 510 650	5 8 9 6 11	1 15 1 28 1 24 1 20 1 24	12 56 35 57 31 67 16 65	8 36.3 1 53.0 1 53.9 1 45.9 4 44.1	52 56 64 93 66	2 1 2 3 3	23322	1 10 1 17 1 14 1 12 1 12	5 5 5 10	12114
L3S 2200E L3S 2250E L8W OBL L8W 050S L8W 100S	.9 1.20 .8 .05 .8 1.24 1.8 2.49 1.1 1.29		1 126 1 161 1 127 1 306 1 173	.1 .2 .8	6 .54 2 2.59 5 .46 4 .53 5 .52	.1 .1 .1 .1 .1	2 7 1 10 7 9 1	2 1.52 5 .44 6 2.09 73 2.92 6 2.96	.04 .09 .13 .09	6 .26 1 .15 15 .33 15 .42 17 .37	367 244 555 1474 966	2 .05 33 .23 1 .01 1 .01 1 .01	1 1 5 12 5	390 1090 510 920 700	10 7 23 33 24	1 30 3 175 2 35 3 48 4 49	1 50 17 40	2 36.9 2 6.1 7 41.0 8 53.3 9 57.7	96 70 318 421 522	21121	38233	1 14 1 9 1 16 1 22 1 18	25 65 15 30 15	2 2 1 3 3
L8W 125S L8W 150S L8W 175S L8W 200S L8W 250S	1.1 1.22 1.0 .91 1.5 1.54 .1 3.07 1.5 1.69	1	1 137 1 78 1 168 5 727 1 276	.1 .1 .1 .1	5 .56 5 .43 6 .79 5 .73 4 .53	.1 .1 4.1 .6	7 12 3 23 8	1 2.47 9 1.70 2 3.07 39 9.35 2 2.34	.06 .17 .22	17 .29 14 .33 13 .49 24 .44 11 .31	555 353 1389 >10000 1346	1 .01 1 .01 1 .03 1 .05 1 .03	3 11 89 1	530 280 910 1850 800	20 12 31 39 20	4 39 2 29 4 94 1 93 1 36	15 67 16 79 1 23	3 50.9 0 38.8 7 63.1 2 51.7 1 44.3	505 213 413 5402 568	32112	3 2 3 1 3	1 16 1 13 1 23 1 51 1 18	10 25 55 155 60	2 1 4 9 1
L8W 300S L8W 325S L8W 350S L8W 375S L8W 400S	1.2 1.15 .9 1.16 1.8 1.62 1.3 1.64 .9 1.05		1 163 1 90 1 122 1 126 1 110	.2 .1 .2 .1	5 .42 4 .28 4 .26 6 .27 5 .39	.1 .1 .1 .1	6 7 1 7 1	5 2.00 9 1.81 2 2.29 5 2.23 9 1.87	.06 .07 .07	6.21 10.27 11.28 8.38 7.26	1004 244 351 306 213	1 .05 1 .01 1 .01 1 .01 1 .01	4 8 7	770 470 680 370 590	41 19 21 24 12	4 30 2 21 3 25 4 19 1 22	28 46 24 55 23 61	5 39.1 6 37.1 5 44.6 8 46.6 4 40.3	285 285 410 274 225	12322	32323	1 12 1 13 1 16 1 16 1 14	40 30 35 40 25	2 1 2 15 1
L8W 450S L8W 500S L8W 550S L8W 600S L8W 650S	1.3 1.65 .9 .95 .6 .82 2.3 .85 1.4 .96	67	1 147 0 67 1 82 1 194 1 76	.4	5 .35 5 .30 4 .27 3 1.01 4 .32	.1 .1 .1 .1	5 1 4 2 1	8 2.21 1 1.46 9 1.33 4 .58 5 2.23	-06 -06 -05	9 .34 6 .25 6 .16 4 .11 7 .39	300 185 236 37 498	1 .01 1 .01 1 .01 1 .03 1 .03	1 2 7 5	510 410 320 480 500	21 21 32 19 62	2 19 4 14 5 17 2 148 2 17	9 40 3 31 30 9	0 45.7 4 29.2 8 28.1 0 11.8 8 43.5	304 144 165 66 171	2 1 2 3 1	32232	1 18 1 12 1 9 1 10 1 15	30 10 10 180 30	24313
L8W 700S L8W 750S L8W 800S L8W 850S L8W 900S	2.3 1.39 2.2 1.42 .8 .96 .9 1.14 .6 1.15	6 1 1 1	1 161 1 146 1 158 1 158 1 165	.6 .2 .4	4 .59 3 .35 3 .30 3 .45 4 .49	.1 .1 1.1 .1 .1	6 1 10 2 6 1 6 1	5 2.41 7 2.09 2 2.10 4 2.04 2 1.91	.05 .10 .10 .12	9 .36 8 .18 2 .10 6 .21 4 .23	851 395 1488 1047 1066	1 .01 1 .01 1 .03 1 .02 1 .01	8 71 61	680 470 1090 1780 1280	46 25 43 33 13	2 49 1 33 1 39 2 45 1 80	18 16 14 17 18 26	9 35.9 4 30.3	159 184 124 172 118	1 1 1 1	32322	2 24 1 16 1 13 1 16 1 17	170 70 20 25 10	321 11
L8W 950S L8W 1000S L8W 1025S L8W 1050S L8W 1075S	.8 1.62 .7 2.02 .7 1.56 .7 1.59 1.3 1.17	8	1 91 1 126 1 152 1 99 1 120	.3	5.28 4.25 4.30 3.17 4.34	.1 .1 .1 .1	9 1 8 1 8 1	17 2.58 17 2.46 18 2.12 15 1.94 25 1.57	.06 .05 .06	5 .34 6 .30 7 .25 6 .19 4 .26	310 449 556 190 227	1 .01 1 .02 1 .01 1 .01 1 .02	14 1 12 1 13 1	710 1060 1110 1420 360	30 32 19 25 17	1 17 1 24 1 25 1 21 1 46	37 50 26 41 47 34	5 56.5 2 50.2 1 43.3 1 39.2 2 33.7	123 144 151 137 74	11222	32222	1 24 1 19 1 17 1 14 1 16	15 25 20 20 5	1 1 1 2
L8W 1100S L8W 1150S L8W 1200S L8W 1250S L8W 1300S	.9 1.95 1.0 1.74 1.1 1.62 .5 1.08 1.1 .90	1 1 12	1 169 1 119 1 118 1 383 1 112	.7 .3 .4 .2	5 .41 6 .25 5 .31 4 .61 5 .21	.1 .1 .5 .1	9 1 8 1 19 3	56 2.74 11 2.18 13 2.14 57 1.46 53 1.80	.06 .07 .12	9.39 8.22 9.27 3.12 4.19	1405 179 260 3704 147	1 .02 1 .01 1 .01 3 .03 6 .01	10 14 1 37 2	690 880 1320 2600 490	18 22 10 24 10	1 73 1 23 1 36 1 120 2 32	33 79 29 66 5 11	5 53.2 0 49.9 4 46.3 9 21.9 5 40.0	193 178 228 278 100	13212	3 3 3 2 3	1 26 1 20 1 18 1 15 2 16	65 30 15 55 15	2 1 3 4
L200N 600W L200N 650W L200N 700W	5.0 3.15 2.0 .38 .9 1.12	1	1 452 1 172 1 98	.6 .1 .1	4 .94 3 1.10 5 .30	2.3 .1	5 1	3 2.32 11 .75 8 1.83	.05	18 .53 1 .17 6 .19	1350 2698 177	1 .16 2 .14 1 .01	17 1 7 3	1510 920 570	24 12 15	4 113 5 112 1 14	1 4	3 44.6 5 10.8 2 39.1	632 197 198	2 1 2	4 8 2	1 27 1 9 1 11	195 55 10	12 1 14
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PROJ: FEN CLAIMS

