

ASSESSMENT REPORT ON THE 1990 DIAMOND DRILLING PROGRAM
DRILL HOLES CH90-125, CH90-126, CH90-129 AND CH90-130
GROUP CHEM-90B
CHEMAINUS PROJECT

SUB-RECORDER RECEIVED FEB 13 1991 M.R. #..... \$..... VANCOUVER, B.C.
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PROJECT 116

LOG NO: Feb 20/91	RD.
ACTION:	
FILE NO:	

Situated 20 kilometres west of Chemainus, B.C.
in the Victoria Mining Division

48°53'N, 123°50'W
NTS 92B/13 and 92C/16

Falconbridge Ltd.
202-856 Homer Street
Vancouver, B.C.

February, 1991 Chemainus, B.C.

Robert Stewart and Gordon Allen

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,957

SUMMARY

This assessment report describes CH90-125, CH90-126, CH90-129 and CH90-130 drilled between May 12, 1990 and November 27, 1990 on the BRENT 1, HOLYOAK 2 and HOLYOAK 3 claims.

These holes tested favourable stratigraphy within the McLaughlin Ridge Formation. Best results are from CH90-126 and CH90-130.

A 5.64 metre intersection of a chlorite-chalcopyrite-pyrite stringer zone in hole CH90-126 is probably part of the Sharon mineralized trend.

In hole CH90-130 a narrow pyrite, sphalerite, and chalcopyrite-bearing band in felsic tuff may be correlative with the Silver Creek showing 500m to the east suggesting that this may be a persistent mineralized horizon.

Our exploration target is a volcanogenic massive sulphide deposit with significant tonnage. Base metal grades with significant precious metal credits are expected for such a deposit based on the grade of the small lenses found to date within the Cowichan and Buttle Lake Uplifts.

SUMMARY OF SIGNIFICANT RESULTS

<u>Hole #</u>	<u>Purpose</u>	<u>From</u>	<u>To</u>	<u>Length</u>	<u>Cu</u>	<u>Zn</u>	<u>Ag</u>	<u>Au</u>	<u>Pb</u>	<u>Remarks</u>
CH90-125	S,R	210.95	211.15	0.20m	120	85	2.1	3	1912	Ga,Cpy in stringers
		408.62	408.95	0.33m	57	2877	1.4	3	19	Py,Sp stringers
		408.95	409.15	0.20m	96	1321	1.6	3	16	"
CH90-126	S,X	371.22	371.74	0.52m	0.47	0.01%	3.4	16	7	Py, Cpy disseminated &
		418.30	418.55	0.25m	0.50%	0.00%	2.8	26	7	in stringers
		441.05	441.40	0.35m	0.57%	0.04%	3.4	10	8	"
		451.52	451.88	0.36m	0.40%	0.02%	2.2	79	9	"
		*weighted average over 5.64m:	453.13	458.77	5.64m	2.17%	0.02%	5.2	20	9
CH90-129	S,X	464.38	464.90	0.52m	0.84%	0.01%	3.5	19	12	Py, Cpy disseminated &
		470.60	470.70	0.10m	4.01%	0.01%	9.3	63	11	in stringers
		484.13	484.30	0.27m	0.42%	0.00%	1.9	3	8	"
CH90-130	S,X	232.10	232.20	0.10m	0.13%	2.12%	5.4	217	0.69%	Silver Creek?

PURPOSE: A: Anita Active Tuff B: Borehole EM Target E: Followup Hole H: Horizontal Loop-EM Target
 I: IP Target R: Randy Trend S: Stratigraphic Hole X: Sharon Trend

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LOCATION, ACCESS AND PHYSIOGRAPHY

The Chemainus Project is located on southeast Vancouver Island about 10 to 25km west of Chemainus or 70km north of Victoria (Figure 1). On June 23,1989, Esso Resources share of the joint venture was purchased. The project is now wholly owned by Falconbridge Limited.

The project occurs in two separate claim groups totalling 20 claims. The 16 CHIP claims are to the west and the 4 BRENT-HOLYOAK claims are to the east. CHIP 1 to 8 and CHIP 11 to 18 comprise 119 units and 4 fractions covering 2638.3 hectares. The BRENT-HOLYOAK claims comprise 46 units (1103.8 hectares) in the BRENT 1 and HOLYOAK 1 to 3 claims (Figure 2). These two claim groups cover a 15 km strike length of Sicker Group stratigraphy and are separated by a 2.5 km wide property presently held under a Minnova Inc./Laramide Resources joint venture. This latter claim group hosts the Coronation deposits (Bailes et al, 1987).

Access to the property is along dirt roads and abandoned railway grades which are part of the Mt. Brenton Forest Service Road network, the B.C. Hydro access road and logging road networks maintained by Canadian Pacific Forest Products Limited and MacMillan Bloedel Limited. These interlocking roads can be reached from MacMillan Bloedel Limited's Copper Canyon Mainline haulage road by the Mile 10 access road, the Mile 12 access road and by the C-7 access road which intersects the Copper Canyon Mainline 5km west of the gate at MacMillan Bloedel's Copper Canyon Camp.(Figure 2). Road use is subject to annual permits and/or notice with BC Hydro, the forestry companies and the Ministry of Forests. Timber and surface rights for the claims are held by the Crown, Canadian Pacific Forest Products Limited and MacMillan Bloedel Limited.

Annual notification of programs and ongoing contact throughout the year is maintained with the landowners. Compensation for damages to surface and timber rights are made annually following field inspections.

Topography is relatively gentle overall with many local steep sections along deeply incised stream valleys and on hillsides in the northern parts of CHIP 1 to 4, the western part of HOLYOAK 3 and eastern part of BRENT 1. Elevations range from between 500 and 1100 metres, with higher elevations encountered along the northern margin of the property.

The climate is quite mild with winter temperatures in the -5 to +5 degree range and summer temperatures in the 15 to 25 degree range. A few predictable extremes that can affect programs are dry, sunny conditions that cause bush closures in mid-June to late-September and difficult ice and snow conditions above 700m between January and April. Periods of persistent showers and rain in the fall through spring may turn access roads into badly rutted mud tracks. Optimum periods for heavy equipment programs are in April-June and October-November. Heavy rains in November produce flash flooding conditions and the opportunity for washouts of culverts and small bridges. At present, all the property's roads are accessible in spite of 3 major storms in November, 1990.

FALCONBRIDGE LIMITED

BRITISH COLUMBIA

LOCATION MAP

Figure 1

YUKON

NWT

BRITISH COLUMBIA

• Prince Rupert

• Terrace

• Prince George

ALBERTA

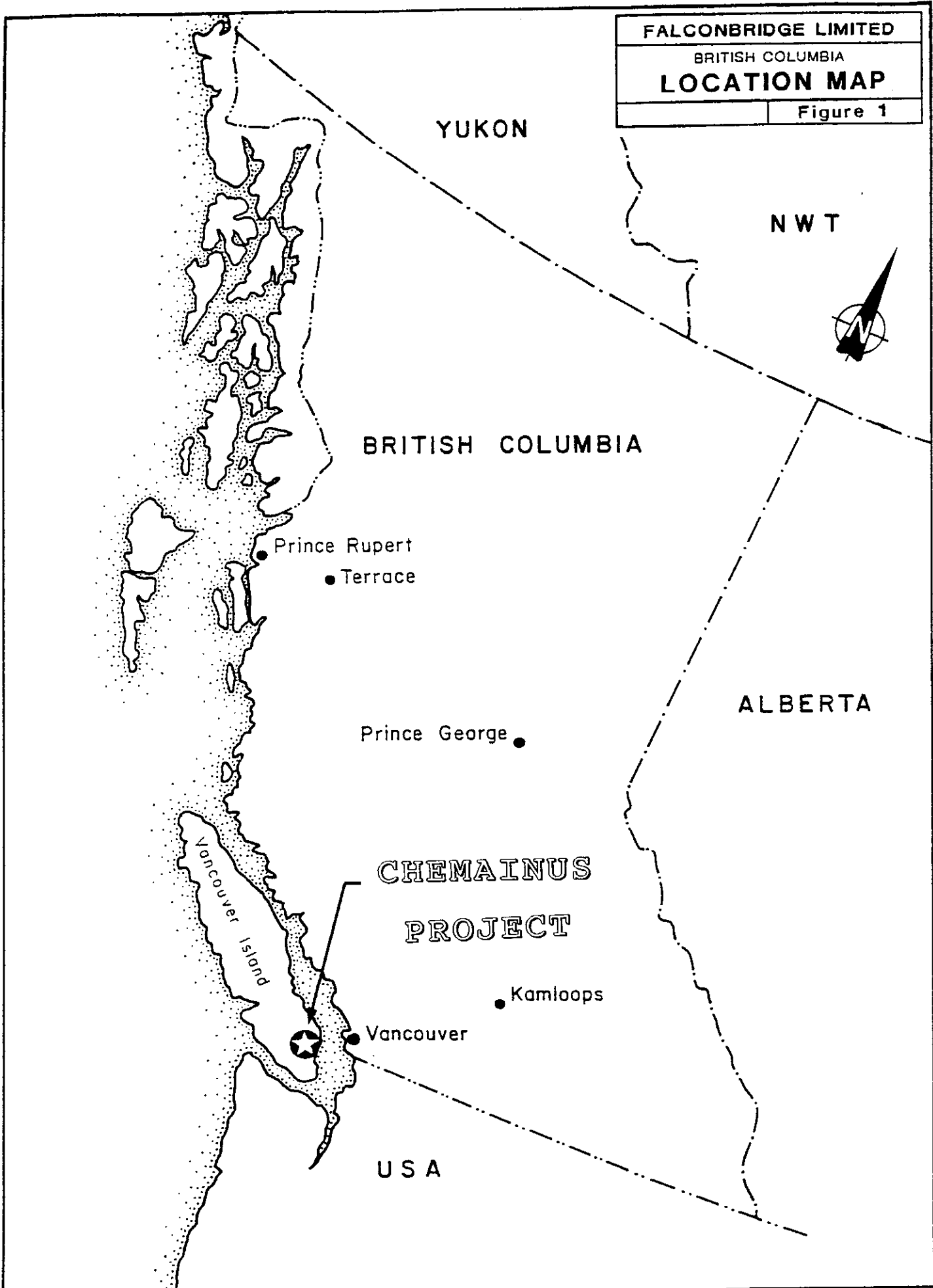
**CHEMAINUS
PROJECT**

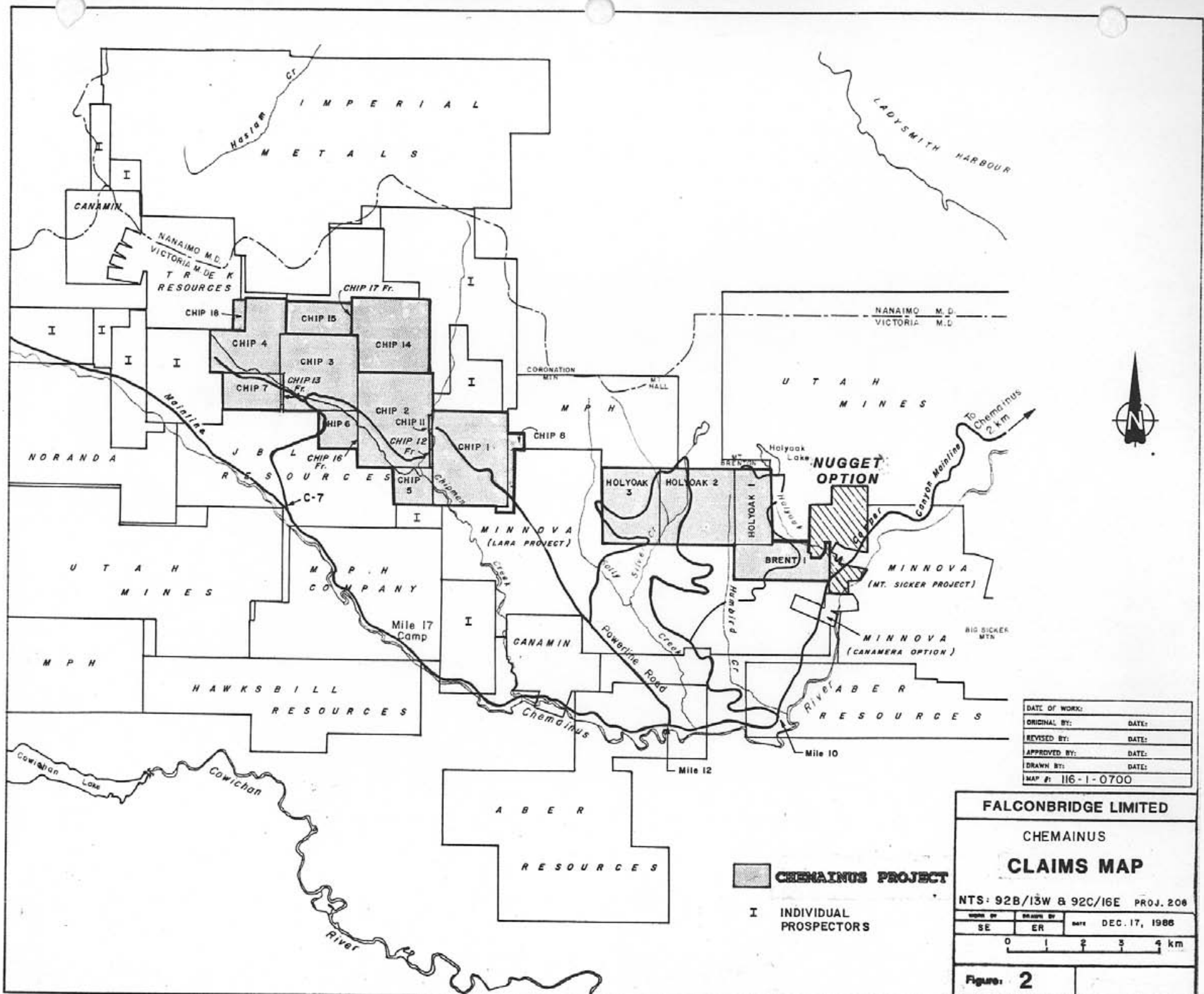
• Kamloops

• Vancouver

USA

Vancouver Island





DATE OF WORK:	
ORIGINAL BY:	DATE:
REVISED BY:	DATE:
APPROVED BY:	DATE:
DRAWN BY:	DATE:
MAP #: 116-1-0700	

FALCONBRIDGE LIMITED

CHEMAINUS

CLAIMS MAP

NTS: 92B/13W & 92C/16E PROJ. 206

WORK BY	DRAWN BY	DATE
SE	ER	DEC. 17, 1986

0 1 2 3 4 km

Figure: **2**

CLAIM STATUS

There are 20 claims comprising 165 units and 4 fractions covering 3724.9 hectares. Claims are well located, without internal missing fractions. Upon acceptance of three assessment reports on 1990 programs, the claims will be in good standing until at least February 27, 2000. All claims are wholly owned by Falconbridge Limited.

Claim data is summarized below.

<u>CLAIM</u>	<u>RECORD #</u>	<u>UNITS</u>	<u>AREA</u>	<u>STAKING DATE</u>	<u>EXPIRY DATE</u>
CHIP 1	720	20	500.0h	Nov. 11, 1982	Dec. 7, 2000
CHIP 2	721	20	500.0h	Nov. 13, 1982	Dec. 7, 2000
CHIP 3	722	16	400.0h	Nov. 13, 1982	Dec. 7, 2000
CHIP 4 *	723	16	315.0h	Nov. 15, 1982	Dec. 7, 2000
CHIP 5	920	4	72.4h	May 16, 1983	May 24, 2000
CHIP 6	921	4	100.0h	May 17, 1983	May 24, 2000
CHIP 7	922	6	138.8h	May 18, 1983	May 24, 2000
CHIP 8	1424	4	31.5h	Feb. 22, 1985	Feb. 27, 2000
CHIP 11	1526	1	0.7h	May 31, 1985	Jun. 17, 2000
CHIP 12Fr	1608	Fr.	1.4h	Dec. 11, 1985	Dec. 12, 2000
CHIP 13Fr	1609	Fr.	30.5h	Dec. 11, 1985	Dec. 12, 2000
CHIP 14	2092	16	376.4h	Feb. 16, 1988	Feb. 29, 2000
CHIP 15	2093	8	149.8h	Feb. 16, 1988	Feb. 29, 2000
CHIP 16Fr	2185	Fr.	3.2h	Jul. 5, 1988	Jul. 13, 2000
CHIP 17Fr	2186	Fr.	1.4h	Jul. 8, 1988	Jul. 13, 2000
CHIP 18**	2230	4	0.0h	Sep. 28, 1988	Sep. 28, 2000
BRENT 1	1630	10	250.0h	May 5, 1978	May 11, 2000
HOLYOAK 1	1598	8	178.8h	Oct. 22, 1985	Oct. 31, 2000
HOLYOAK 2	1599	16	400.0h	Oct. 23, 1985	Oct. 31, 2000
HOLYOAK 3	1600	12	275.0h	Oct. 24, 1985	Oct. 31, 2000
TOTALS:		169	3724.9h		

This assessment report is for claim group CHEM-90B which is composed of the BRENT 1, HOLYOAK 1, HOLYOAK 2 and HOLYOAK 3 claims.

EXPLORATION HISTORY

Early property history was described by Everett and Cooper (1984) as follows:

" The CHIP claims have seen sporadic periods of exploration activity since the early 1900's. The oldest recorded work was in 1915 with the sinking of a 50 foot shaft on a weak chalcopyrite-bearing pyrrhotite vein (part of the Anita Showing). Interest in the Sicker Group schists intensified in 1944 with the development of the Twin J massive sulphide-precious metal deposit, 15km to the southeast. The volcanic belt has undergone several periods of staking and prospecting.

In recent years, development of Westmin's deposit at Buttle Lake has renewed exploration interest in the Chemainus area. An induced polarization survey was completed by Cominco in the vicinity of the CHIP 4 claim in 1966 and a soil survey was completed by UMEX in the vicinity of the CHIP 1 claim in 1978."

Early property history on the BRENT-HOLYOAK claims has been described by Britten (1984):

" The BRENT 1 mineral claim overlies what is believed to have been the PAUPER C.G. claim (L31G) crown granted in 1903. The BCDM Annual reports for 1924 and 1927 report underground development of a pyritized schist belt 60 feet wide. An updated map by Sharon Copper Mines Limited shows three parallel adits.

In 1966 and 1967 Cominco Ltd. carried out geological mapping, a geochemical soils survey and an induced polarization (Tikkanen, 1966) on the TOT and RUM claims, for which the base metal rights were optioned from Canadian Pacific Oil and Gas Limited, who at that time controlled the E&N Railway Land grant.

Imperial Oil Limited staked the MONS 4 mineral claim in 1976 and upon surrender of the E&N mineral rights to the Crown in 1978 this claim was abandoned and restaked as the BRENT 1 Claim. The OAK 1, 2 and 3 claims were staked at the same time to cover anomalies outlined by a Scintrex airborne EM and magnetic survey. Imperial Oil carried out minor geological mapping, a self potential survey and drilled four holes on this block of claims now known as the OAK Group. Traces of copper in pyritic quartz-sericite schists were noted on the BRENT claim (Somerville, 1979)."

In 1983, Esso conducted a field program on the CHIP claim group. Their work included 2500 scale geologic mapping, soil and stream sampling, line cutting, HLEM and magnetometer surveys of the CHIP1 and 2 and part of the CHIP 3 claims. Part of the favourable felsic volcanic lithology was defined by mapping and several weak, copper-zinc soil anomalies and two weak conductors were identified on the CHIP 1 claim. Several whole

rock analyses suggest the presence of Na₂O depletion on the CHIP 1 claim. Esso conducted geological mapping in 1984 on the Oak Group and applied this work for assessment.

Kidd Creek Mines Ltd. entered into an option agreement for a joint-venture with Esso Minerals in August 1984. The entire Chemainus property (BRENT-HOLYOAK and CHIP claims) was flown with Questor's Mark VI helicopter INPUT system in September 1984.

In 1985 the OAK 1,2 and 3 claims were abandoned and restaked as the HOLYOAK 1,2 and 3 claims. Ground follow-up of selected airborne anomalies was started using time domain IP (Schlumberger array), VLF and magnetometer surveys. Geological mapping litho-geochem sampling and soil sampling along grid lines was focused on the BRENT 1 and HOLYOAK 1, 2 and 3 claims and culminated with a 7 hole drill program totalling 1534.5 metres. Two holes intersected significant sulphides. Geophysical surveys also covered selected parts of the CHIP claims.

In 1986, exploration focused on the CHIP claims. Work included 5,000 scale mapping of most of the claims and expansion of the grid to cover the entire CHIP claim block on a 200 metre line spacing with IP, VLF and magnetometer surveys. Selected areas were covered with a deep penetrating gradient array IP survey, results of which guided the late fall drilling program. A total of 1845.4 metres were drilled in six widely spaced holes, four of which intersected significant sulphides. The Anita shaft area was trenched with an excavator, mapped in detail and the exposed pyrrhotite lens was chip sampled. Falconbridge Limited continued exploration on the BRENT-HOLYOAK claims with geological mapping, soil geochemistry and induced polarization, magnetic and VLF surveys.

In 1987, an 18 hole drill program for 6753.7 metres traced a pyritic felsic tuff unit across the CHIP 1 claim. Hole CH87-37 discovered a significant pyritic felsic tuff intersection containing 2.37% Cu, 2.74% Zn, 0.73% Pb 41.8g/t Ag, 0.7g/t Au and 0.95% Ba over 2.5 metres. All holes were tested with the Crone Pulse EM system. Further gradient array IP

surveys were completed over the CHIP claims and additional magnetic, IP and VLF surveys were carried out on the BRENT-HOLYOAK claims.

In 1988 a comprehensive exploration program was carried out. Forty-six holes were completed for 13,578.1 metres. The property was remapped and resampled geologically at 5,000 scale (Figures 3a to 3i). Bedrock trenching totalling 2270 linear metres was completed in four areas. IP, VLF and magnetometer surveys totalling 112km completed coverage of the felsic volcanics to a 100 metre line spacing. Other geophysical surveys included 65km of gradient IP, a Max-Min orientation survey over the Anita mineralization and frequency domain REMI EM borehole surveys down 34 drill holes. The property's baselines, drill holes and legal corner posts were surveyed to provide accurate locations for the geological and geophysical data which was compiled onto 5,000 scale orthophoto-controlled contoured base maps.

The 1989 exploration program focused on testing chargeability anomalies in altered McLaughlin Ridge Formation felsic volcanics. Secondary targets were chargeability anomalies in the Fourth Lake Formation or near its transition with the McLaughlin Ridge Formation. Thirty-one diamond drill holes (10853.7m) were completed on broadly spaced sections across the entire property. Borehole EM surveys were completed on 29 holes to extend the effective range of the drill holes. Sulphidic sections were test by multi-element analysis (1947 samples) and a further 341 samples were tested by whole rock analysis.

In 1990, emphasis was placed upon evaluating untested primary and secondary targets and extending previously drill tested mineralization. This evaluation was accomplished through diamond drilling (23 holes, 7201.8m), borehole EM (19 holes), 5 grid extensions (32.2 km), geological mapping and geophysical surveys (MAXMIN-MAG-VLF: 53.4 km; PROTEM 37: 10.8 km). Sulphidic sections were tested by multi-element analysis (1159 samples) and a further 252 samples were tested by whole rock analysis.

REGIONAL GEOLOGY

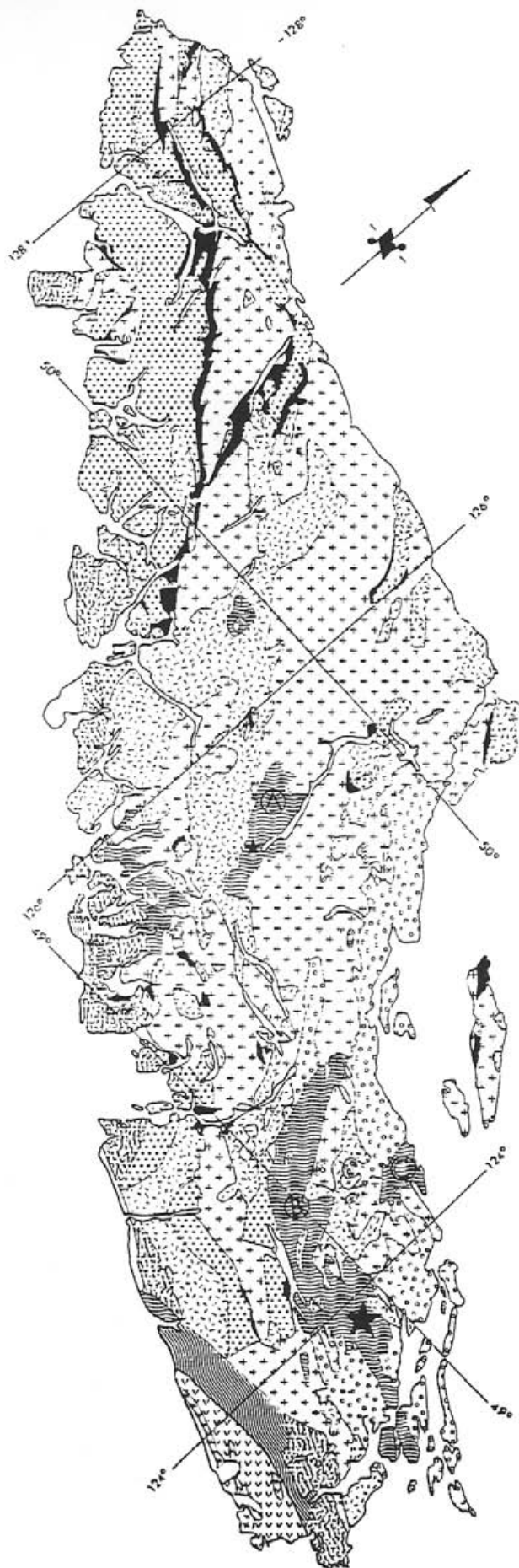
On a regional scale, the area underlain by the Chemainus Project is included in government maps and reports by Muller (1980), Massey and Friday (1988) and Massey et al (1988).

Vancouver Island is underlain by a diverse assemblage of lithologies, which, with the exception of the extreme southern tip of the island, belong to Wrangellia, an allochthonous terrain that was accreted to the continental margin of North America during the Cretaceous (eg. Muller, 1977; Jones et al, 1977). Paleozoic Sicker Group volcanics and sediments are the oldest rocks within Wrangellia. They occur in several structural culminations, the largest of which are the Cowichan-Horne Lake, Buttle Lake, Tofino and Nanoose uplifts (Figure 4). The Chemainus Project occupies a portion of the southeast part of the Cowichan-Horne Lake uplift (Figure 4).

Most of our understanding of the Sicker Group derives from recent geological studies within the Buttle Lake (Juras, 1987) and Cowichan-Horne Lake (Massey and Friday, 1987, 1988; Sutherland Brown et al, 1986; Muller, 1980) uplifts. While there are striking geological similarities between the two uplifts, there has been no concentrated effort on correlating units. Each uplift has its own set of formational names.

A tentative correlation of lithologies between the two uplifts is presented in Table 1. Of prime importance in this correlation is the presence of volcanic-hosted massive and semi-massive sulphide deposits within the McLaughlin Ridge Formation in the Cowichan-Horne Lake Uplift (Twin J, Coronation, Anita, 900 Zone) and the Myra Formation of the Buttle Lake uplift (Lynx, Myra, Price, H-W). Caution is required in embracing this correlation due to several factors that include the facies changes which characterize volcanic stratigraphy and environments, the great distances over which these correlations are made, and the rather poor age constraints on lithologies of the two uplifts.

Geological sketch map of Vancouver Island.



LEGEND

	CARMANAH GROUP	MIDDLE TERTIARY
	CATFACE INTRUSIONS	EARLY TO MIDDLE TERTIARY
	METCHOSIN VOLCANICS	EARLY TERTIARY
	NANAIMO GROUP	LATE CRETACEOUS
	QUEEN CHARLOTTE GROUP KYUQUOT GROUP	LATE JURASSIC TO
	LEECH RIVER FORMATION PACIFIC RIM COMPLEX	EARLY CRETACEOUS
	ISLAND INTRUSIONS	EARLY AND (?) MIDDLE JURASSIC
	BONANZA GROUP	EARLY JURASSIC
	VANCOUVER GROUP	LATE AND (?) MIDDLE TRIASSIC
	PARSON BAY FORMATION QUATSINO FORMATION	
	KARMUTSEN FORMATION	
	SICKER GROUP	PALEOZOIC
	METAMORPHIC COMPLEXES	JURASSIC AND OLDER

★ CHEMAINUS PROJECT

★ BUTTLE LAKE, WESTIN RESOURCES LTD.

(A) BUTTLE LAKE UPLIFT

(B) COWICHAN-HORNE LAKE UPLIFT

(C) NANOOSE UPLIFT

FALCONBRIDGE LIMITED		
REGIONAL GEOLOGY		
(After Muller, 1981)		
WORK BY	DRAWN BY	DATE: Dec 1988
	VJG	
0 20 40 MILES		
		Figure: 4

Stratigraphy for the Cowichan-Horne Lake Uplift

Within the Cowichan-Horne Lake uplift the Sicker Group has been subdivided into three formations (Table 1) which overlain by the Buttle Lake Group comprised of two sedimentary formations that prior to 1990 were assigned to the Sicker Group. From oldest to youngest these are the Duck Lake, Nitinat, McLaughlin Ridge Formations of the Sicker Group and the Fourth Lake and Mount Mark Formations of the Buttle Lake Group.

The Duck Lake Formation is exposed in the northwest part of the Cowichan-Horne Lake uplift, near Port Alberni. This formation comprises a monotonous sequence of variolitic pillowed and massive basalts (Massey, 1989). The Duck Lake Formation is overlain by the Nitinat Formation, a fairly homogeneous sequence of mafic clinopyroxene +/- plagioclase-phyric flows and pyroclastics of calcalkalic to alkalic (shoshonitic) affinity. Flows and individual clasts are typically highly vesicular. The Nitinat Formation is overlain by the McLaughlin Ridge Formation, a heterolithic sequence of calcalkalic to alkalic (shoshonitic) felsic, intermediate and mafic volcanics, and derived sediments. Felsic volcanics are quartz +/- plagioclase-phyric pyroclastics, flows and subvolcanic intrusions. The Saltspring Intrusion, centred in southern Saltspring Island, may represent an intrusive phase (volcanic centre?) related to McLaughlin Ridge felsic volcanism. Intermediate and mafic volcanics are aphyric to clinopyroxene +/- plagioclase phyric pyroclastics, flows and subvolcanic intrusions, texturally and geochemically similar to lithologies within the Nitinat Formation. The McLaughlin Ridge Formation is overlain, apparently conformably, by the Buttle Lake Group's Fourth Lake Formation, a dominantly epiclastic and chemical sedimentary package composed of thinly bedded cherts, argillites, siltstones and wackes. The uppermost formation within the former Sicker Group of the Cowichan-Horne Lake uplift is the Buttle Lake Group's Mount Mark Formation. This formation, not exposed in the Chemainus Project, is composed of massive and laminated crinoidal calcarenites and argillites (Massey and Friday, 1987).

The Sicker Group has been intruded by gabbro and diorite sills and dykes which fed Karmutsen Formation volcanics of the overlying Vancouver Group, in response to Late Triassic crustal dilation (Massey and Friday, 1988). In the Chemainus Project area, the Sicker Group and Karmutsen intrusions are overlain unconformably by clastic sediments of the Late Cretaceous Nanaimo Group.

Available age constraints on various formations within the Sicker Group are summarized in Brandon *et al* (1986) and Juras (1987). The best estimate for the age of the Saltspring Intrusion is a U-Pb zircon date of 393Ma (estimated error is +25Ma to -10Ma; Early Devonian). A U-Pb zircon age of 370Ma (estimated error is +18Ma to -6Ma; pre-Late Devonian) is the best estimate for the age of the Myra Formation at Buttle Lake. Faunal data indicate that the Fourth Lake Formation is Early to early Late Mississippian. The Mount Mark (Cowichan-Horne Lake uplift) and Buttle Lake (Buttle Lake uplift) Formations contain early Middle Pennsylvanian through Early Permian conodonts.

Table 1. Stratigraphic Comparison between the Cowichan-Horne Lake and Buttle Lake Uplifts.

AGE	LITHOLOGY	COWICHAN-HORNE LAKE UPLIFT	BUTTLE LAKE
E.Per-Penn	Limestone	Mount Mark	Buttle Lake
Penn or Miss	Ves.MV		Flower Ridge
E.Miss?	V,S,G		Thelwood
E.Miss	S,G	Fourth Lake	
L.Dev.	M,I,FV,MS	McLaughlin Ridge	Myra
L.Dev.	MV	Nitinat	Price
Devonian?	MV	Duck Lake	

Formation names from Sutherland Brown and Yorath (in preparation) and Juras (1987), except Duck Lake Formation from Massey and Friday (1989) and Fourth Lake Formation (Massey, 1989).

Ages from Brandon, et al, 1986, Juras, 1987.

Abbreviations: E.-Early, L.-Late, Per-Permian, Penn-Pennsylvanian, Miss-Mississippi, Dev-Devonian, Ves-vesicular, V-volcanic, S-sediment, G-gabbro, M-mafic, I-intermediate, F-felsic, MS-massive sulphides.

PROPERTY GEOLOGY

Property-scale geological mapping of the Chemainus claim group was by Britten (1984), Everett and Cooper (1984), Enns and Hendrickson (1986), Mallalieu et al (1987) and Morrice (1989). Surveys prior to 1988 focused on specific regions of the property. Dr. M.G. Morrice reviewed the previous mapping in 1988 and completed the first property wide geological compilation and interpretation. The following geological discussions are taken with minor revisions from Morrice (1989)

The geological interpretation of the CHIP claims and the BRENT-HOLYOAK claims is shown on 1:5,000 maps revised to reflect results from the 1989 drill programs (Figures 3a to 3i). The Chemainus Project is underlain by about 57% McLaughlin Ridge Formation (units 2,3 and 4), 23% Fourth Lake Formation (unit 5), 17% Karmutsen gabbro and diorite (units 7 and 8), and 3% Nanaimo Group (unit 11). Nitinat Formation lithologies are not exposed within the confines of the Chemainus Project but outcrop immediately east of the property.

Lithologies within the Chemainus Project trend west-northwest. Bedding attitudes are difficult to discern for most of the property. Those that were observed have dips which vary from 20 degrees to vertical. Virtually all lithologies are characterized by a steeply dipping, variably intense schistosity. Mineral and stretch lineations are shallow plunging within the plane of schistosity.

Devonian

Nitinat Formation

The following discussion is based on observations of Nitinat lithologies east and south of the property (Massey et al, 1987).

Lithologies within the Nitinat Formation are mafic flows, pyroclastics and subvolcanic intrusions, characterized by the presence of up to 50% large (0.25-1.5 cm) calcic clinopyroxene phenocrysts. Lesser (0-15%) plagioclase phenocrysts are present locally. Flows are massive or pillowed; pillow breccia is present on Panorama Ridge, 2 km northwest of

Chemainus. Pyroclastics, which dominate the Nitinat Formation, comprise monolithic tuff breccia, lapilli tuff and lesser tuff. Clasts are invariably vesicular, with up to 65% calcite, quartz or chlorite-filled amygdules. The monolithic nature of the pyroclastics and their high vesicularity are consistent with near-vent deposition in a shallow marine to subaerial environment, perhaps in tuff or cinder cones.

McLaughlin Ridge Formation

The McLaughlin Ridge Formation is the lithologic package of exploration interest, hosting massive and semi-massive sulphide deposits in the Cowichan-Horne Lake uplift and being remarkably similar to the massive sulphide-hosting Myra Formation in the Buttle Lake uplift. The McLaughlin Ridge Formation occurs, uninterrupted, along the entire length of the claim group with an average exposed width of 2 km. The McLaughlin Ridge Formation is composed of varying proportions of felsic, intermediate and mafic volcanics and subvolcanic intrusions and lesser clastic and chemical sediments. Felsic volcanics dominate the central part of the claims, decreasing in abundance, at the expense of mafic and intermediate volcanics, to the northwest and southeast.

Classification in the field is based on colour index (CI) (% mafic minerals); mafic volcanics have $CI > 35$, intermediate volcanics 15-35 and felsic volcanics < 15 . The quartz-phyric nature of felsic volcanics distinguishes them from the more felsic intermediate volcanics. These colour indices correspond approximately with SiO₂ contents of 53%, 53-70% and $> 70\%$, respectively.

Mafic, and lesser ultramafic volcanics (Units 1 and 2) are the main lithologies in the western, eastern and northern parts of the property. The distinction between mafic and ultramafic volcanics is not readily made in the field, but is based on geochemical criteria with ultramafic volcanics containing $< 53\%$ SiO₂ and $> 10\%$ MgO. Thus defined, only a small proportion of ultramafic compositions and no mappable units of ultramafic volcanics occur on the property. In the central part of the property, mafic volcanics occur as thin, continuous units interbedded with felsic volcanics.

Intermediate volcanics (Unit 3) occur throughout the property intimately associated with mafic volcanics. They attain their greatest abundance towards the east end of the property on HOLYOAK 2 and BRENT 1. In addition, a distinct suite of intermediate volcanics are sandwiched between the mafic volcanics of the McLaughlin Ridge Formation and Fourth Lake cherts along the northern part of the property, from CHIP 1 to CHIP 4.

Felsic volcanics (Unit 4) are the dominant lithology of the McLaughlin Ridge Formation on the Chemainus Project. They are the main lithology in the central part of the claims, decreasing in abundance both east and west at the expense of mafic and intermediate volcanics.

Within the McLaughlin Ridge Formation, sediments (Unit 5) are a minor component, occurring as thin (<10 m thick) units of argillite, siliceous argillite, and chert.

The general stratigraphic picture that has emerged is of a basal member dominated by felsic volcanics which is overlain by a mafic and intermediate volcanic-dominated sequence which is subsequently overlain, apparently conformably, by sediments of the Fourth Lake Formation. The mafic Nitinat Formation is not exposed on the claim group but is inferred to underlie the McLaughlin Ridge Formation. The basal felsic volcanic member is estimated to be a maximum of 600 metres thick based on the maximum exposed width, in the central part of the belt, assuming a simple anticline with axial fold trace bisecting the belt. This member is composed dominantly of felsic pyroclastic flows which are variably quartz +/- plagioclase-phyric. Alteration within the felsic member, manifest as sericite +/- pyrite mineral assemblages, occurs throughout the member, but appears to be especially prominent near its upper contact with the mafic member. Thin interbeds of mafic volcanics interrupt the otherwise monotonous felsic succession. These mafic units may represent "background" volcanism which accumulated during lulls in the outpouring of the felsic pyroclastic flows. Alternatively these thin mafic units may be infolded or infaulted portions of the upper mafic member. The mafic volcanic-dominated member that overlies the felsic member is estimated to be <400 metres thick. These upper mafic volcanics are texturally

and compositionally similar to the thin mafic interbeds in the felsic member and to the mafic units in the Nitinat Formation. Alteration, in the form of hematitization, is prevalent near the top of the mafic member. Thin jasper units are associated with these hematitically altered mafic volcanics. The mafic member is overlain directly by Fourth Lake Formation sediments on most of the property. However, along the north margin of the McLaughlin Ridge Formation, in the CHIP claims, a unit of plagioclase-phyric intermediate volcanics occurs between hematitized mafic volcanics and Fourth Lake Formation sediments.

Mississippian

Fourth Lake Formation, Buttle Lake Group

The Fourth Lake Formation is defined by the presence of thick accumulations of sedimentary rocks (Unit 5) which bound the McLaughlin Ridge Formation along its northern and southern margins. On the Chemainus Project, the Fourth Lake Formation is composed mainly of cherts with lesser, but significant, siltstones and wackes. Bedding is well developed, ranging in thickness from 0.1-5 cm. Grading is locally present.

Triassic

Karmutsen Formation

Mafic intrusive rocks (Unit 7) related to Late Triassic Karmutsen volcanism, are ubiquitous throughout the property. Individual intrusions vary from several cm to 400 m wide and have been traced along strike for up to 6.5 km. In a gross sense most mafic intrusions are sill-like, appearing to have intruded along lithologic contacts in many instances. Cross-cutting relationships are present locally. Attitudes range from vertical to near-horizontal.

Intermediate intrusive rocks (Unit 8) are restricted to one sill-like diorite exposed at the east end of the property. This very magnetic diorite is medium-grained equigranular with a CI of 20-30.

Post-Triassic Intrusive Rocks

Late, post-metamorphic and post-deformational intrusive rocks (Unit 10) are a very minor component of the Chemainus claim group. All clearly crosscut preexisting schistosity and are themselves nonfoliated. All are thin (<2 m wide) equigranular intermediate dykes. Colour indices average about 35-40.

Cretaceous

Nanaimo Group (Comox Formation, Haslam Formation)

Clastic sediments of the Nanaimo Group (Unit 11) unconformably overlie or are in fault contact with older volcanic, sedimentary and intrusive rocks. In the Chemainus Project area the fining upward sequence comprises basal conglomerates and sandstones of the Comox Formation overlain by rusty weathering argillite and siltstone of the Haslam Formation (Muller and Jeletzky, 1970). Conglomerates include non-transported lithified regolith, little transported lithified talus and well transported boulder and cobble conglomerates. Clast types exhibit reasonably close correlation to underlying lithologies. Conglomerate matrix and overlying sandstone units are dominantly composed of immature wacke.

Nanaimo Group sediments unconformably overlie older lithologies along the south margin of the property. A sliver of Nanaimo sediments, encountered in drill core in the Anita area, is in fault contact to the north with McLaughlin Ridge volcanics. Its southern contact, again with McLaughlin Ridge volcanics, is unconformable in places and a fault in places (Money et al., 1988).

Metamorphism

With the exception of Late Intrusive rocks (Unit 10) and Nanaimo sediments (Unit 11), all lithologies have been metamorphosed. The presence of abundant calcite, actinolitic amphibole and chlorite in mafic volcanics indicate that peak metamorphic conditions reached greenschist facies. The presence of hornblende in mafic volcanics in the Watson Creek area indicates slighter higher metamorphic conditions have developed locally.

1990 EXPLORATION PROGRAM

The portion of the 1990 exploration program covered by this report consisted of diamond drilling. Reclamation of all 1990 drill sites was completed except for the sowing of grass seed.

All work in this program was permitted with certain specific conditions under Annual Work Approval Number NAN 90-208-140 from the Ministry of Energy, Mines and Petroleum Resources. Timber use/road access permits were obtained from MacMillan Bloedel, Canadian Pacific Forest Products Ltd., B.C. Hydro and the Ministry of Forests. Plans for new roads and off-road machinery access were reviewed by the Ministry of Environment . A water permit was not required since all water sources used are unscheduled.

Diamond drilling site preparation and reclamation was completed by Ellison Excavating Limited using a John Deere 490 excavator. All damaged timber from site preparation and road building was either buried into the construction, properly stacked for removal or taken under permit for firewood. Roads, sumps, drill pads and trenches were recontoured and revegetated with particular attention to minimizing erosion through the use of water bars, culverts cross drains and ditches.

The drill holes were completed under contract by Burwash Contract Drilling of Cobble Hill, B.C. between May 12, 1990 and November 27, 1990 on the BRENT 1 claim and from November 1, 1990 to November 27, 1990 on the HOLYOAK claims. A unitized Longyear Super 38 drill equipped with air cooled diesel engines was used to drill the NQ-sized core. Drill core was placed in wooden trays marked by metric/imperial tags. Sperry-Sun orientation tests were taken by the drill crew at approximately 100 metre intervals. Core was delivered at the end of each shift to the Falconbridge field office in Chemainus. Drill core was logged by hand. Data was subsequently transferred into Progigraph Inc.'s PRGLOG 1G drill log system on a Toshiba 3200 computer and plotted using TRALOG, AUTOCAD and hand drafting.

Significantly mineralized core was split or sawn in intervals generally less than 1.5m long and sent to Bondar-Clegg And Company Ltd. in North Vancouver. Samples were digested with hot aqua regia (HNO₃-HCl) and then analyzed for 29 elements using ICP. Gold was determined using a 10 gram fire assay with an AA finish. Complete barium results were obtained using an XRF analysis. Automatic assaying was triggered for Cu, Pb or Zn values greater than 3000ppm, Au values greater than 1000ppb or Ag values greater than 30ppm. Complete results were generally available within 6 to 10 days by modem access to their computer. Geochemical results at or above the following thresholds were considered to be anomalous.

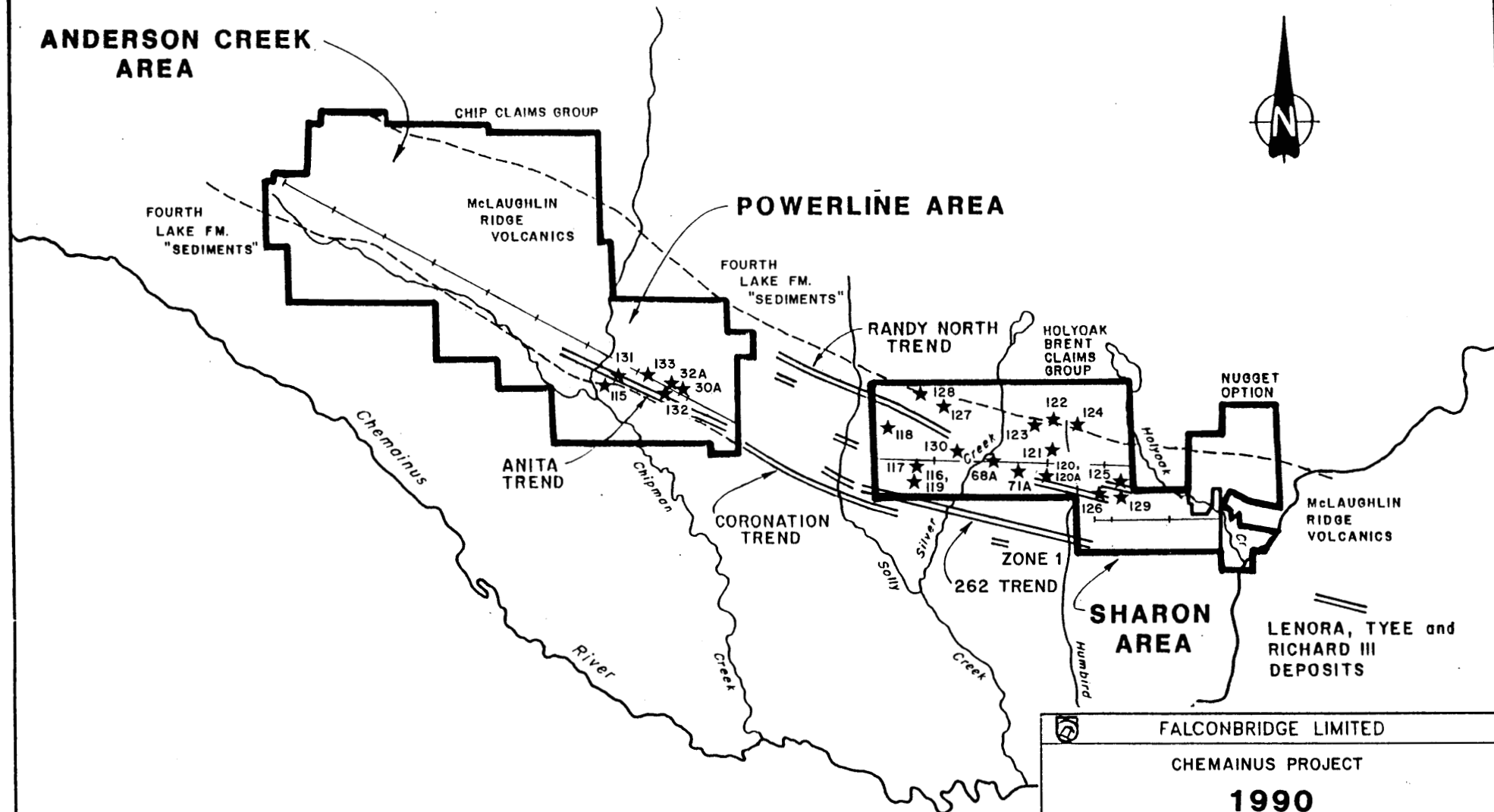
Elements of Primary Interest			
Cu > 500ppm	Zn > 1000ppm	Ag > 2.0ppm	Au > 100ppb
Pb > 35ppm	As > 50ppm	Co > 20ppm	Mn > 400ppm
Ni > 45ppm	Ba (XRF) > 2000ppm	Ba (ICP) > 300ppm	Sc > 10ppm
Elements of Secondary Interest			
Cr > 150ppm	Ga > 100ppm	Be > 20ppm	Li > 20ppm
Nb > 30ppm	Rb > 500ppm	Sb > 50ppm	V > 100ppm
Bi > 40ppm	Cd > 30ppm	Ce > 30ppm	La > 30ppm
Mo > 30ppm	Sn > 50ppm	Sr > 50ppm	Ta > 50ppm
Te > 50ppm	Y > 30ppm	Zr > 20ppm	

Samples for whole rock analyses (16 element whole rock, and copper, zinc and nickel package; Cominco Exploration Research Laboratory, Vancouver) were collected as 30cm composites from intervals up to 3m long with a spacing of less than 30m. Whole rock analyses were done in an attempt to identify zones of alteration which typically occur near volcanogenic massive sulphide deposits. Samples with less than 1.2% Na₂O are considered to be possibly altered.

Drill hole locations are shown on Figures 3 and 5. Results for each area are discussed below. Drill hole summaries are given in Appendix A, section by section descriptions in Appendix B, and complete drill logs with analytical results in Appendix C.

All drill core from 1985 to 1990 Chemainus Project programs is stored at the Falconbridge Limited's Chemainus field office, 9382 Trans Canada Highway, Chemainus, British Columbia.

ANDERSON CREEK AREA



1 0 1 2 3 km
SCALE 1:100 000

FALCONBRIDGE LIMITED			
CHEMAINUS PROJECT			
1990			
DRILL HOLE			
LOCATION MAP			
DATE OF WORK: June 1, 1990	CLAIMS:		
DESIGNED BY: RDS	DATE:	PROJECT NUMBER: 116	5
REVISED BY: GJA	DATE: 11-90		
DRAWN BY: VJG	DATE: June 90	INT.S. NO.: 92B/13	
APPROVED BY:	DATE:	MAP #: 116-5-0720	

DRILLING RESULTS

A summary of drill results is given below. A discussion of the geology follows below.

SUMMARY OF SIGNIFICANT RESULTS

Hole #	Purpose	From	To	Length	Cu	Zn	Ag	Au	Pb	Remarks
CH90-125	S,R	210.95	211.15	0.20m	120	85	2.1	3	1912	Ga,Cpy in stringers
		408.62	408.95	0.33m	57	2877	1.4	3	19	Py,Sp stringers
		408.95	409.15	0.20m	96	1321	1.6	3	16	"
CH90-126	S,X	371.22	371.74	0.52m	0.47	0.01%	3.4	16	7	Py, Cpy disseminated &
		418.30	418.55	0.25m	0.50%	0.00%	2.8	26	7	in stringers
		441.05	441.40	0.35m	0.57%	0.04%	3.4	10	8	"
		451.52	451.88	0.36m	0.40%	0.02%	2.2	79	9	"
		*weighted average over 5.64m:	453.13	458.77	5.64m	2.17%	0.02%	5.2	20	9
		464.38	464.90	0.52m	0.84%	0.01%	3.5	19	12	Py, Cpy disseminated &
		470.60	470.70	0.10m	4.01%	0.01%	9.3	63	11	in stringers
		484.13	484.30	0.27m	0.42%	0.00%	1.9	3	8	"
CH90-129	S,X	No significant results								Gabbro
CH90-130	S,X	232.10	232.20	0.10m	0.13%	2.12%	5.4	217	0.69%	Silver Creek?