MIN-EN LABS - ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2 (604)980-5814 OR (604)988-4524

FILE NO: 3V-0280-SJ5+6

DATE: 93/07/12

ATTN: J. BARAKSO / S. ZASTAVNIKOVICH

* SOIL * (ACT:F31)

															·													
SAMPLE NUMBER	AG A PPM	L A		BA PPM	BE PPM F	BI CA PPM %	CD PP m i	CO PPM F	CU FL PPM 5		LI PPM	MG %	MN PPM P		IAN XPP		PB PPM	SB PPM		TH T PPM PP		ZN PPM	GA PPM	SN PPM	W PPM	CR I PPM PI	IGAU-FI PBP	RE PB
L200N 750W L200N 800W L200N 850W L200N 900W L200N 900W L200N 950W	1.0 1.4 .7 .9 3.7 3.4 2.8 2.3 .6 1.0	6 65 91	i i	195 88 452 326 63	.6 .3 1.4 1.1 .2	4 .72 6 .43 4 .84 4 .98 6 .41	.1 .1 .1 .1	66295	19 1.53 8 1.60 57 3.6 42 1.8 7 1.2	0.05 0.20 0.13	10	.32 .28 .60 .42 .22	312 213 1294 1425 156	1.0	6 1 9 1	7 680 3 350 7 1150 4 1170 2 280	12 44 44	2 1 7 5 1	57 9 91 88 9	35 12 12 67	2 36.1 1 67.7 1 35.7 3 29.5	77 567 348 44	22222	52762	1 1 3 1			5 2 2 5 1
L200N 1000W L200N 1050W L200N 1100W L200N 1150W L200N 1150W L200N 1250W	.5 .9 1.3 2.4 1.7 1.8 .7 1.4 1.5 1.8	3	5 1 5 1 7 1 7 1	60 264 227 74 253	.2 .9 .6 .8	6 .37 4 .53 4 .50 5 .35 4 .91	.1 .1 .1 .1	5 8 7 8 7	6 1.2 30 2.3 39 1.7 10 2.2 25 1.8	0.10 5.11 0.05 7.09	10 8 6 6	.31 .41	140 770 698 242 1222	1.0)3)1 1)1 24	3 280 9 640 0 540 5 840 8 850) 27) 11) 26	1 2 4 1 5	7 21 28 4 74	44 21 23 68 35 18	9 28.2 2 49.9 9 34.3 2 43.4 6 38.5	423 137 155	3222		1 1 1 1	22 19 14 19 17	55 50 55	22 2 6 1 4
L200N 1300W L200N 1350W L200N 1400W L200N 1475W L200N 1475W L200N 1500W	.6 1.0 .8 1.6 .8 1.3 7.1 2.3 2.6 1.4	1 3 3 3 4		47 108 129 234 186	.3 .5 .6 1.5 1.1	6 .27 7 .34 7 .62 3 .68 3 .54	.1 .1 .1 .1 .1	5 9 10 9	5 1.3 9 2.4 10 2.2 47 2.7 24 2.7	9.06 1.08 5.19 5.16	9 8 21 10	.36 .23	127 266 532 1871 2415	1 .0 1 .0 1 .0 2 .0 1 .0)1)2)4 2)1 1) 14) 27) 211) 226	1 2 10 13	2 17 41 28	42 83 36 87 63 11 38 11	2 29.5 7 51.3 4 49.5 1 40.0 0 29.9	143 267 543 562		5 4	1 2 1 2	17 18 25 29 20 19	50	3 1 2 11 6
L200N 1550W L200N 1600W L200N 1650W L200S 975W L200S 1000W	2.6 1.4 .9 1.6 .9 1.1 1.0 1.3 .8 1.5	8 5 2 2 2 5	7 1 3 1 9 1 9 1	169 98 64 91 97	1.1 .6 .3 .5 .7	2 .56 5 .36 6 .34 5 .34 5 .30	.1 .1 .1 .1	7 8 6 7 8	12 2.10	5.08 5.06 5.07 1.09	8 10 9	.25 .37 .26 .37 .36	1685 776 203 269 457	1 .0 1 .0 1 .0 1 .0	01 01 01 01	2 1350 6 750 2 260 5 350 7 960) 18) 15) 23) 41	10 1 4 7	31 2 3 5 7	27 65 22 68 20 70 29 52	7 30.4 7 45.4 7 33.5 9 42.6 3 45.6	142 104 326 517	3 3 3 3 3 3		1 1 2 2	12 16 17	5 20 25 30	8 3 2 4 6