PURPOSE: A: Anita Active Tuff B: Borehole EM Target E: Followup Hole H: Horizontal Loop-EM Target
 I: IP Target R: Randy Trend S: Stratigraphic Hole X: Sharon Trend

Holyoak Area

Hole No.	Section	Depth (m)	
CH90-125	7+50W	139.00	Includes costs from BRENT 1 claim only.
CH90-126	11+50W	600.50	
CH90-129	7+50W	242.32	
CH90-130	35+50W	445.32	Includes costs from November 1 to 6, 1990.
		1166.15m	

The Sharon horizon occurs as a chlorite-pyrite-chalcopyrite stringer zone intersected in hole CH90-126 (section 11+50W) and is exposed on surface roughly 1.3km to the east. It is hosted in predominantly mafic tuffs approximately 10m north of a large distinct unit of quartz phytic felsic tuff (coarse quartz eye sericite schist). This part of the stratigraphy has been poorly tested. Prior to the 1990 Phase II program, CH90-126 was the only hole to penetrate the horizon along a strike length of roughly 2.6km. Hole CH90-125 was drilled northeast of CH90-126 to test stratigraphy north of the Sharon horizon.

Hole CH90-129 drilled through 170m (130m vertical) of overburden into gabbro indicating that the Sharon gabbro extends farther north than was previously believed. Because of the expense of deep overburden drilling and the proximity of the large gabbro body in the area, additional drilling adjacent to CH90-129 was cancelled.

Hole CH90-130 apparently penetrated the target Sharon stratigraphy having collared in intermediate to mafic tuffs and extending well into a large felsic unit. Nothing significant was noted in the stratigraphic position of the Sharon horizon. Well into the felsic tuffs, however, a 1.5cm foliation-parallel band contained 0.69% lead and 2.12% zinc across 0.1m. This could be correlative with the Silver creek horizon.

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APPENDIX A
Summary Drill Logs

**SUMMARY LOG AND DESCRIPTION
CH90-125 (PROPOSED HOLE E5)**

LOCATION: 7+47W, 3+15S, 958m asl.; Holyoak 1/Brent 1
AZIMUTH: 182° **DIP:** -56°
TOTAL DEPTH: 513.59m **PROPOSED DEPTH:** 420m
STARTED: May 29, 1990 **COMPLETED:** June 7, 1990
REVISED: August 7, 1990
LOGGED BY: G. Allen

PURPOSE:

Due to deep overburden, this area appeared to be geophysically blind. INPUT TREND B-8 which lies at 4+00S was not located by the PROTEM or MAXMIN III surveys carried out earlier this month. The hole was designed to test volcanic stratigraphy north of and below the south-dipping Sharon gabbro.

RESULTS:

Bouldery till in the CH90-125 area has a vertical thickness of approximately 95m.

The hole intersected a sequence of predominantly felsic, intermediate, and mafic tuffs with mineralization consisting predominantly of sparse sporadic disseminated pyrite in narrow zones. From 118.87 to 402.47m the rocks are well foliated and steeply north-dipping with stratigraphic tops tentatively up. Between 402.47 and 434.50m foliation is contorted or steeply south-dipping suggesting that a major fold hinge may occur in this area. A strongly foliated contorted zone between 422.77 and 434.50m could be a ductile shear zone (R.D.S.). From 460 to 513.59m (E.O.H.) the rock is unfoliated.

Between 118.87 and 193.8m a sequence of intercalated felsic tuff, intermediate tuff, mafic tuff and argillite is generally sodium depleted, sporadically mineralized with narrow zones of disseminated pyrite, and may be correlative with the Randy/Powerline/Anderson Creek sericitic felsic volcanics (R.D.S.). From 125.16 to 125.76m 20% pyrite occurs in bands up to 1cm wide in felsic tuff and sediment(?). An analysis of this material indicates that no base metals are associated. Input trend B-8 is coincident with the zone but with such deep overburden this may not be a valid correlation.

A 1.5cm quartz stringer at 211.04m contains 5% fine-grained galena and traces of chalcopyrite.

At 409.0m a 3cm quartz stringer adjacent to a quartz -flooded fault zone contains 5% pyrite and 2-3% sphalerite. Samples from this area outlined a 0.53m wide zone with weakly anomalous zinc values.

Between 439.28 and 513.59m (E.O.H.) the hole intersected weakly foliated to massive mafic lapilli tuff with traces of pyrrhotite and chalcopyrite throughout. The sulphides commonly replace amygdules (primary filling?) and mineralization is thought to be immediately post depositional. From 445.90 to 450.68m 5-8% pyrite and 5% pyrrhotite occur in lenses up to 5mm by 3cm parallel to foliation. From 503.0 to 504.1m 3-5% pyrrhotite, 1-2% pyrite and <1% chalcopyrite occur as fillings in a weak breccia zone, disseminated, and replacing amygdules. Geochemical analyses of samples from this unit are weakly sporadically anomalous in copper and barium. The rock is sodium depleted in the 485m area.

Information gained from this hole indicates that the felsic volcanics hosting the weakly base metal mineralized Randy trend are probably more persistent than previous mapping shows. It is also apparent that the Sharon gabbro is not as extensive a body as previously believed.

DIRECT DRILLING COSTS: \$39,892 or \$77.67/m

SUMMARY LOG:

0.0	-	118.87m	Casing
118.87	-	125.16m	Mafic Tuff
125.16	-	125.76m	Pyritic Zone
125.76	-	126.30m	Felsic Tuff-Sediment Transition
126.30	-	132.95m	Argillite
132.95	-	139.55m	Felsic Tuff
139.55	-	140.20m	Pyritic Cherty Felsic Tuff
140.20	-	142.60m	Argillite
142.60	-	152.10m	Quartz Phyric Felsic Lapilli(?) Tuff
152.10	-	157.40m	Mafic Lapilli Tuff
157.40	-	162.90m	Intermediate Tuff
162.90	-	164.90m	Felsic Lapilli Tuff
164.90	-	168.10m	Mafic Tuff
168.10	-	170.50m	Chloritic Felsic Tuff
170.50	-	170.85m	Mafic Dyke
170.85	-	175.70m	Intermediate Tuff
175.70	-	179.60m	Quartz Porphyry (Saltspring Intrusion)
179.60	-	181.20m	Intermediate Tuff
181.20	-	183.00m	Quartz Phyric Felsic Lapilli Tuff
183.00	-	189.60m	Mafic Lapilli Tuff
189.60	-	191.50m	Quartz Phyric Felsic Tuff
191.50	-	193.80m	Chloritic Felsic(?) Tuff
193.80	-	207.87m	Mafic Lapilli Tuff
207.87	-	262.85m	Mafic Tuff
262.85	-	264.71m	Gabbro
264.71	-	265.50m	Mafic Tuff
265.50	-	266.45m	Gabbro
266.45	-	271.00m	Mafic Tuff
271.00	-	288.27m	Quartz Eye Calcareous Mafic Tuff(?) (Flow?)

288.27 - 289.35m Quartz Feldspar Phyric Chloritic Felsic Tuff
 289.35 - 293.14m Mafic Tuff(?) (Flow?)
 293.14 - 298.87m Quartz Feldspar Phyric Felsic Tuff
 298.87 - 299.72m Fault Zone
 299.72 - 301.64m Feldspar Phyric Felsic Tuff
 301.64 - 302.02m Mafic Dyke(?) (Tuff?)
 302.02 - 307.50m Quartz Phyric Felsic Tuff
 307.50 - 309.60m Mafic Tuff
 309.60 - 312.22m Quartz Feldspar Phyric Felsic Tuff
 312.22 - 314.77m Interbedded Mafic Tuff And Hematitic Argillite
 314.77 - 343.70m Quartz Feldspar Phyric Felsic Tuff (+/- Lapilli
 Tuff)
 343.70 - 345.00m Fault Zone
 345.00 - 359.66m Quartz Feldspar Phyric Felsic Tuff
 359.66 - 362.78m Feldspar Phyric Mafic Dyke
 362.78 - 373.27m Quartz Feldspar Phyric Felsic Tuff
 373.27 - 382.18m Mafic Tuff(?) (Dyke?)
 382.18 - 384.32m Quartz Feldspar Phyric Felsic Tuff
 384.32 - 391.45m Mafic Tuff(?) (Dyke?)
 391.45 - 394.13m Mafic Tuff
 394.13 - 398.90m Feldspar Phyric Felsic Tuff(?) (Dyke?)
 398.90 - 400.30m Mafic Tuff(?)
 400.30 - 402.47m Intermediate Tuff
 402.47 - 404.30m (+/- Feldspar Phyric) Felsic Tuff
 404.30 - 410.82m Mafic Tuff
 410.82 - 411.30m Fault Zone
 411.30 - 417.32m Mafic Tuff
 417.32 - 422.70m Mafic Tuff
 422.70 - 431.20m Mafic Tuff (Ductile Shear Zone?)
 431.20 - 434.50m Feldspar Phyric Mafic Dyke (Gabbro?)
 (Continuation Of Ductile Shear Zone)
 434.50 - 436.64m Quartz Phyric Felsic Ash Tuff
 436.64 - 439.28m Feldspar Phyric Felsic To Intermediate Tuff
 439.28 - 513.59m Feldspar Mafic Phyric Amygdaloidal Mafic
 Lapilli Tuff

513.59m - End Of Hole. Hole lined with plastic pipe.

SAMPLES:

Geochemical Samples: 60 Whole Rock Samples: 22 Thin Sections: 2

CH90-125 SIGNIFICANT GEOCHEMICAL ANALYSES
 (Au-ppb, other elements - ppm)

Sample	From	To	L(m)	Cu	Pb	Zn	Ag	Au	Ba
VB00535	174.00	174.25	0.25	700			3.1		
VB00544	210.95	211.15	0.20		1912				
VB00560	408.62	408.95	0.33			2877			
VB00561	408.95	409.15	0.20			1321			
VB00564	439.00	439.28	0.28		102				
VB00711	468.87	470.31	1.44						3300
VB00574	486.30	487.77	1.47						3400
VB00576	503.00	504.10	1.10						2300
VB00577	504.10	505.00	0.90	623					2400
VB00578	505.00	505.70	0.70						2400

CH90-125 ALTERED WHOLE ROCK SAMPLES

Sample	From	To	SiO ₂	CaO	Na ₂ O	K ₂ O	MgO	Zn	Cu
VB02612	122.0	125.0	42.04	9.57	1.04	1.56	3.94	74	34
VB02613	135.7	138.7	71.26	2.07	0.48	2.39	1.23	37	20
VB02614	147.0	149.0	70.01	2.77	0.39	2.98	1.72	41	20
VB02615	157.5	160.5	54.50	3.80	0.90	2.18	3.71	99	20
VB02617	189.9	191.4	68.82	2.50	1.08	2.42	1.09	20	20
VB02632	483.2	486.2	48.02	12.89	1.05	5.52	2.68	39	92

CH90-125 ALTERED WHOLE ROCK SAMPLES

Sample	From	To	SiO ₂	CaO	Na ₂ O	K ₂ O	MgO	Zn	Cu
VB02510	96.0	99.0	72.80	1.02	0.89	2.60	2.70	120	185
VB02517	295.0	298.0	68.54	0.54	0.46	3.48	4.17	64	35

CH90-125 PEM BOREHOLE EM RESULTS
 HOLE DEPTH: 513.6m SURVEYED INTERVAL: 120-510m

No apparent EM targets were detected.

**SUMMARY LOG AND DESCRIPTION
CH90-126 (PROPOSED HOLE E6)**

LOCATION: 11+43W, 5+20S, 930m asl.; Holyoak 1, Brent 1
AZIMUTH: 184° **DIP:** -58°
TOTAL DEPTH: 600.46m **PROPOSED DEPTH:** 500m(+)
STARTED: June 7, 1990 **COMPLETED:** June 18, 1990
REVISED: August 7, 1990
LOGGED BY: G. Allen

PURPOSE:

This stratigraphic hole was designed to continue testing the Silver Creek-Sharon volcanic stratigraphy on a staggered section 400m west of CH90-125.

RESULTS:

Hole CH90-126 intersected 124m (95-100m vertical) of bouldery till. Because of the deep overburden it appears that there is a 40-50m gap in the stratigraphy tested between CH90-125 and CH90-126.

The upper part of CH90-126 between 124 and 370m was predominantly in intermediate to mafic tuffs, with weak sporadic disseminated pyrite and chalcopyrite mineralization between 151 and 180m. From 370 to 476.8m intercalated felsic, intermediate, and mafic tuffs occur. The last part of the hole from 476.8 to 600.46m (E.O.H.) intersected a fairly homogeneous quartz-feldspar phyrlic felsic tuff.

Between 370 and the end of the hole the rocks are sporadically mineralized with disseminated and stringer (+/-chlorite)-related pyrite and chalcopyrite. A continuous zone between 438 and 465m (13m approximate true width) contains weakly to highly anomalous amounts of copper and sporadic weakly to moderately anomalous amounts of silver. From 453.8 to 457.5m a chloritic felsic tuff cut by chlorite stringers contains an average of 10-15% pyrite and 3-5% chalcopyrite (453.13-458.77m: 2.17% Cu, 5.20g/T Ag across 5.64m or 2.38m approximate true width). This mineralization may be part of the Sharon trend, a chlorite-chalcopyrite stringer showing exposed on surface approximately 1.2km along strike to the east. It also appears to be in roughly the same stratigraphic horizon as the mineralization in the Silver Creek area, giving this mineralized trend a possible strike length of over 3km. CH90-126 is the only hole which has intersected this stratigraphic horizon along a strike length of over 2.5km.

DIRECT DRILLING COSTS: \$42,605 or \$70.95/m

SAMPLES:

Geochemical Samples: 131 Whole Rock Samples: 25 Thin Sections: 0

SUMMARY LOG:

0.0	-	124.06m	Casing
124.06	-	135.33m	Quartz-Feldspar Phyric Felsic Intrusive (Saltspring Intrusion)
135.33	-	139.90m	Felsic Tuff
139.90	-	143.14m	Feldspar Phyric Mafic Tuff
143.14	-	144.26m	Quartz-Feldspar Phyric Felsic Tuff
144.26	-	146.02m	Mafic Lapilli Tuff
146.02	-	149.21m	Mafic Tuff
149.21	-	159.04m	Mafic Lapilli Tuff
159.04	-	175.87m	Feldspar Phyric Intermediate Tuff
175.87	-	250.46m	Massive Feldspar Phyric Mafic/Int. Tuff
250.46	-	279.15m	Mafic Lapilli Tuff
279.15	-	288.34m	Feldspar-Mafic Phyric Spherulitic Mafic Intrusive
288.34	-	304.30m	Mafic Lapilli Tuff
304.30	-	306.66m	Feldspar +/- Mafic Phyric Spherulitic Mafic Intrusive
306.66	-	313.87m	Mafic Lapilli Tuff
313.87	-	316.40m	Spherulitic Mafic Intrusive(?)
316.40	-	317.46m	Mafic Lapilli Tuff
317.46	-	318.58m	Mafic Tuff
318.58	-	319.85m	Interbedded Felsic Volcaniclastic And Chert
319.85	-	324.50m	Felsic Medium To Coarse-Grained Volcaniclastic
324.50	-	325.60m	Mafic Tuff
325.60	-	328.80m	Feldspar-Mafic Phyric Spherulitic Mafic Intrusive
328.80	-	331.14m	Felsic Tuff
331.14	-	333.80m	Feldspar (+/- Mafic) Phyric Spherulitic Mafic Intrusive
333.80	-	340.37m	Feldspar Phyric Intermediate Lapilli Tuff
340.37	-	344.12m	Feldspar-Mafic Phyric Mafic Intrusive
344.12	-	359.40m	Feldspar Phyric Intermediate Tuff
359.40	-	362.27m	Feldspar-Mafic Phyric Mafic Intrusive
362.27	-	370.03m	Intermediate Lapilli Tuff
370.03	-	384.60m	Intermediate Tuff
384.60	-	399.10m	Quartz Feldspar Phyric Intermediate Tuff
399.10	-	403.32m	Chloritic Intermediate Lapilli Tuff
403.32	-	408.00m	Felsic Tuff
408.00	-	409.38m	Quartz Phyric Felsic Tuff
409.38	-	415.42m	Mafic Lapilli Tuff
415.42	-	415.98m	Felsic Tuff
415.98	-	418.30m	Mafic Tuff
418.30	-	421.86m	Argillite(?) / Chlorite-Calcite Stringer Zone
421.86	-	430.50m	Mafic Tuff To Lapilli Tuff
430.50	-	451.52m	Mafic Lapilli Tuff
451.52	-	457.33m	Chloritic Felsic Lapilli Tuff / Chlorite Sulphide Stringer Zone
457.33	-	461.80m	Mafic Tuff
461.80	-	464.33m	Feldspar Phyric Chloritic Felsic Tuff
464.33	-	476.80m	Mafic Lapilli Tuff
476.80	-	600.46m	Quartz-Feldspar Phyric Felsic Tuff
		600.46m	- End Of Hole. Hole lined with plastic pipe.

CH90-126

SIGNIFICANT GEOCHEMICAL ANALYSES

(Au-ppb, other elements - ppm)

Sample	From	To	L(m)	Cu	Pb	Zn	Ag	Au	Ba
VB00600	259.45	260.92	1.47	889					
VB00601	260.92	262.22	1.30	1672					
VB00603	294.14	294.58	0.44	2423					
VB00606	369.67	369.80	0.13	594					
VB00608	370.03	371.22	1.19	1133					
VB00609	371.22	371.74	0.52	0.47%			3.4		
VB00616	399.10	399.80	0.70	1719					
VB00617	399.80	400.35	0.55	1069					
VB00621	418.30	418.55	0.25	0.50%			2.8		
VB00624	423.84	425.42	1.58	1356					
VB00626	426.87	427.94	1.07	639					
VB00628	438.16	439.60	1.44	821					
VB00629	439.60	441.05	1.45	834					
VB00630	441.05	441.40	0.35	0.57%			3.4		
VB00631	441.40	442.90	1.50	1243					
VB00632	448.77	450.30	1.53	620					
VB00633	450.30	451.03	0.73	1243					
VB00634	451.03	451.52	0.49	892					
VB00635	451.52	451.88	0.36	0.40%			2.2		
VB00636	451.88	453.13	1.25	947					
VB00637	453.13	453.80	0.67	0.59%			2.2		
VB00638	453.80	454.75	0.95	4.18%			8.6		
VB00639	454.75	455.96	1.21	3.39%			7.4		
VB00640	455.96	456.20	0.24	2.60%			5.9		
VB00641	456.20	457.33	1.13	1.74%			4.4		
VB00642	457.33	457.53	0.20	2.01%			5.0		
VB00643	457.53	458.77	1.24	0.61%			2.7		
VB00644	458.77	460.16	1.39	808			2.0		
VB00645	460.16	461.50	1.34	926			2.1		
VB00647	464.38	464.90	0.52	0.84%					
VB00652	470.60	470.70	0.10	4.01%			9.3		
VB00653	470.70	471.90	1.20	842					
VB00654	471.90	473.06	1.16	2033			2.2		
VB00655	473.06	473.63	0.57	666					
VB00656	473.63	474.63	1.00	642					
VB00658	474.94	476.05	1.11	769					
VB00659	476.05	476.80	0.75	1518					
VB00662	484.13	484.30	0.17	0.42%					
VB00667	508.11	508.45	0.34	880					
VB00671	519.45	519.85	0.40	1071					
VB00673	527.93	528.10	0.17	1.85%			2.5		
VB00675	528.35	528.65	0.30	0.30%					
VB00678	545.14	545.57	0.43	1966					
VB00681	554.02	554.17	0.15	3.37%			7.1		
VB00685	556.57	556.92	0.35	812					
VB00690	562.32	563.90	1.58	1301					
VB00691	563.90	564.40	0.50	1889					
VB00692	564.40	564.73	0.33	1965					
VB00706	595.33	596.33	0.70	576					
VB00709	598.30	598.66	0.36	1395					

CH90-126 ALTERED WHOLE ROCK SAMPLES

Sample	From	To	SiO ₂	CaO	Na ₂ O	K ₂ O	MgO	Zn	Cu
VB02636	152.0	155.0	41.00	15.77	0.25	0.34	7.37	60	204
VB02640	254.5	257.5	40.29	13.24	0.19	0.93	8.68	55	148
VB02642	298.0	301.0	48.90	15.07	0.46	0.75	6.02	20	279
VB02644	336.0	339.0	50.91	16.48	0.76	1.22	6.73	22	20
VB02651	423.3	426.3	41.79	16.59	0.73	0.06	6.16	121	218
VB02652	443.4	446.4	39.05	14.53	0.49	0.13	7.01	175	1170

CH90-126 PEM BOREHOLE EM RESULTS

HOLE DEPTH: 600.5m SURVEYED INTERVAL: 130-590m

No apparent EM targets were detected.

**SUMMARY LOG AND DESCRIPTION
CH90-129 (PROPOSED HOLE F1)**

LOCATION: 7+50W, 7+08S, 917m asl.; Brent 1
AZIMUTH: 182° **DIP:** -56°
TOTAL DEPTH: 242.32m **PROPOSED DEPTH:** 500m
STARTED: Oct. 11, 1990 **COMPLETED:** Oct. 18, 1990
REVISED: November 30, 1990
LOGGED BY: G. Allen

PURPOSE:

Hole CH90-129 was designed to test the Sharon horizon on section 7+50W, south of CH90-125. The northern limit of the Sharon gabbro was thought to be well south of the proposed drill target. Overburden depth in this area was estimated to be 75m (roughly 90m of overburden drilling) and it appeared that geophysical surveys were unable to penetrate to bedrock. An intersection of the Sharon horizon was expected at approximately 375m, roughly 300m below surface.

RESULTS:

Bouldery till in the CH90-129 area has a vertical thickness of approximately 130m.

The hole intersected medium-grained massive gabbro. Textures of this gabbro suggest that it is a relatively large intrusive body and is probably the Sharon gabbro. Grain size did not change with depth and it was felt that the contact was not close, possibly paralleling the hole. Even if the hole had drilled through the gabbro and intersected the Sharon horizon, it was felt that significant accessible (near surface) tonnage would be minimal and the hole was terminated.

DIRECT DRILLING COSTS: \$25,182 or \$103.93 /m

SUMMARY LOG:

0.0 - 169.43m Casing
169.43 - 242.32m Gabbro

242.32m - End Of Hole. Casing pulled.

SAMPLES:

Geochemical Samples: 0 Whole Rock Samples: 0 Thin Sections: 0

**SUMMARY LOG AND DESCRIPTION
CH90-130 (PROPOSED HOLE F-8)**

LOCATION: 35+56W, 1+15N, 765m asl.; Brent 2, Brent 3
AZIMUTH: 174° **DIP:** -57°
TOTAL DEPTH: 445.32m **PROPOSED DEPTH:** 500m
STARTED: Oct. 29, 1990 **COMPLETED:** Nov. 6, 1990
REVISED: November 30, 1990
LOGGED BY: G. Allen

PURPOSE:

Hole CH90-130 lies on section 35+50W, west of a postulated kink in the stratigraphy. The hole tested both the postulated stratigraphic position and a linear projection of the Sharon horizon. Depths to these targets were 165m and 365m respectively. No significant geophysical targets occurred in the area.

RESULTS:

Hole CH90-130 intersected intermediate to mafic tuff with a sedimentary component in the upper part of the hole and passed into a broad sequence of felsic volcanics below 150m. This transition is probably in the same stratigraphic position as the mafic to intermediate/felsic contact near the Sharon trend. The postulated kink in the stratigraphy, therefor, probably exists and the targets were tested.

At 232.1m a pinkish-brown 1.5cm wide foliation-parallel band in a quartz phyrlic felsic tuff contained 15% fine-grained pyrite, and 2% each of fine-grained chalcopyrite and sphalerite. An analysis of this material indicates that it contained 1250ppm copper, 6359ppm lead, and 16030ppm zinc (see VB00899 in table below). This mineralization may be in approximately the same stratigraphic position as the Silver Creek showing which lies roughly 500m to the east.

DIRECT DRILLING COSTS: \$32,167 or \$72.24/m

SAMPLES:

Geochemical Samples: 73 Whole Rock Samples: 20 Thin Sections: 0

CH90-130 SUMMARY LOG:

0.0 - 31.60m Casing
31.60 - 36.00m Intermediate Tuff
36.00 - 38.71m Fault Zone
38.71 - 41.76m No Recovery
41.76 - 42.10m Fault Zone
42.10 - 42.67m Intermediate Tuff
42.67 - 43.59m Fault Zone
43.59 - 51.82m No Recovery
51.82 - 82.09m Intermediate Tuff
82.09 - 83.26m Mafic Dyke (?) (Tuff?)
83.26 - 86.70m Quartz-Feldspar Phyric Felsic Tuff (Lapilli
Tuff?) and Chert
86.70 - 93.60m Mafic Tuff
93.60 - 102.05m Quartz Phyric Felsic Tuff
102.05 - 114.10m Mafic Tuff To Tuffaceous Sediment And Chert
114.10 - 115.70m Interbedded Intermediate Tuffaceous Sediment And
Argillite
115.70 - 116.60m Interbedded Felsic To Intermediate Tuffaceous
Sediment And Chert
116.60 - 119.70m Intermediate Tuff
119.70 - 119.90m Fault
119.90 - 121.31m Interbedded Argillite And Intermediate
Tuffaceous Sediment
121.31 - 121.62m Fault Zone
121.62 - 125.80m Mafic Tuff
125.80 - 149.28m Chloritic Felsic Tuff
149.28 - 153.70m Quartz Phyric Felsic Tuff
153.70 - 168.70m Quartz-Feldspar Phyric Chloritic Felsic Tuff
168.70 - 170.80m Feldspar Phyric Mafic Dyke (?) (Tuff?)
170.80 - 173.80m Quartz-Feldspar Phyric Chloritic Felsic Tuff
173.80 - 176.65m Feldspar Phyric Mafic Dyke (?) (Tuff?)
176.65 - 180.15m Quartz-Feldspar Phyric Chloritic Felsic Tuff
180.15 - 220.70m Chloritic Felsic Tuff (+/- Quartz Phyric)
220.70 - 225.50m Mafic Dyke (?) (Tuff?)
225.50 - 240.15m Quartz Phyric Felsic Tuff
240.15 - 277.03m Feldspar Glomerophyric Gabbro
277.03 - 305.40m Quartz-Feldspar Phyric Rhyolite
305.40 - 343.50m Quartz-Feldspar Phyric Rhyolite Lapilli Tuff
343.50 - 345.70m Mafic Dyke
345.70 - 369.07m Quartz-Feldspar Phyric Rhyolite Tuff/Lapilli
Tuff
369.07 - 388.68m Chloritic Quartz-Feldspar Porphyry Intermediate
Dyke
388.68 - 403.00m Quartz-Feldspar Phyric Rhyolite Tuff
403.00 - 407.41m Chloritic Feldspar Phyric Mafic/Int. Dyke
407.41 - 408.90m Quartz-Feldspar Phyric Rhyolite
408.90 - 410.70m Chloritic Mafic Dyke
410.70 - 416.57m Quartz-Feldspar Phyric Rhyolite Flow Or Tuff
416.57 - 417.68m Chloritic Mafic Dyke
417.68 - 428.04m Quartz-Feldspar Phyric Rhyolite Lapilli(?) Tuff
428.04 - 428.86m Chloritic Mafic Dyke
428.86 - 445.32m Quartz-Feldspar Phyric Rhyolite Flow Or Tuff
445.32m - End Of Hole. Hole lined with plastic pipe.

CH90-130 SIGNIFICANT GEOCHEMICAL ANALYSES
 (Au-ppb, other elements - ppm)

Sample	From	To	L(m)	Cu	Pb	Zn	Ag	Au	Ba
VB00864	57.17	57.27	0.10		302				
VB00881	182.09	182.27	0.18				2.2		
VB00894	225.50	225.80	0.30	1156					
VB00898	231.35	232.10	0.85		112				
VB00899	232.10	232.20	0.10	1250	0.69%	2.12%	5.4	217	
VB00900	232.20	232.87	0.67		35				
VB00903	279.52	279.91	0.39	0.94%			4.8		
VB00909	284.75	285.00	0.25		243				
VB00914	319.57	319.88	0.31	1253					
VB00919	347.15	347.90	0.75						2200
VB00926	403.00	404.47	1.47	1072					
VB00927	404.47	405.97	0.50	1003					
VB00929	406.95	407.22	0.27	2329					

CH90-130 ALTERED WHOLE ROCK SAMPLES

Sample	From	To	SiO ₂	CaO	Na ₂ O	K ₂ O	MgO	Zn	Cu
VB02683	98.0	101.0	69.62	6.08	0.30	2.81	0.77	20	
VB02690	280.0	283.0	71.04	2.96	0.01	3.34	1.45	25	79
VB02696	408.9	410.7	40.37	11.60	0.01	0.02	17.12	30	65

APPENDIX B

Section by Section Descriptions with 1:5,000 Cross-Sections

See also:

- Figure 6 : Silver Creek Area,
Section 35+50W (1:1,000), CH90-130.....in pocket
- Figure 7 : Silver Creek/Sharon Area
Section 11+50W (1:1,000), CH90-126.....in pocket
- Figure 8 : Silver Creek/Sharon Area
Section 7+50W (1:1,000), CH90-125, -129....in pocket

SILVER CREEK AREA
SECTION 35+50W

OBJECTIVE/TARGET: CH90-130 - To test the Silver Creek and Sharon trends.

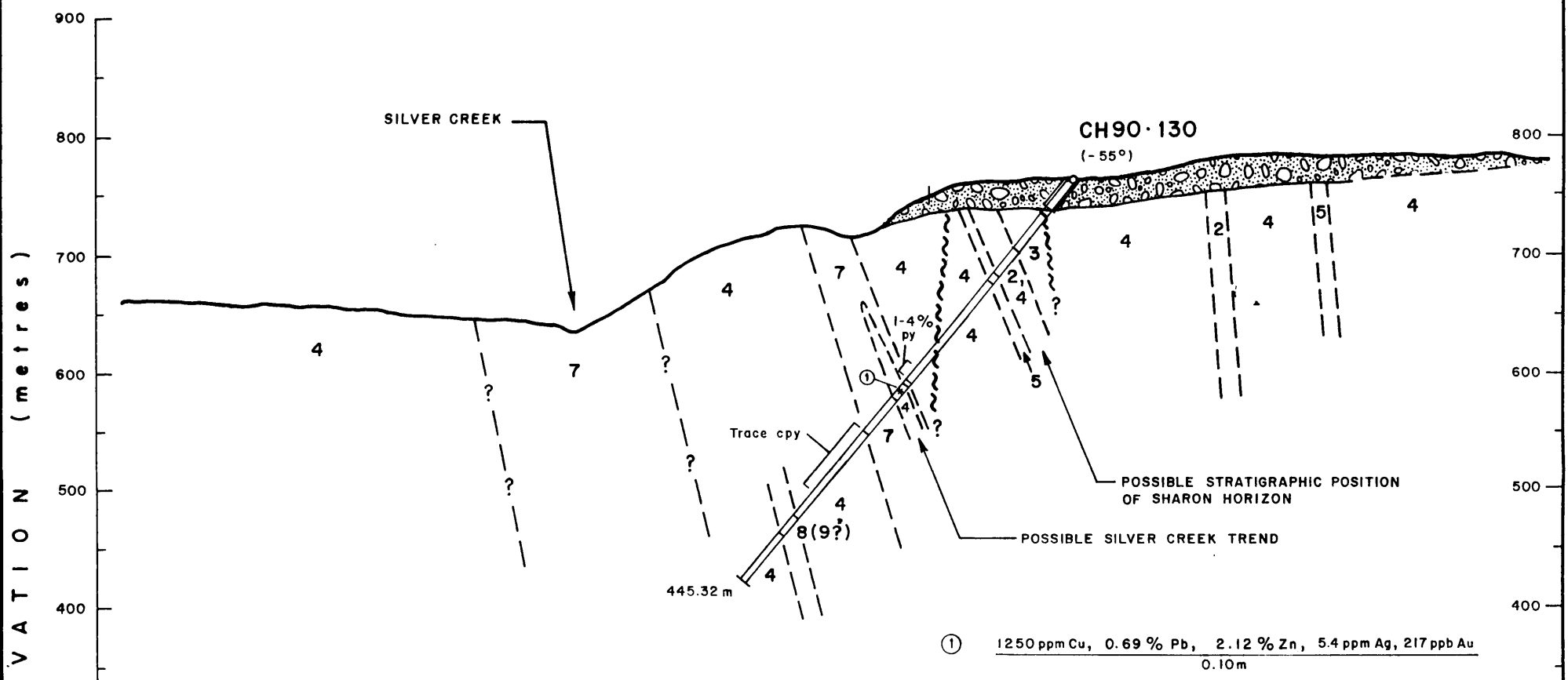
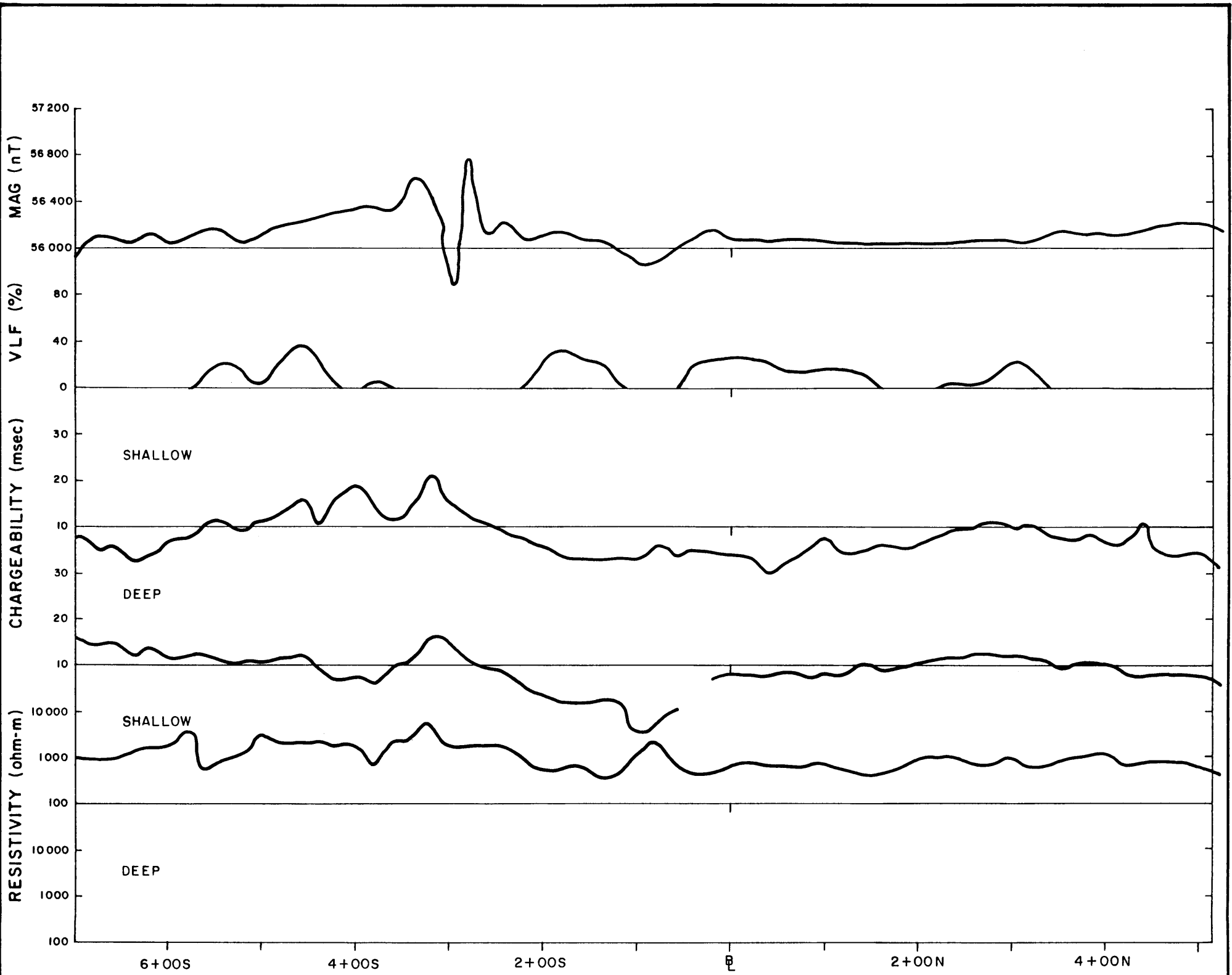
HOLE #	LOCATION	AZIMUTH	DIP	LENGTH
CH90-130	35+56W, 1+15N	174°	-57°	445.3m

RESULTS:

Section 35+50W cuts an intercalated sequence of steeply north-dipping mafic to felsic volcanoclastics and gabbroic intrusives.

The primary target of hole CH90-130 was the Sharon horizon which to the east is a pyrite-chalcopyrite-chlorite stringer zone hosted within mafic tuffs and situated 10-15m north of a large distinct quartz phyric sericite schist unit known as the Sharon felsic tuff. It appears that this stratigraphic horizon was penetrated in CH90-130. No significant mineralization was noted and it is probable that the Sharon mineralized trend does not extend this far to the west.

At 232.1m, well within a quartz phyric felsic unit which is probably stratigraphically equivalent to the Sharon felsic tuff, a 1.5cm wide foliation-parallel band contained 15% pyrite and 1250ppm copper, 0.69% lead, 2.12% zinc, 5.4g/T silver and 217ppb gold across 0.10m. This mineralization appears to be in the same stratigraphic position as the Silver Creek showing which lie roughly 500m to the east.



LEGEND

- 11 Nanaimo Group Sediments
- 10 Late Mafic Intrusions
- 9 Felsic Intrusions
- 8 Intermediate Intrusions
- 7 Mafic Intrusions
- 6 Ultramafic Intrusions
- 5 Sediments
- 4 Felsic Volcanics
- 3 Intermediate Volcanics
- 2 Mafic Volcanics
- 1 Ultramafic Volcanics

- Geological contact
- ~ Fault
- Existing drill hole

- ↔ Anticlinal axis
- ↔ Synclinal axis
- Cu, Zn • Soil anomaly

FALCONBRIDGE LIMITED

CHEMAINUS PROJECT
SILVER CREEK AREA
SECTION 35+50W
HOLE CH90-130

50 0 100 200m
SCALE 1 : 5000

DATE OF WORK:	CLAMS:	FIGURE NO:
ORIGINAL BY: GJA DATE: 09-90	PROJECT NUMBER: 116	
REVISED BY: GJA DATE: 12-90	H.T.S. NO.: 92 B/13	
DRAWN BY: VJG DATE: 09-90	MAP #: 116-5-0796	
APPROVED BY:	DATE:	

**SILVER CREEK - SHARON AREA
SECTION 11+50W**

OBJECTIVE/TARGET: CH90-126 - Stratigraphic hole, Sharon trend

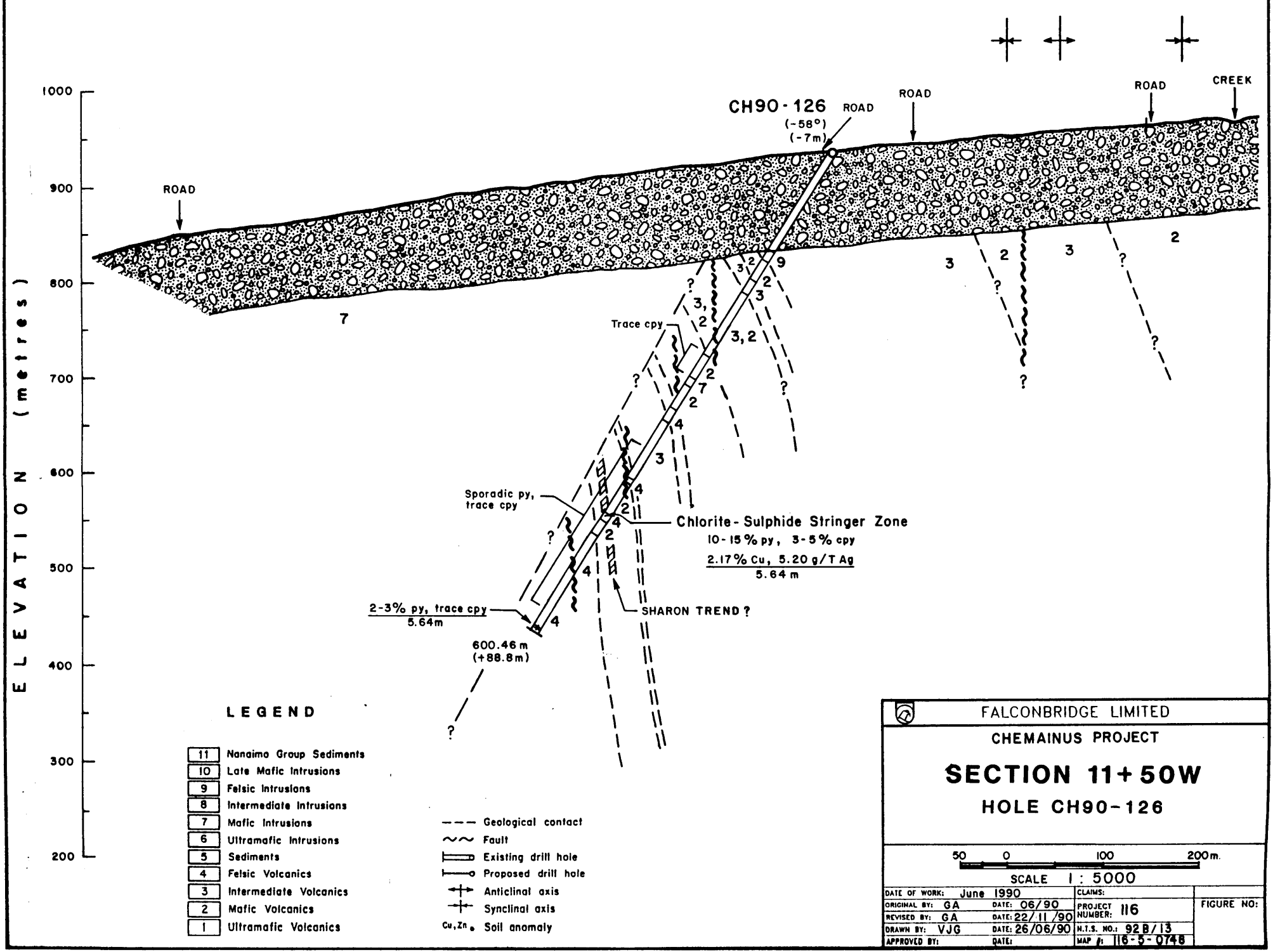
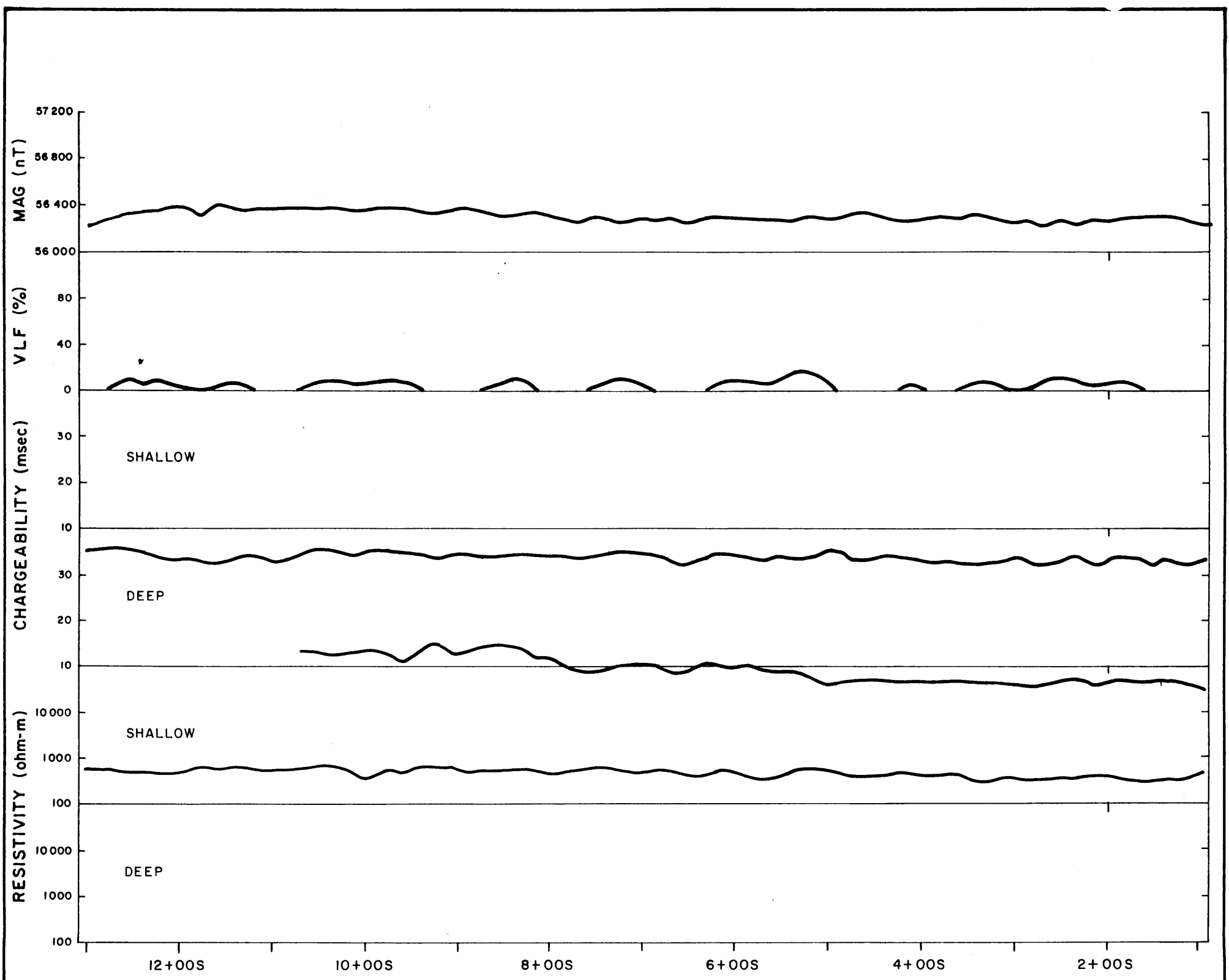
HOLE #	LOCATION	AZIMUTH	DIP	LENGTH
CH90-126	11+43W, 5+20S	184°	-58°	600.46m

RESULTS:

Hole CH90-126 intersected 124m (95-100m vertical) of bouldery till. Because of the deep overburden it appears that there is a 40-50m gap in the stratigraphy tested between CH90-125 and CH90-126.

The upper part of CH90-126 between 124 and 370m was predominantly in intermediate to mafic tuffs, with weak sporadic disseminated pyrite and chalcopyrite mineralization between 151 and 180m. From 370 to 476.8m intercalated felsic, intermediate, and mafic tuffs occur. The last part of the hole from 476.8 to 600.46m (E.O.H.) intersected a fairly homogeneous quartz-feldspar phyrlic felsic tuff.

Between 370 and the end of the hole the rocks are sporadically mineralized with disseminated and stringer (+/- chlorite)-related pyrite and chalcopyrite. A continuous zone between 438 and 465m (13m approximate true width) contains weakly to highly anomalous amounts of copper and sporadic weakly to moderately anomalous amounts of silver. From 453.8 to 457.5m a chloritic felsic tuff cut by chlorite stringers contains an average of 10-15% pyrite and 3-5% chalcopyrite (453.13-458.77m: 2.17% Cu, 5.20g/T Ag across 5.64m or 2.38m approximate true width). This mineralization may be part of the Sharon trend, a chlorite-chalcopyrite stringer showing exposed on surface approximately 1.2km along strike to the east. It also appears to be in roughly the same stratigraphic horizon as the mineralization in the Silver Creek area, giving this mineralized trend a possible strike length of over 3km. CH90-126 is the only hole which has intersected this stratigraphic horizon along a strike length of over 2.5km.



- LEGEND**
- 11 Nanaimo Group Sediments
 - 10 Late Mafic Intrusions
 - 9 Felsic Intrusions
 - 8 Intermediate Intrusions
 - 7 Mafic Intrusions
 - 6 Ultramafic Intrusions
 - 5 Sediments
 - 4 Felsic Volcanics
 - 3 Intermediate Volcanics
 - 2 Mafic Volcanics
 - 1 Ultramafic Volcanics

- Geological contact
- ~ Fault
- Existing drill hole
- Proposed drill hole
- Anticlinal axis
- Synclinal axis
- Cu, Zn Soil anomaly

FALCONBRIDGE LIMITED
CHEMAINUS PROJECT

SECTION 11+50W HOLE CH90-126

50 0 100 200m
SCALE 1 : 5000

DATE OF WORK: June 1990	CLAIMS:	FIGURE NO:	
ORIGINAL BY: GA	DATE: 06/90		PROJECT NUMBER: 116
REVISED BY: GA	DATE: 22/11/90		N.T.S. NO.: 92 B/13
DRAWN BY: VJG	DATE: 26/06/90		MAP #: 116-5-0748
APPROVED BY:	DATE:		

**SILVER CREEK - SHARON AREA
SECTION 7+50W**

OBJECTIVE/TARGET: CH90-125 - Stratigraphic hole, Randy trend

HOLE #	LOCATION	AZIMUTH	DIP	LENGTH
CH90-125	7+47W, 3+15S	182°	-56°	513.59m

RESULTS:

Bouldery till in the CH90-125 area has a vertical thickness of approximately 95m.

The hole intersected a sequence of predominantly felsic, intermediate, and mafic tuffs with mineralization consisting predominantly of sparse sporadic disseminated pyrite in narrow zones. From 118.87 to 402.47m the rocks are well foliated and steeply north-dipping with stratigraphic tops tentatively up. Between 402.47 and 434.50m foliation is contorted or steeply south-dipping suggesting that a major fold hinge may occur in this area. A strongly foliated contorted zone between 422.77 and 434.50m could be a ductile shear zone (R.D.S.). From 460 to 513.59m (E.O.H.) the rock is unfoliated.

Between 118.87 and 193.8m a sequence of intercalated felsic tuff, intermediate tuff, mafic tuff and argillite is generally sodium depleted, sporadically mineralized with narrow zones of disseminated pyrite, and may be correlative with the Randy/Powerline/Anderson Creek sericitic felsic volcanics (R.D.S.). From 125.16 to 125.76m 20% pyrite occurs in bands up to 1cm wide in felsic tuff and sediment(?). An analysis of this material indicates that no base metals are associated. Input trend B-8 is coincident with the zone but with such deep overburden this may not be a valid correlation.

A 1.5cm quartz stringer at 211.04m contains 5% fine-grained galena and traces of chalcopyrite.

At 409.0m a 3cm quartz stringer adjacent to a quartz - flooded fault zone contains 5% pyrite and 2-3% sphalerite. Samples from this area outlined a 0.53m wide zone with weakly anomalous zinc values.

Between 439.28 and 513.59m (E.O.H.) the hole intersected weakly foliated to massive mafic lapilli tuff with traces of pyrrhotite and chalcopyrite throughout. The sulphides commonly replace amygdules (primary filling?) and mineralization is thought to be immediately post depositional. From 445.90 to 450.68m 5-8% pyrite and 5% pyrrhotite occur in lenses up to 5mm by 3cm parallel to foliation. From 503.0 to 504.1m 3-5% pyrrhotite, 1-2% pyrite and <1% chalcopyrite occur as fillings in a weak breccia zone, disseminated, and replacing amygdules. Geochemical analyses of samples from this unit are weakly sporadically anomalous in copper and barium. The rock is sodium depleted in the 485m area.

Information gained from this hole indicates that the felsic volcanics hosting the weakly base metal mineralized Randy trend are probably more persistent than previous mapping shows. It is also apparent that the Sharon gabbro is not as extensive a body as previously believed.