L200S 1050W L200S 1075W L200S 1100W L200S 1150W L200S 1175W	1.2 1.2 .9 1.1 .8 1.2 .6 .9	9 1 26 3 27 2 19 9	9 1 8 1 8 155 3 1	97 119 89 123 141	.5.6.5.8	5.35 5.34 4.30 6.30 5.46	.1 .1 .1 .1	7 7 9 8 10	20 2.1 11 2.5 11 2.2 27 3.2	7 .05 1 .07 1 .16	6		285 367 395 612 792	1 .0 1 .0 1 .0 1 .0)1)1)1)1	6 580 9 510 8 790 3 610 6 480) 18) 27) 30) 36	7 5 7 5 14	6 7 2 8 11	41 51 28 54 34 68	7 45.3 9 41.0 5 47.8 4 42.9 3 56.1	541 356 269	2 1 3 2	45	2222	15 16 13 22	5 5 5 0 90	3 1 2 2 5
L200S 1200W L200S 1250W L200S 1300W L200S 1350W L200S 1350W L200S 1400W	1.4 2.2 1.2 1.4 .4 1.2 .8 .9	3 1 26 23 1 28 3	3 1 4 1 4 1 3 1	282 114 181 65 70	1.2 .7 .5 .3 .7	4 .54 6 .43 6 .38 6 .37 5 .32	.7 .8 6.9 .1 .1	9 8 7 8	17 2.0 11 1.7 15 2.3	7.07 2.08 5.06 0.06	12 12 9 6	.38 .35 .20 .32 .35	1792 421 2151 272 559	1 .0 1 .0 1 .0 1 .0)2)2)1)1	5 860 6 420 8 540 5 260 5 340) 23) 64) 17) 34	63 43 6	29 18 32 8 5	3 71 18 52 9 69 20 61	6 49.6 4 44.9 6 39.5 6 35.0 5 43.6	883 746 419 216	1 2	3	2 2 1 1	16 12 16	5 50 25 55 55	44263
L200S 1450W L200S 1500W L200S 1550W L200S 1600W L200S 1600W L1200W OBL	.1 2.0 1.3 .9 .8 1.0 .8 1.0 .7 1.0	78 3 16 4 13 3	7 1	189 79 105 110 84	.5 .7 .5 .5	40 .71 5 .36 4 .36 4 .30 6 .33	15.3 .1 .1 .1	53 8 7 6	11 2.2 8 2.1 10 1.7	7.06 0.05 5.05 3.06	9 19 7 6	.27 .22 .30	>10000 753 654 397 372	7.0 1.0 1.0 1.0)2)1)1	3 1210 6 330 6 420 4 590 7 310) 84) 51) 58	26 6 7 5 3	439 32 17 9	23 50 29 42 24 50	61 60.6 13 44.4 13 41.6 18 41.3 19 35.4	378 506 418	1 2 3	12 4 4 3	33 2 1 2 1	150 22 16 14 13 14	25 50 25 20 80	12 1 1 1
L1200W 050S L1200W 100S L1200W 150S L1200W 150N L1200W 150N	1.8 1.8 1.0 1.3 1.1 1.2 .9 1.4 1.1 1.4	26 3 26 3 2 2	6 1 3 1 1 1	167 98 107 105 124	1.0 .9 .5 .8 .7	5.59 6.36 5.43 6.62 7.54	1 .1 .1	8 9 11 10	39 2.2 12 2.6 10 2.2 24 2.7 15 2.4	4 .10 5 .08 5 .06 8 .11 9 .10	- 7	.43	613 776 419 889 577	1 .0 1 .0 1 .0 1 .0	01 01 02	9 53(8 58(7 48(9 74(5 58() 44) 23) 34	56464	41 10 24 19	34 64 21 71 48 72	10 43.3 5 43.8 16 44.1 23 54.1 30 52.4	1030 422 168	2	44344	22222	18 17	50 50 50 50	4 9 1 1 1
L1200W 200N L1250W 050N Dhlo 000W Dhlo 050W Dhlo 100W	.9 1.0 .8 1.0 .5 1.1 .9 1.0 .8 1.4	01 3 12 2 09 2	81 01	85 75 75 108 200	.5 .6 .6 .8	7.45 5.37 6.32 5.53 5.57	.1 .1 .1 .1	87889	9 1.9 11 2.0 14 2.2 15 2.2 17 2.4	6.08 0.10 8.07 0.12	65646	.34 .34 .33 .37	271 364 540 513 1338	1.0	01 01 02	5 390 6 500 5 370 5 570 8 950) 34) 43) 20	14544	8 11 18 18 23	41 60 30 51 29 77	9 42.2 5 41.5 1 39.4 2 48.8 2 46.5	141 153 103	2 2 2 3	3	12222	15 16 20	10 55 15 55	2 1 2 1 3
DHLO 200W DHLO 225W DHLO 250W	1.1 1. 1.0 1.9 .7 1.2	22	81	110 744 87	.7 .7 .5	6.30 5.53 5.39	.1 .1 .1	8 7 7	7 2.2 10 2.0 9 1.8	3.18	9 13 11	.23 .28 .30	633 826 444	1 .0 1 .0 1 .0	01	5 920 5 1320 4 670	31	3 2 2	5 70 10	48 48	0 45.0 3 37.8 8 35.6	318	- 3	433	2 1 1		20 60 25	1 2 3
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COMP: GEOCHEMICAL CONSULTING