SILVER CREEK-SHARON AREA
SECTION 7+50W

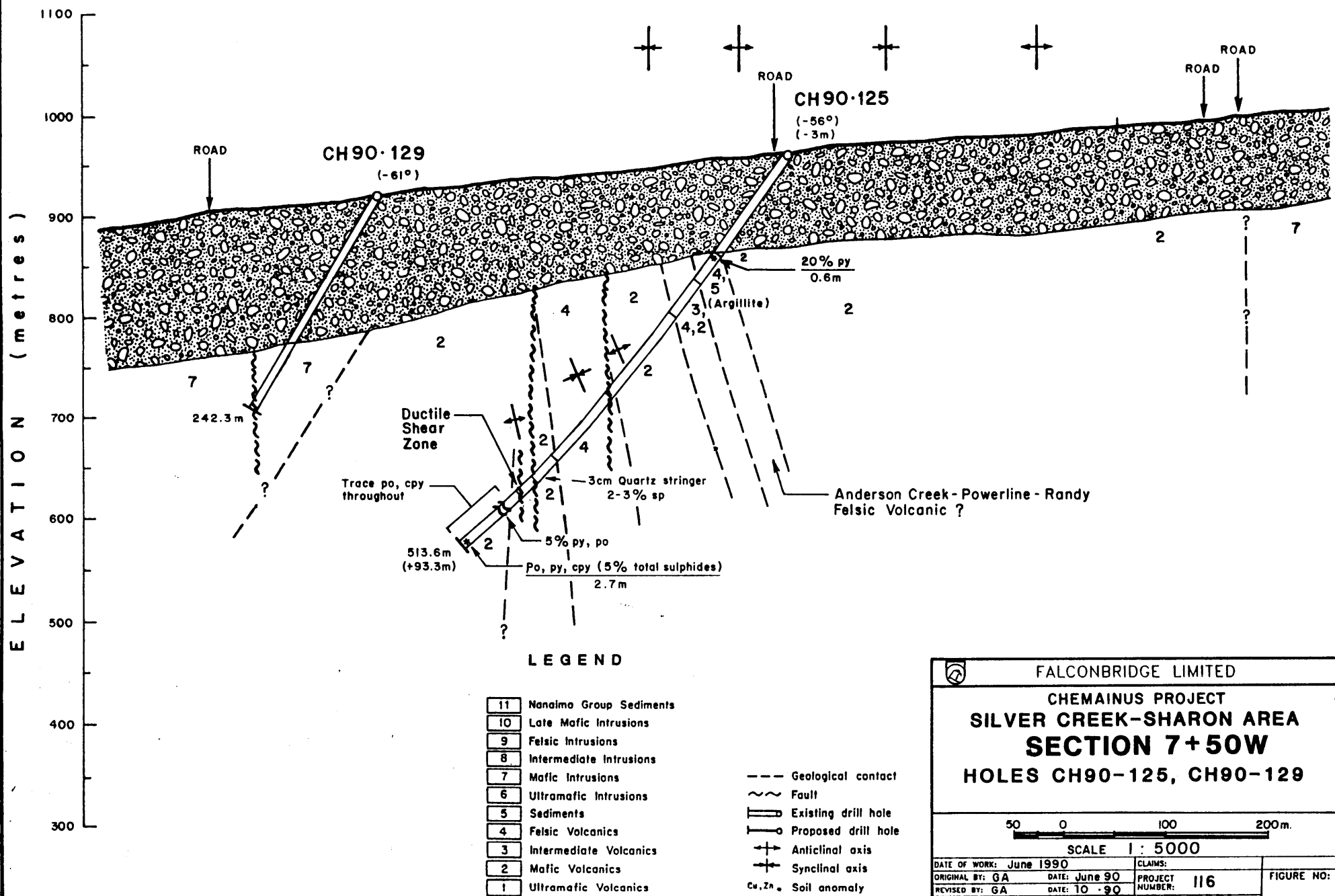
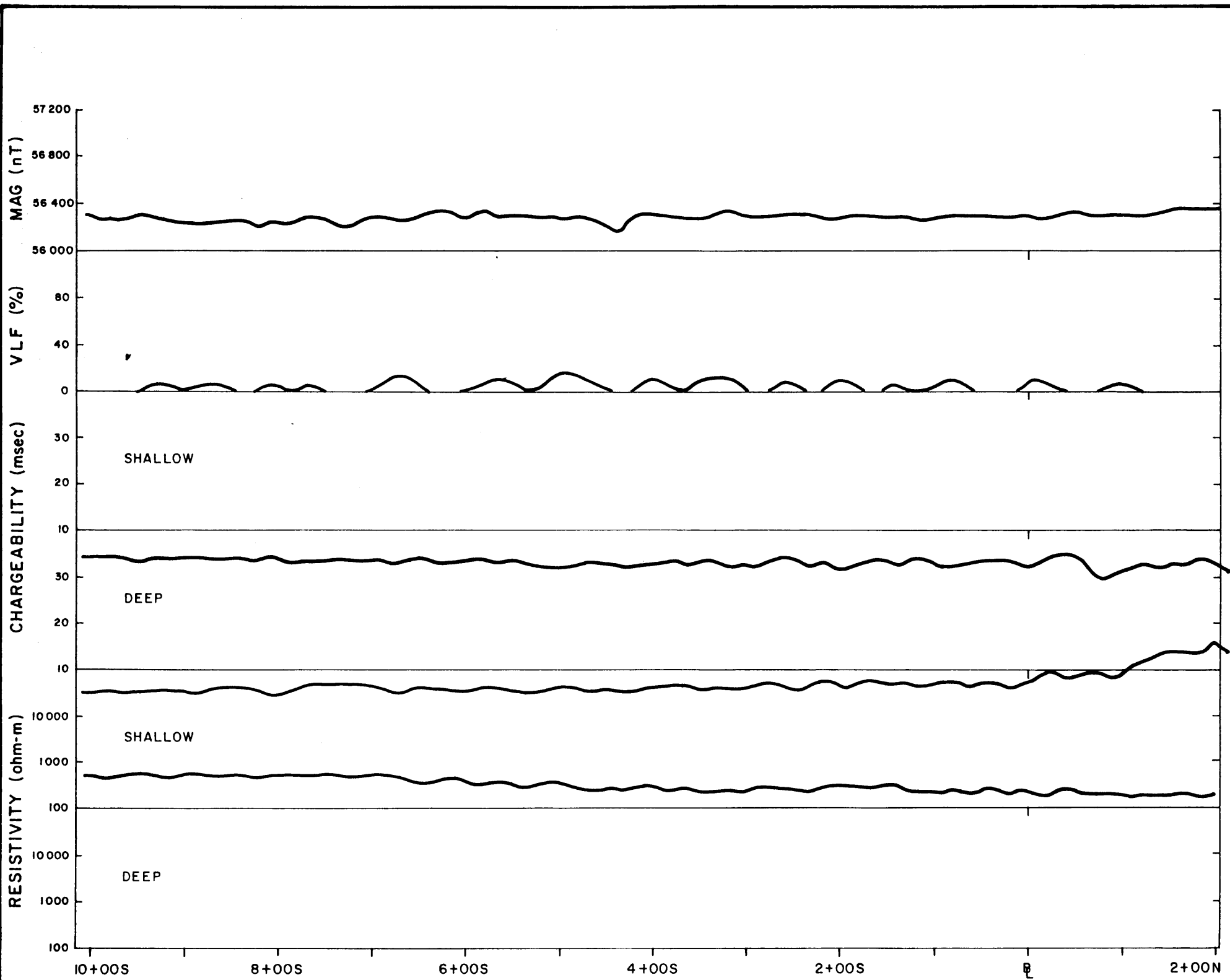
OBJECTIVE/TARGET: CH90-129 - To test the Sharon trend.

HOLE #	LOCATION	AZIMUTH	DIP	LENGTH
CH90-125	7+47W, 3+21S	180°	-55°	513.6m
CH90-129	7+50W, 7+33S	180°	-61°	242.3m

RESULTS:

Section 7+50W cuts an intercalated sequence of steeply dipping mafic to felsic tuff and gabbroic intrusives north of the south-dipping Sharon gabbro and covers the sodium depleted Randy felsic volcanic unit. Overburden in this area is up to 130m thick (vertical).

The target of CH90-129 was the Sharon horizon, intersected in CH90-126 on section 11+50W. This mineralized horizon is a pyrite-chalcopyrite-chlorite stringer zone hosted within mafic tuffs and situated 10-15m north of a large distinct quartz phyric sericite schist unit known as the Sharon felsic tuff. Hole CH90-129 passed through 169.4m of bouldery till into medium-grained massive gabbro indicating that the Sharon gabbro extends farther north than previously believed and that near the bedrock surface the Sharon horizon has been dyked out on this section.



LEGEND

11	Nanaimo Group Sediments	---	Geological contact
10	Late Mafic Intrusions	~	Fault
9	Felsic Intrusions	—○—	Existing drill hole
8	Intermediate Intrusions	—○—	Proposed drill hole
7	Mafic Intrusions	+	Anticlinal axis
6	Ultramafic Intrusions	+	Synclinal axis
5	Sediments	+	Cu, Zn Soil anomaly
4	Felsic Volcanics		
3	Intermediate Volcanics		
2	Mafic Volcanics		
1	Ultramafic Volcanics		

FALCONBRIDGE LIMITED
CHEMAINUS PROJECT
SILVER CREEK-SHARON AREA
SECTION 7+50W
HOLES CH90-125, CH90-129

50 0 100 200m.
SCALE 1 : 5000

DATE OF WORK: June 1990	CLAIMS:	FIGURE NO:
ORIGINAL BY: GA DATE: June 90	PROJECT NUMBER: 116	
REVISED BY: GA DATE: 10-90	N.T.S. NO.: 928/13	
DRAWN BY: VJG DATE: June 25/90	MAP #: 116-5-0747	
APPROVED BY:	DATE:	

APPENDIX C

Drill Logs and Tabulated Analytical Results

HOLE NUMBER: CH90-125

FALCONBRIDGE LTD
DRILL HOLE RECORD

DATE: 1-August-1990

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 118.87	CASING «job»	Bouldery till. Till recovered from 50 m weakly conductive.				
118.87 TO 125.16	MAFIC TUFF «2a»	Medium brownish to greenish-grey fine-grained sericitic well foliated tuff with sporadic <5% quartz eyes up to 5 mm (average 1-2 mm). The unit is cut by 10% irregular discontinuous <5 mm calcite stringers parallel to and crosscutting foliation. Sporadic 5% boudinaged quartz stringers. Several <5cm medium brownish-grey fine-grained quartz (10%, <1mm, rounded) - mafic (10%, <1 mm chloritic clots) phyrlic well foliated sericitic felsic dyklets cut the unit parallel to foliation. 123.5 - 124.0 Cherty tuff with 5% bright green to yellow-brown fine-grained talc developed in groundmass. STRUCTURE FOLIATION: 65° to core axis.			1-2% fine-grained disseminated pyrite.	The unit was originally thought to be felsic, but whole rock data indicate a mafic composition.
125.16 TO 125.76	PYRITIC ZONE «4a,SUL.ZN»	20% fine-grained pyrite (predominantly concentrated along bands up to 1 cm wide with up to 40% pyrite) in intercalated dark grey felsic tuff and medium brownish-grey fine-grained soft sediment (?) STRUCTURE FOLIATION: 57° to core axis.			20% pyrite.	
125.76 TO 126.30	FELSIC TUFF - SEDIMENT TRANSITION «4a-5»	Medium brownish-grey to dark grey fine-grained massive to thinly banded tuff and sediment (?) STRUCTURE 126.0 - 126.1 Carbonate vein brecciated and flooded with 20% quartz. Fault zone?				

HOLE NUMBER: CH90-125

DRILL HOLE RECORD

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FALCONBRIDGE LTD
DRILL HOLE RECORD

HOLE NUMBER: CH90-125

DATE: 1-August-1990

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
126.30 TO 132.95	ARGILLITE «5ik»	<p>Dark grey to black fine-grained thinly bedded (1 mm to 1 cm) argillite and siltstone.</p> <p>127.85 - Possible graded bedding indicating tops up hole.</p> <p>128.08 - 127.7 Interbedded felsic tuff, felsic lapilli tuff and argillite.</p> <p>128.7 - 129.1 Medium yellowish-brown fine-grained sericitic dyke with 20% <1-2 mm dark grey calcite +/-quartz eyes flattened out along foliation. Amygdules?</p> <p>STRUCTURE Broken core over interval</p> <p>FAULT: 126.7 - 2 cm gouge zone parallel to bedding at 70° CA.</p> <p>BEDDING/FOLIATION: 65-70° CA.</p>			126.3 - 128.08 3-5% pyrite as narrow lenses parallel to foliation.	
132.95 TO 139.55	FELSIC TUFF «4a»	<p>Light grey to medium greenish-grey fine-grained sericitic well foliated felsic tuff with rare <1 mm quartz eyes.</p> <p>137.5 - 137.58 Thinly laminated (<1 mm) ash tuff with a cherty appearance. Actually relatively soft.</p> <p>138.7 - 138.95 Quartz vein. Sheared along upper contact at 25° to core axis.</p> <p>138.95 - 139.05 Yellowish-brown fine-grained dyklet.</p> <p>STRUCTURE FOLIATION: 60° to core axis.</p>			1-2% fine-grained disseminated pyrite.	
139.55 TO 140.20	PYRITIC CHERTY FELSIC TUFF «4ap»	<p>Medium to dark blue-grey fine-grained massive to poorly bedded sericitic to cherty tuff.</p>			7% fine-grained pyrite (disseminated and concentrated along <1 mm bands parallel to foliation.	

HOLE NUMBER: CH90-125

FALCONBRIDGE LTD
DRILL HOLE RECORD

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
140.20 TO 142.60	ARGILLITE «5ik»	<p>Medium to dark grey to black fine-grained well bedded argillite, cherty argillite and siltstone. Cut by irregular quartz stringers and veins up to 10 cm wide, generally parallel to foliation.</p> <p>142.25 - Shear at 40° CA cutting bedding at 60°. Weakly conductive gouge. (graphitic ?)</p> <p>Sharp lower contact.</p> <p style="text-align: center;">STRUCTURE</p> <p>BEDDING: 55-60° CA.</p>			2% fine-grained pyrite in laminae up to 2 mm parallel to bedding and in irregular lenses up to 5 mm in diameter.	
142.60 TO 152.10	QUARTZ PHYRIC FELSIC LAPILLI (?) TUFF «4ba»	<p>Mottled light blue-grey to medium greenish-grey fine-grained quartz phyrlic (15-20%, <1-5 mm [average 2-3 mm], rounded) sericitic foliated felsic tuff. The medium greenish irregular lenses may be talc altered matrix of lapilli fragments. Light grey lithic fragments (?) up to 2 cm wide flattened out in the plane of the foliation.</p> <p>146.64 - 147.0 Mafic dyke. Dark green fine-grained chloritic mafic intrusive. Contacts parallel foliation. Cut by 15% irregular white calcite stringers and lenses up to 1 cm in diameter.</p> <p>Fault along lower contact.</p> <p style="text-align: center;">STRUCTURE</p> <p>FOLIATION: 60° to core axis.</p>			1-2% fine-grained disseminated pyrite.	
152.10 TO 157.40	MAFIC LAPILLI TUFF «2b»	<p>Medium to dark greenish-grey fine-grained chloritic groundmass with up to 50% dark green to medium brownish-grey amygdaloidal (15-20%, calcite <1 mm) lithic fragments up to 1 cm wide flattened parallel to foliation.</p> <p style="text-align: center;">STRUCTURE</p> <p>FOLIATION: 50-60° CA.</p>				

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DRILL HOLE RECORD

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HOLE NUMBER: CH90-125

FALCONBRIDGE LTD
DRILL HOLE RECORD

DATE: 1-August-1990

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>FAULT: 152.1 - 1 cm gouge and broken core. 152.3 - 152.5 Gouge, pulverized rock. Shearing parallel to foliation.</p>				
157.40 TO 162.90	INTER-MEDIATE TUFF «3a»	<p>Dark green to greenish-grey fine-grained foliated chloritic groundmass with sporadic 5% <1-2 mm calcite 'eyes' which could be amygdules in obscure lithic fragments.</p> <p>STRUCTURE</p> <p>FOLIATION: 40-60° to core axis.</p> <p>FAULT: 158.0 - 158.1 Gouge, pulverized rock. Shearing at 45° to core axis cutting foliation at 10°.</p>				
162.90 TO 164.90	FELSIC LAPILLI TUFF «4b»	<p>Light grey to medium greenish-grey fine-grained sericitic foliated felsic tuff with up to 40% greenish-grey fine-grained lithic fragments up to 1 cm wide flattened parallel to foliation.</p> <p>Contacts sharp, conformable.</p> <p>STRUCTURE</p> <p>FOLIATION: 55-60° CA.</p>			1% fine-grained disseminated pyrite.	
164.90 TO 168.10	MAFIC TUFF «2a»	<p>Dark greenish-grey fine-grained chloritic foliated mafic tuff.</p> <p>STRUCTURE</p> <p>FOLIATION: 60° CA.</p> <p>Some kinking forming open 'Z'-type folds.</p>				
168.10 TO 170.50	CHLORITIC FELSIC TUFF «4a1»	<p>Mottled light to medium greenish-grey fine-grained sericitic +/-chloritic foliated felsic tuff. Inhomogeneous texture with some light-coloured lenses which could be boudinaged layers or flattened lithic fragments. Barren.</p>				

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HOLE NUMBER: CH90-125

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DRILL HOLE RECORD

DATE: 1-August-1990

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>STRUCTURE</p> <p>FOLIATION: 60° CA.</p>				
170.50 TO 170.85	MAFIC DYKE «7r»	Dark grey fine-grained massive dyke. Sharp contacts parallel to foliation in host.				
170.85 TO 175.70	INTER-MEDIATE TUFF «3a»	<p>Medium greenish-grey fine-grained chloritic-sericitic foliated tuff, with rare, sporadic 1 mm quartz eyes and light-coloured fine-grained feldspar crystal fragments (?)</p> <p>STRUCTURE</p> <p>FOLIATION: 50-60° CA.</p>			<p>170.85 - 174.25 Sporadic 1% pyrite in irregular masses up to 2 mm wide and in lenses and thin bands up to 1 mm wide.</p> <p>174.17 - Irregular 1-10 mm quartz vein with 10% Chalcopyrite. Stringer parallels foliation.</p> <p>174.25 - 175.7 2-3% fine-grained pyrite, disseminated and concentrated along 1-2 mm bands parallel to foliation.</p>	
175.70 TO 179.60	QUARTZ PORPHYRY «9ra»	<p>Light grey fine-grained sericitic, sporadically siliceous (about 50%) groundmass with 15-20%, 1-5 mm rounded quartz eyes. Massive to weakly foliated. Probably SALTSRING INTRUSION. Sharp contacts with host.</p> <p>UPPER CONTACT: 40° CA LOWER CONTACT: 45° CA</p> <p>STRUCTURE</p> <p>FOLIATION: 60° CA</p>				
179.60 TO 181.20	INTER-MEDIATE TUFF «3a»	As 170.85 - 175.7				

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
181.20 TO 183.00	QUARTZ PHYRIC FELSIC LAPILLI TUFF «4ba»	Mottled light grey to medium greenish-grey fine-grained sericitic groundmass with 5-15% rounded quartz eyes up to 3 mm. Some distinct fragments up to 2 cm thick flattened in plane of foliation. 182.15 - 182.37 Dark green fine-grained mafic dyke with an amygdaloidal core. STRUCTURE FOLIATION: 55-60° CA				2-3% fine-grained pyrite as discontinuous thin lenses and stringers (?) parallel to foliation.
183.00 TO 189.60	MAFIC LAPILLI TUFF «2b»	Mottled medium to dark greenish-grey fine-grained chloritic foliated groundmass with some distinct brownish-grey fine-grained lithic fragments flattened along plane of foliation. STRUCTURE FOLIATION: 50° CA FAULT: 188.96 - 189.35 Sheared parallel to foliation. Gouge zones up to 1 cm wide.				
189.60 TO 191.50	QUARTZ PHYRIC FELSIC TUFF «4aa»	Light grey to light greenish-grey fine-grained sericitic foliated groundmass with 15% 1-5 mm rounded quartz eyes.				190.25 - 191.5 5-5% fine-grained pyrite; disseminated and concentrated along bands up to 1 cm wide parallel to foliation.
191.50 TO 193.80	CHLORITIC FELSIC (?) TUFF «4al»	Medium to dark greenish-grey fine-grained chloritic-sericitic strongly foliated felsic (?) tuff. Gradational contact with unit below. STRUCTURE FOLIATION: 50° CA				193.25 - 193.78 7-8% pyrite concentrated along <3 mm bands parallel to foliation.
193.80 TO 207.87	MAFIC LAPILLI TUFF «2bf»	Dark green fine-grained chloritic foliated groundmass with sporadic zones from <1 cm to 10 cm wide with 5-15%, 1-4 mm rounded calcite +/- quartz amygdules. Amygdaloidal zones commonly have indistinct boundaries but are probably lithic				<1% pyrite in isolated crystals generally in calcite amygdules. Traces of Chalcopyrite.

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>fragments. The unit is strongly foliated and cut by 10-15% irregular, discontinuous quartz-calcite stringers parallel to and crosscutting foliation.</p> <p>206.68 - 1 cm fine-grained band? bed (?) parallel to foliation.</p> <p>STRUCTURE</p> <p>FOLIATION: 50-60° CA</p> <p>FAULT: 207.87 - 3 cm gouge zone. Subparallel foliation (slightly crosscutting).</p>				
207.87 TO 262.85	MAFIC TUFF «2ak»	<p>Medium to dark greenish-grey fine-grained massive to thinly bedded (<1 mm - >10 cm) weakly foliated mafic tuff. The unit is very fine-grained, quite homogeneous and may be more of a volcanic sandstone.</p> <p>260.4 - 260.8 Thinly bedded brecciated tuff. <1-2 cm blocks fractured and offset a few millimetres. Could be soft sediment deformation. Fine-grained chlorite infilling.</p> <p>STRUCTURE</p> <p>BEDDING/FOLIATION: 55° CA</p> <p>240.0 - Kinked foliation. Open 'Z'-fold (foliation oriented from top left to bottom right).</p>			<p>211.04 - 1.5 cm wide quartz vein with 5% fine-grained Galena and traces of Chalcopyrite. Vein appears to parallel foliation.</p> <p>238.46 - 238.87 5-7% fine-grained pyrite concentrated along <1 mm bands or stringers parallel to foliation.</p>	
262.85 TO 264.71	GABBRO «7r»	<p>Dark greenish-grey fine-grained feldspar phyric (15%, <1 mm) mafic dyke. Some parts look like typical Karmutsen gabbro.</p> <p>Up to 15% white leucoxene.</p> <p>STRUCTURE</p> <p>Upper contact parallels foliation.</p>				

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DRILL HOLE RECORD

HOLE NUMBER: CH90-125

DATE: 1-August-1990

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
264.71 TO 265.50	MAFIC TUFF «2a»	As above dyke.				
265.50 TO 266.45	GABBRO «7rb»	As 262.85 - 264.71				
266.45 TO 271.00	MAFIC TUFF «2ak»	Dark green fine-grained chloritic massive to thinly bedded weakly to moderately foliated homogeneous mafic tuff. Fault along lower contact. STRUCTURE BEDDING/FOLIATION: 60° CA				
271.00 TO 288.27	QUARTZ EYE CALCAREOUS MAFIC TUFF (?) (FLOW?) «2a?,2df?»	Dark green fine-grained chloritic massive to moderately foliated mafic tuff with 3-5% rounded <1-8 mm rounded elipsoidal quartz eyes. The unit is slightly more foliated than the unit above. 5-10% calcite in <1 mm discontinuous hairline stringers (?) parallel to foliation. Quartz eyes could be amygdules in a flow. Thin section at 272.9 m. STRUCTURE FAULT: 271.0 - 5 cm broken core and gouge at contact. Parallel to foliation. FOLIATION: 55-60° CA 275.2 - 275.85 Broken core. Fault? Fractured subparallel to CA. 282.0 - 284.7 Several open 'S' folds (foliation oriented top left to bottom right). Hinge up hole?			<1% pyrite in coarse-grained cubes up to 3 mm.	

HOLE NUMBER: CH90-125

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DRILL HOLE RECORD

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
288.27 TO 289.35	QUARTZ- FELDSPAR PHYRIC CHLORIC FELSIC TUFF «4ac1»	Medium greenish-grey fine-grained foliated sericitic groundmass with 10-15% each of rounded <1-3 mm grey quartz and greenish-grey stubby feldspar crystals. 288.27 - 288.85 50% white quartz veins and stringers up to 15 cm wide generally parallel to foliation. Fault zone?				
289.35 TO 293.14	MAFIC TUFF (FLOW ?) «2a?2df?»	Dark greenish-grey fine-grained chloritic massive to weakly foliated homogeneous mafic tuff. Rare quartz eyes up to 2 mm could be amygdules. 5% calcite as discontinuous <1 mm hairline stringers parallel to foliation. Shear along lower contact. STRUCTURE FOLIATION: 55° CA.				
293.14 TO 298.87	QUARTZ- FELDSPAR PHYRIC FELSIC TUFF «4ac»	Medium to light greenish-grey fine-grained foliated sericitic groundmass with 10-15% @ <1-3 mm rounded grey quartz and greenish-grey feldspar crystals. Finer-grained parts are poorly banded parallel to foliation (bedding ?). STRUCTURE FOLIATION: 55-60° CA BANDING: 296.3 - 60° to core axis, parallel to foliation.				
298.87 TO 299.72	FAULT ZONE «FZ»	Pulverized rock, gouge zones up to 30 cm wide. Shearing appears to parallel foliation on the uphole side of the fault and to cut foliation at 30° on the downhole side.				Drillers report that the hole is 'squeezing' at this fault.

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
299.72 TO 301.64	FELDSPAR PHYRIC FELSIC TUFF «4ab»	Medium grey fine-grained sericitic weakly foliated groundmass with 15% <1-3 mm vague grey rounded feldspar (+quartz ?) eyes. Distinctly different from unit above fault. STRUCTURE FOLIATION: 50-55° CA. Some open 'S' folds (foliation oriented top left to bottom right).				
301.64 TO 302.02	MAFIC DYKE (?) (TUFF?) «7r?,2a?»	Dark green fine-grained feldspar phyrlic(5%, <1 mm, stubby, evenly distributed) chloritic moderately foliated mafic dyke (?). Sharp upper contact parallel to foliation. Lower contact along a shear parallel to foliation.				
302.02 TO 307.50	QUARTZ-FELDSPAR PHYRIC FELSIC TUFF «4ac»	Medium greenish-grey fine-grained sericitic foliated groundmass with 15% @ rounded <1-3 mm grey quartz and light greenish-grey feldspar crystals. Some fine-grained bands may be beds or perhaps flattened lithic fragments. 307.0 - 307.5 30% <1-5 cm fine-grained mafic beds (?) (or possibly dyklets ?) at 40-50° to core axis. One bed has a cherty appearance. STRUCTURE FOLIATION: 302.02 - 303.0 55-60° CA 303.0 - 307.5 40-50° CA				
307.50 TO 309.60	MAFIC TUFF «2a»	Dark green fine-grained massive to well foliated and thinly banded chloritic mafic tuff. 307.5 - 307.7 Mixing of feldspar phyrlic unit above and mafic tuff. Some brecciation of mafic tuff could be soft sediment deformation. 1 cm jasper band/bed developed on or near the contact possibly along an erosional surface. The deformed mafics plus the jasper suggest stratigraphic tops are up hole.			307.6 - 2-3% pyrite associated with 1 cm jasper bed.	

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DRILL HOLE RECORD

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HOLE NUMBER: CH90-125

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DRILL HOLE RECORD

DATE: 1-August-1990

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
309.60 TO 312.22	QUARTZ-FELDSPAR PHYRIC FELSIC TUFF «4ac»	As 302.2 - 307.5 STRUCTURE FOLIATION: 60° to core axis. 'S' folds at 309.8 (Foliation oriented top left to bottom right).				
312.22 TO 314.77	INTER-BEDDED MAFIC TUFF AND HEMATITIC ARGILLITE (MYLONITE?) «2a,5i?»	Interbedded dark green to greenish-grey fine-grained mafic material and dark purplish-grey to maroon hematitic argillite (?). Colour bands range from <1 mm to 1 cm and are somewhat contorted. Between 312.22 and 330.0 light and dark green bands actually cross, suggesting that shearing may be causing the banding. Possibly a mylonite zone. Sharp upper and lower contacts. STRUCTURE FAULT: 313.03 - 5 cm (+) hematitic gouge, parallel to foliation 35-40° to core axis. FOLIATION: Contorted, averaging 60° CA.				
314.77 TO 343.70	QUARTZ-FELDSPAR PHYRIC FELSIC TUFF (+LAPILLI TUFF) «4ac,4bc»	Medium greenish-grey sericitic foliated groundmass with 15% @ quartz and feldspar crystals up to 3 mm. As previous intervals. 318.85 - 320.16 Fine-grained sericitic quartz-feldspar phyric interval. Quartz and feldspar crystals <1 mm. 312.6 - 322.3 As above. 329.4 - 329.68 Medium to dark grey fine-grained feldspar phyric (15-20% <0.5 mm) intermediate dyke. Contacts sharp, parallel to foliation. 335.40 - Distinct 1 cm * 2 cm quartz phyric lithic fragment suggesting that the unit or parts of it may be lapilli tuff.				

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HOLE NUMBER: CH90-125

FALCONBRIDGE LTD
DRILL HOLE RECORD

DATE: 1-August-1990

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>139.0 - 140.5 Several <1-2 cm wide light grey quartz phyrlic 'bands' parallel to foliation are probably flattened lithic fragments.</p> <p>STRUCTURE</p> <p>FOLIATION:</p> <p>314.77 - 316.0 60° CA. One 'Z' fold.</p> <p>316.0 - 318.85 CONTORTED</p> <p>318.85 - 320.0 Weakly foliated 60° CA.</p> <p>320.0 - 321.6 Contorted.</p> <p>321.6 - 335.0 60° CA.</p> <p>335.0 - 343.7 40-50° CA.</p> <p>FAULTS:</p> <p>322.4 - 2 cm gouge zone 45° to core axis, cutting foliation at about 60°</p> <p>333.76 - 334.14 Sheared, gougy. 60° to core axis parallel to foliation.</p>			<p>330.0 - 330.25 Quartz vein parallel to foliation. Trace Chalcopyrite.</p> <p>330.30 - 330.62 4-5% fine-grained pyrite, disseminated and in 1-2 mm stringers associated with quartz stringers adjacent to a fine-grained mafic dyke.</p>	
343.70 TO 345.00	FAULT ZONE «FZ»	Sheared, pulverized rock with 1-2 cm gouge zones at 30° to core axis.				
345.00 TO 359.66	QUARTZ-FELDSPAR PHYRIC FELSIC TUFF «4ac»	<p>As above fault zone.</p> <p>345.0 - 346.2 Fine-grained tuff with quartz and feldspar crystals <1 mm.</p> <p>349.65 - 350.13 Dark green fine-grained feldspar phyrlic mafic dyke cut by quartz veins and strongly epidotized.</p> <p>355.43 - 3 cm grey brown mafic phyrlic foliated dyklet.</p> <p>358.30 - Distinct quartz feldspar phyrlic lithic fragments up to 1 cm * 2 cm flattened in the plane of foliation.</p> <p>358.5 - 359.66 20% white quartz stringers up to 2 cm parallel foliation.</p> <p>STRUCTURE</p>			<p>349.65 - 350.13 2-3% pyrite in quartz stringers.</p>	

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		FOLIATION: 45-50° CA.				
359.66 TO 362.78	FELDSPAR PHYRIC MAFIC DYKE «7r»	Dark green fine-grained massive to strongly foliated +/-feldspar phyric (0-15%, <1-2 mm) mafic dyke. Chill along upper contact at 35° CA, parallel to foliation in host tuff. 362.42 - 362.78 20% 1-3 mm stubby anhedral feldspar phenocrysts.				
362.78 TO 373.27	QUARTZ-FELDSPAR PHYRIC FELSIC TUFF «4ac»	Medium blueish to greenish-grey fine-grained sericitic foliated groundmass with 10-15% @ rounded <1-3 mm grey quartz and light grey feldspar. As previous intervals. Homogeneous, barren. STRUCTURE FOLIATION: 45° CA. FAULT: 371.37 - 371.44 Gouge zone. 60° CA.				
373.27 TO 382.18	MAFIC TUFF (?) (DYKE?) «2a?,7r?»	Dark green to greenish-grey fine-grained chloritic mafic tuff with several dark green bands up to 5 mm (beds ?) parallel to foliation. Rare <0.5 mm quartz eys. 379.3 - 379.63 Medium to dark blue-grey quartz feldspar phyric sericitic foliated felsic tuff. Sharp contacts parallel to foliation. Possible dyke? STRUCTURE FOLIATION: 45-60°, average 50-55° CA.				
382.18 TO 384.32	QUARTZ-FELDSPAR PHYRIC FELSIC TUFF «4ac»	Medium to dark grey to greenish-grey fine-grained sericitic groundmass with 25% 1-3 mm rounded grey to white feldspar and quartz eyes. STRUCTURE				

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		FOLIATION: 70° CA. Minor contorted zone 383.4 - 383.6				
384.32 TO 391.45	MAFIC TUFF (?) (DYKE?) «2a?,7r?»	As 373.27 - 382.18 384.4 - 384.9 Relatively massive fine-grained feldspar phyrlic (15-20% <0.5 mm). 10% quartz stringers up to 2 cm wide parallel to foliation. 390.60 - 390.98 Medium greenish-grey fine-grained sericitic intermediate tuff (?) Fault along lower contact. STRUCTURE FOLIATION: 55-60° CA. FAULTS: 384.9 - 385.2 Mylonitic well-banded material. 385.1 - 385.2 Gouge. Upper contact at 80° CA, cuts foliation at 60°. Lower contact parallel foliation. 390.6 - 390.7 Gouge at 25° CA. 391.45 - 5 mm gouge along lower contact at 18° CA.				
391.45 TO 394.13	MAFIC TUFF «2a»	Medium greenish to brownish-grey fine-grained sericitic +/-chloritic foliated tuff. 15% calcite in discontinuous lenses and bands up to 3 mm parallel to foliation. STRUCTURE FOLIATION: 50-60° CA.			<1% fine-grained disseminated pyrite.	The unit was originally thought to have an intermediate to felsic composition but whole rock data indicate a mafic chemistry.
394.13 TO 398.90	FELDSPAR PHYRIC MAFIC DYKE (?) (TUFF?) «7rb?,2ab?»	Dark green fine-grained chlorite-sericite foliated groundmass with 10% sporadically distributed <1-3 mm stubby anhedral epidotized feldspar phenocrysts. The sporadic distribution of the phenocrysts may be as a result of shearing and				

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>development of the foliation or it may be a remnant texture of a lapilli tuff.</p> <p>Sheared with 5 mm calcite veins along lower contact 30° and 90° to CA.</p> <p style="text-align: center;">STRUCTURE</p> <p>FOLIATION: 45-50° CA.</p>				
398.90 TO 400.30	MAFIC TUFF (?) «2a»	Dark green fine-grained chloritic foliated mafic tuff (?) with sporadic zones up to 1 cm wide with 10% <0.5 mm stubby light green feldspar crystals.				
400.30 TO 402.47	INTER-MEDIATE TUFF «3a»	<p>Medium greenish-grey fine-grained sericitic + chloritic foliated tuff with 5% sporadically distributed epidotized feldspar crystals up to 3 mm.</p> <p>401.46 - 401.60 Light grey to sericitic tuff with 15-20% fine-grained pyrite. Shear along lower contact at 45° to core axis. Foliation above and below shear at 70° to each other.</p> <p style="text-align: center;">STRUCTURE</p> <p>FOLIATION: 60° CA.</p>			401.46 - 401.60 15-20% fine-grained pyrite in 1-2 mm bands parallel to foliation.	
402.47 TO 404.30	(+/- FELDSPAR PHYRIC) FELSIC TUFF «4ab»	<p>Medium to light blueish-grey fine-grained feldspar phyric (10%, average 1 mm, white, stubby, anhedral) foliated sericitic felsic tuff.</p> <p>403.15 - 404.30 Medium greenish-grey fine-grained sericitic well foliated felsic tuff. Contorted.</p> <p style="text-align: center;">STRUCTURE</p> <p>FOLIATION: 402.47 - 402.88 10° CA. 402.88 - 403.15 Contorted 35-45° CA. 403.15 - 404.3 Contorted, subparallel to core axis.</p> <p>FAULTS:</p>			<p>402.47 - 402.88 2-3% fine-grained disseminated pyrite. Pyrite also in rare 1 mm wide foliation - parallel bands.</p> <p>402.88 - 403.15 15% fine-grained pyrite; disseminated and concentrated along <1-3 mm bands parallel to foliation. Fault-bounded top and bottom.</p>	

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		402.5 - Minor shear at 35° CA. 402.88 - 1 cm gouge zone at 35° to core axis. Truncates foliation. 403.07 - 403.15 5 cm gouge zone at 40° CA.				
404.30 TO 410.82	MAFIC TUFF «2ak»	Medium to dark greenish-grey fine-grained poorly thinly bedded to massive weakly foliated mafic tuff. 5% calcite in irregular cross-cutting and bedding parallel calcite stringers up to 1 mm wide. STRUCTURE BEDDING/FOLIATION: 40-50° CA. FAULT ZONE/QUARTZ VEIN: 408.40 - 408.62 Quartz flooded fault/gouge zone.			408.40 - 408.62 15% pyrite and traces of Chalcopyrite along 1-2 mm stringers in a quartz flooded fault zone at 50° to core axis. 408.98 - 409.02 3 cm quartz stringer at 45° CA. 5% pyrite and 2-3% fine-grained re-brown Sphalerite.	Unit was originally thought to have an intermediate composition but whole rock data indicate a mafic chemistry.
410.82 TO 411.30	FAULT ZONE «FZ»	Crushed, pulverized rock. Gouge. Margins at 40° to core axis.			3-4% fine-grained disseminated pyrite in gougy parts.	
411.30 TO 417.32	MAFIC TUFF «2ak»	As 404.30 - 410.82 STRUCTURE FOLIATION/BEDDING: 40-50° CA. 417.0 - 417.28 Contorted foliation 'M' folds.			417.0 - 417.28 4-5% disseminated pyrite.	
417.32 TO 422.70	MAFIC TUFF «2a»	Dark green fine-grained chloritic foliated and thinly banded mafic tuff with some zones up to 40 cm wide with 15% <1 mm stubby white feldspar crystals. STRUCTURE FOLIATION: 40-20° CA across unit. 419.2 - 419.3 'S' fold (foliation oriented top left to bottom right).				

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
422.77 TO 431.20	MAFIC TUFF(?) (DUCTILE SHEAR ZONE ?) «2aq»	<p>Medium grey-brown fine-grained strongly foliated sericitic tuff with 15% calcite in 1-5 mm discontinuous lenses and bands parallel to foliation. The unit is contorted and may be a ductile shear zone (R.D.S.)</p> <p>422.77 - 423.63 Zone with 25% white quartz-carbonate stringers and irregular lenses up to 5 cm wide. Shear along upper contact.</p> <p>427.0 - 428.15 Strongly contorted, breccia zone.</p> <p>428.15 - 428.83 Brecciated schist with gouge matrix.</p> <p>STRUCTURE</p> <p>FOLIATION: 423.63 - 427.0 Undulating 15-20° CA. 427.0 - 428.15 Strongly contorted into tight 'S' folds. Brecciated. 428.15 - 431.20 Contorted, with 'S' folds. Average 30° CA.</p> <p>FAULT ZONE: 428.15 - 428.83 Brecciated. 50% gouge matrix. Shears 30° and 50° CA.</p>				Possibly a decollement zone.
431.20 TO 434.50	FELDSPAR PHYRIC MAFIC DYKE (GABBRO?) (CONTINUATION OF DUCTILE SHEAR ZONE) «7rbq»	<p>Dark green fine-grained chloritic foliated groundmass with 15% 1-3 mm stubby light green feldspar phenocrysts. 30% of unit sheared into 1 cm wide fine-grained chlorite zones with irregular lenses and bands of white calcite averaging 10-15% overall.</p> <p>STRUCTURE</p> <p>FOLIATION: Contorted, averaging 10-15° CA. 434.0 - 434.50 40° CA.</p>				
434.50 TO 436.64	QUARTZ PHYRIC FELSIC ASH TUFF «4aa»	<p>Light greenish to blueish-grey fine-grained quartz phyric (5%, 1 mm) sericitic foliated felsic ash tuff.</p> <p>436.4 - 436.64 Feldspar phyric.</p>			2-4% fine-grained disseminated pyrite.	

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>STRUCTURE</p> <p>FOLIATION: 40° CA. One small 'S' fold or kink at 434.9</p>				
436.64 TO 439.28	FELDSPAR PHYRIC FELSIC TO INTER-MEDIATE TUFF «4ab-3ab»	<p>Mottled medium to dark greenish-grey fine-grained feldspar phyric (sporadic, 0-15%, <1-2 mm rounded epidotized) felsic to intermediate tuff.</p> <p>STRUCTURE</p> <p>FOLIATION: 35-40° CA.</p>			<p>436.64 - 439.0 1-2% disseminated pyrite.</p> <p>439.0 - 439.28 2-3% @ pyrite and pyrrhotite concentrated along <1 mm bands parallel to foliation.</p>	
439.28 TO 513.59	FELDSPAR-MAFIC PHYRIC AMYGDALOIDAL MAFIC LAPILLI TUFF «2bef»	<p>Mafic lapilli tuff with a predominantly medium to dark greenish-grey fine-grained chloritic epidotic calcareous +/-feldspar phyric groundmass and up to 60% <1-20 cm (+) medium grained feldspar (1-3 mm, euhedral commonly altered to epidote) +mafic (pyroxene ?) phyric +amygdaloidal rounded to angular lithic fragments. Some fragments have been altered to a pale greenish-grey to white groundmass.</p> <p>Some 2-3 m zones are siliceous and have a fine-grained biotite-rich groundmass.</p> <p>444.70 - 450.68 Medium greenish-grey fine-grained feldspar-phyric (15%, <1 mm) chlorite-calcite-epidote altered mafic tuff with a few vague mafic-feldspar phyric lithic fragments up to 1 cm.</p> <p>448.42 - 448.56 Thinly (2 mm - 1 cm) bedded cherty tuff.</p> <p>457.14 - 457.38 Fine-grained medium grey mafic to intermediate dyke (?) (possibly a sandy tuff bed ?) with sharp contacts at 45° to core axis.</p> <p>468.3 - 470.8 Siliceous-biotitic zone. Distinct increase in pyrrhotite content compared to surrounding chloritic-calcareous-epidotic material.</p>		<p>It appear that an original silica-biotite alteration is being overprinted by a calcite-epidote-chlorite alteration.</p> <p>491 - 496, 500 - 503 Moderate carbonate chlorite alteration gives the rock a pseudobreccia texture.</p> <p>493.4 - 493.8 Strong biotite-chlorite alteration of groundmass.</p> <p>510.2 - 511.4 Moderate pervasive fine-grained biotite, chlorite and epidote.</p>	<p>Ubiquitous traces of pyrrhotite and lesser amounts of Chalcopyrite commonly replacing or partially replacing amygdules.</p> <p>445.90 - 450.68 5-8% pyrite and 5% pyrrhotite in lenses up to 5 mm * 3 cm parallel to foliation.</p> <p>468.3 - 470.8 2-3% fine grained disseminated pyrrhotite. Traces of Chalcopyrite.</p> <p>480.80 - 1 cm calcite vein at 80° CA with 30% pyrrhotite.</p> <p>486.7 - 490.5 1-3% pyrrhotite; disseminated and along 1-2 mm wide stringers with calcite. Traces of Chalcopyrite.</p> <p>503.0 - 504.1 3-4% pyrrhotite, 1-2% pyrite and traces of Chalcopyrite in weak breccia zones and partially replacing amygdules.</p> <p>504.1 - 505.0 Weakly sheared zone (40-50° CA) with sporadic silicification and quartz</p>	<p>This unit is relatively (unfoliated) and may be a 'basement' to an overlying foliated dicollement.</p>

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		486.7 - 490.5 As above.				
		STRUCTURE 439.28 - 445.90 Massive to weakly foliated at 40° CA.				
		445.90 - 452.4 Moderately foliated 30-45° to core axis (average 40° CA).			505.0 - 505.7 4-5% disseminated pyrrhotite and <1% Chalcopyrite.	
		452.4 - 460.2 Massive to weakly foliated 40-45° CA.				
		460.2 - 513.59 Massive, unfoliated.				
		455.58 Irregular 5 cm wide quartz calcite chlorite vein at 15° CA with a trace of chalcopyrite.				
		513.59 m E.O.H.				

**DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MINOR ELEMENTS)**

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	MN (ppm)	CUZN	ET'S	ROCK
VB00520	124.06	125.20	720.0	28.0	72.0	1.0	2.5	27.0	12.0	5.0	41.0	0.5	1270.0	28.	2.	TEA
VB00521	125.20	125.80	840.0	46.0	23.0	1.2	7.0	40.0	12.0	6.0	58.0	0.5	1481.0	67.	20.	TEA
VB00522	125.80	126.55	380.0	43.0	56.0	1.0	2.5	21.0	115.0	8.0	296.0	0.5	1606.0	43.	4.	TEA
VB00523	126.55	127.10	690.0	70.0	34.0	1.1	2.5	14.0	17.0	18.0	56.0	0.5	1129.0	67.	4.	SAUB
VB00524	127.10	128.10	750.0	67.0	56.0	0.9	2.5	12.0	14.0	12.0	44.0	0.5	718.0	54.	4.	SAUB
VB00525	128.10	128.70	910.0	183.0	49.0	1.0	2.5	8.0	8.0	7.0	29.0	0.5	769.0	79.	3.	SAUB
VB00526	129.10	130.15	800.0	52.0	56.0	0.8	2.5	10.0	14.0	8.0	63.0	0.5	512.0	48.	3.	SAUB
VB00527	132.95	134.27	1000.0	20.0	54.0	0.6	2.5	7.0	5.0	5.0	23.0	0.5	568.0	27.	2.	TEA
VB00528	134.27	135.65	850.0	8.0	16.0	0.4	2.5	6.0	2.0	2.0	26.0	0.5	50.0	33.	3.	TEA
VB00529	138.55	139.55	790.0	19.0	35.0	0.6	2.5	10.0	10.0	6.0	41.0	0.5	370.0	35.	3.	TEA
VB00530	139.55	140.22	910.0	35.0	67.0	1.2	60.0	9.0	9.0	15.0	146.0	0.5	370.0	34.	7.	TEAB
VB00531	140.22	141.73	710.0	38.0	48.0	1.3	2.5	9.0	9.0	19.0	129.0	0.5	954.0	44.	2.	SAUB
VB00532	141.73	142.65	710.0	49.0	71.0	1.1	2.5	8.0	10.0	20.0	53.0	0.5	937.0	41.	2.	SAUB
VB00533	142.65	144.10	980.0	13.0	34.0	0.5	2.5	5.0	2.0	4.0	40.0	0.5	783.0	28.	1.	TEAQ
VB00534	172.82	174.00	450.0	56.0	65.0	1.0	2.5	23.0	13.0	6.0	12.0	0.5	1314.0	46.	1.	TIA
VB00535	174.00	174.25	400.0	700.0	71.0	3.1	6.0	20.0	12.0	3.0	11.0	0.5	1463.0	91.	3.	TIA
VB00536	174.25	175.70	470.0	54.0	82.0	1.3	14.0	24.0	20.0	6.0	26.0	0.5	1519.0	40.	4.	TIA
VB00537	189.60	190.25	990.0	31.0	16.0	0.8	2.5	16.0	9.0	3.0	16.0	0.5	610.0	66.	1.	TEAQ
VB00538	190.25	191.50	700.0	9.0	32.0	0.3	2.5	7.0	3.0	2.0	2.5	0.5	584.0	22.	6.	TEAQ
VB00539	191.50	192.45	870.0	31.0	80.0	0.8	2.5	13.0	6.0	2.0	7.0	0.5	1125.0	28.	1.	TEA
VB00540	192.45	193.25	600.0	37.0	59.0	0.8	2.5	13.0	6.0	4.0	9.0	0.5	1258.0	39.	1.	TEA
VB00541	193.25	193.78	410.0	36.0	53.0	1.1	2.5	29.0	14.0	4.0	14.0	0.5	998.0	40.	8.	TEA
VB00542	193.78	194.92	330.0	80.0	71.0	0.8	2.5	26.0	28.0	7.0	12.0	0.5	1599.0	53.	1.	TMA

**DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MINOR ELEMENTS)**

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PR (ppm)	AS (ppm)	CD (ppm)	MN (ppm)	CUZN	ETS	ROCK
VB00543	210.46	210.95	610.0	46.0	86.0	1.2	2.5	29.0	10.0	14.0	7.0	0.5	1153.0	35.	1.	TMA
VB00544	210.95	211.15	860.0	120.0	85.0	2.1	2.5	14.0	13.0	1912.0	18.0	0.5	744.0	59.	11.	TMA
VB00545	211.15	211.83	570.0	59.0	130.0	1.0	2.5	23.0	26.0	20.0	2.5	0.5	1345.0	31.	1.	TMA
VB00546	237.68	238.46	740.0	22.0	116.0	1.5	2.5	27.0	3.0	14.0	2.5	0.5	1420.0	16.	1.	TMA
VB00547	238.46	238.87	800.0	24.0	108.0	1.4	2.5	29.0	8.0	18.0	2.5	0.5	1309.0	18.	6.	TMA
VB00548	238.87	239.88	1100.0	42.0	93.0	1.3	2.5	22.0	7.0	23.0	6.0	0.5	1107.0	31.	1.	TMA
VB00549	329.68	330.30	680.0	14.0	64.0	0.4	2.5	15.0	8.0	11.0	2.5	0.5	553.0	18.	1.	TFAD
VB00550	330.30	330.62	360.0	45.0	70.0	0.7	18.0	43.0	24.0	15.0	36.0	0.5	432.0	39.	5.	TFAD
VB00551	330.62	331.20	430.0	85.0	102.0	0.7	18.0	26.0	49.0	14.0	8.0	0.5	851.0	45.	1.	TFAD
VB00552	400.30	401.46	280.0	18.0	127.0	0.9	2.5	19.0	8.0	12.0	7.0	0.5	1785.0	12.	1.	TIAF
VB00553	401.46	401.60	820.0	21.0	269.0	1.3	6.0	17.0	6.0	15.0	13.0	0.5	950.0	7.	15.	TEA-
VB00554	401.60	402.47	830.0	36.0	143.0	1.1	2.5	20.0	10.0	12.0	2.5	0.5	1124.0	20.	1.	TIA-
VB00555	402.47	402.88	1200.0	13.0	78.0	0.6	2.5	19.0	6.0	14.0	15.0	0.5	663.0	14.	3.	TEAF
VB00556	402.88	403.15	1300.0	55.0	114.0	1.3	2.5	17.0	9.0	18.0	43.0	0.5	470.0	33.	15.	TEA
VB00557	403.15	404.30	420.0	8.0	107.0	1.4	2.5	19.0	2.0	10.0	55.0	0.5	2057.0	7.	1.	TEA
VB00558	407.52	408.40	400.0	61.0	636.0	1.5	2.5	21.0	3.0	16.0	71.0	2.0	1943.0	9.	2.	TIA
VB00559	408.40	408.62	1100.0	187.0	864.0	1.8	6.0	35.0	4.0	10.0	61.0	2.0	1436.0	18.	10.	FPA
VB00560	408.62	408.95	250.0	57.0	2877.0	1.4	2.5	29.0	0.5	19.0	28.0	12.0	2245.0	2.	3.	TIA
VB00561	408.95	409.15	310.0	96.0	1321.0	1.6	2.5	22.0	3.0	16.0	44.0	5.0	2210.0	7.	5.	FPA
VB00562	409.15	409.90	260.0	56.0	932.0	1.4	2.5	22.0	14.0	13.0	81.0	3.0	1881.0	6.	1.	TIA
VB00563	437.95	439.00	820.0	228.0	174.0	1.5	2.5	28.0	18.0	19.0	29.0	0.5	1341.0	57.	2.	TIA
VB00564	439.00	439.28	1100.0	230.0	141.0	1.4	7.0	39.0	28.0	102.0	46.0	0.5	1061.0	62.	7.	TIA
VB00565	439.28	440.44	590.0	223.0	66.0	1.1	2.5	49.0	45.0	11.0	47.0	0.5	697.0	77.	1.	THAF

**DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MINOR ELEMENTS)**

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	MN (ppm)	CUZN	ETS	ROCK
VB00566	444.80	445.90	650.0	49.0	84.0	1.3	2.5	39.0	29.0	9.0	54.0	0.5	1092.0	37.	1.	TMA
VB00567	445.90	447.40	930.0	98.0	22.0	1.0	17.0	80.0	45.0	10.0	43.0	0.5	468.0	82.	8.	TMA
VB00568	447.40	448.42	890.0	102.0	30.0	1.5	26.0	84.0	53.0	12.0	82.0	0.5	457.0	77.	8.	TMA
VB00569	448.42	448.73	920.0	22.0	13.0	0.9	49.0	78.0	50.0	14.0	83.0	0.5	179.0	63.	8.	TMB
VB00570	448.73	450.05	1000.0	74.0	25.0	1.5	26.0	99.0	54.0	16.0	88.0	0.5	344.0	75.	8.	TMB
VB00571	450.05	450.68	990.0	71.0	17.0	0.7	12.0	69.0	37.0	5.0	17.0	0.5	376.0	81.	8.	TMB
VB00572	450.68	452.03	260.0	71.0	61.0	0.7	14.0	30.0	25.0	5.0	2.5	0.5	771.0	54.	1.	TMBW
VB00711	468.87	470.31	3300.0	263.0	65.0	0.8	17.0	31.0	18.0	1.0	12.0	0.5	572.0	80.	3.	TMBE
VB00573	480.40	481.70	1500.0	158.0	38.0	0.6	2.5	18.0	12.0	5.0	7.0	0.5	648.0	81.	1.	TMBE
VB00574	486.30	487.77	3400.0	256.0	92.0	0.5	12.0	46.0	22.0	6.0	12.0	0.5	614.0	74.	2.	TMBE
VB00575	502.01	503.00	810.0	137.0	21.0	0.6	9.0	33.0	12.0	8.0	11.0	0.5	526.0	87.	1.	TMBE
VB00576	503.00	504.10	2300.0	341.0	14.0	0.7	9.0	61.0	18.0	8.0	2.5	0.5	273.0	96.	5.	TMBE
VB00577	504.10	505.00	2700.0	623.0	19.0	1.5	94.0	100.0	20.0	16.0	6.0	0.5	221.0	97.	5.	TMBE
VB00578	505.00	505.70	2400.0	468.0	15.0	1.1	14.0	82.0	21.0	6.0	2.5	0.5	248.0	97.	6.	TMBE
VB00579	505.70	507.05	1400.0	44.0	19.0	0.6	2.5	15.0	7.0	4.0	19.0	0.5	461.0	70.	1.	TMBE

**DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MAJOR ELEMENTS)**

SAMPLE NUMBER	FROM	TO	XSI02	XAL203	XCAO	XMG0	XNA20	XK20	XFE203	XTI02	XP205	XMNO	XLOI	SUM	AI	NACA	ALUM
VB02612	122.00	125.00	42.04	16.66	9.57	3.94	1.04	1.56	9.74	0.84	0.17	0.20	14.07	99.83	34.	11.	137.
VB02613	135.70	138.70	71.26	14.46	2.07	1.23	0.48	2.39	2.76	0.33	0.11	0.09	4.29	99.47	59.	3.	293.
VB02614	147.00	149.00	70.01	12.88	2.77	1.72	0.39	2.98	2.56	0.26	0.09	0.11	5.36	99.13	60.	3.	210.
VB02615	157.50	160.50	54.50	16.35	3.80	3.71	0.90	2.18	9.10	0.77	0.20	0.13	8.29	99.93	56.	5.	238.
VB02616	171.00	174.00	53.36	16.70	4.44	2.52	2.83	2.50	8.25	0.77	0.22	0.17	7.98	99.74	41.	7.	171.
VB02617	189.90	191.40	68.82	13.50	2.50	1.09	1.08	2.42	3.89	0.34	0.13	0.10	5.31	99.18	50.	4.	225.
VB02618	200.25	203.25	46.21	16.91	7.88	3.15	2.84	1.28	9.72	0.79	0.16	0.17	10.71	99.82	29.	11.	141.
VB02619	222.50	225.50	46.61	17.39	7.10	5.72	3.32	1.12	12.52	0.99	0.41	0.21	4.16	99.55	40.	10.	151.
VB02620	255.00	258.00	52.24	17.65	6.44	2.63	3.02	2.97	7.56	0.56	0.52	0.21	5.77	99.57	37.	9.	142.
VB02621	282.00	284.50	48.95	16.95	5.90	3.77	2.48	2.24	10.70	0.85	0.45	0.19	7.32	99.80	42.	8.	160.
VB02622	295.00	298.00	73.31	12.77	2.25	1.77	2.23	1.71	2.10	0.21	0.07	0.05	3.40	99.87	44.	4.	206.
VB02623	307.80	309.30	46.50	17.77	8.08	3.82	2.88	2.39	9.10	0.93	0.42	0.15	7.93	99.97	36.	11.	133.
VB02624	335.70	338.70	71.05	14.51	1.99	2.91	2.15	0.90	2.43	0.21	0.06	0.04	3.61	99.86	48.	4.	288.
VB02625	363.70	366.70	72.40	13.56	2.07	1.10	2.95	2.56	1.69	0.21	0.06	0.04	3.02	99.66	42.	5.	179.
VB02626	391.60	394.00	49.33	17.49	7.25	2.63	2.15	1.63	10.63	0.87	0.45	0.29	6.93	99.65	31.	9.	159.
VB02627	412.60	415.60	50.99	18.54	5.82	2.91	4.33	1.08	9.60	0.93	0.49	0.23	4.77	99.69	28.	10.	165.
VB02628	425.00	428.00	44.99	16.11	10.82	4.17	1.59	1.84	8.01	0.74	0.15	0.20	11.27	99.89	33.	12.	113.
VB02629	431.30	434.30	41.84	16.24	11.97	5.68	2.03	1.38	8.41	0.76	0.19	0.21	11.43	100.14	34.	14.	106.
VB02630	434.50	436.60	72.87	12.87	2.33	1.03	2.09	2.62	2.10	0.26	0.10	0.05	3.13	99.45	45.	4.	183.
VB02631	454.50	457.50	41.46	15.44	16.12	4.71	2.08	1.62	8.85	0.68	0.17	0.19	8.45	99.77	26.	18.	78.
VB02632	483.20	486.20	48.02	16.76	12.89	2.68	1.05	5.52	7.22	0.74	0.18	0.16	5.00	100.22	37.	14.	86.
VB02633	510.30	513.30	45.47	19.34	11.32	4.46	1.50	3.20	11.11	0.85	0.17	0.19	2.63	100.24	37.	13.	121.

**DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MINOR ELEMENTS)**

SAMPLE NUMBER	FROM	TO	RB (ppm)	SR (ppm)	BA (ppm)	Y (ppm)	ZR (ppm)	NB (ppm)	CU (ppm)	ZN (ppm)	NI (ppm)	ROCK	ALT	MIN
VB02612	122.00	125.00	35.0	168.0	723.0	20.0	52.0	20.0	34.0	74.0	20.0	TFA-	?	DCP
VB02613	135.70	138.70	38.0	90.0	785.0	20.0	97.0	20.0	20.0	37.0	20.0	TFA-	?	DCP
VB02614	147.00	149.00	52.0	73.0	852.0	26.0	113.0	20.0	20.0	41.0	20.0	TFAQ	?	DCP
VB02615	157.50	160.50	37.0	108.0	451.0	31.0	93.0	20.0	20.0	99.0	20.0	TMA	?	DBP
VB02616	171.00	174.00	43.0	102.0	423.0	28.0	81.0	20.0	46.0	80.0	20.0	TIA	?	DBP
VB02617	189.90	191.40	35.0	120.0	922.0	28.0	83.0	20.0	20.0	20.0	20.0	TFAQ	?	DCP
VB02618	200.25	203.25	32.0	172.0	206.0	20.0	56.0	20.0	77.0	95.0	20.0	TMB	?	DBP
VB02619	222.50	225.50	20.0	815.0	485.0	20.0	127.0	20.0	20.0	91.0	20.0	TMA	?	DBP
VB02620	255.00	258.00	40.0	569.0	1091.0	20.0	149.0	20.0	27.0	81.0	20.0	TMA	?	DBP
VB02621	282.00	284.50	37.0	282.0	614.0	23.0	110.0	20.0	23.0	112.0	20.0	TMA		DBP
VB02622	295.00	298.00	38.0	345.0	894.0	20.0	115.0	20.0	20.0	28.0	20.0	TFAD		DBP
VB02623	307.80	309.30	69.0	376.0	603.0	20.0	87.0	20.0	69.0	117.0	20.0	TMA		DBP
VB02624	335.70	338.70	21.0	355.0	610.0	20.0	121.0	20.0	20.0	34.0	20.0	TFAD		DBP
VB02625	363.70	366.70	50.0	230.0	819.0	20.0	103.0	20.0	20.0	22.0	20.0	TFAD		DBP
VB02626	391.60	394.00	26.0	193.0	305.0	32.0	61.0	20.0	20.0	111.0	20.0	TIA		DCP
VB02627	412.60	415.60	23.0	182.0	304.0	39.0	71.0	20.0	20.0	103.0	20.0	TIA		SCP
VB02628	425.00	428.00	33.0	209.0	457.0	20.0	50.0	20.0	96.0	102.0	20.0	TIAA		DBP
VB02629	431.30	434.30	33.0	219.0	355.0	25.0	46.0	20.0	70.0	97.0	20.0	PHAE		DBP
VB02630	434.50	436.60	51.0	120.0	942.0	20.0	112.0	20.0	20.0	85.0	20.0	TFAQ		DCP
VB02631	454.50	457.50	31.0	255.0	625.0	20.0	47.0	20.0	132.0	43.0	20.0	TMBEW		DBD
VB02632	483.20	486.20	57.0	183.0	2979.0	23.0	48.0	20.0	92.0	39.0	20.0	TMBE	?A	DBD
VB02633	510.30	513.30	50.0	225.0	1747.0	22.0	44.0	20.0	64.0	76.0	20.0	TMBE	PMH	DBD

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 124.06	CASING «job»					
124.06 TO 135.33	QUARTZ-FELDSPAR PHYRIC FELSIC INTRUSIVE (SALTSPRING INTRUSION) «9sc»	Light grey to white medium to coarse-grained quartz (15-20%, 2-4 mm, anhedral to euhedral feldspar (15-20%, 2-5 mm anhedral to subhedral prisms) phyrlic massive felsic intrusive. Broken blocky core over entire interval. Fractured subparallel to 90° to core axis. Minor limonetic weathering on fracture surfaces. STRUCTURE FAULT: 135.20 - 135.33 Pulverized rock and gouge. Angle unclear, but possibly 40-50° CA.				
135.33 TO 139.90	FELSIC TUFF «4a»	Light grey to greenish-grey fine-grained sericitic weakly to moderately foliated felsic tuff. 138.38 - 139.90 Sporadically quartz-feldspar phyrlic. Vague clastic texture; possibly a lapilli tuff. Broken core along lower contact. Fault? STRUCTURE FOLIATION: 55-60° to core axis. FAULT: 138.38 - 5 cm (+?) wide gouge zone parallel to foliation.			137.45 - 137.58, 138.23 - 138.38 Zones with 7-8% fine-grained pyrite in discontinuous 1-2 mm wide bands parallel to foliation.	
139.90 TO 143.14	FELDSPAR PHYRIC MAFIC TUFF «2ab»	Medium to dark greenish-grey fine-grained feldspar phyrlic (sporadic 0-15%, <1 mm, dark green to epidotic) massive to poorly banded mafic tuff. 141.20 - 142.34 Medium greenish-grey feldspar (10% <1 mm) phyrlic intermediate dyke. STRUCTURE BANDING/FOLIATION: 55° CA			Sporadic <1-3% disseminated pyrite.	

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
143.14 TO 144.26	QUARTZ-FELDSPAR PHYRIC FELSIC TUFF «4ac»	143.14 - 143.56 Medium greenish-grey fine-grained massive sericitic groundmass with 10% @ rounded grey 2-3 mm quartz and feldspar crystals. 143.56 - 144.26 Medium to light grey fine-grained quartz-feldspar phyric (sporadic 0-5% of each, <1 mm) sericitic strongly foliated felsic tuff. STRUCTURE FOLIATION: 45-50° CA.				
144.26 TO 146.02	MAFIC LAPILLI TUFF «2b»	Mottled medium to dark greenish-grey fine-grained epidotic-chloritic mafic tuff with vague lithic clasts up to 1 cm. Some irregular zones (clasts?) up to 5 cm wide with <1 mm feldspar phenocrysts.			145.18 - 145.28 2 cm wide zone with 7-8% pyrrhotite adjacent calcite stringer at 30° to core axis.	
146.02 TO 149.21	MAFIC TUFF «2a»	Dark greenish-grey fine-grained mafic tuff weakly brecciated and flooded with 15-20% calcite +/-quartz in irregular discontinuous lenses and stringers up to 3 cm wide parallel to foliation. 146.75 - 147.42 Mafic lapilli tuff as 144.26 - 146.02 STRUCTURE FOLIATION: 40-60° CA.			147.14 - 147.32 4-5% @ of pyrite and pyrrhotite, disseminated and in irregular masses up to 5 mm wide.	
149.21 TO 159.04	MAFIC LAPILLI TUFF «2b»	Mottled medium to dark greenish-grey fine-grained massive mafic lapilli tuff with dark green rounded fine-grained +/-feldspar phyric +/-amygdaloidal mafic lithic fragments up to 2 cm in diameter.			<1% pyrite, traces Chalcopyrite.	

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
159.04 TO 175.87	FELDSPAR PHYRIC INTER-MEDIATE TUFF «3ab»	Dark greenish to brownish-grey fine-grained feldspar phyric (sporadic 5-15%, <1-2 mm [average 1 mm] epidotized) weakly foliated and poorly banded to massive mafic tuff. Rare epidotized clasts upto 2 cm are probably lithic fragments. Lower contact gradational. STRUCTURE BANDING/FOLIATION: 159.04 - 160.60 58° CA 160.60 - 166.00 70° CA 166.00 - 169.00 65° CA 169.00 - 175.80 60° CA		Sporadic brown colour could be due to fine-grained biotite.	175.40 - 1 cm wide quartz stringer at 60° CA parallel to foliation. 5-8% @ pyrite and pyrrhotite. Traces Chalcopyrite. Generally <1% pyrite along hairline fracture.	
175.87 TO 250.46	MASSIVE FELDSPAR PHYRIC INTER-MEDIATE TO MAFIC TUFF «3ab-2ab»	Medium greenish-grey fine-grained feldspar phyric (sporadic 5-15% generally <1 mm, epidotic massive to weakly foliated intermediate to mafic tuff. Sporadic (<5%) generally <5 cm epidotic masses could be altered lithic fragments. The unit is probably a sandy volcanoclastic. Contact with the unit above is gradational over 1 m, and is based on a slight shift in colour and a change to a more massive texture. Chemically the two units may be similar. STRUCTURE 208.30 - 210.00 Broken core. Fractured subparallel to core axis. 216.50 - 219.00 Broken blocky core. FAULTS: 228.80 - 229.05 Broken core. Minor gouge. 30° CA 230.48 - 230.74 Broken core. Minor gouge. 30° CA		249.90 - 250.15 Groundmass bleached white adjacent quartz stringer.	<1% disseminated and fracture-controlled pyrite. 175.87 - 176.83 4-5% pyrite along hairline fractures parallel to and crosscutting foliation. 205.05 - 205.26 Quartz-calcite flooded shear zone at 20-40° CA. 5% fracture related pyrite. Minor gouge.	
250.46 TO 279.15	MAFIC LAPILLI TUFF «2b»	Mottled medium brownish-grey to greenish-grey to dark greenish-grey fine-grained feldspar phyric (?) (15% sporadic <0.5 mm light-coloured specs) massive intermediate to mafic lapilli tuff. The rock has a vaguely clastic texture with dark			Sporadic <1% disseminated Chalcopyrite and pyrite throughout. 253.60 - 254.00 2% Chalcopyrite in	

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>green chloritic patches up to 5 cm in diameter.</p> <p>251.28 - 251.80 Medium grey feldspar phyrlic (15-20% euhedral <0.5 mm) intermediate dyke with 20% white +/-1 mm siliceous spherules (amygdules?). Spherules not prominent in 5 cm chill margins. Sharp lower contact at 60° to core axis.</p> <p>STRUCTURE</p> <p>FAULT: 278.85 - 279.15 Broken, gougy core sheared 20-30° CA.</p>			irregular masses up to 2 mm * 5 mm along hairline fractures.	
279.15 TO 288.34	FELDSPAR-MAFIC PHYRIC SPHERULITIC MAFIC INTRUSIVE «7reg»	<p>Medium greenish-grey fine-grained feldspar (15%, <1 mm euhedral to subhedral) mafic (5-10%, 1-2 mm, stubby chloritic pyroxene?) phyrlic massive intermediate intrusive with 15-20% +1 mm spherical white masses commonly enveloping phenocrysts.</p> <p>279.15 - 281.52 Mottled light to dark grey silicified equivalent of unit described above. 15% white quartz-carbonate stringers up to 1 cm wide 50° to subparallel to core axis. Fault along upper contact.</p> <p>288.34 - Sharp contact at 50° CA.</p>				
288.34 TO 304.30	MAFIC LAPILLI TUFF «2b»	<p>As 250.46 - 279.15.</p> <p>Fault along lower contact.</p> <p>STRUCTURE</p> <p>296.30 - 297.80 Fractured subparallel to core axis.</p> <p>FAULT: 303.90 - 304.30 Broken blocky core. Sheared 15-40° to core axis. Minor gouge.</p>			<p>Traces (<<1%) disseminated Chalcopyrite</p> <p>294.14 - 294.50 5% Chalcopyrite in masses up to 5 mm * 1 cm along hairline fractures and calcite stringers, 70° - subparallel to core axis. Zone adjacent a weak shear zone at 30° to core axis.</p>	

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
304.30 TO 306.66	FELDSPAR +/-MAFIC PHYRIC SPHERULITIC MAFIC INTRUSIVE «7reg»	As 281.52 - 288.34 Sharp lower contact. Broken core. Angle to core axis unclear.				
306.66 TO 313.87	MAFIC-LAPILLI TUFF «2b»	As 250.46 - 279.15 A few distinct feldspar phyric fragments. 307.70- 308.25 Fine-grained spherulitic dyke. 312.80 - 313.40 50% distinct <1-2 cm fine-grained feldspar phyric lithic fragments. STRUCTURE FAULT: 309.00 - 310.50 Blocky broken core. Minor gouge. Shearing at 30° to subparallel to core axis.				
313.87 TO 316.40	SPHERULITIC MAFIC INTRUSIVE (?) «7rg»	Medium greenish to brownish-grey fine-grained aphanitic massive intrusive (?) with sporadic 0-20% <1 mm white spherules. STRUCTURE 314.00 - 314.56 Broken core. Fractured 20° to subparallel to core axis.				
316.40 TO 317.46	MAFIC LAPILLI TUFF «2bbf»	As previous intervals. Some distinct feldspar +/- amygdaloidal clasts up to 2 cm.				

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
317.46 TO 318.58	MAFIC TUFF «2a»	Medium to dark green fine-grained massive tuff. Conformable. STRUCTURE BEDDING/CONTACT: 317.46 - 43° CA				
318.58 TO 319.85	INTERBEDDED FELSIC VOLCANIC-LASTIC AND CHERT «4a,5m»	Light greenish-grey fine to medium-grained sandy felsic volcanoclastic interbedded with 30% <1-2 cm light grey chert beds at 30° to core axis. 319.80 - Possible graded bedding and scouring indicate tops down hole. STRUCTURE BEDDING: 30° CA				
319.85 TO 324.50	FELSIC MEDIUM TO COARSE-GRAINED VOLCANIC-LASTIC «4br»	Light greenish-grey medium to coarse-grained massive volcanic sandstone (?) (lapilli tuff?) with 10% subrounded to rounded fine-grained light to medium grey lithic fragments up to 2 cm in diameter.				
324.50 TO 325.60	MAFIC TUFF «2a»	Medium to dark greenish-grey fine-grained chloritic epidotic massive tuff.				
325.60 TO 328.80	FELDSPAR-MAFIC PHYRIC SPHERULITIC MAFIC INTRUSIVE «7reg»	Medium greenish-grey fine-grained feldspar (15-20% light to dark green <1 mm euhedral to anhedral) mafic (5-15%, 1-2 mm, stubby pyroxene?) phyric silicified massive mafic intrusive. Contacts indistinct. Sporadic 0-20% <1 mm white spherules.		Ubiquitous silicification.		

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
328.80 TO 331.14	FELSIC TUFF «4a»	Mottled medium greenish to brownish-grey fine-grained siliceous weakly foliated felsic tuff. STRUCTURE FOLIATION: 20° to core axis.		Moderate ubiquitous silicification.		
331.14 TO 333.80	FELDSPAR (+/-MAFIC) PHYRIC SPHERULITIC MAFIC INTRUSIVE «7reg»	As 325.60 - 328.80				
333.80 TO 340.37	FELDSPAR PHYRIC INTER-MEDIATE LAPILLI TUFF «3b»	Mottled light to medium greenish-grey fine-grained feldspar phyric massive siliceous tuffaceous groundmass with light to medium greenish-grey fine-grained +/-feldspar phyric subangular to rounded lithic fragments up to 2 cm.		Pervasive moderate silicification.		
340.37 TO 344.12	FELDSPAR-MAFIC PHYRIC MAFIC INTRUSIVE «7reg»	Light to medium greenish-grey fine-grained feldspar (15%, <1 mm) mafic (5-10%, 1-2 mm, stubby chloritic pyroxene?) phyric moderately siliceous massive intermediate intrusive.		Pervasive moderate silicification.		
344.12 TO 359.40	FELDSPAR PHYRIC INTER-MEDIATE TUFF «3ab»	Mottled medium to dark greenish-grey fine-grained feldspar phyric (5-20%, <1 mm) massive sporadically silicified mafic tuff. 350.00 - 351.00 20% rounded feldspar phyric lithic fragments up to 5 cm in diameter. 353.00 - 359.40 Less silicified, darker greenish-grey than above. Unclear whether darker colour is due to a more mafic original		Sporadic moderate silicification.		

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		composition or less severe silicification. 358.30 - 359.40 Lapilli tuff? White to medium greenish-grey fine-grained feldspar phyrlic subrounded to subangular lithic fragments up to 3 cm. Banding (bedding ?) at 50° to core axis. STRUCTURE 358.90 - 359.4 Banded (bedded?) 50° to core axis.				
359.40 TO 362.27	FELDSPAR-MAFIC PHYRIC MAFIC INTRUSIVE «7re»	Medium to light greenish-grey fine-grained feldspar (15% epidotic chloritic subhedral prisms up to 2 mm) mafic (5-10%, 2-4 mm stubby pyroxene) phyrlic massive mafic intrusive. Indistinct margins.		361.70 - 362.27 Strong silicification. Bleached to a light greenish-grey.		
362.27 TO 370.03	INTER-MEDIATE LAPILLI TUFF «3bb»	Mottled light to dark greenish-grey fine-grained massive siliceous groundmass with 10-50% subangular light grey fine-grained +/-feldspar phyrlic +/-amygdaloidal lithic fragments up to 5 cm. 369.80 - 370.03 Light to medium grey felsic cherty ash tuff bed. STRUCTURE BEDDING/FOLIATION: 369.80 42° CA		362.27 -370.03 Strong pervasive silicification.	369.67 - 369.80 1-2% fine-grained disseminated Chalcopyrite, traces pyrite.	
370.03 TO 384.60	INTER-MEDIATE TUFF «3a»	Mottled light to dark greenish-grey fine-grained chloritic-epidotic massive to weakly foliated intermediate tuff. STRUCTURE FAULT: 370.56 - 370.60 Weak shear/gouge zone at 80° CA. FOLIATION: 35° CA.		Sporadically weakly silicified. Sporadic moderate epidotization.	370.03 - 371.22 1% disseminated and fracture-related pyrite. Traces of Chalcopyrite. 371.22 - 371.74 1-2% pyrite and 4-5% Chalcopyrite disseminated and along hairline fractures in masses up to 2 mm * 5 mm. 371.74 -372.00 Traces Chalcopyrite. 382.11 - 382.65 5-6% disseminated	

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
					pyrite in an epidotized zone. 384.12 - 384.60 5% disseminated medium-grained pyrite.	
384.60 TO 399.10	FELDSPAR PHYRIC INTER-MEDIATE TUFF «3ab»	Mottled light to medium greenish-grey fine-grained feldspar-phyric (sporadic 5-15%, <1 mm) sericitic foliated tuff. 387.00 - 393.70 Quartz phyric (<5%, <1-2mm). Rare quartz phyric lithic fragments up to 2 cm * 10 cm. 393.70 - 397.10 Sheared, pulverized rock. Shearing subparallel to core axis. Minor gouge. 20% quartz stringers. STRUCTURE FOLIATION: 384.60 - 393.70 25-40° CA 393.70 - 397.10 Contorted, generally subparallel CA. 'S' folds (foliation oriented top left to bottom right). 397.10 - 398.30 25-30° CA 398.30 - 399.10 50-60° CA			1-2% disseminated pyrite.	This unit was originally thought to be felsic, but whole rock data indicate an intermediate composition.
399.10 TO 403.32	CHLORITIC INTER-MEDIATE LAPILLI TUFF «3bl»	Medium to dark greenish-grey chloritic sericitic groundmass with 25% light grey fine-grained siliceous lithic fragments up to 1 cm * 3 cm flattened along the plane of foliation. A few fragments are feldspar phyric. Several angular dark maroonish-grey fragments may be mudstone suggesting a more sedimentary nature to unit. STRUCTURE FOLIATION: 25-35° CA			2% pyrite and traces Chalcopyrite throughout. 399.80 - 400.35 5-7% fine-grained pyrite concentrated along 1-2 mm wide discontinuous bands parallel to foliation. Traces of Chalcopyrite. A few felsic fragments with 15% fine-grained red-brown sphalerite (?).	
403.32 TO 408.00	FELSIC TUFF «4a»	Light to medium greenish-grey fine-grained sericitic +/-chloritic foliated felsic tuff with rare fine-grained aphanitic felsic lithic fragments up to 2 cm and vague feldspar phyric possible lithic fragments up to 2cm * 4 cm				

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		flattened in the plane of foliation. The unit could be a lapilli tuff. STRUCTURE FOLIATION: 45-50° CA				
408.00 TO 409.38	QUARTZ PHYRIC FELSIC TUFF «4aa»	Light greenish-grey to white fine-grained quartz phyric (5-10%, 1-3 mm, rounded) sericitic foliated felsic tuff. STRUCTURE FOLIATION: 45° CA.				
409.38 TO 415.42	MAFIC LAPILLI TUFF «2b»	Mottled medium to dark green fine-grained chloritic weakly foliated mafic tuff with 20% epidotic +/-feldspar phyric +/-amygdaloidal lithic fragments up to 1 cm. 413.45 - 414.44 Weakly to strongly magnetic. Hematite on fracture surfaces. Up to 20% fine-grained magnetite across 20 cm. STRUCTURE FOLIATION: 50° CA.				
415.42 TO 415.98	FELSIC TUFF «4a»	Medium greenish-grey fine-grained moderately siliceous massive felsic tuff.				
415.98 TO 418.30	MAFIC TUFF «2a»	Dark greenish-grey fine-grained chloritic calcareous strongly foliated mafic tuff. STRUCTURE FOLIATION: 35-40° CA.				

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
418.30 TO 421.86	ARGILLITE ? /CHLORITE-CALCITE STRINGER ZONE «5i,STR.Z.»	Black fine-grained massive argillite (?) (mafic tuff?) cut by 15-20% fine grained chlorite stringers up to 7 cm wide and 20% irregular white calcite lenses and discontinuous stringers up to 2 cm wide 60° to subparallel to core axis. STRUCTURE SHEAR: 418.55 - 20° CA. Minor gouge.			418.3 - 1 cm calcite vein at 30° to core axis with 40% Chalcopyrite in masses up to 1 cm * 2 cm commonly rimmed by pyrite. 1% pyrite and traces of Chalcopyrite throughout unit.	The zone is possibly a mylonite with subsequent fracturing and veining.
421.86 TO 430.50	MAFIC TUFF/ LAPILLI TUFF «2a,2b»	Mottled medium to dark greenish-grey fine-grained chloritic massive mafic tuff with up to 10% indistinct feldspar phyric lithic fragments up to 2 cm. 427.94 - 428.94 Medium greenish-grey fine-grained well foliated felsic tuff. STRUCTURE FAULT: 421.86 -422.80 Sheared, pulverized gougy. Sheared 20° to core axis. VEINS: 422.80 - 426.10 5% widely spaced white quartz, calcite, chlorite veins up to 5 cm wide 60-70° CA. FOLIATION: 427.94 - 430.00 25° CA. FAULT: 430.30 - 430.50 2 cm zone of pulverized rock and gouge at 20° CA.			<1% pyrite and traces Chalcopyrite throughout. Chalcopyrite disseminated and associated with quartz-calcite-chlorite stringers. 423.84 - 426.87 4-5% disseminated pyrite and traces of Chalcopyrite.	This unit was originally thought to be an intermediate tuff, but whole rock data indicate a mafic composition.
430.50 TO 451.52	MAFIC LAPILLI TUFF «2b»	Mottled dark to medium green chloritic massive mafic tuff with epidotic patches up to 5 cm in diameter (probably altered lithic fragments). Rare clear feldspar phyric lithic fragments up to 2 cm. STRUCTURE VEIN:			Sporadic +/-1% disseminated pyrite and traces Chalcopyrite throughout. 435.60 - 441.05 Sporadic 2-4% fine-grained pyrite concentrated in irregular lenses, patches and bands up to 5 mm wide.	

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		451.03 - 451.52 Chlorite carbonate epidote vein at 25-30° CA. 15% pyrite.			441.05 - 441.40 Chloritic zone (vein?) adjacent shear at 441.40 at 35° to core axis. 10-15% medium-grained pyrite and <1% Chalcopyrite. 441.40 - 447.50 1-2% disseminated pyrite. 447.50 - 450.30 2-3% disseminated pyrite. 450.30 - 451.03 5% disseminated pyrite 451.03 - 451.52 15% fine to medium-grained pyrite and traces Chalcopyrite.	
451.52 TO 457.33	CHLORITIC FELSIC LAPILLI TUFF/ CHLORITE-SULPHIDE STRINGER ZONE «4bl,SULPH. Z.»	Mottled medium to dark green chloritic sericitic weakly foliated sporadically silicified felsic tuff with indistinct amygdaloidal lithic fragments up to 5 cm in diameter. CHLORITIC ZONES/CHLORITE VEINS: 451.03 - 451.52 Fine-grained chlorite matrix with 30% angular epidote-calcite fragments and zones. 25-30° to core axis. 453.13 - 456.20 Predominantly fine-grained chlorite, epidote and sulphides.		Spotty to pervasive chloritic +/-epidotic alteration. Chlorite 'veins' or 'stringers' may be simply intense chlorite alteration.	451.03 - 451.52 15-20% fine to medium grained pyrite. 451.52 - 451.90 15% disseminated pyrite and 1-2% Chalcopyrite in masses up to 2 mm * 4 mm. 451.90 - 453.13 5% sporadic disseminated pyrite and traces Chalcopyrite. 453.13 - 453.80 3-4% each of pyrite and Chalcopyrite, disseminated and in irregular masses up to 2 mm * 4 mm. 453.80 - 454.40 10% each of pyrite and Chalcopyrite. 454.75 - 456.20 10-12% pyrite and 3-5% Chalcopyrite 456.20 - 457.33 7-8% each of pyrite and Chalcopyrite; disseminated, along stringers up to 1 cm and in irregular masses up to 2 cm in diameter.	

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
457.33 TO 461.80	MAFIC TUFF «2a»	Dark green fine-grained chloritic massive mafic tuff with 10-15% epidotic patches up to 3 cm in diameter, some of which are clearly feldspar phyric lithic fragments.		Pervasive strong chloritic +/-epidotic alteration.	Sporadic 5-7% fine to medium-grained disseminated pyrite and traces to 1% Chalcopyrite. 457.33 - 457.53 Chloritic vein/ alteration zone with 7-8% each of pyrite and Chalcopyrite in masses up to 1 cm * 5 mm.	R.D.S. feels that this unit could be a strongly chloritically altered felsic tuff.
461.80 TO 464.33	FELDSPAR PHYRIC CHLORITIC FELSIC LAPILLI TUFF «4bbl»	Medium to dark greenish-grey fine-grained feldspar phyric (5-15%, <1mm, dark green, vague) chloritic +/-sericitic felsic(?) tuff with distinct amygdaloidal zones (fragments with indistinct margins) up to 5 cm wide. STRUCTURE FOLIATION: 25-30° CA.		Moderate chloritic alteration.		
464.33 TO 476.80	MAFIC LAPILLI TUFF «2b»	Mottled dark to medium green fine-grained chloritic-epidotic massive to weakly foliated mafic tuff with 10% rounded and irregular epidotic patches up to 5 cm wide. Some epidotic patches are clearly amygdaloidal lithic fragments. Sporadically weakly magnetic throughout. 470.00 - 472.50 Moderately to strongly magnetic. 476.27 - 476.80 Sheared mafic dyke. STRUCTURE FOLIATION: 30-35° CA. BANDING/BEDDING: 472.35 - 472.55 22° CA. FAULT: 474.63 - 474.94 Chloritized shear zone at 30° to core axis.			Sporadic 3-6% fine-grained disseminated pyrite. 464.33 - 464.90 10% fine to medium-grained disseminated pyrite and 1-2% Chalcopyrite in a chlorite epidote calcite vein/shear zone at 30° CA. 470.60 - 470.70 Chlorite vein/ chloritized zone at 30° CA with 15% Chalcopyrite and 10% pyrite. 470.90 - 2 cm wide band at 20° CA with 25% medium-grained pyrite 472.35 - 472.55 15% medium-grained pyrite concentrated along bands at 22° CA.	

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		556.00 - 558.00 30° CA 558.00 - 600.46 40° CA			chlorite stringer.	
		VEINS 485.90 - 486.30 White quartz vein. Irregular contacts approximately 45° CA. 508.45 - 508.85 Quartz-chlorite vein 20° CA.			528.10 - 529.82 3-4% disseminated pyrite.	
		BANDING/FOLIATION: 518.90 - 519.85 30° CA			529.82 - 534.00 Generally <1% pyrite.	
		FAULTS: 526.14 - 529.82 Broken core. Minor gouge, pulverized rock. Fractured 20° to subparallel to core axis. 1-2 mm vuggy calcite stringers. Irregular quartz veins up to 10 cm wide.			534.00 - 545.14 1-2% pyrite.	
		529.13 - Slickensided shear at 30° to core axis. Projection of slickensides about 15° CA.			545.14 - 545.57 5-8% disseminated pyrite.	
		545.14 - 545.57 Shearing 15° CA.			545.43 - 4 mm * 2 cm lens (stringer ?) of chlorite and Chalcopyrite.	
		558.05 - 558.20 Gouge, pulverized rock at 30° CA. Cuts foliation at about 30°.			545.57 - 549.38 <1% fine-grained disseminated pyrite.	
		580.42 - 580.60 Crushed, pulverized zone at 40° CA.			549.38 - 550.35 3-4% fine-grained disseminated pyrite.	
		591.20 - 592.10 Fractured core. Rubble. Fractures at 20° to subparallel to core axis.			550.35 - 553.55 <1% pyrite.	
		593.50 - 594.40 Rubble, minor gouge. Sheared 10° to core axis.			553.55 - 554.34 2-4% fine-grained disseminated pyrite.	
					554.02 - 554.17 White-chlorite stringer zone subparallel to crosscutting foliation. 7-8% @ pyrite and Chalcopyrite.	
					554.60 - 1-2 mm calcite-chlorite Chalcopyrite stringer crosscutting foliation 50° CA.	
					554.34 - 556.57 1% disseminated pyrite.	
					556.57 - 560.90 2-4% disseminated pyrite.	
					556.75 3-5 mm chlorite calcite pyrite Chalcopyrite stringer parallel to foliation.	
					560.90 - 563.90 1% disseminated	

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		600.46 E.O.H.			<p>pyrite. Traces Chalcopyrite.</p> <p>563.90 - 564.40 5% disseminated pyrite.</p> <p>564.40 - 564.73 7-8% pyrite (disseminated and concentrated along 1-5 mm bands parallel to foliation) and <1% disseminated Chalcopyrite.</p> <p>564.73 - 574.94 Sporadic 2-4% disseminated pyrite and traces of Chalcopyrite.</p> <p>571.00 - 571.30 7-8% pyrite disseminated and concentrated along bands parallel to foliation.</p> <p>573.57 - 573.95 5% pyrite, as seen above.</p> <p>574.77 - 574.94 5-7% pyrite, as above.</p> <p>574.94 - 583.09 Sporadic 1-3% pyrite.</p> <p>583.09 - 594.82 <1% pyrite.</p> <p>594.82 - 600.46 2-3% disseminated pyrite and traces of Chalcopyrite concentrated along widely spaced (0.5 - 1 m) 1-3 mm chloritic stringers parallel to foliation.</p> <p>598.30 - Masses of Chalcopyrite up to 5 mm * 5 mm in a chlorite stringer parallel to foliation.</p>	

**DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MINOR ELEMENTS)**

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CI (ppm)	MN (ppm)	CUZN	BTS	ROCK
VB00580	135.40	136.80	740.0	4.0	6.0	0.3	2.5	3.0	1.0	2.0	2.5	0.5	122.0	40.	1.	TFA
VB00581	136.80	137.00	830.0	242.0	43.0	0.7	2.5	12.0	3.0	6.0	6.0	0.5	415.0	85.	4.	TFA
VB00582	137.00	137.45	450.0	3.0	6.0	0.4	2.5	2.0	0.5	1.0	2.5	0.5	139.0	33.	1.	TFA
VB00583	137.45	137.62	1300.0	3.0	5.0	0.3	2.5	3.0	1.0	1.0	2.5	0.5	50.0	38.	7.	TFA
VB00584	137.62	138.23	870.0	23.0	11.0	0.2	2.5	2.0	0.5	3.0	2.5	0.5	123.0	68.	2.	TFA
VB00585	138.23	138.38	950.0	5.0	10.0	0.4	2.5	13.0	7.0	3.0	6.0	0.5	50.0	33.	7.	TFA
VB00586	138.38	139.15	920.0	67.0	12.0	0.2	2.5	6.0	2.0	3.0	2.5	0.5	119.0	85.	2.	TFAD
VB00587	139.15	139.90	860.0	227.0	32.0	0.6	2.5	30.0	4.0	3.0	6.0	0.5	221.0	38.	2.	TFAD
VB00588	146.02	147.14	450.0	42.0	49.0	1.3	2.5	20.0	28.0	6.0	1349.0	3.0	766.0	46.	2.	TMA
VB00589	147.14	147.32	10.0	134.0	31.0	1.2	2.5	20.0	39.0	5.0	10.0	0.5	513.0	81.	10.	TMB
VB00590	147.32	148.55	400.0	111.0	68.0	1.2	2.5	21.0	39.0	9.0	268.0	0.5	893.0	62.	1.	TMA
VB00591	174.70	175.34	1100.0	27.0	34.0	0.8	2.5	17.0	4.0	7.0	19.0	0.5	390.0	44.	1.	TMAF
VB00592	175.34	175.53	1300.0	29.0	34.0	0.7	2.5	15.0	4.0	1.0	15.0	0.5	398.0	46.	3.	TMAF
VB00593	175.53	175.87	1500.0	30.0	31.0	0.5	2.5	15.0	4.0	1.0	27.0	0.5	379.0	49.	1.	TMAF
VB00594	175.87	176.83	1100.0	25.0	30.0	0.7	2.5	17.0	3.0	1.0	2000.0	7.0	476.0	45.	2.	TIAF
VB00595	176.83	178.00	940.0	24.0	26.0	0.5	2.5	14.0	3.0	4.0	93.0	0.5	444.0	48.	2.	TIAF
VB00596	204.95	205.29	1100.0	81.0	53.0	0.9	2.5	26.0	29.0	5.0	79.0	0.5	604.0	60.	5.	TIAF
VB00597	253.60	254.00	90.0	361.0	59.0	1.0	2.5	22.0	25.0	5.0	35.0	0.5	867.0	86.	2.	TIAF
VB00598	257.70	258.00	340.0	358.0	63.0	1.5	2.5	83.0	32.0	9.0	347.0	0.5	897.0	85.	1.	TIBF
VB00599	258.00	259.45	830.0	327.0	58.0	1.1	2.5	49.0	30.0	6.0	48.0	0.5	809.0	85.	1.	TIBF
VB00600	259.45	260.92	870.0	889.0	57.0	1.2	2.5	30.0	33.0	2.0	19.0	0.5	720.0	94.	1.	TIBF
VB00601	260.92	262.22	680.0	1672.0	56.0	1.2	2.5	34.0	35.0	6.0	122.0	0.5	687.0	97.	1.	TIBF
VB00602	292.90	294.14	610.0	36.0	11.0	0.6	2.5	19.0	17.0	2.0	27.0	0.5	246.0	77.	1.	TIBF

**DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MINOR ELEMENTS)**

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PR (ppm)	AS (ppm)	CD (ppm)	MN (ppm)	CUZN	ETS	ROCK
VB00603	294.14	294.58	80.0	2423.0	64.0	1.6	9.0	61.0	60.0	6.0	88.0	0.5	760.0	97.	5.	TIBF
VB00604	294.58	295.66	280.0	26.0	16.0	0.5	2.5	19.0	17.0	1.0	8.0	0.5	327.0	62.	1.	TIBF
VB00605	368.94	369.67	490.0	44.0	31.0	0.3	2.5	8.0	5.0	3.0	2.5	0.5	236.0	59.	1.	TIBF
VB00606	369.67	369.80	70.0	594.0	34.0	0.6	2.5	14.0	8.0	2.0	2.5	0.5	274.0	95.	2.	TIBF
VB00607	369.80	370.03	10.0	21.0	16.0	0.5	2.5	5.0	12.0	1.0	2.5	0.5	160.0	57.	0.	TFAX
VB00608	370.03	371.22	130.0	1133.0	66.0	1.5	2.5	26.0	24.0	6.0	2.5	0.5	537.0	95.	1.	TMA
VB00609	371.22	371.74	10.0	4700.0	116.0	3.4	16.0	38.0	25.0	7.0	2.5	4.0	755.0	98.	6.	TMA
VB00610	371.74	373.22	10.0	286.0	50.0	0.8	2.5	16.0	20.0	6.0	2.5	0.5	556.0	85.	2.	TMA
VB00611	381.30	382.11	10.0	307.0	55.0	0.9	2.5	12.0	16.0	8.0	2.5	0.5	545.0	85.	1.	TMA
VB00612	382.11	382.65	10.0	159.0	48.0	0.8	2.5	19.0	8.0	1.0	18.0	0.5	451.0	77.	6.	TMA
VB00613	382.65	384.12	10.0	174.0	47.0	0.8	2.5	13.0	8.0	5.0	2.5	0.5	454.0	79.	1.	TMA
VB00614	384.12	384.60	10.0	64.0	38.0	0.6	2.5	16.0	8.0	4.0	2.5	0.5	370.0	63.	5.	TMA
VB00615	384.60	385.42	380.0	138.0	32.0	0.6	2.5	9.0	5.0	6.0	2.5	0.5	337.0	81.	2.	TFAX
VB00616	399.10	399.80	80.0	1719.0	38.0	1.2	2.5	32.0	52.0	6.0	2.5	0.5	453.0	98.	3.	TFAX
VB00617	399.80	400.35	80.0	1069.0	36.0	1.3	2.5	76.0	13.0	3.0	2.5	0.5	533.0	97.	6.	TFAX
VB00618	400.35	401.65	530.0	349.0	45.0	1.0	2.5	13.0	8.0	5.0	7.0	0.5	401.0	89.	3.	TFAX
VB00619	401.65	403.32	430.0	495.0	55.0	1.1	2.5	16.0	11.0	4.0	2.5	0.5	329.0	90.	3.	TFAX
VB00620	417.07	418.30	10.0	17.0	46.0	1.3	2.5	11.0	13.0	9.0	2.5	0.5	571.0	27.	0.	TMA-
VB00621	418.30	418.55	110.0	5000.0	47.0	2.8	26.0	11.0	13.0	7.0	14.0	0.5	656.0	99.	5.	SA-A
VB00622	418.55	420.00	630.0	190.0	67.0	1.3	2.5	19.0	15.0	9.0	6.0	0.5	788.0	74.	1.	SA-A
VB00623	422.80	423.84	100.0	423.0	149.0	1.3	2.5	29.0	33.0	5.0	10.0	0.5	780.0	74.	1.	TIA
VB00624	423.84	425.42	10.0	1356.0	183.0	1.5	2.5	37.0	51.0	9.0	2.5	0.5	983.0	88.	5.	TIA
VB00625	425.42	426.87	10.0	255.0	200.0	1.1	2.5	18.0	17.0	5.0	2.5	0.5	842.0	56.	5.	TIA

**DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MINOR ELEMENTS)**

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PR (ppm)	AS (ppm)	CD (ppm)	MN (ppm)	CUZN	ITS	ROCK
VB00626	426.87	427.94	130.0	639.0	83.0	0.7	2.5	9.0	14.0	3.0	2.5	0.5	388.0	89.	5.	TIA
VB00627	427.94	428.94	1100.0	402.0	166.0	0.9	2.5	42.0	14.0	6.0	2.5	0.5	873.0	71.	1.	TFA
VB00628	438.16	439.60	10.0	821.0	219.0	1.5	2.5	53.0	14.0	8.0	9.0	0.5	1003.0	79.	3.	TMB
VB00629	439.60	441.05	10.0	834.0	221.0	1.2	2.5	54.0	12.0	7.0	2.5	0.5	1013.0	79.	3.	TMB
VB00630	441.05	441.40	80.0	5700.0	390.0	3.4	10.0	75.0	13.0	8.0	15.0	0.5	1290.0	94.	15.	F&A
VB00631	441.40	442.90	80.0	1243.0	350.0	1.6	2.5	52.0	15.0	10.0	2.5	0.5	1388.0	78.	2.	TMB
VB00632	448.77	450.30	60.0	620.0	136.0	1.1	2.5	18.0	20.0	9.0	2.5	0.5	1225.0	82.	3.	TMB
VB00633	450.30	451.03	70.0	1243.0	125.0	1.5	7.0	31.0	34.0	8.0	7.0	0.5	1034.0	91.	5.	TMB
VB00634	451.03	451.52	190.0	892.0	264.0	1.9	2.5	48.0	21.0	12.0	5.0	0.5	1432.0	77.	18.	F&A
VB00635	451.52	451.88	400.0	4000.0	199.0	2.2	79.0	121.0	25.0	9.0	2.5	0.5	807.0	95.	15.	TEFA
VB00636	451.88	453.13	290.0	947.0	123.0	1.1	8.0	28.0	19.0	5.0	2.5	0.5	690.0	89.	5.	TEFA
VB00637	453.13	453.80	150.0	5900.0	131.0	2.2	6.0	58.0	21.0	11.0	2.5	0.5	714.0	98.	8.	TEFA
VB00638	453.80	454.75	130.0	41800.0	183.0	8.6	67.0	79.0	20.0	10.0	9.0	0.5	552.0	100.	20.	F&A
VB00639	454.75	455.96	170.0	33900.0	198.0	7.4	29.0	91.0	28.0	10.0	10.0	0.5	759.0	99.	15.	F&A
VB00640	455.96	456.20	170.0	26000.0	185.0	5.9	29.0	48.0	25.0	10.0	2.5	0.5	726.0	99.	20.	F&A
VB00641	456.20	457.33	230.0	17400.0	100.0	4.4	21.0	36.0	20.0	6.0	2.5	0.5	461.0	99.	15.	TEFA
VB00642	457.33	457.53	120.0	20100.0	147.0	5.0	15.0	53.0	31.0	9.0	5.0	0.5	657.0	99.	15.	F&A
VB00643	457.53	458.77	400.0	6100.0	210.0	2.7	8.0	48.0	19.0	8.0	2.5	0.5	732.0	97.	6.	TMA
VB00644	458.77	460.16	20.0	808.0	484.0	2.0	2.5	48.0	23.0	18.0	2.5	0.5	1074.0	63.	6.	TMA
VB00645	460.16	461.50	10.0	926.0	401.0	2.1	2.5	48.0	17.0	12.0	9.0	0.5	974.0	70.	6.	TMA
VB00646	463.50	464.38	200.0	130.0	107.0	1.0	2.5	13.0	12.0	9.0	2.5	0.5	646.0	55.	2.	TFA
VB00647	464.38	464.90	260.0	8400.0	103.0	3.5	19.0	97.0	17.0	12.0	2.5	0.5	761.0	99.	10.	F&A
VB00648	464.90	466.30	120.0	456.0	57.0	1.1	2.5	23.0	19.0	9.0	2.5	0.5	730.0	89.	3.	TMB

**DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MINOR ELEMENTS)**

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PR (ppm)	AS (ppm)	CD (ppm)	MN (ppm)	CUZN	ETS	ROCK
VB00649	466.30	467.87	40.0	223.0	38.0	0.9	2.5	18.0	17.0	7.0	2.5	0.5	746.0	85.	2.	TMB
VB00650	467.87	469.37	10.0	120.0	44.0	1.0	2.5	16.0	19.0	8.0	5.0	0.5	970.0	73.	2.	TMB
VB00651	469.37	470.60	50.0	284.0	45.0	1.2	2.5	13.0	23.0	9.0	2.5	0.5	892.0	86.	2.	TMB
VB00652	470.60	470.70	10.0	40100.0	84.0	9.3	63.0	55.0	43.0	11.0	2.5	1.0	1017.0	100.	25.	FxA
VB00653	470.70	471.90	40.0	842.0	62.0	1.3	12.0	35.0	31.0	6.0	2.5	0.5	974.0	93.	4.	TMB
VB00654	471.90	473.06	10.0	2033.0	101.0	2.2	9.0	57.0	40.0	12.0	2.5	0.5	964.0	95.	4.	TMB
VB00655	473.06	473.63	90.0	666.0	83.0	1.4	2.5	28.0	20.0	12.0	2.5	0.5	875.0	89.	3.	TMB
VB00656	473.63	474.63	230.0	642.0	95.0	1.5	2.5	34.0	36.0	10.0	10.0	0.5	920.0	87.	4.	TMB
VB00657	474.63	474.94	200.0	131.0	136.0	1.7	2.5	38.0	59.0	8.0	2.5	0.5	1168.0	49.	3.	FxA
VB00658	474.94	476.05	260.0	769.0	83.0	1.8	2.5	37.0	25.0	11.0	2.5	0.5	788.0	90.	4.	TMB
VB00659	476.05	476.80	90.0	1518.0	129.0	1.8	2.5	45.0	70.0	15.0	2.5	0.5	1109.0	92.	2.	TMB
VB00660	476.80	478.35	570.0	332.0	34.0	0.4	2.5	8.0	5.0	1.0	2.5	0.5	401.0	91.	1.	TEAD
VB00661	483.56	484.13	1200.0	51.0	38.0	0.5	2.5	7.0	4.0	2.0	5.0	0.5	275.0	57.	1.	TEAD
VB00662	484.13	484.30	1200.0	4200.0	35.0	1.9	2.5	66.0	14.0	8.0	2.5	0.5	326.0	99.	7.	TEAD
VB00663	484.30	484.64	1100.0	65.0	19.0	0.4	2.5	4.0	2.0	6.0	2.5	0.5	151.0	77.	1.	TEAD
VB00664	494.40	494.92	970.0	48.0	26.0	0.5	2.5	118.0	6.0	4.0	5.0	0.5	171.0	65.	4.	TEAD
VB00665	494.92	495.45	1300.0	317.0	27.0	0.7	2.5	144.0	7.0	3.0	2.5	0.5	181.0	92.	5.	TEAD
VB00666	495.45	495.92	820.0	58.0	27.0	0.1	2.5	43.0	4.0	2.0	2.5	0.5	190.0	68.	2.	TEAD
VB00667	508.11	508.45	690.0	880.0	48.0	0.8	2.5	33.0	4.0	5.0	2.5	0.5	323.0	95.	5.	TEAD
VB00668	508.45	508.85	1000.0	37.0	33.0	0.3	37.0	6.0	4.0	4.0	2.5	0.5	315.0	53.	0.	EPx
VB00669	508.85	510.20	940.0	350.0	44.0	0.6	2.5	17.0	2.0	5.0	2.5	0.5	345.0	89.	3.	TEAD
VB00670	510.20	511.16	1400.0	273.0	25.0	0.4	2.5	7.0	3.0	1.0	2.5	0.5	211.0	92.	3.	TEAD

**DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MINOR ELEMENTS)**

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	MN (ppm)	CUZN	ETS	ROCK
VB00672	527.40	527.93	260.0	15.0	20.0	0.1	2.5	10.0	4.0	1.0	7.0	0.5	156.0	43.	1.	TFAD
VB00673	527.93	528.10	140.0	18500.0	20.0	2.5	2.5	25.0	5.0	10.0	2.5	0.5	205.0	100.	5.	EP*
VB00674	528.10	528.35	200.0	94.0	26.0	0.1	2.5	16.0	5.0	1.0	5.0	0.5	230.0	78.	4.	TFAD
VB00675	528.35	528.65	230.0	3000.0	35.0	0.7	2.5	18.0	5.0	1.0	2.5	0.5	278.0	99.	4.	TFAD
VB00676	528.65	529.32	790.0	107.0	24.0	0.1	7.0	15.0	3.0	3.0	9.0	0.5	248.0	82.	4.	TFAD
VB00677	544.38	545.14	1400.0	18.0	15.0	0.1	2.5	4.0	2.0	1.0	9.0	0.5	259.0	55.	1.	TFAD
VB00678	545.14	545.57	1400.0	1966.0	33.0	1.0	2.5	49.0	4.0	1.0	16.0	0.5	297.0	98.	5.	TFAD
VB00679	545.57	546.95	1200.0	79.0	20.0	0.1	2.5	9.0	3.0	1.0	2.5	0.5	232.0	80.	1.	TFAD
VB00680	553.55	554.02	990.0	80.0	20.0	0.1	2.5	4.0	2.0	1.0	2.5	0.5	147.0	80.	4.	TFAD
VB00681	554.02	554.17	920.0	33700.0	30.0	7.1	64.0	33.0	5.0	7.0	2.5	0.5	335.0	100.	15.	TFAD*
VB00682	554.17	554.83	820.0	195.0	12.0	0.1	2.5	4.0	2.0	1.0	2.5	0.5	176.0	94.	2.	TFAD
VB00683	554.83	556.13	850.0	184.0	14.0	0.1	2.5	4.0	2.0	1.0	7.0	0.5	240.0	93.	1.	TFAD
VB00684	556.13	556.57	920.0	172.0	17.0	0.3	2.5	6.0	3.0	7.0	14.0	0.5	234.0	91.	2.	TFAD
VB00685	556.57	556.92	840.0	812.0	16.0	0.3	2.5	10.0	2.0	3.0	8.0	0.5	261.0	98.	3.	TFAD
VB00686	556.92	558.35	1100.0	41.0	14.0	0.1	2.5	15.0	2.0	1.0	2.5	0.5	225.0	75.	4.	TFAD
VB00687	558.35	559.50	790.0	12.0	16.0	0.1	2.5	8.0	2.0	1.0	7.0	0.5	140.0	43.	4.	TFAD
VB00688	559.50	560.90	1100.0	113.0	16.0	0.1	2.5	7.0	2.0	1.0	2.5	0.5	131.0	88.	4.	TFAD
VB00689	560.90	562.32	1200.0	374.0	15.0	0.1	2.5	3.0	2.0	1.0	5.0	0.5	158.0	96.	2.	TFAD
VB00690	562.32	563.90	980.0	1301.0	21.0	0.4	2.5	3.0	4.0	3.0	15.0	0.5	182.0	98.	2.	TFAD
VB00691	563.90	564.40	1100.0	1889.0	18.0	0.4	2.5	3.0	3.0	3.0	2.5	0.5	157.0	99.	5.	TFAD
VB00692	564.40	564.73	2000.0	1965.0	17.0	0.8	2.5	11.0	3.0	2.0	11.0	0.5	136.0	99.	8.	TFAD
VB00693	564.73	566.02	1400.0	53.0	12.0	0.1	2.5	5.0	2.0	1.0	2.5	0.5	110.0	82.	3.	TFAD
VB00694	566.02	567.54	1100.0	160.0	18.0	0.1	2.5	6.0	2.0	1.0	2.5	0.5	132.0	90.	3.	TFAD

**DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MINOR ELEMENTS)**

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	MN (ppm)	CUZN	ETS	ROCK
VB00695	567.54	569.07	1100.0	106.0	12.0	0.1	15.0	8.0	3.0	1.0	10.0	0.5	125.0	90.	3.	TFAD
VB00696	569.07	570.15	1100.0	380.0	18.0	0.1	2.5	2.0	2.0	1.0	2.5	0.5	172.0	95.	2.	TFAD
VB00697	570.15	571.00	900.0	94.0	13.0	0.1	2.5	4.0	3.0	1.0	2.5	0.5	104.0	88.	3.	TFAD
VB00698	571.00	571.30	1100.0	486.0	16.0	0.4	2.5	17.0	3.0	2.0	2.5	0.5	179.0	97.	8.	TFAD
VB00699	571.30	572.65	1100.0	56.0	18.0	0.1	2.5	6.0	3.0	1.0	2.5	0.5	150.0	76.	2.	TFAD
VB00700	572.65	573.57	1600.0	213.0	10.0	0.1	2.5	10.0	2.0	1.0	2.5	0.5	164.0	96.	3.	TFAD
VB00701	573.57	573.95	1800.0	254.0	17.0	0.4	2.5	30.0	3.0	2.0	2.5	0.5	190.0	94.	5.	TFAD
VB00702	573.95	574.77	1700.0	403.0	13.0	0.2	2.5	7.0	1.0	1.0	2.5	0.5	263.0	97.	3.	TFAD
VB00703	574.77	574.94	1400.0	32.0	14.0	0.5	2.5	21.0	2.0	1.0	7.0	0.5	223.0	70.	6.	TFAD
VB00704	574.94	576.05	1100.0	327.0	20.0	0.1	2.5	5.0	2.0	1.0	7.0	0.5	255.0	94.	1.	TFAD
VB00705	594.82	595.63	760.0	172.0	26.0	0.3	2.5	9.0	2.0	6.0	2.5	0.5	364.0	87.	3.	TFAD
VB00706	595.63	596.33	770.0	576.0	20.0	0.3	2.5	6.0	2.0	1.0	2.5	0.5	240.0	97.	3.	TFAD
VB00707	596.33	597.70	890.0	234.0	26.0	0.2	2.5	10.0	2.0	1.0	2.5	0.5	387.0	90.	3.	TFAD
VB00708	597.70	598.30	830.0	291.0	26.0	0.2	2.5	6.0	2.0	1.0	8.0	0.5	360.0	92.	3.	TFAD
VB00709	598.30	598.66	1100.0	1395.0	31.0	0.5	7.0	6.0	2.0	3.0	2.5	0.5	335.0	98.	3.	TFAD
VB00710	598.66	600.03	710.0	224.0	31.0	0.3	2.5	11.0	2.0	9.0	2.5	0.5	339.0	88.	2.	TFAD

**DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MAJOR ELEMENTS)**

SAMPLE NUMBER	FROM	TO	XSI02	XAL203	XCA0	XMG0	XNA20	XK20	XFE203	XTI02	XP205	XMN0	XLOJ	SUM	AI	NACA	ALUM
VB02634	131.00	134.00	75.62	13.92	0.22	0.29	5.77	1.74	0.96	0.20	0.05	0.01	1.01	99.79	25.	6.	180.
VB02635	135.50	138.20	74.32	13.66	1.42	1.02	4.69	1.85	0.61	0.20	0.04	0.02	2.24	100.07	32.	6.	172.
VB02636	152.00	155.00	41.00	17.19	15.77	7.37	0.25	0.34	13.33	0.71	0.29	0.19	3.74	100.18	32.	16.	105.
VB02637	168.50	171.30	55.54	17.43	6.44	1.92	3.22	2.89	7.72	0.50	0.41	0.11	2.85	99.03	33.	10.	139.
VB02638	195.50	198.50	58.12	17.29	5.63	1.99	3.34	3.28	7.55	0.46	0.38	0.12	1.66	99.82	37.	9.	141.
VB02639	226.00	229.00	51.94	18.39	9.09	2.35	3.00	2.19	9.66	0.56	0.41	0.14	2.22	99.95	27.	12.	129.
VB02640	254.50	257.50	40.29	17.92	13.24	8.68	0.19	0.93	14.04	0.63	0.15	0.23	3.82	100.12	42.	13.	125.
VB02641	283.00	286.00	48.22	19.02	15.76	3.20	1.97	0.25	8.63	0.81	0.43	0.14	1.90	100.33	16.	18.	106.
VB02642	298.00	301.00	48.90	17.49	15.07	6.02	0.46	0.75	8.67	0.63	0.14	0.15	2.30	100.58	30.	16.	107.
VB02643	320.50	323.50	66.98	14.48	4.44	3.82	4.14	1.71	2.33	0.61	0.24	0.06	1.46	100.27	39.	9.	141.
VB02644	336.00	339.00	50.91	15.56	16.48	6.73	0.76	1.22	6.10	0.62	0.14	0.18	1.88	100.58	32.	17.	84.
VB02645	341.50	344.50	50.49	18.87	11.16	3.87	4.28	0.29	8.17	0.77	0.47	0.13	1.95	100.45	21.	15.	120.
VB02646	348.00	351.00	55.11	19.94	8.08	2.98	5.82	0.98	4.57	0.79	0.51	0.09	1.61	100.48	22.	14.	134.
VB02647	377.50	380.20	55.97	17.65	6.58	4.67	5.54	0.04	6.68	0.52	0.47	0.09	2.35	100.56	28.	12.	145.
VB02648	388.50	391.50	56.90	21.98	6.08	1.77	5.25	1.54	1.26	0.66	0.21	0.05	4.39	100.09	23.	11.	171.
VB02649	400.50	403.30	61.00	12.49	5.56	3.70	1.54	0.76	7.95	0.24	0.09	0.06	6.48	99.87	39.	7.	159.
VB02650	410.50	413.40	52.03	19.65	5.31	4.73	5.96	0.20	7.73	0.92	0.21	0.08	3.59	100.41	30.	11.	171.
VB02651	423.30	426.30	41.79	16.50	16.59	6.16	0.73	0.06	11.95	0.79	0.19	0.20	5.28	100.24	26.	17.	95.
VB02652	443.40	446.40	39.05	18.62	14.53	7.01	0.49	0.13	14.05	0.80	0.27	0.27	4.94	100.16	32.	15.	123.
VB02653	467.00	470.00	47.69	15.69	6.93	6.82	2.55	0.36	14.49	0.74	0.18	0.19	4.58	100.22	43.	9.	159.
VB02654	482.90	486.00	71.57	13.87	2.03	2.23	3.50	2.00	1.66	0.25	0.08	0.04	2.64	99.87	43.	6.	184.
VB02655	512.75	515.75	70.14	15.96	1.49	1.42	3.24	2.38	1.81	0.29	0.09	0.02	2.75	99.59	45.	5.	224.
VB02656	538.00	541.00	69.94	15.51	0.78	2.26	2.17	2.25	3.85	0.29	0.08	0.03	2.97	100.13	60.	3.	298.

**DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MINOR ELEMENTS)**

SAMPLE NUMBER	FROM	TO	RB (ppm)	SR (ppm)	BA (ppm)	Y (ppm)	ZR (ppm)	NB (ppm)	CU (ppm)	ZN (ppm)	NI (ppm)	ROCK	ALT	MIN
VB02634	131.00	134.00	26.0	161.0	593.0	20.0	113.0	20.0	159.0	26.0	20.0	PEBD		DBP
VB02635	135.50	138.20	34.0	165.0	516.0	20.0	106.0	21.0	20.0	20.0	20.0	TEA		DCP
VB02636	152.00	155.00	20.0	360.0	189.0	20.0	51.0	20.0	204.0	60.0	40.0	TMBE		DBP
VB02637	168.50	171.30	66.0	504.0	1128.0	20.0	149.0	21.0	41.0	45.0	20.0	THAE		SCP
VB02638	195.50	198.50	59.0	529.0	1495.0	22.0	164.0	20.0	20.0	71.0	20.0	TIAE		DBP
VB02639	226.00	229.00	30.0	851.0	953.0	26.0	180.0	20.0	306.0	68.0	20.0	TIAE		DBP
VB02640	254.50	257.50	20.0	463.0	419.0	20.0	56.0	20.0	148.0	55.0	29.0	TIBF		DBC
VB02641	283.00	286.00	20.0	475.0	132.0	20.0	132.0	20.0	24.0	31.0	20.0	PIAEU		A
VB02642	298.00	301.00	22.0	327.0	331.0	20.0	60.0	20.0	279.0	20.0	20.0	TIBF		DBC
VB02643	320.50	323.50	45.0	202.0	514.0	35.0	138.0	20.0	20.0	20.0	20.0	TEAA		DBP
VB02644	336.00	339.00	22.0	280.0	391.0	23.0	61.0	20.0	20.0	22.0	20.0	TEBE		A
VB02645	341.50	344.50	20.0	774.0	235.0	28.0	151.0	20.0	20.0	53.0	20.0	PIAEW		A
VB02646	348.00	351.00	30.0	463.0	496.0	20.0	166.0	20.0	20.0	31.0	20.0	TIAE		A
VB02647	377.50	380.20	20.0	463.0	21.0	26.0	151.0	20.0	61.0	46.0	20.0	THA	PEM	DBP
VB02648	388.50	391.50	27.0	456.0	490.0	20.0	156.0	20.0	20.0	20.0	20.0	TEAD	?	DBP
VB02649	400.50	403.30	20.0	136.0	351.0	20.0	84.0	20.0	638.0	55.0	20.0	TEBA	?	DCP
VB02650	410.50	413.40	20.0	477.0	307.0	20.0	75.0	20.0	30.0	57.0	20.0	TMB	?	DBP
VB02651	423.30	426.30	20.0	446.0	20.0	20.0	77.0	20.0	218.0	121.0	29.0	TIA	?	DCP
VB02652	443.40	446.40	20.0	485.0	61.0	23.0	76.0	20.0	1170.0	175.0	20.0	TMB	?	DCP
VB02653	467.00	470.00	20.0	356.0	78.0	22.0	67.0	20.0	160.0	49.0	20.0	TMB	PHM	DCP
VB02654	482.90	486.00	38.0	121.0	1184.0	21.0	107.0	20.0	20.0	39.0	20.0	TEAD	?	DBP
VB02655	512.75	515.75	38.0	135.0	1523.0	20.0	139.0	20.0	20.0	32.0	20.0	TEAD	?	DBP
VB02656	538.00	541.00	36.0	136.0	1400.0	20.0	121.0	20.0	20.0	21.0	20.0	TEAD	?	DBP

**DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MAJOR ELEMENTS)**

SAMPLE NUMBER	FROM	TO	XSI02	XAL203	XCA0	XMG0	XNA20	XK20	XFE203	XTI02	XP205	XMNO	XLOJ	SUM	AI	NACA	ALUM
V802657	569.20	572.20	72.51	14.40	1.54	1.84	4.84	1.17	1.39	0.24	0.07	0.02	2.15	100.77	32.	6.	191.
V802658	595.00	598.00	72.26	13.38	0.89	2.32	2.61	1.90	4.12	0.22	0.07	0.06	2.21	100.04	55.	4.	248.

**DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MINOR ELEMENTS)**

SAMPLE NUMBER	FROM	TO	RB (ppm)	SR (ppm)	BA (ppm)	Y (ppm)	ZR (ppm)	NB (ppm)	CU (ppm)	ZN (ppm)	NI (ppm)	ROCK	ALI	MIN
VB02657	569.20	572.20	24.0	175.0	922.0	21.0	133.0	20.0	23.0	35.0	20.0	IFAD	?	DCP
VB02658	595.00	598.00	35.0	113.0	697.0	22.0	125.0	20.0	376.0	30.0	20.0			

HOLE NUMBER: CH90-129

FALCONBRIDGE LTD
DRILL HOLE RECORD

DATE: 12-December-1990

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 169.43	OVERBURDEN «{obj}»	Bouldery till in a clay matrix. Pebbles to boulders of: - dark brown to maroon cherty siltstone - fine-grained feldspar phyric mafic volcanic - medium-grained gabbro - granodiorite				
169.43 TO 242.32	GABBRO «7sr» E.O.H.	Medium to dark greenish-grey medium-grained equigranular leucoxene-bearing gabbro. 169.43 - 172 - feldspar weathered to a chalky white. 169.43 - 182 - Limonitic weathered fracture surfaces. 234.6 - 237.7 - Zone of strong chloritic alteration. 5 - 8% calcite stringers and irregular lenses. Stringers at 30° to core axis. STRUCTURE 232.5 - 234.6 - Fracture zone (Fault?). Core broken 30 and 60° to core axis. 30 cm missing core. 242.32 E.O.H.		234.6 - 237.7 - chloritic alteration		

HOLE NUMBER: CH90-129

ASSAY SHEET

DATE: 12-December-1990

Sample	From (m)	To (m)	Length (m)	COMMENTS
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Total amount of samples= 0
Total length sampled = 0.0M

HOLE NUMBER: CH90-130

FALCONBRIDGE LTD
DRILL HOLE RECORD

DATE: 12-December-1990

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 31.60	OVERBURDEN «{ob}»					
31.60 TO 36.00	INTER- MEDIATE TUFF «3a»	Medium bluish to greenish-grey fine-grained chloritic sericitic schistose intermediate to felsic tuff with a vague granular texture. Homogeneous. FOLIATION: 45 - 55° CA.				
36.00 TO 38.71	FAULT ZONE «FZ,3a»	Broken core (tuff as above), gouge, sand. Fractures: Parallel to foliation and subparallel to core axis.				
38.71 TO 41.76	NO RECOVERY «FZ»	Triconed. Fault 'squeezing'.				
41.76 TO 42.10	FAULT ZONE «FZ,3a»	Broken core. Intermediate tuff.				
42.10 TO 42.67	INTER- MEDIATE TUFF «3a»	As 31.6 - 36.0. Possibly a chloritic felsic tuff. Rare fine-grained (<1 mm) quartz eyes.				
42.67 TO 43.59	FAULT ZONE «FZ,3a»	Broken core (intermediate tuff), gouge, 'sand'.				
43.59 TO 51.82	NO RECOVERY «FZ?»	Triconed. Fault zone (?).				

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DRILL HOLE RECORD

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS	
51.82 TO 82.09	INTER-MEDIATE TUFF «3a»	Light to dark greenish-grey to blue-grey fine-grained moderately foliated chloritic sericitic tuff. Varied textures: - massive, sandy - thinly bedded - fine-grained schistose - lapilli (minor) 57.17 - 57.5 - Fine-grained thinly bedded sediment or ash tuff. 63.0 - 63.6 - Vague feldspar - phyrlic lithic fragments up to 1 cm 65.8 - 70 - Feldspar phyrlic (15%, < 1-2 mm, stubby, subhedral banded intermediate tuff with vague lithic fragments up to 2 cm. 70 - 82.09 - Fine-grained chloritic-sericitic schist. Homogeneous. Poorly banded. FOLIATION/BEDDING: 51.82 - 74.7 - 40 - 55° CA. 74.7 - 76.2 - 30° CA. 76.2 - 82.09 - 40 - 55° CA.				52.90 - 53.00 - 5% fine-grained pyrite concentrated along 1 - 2 mm bands parallel to foliation 53.40 - 53.54 - as above 57.27 - 1 cm wide light purplish-grey bed at 53° CA. 10% fine-grained disseminated pyrite. Exhalite?	
82.09 TO 83.26	MAFIC DYKE? (TUFF?) «7r(2a?)»	Dark green fine-grained massive crystalline aggregate of chlorite and vague feldspar crystals. The unit is cut by 15% irregular discontinuous calcite stringers up to 1 mm wide. 82.86 - 83.26 - Fine-grained medium to dark green thinly banded chloritic, epidotic schist. Chill margin? Sharp lower contact.				Dyke may occupy a fault. 82.86 - 83.26 - 3-4% fine-grained disseminated pyrite.	
83.26 TO 86.70	QUARTZ-FELDSPAR PHYRIC FELSIC TUFF (LAPILLI TUFF?) AND CHERT «4ac,5m»	Light bluish to greenish-grey fine-grained sericite schist with 0 - 10% <1 mm rounded quartz eyes, 5% vague feldspar crystals, and vague cherty fragments up to 1 cm. 83.8 - 84.43 - Light blue-grey cherty tuff or chert. Intercalated chert and sericite schist. 83.8 - 83.85 - Chert pebbles up to 1 cm. FOLIATION: 35 - 40° CA. FAULT: 84.8 - 86.7 - Sheared parallel to foliation. Broken core. Gouge.				83.26 - 83.8 - 2-3% fine-grained disseminated pyrite. 83.60 - 2 subrounded fine-grained sulphide (pyrite) fragments or possibly deformed coarse-grained crystals up to 1 cm in diameter. 83.8 - 84.43 - 2-3% each of pyrite and pyrrhotite in irregular masses up to 2 mm wide along fractures	

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DATE: 12-December-1990

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
86.70 TO 93.60	MAFIC TUFF «2a»	Medium to dark greenish-grey fine-grained thinly banded foliated chloritic mafic tuff or possibly a mafic dyke. 15% 1-2 mm irregular bands and lenses. FOLIATION: 50 - 55° CA. FAULT ZONES: 88.09 - 89.8 - Shearing 65° to subparallel to core axis. Broken core, gouge, pulverized rock. 95.82 - 95.96 - Gouge zone. 60° CA.				
93.60 TO 102.05	QUARTZ PHYRIC FELSIC TUFF «4aa»	Light greenish to bluish-grey fine to medium-grained sericitic schist with 15% <1 - 5 mm rounded quartz eyes. FOLIATION: 35 - 40° CA. FAULT: 95.82 - 95.96 - gouge zone. 60° CA.				
102.05 TO 114.10	MAFIC TUFF TO TUFFACEOUS SEDIMENT AND CHERT «2ak, 2qk, 5mk»	Medium grey to brownish-grey very fine-grained thinly banded/bedded sericitic tuff or tuffaceous sediment with 5% blue-grey cherty beds up to 1 cm thick. 102.5 - 105 - Blue-grey cherty pebbles or possibly chert fragments from boudinaged chert beds. 108.8 - 109.4 - Coarse-grained clastic with flattened chert pebbles up to 1 cm long. FOLIATION/BEDDING: 40 - 45° CA. 102.05 - 104 - Contorted bedding/foliation.			102.05 - 102.2 - 5-8% fine-grained pyrite in 1 - 2 mm bands or beds contorted along with foliation.	

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
114.10 TO 115.70	INTERBEDDED INTER-MEDIATE TUFFACEOUS SEDIMENT AND ARGILLITE «3qk,5ik»	Interbedded (<1 mm - 1 cm) medium grey fine-grained sericitic tuffaceous (?) sediment and black argillaceous sediment. FOLIATION/BEDDING: 35 - 40° CA.				
115.70 TO 116.60	INTERBEDDED FELSIC TO INTER-MEDIATE TUFFACEOUS SEDIMENT AND CHERT «4qk-3qk, 5mk»	Medium to light grey fine-grained sericitic foliated tuffaceous sediment and 15-20% light blue-grey cherty beds up to 1.5 cm wide. FOLIATION/BEDDING: 50° CA.			3 - 5% fine-grained pyrite concentrated along 1-2 mm bands parallel to foliation.	
116.60 TO 119.70	INTER-MEDIATE TUFF «3ak»	Medium brownish to greenish-grey fine-grained thinly banded/bedded intermediate tuff or tuffaceous sediment. FOLIATION/BEDDING: 40 - 50° CA. FAULT: 119.18 - 5 cm fault gouge parallel to foliation.				
119.70 TO 119.90	FAULT «FZ»	Gouge and pulverized rock. Shearing 50 - 60° CA.				
119.90 TO 121.31	INTERBEDDED ARGILLITE AND INTER-MEDIATE TUFFACEOUS SEDIMENT «5i,3qk»	Thinly (1 mm - 1 cm) interbedded medium greenish-grey fine-grained sediment and black argillite. FOLIATION/BEDDING: 45 - 50°				

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
121.31 TO 121.62	FAULT ZONE «FZ»	Gouge and pulverized rock. Shearing parallel to foliation at 45° CA.				
121.62 TO 125.80	MAFIC TUFF «2a»	Medium to dark greenish-grey fine-grained sericitic chloritic schistose mafic tuff. FOLIATION: 45 - 50° CA.				
125.80 TO 149.28	CHLORITIC FELSIC TUFF «4akl»	Medium greenish-grey fine-grained chloritic sericitic foliated felsic tuff. Weak banding/ bedding parallel to foliation. Abundant 5-10 cm crush/gouge zones parallel to foliation. FOLIATION/BEDDING: 50 - 60° CA. 143.3 - 'z' type minor fold (foliation bottom left to top right)				
149.28 TO 153.70	QUARTZ PHYRIC FELSIC TUFF «4aa»	Medium greenish to bluish-grey fine-grained sericitic schist with 15% 1-3 mm rounded grey quartz eyes. FOLIATION: 45 - 50° CA.				
153.70 TO 168.70	QUARTZ-FELDSPAR PHYRIC CHLORITIC FELSIC TUFF «4acl»	Medium to light greenish-grey fine-grained quartz (15%, 1-3 mm) - feldspar (15 - 20%, vague, stubby </=2 mm) phyric sericitic chloritic foliated felsic tuff. FOLIATION: 50 - 60° CA. SHEAR: 161.3 - 161.85 - shear zone 15 - 20° CA. Minor gouge.				

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
168.70 TO 170.80	FELDSPAR PHYRIC MAFIC DYKE(?) (TUFF?) «7rb(2a?)»	Medium to dark green fine-grained foliated chloritic groundmass with 15% very fine-grained stubby subhedral feldspar crystals - 15-20% irregular discontinuous bands and lenses of blue-grey calcite. Could be an altered dyke or a mafic tuff. FOLIATION: 65° CA.		Pervasive patchy carbonate alteration.		
170.80 TO 173.80	QUARTZ- FELDSPAR PHYRIC CHLORITIC FELSIC TUFF «4acl»	As 153.7 - 168.7 171.82 - 172.2 - Quartz-chlorite vein. Barren. FOLIATION/BANDING: 55 - 60° CA.				
173.80 TO 176.65	FELDSPAR PHYRIC MAFIC DYKE? (TUFF?) «7rb(2a?)»	As 168.7 - 170.8. FOLIATION: 55° CA.				
176.65 TO 180.15	QUARTZ- FELDSPAR PHYRIC CHLORITIC FELSIC TUFF «4acl»	As 153.7 - 168.7. 176.75 - 177.1 - Fine-grained cherty interval.			176.75 - 177.1 - 3-5% fine-grained disseminated pyrite.	
180.15 TO 220.70	CHLORITIC FELSIC TUFF (+/-QUARTZ PHYRIC) «4a(+/-a)l»	Medium to light greenish-grey fine-grained sporadically quartz phyric sericite-chlorite foliated felsic tuff. Indistinct contact with unit above. FOLIATION: 180.15 - 185.02 - 55-70° CA. 185.02 - 191 - contorted 55° - subparallel CA 190.4 - 'z' fold 190.5 - 's' fold 191 - 197.9 - 35-55° (Av - 45°) 197.9 - 204.1 - 60° - subparallel CA. Contorted. fold axis?				181.57 - 1 cm x 5 cm mass of coarse-

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>204.1 - 208.1 - 40-50° CA. 208.1 - 219.07 - subparallel CA. Contorted. 219.07 - 220.7 - 50° CA.</p> <p>FAULTS: 185.02 - 186.6 - sheared, pulverized rock. Gouge. Shearing subparallel to 45° to core axis. 188 - 191 - Broken core. Sheared parallel to foliation. 40° - subparallel to core axis. 1-2 cm gouge zones. Quartz veins to 10 cm. 211.07 - 213.06 - Broken core. Gouge zones up to 10 cm wide.</p>			<p>grained pyrite associated with 5 cm wide quartz vein. 182.15 - 182.2 - 20% fine-grained pyrite concentrated along foliation - parallel bands up to 5 mm wide. 189.6 - 189.65 - 7% fine-grained disseminated pyrite adjacent a 3 cm quartz vein. 207.27 - 220.7 - sporadic 1-4% pyrite, disseminated, along 1-2 mm bands and as irregular masses along fractures parallel to foliation. Trace CHALCOPYRITE at 215.50.</p>	
220.70 TO 225.50	MAFIC DYKE? (TUFF?) «7r(2a?)»	<p>As 168.7 - 170.8. 15% quartz veins up to 40 cm wide.</p> <p>FOLIATION: 30° CA.</p>				
225.50 TO 240.15	QUARTZ PHYRIC FELSIC TUFF «4aa»	<p>Medium to light greenish-grey sericite +/- chlorite schist with sporadic 5-15% 1-5 mm rounded quartz eyes.</p> <p>FOLIATION: 25 - 35° CA.</p> <p>FAULTS: 227.6 - 228.7 - Sheared 10° to subparallel to core axis. Gouge at 228.6 - 228.9 (+/-) 229.92 - 229.99 - Gouge zone at 80° CA. 229.92 - 233 - Broken core. Shearing predominantly along foliation. 235 - 240.15 - Broken, 'blocky' core.</p>			<p>225.5 - 240.15 - 2-3% fine-grained disseminated pyrite. Traces CHALCOPYRITE. 232.1 - 232.2 - 1.5 cm wide band parallel to foliation with pinkish-brown colour and: 15% fine-grained pyrite 2% CHALCOPYRITE 2% fine-grained dark brown to black metallic mineral. SPHALERITE?</p>	
240.15 TO 277.03	FELDSPAR GLOMERO-PHYRIC GABBRO «7rb»	<p>240.15 - 264.5 - Dark greenish-grey fine-grained equigranular crystalline aggregate of feldspar and chlorite with 20% <1 - 5 mm clusters of white stubby feldspar phenocrysts. Broken core along upper contact. 264.5 - 277.03 - fine-grained gabbro with few phenocrysts. Chill margin. 10% quartz veins up to 20 cm wide at 60 - 70° CA. Broken, blocky core. Broken core along lower contact. Angle</p>				

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		to core axis unclear. Minor gouge. Sheared 30° to subparallel CA.				
277.03 TO 305.40	QUARTZ-FELDSPAR PHYRIC RHYOLITE «4ac(4dc?)»	Light to medium blue-grey fine-grained sericitic groundmass with 10-15% <1 - 5 mm rounded quartz eyes and 10-15% vague stubby <1 mm feldspar phenocrysts. The rock is quite homogeneous and could be a flow or tuff. (Intrusive?) 305.4 - Mottled texture. Possible lithic fragments up to 2 cm in diameter. FOLIATION: 15 - 20° CA. FAULTS: 282.9 - 283.0 - 3 cm gouge zone at 30° CA, crosscutting foliation at 45°. 304.8 - 305.4 - sheared 15° CA. 309.07 - 309.4 - Crushed, gougy zone. 30° CA.		280 - 343.5 - Weak pervasive silicification.	Fine-grained disseminated and fracture controlled pyrite and CHALCOPYRITE (<1% of each) throughout with local concentrations. 279.52 - 279.91 - 5% CHALCOPYRITE in irregular masses up to 0.5 cm x 3cm along fractures parallel to foliation and at 90° to CA. 282.10 - 282.55 - 2-3% pyrite and 1-2% CHALCOPYRITE in masses up to 3 mm x 1 cm along a quartz stringer and a 1 cm band parallel to foliation. 284.88 - 5 mm - 1 cm wide calcite stringer at 30° CA with 25% pyrite, 5% CHALCOPYRITE, and traces of GALENA?	
305.40 TO 343.50	QUARTZ-FELDSPAR PHYRIC RHYOLITE LAPILLI TUFF «4bc»	Medium blue-grey weakly siliceous sericitic weakly foliated quartz (10 - 15%, 2-6 mm, rounded) - feldspar (10 - 15%, <1 mm stubby, white, vague) phyric groundmass with 20 - 25% rounded light grey fine-grained feldspar phyric lithic fragments up to 1 cm x 2 cm. Massive. Homogeneous. 322.3 - 325 - 15% white quartz stringers up to 3 cm wide at 10° CA. FOLIATION: 15 - 20° CA. FAULT: 334.1 - 334.2 - 5 cm gouge zone at 20° CA. 342.2 - 342.9 - Crushed zone.		Pervasive weak to moderate silicification.	Traces sporadically distributed CHALCOPYRITE. Some pyrite along fractures at 70° CA associated with calcite and chlorite stringers.	
343.50 TO 345.70	MAFIC DYKE «7r»	Dark greenish-grey very fine-grained aphanitic mafic dyke with interval banding at 40° CA.			5% fine-grained disseminated and fracture-related pyrite.	

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HOLE NUMBER: CH90-130

DATE: 12-December-1990

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
345.70 TO 369.07	QUARTZ-FELDSPAR PHYRIC RHYOLITE TUFF/LAPILLI TUFF «4ac,4bc»	345.7 - 357 - As 305.4 - 343.5 with fewer obvious lithic fragments. 357 - 369.0 - Mottled texture. Probably lapilli tuff. FOLIATION: Weak. 20° CA. FAULTS: Narrow gouge, shear and crush zones at 30-70° CA. 350.2 - 350.45 352.15 - 352.25 352.95 - 353.0 354.5 - 354.7 355.6 - 355.7 356.1 - 357.3 363.9 - 364.6 364.8 - 364.9			Sporadic disseminated pyrite. <1% overall. 350 - 352.5 - 2-4% disseminated pyrite.	
369.07 TO 388.68	CHLORITIC QUARTZ-FELDSPAR PORPHYRY INTER-MEDIATE DYKE «8rc»	Dark green fine-grained hard weakly chloritic intermediate to felsic groundmass hosting 5-10% rounded oval quartz eyes (1-5 mm) and 10-15% 1-2 mm epidotized subhedral feldspar phenocrysts. 369.07 - 376 - Chill margin. Foliated 20° CA. 376 - feldspar phenocrysts more obvious and larger than above. Massive. Non-foliated. The entire unit is cut by 5% <1 cm - 30 cm quartz veins 10° - 70° CA. Upper contact: Broken core. Possibly parallel to foliation at 25° CA. 386 - 388.68 - Chill margin. Feldspar phenocrysts not obvious. Lower contact at 30° parallel to foliation. STRUCTURE: 375.0 - 375.33 - white quartz vein 45° CA. Hematitic coated fractures on downhole side. 384.85 - 385.2 - Quartz vein at 90° CA. 386.95 - 387.96 - 20% quartz veins up to 10 cm wide at 70 - 90° CA.			369.07 - 371 - 3% disseminated pyrite. 373.52 - 5 mm quartz stringer with 10% CHALCOPYRITE. 374.17 - 374.25 - 15% medium-grained pyrite in a chloritic zone. 378 - 379.5 - 3-5% fine-grained disseminated pyrite. 379.6 - 379.7 - 3-4 cm quartz-carbonate vein at 35° CA with 5% CHALCOPYRITE. 386.90 - 387.71 - sporadic <1% CHALCOPYRITE in masses up to 2 mm x 5 mm in quartz stringers.	Whole rock data indicate an intermediate composition.

HOLE NUMBER: CH90-130

FALCONBRIDGE LTD
DRILL HOLE RECORD

DATE: 12-December-1990

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
388.68 TO 403.00	QUARTZ-FELDSPAR PHYRIC RHYOLITE TUFF «4ac»	Medium blue-grey fine-grained sericitic foliated groundmass hosting 10-15% <1 - 5 mm rounded quartz eyes and 10% (?) vague stubby <1 mm feldspar crystal fragments. Some vague lighter-coloured patches may be lithic fragments. FOLIATION: 388.75 - 399.5 - 40-50° CA. 399.5 - 403 - 60° CA. Poorly foliated. FAULT: 392.8 - 393.7 - Gouge. Crushed zone parallel to foliation.		399.5 - 403 - Weakly silicious.		
403.00 TO 407.41	CHLORITIC FELDSPAR PHYRIC MAFIC TO INTER-MEDIATE DYKE «7rb,8rb»	Dark green to medium brownish-grey fine-grained feldspar phyric (sporadic 0-10%, vague, dark green to light grey, <1 mm) mafic to intermediate dyke. 5-10% 1-3 mm wide irregular discontinuous calcite stringers parallel to foliation. 406.6 - 407.2 - Rounded epidotized fragments.		Sporadic strong chloritization.	7-8% fine to medium-grained disseminated and fracture related pyrite. 406.95 - 407.02 - 5% disseminated CHALCOPYRITE.	
407.41 TO 408.90	QUARTZ-FELDSPAR PHYRIC RHYOLITE «4ac»	As above dyke. Could be a xenolith, lower contact parallels core axis 408.4 - 408.90.				
408.90 TO 410.70	CHLORITIC MAFIC DYKE «7r»	Dark green fine-grained aggregate of chlorite feldspar and calcite. Homogeneous. Weakly foliated. Sharp irregular lower contact, roughly 30° CA, crosscutting foliation. FOLIATION: 30° CA.				
410.70 TO 416.57	QUARTZ-FELDSPAR PHYRIC RHYOLITE FLOW OR TUFF	Medium blue-grey fine-grained sericitic foliated groundmass hosting 10% 1-2 mm rounded quartz eyes and 10-15% <1 mm stubby subhedral white feldspar phenocrysts. Homogeneous. FOLIATION:				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
	«4dc(4ac?)»	20° to subparallel CA.				
416.57 TO 417.68	CHLORITIC MAFIC DYKE «7r»	Dark green fine-grained chloritic dyke with 20% irregular lenses of white calcite. Upper contact parallel to foliation at 35° CA. Lower contact subparallel CA. FOLIATION: 35 - 40° CA.				
417.68 TO 428.04	QUARTZ- FELDSPAR PHYRIC RHYOLITE LAPILLI(?) TUFF «4ac(4bc?)»	Mottled medium to light blue-grey fine-grained moderately foliated sericitic +/- chloritic groundmass hosting 10% 1-5 mm rounded quartz eyes and 15% vague dark green </=1 mm feldspar crystal fragments. Light grey patches could be lithic fragments up to 1 cm in diameter. 417.96 - 418.05 - chloritic calcareous mafic dyke. 420.66 - 420.80 - as above. 50° CA parallel to foliation. FOLIATION: 35 - 50° CA. FAULT: 425.98 - 427.3 - Broken core. Gouge. Sheared 20° to subparallel to core axis.				
428.04 TO 428.86	CHLORITIC MAFIC DYKE «7r»	Dark green fine-grained chloritic mafic dyke. 10 cm interval quartz-feldspar phyric. LOWER CONTACT: Sharp at 35° CA.				
428.86 TO 445.32	QUARTZ- FELDSPAR PHYRIC RHYOLITE FLOW OR TUFF «4dc(4ac?)»	Mottled medium to light blue-grey fine-grained weakly siliceous sericitic poorly foliated (50 - 60° CA) groundmass hosting 5% <1 - 2 mm rounded quartz eyes and 15 - 20% <1 - 2 mm chloritic feldspar phenocrysts. The rock is quite homogeneous. In some places the feldspar phenocrysts are evenly distributed suggesting a flow protolith. FOLIATION: 50 - 60° CA.				

HOLE NUMBER: CH90-130

FALCONBRIDGE LTD
DRILL HOLE RECORD

DATE: 12-December-1990

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		445.32 E.O.H.				
445.32 TO 461.78						

HOLE NUMBER: CH90-130

ASSAY SHEET

DATE: 12-December-1990

Sample	From (m)	To (m)	Length (m)	COMMENTS
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Total amount of samples = 0
Total length sampled = 0.0M

DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MINOR ELEMENTS)

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CL (ppm)	MN (ppm)	CUZN	BIS	ROCK
VB00858	52.56	52.90	930.0	36.0	72.0	0.5	15.0	19.0	4.0	9.0	67.0	0.5	1263.0	33.	1.	TIA
VB00859	52.90	53.00	930.0	49.0	54.0	0.7	17.0	26.0	6.0	1.0	167.0	0.5	1388.0	48.	4.	TIA
VB00860	53.00	53.40	890.0	51.0	68.0	0.7	11.0	23.0	4.0	1.0	32.0	0.5	1464.0	43.	1.	TIA
VB00861	53.40	53.54	790.0	40.0	68.0	0.9	18.0	44.0	6.0	6.0	86.0	0.5	1368.0	37.	4.	TIA
VB00862	53.54	54.35	880.0	43.0	66.0	0.7	11.0	21.0	4.0	6.0	18.0	0.5	1192.0	39.	1.	TIA
VB00863	56.58	57.17	730.0	44.0	71.0	0.6	9.0	33.0	8.0	10.0	11.0	0.5	1150.0	38.	1.	TIA
VB00864	57.17	57.27	1100.0	159.0	71.0	1.6	17.0	86.0	25.0	302.0	40.0	0.5	650.0	69.	2.	SWUB
VB00865	57.27	58.46	240.0	102.0	69.0	0.9	10.0	31.0	29.0	28.0	6.0	0.5	873.0	60.	1.	TIA
VB00866	81.50	82.86	160.0	41.0	120.0	1.2	11.0	39.0	29.0	10.0	14.0	0.5	1540.0	25.	2.	PMA
VB00867	82.86	83.26	1100.0	105.0	95.0	0.9	14.0	58.0	36.0	3.0	42.0	0.5	1111.0	53.	4.	PMA
VB00868	83.26	83.80	920.0	15.0	61.0	0.4	9.0	12.0	11.0	11.0	19.0	0.5	919.0	20.	3.	TFAD
VB00869	83.80	84.43	1100.0	30.0	79.0	0.5	8.0	11.0	35.0	33.0	10.0	0.5	525.0	28.	5.	TFAD
VB00870	84.43	86.00	1000.0	51.0	88.0	0.5	8.0	10.0	23.0	9.0	22.0	0.5	670.0	37.	1.	TFAD
VB00871	86.00	86.70	1200.0	12.0	49.0	0.4	8.0	9.0	7.0	4.0	8.0	0.5	722.0	20.	1.	TFAD
VB00872	86.70	87.95	860.0	9.0	92.0	0.9	8.0	18.0	0.5	6.0	10.0	0.5	2080.0	9.	1.	TIA
VB00873	100.90	102.05	1200.0	4.0	28.0	0.2	8.0	4.0	3.0	3.0	5.0	0.5	484.0	13.	1.	TFAD
VB00874	102.05	102.24	810.0	36.0	77.0	0.8	15.0	15.0	20.0	4.0	27.0	0.5	557.0	32.	5.	TIA
VB00875	102.24	103.47	1000.0	37.0	86.0	0.7	13.0	20.0	17.0	2.0	28.0	0.5	851.0	30.	1.	TIA
VB00876	114.30	115.70	1700.0	49.0	129.0	0.8	7.0	31.0	22.0	4.0	41.0	0.5	857.0	28.	2.	SAV
VB00877	115.70	116.60	1300.0	54.0	159.0	0.8	13.0	19.0	32.0	21.0	57.0	2.0	651.0	25.	4.	TEA
VB00878	116.60	118.00	980.0	26.0	163.0	0.9	6.0	21.0	8.0	10.0	36.0	0.5	782.0	14.	1.	TIA
VB00879	176.75	177.10	1000.0	47.0	178.0	0.7	16.0	8.0	19.0	15.0	30.0	0.5	500.0	21.	4.	TEA
VB00880	181.50	182.09	880.0	30.0	80.0	0.7	17.0	13.0	9.0	6.0	2.5	0.5	496.0	27.	2.	TEA

DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MINOR ELEMENTS)

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	MN (ppm)	CUZN	RTS	ROCK
VB00881	182.09	182.27	740.0	24.0	148.0	2.2	77.0	5.0	4.0	6.0	9.0	0.5	1595.0	14.	10.	TFA
VB00882	182.27	183.00	1100.0	7.0	79.0	0.5	22.0	4.0	3.0	7.0	5.0	0.5	507.0	8.	1.	TFA
VB00883	189.30	190.63	1100.0	8.0	79.0	0.2	41.0	6.0	4.0	5.0	2.5	0.5	242.0	9.	1.	TFA
VB00884	207.27	208.25	910.0	62.0	54.0	0.3	10.0	10.0	2.0	13.0	8.0	0.5	637.0	53.	2.	TFA
VB00885	208.25	209.81	870.0	53.0	31.0	0.1	8.0	6.0	2.0	3.0	2.5	0.5	550.0	63.	2.	TFA
VB00886	209.81	211.07	800.0	109.0	39.0	0.4	11.0	7.0	2.0	6.0	10.0	0.5	636.0	74.	2.	TFA
VB00887	211.07	211.70	1000.0	118.0	368.0	0.4	14.0	7.0	3.0	28.0	14.0	2.0	619.0	24.	2.	TFAA
VB00888	211.70	213.06	980.0	47.0	52.0	0.4	12.0	5.0	2.0	4.0	14.0	0.5	585.0	47.	2.	TFAA
VB00889	213.06	214.40	900.0	23.0	37.0	0.3	10.0	5.0	2.0	3.0	7.0	0.5	438.0	38.	2.	TFAA
VB00890	214.40	215.81	1000.0	31.0	42.0	0.2	6.0	5.0	1.0	4.0	2.5	0.5	512.0	42.	2.	TFAA
VB00891	215.81	217.20	1100.0	144.0	776.0	0.3	9.0	7.0	2.0	14.0	10.0	4.0	538.0	16.	2.	TFAA
VB00892	217.20	218.73	1200.0	69.0	57.0	0.4	8.0	7.0	1.0	13.0	14.0	0.5	435.0	55.	2.	TFAA
VB00893	218.73	220.17	1100.0	24.0	36.0	0.4	12.0	6.0	2.0	1.0	2.5	0.5	368.0	40.	2.	TFAA
VB00894	225.30	225.80	1000.0	1156.0	154.0	1.3	40.0	9.0	6.0	8.0	152.0	1.0	442.0	98.	2.	TFAA
VB00895	225.80	227.20	1300.0	212.0	67.0	0.5	87.0	6.0	2.0	19.0	78.0	0.5	298.0	76.	2.	TFAA
VB00896	227.20	228.40	1100.0	120.0	23.0	0.4	14.0	7.0	2.0	1.0	17.0	0.5	167.0	84.	3.	TFAA
VB00897	229.92	231.35	810.0	43.0	36.0	0.3	10.0	4.0	0.5	1.0	7.0	0.5	358.0	54.	3.	TFAA
VB00898	231.35	232.10	1100.0	205.0	527.0	0.7	27.0	9.0	2.0	112.0	66.0	3.0	362.0	28.	3.	TFAA
VB00899	232.10	232.20	1400.0	1250.0	20200.0	5.4	217.0	21.0	1.0	6900.0	39.0	129.0	246.0	6.	15.	TFA
VB00900	232.20	232.87	890.0	116.0	209.0	0.4	17.0	5.0	0.5	35.0	11.0	0.5	208.0	36.	4.	TFAA
VB00901	232.87	234.30	930.0	79.0	186.0	0.3	10.0	4.0	1.0	28.0	8.0	0.5	303.0	30.	2.	TFAA
VB00902	278.29	279.52	1900.0	39.0	80.0	0.1	8.0	5.0	1.0	1.0	2.5	0.5	293.0	33.	1.	TFAA
VB00903	279.52	279.91	1700.0	9400.0	427.0	4.8	53.0	47.0	1.0	1.0	24.0	11.0	261.0	96.	5.	TFAA

DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MINOR ELEMENTS)

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	MN (ppm)	CUZN	BTS	ROCK
VB00904	279.91	281.03	1500.0	316.0	59.0	0.5	8.0	15.0	1.0	1.0	11.0	0.5	265.0	84.	2.	TFAD
VB00905	281.03	282.10	1500.0	192.0	39.0	0.4	6.0	8.0	1.0	1.0	5.0	0.5	360.0	83.	2.	TFAD
VR00906	282.10	282.55	1600.0	493.0	54.0	0.5	7.0	12.0	1.0	1.0	2.5	0.5	326.0	90.	4.	TFAD
VB00907	282.55	283.90												0.	1.	TFAD
VB00908	283.90	284.75	1700.0	104.0	51.0	0.4	11.0	6.0	0.5	1.0	2.5	0.5	387.0	67.	1.	TFAD
VB00909	284.75	285.00	1800.0	140.0	30.0	0.7	11.0	10.0	2.0	243.0	2.5	0.5	478.0	82.	1.	TFAD
VB00910	285.00	286.30	1800.0	146.0	40.0	0.3	12.0	4.0	1.0	1.0	6.0	0.5	383.0	78.	1.	TFAD
VB00911	294.30	295.68	1100.0	128.0	21.0	0.1	10.0	4.0	1.0	1.0	2.5	0.5	248.0	86.	1.	TFAD
VR00912	302.10	303.49	910.0	201.0	48.0	0.5	10.0	8.0	2.0	1.0	10.0	0.5	297.0	81.	1.	TFAD
VB00913	312.26	313.60	920.0	93.0	24.0	0.2	10.0	5.0	1.0	1.0	8.0	0.5	292.0	79.	1.	TFBD
VB00914	319.57	319.88	1100.0	1253.0	50.0	0.6	11.0	6.0	1.0	1.0	7.0	0.5	265.0	96.	1.	TFBD
VB00915	342.30	343.50	1600.0	19.0	24.0	0.1	6.0	4.0	0.5	1.0	5.0	0.5	354.0	44.	0.	TFBB
VB00916	343.50	344.47	1100.0	85.0	85.0	0.9	8.0	17.0	0.5	1.0	16.0	0.5	742.0	50.	4.	PMAL
VB00917	344.47	345.70	1100.0	45.0	129.0	0.8	8.0	14.0	0.5	1.0	2.5	0.5	948.0	26.	5.	PMAL
VB00918	345.70	347.15	980.0	41.0	128.0	0.7	11.0	17.0	0.5	1.0	23.0	0.5	600.0	24.	6.	TFAD
VB00919	347.15	347.90	2200.0	4.0	43.0	0.1	14.0	4.0	0.5	1.0	9.0	0.5	306.0	9.	2.	TFAD
VR00920	352.50	354.05	1700.0	99.0	83.0	0.4	8.0	7.0	0.5	11.0	16.0	0.5	230.0	54.	3.	TFBD
VB00921	354.05	355.54	1300.0	101.0	70.0	0.3	6.0	10.0	2.0	1.0	11.0	0.5	230.0	59.	3.	TFBD
VR00922	355.54	357.01	1100.0	57.0	47.0	0.1	8.0	9.0	1.0	1.0	15.0	0.5	244.0	55.	3.	TFBD
VB00923	357.01	358.30	1200.0	67.0	57.0	0.3	10.0	6.0	1.0	1.0	6.0	0.5	338.0	54.	3.	TFBD
VR00924	373.83	379.30	930.0	201.0	112.0	0.7	9.0	18.0	11.0	1.0	9.0	0.5	649.0	64.	5.	PFAD
VB00925	379.30	379.90	590.0	227.0	111.0	0.5	8.0	10.0	9.0	1.0	5.0	0.5	929.0	67.	2.	PFAD
VR00926	403.00	404.47	960.0	1072.0	95.0	1.2	15.0	46.0	12.0	1.0	18.0	0.5	638.0	92.	8.	PMAF

DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MINOR ELEMENTS)

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PH (ppm)	AS (ppm)	CD (ppm)	MN (ppm)	CUZN	ETS	ROCK
VB00927	404.47	405.97	740.0	1003.0	91.0	1.1	24.0	43.0	6.0	1.0	6.0	0.5	709.0	92.	8.	PMAF
VB00928	405.97	406.95	750.0	137.0	123.0	1.0	23.0	30.0	111.0	1.0	8.0	0.5	970.0	53.	8.	PMAF
VB00929	406.95	407.22	970.0	2329.0	88.0	1.4	22.0	30.0	12.0	1.0	14.0	0.5	747.0	96.	8.	PMAF
VB00930	407.22	407.85	780.0	41.0	73.0	0.5	6.0	17.0	90.0	1.0	8.0	0.5	526.0	36.	8.	PMAF

DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MAJOR ELEMENTS)

SAMPLE NUMBER	FROM	TO	ZSI02	ZAL203	ZCA0	ZMG0	ZNA20	ZK20	ZFE203	ZTI02	ZP205	ZHNO	ZI.01	SUM	AI	NACA	ALUM
VB02679	32.00	35.00	60.31	16.08	3.97	0.98	3.06	2.99	5.73	0.26	0.19	0.16	4.31	98.04	36.	7.	160.
VB02680	68.00	71.00	57.24	17.68	4.58	2.84	3.70	1.02	8.04	0.76	0.24	0.18	3.27	99.55	32.	8.	190.
VB02681	84.43	86.70	66.80	15.40	1.59	1.82	1.84	2.52	4.83	0.35	0.10	0.06	3.24	98.55	56.	3.	259.
VB02682	90.00	93.00	53.03	17.74	5.18	2.39	2.49	2.50	8.27	0.84	0.30	0.14	6.65	99.53	39.	8.	174.
VB02683	98.00	101.00	69.62	11.92	6.08	0.77	0.30	2.81	0.99	0.17	0.03	0.09	6.53	99.31	36.	6.	130.
VB02684	110.15	113.15	47.59	15.75	9.12	3.58	1.53	1.26	10.01	0.74	0.57	0.15	9.21	99.51	31.	11.	132.
VB02685	136.65	139.65	71.90	14.44	1.58	1.49	3.50	1.77	2.55	0.22	0.04	0.05	2.49	100.03	39.	5.	211.
VB02686	162.00	165.00	70.90	13.60	3.66	1.41	2.05	1.55	2.51	0.23	0.04	0.06	3.55	99.56	34.	6.	187.
VB02687	191.75	194.75	73.03	13.25	2.00	1.25	1.84	2.56	1.81	0.19	0.04	0.04	3.26	99.27	50.	4.	207.
VB02688	214.00	217.00	70.87	12.74	3.55	0.77	2.33	2.46	2.30	0.21	0.03	0.06	4.10	99.42	35.	6.	153.
VB02689	233.20	236.20	73.26	12.90	2.11	1.00	1.99	2.71	2.08	0.22	0.02	0.05	3.02	99.36	48.	4.	189.
VB02690	280.00	283.00	71.04	12.54	2.96	1.45	0.01	3.34	3.30	0.21	0.03	0.05	4.41	99.34	62.	3.	199.
VB02691	313.00	316.00	71.53	12.45	2.52	1.38	3.03	1.85	2.46	0.21	0.03	0.03	4.46	99.95	37.	6.	168.
VB02692	337.00	340.00	71.31	13.04	2.76	1.15	2.42	2.25	2.52	0.23	0.05	0.04	4.17	99.94	40.	5.	176.
VB02693	358.00	361.00	73.98	12.88	1.38	1.46	3.32	1.70	2.57	0.22	0.03	0.04	2.35	99.93	40.	5.	201.
VB02694	380.00	383.00	61.97	14.54	5.28	2.61	3.27	0.43	7.84	0.35	0.06	0.13	3.61	100.09	26.	9.	162.
VB02695	397.00	400.00	72.33	13.10	2.08	1.64	2.22	2.30	2.26	0.21	0.03	0.04	3.36	99.57	48.	4.	198.
VB02696	408.90	410.70	40.37	9.00	11.60	17.12	0.01	0.02	9.42	0.45	0.12	0.19	11.25	99.55	60.	12.	77.
VB02697	422.65	425.65	72.41	13.09	2.15	1.32	3.40	1.74	2.67	0.22	0.03	0.04	2.86	99.93	36.	6.	180.
VB02698	438.00	441.00	73.01	12.96	2.02	1.57	3.09	1.88	2.53	0.20	0.04	0.04	2.84	100.18	40.	5.	185.

DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MINOR ELEMENTS)

SAMPLE NUMBER	FROM	TO	RB (ppm)	SR (ppm)	BA (ppm)	Y (ppm)	ZR (ppm)	NR (ppm)	CU (ppm)	ZN (ppm)	NI (ppm)	ROCK	ALTE	MINE
VB02679	32.00	35.00	75.0	204.0	747.0	26.0	146.0	20.0	20.0	61.0	20.0	TIA		DBP
VB02680	68.00	71.00	40.0	333.0	465.0	20.0	146.0	20.0	27.0	85.0	20.0	TIB		DBP
VB02681	84.43	86.70	58.0	287.0	1354.0	20.0	90.0	20.0	25.0	39.0	20.0	TFAD		DCP
VB02682	90.00	93.00	49.0	219.0	504.0	31.0	80.0	20.0	33.0	102.0	20.0	TIA		DBP
VB02683	98.00	101.00	54.0	177.0	1128.0	20.0	92.0	20.0	20.0	20.0	20.0	TFAQ		DBP
VB02684	110.15	113.15	38.0	312.0	1467.0	26.0	68.0	20.0	51.0	110.0	20.0	TIA		DBP
VB02685	136.65	139.65	37.0	203.0	771.0	20.0	148.0	20.0	20.0	27.0	20.0	TIA		DBP
VB02686	162.00	165.00	20.0	350.0	792.0	20.0	129.0	20.0	20.0	22.0	20.0	TFAD		DBP
VB02687	191.75	194.75	52.0	146.0	776.0	20.0	137.0	20.0	20.0	33.0	20.0	TFA		DBP
VB02688	214.00	217.00	51.0	147.0	826.0	20.0	116.0	20.0	59.0	26.0	20.0	TFA		DCP
VB02689	233.20	236.20	54.0	74.0	841.0	20.0	127.0	20.0	97.0	25.0	20.0	TFAR		DCP
VB02690	280.00	283.00	66.0	88.0	1467.0	20.0	123.0	20.0	79.0	25.0	20.0	TFAD		DCP
VB02691	313.00	316.00	39.0	213.0	741.0	20.0	119.0	20.0	20.0	20.0	20.0	TFBD		DCC
VB02692	337.00	340.00	34.0	195.0	807.0	20.0	118.0	20.0	23.0	20.0	20.0	TFBD		DBP
VB02693	358.00	361.00	34.0	132.0	1193.0	20.0	96.0	20.0	20.0	23.0	20.0	TFBD		DBP
VB02694	380.00	383.00	20.0	217.0	223.0	21.0	101.0	23.0	29.0	111.0	20.0	PFAD		DBP
VB02695	397.00	400.00	46.0	118.0	946.0	20.0	106.0	20.0	20.0	21.0	20.0	TFAD		DBP
VB02696	408.90	410.70	20.0	152.0	31.0	20.0	20.0	20.0	65.0	30.0	217.0	PMA		DCP
VB02697	422.65	425.65	44.0	174.0	775.0	20.0	106.0	20.0	43.0	20.0	20.0	VFAD		DBP
VB02698	438.00	441.00	43.0	184.0	870.0	20.0	123.0	20.0	20.0	20.0	20.0	VFAD		DBP

APPENDIX D

Geochemical Certificates

XRF - Analysis

From : Cominco Lab. Job no. X90-88 Reported 06-28-1990
 o : Falconbridge Ltd. Project name Chemainus no. 605-608-116
 26 samples Shipped from Gord Allen Shipment no. COM90-4

Page 1

Field number	CaO %	K2O %	P2O5 %	SiO2 %	Al2O3 %	MgO %	Na2O %	Fe2O3 %	TiO2 %	MnO %	LOI %	Total %		
1	VB02634	CH90-126	0.22	1.74	0.05	PF75.62	13.92	0.29	5.77	0.96	0.20	0.01	1.01	99.79
2	VB02635		1.42	1.85	0.04	TF74.32	13.66	1.02	4.69	0.61	0.20	0.02	2.24	100.08
3	VB02636		15.77	0.34	0.29	TM41.00	17.19	7.37	0.25	13.33	0.71	0.19	3.74	100.18
4	VB02637		6.44	2.89	0.41	TM55.54	17.43	1.92	3.22	7.72	0.50	0.11	2.85	99.03
5	VB02638		5.63	3.28	0.38	TI58.12	17.29	1.99	3.34	7.55	0.46	0.12	1.66	99.83
6	VB02639		9.09	2.19	0.41	TI51.94	18.39	2.35	3.00	9.66	0.56	0.14	2.22	99.96
7	VB02640		13.24	0.93	0.15	TI40.29	17.92	8.68	0.19	14.04	0.63	0.23	3.82	100.13
8	VB02641		15.76	0.25	0.43	PI48.22	19.02	3.20	1.97	8.63	0.81	0.14	1.90	100.33
9	VB02642		15.07	0.75	0.14	TI48.90	17.49	6.02	0.46	8.67	0.63	0.15	2.30	100.58
10	VB02643		4.44	1.71	0.24	TF66.98	14.48	3.82	4.14	2.33	0.61	0.06	1.46	100.27
11	VB02644		16.48	1.22	0.14	TF50.91	15.56	6.73	0.76	6.10	0.62	0.18	1.88	100.58
12	VB02645		11.16	0.29	0.47	PI50.49	18.87	3.87	4.28	8.17	0.77	0.13	1.95	100.46
13	VB02646		8.08	0.98	0.51	TI55.11	19.94	2.98	5.82	4.57	0.79	0.09	1.61	100.48
14	VB02647		6.58	0.04	0.47	TM55.97	17.65	4.67	5.54	6.68	0.52	0.09	2.35	100.58
15	VB02648		6.08	1.54	0.21	TF56.90	21.98	1.77	5.25	1.26	0.66	0.05	4.39	100.09
16	VB02649		5.56	0.76	0.09	TF61.00	12.49	3.70	1.54	7.95	0.24	0.06	6.48	99.87
17	VB02650		5.31	0.20	0.21	TM52.03	19.65	4.73	5.96	7.73	0.92	0.08	3.59	100.42
18	VB02651		16.59	0.06	0.19	TI41.79	16.50	6.16	0.73	11.95	0.79	0.20	5.28	100.24
19	VB02652		14.53	0.13	0.27	TM39.05	18.62	7.01	0.49	14.05	0.80	0.27	4.94	100.17
20	VB02653		6.93	0.36	0.18	TM47.69	15.69	6.82	2.55	14.49	0.74	0.19	4.58	100.22
21	VB02654		2.03	2.00	0.08	TF71.57	13.87	2.23	3.50	1.66	0.25	0.04	2.64	99.87
22	VB02655		1.49	2.38	0.09	TF70.14	15.96	1.42	3.24	1.81	0.29	0.02	2.75	99.59
23	VB02656		0.78	2.25	0.08	TF69.94	15.51	2.26	2.17	3.85	0.29	0.03	2.97	100.13
24	VB02657		1.54	1.17	0.07	TF72.51	14.40	1.84	4.84	1.39	0.24	0.02	2.15	100.18
25	VB02658		0.89	1.90	0.07	TF72.26	13.38	2.32	2.61	4.12	0.22	0.06	2.21	100.04
26	VA09972	GTS	0.51	4.34	0.52	74.75	14.25	0.14	3.43	1.27	0.06	0.04	0.90	100.22

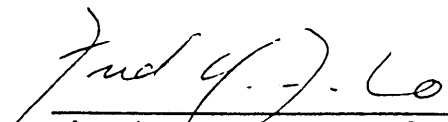
XRF - Analysis

From : Cominco Lab. Job no. X90-88 Reported 06-28-1990
 : Falconbridge Ltd. Project name Chemainus no. 605-608-116
 26 samples Shipped from Gord Allen Shipment no. COM90-4

Page 1

Field number	Ba ppm	Cu ppm	Zn ppm	Ni ppm	Rb ppm	Sr ppm	Y ppm	Zr ppm	Nb ppm	
1	VBO2634	593.	159.	26.	20.	26.	161.	20.	113.	20.
2	VBO2635	516.	20.	20.	20.	34.	165.	20.	106.	21.
3	VBO2636	189.	204.	60.	40.	20.	360.	20.	51.	20.
4	VBO2637	1128.	41.	45.	20.	66.	504.	20.	149.	21.
5	VBO2638	1495.	20.	71.	20.	59.	529.	22.	164.	20.
6	VBO2639	953.	306.	68.	20.	30.	851.	26.	180.	20.
7	VBO2640	419.	148.	55.	29.	20.	463.	20.	56.	20.
8	VBO2641	132.	24.	31.	20.	20.	475.	20.	132.	20.
9	VBO2642	331.	279.	20.	20.	22.	327.	20.	60.	20.
10	VBO2643	514.	20.	20.	20.	45.	202.	35.	138.	20.
11	VBO2644	391.	20.	22.	20.	22.	280.	23.	61.	20.
12	VBO2645	235.	20.	53.	20.	20.	774.	28.	151.	20.
13	VBO2646	496.	20.	31.	20.	30.	463.	20.	166.	20.
14	VBO2647	21.	61.	46.	20.	20.	463.	26.	151.	20.
15	VBO2648	490.	20.	20.	20.	27.	456.	20.	156.	20.
16	VBO2649	351.	638.	55.	20.	20.	136.	20.	84.	20.
17	VBO2650	307.	30.	57.	20.	20.	477.	20.	75.	20.
18	VBO2651	20.	218.	121.	29.	20.	446.	20.	77.	20.
19	VBO2652	61.	1170.	175.	20.	20.	485.	23.	76.	20.
20	VBO2653	78.	160.	49.	20.	20.	356.	22.	67.	20.
21	VBO2654	1184.	20.	39.	20.	38.	121.	21.	107.	20.
22	VBO2655	1523.	20.	32.	20.	38.	135.	20.	139.	20.
23	VBO2656	1400.	20.	21.	20.	36.	136.	20.	121.	20.
24	VBO2657	922.	23.	35.	20.	24.	175.	21.	133.	20.
25	VBO2658	697.	376.	30.	20.	35.	113.	22.	125.	20.
26	VBA9972	21.	20.	28.	20.	792.	20.	20.	46.	33.

Certified by



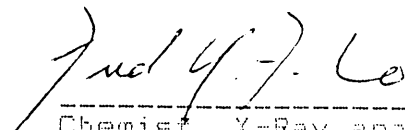
 Chemist, X-Ray analyst.

XRF - Analysis

From : Cominco Lab. Job no. x90-83 Reported 06-21-1990
 To : Falconbridge Ltd. Project name CHEMAINUS no. 605-608-116
 23 samples Shipped from Gord Allen Shipment no. COM90-3
Page 1

Field number	Ba ppm	Cu ppm	Zn ppm	Ni ppm	Rb ppm	Sr ppm	Y ppm	Zr ppm	Nb ppm	
1	VB02612	723.	34.	74.	20.	35.	168.	20.	52.	20.
2	VB02613	785.	20.	37.	20.	38.	90.	20.	97.	20.
3	VB02614	852.	20.	41.	20.	52.	73.	26.	113.	20.
4	VB02615	451.	20.	99.	20.	37.	108.	31.	93.	20.
5	VB02616	423.	46.	80.	20.	43.	102.	28.	81.	20.
6	VB02617	922.	20.	20.	20.	35.	120.	28.	83.	20.
7	VB02618	206.	77.	95.	20.	32.	172.	20.	56.	20.
8	VB02619	485.	20.	91.	20.	20.	815.	20.	127.	20.
9	VB02620	1091.	27.	81.	20.	40.	569.	20.	149.	20.
10	VB02621	614.	23.	112.	20.	37.	282.	23.	110.	20.
11	VB02622	894.	20.	28.	20.	38.	345.	20.	115.	20.
12	VB02623	603.	69.	117.	20.	69.	376.	20.	87.	20.
13	VB02624	610.	20.	34.	20.	21.	355.	20.	121.	20.
14	VB02625	819.	20.	22.	20.	50.	230.	20.	103.	20.
15	VB02626	305.	20.	111.	20.	26.	193.	32.	61.	20.
16	VB02627	304.	20.	103.	20.	23.	182.	39.	71.	20.
17	VB02628	457.	96.	102.	20.	33.	209.	20.	50.	20.
18	VB02629	355.	70.	97.	20.	33.	219.	25.	46.	20.
19	VB02630	942.	20.	85.	20.	51.	120.	20.	112.	20.
20	VB02631	625.	132.	43.	20.	31.	255.	20.	47.	20.
21	VB02632	2979.	92.	39.	20.	57.	183.	23.	48.	20.
22	VB02633	1747.	64.	76.	20.	50.	225.	22.	44.	20.
23	VA09970	21.	20.	25.	20.	792.	20.	20.	67.	24.

Certified by



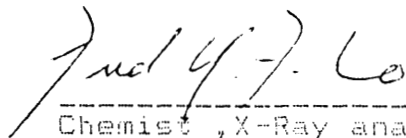
 Chemist, X-Ray analyst.

XRF - Analysis

From : Cominco Lab. Job no. x90-83 Reported 06-21-1990
 To : Falconbridge Ltd. Project name CHEMAINUS no. 605-608-116
 23 samples Shipped from Gord Allen Shipment no. COM90-3
Page 1

Field number		Ga	Cu	Zn	Ni	Rb	Sr	Y	Zr	Nb
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
1	VB02612 CH90-125	723.	34.	74.	20.	35.	168.	20.	52.	20.
2	VB02613	785.	20.	37.	20.	38.	90.	20.	97.	20.
3	VB02614	852.	20.	41.	20.	52.	73.	25.	113.	20.
4	VB02615	451.	20.	99.	20.	37.	108.	31.	93.	20.
5	VB02616	423.	46.	80.	20.	43.	102.	28.	81.	20.
6	VB02617	922.	20.	20.	20.	35.	120.	28.	83.	20.
7	VB02618	206.	77.	95.	20.	32.	172.	20.	56.	20.
8	VB02619	485.	20.	91.	20.	20.	815.	20.	127.	20.
9	VB02620	1091.	27.	81.	20.	40.	569.	20.	149.	20.
10	VB02621	614.	23.	112.	20.	37.	282.	23.	110.	20.
11	VB02622	894.	20.	28.	20.	38.	345.	20.	115.	20.
12	VB02623	603.	69.	117.	20.	69.	375.	20.	87.	20.
13	VB02624	610.	20.	34.	20.	21.	355.	20.	121.	20.
14	VB02625	819.	20.	22.	20.	50.	230.	20.	103.	20.
15	VB02626	305.	20.	111.	20.	26.	193.	32.	61.	20.
16	VB02627	304.	20.	103.	20.	23.	182.	39.	71.	20.
17	VB02628	457.	96.	102.	20.	33.	209.	20.	50.	20.
18	VB02629	355.	70.	97.	20.	33.	219.	25.	46.	20.
19	VB02630	942.	20.	85.	20.	51.	120.	20.	112.	20.
20	VB02631	625.	132.	43.	20.	31.	255.	20.	47.	20.
21	VB02632	2979.	92.	39.	20.	57.	183.	23.	48.	20.
22	VB02633	1747.	64.	76.	20.	50.	225.	22.	44.	20.
23	VA09970 GTR	21.	20.	25.	20.	792.	20.	20.	67.	24.

Certified by



 Chemist, X-Ray analyst.

XRF - Analysis

From : Cominco Lab. Job no. X90-190 Reported 11-29-1990
 To : Falconbridge Ltd. Project name CHEMAINUS no. 605-608-116
 38 samples Shipped from GORDON ALLEN Shipment no. COM90-8

Page 1

Field number	CaO %	K2O %	P2O5 %	SiO2 %	Al2O3 %	MgO %	Na2O %	Fe2O3 %	TiO2 %	MnO %	LOI %	Total %	
1	VB02679	3.97	2.99	0.19	60.31	16.08	0.98	3.06	5.73	0.26	0.16	4.31	98.04
2	VB02680	4.58	1.02	0.24	57.24	17.68	2.84	3.70	8.04	0.76	0.18	3.27	99.55
3	VB02681	1.59	2.52	0.10	66.80	15.40	1.82	1.84	4.83	0.35	0.06	3.24	98.55
4	VB02682	5.18	2.50	0.30	53.03	17.74	2.39	2.49	8.27	0.84	0.14	6.65	99.53
5	VB02683	6.08	2.81	0.03	69.62	11.92	0.77	0.30	0.99	0.17	0.09	6.53	99.31
6	VB02684	9.12	1.26	0.57	47.59	15.75	3.58	1.53	10.01	0.74	0.15	9.21	99.51
7	VB02685	1.58	1.77	0.04	71.90	14.44	1.49	3.50	2.55	0.22	0.05	2.49	100.03
8	VB02686	3.66	1.55	0.04	70.90	13.60	1.41	2.05	2.51	0.23	0.06	3.55	99.56
9	VB02687	2.00	2.56	0.04	73.03	13.25	1.25	1.84	1.81	0.19	0.04	3.26	99.27
10	VB02688	3.55	2.46	0.03	70.87	12.74	0.77	2.33	2.30	0.21	0.06	4.10	99.43
11	VB02689	2.11	2.71	0.02	73.26	12.90	1.00	1.99	2.08	0.22	0.05	3.02	99.38
12	VB02690	2.96	3.34	0.03	71.04	12.54	1.45	0.01	3.30	0.21	0.05	4.41	99.34
13	VB02691	2.52	1.85	0.03	71.53	12.45	1.38	3.03	2.46	0.21	0.03	4.46	99.96
14	VB02692	2.76	2.25	0.05	71.31	13.04	1.15	2.42	2.52	0.23	0.04	4.17	99.95
15	VB02693	1.38	1.70	0.03	73.98	12.88	1.46	3.32	2.57	0.22	0.04	2.35	99.94
16	VB02694	5.28	0.43	0.06	61.97	14.54	2.61	3.27	7.84	0.35	0.13	3.61	100.09
17	VB02695	2.08	2.30	0.03	72.33	13.10	1.64	2.22	2.26	0.21	0.04	3.36	99.58
18	VB02696	11.60	0.02	0.12	40.37	9.00	17.12	0.01	9.42	0.45	0.19	11.25	99.55
19	VB02697	2.15	1.74	0.03	72.41	13.09	1.32	3.40	2.67	0.22	0.04	2.86	99.93
20	VB02698	2.02	1.88	0.04	73.01	12.96	1.57	3.09	2.53	0.20	0.04	2.84	100.19
21	VB02699	2.27	2.91	0.04	74.06	12.59	0.90	0.68	2.34	0.29	0.01	2.92	99.02
22	VB02700	9.85	0.45	0.35	47.33	15.50	4.69	0.79	11.14	2.14	0.13	4.38	96.77
23	VB02701	1.92	2.85	0.04	69.40	15.49	1.49	1.01	3.07	0.36	0.01	3.81	99.45
24	VB02702	0.29	2.87	0.04	68.69	17.62	0.17	1.13	3.97	0.47	0.01	4.17	99.45
25	VB02703	0.46	1.79	0.05	80.11	10.36	0.14	1.38	2.63	0.26	0.01	1.96	99.15
26	VB02704	10.41	0.20	0.13	48.18	14.23	7.87	2.53	12.15	1.29	0.21	2.06	99.26
27	VB02705	11.83	0.24	0.10	49.26	14.31	8.71	2.46	9.79	0.55	0.18	2.08	99.52
28	VB02706	5.75	0.52	0.31	53.89	16.78	4.09	4.37	8.46	0.87	0.12	4.11	99.28
29	VB02707	10.79	0.46	0.11	49.13	14.65	8.66	2.35	9.85	0.58	0.16	3.04	99.79
30	VB02708	11.63	1.59	0.15	46.09	16.81	4.89	1.92	10.02	0.73	0.16	5.64	99.63
31	VB02709	9.88	0.47	0.15	47.47	12.80	9.66	3.10	9.87	0.64	0.19	5.64	99.87
32	VB02710	5.43	1.72	0.17	50.90	16.44	7.02	4.17	8.97	0.71	0.14	3.64	99.32
33	VB02711	13.34	0.28	0.10	47.61	12.46	9.52	1.74	9.50	0.50	0.15	4.79	99.99
34	VB02712	8.55	0.78	0.28	50.74	16.73	4.00	3.78	8.24	0.83	0.15	5.56	99.64
35	VB02713	10.13	0.31	0.11	50.18	13.93	8.49	3.14	9.67	0.56	0.15	3.22	99.89
36	VB02714	9.45	0.33	0.16	48.28	12.85	8.92	3.68	9.60	0.63	0.17	5.28	99.36
37	VB02715	5.68	0.90	0.18	50.31	17.24	7.27	4.26	10.27	0.83	0.19	2.86	99.99
38	VA13227	0.56	7.25	0.02	75.93	11.01	0.50	0.80	2.35	0.24	0.03	0.85	99.55

XRF - Analysis

From : Cominco Lab. Job no. X90-190 Reported 11-29-1990
 To : Falconbridge Ltd. Project name CHEMAINUS no. 605-608-116
 38 samples Shipped from GORDON ALLEN Shipment no. COM90-8
Page 1

Field number	Ba ppm	Cu ppm	Zn ppm	Ni ppm	Rb ppm	Sr ppm	Y ppm	Zr ppm	Nb ppm	
1	VB02679	747.	20.	61.	20.	75.	204.	26.	146.	20.
2	VB02680	465.	27.	85.	20.	40.	553.	20.	146.	20.
3	VB02681	1354.	25.	39.	20.	58.	287.	20.	90.	20.
4	VB02682	504.	33.	102.	20.	49.	219.	31.	80.	20.
5	VB02683	1128.	20.	20.	20.	54.	177.	20.	92.	20.
6	VB02684	1467.	51.	110.	20.	38.	312.	26.	68.	20.
7	VB02685	771.	20.	27.	20.	37.	203.	20.	148.	20.
8	VB02686	792.	20.	22.	20.	20.	350.	20.	129.	20.
9	VB02687	776.	20.	33.	20.	52.	146.	20.	137.	20.
10	VB02688	826.	59.	26.	20.	51.	147.	20.	116.	20.
11	VB02689	841.	97.	25.	20.	54.	74.	20.	127.	20.
12	VB02690	1467.	79.	25.	20.	66.	88.	20.	123.	20.
13	VB02691	741.	20.	20.	20.	39.	213.	20.	119.	20.
14	VB02692	807.	23.	20.	20.	34.	195.	20.	118.	20.
15	VB02693	1193.	20.	23.	20.	34.	132.	20.	96.	20.
16	VB02694	223.	29.	111.	20.	20.	217.	21.	101.	23.
17	VB02695	946.	20.	21.	20.	46.	118.	20.	106.	20.
18	VB02696	31.	65.	30.	217.	20.	152.	20.	20.	20.
19	VB02697	775.	43.	20.	20.	44.	174.	20.	106.	20.
20	VB02698	870.	20.	20.	20.	43.	184.	20.	123.	20.
21	VB02699	1853.	26.	20.	20.	52.	114.	20.	123.	20.
22	VB02700	488.	221.	66.	20.	21.	306.	37.	174.	20.
23	VB02701	1481.	63.	20.	20.	55.	225.	20.	148.	20.
24	VB02702	3139.	64.	20.	20.	55.	142.	20.	156.	20.
25	VB02703	6175.	731.	49.	20.	31.	131.	20.	109.	20.
26	VB02704	329.	108.	36.	33.	20.	271.	20.	85.	20.
27	VB02705	215.	174.	20.	20.	20.	383.	20.	52.	20.
28	VB02706	204.	46.	67.	20.	20.	305.	20.	93.	20.
29	VB02707	411.	93.	22.	20.	20.	423.	20.	48.	20.
30	VB02708	745.	72.	54.	20.	20.	329.	24.	60.	20.
31	VB02709	342.	114.	31.	32.	20.	243.	20.	50.	20.
32	VB02710	698.	101.	53.	22.	20.	275.	20.	71.	20.
33	VB02711	151.	79.	21.	20.	20.	338.	20.	50.	20.
34	VB02712	406.	45.	63.	20.	26.	340.	25.	81.	20.
35	VB02713	172.	117.	20.	20.	20.	333.	20.	65.	20.
36	VB02714	283.	95.	27.	30.	20.	226.	20.	41.	20.
37	VB02715	391.	124.	40.	20.	20.	281.	20.	72.	20.
38	VA13227	771.	20.	104.	20.	130.	27.	125.	278.	30.

Certified by

And G. J. Co

Chemist ,X-Ray analyst.

Bondar-Clegg & Company Ltd.
 130 Pemberton Ave.
 North Vancouver, B.C.
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 (604) 985-0681 Telex 04-352667



**Geochemical
 Lab Report**

REPORT: V90-00822.0 (COMPLETE)

REFERENCE INFO: SHIPMENT #90-7

CLIENT: FALCONBRIDGE LIMITED
 PROJECT: 605-116

SUBMITTED BY: G. ALLEN
 DATE PRINTED: 21-JUN-90

ORDER	ELEMENT	NUMBFR OF ANALYSES	LOUFR DETECTION LIMIT	EXTRACTION	METHOD
1	Au 10g Gold - Fire Assay	73	5 PPB	Fire-Assay	Fire Assay AA
2	Ag Silver	72	0.2 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
3	Cu Copper	72	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
4	Pb Lead	72	2 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
5	Zn Zinc	72	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
6	Mo Molybdenum	72	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
7	Ni Nickel	72	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
8	Co Cobalt	72	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
9	Cd Cadmium	72	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
10	Bi Bismuth	72	5 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
11	As Arsenic	72	5 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
12	Sb Antimony	72	5 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
13	Fe Iron	72	0.01 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
14	Mn Manganese	72	100 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
15	Te Tellurium	72	10 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
16	Ba Barium	72	20 PPM		X-Ray Fluorescence
17	Cr Chromium	72	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
18	V Vanadium	72	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
19	Sn Tin	72	20 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
20	W Tungsten	72	10 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
21	La Lanthanum	72	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
22	Al Aluminum	72	0.02 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
23	Mg Magnesium	72	0.05 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
24	Ca Calcium	72	0.05 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
25	Na Sodium	72	0.05 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
26	K Potassium	72	0.05 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
27	Sr Strontium	72	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
28	Y Yttrium	72	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
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V7P 2R5
(604) 985-0681 Telex 04-352667



Geochemical Lab Report

REPORT: V90-00822.0 (COMPLETE)

REFERENCE INFO: SHIPMENT #90-7

CLIENT: FALCONBRIDGE LIMITED
PROJECT: 605-116

SUBMITTED BY: G. ALLEN
DATE PRINTED: 21-JUN-90

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
D DRILL CORE	72	2 -150	72	CRUSH,PULVERIZE -150	72
P PREPARED PULP	1	4 AS REC'D	1	AS RECEIVED, NO SP	1

REMARKS: "IS" denotes insufficient sample.

REPORT COPIES TO: MR. NILS VON FERSEN
G. FLECK
MR. GORD ALLEN

INVOICE TO: MR. NILS VON FERSEN
MR. GORD ALLEN

DATE PRINTED: 21-JUN-90

REPORT: V90-00822.0

PROJECT: 605-116

PAGE 2C

SAMPLE NUMBER	ELEMENT UNITS	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM
D2 VB00510		2.13	5.24	0.09	0.05	47	9
D2 VB00511		1.70	3.46	0.29	0.09	75	11
D2 VB00512		3.89	4.73	0.14	<0.05	135	9
D2 VB00513		2.91	2.64	0.24	0.07	121	8
D2 VB00514		1.06	3.00	<0.05	<0.05	31	6
D2 VB00515		0.82	2.12	<0.05	0.05	38	7
D2 VB00516		0.41	>10.00	<0.05	<0.05	44	7
D2 VB00517		0.58	1.83	<0.05	0.05	70	6
D2 VB00518		0.94	1.05	<0.05	0.09	14	6
D2 VB00519		0.89	0.45	<0.05	0.09	11	5
D2 VB00520		2.58	7.19	<0.05	0.09	25	4
D2 VB00521		1.34	3.55	<0.05	0.11	20	4
D2 VB00522		4.27	7.67	<0.05	0.08	26	6
D2 VB00523		1.77	4.82	<0.05	0.12	23	4
D2 VB00524		1.62	3.85	<0.05	0.14	22	6
D2 VB00525		1.70	4.13	<0.05	0.18	24	4
D2 VB00526		1.77	3.02	<0.05	0.14	14	4
D2 VB00527		0.98	2.36	<0.05	0.18	18	3
D2 VB00528		0.21	0.34	<0.05	0.12	9	2
D2 VB00529		0.57	0.90	<0.05	0.19	13	3
D2 VB00530		0.26	0.92	<0.05	0.20	11	2
D2 VB00531		1.01	2.76	<0.05	0.17	25	4
D2 VB00532		1.34	4.17	<0.05	0.16	30	4
D2 VB00533		1.17	2.91	<0.05	0.19	17	5
D2 VB00534		1.50	4.39	<0.05	0.25	44	5
D2 VB00535		1.29	3.23	<0.05	0.26	36	5
D2 VB00536		1.31	2.61	<0.05	0.24	37	4
D2 VB00537		0.46	1.69	0.08	0.19	27	4
D2 VB00538		0.55	1.49	0.07	0.16	29	4
D2 VB00539		1.84	4.64	0.06	0.22	47	5
D2 VB00540		1.78	4.68	0.06	0.18	53	4
D2 VB00541		1.12	2.23	0.08	0.18	35	4
P4 VA09969	IS	IS	IS	IS	IS	IS	IS

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Certificate of Analysis

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V90-00965.6 (COMPLETE)

REFERENCE INFO: SHIPMENT #90-8

CLIENT: FALCONBRIDGE LIMITED
PROJECT: 605-116

SUBMITTED BY: G. ALLEN
DATE PRINTED: 5-JUL-90

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Cu Copper	14	0.01 PCT	HCL-HNO3-HF	Atomic Absorption

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
D DRILL CORE	14	2 -150	14	SAMPLES FROM STORAGE	14

REPORT COPIES TO: MR. NILS VON FERSEN

INVOICE TO: MR. NILS VON FERSEN

G. FLECK
MR. GORD ALLEN

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A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 5-JUL-90

REPORT: V90-00965.6

PROJECT: 605-116

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PCT
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D2 VB00609		0.47
D2 VB00621		0.50
D2 VB00630		0.57
D2 VB00635		0.40
D2 VB00637		0.59

D2 VB00638		4.18
D2 VB00639		3.39
D2 VB00640		2.60
D2 VB00641		1.74
D2 VB00642		2.01

D2 VB00643		0.61
D2 VB00647		0.84
D2 VB00652		4.01
D2 VB00662		0.42

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**Geochemical
 Lab Report**

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V90-00965.0 (COMPLETE)

REFERENCE INFO: SHIPMENT #90-8

CLIENT: FALCONBRIDGE LIMITED
 PROJECT: 605-116

SUBMITTED BY: G. ALLEN
 DATE PRINTED: 5-JUL-90

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au 10g Gold - Fire Assay	131	5 PPM	Fire-Assay	Fire Assay AA
2	Ag Silver	131	0.2 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
3	Cu Copper	131	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
4	Pb Lead	131	2 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
5	Zn Zinc	131	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
6	Mo Molybdenum	131	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
7	Ni Nickel	131	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
8	Co Cobalt	131	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
9	Cd Cadmium	131	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
10	Bi Bismuth	131	5 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
11	As Arsenic	131	5 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
12	Sb Antimony	131	5 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
13	Fe Iron	131	0.01 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
14	Mn Manganese	131	100 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
15	Te Tellurium	131	10 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
16	Ba Barium	131	20 PPM		X-Ray Fluorescence
17	Cr Chromium	131	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
18	V Vanadium	131	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
19	Sn Tin	131	20 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
20	W Tungsten	131	10 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
21	La Lanthanum	131	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
22	Al Aluminum	131	0.02 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
23	Mg Magnesium	131	0.05 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
24	Ca Calcium	131	0.05 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
25	Na Sodium	131	0.05 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
26	K Potassium	131	0.05 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
27	Sr Strontium	131	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
28	Y Yttrium	131	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma

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Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V90-00965.0 (COMPLETE)

REFERENCE INFO: SHIPMENT #90-8

CLIENT: FALCONBRIDGE LIMITED
PROJECT: 605-116

SUBMITTED BY: G. ALLEN
DATE PRINTED: 5-JUL-90

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
P PREPARED PULP	1	4 AS REC'D	1	CRUSH,PULVERIZE -150	130
D DRILL CORE	130	2 -150	130	AS RECEIVED, NO SP	1

REMARKS: Assay of Cu >3000 ppm to follow on V90-00965.6.

REPORT COPIES TO: MR. NILS VON FERSEN
MR. GORD ALLEN
MR. GLEN FLETT

INVOICE TO: MR. NILS VON FERSEN

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 5-JUL-90

REPORT: V90-00965.0

PROJECT: 605-116

PAGE 1A

SAMPLE NUMBER	ELEMENT UNITS	Au 10g PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM
P4 VA09971		<5	<0.2	8	10	44	<1	2	<1	<1	<5	<5
D2 VB00542		<5	0.8	80	7	71	<1	28	26	<1	<5	12
D2 VB00543		<5	1.2	46	14	86	<1	10	29	<1	<5	7
D2 VB00544		<5	2.1	120	1912	85	2	13	14	<1	<5	18
D2 VB00545		<5	1.0	59	20	130	<1	26	23	<1	<5	<5
D2 VB00546		<5	1.5	22	14	116	1	3	27	<1	<5	<5
D2 VB00547		<5	1.4	24	18	108	11	8	29	<1	<5	<5
D2 VB00548		<5	1.3	42	23	93	3	7	22	<1	<5	6
D2 VB00549		<5	0.4	14	11	64	6	8	15	<1	7	<5
D2 VB00550		18	0.7	45	15	70	4	24	43	<1	<5	36
D2 VB00551		18	0.7	85	14	102	2	49	26	<1	<5	8
D2 VB00552		<5	0.9	18	12	127	<1	8	19	<1	<5	7
D2 VB00553		6	1.3	21	15	269	2	6	17	<1	<5	13
D2 VB00554		<5	1.1	36	12	143	1	10	20	<1	<5	<5
D2 VB00555		<5	0.6	13	14	78	1	6	19	<1	<5	15
D2 VB00556		<5	1.3	55	18	114	2	9	17	<1	<5	43
D2 VB00557		<5	1.4	8	10	107	<1	2	19	<1	<5	55
D2 VB00558		<5	1.5	61	16	636	<1	3	21	2	<5	71
D2 VB00559		6	1.8	187	10	864	2	4	35	2	<5	61
D2 VB00560		<5	1.4	57	19	2877	3	<1	29	12	<5	28
D2 VB00561		<5	1.6	96	16	1321	3	3	22	5	<5	44
D2 VB00562		<5	1.4	56	13	932	2	14	22	3	<5	81
D2 VB00563		<5	1.5	228	19	174	<1	18	28	<1	<5	29
D2 VB00564		7	1.4	230	102	141	4	28	39	<1	5	46
D2 VB00565		<5	1.1	223	11	66	<1	45	49	<1	<5	47
D2 VB00566		<5	1.3	49	9	84	1	29	39	<1	5	54
D2 VB00567		17	1.0	98	10	22	1	45	80	<1	<5	43
D2 VB00568		26	1.5	102	12	30	2	53	84	<1	<5	82
D2 VB00569		49	0.9	22	14	13	3	50	78	<1	<5	83
D2 VB00570		26	1.5	74	16	25	2	54	99	<1	<5	88
D2 VB00571		12	0.7	71	5	17	<1	37	69	<1	<5	17
D2 VB00572		14	0.7	71	5	61	<1	25	30	<1	<5	<5
D2 VB00573		<5	0.6	158	5	38	2	12	18	<1	<5	7
D2 VB00574		12	0.5	256	6	92	4	22	46	<1	<5	12
D2 VB00575		9	0.6	137	8	21	<1	12	33	<1	<5	11
D2 VB00576		9	0.7	341	8	14	2	18	61	<1	<5	<5
D2 VB00577		94	1.5	623	16	19	8	20	100	<1	<5	6
D2 VB00578		14	1.1	468	6	15	1	21	82	<1	<5	<5
D2 VB00579		<5	0.6	44	4	19	3	7	15	<1	<5	19
D2 VB00580		<5	0.3	4	2	6	<1	1	3	<1	<5	<5

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 5-JUL-90

REPORT: V90-00965.D

PROJECT: 605-116

PAGE: 1B

SAMPLE NUMBER	ELEMENT UNITS	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT
P4 VA09971		<5	0.44	163	<10	<20	4	<1	<20	<10	3	0.45
D2 VB00542		<5	7.64	1599	25	330	50	67	<20	<10	1	2.36
D2 VB00543		<5	6.99	1153	21	610	14	88	<20	10	16	3.15
D2 VB00544		<5	3.04	744	15	860	44	19	<20	<10	12	1.90
D2 VB00545		<5	6.38	1345	25	570	36	71	<20	<10	8	3.63
D2 VB00546		<5	7.23	1420	20	740	6	66	<20	11	6	3.89
D2 VB00547		<5	7.39	1309	19	800	4	64	<20	10	4	3.41
D2 VB00548		<5	5.93	1107	17	1100	2	53	<20	10	6	3.21
D2 VB00549		<5	3.10	553	15	680	48	16	<20	<10	6	2.37
D2 VB00550		<5	6.17	432	24	360	42	36	<20	<10	9	2.71
D2 VB00551		<5	6.34	851	25	430	67	110	<20	12	5	4.25
D2 VB00552		<5	8.90	1785	22	280	16	70	<20	11	3	4.57
D2 VB00553		6	7.14	950	21	820	25	42	<20	<10	4	2.70
D2 VB00554		<5	5.71	1124	23	830	18	50	<20	<10	8	2.74
D2 VB00555		5	4.14	663	15	1200	25	15	<20	<10	4	1.89
D2 VB00556		<5	9.39	470	24	1300	39	20	<20	11	2	1.64
D2 VB00557		<5	8.39	2057	25	420	6	42	<20	12	3	3.13
D2 VB00558		<5	9.35	1943	24	400	9	51	<20	<10	2	3.33
D2 VB00559		6	>10.00	1436	34	1100	50	38	<20	12	2	2.45
D2 VB00560		7	>10.00	2245	37	250	7	50	<20	<10	2	3.54
D2 VB00561		<5	9.44	2210	24	310	25	46	<20	<10	2	3.76
D2 VB00562		8	9.49	1881	27	260	30	75	<20	<10	2	4.52
D2 VB00563		<5	5.53	1341	19	820	21	76	<20	<10	<1	3.18
D2 VB00564		<5	6.74	1061	21	1100	28	81	<20	<10	<1	2.55
D2 VB00565		<5	3.16	697	17	590	46	64	<20	<10	<1	1.89
D2 VB00566		7	6.06	1092	20	650	53	117	<20	15	<1	3.61
D2 VB00567		10	7.97	468	19	930	37	65	<20	12	<1	1.47
D2 VB00568		9	9.53	457	20	890	45	74	<20	14	<1	1.43
D2 VB00569		<5	6.69	179	13	920	67	73	<20	10	<1	1.06
D2 VB00570		10	>10.00	344	18	1000	53	79	<20	21	<1	1.35
D2 VB00571		<5	6.14	376	11	990	49	74	<20	<10	<1	0.79
D2 VB00572		<5	5.53	771	18	260	35	73	<20	<10	1	2.72
D2 VB00573		<5	2.34	648	13	1500	18	58	<20	<10	<1	1.57
D2 VB00574		<5	4.65	614	15	3400	44	137	<20	<10	<1	1.73
D2 VB00575		<5	1.65	526	<10	810	19	43	<20	<10	<1	1.17
D2 VB00576		<5	3.55	273	12	2300	32	56	<20	<10	<1	1.13
D2 VB00577		<5	6.82	221	17	2700	38	59	<20	<10	<1	0.93
D2 VB00578		<5	5.46	248	<10	2400	21	49	<20	<10	<1	0.96
D2 VB00579		<5	0.89	461	<10	1400	19	39	<20	<10	<1	0.93
D2 VB00580		<5	0.54	122	<10	740	47	3	<20	<10	10	0.51

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SAMPLE NUMBER	ELEMENT UNITS	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM
P4 VA09971		<0.05	0.29	<0.05	0.22	6	10
D2 VB00542		2.37	5.96	0.07	0.21	63	7
D2 VB00543		1.72	5.93	<0.05	0.26	218	17
D2 VB00544		0.78	4.70	0.05	0.48	152	11
D2 VB00545		2.43	5.60	<0.05	0.36	200	13
D2 VB00546		2.29	3.53	<0.05	0.43	199	14
D2 VB00547		2.18	3.56	<0.05	0.51	113	13
D2 VB00548		1.92	3.32	<0.05	1.05	93	17
D2 VB00549		1.43	2.54	<0.05	0.23	60	9
D2 VB00550		1.61	1.97	<0.05	0.17	43	10
D2 VB00551		2.67	6.25	<0.05	0.15	98	14
D2 VB00552		1.81	5.37	<0.05	0.21	70	22
D2 VB00553		1.76	3.55	<0.05	0.23	75	12
D2 VB00554		1.32	5.56	<0.05	0.20	85	11
D2 VB00555		1.14	1.85	<0.05	0.25	49	13
D2 VB00556		0.83	0.85	<0.05	0.34	35	16
D2 VB00557		1.28	5.83	<0.05	0.18	51	16
D2 VB00558		1.33	2.72	<0.05	0.11	40	14
D2 VB00559		0.82	2.50	<0.05	0.27	37	15
D2 VB00560		1.74	1.36	<0.05	<0.05	31	13
D2 VB00561		1.57	3.22	<0.05	0.08	42	10
D2 VB00562		2.48	3.38	<0.05	0.06	39	11
D2 VB00563		2.24	9.06	<0.05	0.21	75	6
D2 VB00564		2.22	5.46	<0.05	0.24	41	7
D2 VB00565		1.24	8.13	<0.05	0.37	61	7
D2 VB00566		3.30	6.11	<0.05	0.11	84	8
D2 VB00567		0.76	3.48	<0.05	0.45	43	8
D2 VB00568		0.74	3.51	<0.05	0.46	42	8
D2 VB00569		0.38	1.22	<0.05	0.55	13	9
D2 VB00570		0.73	1.76	<0.05	0.44	31	8
D2 VB00571		0.41	4.33	<0.05	0.23	37	6
D2 VB00572		1.73	4.37	<0.05	0.35	84	5
D2 VB00573		0.68	7.52	<0.05	<0.05	39	5
D2 VB00574		1.10	2.30	<0.05	0.32	17	6
D2 VB00575		0.40	>10.00	<0.05	<0.05	40	5
D2 VB00576		0.34	2.55	<0.05	0.25	34	6
D2 VB00577		0.36	1.15	<0.05	0.38	11	6
D2 VB00578		0.34	2.44	<0.05	0.22	28	5
D2 VB00579		0.34	>10.00	<0.05	0.07	35	5
D2 VB00580		0.26	0.63	<0.05	0.24	17	5

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SAMPLE NUMBER	ELEMENT UNITS	Au 10g PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM
D2 VB00581		<5	0.7	242	6	43	<1	3	12	<1	6	6
D2 VB00582		<5	0.4	3	<2	6	1	<1	2	<1	<5	<5
D2 VB00583		<5	0.3	3	<2	5	1	1	3	<1	<5	<5
D2 VB00584		<5	0.2	23	3	11	2	<1	2	<1	<5	<5
D2 VB00585		<5	0.4	5	3	10	<1	7	13	<1	<5	6
D2 VB00586		<5	0.2	67	3	12	<1	2	6	<1	<5	<5
D2 VB00587		<5	0.6	227	3	32	<1	4	30	<1	<5	6
D2 VB00588		<5	1.3	42	6	49	<1	28	20	3	5	1349
D2 VB00589		<5	1.2	134	5	31	<1	39	20	<1	5	10
D2 VB00590		<5	1.2	111	9	68	<1	39	21	<1	<5	268
D2 VB00591		<5	0.8	27	7	34	2	4	17	<1	6	19
D2 VB00592		<5	0.7	29	<2	34	2	4	15	<1	<5	15
D2 VB00593		<5	0.5	30	<2	31	2	4	15	<1	<5	27
D2 VB00594		<5	0.7	25	<2	30	1	3	17	7	6	>2000
D2 VB00595		<5	0.5	24	4	26	<1	3	14	<1	<5	93
D2 VB00596		<5	0.9	81	5	53	2	29	26	<1	5	79
D2 VB00597		<5	1.0	361	5	59	<1	25	22	<1	7	35
D2 VB00598		<5	1.5	358	9	63	<1	32	83	<1	<5	347
D2 VB00599		<5	1.1	327	6	58	<1	30	49	<1	6	48
D2 VB00600		<5	1.2	889	2	57	<1	33	30	<1	6	19
D2 VB00601		<5	1.2	1672	6	56	<1	35	34	<1	7	122
D2 VB00602		<5	0.6	36	2	11	<1	17	19	<1	<5	27
D2 VB00603		9	1.6	2423	6	64	<1	60	61	<1	6	88
D2 VB00604		<5	0.5	26	<2	16	<1	17	19	<1	<5	8
D2 VB00605		<5	0.3	44	3	31	1	5	8	<1	<5	<5
D2 VB00606		<5	0.6	594	2	34	1	8	14	<1	7	<5
D2 VB00607		<5	0.5	21	<2	16	1	12	5	<1	<5	<5
D2 VB00608		<5	1.5	1133	6	66	<1	24	26	<1	6	<5
D2 VB00609		16	3.4	4570	7	116	<1	25	38	4	12	<5
D2 VB00610		<5	0.8	286	6	50	<1	20	16	<1	6	<5
D2 VB00611		<5	0.9	307	8	55	<1	16	12	<1	7	<5
D2 VB00612		<5	0.8	159	<2	48	<1	8	19	<1	<5	18
D2 VB00613		<5	0.8	174	5	47	<1	8	13	<1	<5	<5
D2 VB00614		<5	0.6	64	4	38	<1	8	16	<1	6	<5
D2 VB00615		<5	0.6	138	6	32	<1	5	9	<1	6	<5
D2 VB00616		<5	1.2	1719	6	38	<1	52	32	<1	11	<5
D2 VB00617		<5	1.3	1069	3	36	<1	13	76	<1	6	<5
D2 VB00618		<5	1.0	349	5	45	<1	8	13	<1	<5	7
D2 VB00619		<5	1.1	495	4	55	<1	11	16	<1	7	<5
D2 VB00620		<5	1.3	17	9	46	<1	13	11	<1	<5	<5