ATTN: J. BARAKSO / S. ZASTAVNIKOVICH

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PROJ: FEN CLAIMS

MIN-EN LABS - ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2 (604)980-5814 OR (604)988-4524 FILE NO: 3V-0280-SJ7+8

DATE: 93/07/12

* SOIL * (ACT:F31)

SAMPLE BA CA % CD CÓ FE K LI MN PB SB SR AG AL AS R BE ΒI CU MG MO NA NI P W CR HG AU-FIRE TH ΤI V ZN GA SN NUMBER PPM % PPM PPM PPM PPM PPM PPM PPM PPM ž % PPM % PPM PPM % PPN PPM PPB PPB DHLO 275W .87 23 78 .6 .7 .7 .33 .39 266 20 22 19 .4 4 5 . 1 11 2.08 .07 4 .30 1 .01 5 340 3 4 22 509 39.3 76 13 331 3 15 DHLO 300W 5 1 26 19 10 2 21 11 2 19 3 7 5 88 .1 8 .08 6 .32 286 260 1 .01 6 650 1 24 29 37 518 42.0 110 233 43 5 14 1 15 .7 1.51 DHLO 350W <u>9</u>9 7 ŏ 13 6 .44 .1 -08 1 .01 6 810 1 634 42.7 155 768 58.4 140 1 16 20 75 .37 12 2.79 DHLO 400W 3 1 120 .7 .1 9 8 .09 10 .30 312 1 .02 6 1840 14 1 2 18 25 15 1 DHL4W 050N 1.4 1.66 24 1 103 .7 .1 9 2.35 .09 8.28 290 .01 690 32 3 <u>3</u>2 ž 15 1 6 6 607 44.3 301 4 1 .67 .57 15 .27 6 .25 9 .44 30 DHL4W 100N 148 14 12 20 11 .8 1.11 2 .6.5 6 5 777 2 .1 12 1.78 .09 15 912 1 .03 5 500 2 1 25 17 536 36.4 199 32223 35 4353 1 22 50 DHL4W 150N 130 .6 1.01 4 1 .1 8 1.86 .09 591 1.03 5 600 12 1 500 37.0 129 25 95 23 13 DHL4W 200N .5 1.76 227 5 750 3 1 1 .58 11 18 2.96 .14 1264 .03 11 15 33 540 54 8 422 34 9 30 25 .1 1 125 2 1 152 DHL4W 300N .6 1.63 1 .6 .5 4 .42 .1 8 1.80 .13 .28 303 1 .05 5 760 13 13 43 i 6 77 102 DHL2N 000W .8 1.43 2 1 6 .43 .1 8 10 1.89 .08 10.30 740 1.01 4 620 13 1 4 26 800 39.8 91 3 30 1 14 .8 1.17 .7 1.08 78 DHL2N 050W 11 1 .5 7 .47 .1 8 10 2.05 .09 6 .37 287 .01 4 530 8 1 22 2 1 5 874 42.1 46 3 43 15 40 1 DHL2N 100W <u>92</u> 20 20 42 15 9 2 11 30 2 53 .32 560 2 3 3 814 44.4 15 25 14 10 1 .6 6 .1 8 .09 6 446 1 -01 4 õ 31 87 Ĵ. Ź 20 DHL2N 125W 1.6 2.70 383 118 14 1.3 4 8 .11 1Ž 618 12 870 1 1.46 . 1 1 .03 81 42 25 30 356 48.5 104 4 6 105 6 22 .26 7 .31 DHL2N 150W .9 1.29 .8 1.50 16 .6 .7 .43 8 8 10 2.56 355 2 1150 777 51.9 206 1 6 5 .1 .08 1 .01 8 4 43 25 2 1 1 DHL2N 200W 13 1 119 .1 8 2.22 .07 274 1 .01 4 700 1 Ã. 652 45.5 85 3 1 16 **4**0 .7 1.58 54 .40 23 13 7 DHL2N 250W 7 117 .7 .1 7 8 2.23 .29 .29 212 683 2 18 .07 1 .01 1810 31 1223 11 529 41.7 124 3 3 1 14 25 3221 DHL2N 350W 13 2.63 17 175 .8 .1 8 .09 6 31 12 14 26 223 1 .01 1490 522 50.1 273 33 4 5 18 85 133 113 13 13 12 1.1 1.13 10 8 20 3.59 .51 697 11 2501 .6 .69 .06 13 .02 730 1 .1 11 1283 75.0 - 69 25 28 60 2502 9 7 8 9 .69 .77 17 3.69 22 55 1.2 1.33 20 .07 ġ. .43 397 1.02 680 19 8 38 1227 80.4 120 1 .1 11 35 2503 .9 1.33 18 115 15 660 12 1 28 1 .1 16 3.47 .08 11.47 620 1 .02 11 50 1161 73.2 156 ŝ. 15 Ś 2504 .8 1.38 9 179 .8 .70 11 26 3.12 .09 10.48 806 6.02 12 720 11 1 6 .1 331 223 21 26 24 322 16 33 898 59.1 125 5 10 8 1 15 97 ż 18 947 50.8 22 1121 79.9 2505 10 .5 7 .75 12 17 2.67 .07 13.54 840 1.03 18 590 947 50.8 155 1121 79.9 65 -1 .1 1 4 4 5 19 3.69 6.51 2506 .8 .90 13 1 90 7 .62 12 .06 469 4.02 9 670 12 Ź 1 6 15 . ٠





Geochemical Analysis Certificate

VANCOUVER OFFICE:

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2 TELEPHONE (604) 980-5814 OR (604) 988-4524 FAX (604) 980-9621

SMITHERS LAB.: 3176 TATLOW ROAD SMITHERS, B.C. CANADA VOJ 2NO TELEPHONE (604) 847-3004 FAX (804) 847-3005

3V-0280-RG1

Company:GEOCHEMICAL CONSULTINGProject:FEN CLAIMSAttn:J. BARAKSO / S. ZASTAVNIKOVICH

Date: JUL-12-93 COPY 1. GEOCHEMICAL CONSULTING, VANCOUVER, B.C

We hereby certify the following Geochemical Analysis of 24 ROCK samples submitted JUN-23-93 by S. ZASTAVNIKOVICH.

Sample Number	BA-TOTAL PPM	

HJ -01	1470	
HJ -02	1120	
HJ -03	966	
HJ -04	662	
HJ -05	915	
HJ -06	840	
HJ - 07	6670	
HJ -08	1710	
HJ - 09	1980	
HJ - 10	1210	
HJ - 11	1010	
HJ - 12	870	
HJ - 13	1470	
HJ - 14	305	
HJ - 15	880	
HJ - 16	1310	
HJ - 17	680	
HJ - 18	1240	
HJ - 19	598	
HJ -20	1290	
HJ -21	597	
HJ - 22	228	
HJ -23	451	
HJ -24	970	
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Certified by



Geochemical Analysis Certificate

VANCOUVER OFFICE:

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2 TELEPHONE (604) 980-5814 OR (604) 988-4524 FAX (604) 980-9621

SMITHERS LAB.: 3176 TATLOW ROAD SMITHERS, B.C. CANADA VO.

SMITHERS, B.C. CANADA VOJ 2NO TELEPHONE (604) 847-3004 FAX (604) 847-3005

3V-0280-RG2

Company:GEOCHEMICAL CONSULTINGProject:FEN CLAIMSAttn:J. BARAKSO / S. ZASTAVNIKOVICH

Date: JUL-12-93 copy 1. GEOCHEMICAL CONSULTING, VANCOUVER, B.C

We hereby certify the following Geochemical Analysis of 12 ROCK samples submitted JUN-23-93 by S. ZASTAVNIKOVICH.

Sample Number	BA-TOTAL PPM	
HJ -25	618	
HJ -26	1330	
HJ -27	331	
HJ -28	768	
HJ - 29	1430	
HJ -30	1170	
HJ - 31	2160	
HJ - 32	1160	
HJ - 33	683	
HJ -34	1210	
#1	330	
SZ01	440	

Certified by

MIN-EN/ZABORATORIES





Geochemical Analysis Certificate

VANCOUVER OFFICE:

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2 TELEPHONE (604) 980-5814 OR (604) 988-4524 FAX (604) 980-9621

SMITHERS LAB:: 3176 TATLOW ROAD SMITHERS, B.C. CANADA VOJ

SMITHERS, B.C. CANADA VOJ 2NO TELEPHONE (604) 847-3004 FAX (604) 847-3005

3V-0280-SG8

Company:GEOCHEMICAL CONSULTINGProject:FEN CLAIMSAttn:J. BARAKSO / S. ZASTAVNIKOVICH

Date: JUL-12-93 COPY 1. GEOCHEMICAL CONSULTING, VANCOUVER, B.C

We hereby certify the following Geochemical Analysis of 6 SEDS samples submitted JUN-23-93 by S. ZASTAVNIKOVICH.