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SAMPLE NUMBER	ELEMENT UNITS	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT
D2 VB00581		<5	3.71	415	<10	830	17	70	<20	<10	14	1.79
D2 VB00582		<5	0.32	139	<10	450	58	3	<20	<10	8	0.39
D2 VB00583		<5	0.88	<100	<10	1300	59	3	<20	<10	6	0.44
D2 VB00584		<5	0.64	123	<10	870	58	8	<20	<10	6	0.61
D2 VB00585		<5	1.53	<100	<10	950	66	11	<20	<10	8	0.74
D2 VB00586		<5	0.65	119	<10	920	44	4	<20	<10	6	0.71
D2 VB00587		<5	1.14	221	<10	860	26	38	<20	<10	8	1.26
D2 VB00588		<5	8.23	766	22	450	37	98	<20	21	4	2.63
D2 VB00589		<5	8.79	513	19	<20	37	72	<20	13	2	2.71
D2 VB00590		<5	7.28	893	14	400	35	110	<20	14	1	3.50
D2 VB00591		<5	4.77	390	<10	1100	12	33	<20	<10	10	1.58
D2 VB00592		5	4.54	398	<10	1300	13	34	<20	10	10	1.59
D2 VB00593		<5	4.57	379	11	1500	18	37	<20	<10	9	1.48
D2 VB00594		6	4.87	476	<10	1100	15	34	<20	<10	11	1.58
D2 VB00595		6	3.94	444	<10	940	22	31	<20	<10	10	1.63
D2 VB00596		<5	5.13	604	15	1100	74	51	<20	13	6	1.92
D2 VB00597		<5	5.47	867	16	90	55	52	<20	<10	<1	2.81
D2 VB00598		<5	7.97	897	22	340	54	57	<20	17	<1	3.16
D2 VB00599		<5	6.62	809	22	830	56	59	<20	<10	<1	3.01
D2 VB00600		<5	5.85	720	19	870	53	54	<20	13	<1	2.69
D2 VB00601		<5	5.64	687	14	680	47	57	<20	<10	<1	2.93
D2 VB00602		<5	1.29	246	<10	610	34	51	<20	<10	<1	1.84
D2 VB00603		5	6.41	760	12	80	36	58	<20	11	<1	3.23
D2 VB00604		<5	2.00	327	<10	280	37	53	<20	<10	<1	1.92
D2 VB00605		<5	1.50	226	<10	490	47	24	<20	<10	4	1.42
D2 VB00606		<5	1.91	274	<10	70	69	39	<20	<10	6	1.55
D2 VB00607		<5	0.96	160	<10	<20	111	43	<20	<10	2	0.72
D2 VB00608		<5	6.41	537	17	130	23	112	<20	<10	2	3.65
D2 VB00609		<5	>10.00	755	22	<20	11	128	<20	12	<1	4.71
D2 VB00610		5	5.98	556	15	<20	33	105	<20	13	2	3.15
D2 VB00611		<5	4.59	545	12	<20	41	54	<20	13	3	3.06
D2 VB00612		7	5.18	451	17	<20	40	45	<20	12	3	2.29
D2 VB00613		<5	4.95	454	13	<20	39	45	<20	15	4	2.45
D2 VB00614		<5	2.89	370	<10	<20	10	41	<20	12	7	2.07
D2 VB00615		<5	3.06	337	11	380	6	19	<20	<10	7	2.12
D2 VB00616		<5	4.52	453	12	80	52	130	<20	<10	7	2.82
D2 VB00617		<5	5.46	533	15	80	35	115	<20	<10	10	2.80
D2 VB00618		<5	4.76	401	10	530	18	32	<20	13	2	2.83
D2 VB00619		<5	6.01	329	<10	430	21	34	<20	<10	2	3.26
D2 VB00620		7	9.36	571	31	<20	65	234	<20	18	5	3.40

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D2 VB00581		1.27	1.91	<0.05	0.29	56	11
D2 VB00582		0.20	1.76	<0.05	0.19	54	5
D2 VB00583		0.24	0.70	<0.05	0.19	11	3
D2 VB00584		0.61	0.86	<0.05	0.14	10	5
D2 VB00585		0.71	0.15	<0.05	0.18	5	4
D2 VB00586		0.76	0.44	<0.05	0.14	8	4
D2 VB00587		1.49	0.74	<0.05	0.11	26	6
D2 VB00588		1.73	5.83	<0.05	0.11	74	5
D2 VB00589		1.62	3.53	<0.05	<0.05	96	5
D2 VB00590		2.77	6.28	<0.05	0.13	85	7
D2 VB00591		1.07	0.85	<0.05	0.46	53	6
D2 VB00592		1.09	0.89	<0.05	0.42	53	7
D2 VB00593		1.04	0.76	<0.05	0.29	52	7
D2 VB00594		1.14	1.23	<0.05	0.21	69	8
D2 VB00595		1.05	0.90	<0.05	0.44	68	7
D2 VB00596		1.82	1.48	<0.05	0.19	49	5
D2 VB00597		2.75	1.39	<0.05	<0.05	67	4
D2 VB00598		3.29	0.73	<0.05	0.05	38	2
D2 VB00599		3.07	0.77	<0.05	0.13	43	3
D2 VB00600		2.82	0.77	<0.05	0.06	42	3
D2 VB00601		2.49	1.06	<0.05	<0.05	84	5
D2 VB00602		0.75	1.94	<0.05	0.07	73	6
D2 VB00603		3.11	0.81	<0.05	<0.05	43	4
D2 VB00604		1.08	1.68	<0.05	<0.05	72	5
D2 VB00605		1.48	0.87	0.05	0.14	18	10
D2 VB00606		1.76	1.30	<0.05	0.07	22	12
D2 VB00607		0.79	1.00	<0.05	0.06	11	6
D2 VB00608		2.88	1.84	<0.05	<0.05	114	9
D2 VB00609		4.10	1.53	<0.05	0.05	76	7
D2 VB00610		2.18	2.86	<0.05	<0.05	132	7
D2 VB00611		3.02	2.64	<0.05	<0.05	80	8
D2 VB00612		2.26	1.75	<0.05	<0.05	64	6
D2 VB00613		2.22	2.19	<0.05	<0.05	95	7
D2 VB00614		2.24	3.03	0.07	<0.05	30	14
D2 VB00615		1.30	4.08	<0.05	0.15	65	12
D2 VB00616		2.29	7.41	<0.05	0.06	50	8
D2 VB00617		2.14	8.22	<0.05	<0.05	52	9
D2 VB00618		1.73	5.25	0.06	0.10	55	6
D2 VB00619		2.12	3.15	<0.05	0.11	33	5
D2 VB00620		2.65	6.64	<0.05	<0.05	35	11

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D2 VB00621		26	2.8	3819	7	47	<1	13	11	<1	7	14
D2 VB00622		<5	1.3	190	9	67	<1	15	19	<1	<5	6
D2 VB00623		<5	1.3	423	5	149	<1	33	29	<1	5	10
D2 VB00624		<5	1.5	1356	9	183	<1	51	37	<1	9	<5
D2 VB00625		<5	1.1	255	5	200	1	17	18	<1	8	<5
D2 VB00626		<5	0.7	639	3	83	<1	14	9	<1	8	<5
D2 VB 00627		<5	0.9	402	6	166	<1	14	42	<1	<5	<5
D2 VB00628		<5	1.5	821	8	219	<1	14	53	<1	<5	9
D2 VB00629		<5	1.2	834	7	221	<1	12	54	<1	6	<5
D2 VB00630		10	3.4	4294	8	390	1	13	75	<1	8	15
D2 VB00631		<5	1.6	1243	10	350	1	15	52	<1	6	<5
D2 VB00632		<5	1.1	620	9	136	<1	20	18	<1	7	<5
D2 VB00633		7	1.5	1243	8	125	<1	34	31	<1	<5	7
D2 VB00634		<5	1.9	892	12	264	<1	21	48	<1	6	5
D2 VB00635		79	2.2	3744	9	199	<1	25	121	<1	9	<5
D2 VB00636		8	1.1	947	5	123	<1	19	28	<1	6	<5
D2 VB00637		6	2.2	5700	11	131	<1	21	58	<1	13	<5
D2 VB00638		67	8.6	>20000	10	183	<1	20	79	<1	71	9
D2 VB00639		29	7.4	>20000	10	198	<1	28	91	<1	50	10
D2 VB00640		29	5.9	>20000	10	185	<1	25	48	<1	36	<5
D2 VB00641		21	4.4	15373	6	100	<1	20	36	<1	31	<5
D2 VB00642		15	5.0	18025	9	147	2	31	53	<1	34	5
D2 VB00643		8	2.7	5637	8	210	<1	19	48	<1	15	<5
D2 VB00644		<5	2.0	808	18	484	2	23	48	<1	6	<5
D2 VB00645		<5	2.1	926	12	401	<1	17	48	<1	8	9
D2 VB00646		<5	1.0	130	9	107	<1	12	13	<1	8	<5
D2 VB00647		19	3.5	6992	12	103	2	17	97	<1	14	<5
D2 VB00648		<5	1.1	456	9	57	<1	19	23	<1	<5	<5
D2 VB00649		<5	0.9	223	7	38	1	17	18	<1	6	<5
D2 VB00650		<5	1.0	120	8	44	<1	19	16	<1	<5	5
D2 VB00651		<5	1.2	284	9	45	<1	23	13	<1	<5	<5
D2 VB00652		63	9.3	>20000	11	84	2	43	55	1	41	<5
D2 VB00653		12	1.3	842	6	62	<1	31	35	<1	<5	<5
D2 VB00654		9	2.2	2033	12	101	1	40	57	<1	<5	<5
D2 VB00655		<5	1.4	666	12	83	<1	20	28	<1	7	<5
D2 VB00656		<5	1.5	642	10	95	<1	36	34	<1	7	10
D2 VB00657		<5	1.7	131	8	136	<1	59	38	<1	5	<5
D2 VB00658		<5	1.8	769	11	83	<1	25	37	<1	6	<5
D2 VB00659		<5	1.8	1518	15	129	<1	70	45	<1	7	<5
D2 VB00660		<5	0.4	332	<2	34	2	5	8	<1	6	<5

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SAMPLE NUMBER	ELEMENT UNITS	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT
D2 VB00621		<5	>10.00	656	29	110	42	223	<20	12	2	3.54
D2 VB00622		<5	>10.00	788	34	630	8	131	<20	21	4	3.75
D2 VB00623		<5	5.49	780	20	100	39	73	<20	<10	<1	2.50
D2 VB00624		<5	6.17	983	19	<20	45	80	<20	<10	<1	2.92
D2 VB00625		<5	5.93	842	12	<20	21	112	<20	12	<1	3.54
D2 VB00626		5	2.32	388	<10	130	9	56	<20	<10	4	2.06
D2 VB 00627		<5	5.45	873	<10	1100	22	67	<20	<10	<1	2.90
D2 VB00628		6	7.48	1003	20	<20	25	84	<20	14	<1	3.40
D2 VB00629		<5	7.56	1013	21	<20	25	86	<20	10	<1	3.45
D2 VB00630		7	>10.00	1290	43	80	26	98	<20	23	<1	3.83
D2 VB00631		<5	8.90	1388	31	80	25	101	<20	13	<1	3.98
D2 VB00632		<5	7.04	1225	26	60	42	97	<20	12	<1	3.23
D2 VB00633		<5	7.31	1034	22	70	31	91	<20	15	<1	2.72
D2 VB00634		8	>10.00	1432	35	190	35	112	<20	16	<1	3.16
D2 VB00635		<5	>10.00	807	30	400	46	119	<20	11	<1	2.45
D2 VB00636		<5	3.92	690	19	290	54	118	<20	<10	<1	1.99
D2 VB00637		<5	7.56	714	22	150	34	108	<20	<10	<1	2.96
D2 VB00638		<5	>10.00	552	42	130	39	73	<20	<10	<1	1.94
D2 VB00639		6	>10.00	759	46	170	47	117	<20	<10	<1	3.03
D2 VB00640		<5	>10.00	726	44	170	72	131	<20	<10	<1	3.17
D2 VB00641		<5	9.00	461	28	230	47	94	<20	<10	<1	1.94
D2 VB00642		8	>10.00	657	36	120	93	113	<20	<10	<1	2.92
D2 VB00643		6	9.08	732	25	400	38	121	<20	<10	<1	3.33
D2 VB00644		6	>10.00	1074	36	20	30	135	<20	24	<1	5.42
D2 VB00645		<5	>10.00	974	35	<20	25	123	<20	20	<1	4.90
D2 VB00646		<5	6.03	646	18	200	15	157	<20	<10	<1	3.31
D2 VB00647		<5	>10.00	761	42	260	26	123	<20	18	<1	4.09
D2 VB00648		<5	8.83	730	26	120	29	118	<20	19	<1	3.30
D2 VB00649		<5	7.62	746	14	40	32	94	<20	<10	<1	2.73
D2 VB00650		8	9.49	970	27	<20	34	113	<20	16	<1	3.03
D2 VB00651		<5	>10.00	892	24	50	41	148	<20	15	<1	2.78
D2 VB00652		12	>10.00	1017	42	<20	101	117	<20	<10	<1	3.21
D2 VB00653		6	>10.00	914	27	40	68	115	<20	14	<1	2.88
D2 VB00654		7	>10.00	964	35	<20	80	129	<20	17	<1	3.20
D2 VB00655		<5	7.90	815	21	90	25	93	<20	23	<1	2.90
D2 VB00656		<5	6.83	920	24	230	106	170	<20	10	<1	3.78
D2 VB00657		<5	9.83	1168	40	200	161	276	<20	16	<1	5.50
D2 VB00658		<5	8.00	788	23	260	29	106	<20	11	<1	3.53
D2 VB00659		<5	8.50	1109	30	90	139	219	<20	12	<1	5.92
D2 VB00660		<5	1.66	401	<10	570	46	26	<20	<10	3	1.38

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SAMPLE NUMBER	ELEMENT UNITS	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM
D2 VB00621		2.37	8.56	<0.05	<0.05	64	8
D2 VB00622		2.76	5.22	<0.05	0.22	75	8
D2 VB00623		2.54	3.26	<0.05	<0.05	63	4
D2 VB00624		2.77	5.17	<0.05	<0.05	59	5
D2 VB00625		3.48	3.00	<0.05	0.09	63	5
D2 VB00626		1.22	3.84	<0.05	0.30	70	8
D2 VB 00627		2.81	3.05	<0.05	0.09	73	8
D2 VB00628		3.36	3.01	<0.05	0.09	79	7
D2 VB00629		3.40	3.02	<0.05	0.09	81	7
D2 VB00630		5.23	0.70	<0.05	0.15	18	3
D2 VB00631		5.03	2.06	<0.05	0.05	51	7
D2 VB00632		3.87	3.37	<0.05	0.29	92	6
D2 VB00633		2.99	3.93	<0.05	0.43	103	7
D2 VB00634		4.22	3.91	<0.05	0.39	100	8
D2 VB00635		3.87	1.14	<0.05	0.31	41	5
D2 VB00636		2.98	3.79	<0.05	0.32	50	8
D2 VB00637		3.13	2.42	<0.05	0.48	57	6
D2 VB00638		2.60	1.69	<0.05	0.32	66	6
D2 VB00639		4.11	1.02	<0.05	0.56	41	5
D2 VB00640		4.38	0.44	<0.05	0.67	31	4
D2 VB00641		2.89	0.81	<0.05	0.11	41	3
D2 VB00642		4.81	0.65	<0.05	0.21	38	5
D2 VB00643		5.30	1.65	<0.05	0.23	68	4
D2 VB00644		8.51	0.41	<0.05	0.08	27	3
D2 VB00645		7.17	1.13	<0.05	<0.05	45	4
D2 VB00646		5.36	1.50	<0.05	0.21	34	5
D2 VB00647		6.14	0.78	<0.05	0.72	42	6
D2 VB00648		4.78	0.64	<0.05	0.37	48	6
D2 VB00649		3.40	1.07	<0.05	0.24	85	8
D2 VB00650		3.93	1.24	<0.05	0.13	69	7
D2 VB00651		3.34	1.00	<0.05	0.08	65	6
D2 VB00652		3.90	0.30	<0.05	<0.05	29	5
D2 VB00653		3.29	1.05	<0.05	<0.05	60	5
D2 VB00654		3.66	0.70	<0.05	<0.05	50	5
D2 VB00655		3.40	1.45	<0.05	<0.05	72	6
D2 VB00656		6.10	3.16	<0.05	<0.05	31	7
D2 VB00657		9.77	2.16	<0.05	<0.05	26	6
D2 VB00658		3.66	1.01	<0.05	0.06	75	7
D2 VB00659		9.32	2.44	<0.05	0.33	28	9
D2 VB00660		2.03	2.10	0.05	0.11	21	7

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SAMPLE NUMBER	ELEMENT UNITS	Au 10g PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM
D2 VB00661		<5	0.5	51	2	38	7	4	7	<1	5	5
D2 VB00662		<5	1.9	4304	8	35	10	14	66	<1	15	<5
D2 VB00663		<5	0.4	65	6	19	2	2	4	<1	<5	<5
D2 VB00664		<5	0.5	48	4	26	3	6	118	<1	<5	5
D2 VB00665		<5	0.7	317	3	27	18	7	144	<1	<5	<5
D2 VB00666		<5	<0.2	58	2	27	6	4	43	<1	<5	<5
D2 VB00667		<5	0.8	880	5	48	<1	4	33	<1	<5	<5
D2 VB00668		37	0.3	37	4	33	1	4	6	<1	<5	<5
D2 VB00669		<5	0.6	350	5	44	<1	2	17	<1	6	<5
D2 VB00670		<5	0.4	273	<2	25	2	3	7	<1	<5	<5
D2 VB00711		17	0.8	263	<2	65	2	18	31	<1	<5	12

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SAMPLE NUMBER	ELEMENT UNITS	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT
D2 VB00661		<5	1.42	275	<10	1200	20	11	<20	<10	3	1.43
D2 VB00662		<5	7.20	326	17	1200	66	10	<20	14	2	1.33
D2 VB00663		<5	0.78	151	<10	1100	52	8	<20	<10	3	0.85
D2 VB00664		<5	1.32	171	<10	970	80	13	<20	<10	2	0.98
D2 VB00665		<5	2.17	181	<10	1300	58	10	<20	10	3	1.08
D2 VB00666		<5	1.09	190	<10	820	85	12	<20	<10	2	1.17
D2 VB00667		<5	2.93	323	<10	690	46	12	<20	<10	7	1.83
D2 VB00668		<5	1.81	315	<10	1000	126	10	<20	<10	2	1.36
D2 VB00669		5	2.92	345	<10	940	34	12	<20	14	3	1.77
D2 VB00670		<5	1.90	211	<10	1400	64	6	<20	<10	3	1.18
D2 VB00711		6	5.20	572	16	3300	29	115	<20	<10	<1	1.84

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SAMPLE NUMBER	ELEMENT UNITS	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM
D2 VB00661		1.92	1.03	<0.05	0.16	21	6
D2 VB00662		1.45	1.29	<0.05	0.18	42	7
D2 VB00663		0.91	0.58	<0.05	0.16	12	4
D2 VB00664		1.32	0.56	0.05	0.11	14	4
D2 VB00665		1.29	0.67	<0.05	0.12	21	4
D2 VB00666		1.32	0.67	0.06	0.11	21	4
D2 VB00667		1.89	0.74	0.05	0.09	14	7
D2 VB00668		1.26	1.45	<0.05	0.13	15	4
D2 VB00669		1.76	1.10	<0.05	0.09	16	6
D2 VB00670		1.00	0.55	<0.05	0.13	10	4
D2 VB00711		1.35	1.14	<0.05	0.42	18	6

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**Geochemical
 Lab Report**

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V90-01301.0 (COMPLETE)

REFERENCE INFO: SHIPMENT #90-9

CLIENT: FALCONBRIDGE LIMITED
 PROJECT: 605-116

SUBMITTED BY: G. ALLEN
 DATE PRINTED: 26-JUL-90

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au 10g Gold - Fire Assay	126	5 PPR	Fire-Assay	Fire Assay AA
2	Ag Silver	126	0.2 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
3	Cu Copper	126	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
4	Pb Lead	126	2 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
5	Zn Zinc	126	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
6	Mo Molybdenum	126	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
7	Ni Nickel	126	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
8	Co Cobalt	126	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
9	Cd Cadmium	126	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
10	Bi Bismuth	126	5 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
11	As Arsenic	126	5 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
12	Sb Antimony	126	5 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
13	Fe Iron	126	0.01 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
14	Mn Manganese	126	100 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
15	Te Tellurium	126	10 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
16	Ba Barium	126	20 PPM		X-Ray Fluorescence
17	Cr Chromium	126	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
18	V Vanadium	126	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
19	Sn Tin	126	20 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
20	W Tungsten	126	10 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
21	La Lanthanum	126	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
22	Al Aluminum	126	0.02 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
23	Mg Magnesium	126	0.05 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
24	Ca Calcium	126	0.05 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
25	Na Sodium	126	0.05 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
26	K Potassium	126	0.05 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
27	Sr Strontium	126	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
28	Y Yttrium	126	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma

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Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V90-01301.0 (COMPLETE)

REFERENCE INFO: SHIPMENT #90-9.

CLIENT: FALCONBRIDGE LIMITED
PROJECT: 605-116

SUBMITTED BY: G. ALLEN
DATE PRINTED: 26-JUL-90

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
P PREPARED PULP	1	4 AS REC'D	1	AS RECEIVED, NO SP	1
D DRILL CORE	125	2 -150	125	CRUSH, PULVERIZE -150	125

REMARKS: Assay of high Cu >3000 ppm to follow on
V90-01301.6.

REPORT COPIES TO: MR. NILS VON FERSEN
MR. GORD ALLEN
MR. GLEN FLETT

INVOICE TO: MR. NILS VON FERSEN



A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

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SAMPLE NUMBER	ELEMENT UNITS	Au 10g PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM
P4 VA09975		6	<0.2	8	10	41	<1	2	<1	<1	<5	<5
D2 VB00671		<5	0.9	1071	11	69	1	19	17	<1	10	26
D2 VB00672		<5	<0.2	15	<2	20	2	4	10	<1	<5	7
D2 VB00673		<5	2.5	19517	10	20	<1	5	25	<1	24	<5
D2 VB00674		<5	<0.2	94	<2	26	<1	5	16	<1	<5	5
D2 VB00675		<5	0.7	3106	<2	35	<1	5	18	<1	8	<5
D2 VB00676		7	<0.2	107	3	24	<1	3	15	<1	<5	9
D2 VB00677		<5	<0.2	18	<2	15	<1	2	4	<1	<5	9
D2 VB00678		<5	1.0	1966	<2	33	6	4	49	<1	<5	16
D2 VB00679		<5	<0.2	79	<2	20	<1	3	9	<1	<5	<5
D2 VB00680		<5	<0.2	80	<2	20	1	2	4	<1	<5	<5
D2 VB00681		64	7.1	>200000	7	30	14	5	33	<1	37	<5
D2 VB00682		<5	<0.2	195	<2	12	1	2	4	<1	<5	<5
D2 VB00683		<5	<0.2	184	<2	14	<1	2	4	<1	<5	7
D2 VB00684		<5	0.3	172	7	17	1	3	6	<1	7	14
D2 VB00685		<5	0.3	812	3	16	<1	2	10	<1	<5	8
D2 VB00686		<5	<0.2	41	<2	14	2	2	15	<1	<5	<5
D2 VB00687		<5	<0.2	12	<2	16	1	2	8	<1	<5	7
D2 VB00688		<5	<0.2	113	<2	16	<1	2	7	<1	<5	<5
D2 VB00689		<5	<0.2	374	<2	15	<1	2	3	<1	<5	5
D2 VB00690		<5	0.4	1301	3	21	3	4	3	<1	6	15
D2 VB00691		<5	0.4	1889	3	18	<1	3	3	<1	8	<5
D2 VB00692		<5	0.8	1965	2	17	1	3	11	<1	<5	11
D2 VB00693		<5	<0.2	53	<2	12	<1	2	5	<1	<5	<5
D2 VB00694		<5	<0.2	160	<2	18	<1	2	6	<1	<5	<5
D2 VB00695		15	<0.2	106	<2	12	<1	3	8	<1	<5	10
D2 VB00696		<5	<0.2	380	<2	18	<1	2	2	<1	<5	<5
D2 VB00697		<5	<0.2	94	<2	13	<1	3	4	<1	<5	<5
D2 VB00698		<5	0.4	486	2	16	<1	3	17	<1	<5	<5
D2 VB00699		<5	<0.2	56	<2	18	<1	3	6	<1	6	<5
D2 VB00700		<5	<0.2	213	<2	10	<1	2	10	<1	<5	<5
D2 VB00701		<5	0.4	254	2	17	3	3	30	<1	<5	<5
D2 VB00702		<5	0.2	403	<2	13	<1	1	7	<1	<5	<5
D2 VB00703		<5	0.5	32	<2	14	3	2	21	<1	<5	7
D2 VB00704		<5	<0.2	327	<2	20	<1	2	5	<1	<5	7
D2 VB00705		<5	0.3	172	6	26	<1	2	9	<1	<5	<5
D2 VB00706		<5	0.3	576	<2	20	<1	2	6	<1	<5	<5
D2 VB00707		<5	0.2	234	<2	26	3	2	10	<1	<5	<5
D2 VB00708		<5	0.2	291	<2	26	<1	2	6	<1	<5	8
D2 VB00709		7	0.5	1395	3	31	5	2	6	<1	5	<5



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SAMPLE NUMBER	ELEMENT UNITS	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT
P4 VA09975		<5	0.46	161	<10	<20	5	1	<20	<10	4	0.52
D2 VB00671		11	5.23	726	15	1000	38	46	<20	<10	3	3.20
D2 VB00672		<5	1.10	156	<10	260	156	12	<20	<10	6	1.04
D2 VB00673		6	4.15	205	<10	140	142	13	<20	<10	3	1.30
D2 VB00674		<5	2.04	230	<10	200	106	16	<20	<10	4	1.50
D2 VB00675		6	3.15	278	<10	230	109	18	<20	<10	4	1.99
D2 VB00676		6	2.11	248	<10	790	111	13	<20	<10	8	1.24
D2 VB00677		<5	1.75	259	<10	1400	48	7	<20	<10	5	1.57
D2 VB00678		8	7.25	297	16	1400	51	12	<20	<10	4	2.89
D2 VB00679		<5	2.87	232	<10	1200	46	8	<20	<10	4	1.85
D2 VB00680		<5	2.08	147	<10	990	54	7	<20	<10	6	1.68
D2 VB00681		10	>10.00	335	22	920	51	14	<20	<10	8	2.32
D2 VB00682		<5	1.04	176	<10	820	62	6	<20	<10	7	1.19
D2 VB00683		<5	1.16	240	<10	850	62	7	<20	<10	6	1.24
D2 VB00684		9	1.26	234	<10	920	61	7	<20	<10	6	1.40
D2 VB00685		<5	1.28	261	<10	840	57	7	<20	<10	5	1.23
D2 VB00686		6	1.31	225	<10	1100	52	7	<20	<10	5	1.18
D2 VB00687		<5	1.23	140	<10	790	62	8	<20	<10	6	1.03
D2 VB00688		<5	1.14	131	<10	1100	65	7	<20	<10	6	1.01
D2 VB00689		<5	0.74	158	<10	1200	61	7	<20	<10	6	1.02
D2 VB00690		5	0.98	182	<10	980	70	10	<20	<10	7	1.25
D2 VB00691		<5	1.83	157	<10	1100	68	7	<20	<10	4	1.11
D2 VB00692		5	5.36	136	11	2000	65	6	<20	<10	3	1.15
D2 VB00693		<5	1.06	110	<10	1400	65	7	<20	<10	4	0.91
D2 VB00694		<5	1.30	132	<10	1100	74	8	<20	<10	5	1.07
D2 VB00695		<5	1.24	125	<10	1100	72	7	<20	<10	4	0.90
D2 VB00696		<5	1.25	172	<10	1100	66	9	<20	<10	5	1.26
D2 VB00697		<5	0.98	104	<10	900	74	7	<20	<10	4	0.91
D2 VB00698		<5	4.26	179	11	1100	76	8	<20	<10	3	1.06
D2 VB00699		<5	1.14	150	<10	1100	67	7	<20	<10	5	1.27
D2 VB00700		<5	1.00	164	<10	1600	52	5	<20	<10	4	0.93
D2 VB00701		<5	4.82	190	<10	1800	48	5	<20	<10	3	1.32
D2 VB00702		<5	1.87	263	<10	1700	48	5	<20	<10	3	1.21
D2 VB00703		<5	5.36	223	<10	1400	53	5	<20	<10	2	1.14
D2 VB00704		<5	2.41	255	<10	1100	60	6	<20	<10	4	1.56
D2 VB00705		<5	3.24	364	<10	760	65	9	<20	<10	2	1.64
D2 VB00706		<5	2.13	240	<10	770	88	6	<20	<10	2	1.18
D2 VB00707		<5	3.28	387	<10	890	60	6	<20	<10	2	1.68
D2 VB00708		<5	2.75	360	<10	830	60	7	<20	<10	3	1.57
D2 VB00709		<5	2.90	335	<10	1100	41	7	<20	<10	2	1.58



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SAMPLE NUMBER	ELEMENT UNITS	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM
P4 VA09975		<0.05	0.38	<0.05	0.28	7	10
D2 VB00671		2.33	6.69	0.06	0.14	45	6
D2 VB00672		1.02	0.85	0.09	0.06	12	4
D2 VB00673		1.35	1.20	0.06	<0.05	12	4
D2 VB00674		1.60	1.25	0.08	<0.05	13	6
D2 VB00675		2.20	0.94	0.07	<0.05	12	7
D2 VB00676		1.23	1.33	0.08	0.07	15	6
D2 VB00677		1.06	1.87	0.06	0.19	31	3
D2 VB00678		2.13	1.50	0.05	0.18	27	3
D2 VB00679		1.25	1.81	<0.05	0.17	26	3
D2 VB00680		1.11	1.03	0.08	0.20	28	3
D2 VB00681		2.00	2.92	0.05	0.15	36	5
D2 VB00682		0.82	1.85	0.09	0.15	33	4
D2 VB00683		0.90	3.01	0.06	0.16	36	4
D2 VB00684		0.96	2.70	0.08	0.20	34	4
D2 VB00685		0.93	3.32	0.07	0.15	34	4
D2 VB00686		0.75	3.02	0.07	0.20	35	4
D2 VB00687		0.98	1.46	0.06	0.12	13	4
D2 VB00688		0.98	1.03	0.06	0.13	12	4
D2 VB00689		1.04	1.48	<0.05	0.14	15	6
D2 VB00690		1.38	1.73	0.05	0.14	19	6
D2 VB00691		1.18	1.27	<0.05	0.13	16	5
D2 VB00692		1.05	0.98	<0.05	0.21	14	7
D2 VB00693		0.83	0.89	<0.05	0.16	12	7
D2 VB00694		1.02	1.10	0.06	0.16	16	7
D2 VB00695		0.81	1.05	0.06	0.14	15	5
D2 VB00696		1.31	1.22	0.05	0.14	18	7
D2 VB00697		0.92	0.66	0.06	0.13	9	6
D2 VB00698		1.09	1.70	<0.05	0.16	17	6
D2 VB00699		1.39	1.13	<0.05	0.18	12	7
D2 VB00700		0.63	2.35	<0.05	0.24	20	5
D2 VB00701		0.95	1.88	<0.05	0.25	19	5
D2 VB00702		0.70	2.79	<0.05	0.29	25	5
D2 VB00703		0.70	2.07	<0.05	0.26	19	5
D2 VB00704		1.14	1.66	<0.05	0.25	18	6
D2 VB00705		1.36	0.24	<0.05	0.22	13	5
D2 VB00706		0.78	0.24	<0.05	0.23	17	5
D2 VB00707		1.35	0.17	<0.05	0.26	10	5
D2 VB00708		1.25	0.20	<0.05	0.23	8	5
D2 VB00709		1.21	0.16	<0.05	0.29	8	4



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SAMPLE NUMBER	ELEMENT UNITS	Au 10g PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM
D2 VB00710		<5	0.3	224	9	31	<1	2	11	<1	<5	<5
D2 VB00712		<5	0.8	233	<2	79	<1	64	35	<1	<5	6
D2 VB00713		<5	1.5	1350	5	68	35	39	19	<1	7	17
D2 VB00714		<5	0.9	1511	2	53	4	32	13	<1	6	16
D2 VB00715		<5	<0.2	161	<2	39	9	31	7	<1	<5	8
D2 VB00716		<5	0.2	32	<2	54	18	41	12	<1	<5	8
D2 VB00717		<5	0.8	200	9	45	4	16	13	<1	10	27
D2 VB00718		<5	0.5	99	<2	73	20	24	17	<1	<5	14
D2 VB00719		<5	0.9	163	<2	104	9	52	27	<1	5	12
D2 VB00720		<5	<0.2	20	<2	25	6	12	8	<1	<5	12
D2 VB00721		<5	0.3	82	3	56	33	36	8	<1	<5	12
D2 VB00722		<5	0.4	94	<2	40	51	46	10	<1	<5	27
D2 VB00723		<5	0.7	125	<2	54	26	61	19	<1	<5	<5
D2 VB00724		<5	1.9	179	8	120	9	96	44	<1	14	82
D2 VB00725		<5	0.3	49	5	52	25	29	11	<1	<5	22
D2 VB00726		<5	0.5	58	5	110	25	30	13	1	<5	24
D2 VB00727		<5	0.9	196	<2	63	1	58	27	<1	<5	16
D2 VB00728		<5	0.7	76	4	187	14	23	12	2	<5	8
D2 VB00729		<5	0.5	35	5	191	14	23	10	3	<5	7
D2 VB00730		<5	0.6	34	8	43	20	16	8	<1	<5	8
D2 VB00731		8	0.5	35	7	63	31	30	10	<1	<5	28
D2 VB00732		7	0.7	45	9	76	40	29	13	1	<5	39
D2 VB00733		<5	0.6	55	11	167	44	33	12	4	<5	24
D2 VB00734		9	0.6	54	11	89	42	28	11	1	<5	32
D2 VB00735		8	0.5	50	13	70	48	36	12	1	<5	28
D2 VB00736		<5	0.5	124	5	44	20	13	11	<1	<5	12
D2 VB00737		<5	0.9	206	<2	59	20	10	10	<1	<5	17
D2 VB00738		<5	0.6	128	<2	55	6	16	11	<1	<5	15
D2 VB00739		<5	0.7	376	<2	57	6	11	11	<1	<5	12
D2 VB00740		<5	0.7	313	<2	62	3	7	11	<1	8	8
D2 VB00741		6	0.6	200	<2	59	<1	9	14	<1	<5	6
D2 VB00742		<5	0.6	132	<2	68	1	10	11	<1	5	<5
D2 VB00743		<5	0.6	273	<2	70	2	12	12	<1	<5	<5
D2 VB00744		<5	0.6	157	<2	80	<1	15	18	<1	<5	<5
D2 VB00745		<5	0.3	167	<2	57	<1	21	11	<1	<5	6
D2 VB00746		<5	0.4	23	2	45	1	17	11	<1	6	<5
D2 VB00747		<5	0.3	34	<2	57	1	18	9	<1	<5	8
D2 VB00748		<5	0.3	8	<2	43	1	21	8	<1	<5	<5
D2 VB00749		<5	0.5	489	<2	93	<1	147	13	<1	<5	<5
D2 VB00750		<5	1.0	175	3	188	1	291	23	<1	<5	10

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SAMPLE NUMBER	ELEMENT UNITS	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT
D2 VB00710		<5	3.12	339	<10	710	54	8	<20	<10	2	1.60
D2 VB00712		11	>10.00	948	13	3100	106	242	<20	<10	6	4.48
D2 VB00713		<5	4.48	417	<10	270	135	195	<20	<10	7	1.74
D2 VB00714		<5	2.55	374	<10	520	189	66	<20	<10	9	1.48
D2 VB00715		<5	1.92	377	<10	600	186	84	<20	<10	11	1.28
D2 VB00716		6	3.09	545	<10	800	161	164	<20	<10	8	1.68
D2 VB00717		15	3.46	457	16	520	104	86	<20	<10	5	1.53
D2 VB00718		<5	5.03	697	13	440	98	142	<20	<10	5	2.45
D2 VB00719		<5	8.17	1158	20	330	82	238	<20	<10	5	3.93
D2 VB00720		<5	1.64	291	<10	370	184	46	<20	<10	2	0.92
D2 VB00721		<5	2.41	557	<10	90	114	248	<20	<10	6	1.11
D2 VB00722		<5	2.50	570	<10	330	155	330	<20	<10	10	1.20
D2 VB00723		<5	5.96	881	16	1100	129	453	<20	<10	5	2.56
D2 VB00724		15	>10.00	1545	38	190	209	354	<20	16	4	4.48
D2 VB00725		6	2.67	637	<10	620	236	100	<20	<10	3	0.75
D2 VB00726		<5	4.25	1469	<10	3000	108	118	<20	<10	4	1.33
D2 VB00727		<5	8.36	813	12	1100	123	157	<20	<10	4	3.93
D2 VB00728		<5	4.65	3600	<10	60	103	98	<20	<10	3	1.56
D2 VB00729		<5	2.94	2245	<10	120	182	72	<20	<10	3	0.81
D2 VB00730		<5	2.28	2457	<10	1400	170	45	<20	<10	3	0.55
D2 VB00731		<5	3.03	447	<10	2200	183	33	<20	<10	3	0.40
D2 VB00732		9	4.72	499	11	3300	157	43	<20	<10	2	0.67
D2 VB00733		<5	3.69	1086	<10	2100	146	76	<20	<10	3	1.07
D2 VB00734		<5	4.07	271	<10	2900	174	42	<20	<10	2	0.83
D2 VB00735		<5	3.41	319	<10	1700	238	44	<20	<10	2	0.61
D2 VB00736		<5	4.39	832	10	2000	148	43	<20	<10	1	1.57
D2 VB00737		7	5.56	1829	15	4300	84	41	<20	<10	2	3.05
D2 VB00738		6	4.99	966	<10	4000	103	49	<20	<10	1	2.35
D2 VB00739		<5	4.37	1050	<10	4400	76	38	<20	<10	1	2.00
D2 VB00740		7	4.15	3390	12	3600	59	46	<20	<10	2	1.87
D2 VB00741		<5	4.26	1131	11	4500	48	54	<20	<10	2	1.95
D2 VB00742		6	4.80	1250	<10	5200	48	36	<20	<10	2	2.08
D2 VB00743		6	5.32	1484	11	4900	36	57	<20	<10	4	2.45
D2 VB00744		<5	7.14	1229	15	7100	36	79	<20	<10	3	3.42
D2 VB00745		6	4.36	991	<10	9200	55	43	<20	<10	3	2.81
D2 VB00746		<5	5.16	722	10	5900	64	23	<20	<10	2	1.94
D2 VB00747		<5	3.65	1032	<10	8000	60	30	<20	<10	3	2.44
D2 VB00748		<5	4.65	832	<10	7700	80	25	<20	<10	2	1.88
D2 VB00749		<5	2.96	2343	<10	7600	78	34	<20	<10	3	1.89
D2 VB00750		<5	>10.00	2495	25	5000	86	80	<20	<10	2	2.24



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SAMPLE NUMBER	ELEMENT UNITS	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM
D2 VB00710		1.40	0.30	<0.05	0.20	15	4
D2 VB00712		3.39	4.45	0.10	<0.05	61	16
D2 VB00713		2.33	2.59	<0.05	<0.05	24	15
D2 VB00714		2.09	1.55	<0.05	<0.05	17	11
D2 VB00715		1.77	1.83	<0.05	<0.05	21	12
D2 VB00716		2.00	2.14	<0.05	<0.05	23	13
D2 VB00717		1.77	1.61	<0.05	<0.05	17	10
D2 VB00718		2.88	1.96	<0.05	<0.05	18	7
D2 VB00719		4.82	3.66	<0.05	<0.05	37	14
D2 VB00720		1.07	1.37	<0.05	<0.05	15	5
D2 VB00721		1.30	5.47	<0.05	<0.05	41	11
D2 VB00722		1.21	6.17	<0.05	<0.05	34	16
D2 VB00723		2.16	9.70	<0.05	<0.05	65	14
D2 VB00724		4.59	7.38	<0.05	<0.05	82	17
D2 VB00725		0.79	3.00	<0.05	<0.05	30	11
D2 VB00726		1.66	5.70	<0.05	<0.05	118	15
D2 VB00727		2.71	4.41	0.20	<0.05	73	13
D2 VB00728		2.44	9.83	<0.05	<0.05	307	10
D2 VB00729		1.45	5.54	<0.05	<0.05	138	9
D2 VB00730		0.76	4.93	<0.05	0.07	99	12
D2 VB00731		0.21	1.12	<0.05	0.12	21	9
D2 VB00732		0.59	1.19	<0.05	0.15	23	10
D2 VB00733		1.71	4.89	<0.05	0.11	57	10
D2 VB00734		0.72	0.87	<0.05	0.19	26	11
D2 VB00735		0.51	1.29	<0.05	0.09	27	8
D2 VB00736		1.63	3.77	<0.05	0.07	46	4
D2 VB00737		2.89	4.82	0.07	<0.05	81	11
D2 VB00738		2.21	2.30	<0.05	0.07	47	8
D2 VB00739		1.44	2.95	<0.05	0.10	47	7
D2 VB00740		1.52	9.10	<0.05	0.07	73	15
D2 VB00741		1.45	2.45	<0.05	0.11	41	8
D2 VB00742		1.72	2.01	<0.05	0.11	38	10
D2 VB00743		1.97	3.47	<0.05	0.14	66	15
D2 VB00744		2.65	3.08	<0.05	0.10	75	13
D2 VB00745		1.87	1.72	0.05	0.13	52	13
D2 VB00746		1.51	0.93	<0.05	0.08	22	9
D2 VB00747		1.88	0.93	<0.05	0.09	37	10
D2 VB00748		1.20	0.78	<0.05	0.10	23	8
D2 VB00749		1.31	1.10	<0.05	0.10	29	8
D2 VB00750		1.91	1.43	<0.05	0.07	18	11

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
V7P 2R5
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**Certificate
of Analysis**

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V90-01301.6 (COMPLETE)

REFERENCE INFO: SHIPMENT #90-9

CLIENT: FALCONBRIDGE LIMITED
PROJECT: 605-116

SUBMITTED BY: G. ALLEN
DATE PRINTED: 31-JUL-90

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Cu Copper	3	0.01 PCT	HCl-HNO3-HF	Atomic Absorption

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
D DRILL CORE	3	2 -150	3	SAMPLES FROM STORAGE	3

REPORT COPIES TO: MR. NILS VON FERSEN
MR. GORD ALLEN
MR. GLEN FLETT

INVOICE TO: MR. NILS VON FERSEN

Bondar-Clegg & Company Ltd.
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Certificate of Analysis

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES


REPORT: V90-01301.6

DATE PRINTED: 31 JUL 90

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SAMPLE NUMBER	ELEMENT UNITS	Cu PCT
D2 V800673		1.85
D2 V800675		0.30
D2 V800681		3.37


Registered Assayer, Province of British Columbia

Bondar-Clegg & Company Ltd.
 130 Pemberton Ave.
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**Geochemical
 Lab Report**

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V90-02714.0 (COMPLETE)

REFERENCE INFO: SHIPMENT #90-13

CLIENT: FALCONBRIDGE LIMITED
 PROJECT: 605-116

SUBMITTED BY: G. ALLEN
 DATE PRINTED: 27-NOV-90

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au 10g Gold - Fire Assay	73	5 PPB	Fire-Assay	Fire Assay AA
2	Ag Silver	73	0.2 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
3	Cu Copper	73	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
4	Pb Lead	73	2 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
5	Zn Zinc	73	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
6	Mo Molybdenum	73	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
7	Ni Nickel	73	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
8	Co Cobalt	73	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
9	Cd Cadmium	73	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
10	Bi Bismuth	73	5 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
11	As Arsenic	73	5 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
12	Sb Antimony	73	5 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
13	Fe Iron	73	0.01 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
14	Mn Manganese	73	100 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
15	Te Tellurium	73	10 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
16	Ba Barium	73	20 PPM		X-Ray Fluorescence
17	Cr Chromium	73	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
18	V Vanadium	73	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
19	Sn Tin	73	20 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
20	W Tungsten	73	10 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
21	La Lanthanum	73	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
22	Al Aluminum	73	0.02 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
23	Mg Magnesium	73	0.05 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
24	Ca Calcium	73	0.05 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
25	Na Sodium	73	0.05 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
26	K Potassium	73	0.05 PCT	HN03-HCl Hot Extr.	Ind. Coupled Plasma
27	Sr Strontium	73	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma
28	Y Yttrium	73	1 PPM	HN03-HCl Hot Extr.	Ind. Coupled Plasma

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
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(604) 985-0681 Telex 04-352667



**Geochemical
Lab Report**

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V90-02714.0 (COMPLETE)

REFERENCE INFO: SHIPMENT #90-13

CLIENT: FALCONBRIDGE LIMITED
PROJECT: 605-116

SUBMITTED BY: G. ALLEN
DATE PRINTED: 27-NOV-90

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
P PREPARED PULP	1	4 AS REC'D	1		
D DRILL CORE	72	2 -150	72		

NOTES: = indicates SEE REMARKS

REMARKS: =Ba - interference noted due to Zn.

Assay of high Cu, Pb, Zn to follow on
V90-02714.6.