Sample Number	BA-TOTAL PPM	
2501	827	
2502	779	
2503	859	
2504	900	
2505	751	
2506	790	

Certified by





Geochemical Analysis Certificate

VANCOUVER OFFICE:

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2 TELEPHONE (604) 980-56 14 OR (604) 988-4524 FAX (604) 980-9621

SMITHERS LAB.: 3176 TATLOW ROAD SMITHERS, B.C. CANADA VOJ 2NO TELEPHONE (604) 847-3004 FAX (604) 847-3005

3V-0280-SG7

Company:GEOCHEMICAL CONSULTINGProject:FEN CLAIMSAttn:J. BARAKSO / S. ZASTAVNIKOVICH

Date: JUL-12-93 Copy 1. GEOCHEMICAL CONSULTING, VANCOUVER, B.C

We hereby certify the following Geochemical Analysis of 17 SOILS samples submitted JUN-23-93 by S. ZASTAVNIKOVICH.

Sample	BA-TOTAL	
Number	PPM	
DHLO 275W	916	
DHLO 300W	896	
DHLO 350W	887	
DHLO 400W	827	
DHLAW 050N	830	
DHLAW 100N	867	
DHLAW 150N	816	
DHLAW 200N	985	
DHLAW 300N	811	
DHL2N 000W	786	
DHL2N 050W	821	
DHL2N 100W	895	
DHL2N 125W	796	
DHL2N 150W	819	
DHL2N 200W	808	
DHL2N 250W	824	
DHL2N 350W	845	

Certified by MIN-EN LABORATORIES





Geochemical Analysis Certificate

VANCOUVER OFFICE:

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2 TELEPHONE (604) 980-5814 OR (604) 988-4524 FAX (604) 980-9621

SMITHERS LAB.: 3176 TATLOW ROAD SMITHERS, B.C. CANADA VOJ 2NO TELEPHONE (604) 847-3004 FAX (604) 847-3005

3V-0280-SG6

Company:GEOCHEMICAL CONSULTINGProject:FEN CLAIMSAttn:J. BARAKSO / S. ZASTAVNIKOVICH

Date: JUL-12-93 copy 1. GEOCHEMICAL CONSULTING, VANCOUVER, B.C.

We hereby certify the following Geochemical Analysis of 24 SOIL samples submitted JUN-23-93 by S. ZASTAVNIKOVICH.

Samp 1 e	BA-TOTAL	
Number	PPM	
L200S 1175W	802	
L200S 1200W	7800	
L200S 1250W	787	
L200S 1300W	889	
L200S 1350W	754	
L200S 1400W	791	
L200S 1450W	550	
L200S 1500W	810	
L200S 1550W	810	
L200S 1600W	839	
L1200W OBL	832	
L1200W 050S	783	
L1200W 100S	844	
L1200W 150S	770	
L1200W 100N	751	
L1200W 150N	824	
L1200W 200N	818	
L1250W 050N	853	
DHLO 000W	804	
DHLO 050W	834	
DHLO 100W	847	
DHLO 200W	705	
DHLO 225W	1450	
DHLO 250W	747	

Certified by





VANCOUVER OFFICE:

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2 TELEPHONE (604) 980-5814 OR (604) 988-4524 FAX (604) 980-9621

SMITHERS LAB.:

3176 TATLOW ROAD SMITHERS, B.C. CANADA VOJ 2NO TELEPHONE (604) 847-3004 FAX (604) 847-3005

Geochemical Analysis Certificate

3V-0280-SG5

Company:GEOCHEMICAL CONSULTINGProject:FEN CLAIMSAttn:J. BARAKSO / S. ZASTAVNIKOVICH

Date: JUL-12-93 copy 1. GEOCHEMICAL CONSULTING, VANCOUVER, B.C

We hereby certify the following Geochemical Analysis of 24 SOILS samples submitted JUN-23-93 by S. ZASTAVNIKOVICH.

Sample	BA-TOTAL	
Number	PPM	
L200N 750W	691	
L200N 800W	809	
L200N 850W	849	
L200N 900W	537	
L200N 950W	680	
L200N 1000W	691	
L200N 1050W	761	
L200N 1100W	855	
L200N 1150W	685	
L200N 1250W	628	
L200N 1300W	815	
L200N 1350W	773	
L200N 1400W	801	
L200N 1475W	816	
L200N 1500W	798	
L200N 1550W	820	
L200N 1600W	735	
L200N 1650W	714	
L200S 975W	774	
L200S 1000W	732	
L200S 1050W	761	
L200S 1075W	793	
L200S 1100W	785	
L200S 1150W	815	

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Geochemical Analysis Certificate

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3V-0280-SG4

Company:GEOCHEMICAL CONSULTINGProject:FEN CLAIMSAttn:J. BARAKSO / S. ZASTAVNIKOVICH

Date: JUL-12-93 Copy 1. GEOCHEMICAL CONSULTING, VANCOUVER, B.C.

We hereby certify the following Geochemical Analysis of 24 SOIL samples submitted JUN-23-93 by S. ZASTAVNIKOVICH.

Sample	BA-TOTAL	
Number	PPM	
L8W 400S	732	
L8W 450S	853	
L8W 500S	702	
L8W 550S	760	
L8W 600S	701	
L8W 650S	753	
L8W 700S	757	
L8W 750S	837	
L8W 800S	860	
L8W 850S	861	
L8W 900S	963	
L8W 950S	757	
L8W 1000S	762	
L&W 1025S	812	
L8W 1050S	804	
L8W 1075S	847	
L8W 1100S	819	
L8W 1150S	797	
L8W 1200S	827	
L8W 1250S	1200	
L8W 1300S	780	
L200N 600W	755	
L200N 650W	211	
L200N 700W	693	
	. 	

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3V-0280-SG3

Company:GEOCHEMICAL CONSULTINGProject:FEN CLAIMSAttn:J. BARAKSO / S. ZASTAVNIKOVICH

Date: JUL-12-93 copy 1. GEOCHEMICAL CONSULTING, VANCOUVER, B.C

We hereby certify the following Geochemical Analysis of 24 SOILS samples submitted JUN-23-93 by S. ZASTAVNIKOVICH.

Samp l e	BA-TOTAL	
Number	PPM	
L3S 1700E	786	
L3S 1750E	832	
L3S 1800E	869	
L3S 1850E	766	
L3S 1900E	817	
L3S 1950E	806	
L3S 2000E	860	
L3S 2050E	762	
L3S 2100E	769	
L3S 2150E	745	
L3S 2200E	709	
L3S 2250E	231	
L&W OBL	839	
L8W 050S	878	
L8W 100S	835	
L8W 125S	829	
L8W 150S	815	
L8W 175S	777	
L8W 200S	1120	
L8W 250S	908	
L8W 300S	831	
L8W 325S	795	
L8W 350S	774	
L8W 375S	852	

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Date: JUL-12-93 COPY 1. GEOCHEMICAL CONSULTING, VANCOUVER, B.C

We hereby certify the following Geochemical Analysis of 24 SOILS samples submitted JUN-23-93 by S. ZASTAVNIKOVICH.

Sample Number	BA-TOTAL PPM	
L10S 1550E	891	
L105 1550E	972	
L105 1650E	896	
L105 1000E	915	
L10S 1750E	799	
L10S 1800E	907	
L10S 1800E	702	
L105 1025E	785	
L10S 1950E	902	
L5S 1750E	764	
L5S 1800E	839	
L5S 1850E	1020	
L5S 1900E	806	
L5S 1950E	801	
L5S 2000E	900	
L5S 2050E	817	
L5S 2075E	841	
L5S 2100E	767	
L5S 2150E	1020	
L5S 2200E	430	
L5S 2250E	872	
L3S 1550E	839	
L3S 1600E	827	
L3S 1650E	740	
- 		

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SPECIALISTS IN MINERAL ENVIRONMENTS CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

Geochemical Analysis Certificate

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3V-0280-SG1

Company:GEOCHEMICAL CONSULTINGProject:FEN CLAIMSAttn:J. BARAKSO / S. ZASTAVNIKOVICH

Date: JUL-12-93 Copy 1. GEOCHEMICAL CONSULTING, VANCOUVER, B.C

We hereby certify the following Geochemical Analysis of 24 SOILS samples submitted JUN-23-93 by S. ZASTAVNIKOVICH.

Sample	BA-TOTAL PPM	
Number		
L20E 025S	754	
L20E 050S	750	
L20E 100S	732	
L20E 150S	679	
L20E 200S	839	
L20E 250S	693	
L20E 350S	865	
L20E 400S	749	
L20E 450S	831	
L20E 550S	822	
L20E 600S	834	
L20E 650S	697	
L20E 700S	743	
L20E 750S	808	
L20E 800S	787	
L20E 850S	811	
L20E 900S	1040	
L20E 950S	879	
L20E 1000S	848	
L10S 1300E	825	
L10S 1350E	603	
L10S 1400E	768	
L10S 1450E	822	
L10S 1500E	796	

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MIN-EN LABORATORIES

APPENDIX V

Geophysical Report

VLF-EM SURVEY

ON THE

FEN 1-4 & TSALIT 4-8 CLAIMS

FOR

BARIL DEVELOPMENTS LTD.

SURVEY BY

S. ZASTAVNIKOVICH

OMINECA M.D., B.C. N.T.S. 93L/2W

SEPTEMBER 1993 Report By Syd Visser S.J.V. Consultants Ltd. TABLE OF CONTENTS

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INTRODUCTION

A VLF-EM survey was completed by S. Zastavnikovich on the Fen Claim Group. The Claims are located between Fenton and Code creeks 4 km south of Morice River, 30 km southeast of Houston, in the Omineca M.D., B.C. (N.T.S. 93L/2W). The data was presented to S.J.V. Consultants Ltd. by S. Zastavnikovich for plotting and interpretation.

The purpose of the survey was to search for concentrations of sulphides, to aid in the location of shear zones that may have associated mineralization, and to aid in the mapping of local geology.

INSTRUMENTATION AND FIELD WORK

The field work was performed by S. Zastavnikovich, a Geochemist during the period of June 11, 1993 to June 18, 1993. A total of approximately 10 Km, with stations every 25M along flagged lines, were surveyed by a VLF-EM.

A Geonics EM-16 was used for a field instrument. The dip angle and quadrature were recorded at each station.

Most of the lines were surveyed using the signal from two separate VLF stations (Seattle 24.8 KHz (NLK), (Hawaii 23.4 KHz (NPM) was used when Seattle was not transmitting) and Cutler 24.0 KHz (NAA)). Both stations were used because of the direction of the incoming electromagnetic field to the direction of the grid and possible structures. The signal from Seattle is located at an azimuth of approximately 160 degrees (Hawaii is located at an azimuth of approximately 220 degrees) therefore making it ideal for NW and N trending structures and Cutler is located at an azimuth of approximately 90 degrees, the signal from which is ideal for E trending structures. Seattle and Hawaii would be ideal for surveying North-South numbered line and Cutler for East-West numbered lines. The direction of the VLF-EM survey is shown on the profiles.

All the data was entered into a computer in Vancouver and final plots generated on a printer.

DATA PRESENTATION

The VLF-EM Profiles, and compilations of the VLF-EM data are presented in Appendix II on the following plates:

PLATE VLF-1	VLF-EM PROFILES GRID-1 SEATTLE AND HAWAII
PLATE VLF-2	VLF-EM PROFILES GRID-1 CUTLER
plate VLF-3	VLF-EM PROFILES GRID-2 SEATTLE
PLATE VLF-4	VLF-EM PROFILES GRID-3 SEATTLE
plate VLF-5	VLF-EM PROFILES GRID-3 CUTLER
PLATE LOC-1	GRID 1, 2 & 3 LOCATION MAP

INTERPRETATION

<u>GRID-1</u>

The data from grid one, as shown on Plate VLF-1 and Plate VLF-2, indicates a number of weak to medium strength anomalies. It is difficult to correlate these anomalies from line to line because of the wide line spacing. The anomaly on line 300S at approx. 1800E, 600S at 1650E and 1000S at 1610E are very near surface short wavelength anomalies. Where the anomaly crosses lines 600S and 1000s there does not appear to any depth extent as seen by the short wavelength of the anomaly. The anomaly on the south east corner of the grid appears to be very similar. The anomaly on line 300s at 1960E appears to be slightly deeper and may have better depth extent.

The anomaly on line 500S at approx. 2060E and possibly crossing line 2000E at 475S may be somewhat stronger and appears to be striking at 90 degrees to the other anomalies.

The sharp break in slope of the VLF data on the western end of line 600S is likely due to a contact.

All of the anomalies are relatively weak and are likely due too conductive overburden or weakly conductive shear zones.

<u>GRID-2</u>

The relative location of grid-2 to grid-1 and grid-3 is shown on Plate LOC-1. The profiles of the data and compilation are shown on Plate VLF-3.

There are numerous medium to weak anomalies on this grid which are likely due to changes in conductivity of the overburden and possibly weakly conductive shear or fault zones.

The anomalies on the south end of line 800W, the east end of line 0 and the north end of line 800W may be better conductors but not enough data is available. Line 800W should definitely be extended to the north since this does appear to be a fairly good conductor.

<u>GRID-3</u>

Grid-3 is a small grid to the west end of the survey. The data and compilation are shown on Plate VLF-4 and Plate VLF-5.

There is a fairly good anomaly striking across lines 0 and 200N. This anomaly may be due to sulphides or a fairly conductive shear zone and should be investigated further.

3

RECOMMENDATIONS

It is recommended to closely correlate the results of the geophysics to any previous work on the property. The generally weak anomalies on all the grid may aid in the interpretation of the known geology and geochemical data.

Line 800W on Grid-2 should be extended to the north to determine the validity of the anomaly on the northern end of this line.

The anomaly on Grid-3 should be investigated and the grid extended if follow-up is warranted.

CONCLUSION

The small VLF-EM survey on three small grids indicted a number of weak VLF anomalies that are likely due to weakly conductive shear zones or changes in conductive overburden.

The Partial anomaly on the west end of Line 800W (Grid-2) and anomaly on Grid-3 may be due to concentrations of sulphides and should be investigated further.

Syd Visser_R Geophy f Saltants Ltd.

APPENDIX I

STATEMENT OF QUALIFICATIONS

I, Syd J. Visser, of 11762 94th Avenue, Delta, British Columbia, hereby certify that,

- 1) I am a graduate from the University of British Columbia, 1981, where I obtained a B.Sc. (Hon.) Degree in Geology and Geophysics.
- 2) I am a graduate from Haileybury School of Mines, 1971.
- 3) I have been engaged in mining exploration since 1968.
- 4) I am a Fellow of the Geological Association of Canada/
- 5) I am a Professional Geoscientist registered in the province of British Columbia.



Syd J. Visser, B.Sc., P.Geo. Geophysicist

APPENDIX II