REPORT COPIES TO: MR. NILS VON FERSEN
G. FLECK
MR. GORD ALLEN

INVOICE TO: MR. NILS VON FERSEN



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PROJECT: 605-116

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SAMPLE NUMBER	ELEMENT UNITS	Au 10g PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM
P4 VA13226		12	0.3	12	16	126	4	9	3	<1	<5	7
D2 VB00858		15	0.5	36	9	72	2	4	19	<1	<5	67
D2 VB00859		17	0.7	49	<2	54	4	6	26	<1	<5	167
D2 VB00860		11	0.7	51	<2	68	2	4	23	<1	<5	32
D2 VB00861		18	0.9	40	6	68	7	6	44	<1	<5	86
D2 VB00862		11	0.7	43	6	66	2	4	21	<1	<5	18
D2 VB00863		9	0.6	44	10	71	<1	8	33	<1	<5	11
D2 VB00864		17	1.6	159	302	71	4	25	86	<1	<5	40
D2 VB00865		10	0.9	102	28	69	<1	29	31	<1	<5	6
D2 VB00866		11	1.2	41	10	120	1	29	39	<1	<5	14
D2 VB00867		14	0.9	105	3	95	4	36	58	<1	<5	42
D2 VB00868		9	0.4	15	11	61	4	11	12	<1	<5	19
D2 VB00869		8	0.5	30	33	79	13	35	11	<1	<5	10
D2 VB00870		8	0.5	51	9	88	3	23	10	<1	<5	22
D2 VB00871		8	0.4	12	4	49	<1	7	9	<1	<5	8
D2 VB00872		8	0.9	9	6	92	<1	<1	18	<1	<5	10
D2 VB00873		8	0.2	4	3	28	2	3	4	<1	<5	5
D2 VB00874		15	0.8	36	4	77	5	20	15	<1	<5	27
D2 VB00875		13	0.7	37	2	86	<1	17	20	<1	<5	28
D2 VB00876		7	0.8	49	4	129	<1	22	31	<1	<5	41
D2 VB00877		13	0.8	54	21	159	2	32	19	2	<5	57
D2 VB00878		6	0.9	26	10	163	<1	8	21	<1	<5	36
D2 VB00879		16	0.7	47	15	178	8	19	8	<1	<5	30
D2 VB00880		17	0.7	30	6	80	1	9	13	<1	<5	<5
D2 VB00881		77	2.2	24	6	148	10	4	5	<1	<5	9
D2 VB00882		22	0.5	7	7	79	5	3	4	<1	<5	5
D2 VB00883		41	0.2	8	5	79	3	4	6	<1	<5	<5
D2 VB00884		10	0.3	62	13	54	1	2	10	<1	<5	8
D2 VB00885		8	<0.2	53	3	31	<1	2	6	<1	<5	<5
D2 VB00886		11	0.4	109	6	39	<1	2	7	<1	<5	10
D2 VB00887		14	0.4	118	28	368	6	3	7	2	<5	14
D2 VB00888		12	0.4	47	4	52	1	2	5	<1	<5	14
D2 VB00889		10	0.3	23	3	37	<1	2	5	<1	<5	7
D2 VB00890		6	0.2	31	4	42	<1	1	5	<1	<5	<5
D2 VB00891		9	0.3	144	14	776	4	2	7	4	<5	10
D2 VB00892		8	0.4	69	13	57	2	1	7	<1	<5	14
D2 VB00893		12	0.4	24	<2	36	4	2	6	<1	<5	<5
D2 VB00894		40	1.3	1156	8	154	1	6	9	1	<5	152
D2 VB00895		87	0.5	212	19	67	7	2	6	<1	<5	78
D2 VB00896		14	0.4	120	<2	23	7	2	7	<1	<5	17



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SAMPLE NUMBER	ELEMENT UNITS	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT
P4 VA13226		<5	2.20	226	<10	780	15	13	<20	<10	39	0.61
D2 VB00858		<5	5.66	1263	<10	930	21	33	<20	<10	9	2.25
D2 VB00859		<5	5.99	1388	<10	980	20	30	<20	<10	8	1.88
D2 VB00860		<5	5.46	1464	<10	890	16	37	<20	<10	10	2.28
D2 VB00861		<5	8.07	1368	<10	790	14	40	<20	<10	8	2.48
D2 VB00862		<5	6.43	1192	<10	880	11	40	<20	<10	12	2.65
D2 VB00863		<5	6.25	1150	<10	730	13	48	<20	<10	4	2.63
D2 VB00864		<5	6.73	650	<10	1100	16	54	<20	<10	4	2.54
D2 VB00865		<5	6.32	873	<10	240	65	81	<20	<10	3	2.97
D2 VB00866		<5	>10.00	1540	<10	160	23	135	<20	<10	6	4.73
D2 VB00867		<5	8.85	1111	<10	1100	58	75	<20	<10	3	3.22
D2 VB00868		<5	3.75	919	<10	920	22	16	<20	<10	6	1.90
D2 VB00869		<5	3.61	525	<10	1100	27	25	<20	<10	5	1.54
D2 VB00870		<5	4.20	670	<10	1000	42	28	<20	<10	6	1.86
D2 VB00871		<5	3.23	722	<10	1200	46	20	<20	<10	8	1.95
D2 VB00872		<5	7.79	2080	<10	860	5	48	<20	<10	16	3.23
D2 VB00873		<5	1.27	484	<10	1200	62	5	<20	<10	8	1.17
D2 VB00874		<5	4.77	557	10	810	45	33	<20	<10	8	2.23
D2 VB00875		<5	4.76	851	<10	1000	53	37	<20	<10	6	2.47
D2 VB00876		<5	7.73	857	<10	1700	23	91	<20	<10	2	3.71
D2 VB00877		<5	6.11	651	<10	1300	51	69	<20	<10	5	2.54
D2 VB00878		<5	8.79	782	11	980	6	85	<20	<10	1	3.91
D2 VB00879		<5	3.78	500	<10	1000	40	40	<20	<10	6	1.44
D2 VB00880		<5	4.24	496	<10	880	58	18	<20	<10	4	1.46
D2 VB00881		<5	6.83	1595	<10	740	48	6	<20	<10	1	1.69
D2 VB00882		<5	1.43	507	<10	1100	52	3	<20	<10	10	1.26
D2 VB00883		<5	1.70	242	<10	1100	78	2	<20	<10	9	1.16
D2 VB00884		<5	2.23	637	<10	910	67	6	<20	<10	6	0.93
D2 VB00885		<5	1.76	550	<10	870	57	5	<20	<10	9	0.98
D2 VB00886		<5	1.88	636	<10	800	52	5	<20	<10	8	0.98
D2 VB00887		<5	2.02	619	<10	1000	65	5	<20	<10	8	1.11
D2 VB00888		<5	2.13	585	<10	980	57	5	<20	<10	7	1.03
D2 VB00889		<5	1.90	438	<10	900	53	5	<20	<10	8	0.94
D2 VB00890		<5	1.64	512	<10	1000	50	5	<20	<10	7	0.84
D2 VB00891		<5	1.88	538	<10	1100	58	5	<20	<10	8	1.06
D2 VB00892		<5	1.77	435	<10	1200	56	4	<20	<10	7	0.96
D2 VB00893		<5	1.50	368	<10	1100	43	5	<20	<10	10	0.98
D2 VB00894		<5	2.08	442	<10	1000	38	11	<20	<10	7	1.14
D2 VB00895		<5	1.72	298	<10	1300	40	4	<20	<10	6	0.87
D2 VB00896		<5	1.62	167	<10	1100	54	2	<20	<10	6	0.68

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SAMPLE NUMBER	ELEMENT UNITS	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM
P4 VA13226		0.34	0.47	<0.05	0.10	7	12
D2 V800858		1.04	3.34	<0.05	0.28	65	11
D2 V800859		0.80	4.50	<0.05	0.29	82	11
D2 V800860		1.00	4.40	<0.05	0.27	76	13
D2 V800861		1.05	4.85	<0.05	0.21	76	15
D2 V800862		1.35	5.17	<0.05	0.21	89	14
D2 V800863		1.28	1.73	<0.05	0.15	46	12
D2 V800864		1.17	1.04	0.06	0.32	21	16
D2 V800865		2.18	2.31	<0.05	0.07	74	10
D2 V800866		3.23	7.00	<0.05	<0.05	180	14
D2 V800867		1.64	2.81	<0.05	0.20	52	12
D2 V800868		1.15	4.04	<0.05	0.19	65	10
D2 V800869		1.00	2.33	<0.05	0.21	43	9
D2 V800870		1.30	3.83	<0.05	0.19	64	11
D2 V800871		1.27	2.93	<0.05	0.20	54	8
D2 V800872		1.37	8.29	<0.05	0.19	146	21
D2 V800873		0.56	3.83	0.05	0.20	54	6
D2 V800874		1.38	4.71	<0.05	0.13	58	13
D2 V800875		1.34	8.45	<0.05	0.14	94	15
D2 V800876		2.29	9.07	<0.05	0.13	89	17
D2 V800877		1.31	7.82	<0.05	0.12	81	15
D2 V800878		1.97	6.07	0.06	0.14	73	20
D2 V800879		0.91	3.62	<0.05	0.28	47	7
D2 V800880		1.17	1.77	<0.05	0.24	28	6
D2 V800881		1.78	5.28	<0.05	0.19	49	7
D2 V800882		0.95	1.74	<0.05	0.29	34	5
D2 V800883		0.82	1.13	<0.05	0.30	24	4
D2 V800884		0.38	4.19	<0.05	0.29	86	8
D2 V800885		0.37	3.76	<0.05	0.36	62	8
D2 V800886		0.41	4.44	<0.05	0.31	73	10
D2 V800887		0.50	4.52	<0.05	0.30	71	11
D2 V800888		0.50	4.01	<0.05	0.28	65	8
D2 V800889		0.39	2.88	<0.05	0.29	54	8
D2 V800890		0.29	3.42	<0.05	0.29	52	6
D2 V800891		0.51	3.81	<0.05	0.28	53	7
D2 V800892		0.43	3.27	<0.05	0.31	48	4
D2 V800893		0.45	2.60	<0.05	0.28	52	5
D2 V800894		0.61	3.04	<0.05	0.23	48	6
D2 V800895		0.32	2.01	<0.05	0.29	34	4
D2 V800896		0.17	1.05	<0.05	0.31	21	4



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SAMPLE NUMBER	ELEMENT UNITS	Au 10g PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM
D2 V800897		10	0.3	43	<2	36	<1	<1	4	<1	<5	7
D2 V800898		27	0.7	205	112	527	8	2	9	3	<5	66
D2 V800899		217	5.4	1250	6359	16030	52	1	21	129	12	39
D2 V800900		17	0.4	116	35	209	2	<1	5	<1	<5	11
D2 V800901		10	0.3	79	28	186	1	1	4	<1	<5	8
D2 V800902		8	<0.2	39	<2	80	3	1	5	<1	<5	<5
D2 V800903		53	4.8	9051	<2	427	3	1	47	11	23	24
D2 V800904		8	0.5	316	<2	59	<1	1	15	<1	<5	11
D2 V800905		6	0.4	192	<2	39	<1	1	8	<1	<5	5
D2 V800906		7	0.5	493	<2	54	3	1	12	<1	<5	<5
D2 V800908		11	0.4	104	<2	51	<1	<1	6	<1	<5	<5
D2 V800909		11	0.7	140	243	30	1	2	10	<1	<5	<5
D2 V800910		12	0.3	146	<2	40	3	1	4	<1	<5	6
D2 V800911		10	<0.2	128	<2	21	1	1	4	<1	<5	<5
D2 V800912		10	0.5	201	<2	48	2	2	8	<1	<5	10
D2 V800913		10	0.2	93	<2	24	2	1	5	<1	<5	8
D2 V800914		11	0.6	1253	<2	50	2	1	6	<1	<5	7
D2 V800915		6	<0.2	19	<2	24	<1	<1	4	<1	<5	5
D2 V800916		8	0.9	85	<2	85	<1	<1	17	<1	<5	16
D2 V800917		8	0.8	45	<2	129	<1	<1	14	<1	<5	<5
D2 V800918		11	0.7	41	<2	128	<1	<1	17	<1	<5	23
D2 V800919		14	<0.2	4	<2	43	<1	<1	4	<1	<5	9
D2 V800920		8	0.4	99	11	83	1	<1	7	<1	<5	16
D2 V800921		6	0.3	101	<2	70	2	2	10	<1	<5	11
D2 V800922		8	<0.2	57	<2	47	4	1	9	<1	<5	15
D2 V800923		10	0.3	67	<2	57	<1	1	6	<1	<5	6
D2 V800924		9	0.7	201	<2	112	<1	11	18	<1	<5	9
D2 V800925		8	0.5	227	<2	111	<1	9	10	<1	<5	5
D2 V800926		15	1.2	1072	<2	95	<1	12	46	<1	<5	18
D2 V800927		24	1.1	1003	<2	91	<1	6	43	<1	<5	6
D2 V800928		23	1.0	137	<2	123	<1	111	30	<1	<5	8
D2 V800929		22	1.4	2329	<2	88	<1	12	30	<1	<5	14
D2 V800930		6	0.5	41	<2	73	<1	90	17	<1	<5	8



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SAMPLE NUMBER	ELEMENT UNITS	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT
D2 V800897		<5	1.95	358	<10	810	42	5	<20	<10	9	1.19
D2 V800898		<5	1.72	362	<10	1100	51	3	<20	<10	6	0.74
D2 V800899		<5	6.36	246	13	1400	48	4	<20	<10	3	0.83
D2 V800900		<5	2.03	208	<10	890	58	3	<20	<10	5	0.69
D2 V800901		<5	1.32	303	<10	930	49	3	<20	<10	8	0.91
D2 V800902		<5	1.58	293	<10	1900	37	3	<20	<10	13	1.19
D2 V800903		<5	4.61	261	12	1700	29	3	<20	<10	5	1.42
D2 V800904		<5	3.64	265	<10	1500	33	4	<20	<10	6	1.70
D2 V800905		<5	2.21	360	<10	1500	42	4	<20	<10	7	1.35
D2 V800906		<5	2.39	326	<10	1600	33	4	<20	<10	7	1.43
D2 V800908		<5	1.76	387	<10	1700	27	4	<20	<10	8	1.30
D2 V800909		<5	1.91	478	<10	1800	30	3	<20	<10	6	1.02
D2 V800910		<5	1.65	383	<10	1800	34	4	<20	<10	9	1.24
D2 V800911		<5	1.50	248	<10	1100	37	3	<20	<10	9	0.89
D2 V800912		<5	3.01	297	<10	910	31	5	<20	<10	7	1.40
D2 V800913		<5	1.95	292	<10	920	41	4	<20	<10	10	0.84
D2 V800914		<5	1.34	265	<10	1100	44	3	<20	<10	6	0.58
D2 V800915		<5	1.60	354	<10	1600	33	4	<20	<10	7	1.06
D2 V800916		<5	8.29	742	11	1100	6	42	<20	<10	2	3.26
D2 V800917		<5	7.53	948	<10	1100	5	51	<20	<10	2	3.17
D2 V800918		<5	7.14	600	10	980	8	57	<20	<10	2	2.68
D2 V800919		<5	1.77	306	<10	2200	25	7	<20	<10	8	1.27
D2 V800920		<5	2.10	230	<10	1700	27	5	<20	<10	6	1.27
D2 V800921		<5	2.12	230	<10	1300	41	4	<20	<10	6	1.28
D2 V800922		<5	2.17	244	<10	1100	38	4	<20	<10	5	1.04
D2 V800923		<5	2.15	338	<10	1200	49	6	<20	<10	6	1.35
D2 V800924		<5	6.28	649	11	930	42	38	<20	<10	3	2.47
D2 V800925		<5	4.33	929	<10	590	46	36	<20	<10	2	2.11
D2 V800926		<5	8.18	638	<10	960	28	106	<20	<10	1	2.87
D2 V800927		<5	7.70	709	<10	740	23	74	<20	<10	2	3.41
D2 V800928		<5	9.66	970	<10	750	193	112	<20	<10	<1	5.07
D2 V800929		<5	7.42	747	<10	970	22	74	<20	<10	5	3.60
D2 V800930		<5	3.52	526	<10	780	168	54	<20	<10	2	2.78



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SAMPLE NUMBER	ELEMENT UNITS	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM
D2 V800897		0.67	2.46	<0.05	0.22	35	4
D2 V800898		0.23	2.77	<0.05	0.28	35	7
D2 V800899		0.12	1.55	<0.05	0.41	16	6
D2 V800900		0.25	1.20	<0.05	0.26	22	6
D2 V800901		0.44	1.63	<0.05	0.28	21	6
D2 V800902		0.60	2.02	<0.05	0.30	42	4
D2 V800903		0.67	1.43	<0.05	0.27	26	7
D2 V800904		0.87	1.38	<0.05	0.27	28	6
D2 V800905		0.65	2.76	<0.05	0.30	45	6
D2 V800906		0.77	2.39	<0.05	0.28	43	6
D2 V800908		0.83	3.06	<0.05	0.27	54	6
D2 V800909		0.58	4.66	<0.05	0.26	83	6
D2 V800910		0.70	3.14	<0.05	0.29	54	5
D2 V800911		0.58	1.92	<0.05	0.25	42	5
D2 V800912		1.03	3.00	<0.05	0.18	61	7
D2 V800913		0.80	2.01	<0.05	0.22	66	4
D2 V800914		0.45	2.06	<0.05	0.20	58	5
D2 V800915		0.58	2.96	<0.05	0.20	60	6
D2 V800916		2.05	4.19	<0.05	0.09	72	10
D2 V800917		2.13	4.81	<0.05	0.08	96	10
D2 V800918		1.89	2.90	<0.05	0.08	67	10
D2 V800919		0.92	1.72	<0.05	0.20	44	5
D2 V800920		0.84	0.95	<0.05	0.24	22	4
D2 V800921		0.82	0.99	<0.05	0.22	25	4
D2 V800922		0.59	1.20	<0.05	0.19	31	4
D2 V800923		0.89	1.59	<0.05	0.17	37	6
D2 V800924		1.63	1.08	<0.05	0.13	24	5
D2 V800925		1.32	3.87	<0.05	0.10	54	9
D2 V800926		2.16	2.75	<0.05	0.12	42	11
D2 V800927		2.33	3.87	<0.05	0.13	64	11
D2 V800928		3.89	6.11	<0.05	0.12	93	9
D2 V800929		2.84	4.71	<0.05	0.13	88	9
D2 V800930		3.19	3.13	<0.05	0.11	50	8

APPENDIX E
Statement of Costs

STATEMENT OF COSTS

Drilling Costs

Burwash Contract Drilling \$ 98,377.46

Site Reclamation

Ellison Excavating \$ 1,920.00

Analytical

Bondar Clegg \$ 3,944.00

Cominco \$ 1,113.00

Personnel

R. Stewart Project Geologist 4 days \$ 1,000.00

G. Allen Geologist 18 days \$ 3,600.00

R. Barrick Technician 13 days \$ 1,170.00

B. Cochrane Technician 3 days \$ 330.00

Vehicle

3/4 ton truck 25 days \$ 1,125.00

Office Overhead

Rent, utilities, report costs \$ 2,420.54

TOTAL:

\$115,000.00

APPENDIX F

Statements of Qualifications

STATEMENT OF QUALIFICATIONS

I, Robert D. Stewart, an employee of Falconbridge Limited, with offices at 202 - 856 Homer Street, Vancouver, British Columbia, V6B 2W2, do hereby certify that:

1. I hold a B.Sc. (Hon.) in Geology from Mount Allison University, Sackville, New Brunswick, having graduated in 1975 and a M.Sc. in Geology from Carleton University, having graduated in 1979.
2. I reside at 2621 Bruce Road, R.R. #7, Duncan, B.C., V9L 4W4.
3. I have been continuously engaged as a geologist since 1979 with Newmont Exploration of Canada Limited (1979-1980) and Texasgulf/Kidd Creek Mines/Falconbridge (1980 to present).
4. I am a Fellow in the Geological Association of Canada.
5. I am the project geologist for the Chemainus Project and that the work was completed under my direction.

Dated at Chemainus, B.C.

Robert Stewart
Senior Project Geologist

STATEMENT OF QUALIFICATIONS

I, Gordon J. Allen, an employee of Falconbridge Limited, with offices at 202 - 856 Homer Street, Vancouver, British Columbia, V6B 2W2, do hereby certify that:

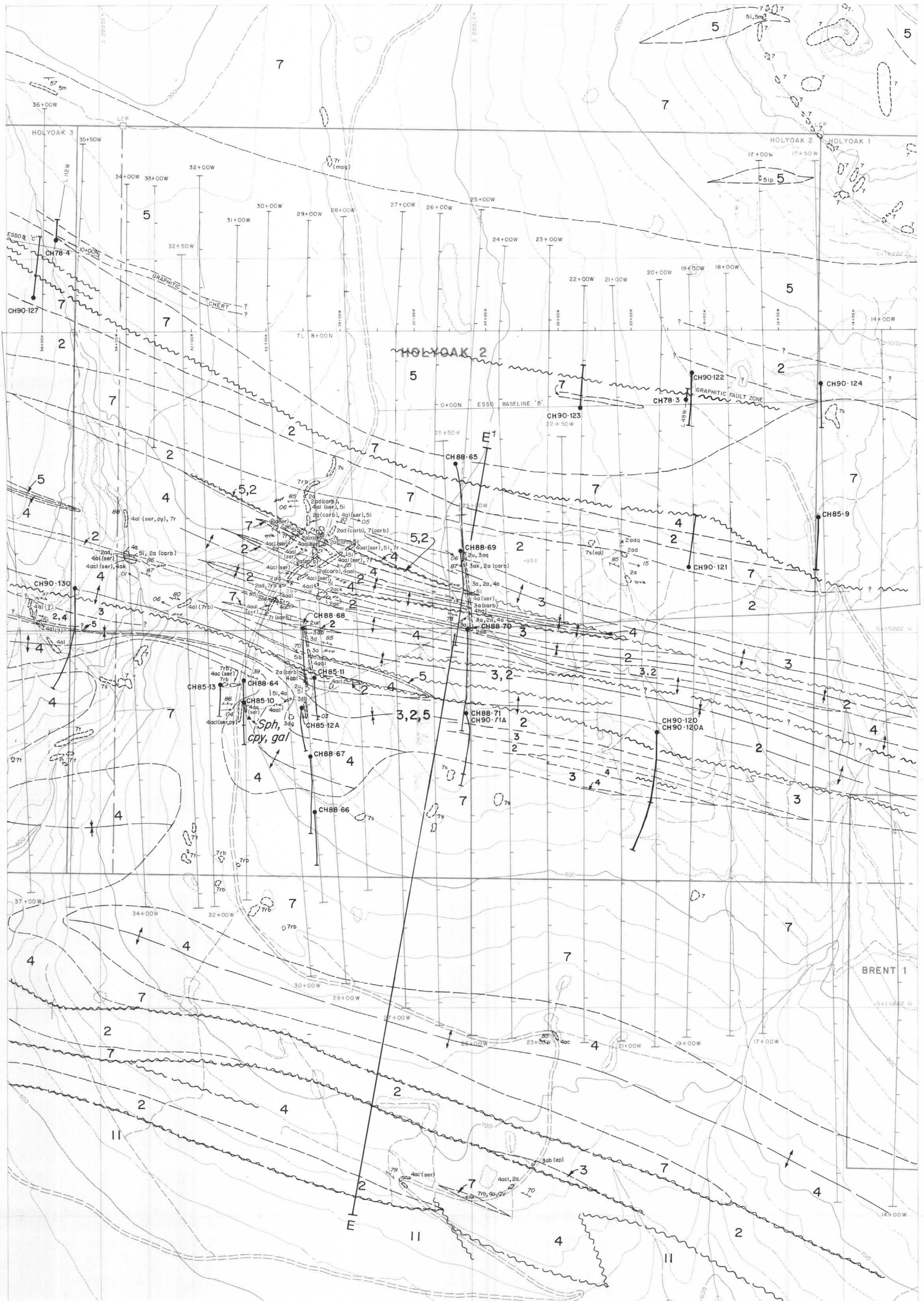
1. I hold a B.Sc. (Hon.) in Geology from the University Of British Columbia, having graduated in 1975.
2. I reside at 2475 Jackson Valley Road, R.R.1, Duncan, B.C., V9L 1M3.
3. I have practised as a geologist in mineral exploration for fifteen years.
4. I am a member in good standing of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.

Chemainus, B.C.

Dec. 21, 1990

Gordon J. Allen

Gordon J. Allen, P. Geol.



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

20,957

LEGEND

MAJOR ROCK UNITS

11	Nanaimo Sediments
10	Late Mafic Intrusions
9	Felsic Intrusive Rocks
8	Intermediate Intrusive Rocks
7	Mafic Intrusive Rocks
6	Ultramafic Intrusive Rocks
5	Sedimentary Rocks
4	Felsic Volcanic Rocks
3	Intermediate Volcanic Rocks
2	Mafic Volcanic Rocks
1	Ultramafic Volcanic Rocks

ROCK UNIT LETTER QUALIFIERS

The second letter indicates the type of rock; if omitted a dash should be inserted if a third letter is used.

a	Tuff	k	Wacke
b	Lapilli Tuff	l	Conglomerate
c	Tuff Breccia	m	Clast
d	Mafic Flow	n	Iron Formation
e	Plowed Flow	o	Limestone
f	Flow Breccia	p	Limestone/Schistoides
g	Flow Breccia	q	Tuffaceous Sediments
h	Intrusive	r	Four Grained
i	Argillite	s	Medium Grained
j	Siltstone	t	Coarse Grained
		u	Chlorite Schist

The three and four letters are placed in alphabetical order; they are optional and further define the rock.

o	Quartz Phytic	i	Metacretic
b	Feldspar Phytic	k	Basalt
c	Quartz-Feldspar Phytic	l	Chlorite
d	Mafic Phytic	m	Calcic
e	Mafic-Feldspar Phytic	n	Calciferous
f	Amphiboloid	o	Amphiboloid
g	Spheralitic	p	Siliceous/Cherty
h	Variscite	q	Sheared
i	Leucocratic	r	Massive
		s	Litic

SYMBOLS

- Small bedrock outcrop
- Area of bedrock outcrop
- Bedding, top (arrow); (inclined, vertical)
- Schistosity; (inclined, vertical)
- Shear zone, fault; (inclined, vertical)
- Geological boundary, observed
- Geological boundary, position interpreted
- Geological boundary, fault contact
- Drag fold with plunge (S-fold, Z-fold)
- Mineral/stretch lineation
- Anticline, syncline with plunge
- Mineral occurrence
- Adit
- Location of cross-section
- Base metal mineralized zone

ABBREVIATIONS

py	pyrite	ep	epidote
pph	pyrrhotite	eph	epherite
jsp	jasper	epi	epidote
chp	chalcopyrite	epi	epidote
mt	magnetite	epi	epidote
ep	epidote	epi	epidote
carb	carbonized	epi	epidote
sil	silicified	epi	epidote
act	actinolized	epi	epidote
chl	chloritized	epi	epidote
hem	hematitized	epi	epidote
Fe-carb	iron carbonate alteration	epi	epidote
qv	quartz vein	epi	epidote
mag	magnetic	epi	epidote
mag'c	magnetic	epi	epidote

SHEET INDEX

EE	DW	DE	CW	CE
BW	BE	AW	AE	

The McElhenny Group Ltd.
1166 Alberni Street, Vancouver B.C., Canada

Compiled from aerial photography taken in May 1987
at an approximate scale of 1:30,000

SCALE 1:5,000 CONTOUR INTERVAL 20 metres

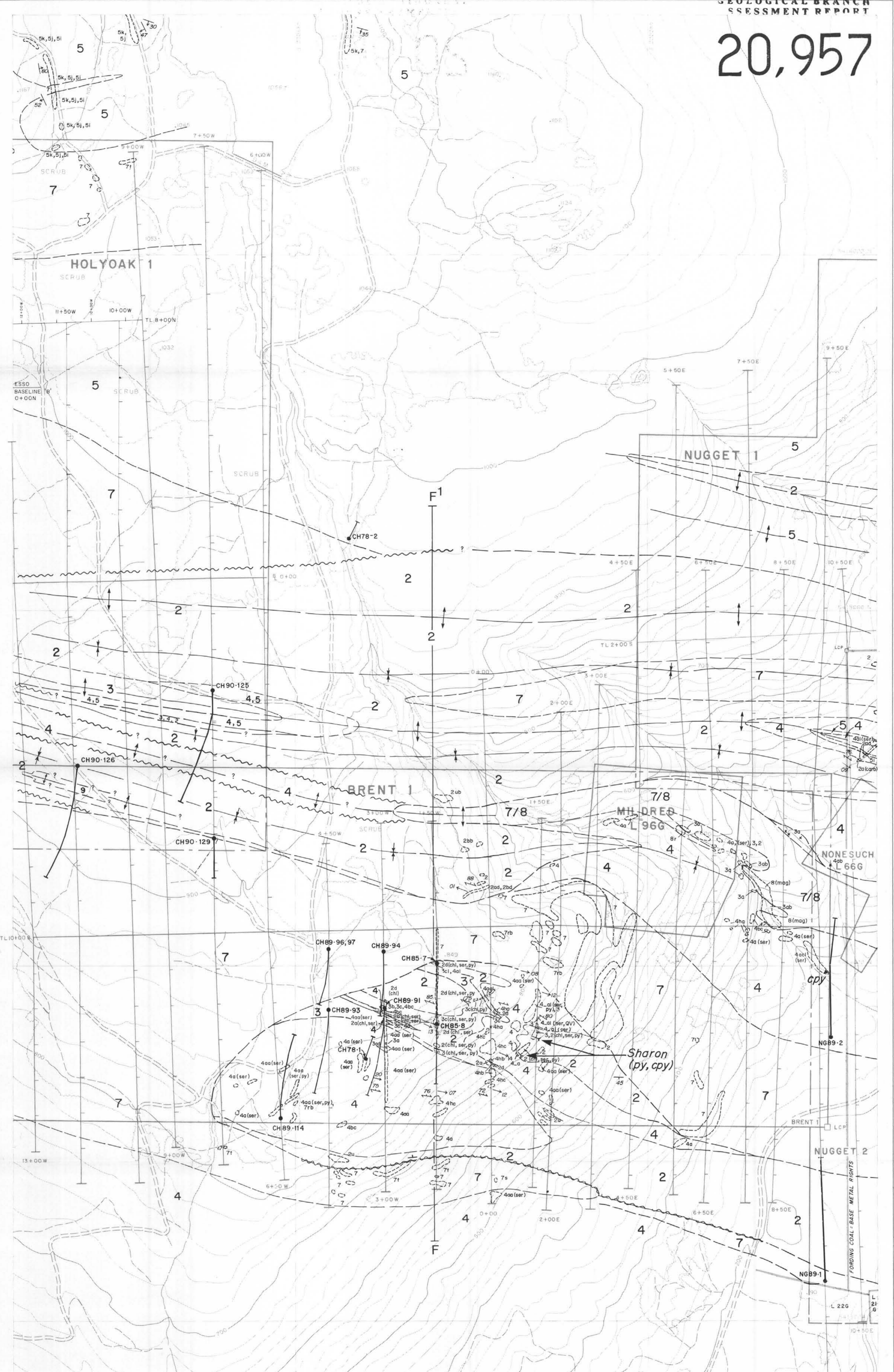
DATE COMPILED June 1987 SHEET NUMBER BE

FALCONBRIDGE LIMITED
CHEMAINUS JOINT VENTURE
GEOLOGY

100 0 100 200 300 metres

Work by: MGM Date: Dec 88 Proj No: 116 Figure 3g

DATE OF WORK: _____
ORIGINAL BY: GJA **DATE:** 11-90
REVISED BY: _____ **DATE:** _____
APPROVED BY: _____ **DATE:** _____
DRAWN BY: _____ **DATE:** _____
MAP #: 116-1-0201



LEGEND

- MAJOR ROCK UNITS**
- 11 Handma Sediments
 - 10 Late Mafic Intrusions
 - 9 Felsic Intrusive Rocks
 - 8 Intermediate Intrusive Rocks
 - 7 Mafic Intrusive Rocks
 - 6 Ultramafic Intrusive Rocks
 - 5 Sedimentary Rocks
 - 4 Felsic Volcanic Rocks
 - 3 Intermediate Volcanic Rocks
 - 2 Mafic Volcanic Rocks
 - 1 Ultramafic Volcanic Rocks

ROCK UNIT LETTER QUALIFIERS

- The second letter indicates the type of rock if omitted a dash should be inserted if a third letter is used.
- a Tuff
 - b Lapilli Tuff
 - c Tuff Breccia
 - d Massive Flow
 - e Pillowed Flow
 - f Flow Breccia
 - g Pillow Breccia
 - h Intrusive
 - i Angioid
 - j Sillstone
 - k Metacarbonate
 - l Basoid
 - m Chert
 - n Iron Formation
 - o Limestone
 - p Evaporite/Sulphides
 - q Turbidaceous Sediments
 - r Fine Grained
 - s Medium Grained
 - t Coarse Grained
 - u Gabbroic Schist
 - v Metachert
 - w Beaded
 - x Chertitic
 - y Graphitic
 - z Calcareous
 - aa Amphibolite
 - ab Siliceous/Cherty
 - ac Shale
 - ad Massive
 - ae Lithic

SYMBOLS

- Small bedrock outcrop
- Area of bedrock outcrop
- Bedding, top unknown; (inclined, vertical)
- Bedding, top known; (inclined, overturned)
- Schistosity; (inclined, vertical)
- Shear zone, fault; (inclined, vertical)
- Geological boundary, observed
- Geological boundary, position interpreted
- Geological boundary, fault contact
- Drag fold with plunge (S-fold, Z-fold)
- Mineral/stretch lineation
- Anticline, syncline with plunge
- Mineral occurrence
- Adit
- Location of cross-section
- Base metal mineralized zone

ABBREVIATIONS

- py pyrite
- sp sphalerite
- jap jaegerite
- chalc chalcoprite
- mag magnetite
- ep epidote
- carb carbonatized
- sil silicified
- act actinolitized
- chl chloritized
- hem hematite
- fe-carb iron carbonate alteration
- qv quartz vein
- mag magnetic
- mag'c magnetic

SHEET INDEX

EE	DW	DE	CW	CE
BW	BE	AW	AE	

DATE OF WORK

ORIGINAL BY: GJA	DATE: 11-90
REVISED BY: GJA	DATE: 11-90
DRAWN BY:	DATE:
MAP #: 116-1-0202	

The McElhanney Group Ltd.
1166 Alberni Street, Vancouver, B.C., Canada

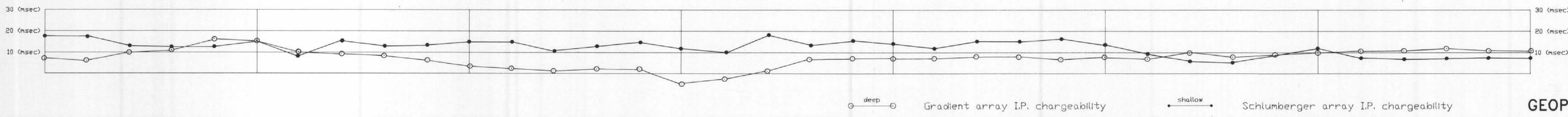
FALCONBRIDGE LIMITED
CHEMINUS JOINT VENTURE

GEOLOGY

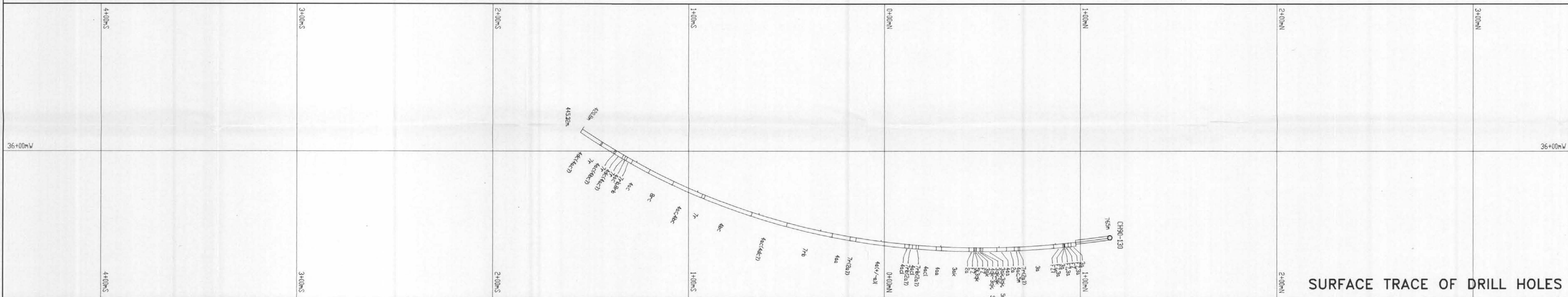
SCALE 1:5000
DATE SAMPLED: June 1987

INTERVAL 20 metres
SHEET NUMBER AW

Work by: MGM Date: Dec 88 Proj No: 116 Figure 3h



GEOPHYSICS



SURFACE TRACE OF DRILL HOLES

LEGEND

MAJOR ROCK UNITS

- 11 Nanaimo Group Sediments
- 10 Late Mafic Intrusions
- 9 Felsic Intrusions
- 8 Intermediate Intrusions
- 7 Mafic Intrusions
- 6 Ultramafic Intrusions
- 5 Sediments
- 4 Felsic Volcanics
- 3 Intermediate Volcanics
- 2 Mafic Volcanics
- 1 Ultramafic Volcanics

ROCK UNIT LETTER QUALIFIERS

The second letter indicates the type of rock; if omitted a dash should be inserted if a third letter is used.

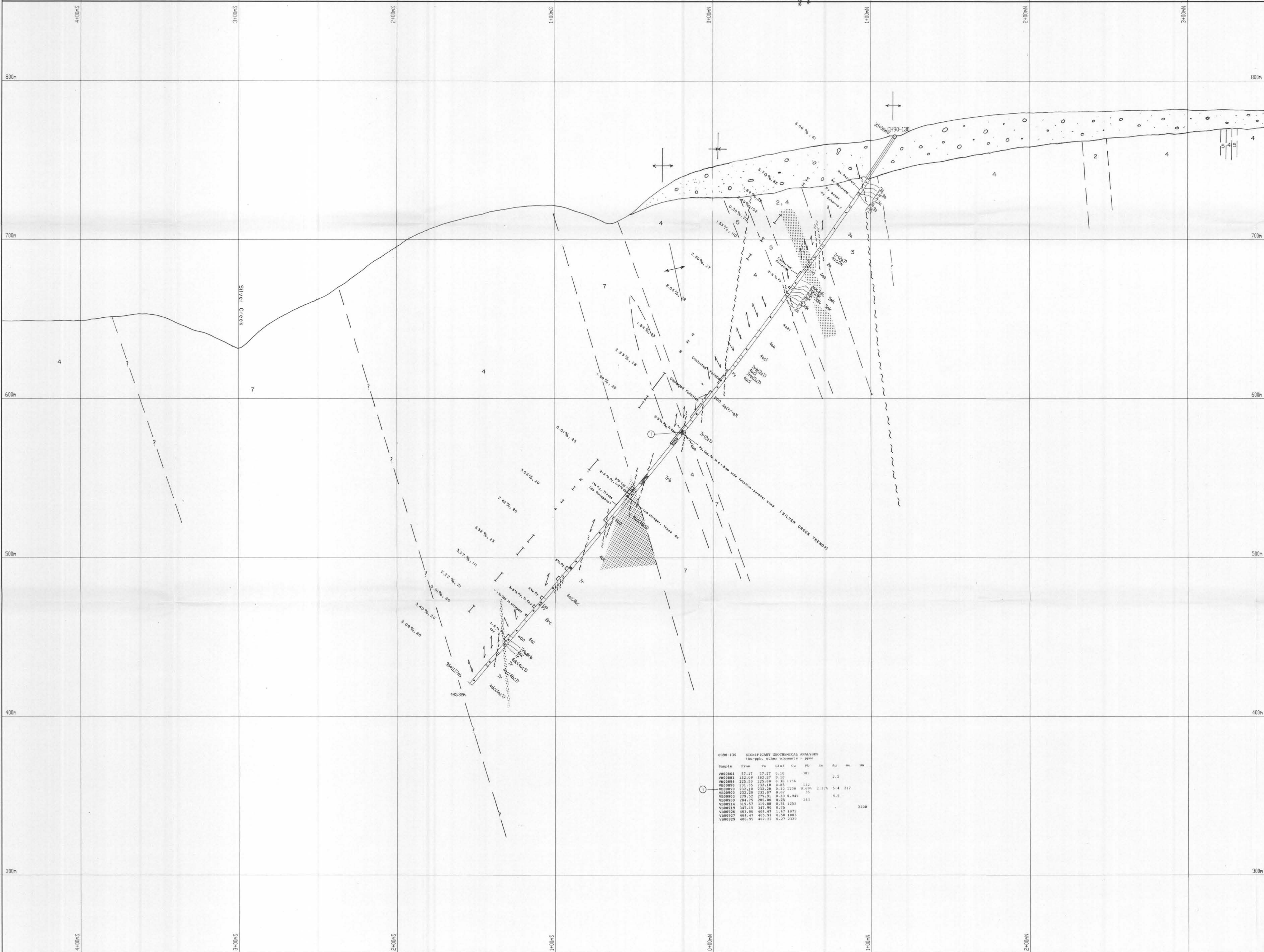
- | | |
|------------------|------------------------|
| A Tuff | K Wacke |
| B Lapilli Tuff | L Conglomerate |
| C Tuff Breccia | M Chert |
| D Massive Flow | N Iron Formation |
| E Pillowed Flow | O Limestone |
| F Flow Breccia | P Exhalite/Sulphides |
| G Pillow Breccia | Q Tuffaceous Sediments |
| H Intrusive | R Fine Grained |
| I Argillite | S Medium Grained |
| J Siltstone | T Coarse Grained |

The third and fourth letters are placed in alphabetical order; they are optional and further define the rock.

- | | |
|---------------------------|--------------------|
| A Quartz Phyrlic | J Melanocratic |
| B Feldspar Phyrlic | K Bedded |
| C Quartz-Feldspar Phyrlic | L Chloritic |
| D Mafic Phyrlic | M Graphitic |
| E Mafic-Feldspar Phyrlic | N Calcareous |
| F Amygdaloidal | O Argillaceous |
| G Spherulitic | P Siliceous/Cherty |
| H Varfolitic | Q Sheared |
| I Leucocratic | R Massive |
| | S Lithic |

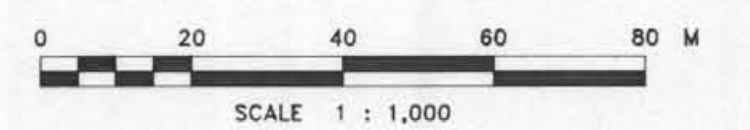
SYMBOLS

- Overburden
- Bedding
- Foliation
- Shear
- Fault
- Stratigraphic top
- Fold axis
- Na2O(%), Zn(ppm) Whole rock sample
- Na2O(%), Zn(ppm) Alteration sample
- Thin section
- <1.2% Na2O
- Significant intersections
- Geochemical/assay sample interval
- Geological contact (inferred)
- Felsic-mafic contact
- Broken core
- u Unconformity
- FZ Fault zone
- FB Fault breccia
- CAS Casing
- HEM Hematitic
- py Pyrite
- cpy Chalcopyrite
- po Pyrrhotite
- sp Sphalerite
- ga Galena



CH90-130 SIGNIFICANT CHEMICAL ANALYSES
Major- and minor elements in ppm

Sample	From	To	SiO2	TiO2	FeO	MnO	MgO	CaO	Na2O	K2O	Al2O3	P2O5	SO3	CO2	As	Sb	Bi
V00084	57.17	57.27	61.10	0.02	10.2	0.02	7.2										
V00081	182.00	182.17	61.10	0.02	10.2	0.02	7.2										
V00084	255.50	255.00	61.10	0.02	10.2	0.02	7.2										
V00089	231.15	232.10	61.10	0.02	10.2	0.02	7.2										
V00089	232.10	232.25	61.10	0.02	10.2	0.02	7.2										
V00090	232.25	234.81	61.10	0.02	10.2	0.02	7.2										
V00089	284.75	285.00	61.10	0.02	10.2	0.02	7.2										
V00084	319.57	319.00	61.10	0.02	10.2	0.02	7.2										
V00089	387.15	387.90	61.10	0.02	10.2	0.02	7.2										
V00089	403.00	404.47	61.10	0.02	10.2	0.02	7.2										
V00089	488.15	489.77	61.10	0.02	10.2	0.02	7.2										
V00089	488.95	487.22	61.10	0.02	10.2	0.02	7.2										

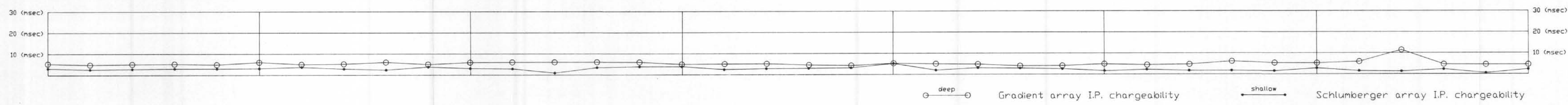


FALCONBRIDGE LIMITED
CHEMAINUS PROJECT
Vancouver Island, British Columbia
SILVER CREEK AREA
SECTION 36+00 WEST
HOLE CH90-130

DATE OF WORK: OCT-DEC 1990 CLAIMS: HOLYDAK 2,3
ORIGINAL BY: GJA DATE: JUNE 1990 PROJECT NUMBER: 116
REVISED BY: GJA DATE: DEC 3 1990 NUMBER: 116
DRAWN BY: I.P.S. DATE: DEC 4 1990 N.T.S. NO.: 092B/13W
APPROVED BY: DATE: MAP #: 116-9-0813

FIGURE NO: 6

GEOPHYSICS



SURFACE TRACE OF DRILL HOLES

LEGEND

MAJOR ROCK UNITS

- 11 Nanaimo Group Sediments
- 10 Late Mafic Intrusions
- 9 Felsic Intrusions
- 8 Intermediate Intrusions
- 7 Mafic Intrusions
- 6 Ultramafic Intrusions
- 5 Sediments
- 4 Felsic Volcanics
- 3 Intermediate Volcanics
- 2 Mafic Volcanics
- 1 Ultramafic Volcanics

ROCK UNIT LETTER QUALIFIERS

The second letter indicates the type of rock; if omitted a dash should be inserted if a third letter is used.

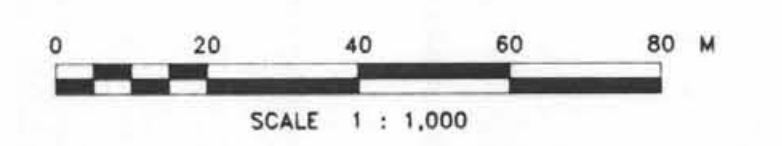
- A Tuff
- B Lapilli Tuff
- C Tuff Breccia
- D Massive Flow
- E Pillowed Flow
- F Flow Breccia
- G Pillow Breccia
- H Intrusive
- I Argillite
- J Silstone
- K Wacke
- L Conglomerate
- M Chert
- N Iron Formation
- O Limestone
- P Exhalite/Sulphides
- Q Tuffaceous Sediments
- R Fine Grained
- S Medium Grained
- T Coarse Grained

The third and fourth letters are placed in alphabetical order; they are optional and further define the rock.

- A Quartz Phyric
- B Feldspar Phyric
- C Quartz-Feldspar Phyric
- D Mafic Phyric
- E Mafic-Feldspar Phyric
- F Amygdaloidal
- G Spherulitic
- H Varialitic
- I Leucocratic
- J Melanocratic
- K Bedded
- L Chloritic
- M Graphitic
- N Calcareous
- O Argillaceous
- P Siliceous/Cherty
- Q Sheared
- R Massive
- S Lithic

SYMBOLS

- Overburden
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- Foliation
- Fault
- Stratigraphic top
- Fold axis
- Na2O(%) , Zn(ppm) Whole rock sample
- Na2O(%) , Zn(ppm) Alteration sample
- <1.2% Na2O
- Significant intersections
- Geochemical/assay sample interval
- Geological contact (inferred)
- Felsic-mafic contact
- Broken core
- Unconformity
- Fault zone
- Fault breccia
- Casing
- Pyrite
- Chalcopyrite
- Pyrrhotite
- Sphalerite
- Galena

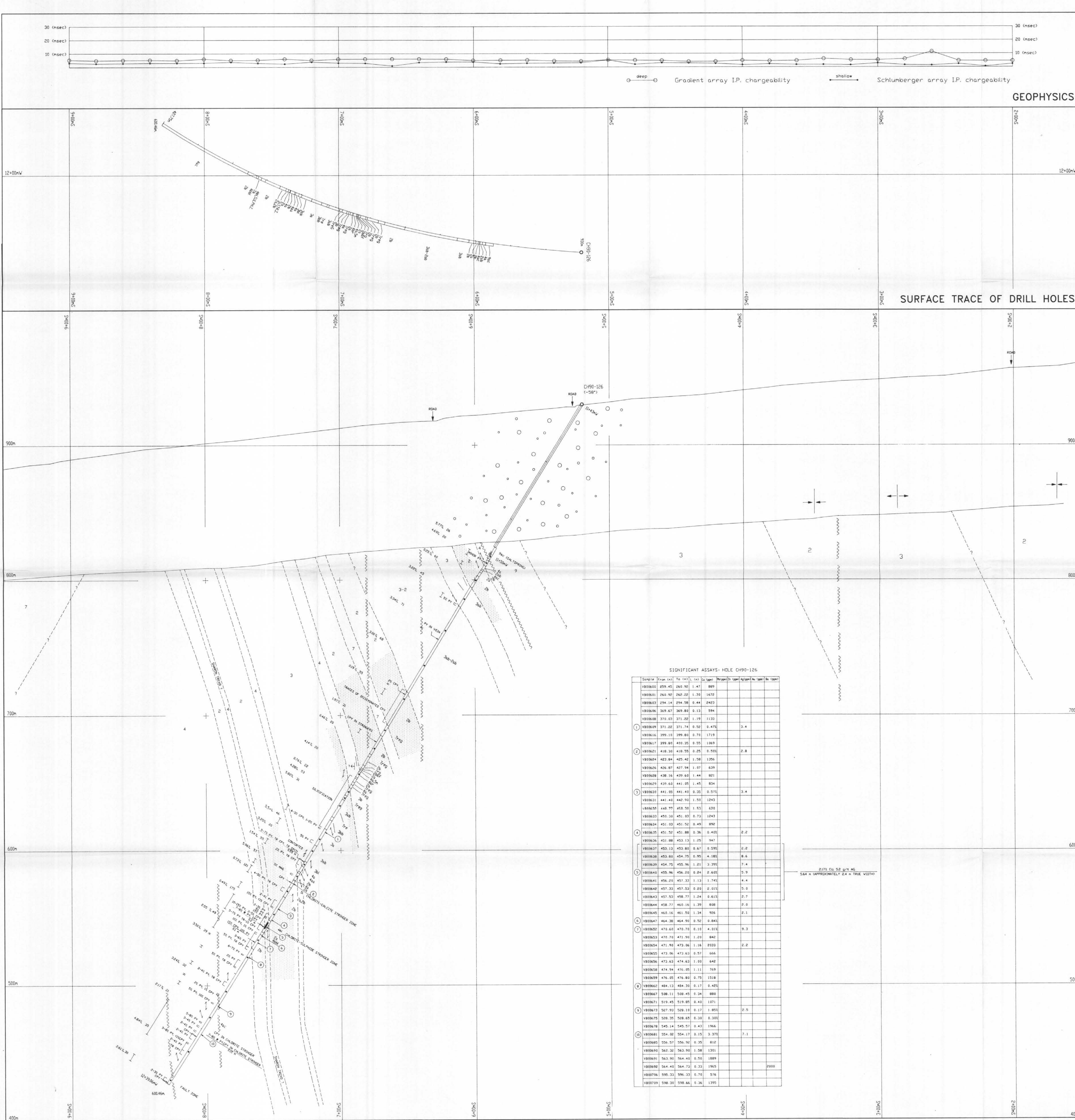


FALCONBRIDGE LIMITED
CHEMAINUS PROJECT
Vancouver Island, British Columbia
SILVER CREEK - SHARON AREA
SECTION 11+50 WEST
HOLES CH90-126
LOOKING WEST

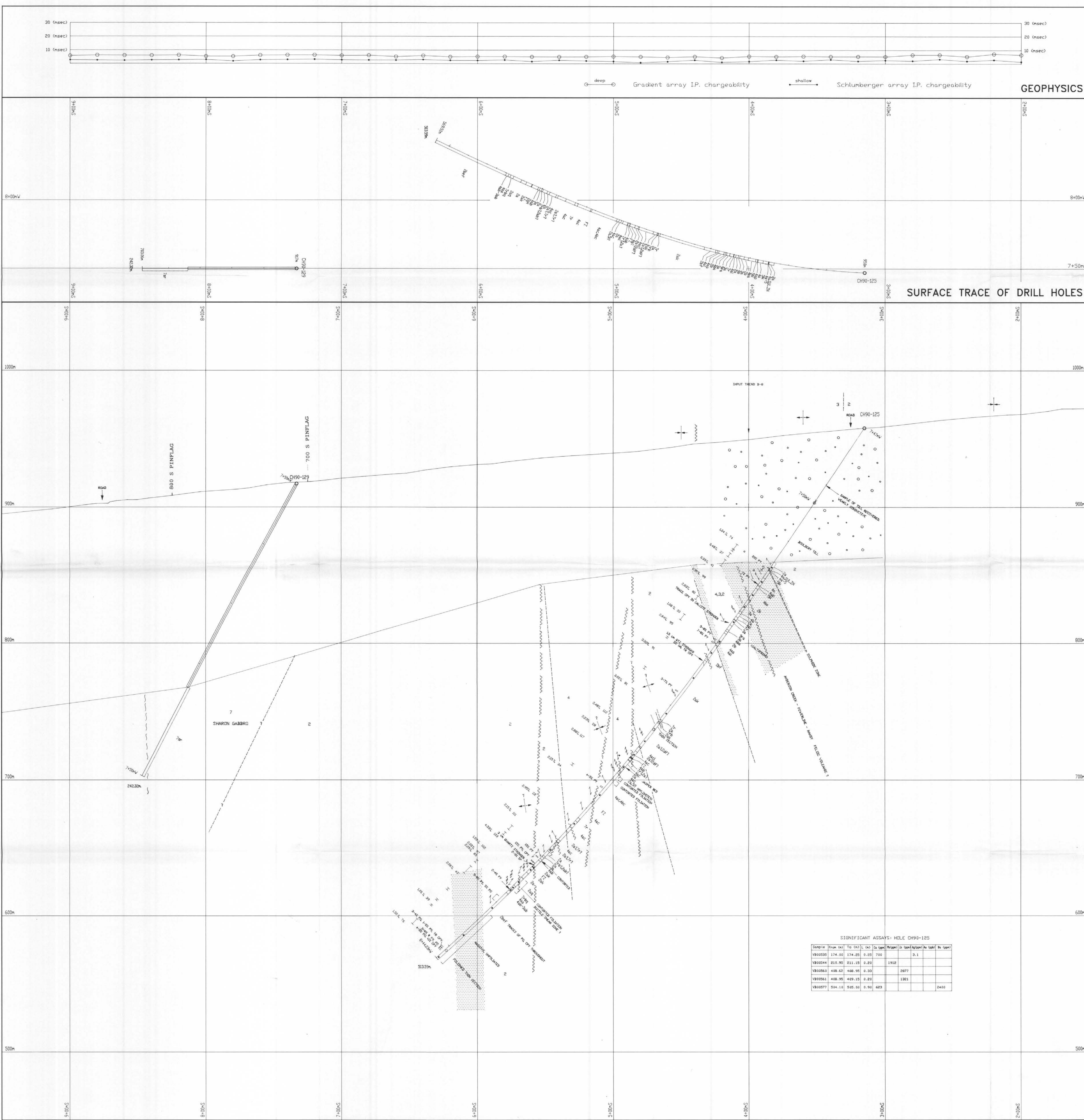
DATE OF WORK: JUNE 1990
ORIGINAL BY: GJA
REVISED BY: CPW
APPROVED BY: DATE:
CLAIMS: HOLYOAK 1
DATE: JUNE 1990
PROJECT NUMBER: 116
N.T.S. NO.: 092B/13W
MAP #: 116-5-0798
FIGURE NO: 7

SIGNIFICANT ASSAYS: HOLE CH90-126

Sample	From (m)	To (m)	Li (%)	Co (ppm)	Pb (ppm)	Cu (ppm)	Ag (ppm)	Au (ppm)	Notes
VB02600	259.45	260.92	1.47	889					
VB02601	260.92	262.22	1.30	1672					
VB02603	274.14	274.58	0.44	2423					
VB02606	369.67	369.80	0.13	594					
VB02608	370.03	371.82	1.19	1133					
VB02609	371.82	371.74	0.52	0.475				3.4	
VB02616	399.10	399.80	0.76	1719					
VB02617	399.80	400.25	0.55	1069					
VB02621	418.30	418.55	0.25	0.592				2.8	
VB02624	423.84	425.42	1.58	1256					
VB02626	426.87	427.94	1.07	629					
VB02628	438.16	439.60	1.44	821					
VB02629	439.60	441.05	1.45	834					
VB02620	441.05	441.40	0.25	0.575				3.4	
VB02621	441.40	442.92	1.50	1243					
VB02628	440.77	440.50	1.63	620					
VB02633	450.30	451.83	0.73	1243					
VB02634	451.83	451.52	0.49	890					
VB02635	451.52	451.88	0.36	0.402				2.2	
VB02636	451.88	453.13	1.25	947					
VB02637	453.13	453.80	0.67	0.592				2.2	
VB02638	453.80	454.75	0.95	4.182				6.6	
VB02639	454.75	455.96	1.21	3.292				7.4	
VB02640	455.96	456.20	0.24	2.622				5.9	
VB02641	456.20	457.33	1.13	1.742				4.4	
VB02642	457.33	457.53	0.20	0.012				5.0	
VB02643	457.53	458.77	1.24	0.612				2.7	
VB02644	458.77	460.16	1.39	808				2.0	
VB02645	460.16	461.56	1.24	926				2.1	
VB02647	464.38	464.95	0.52	0.842					
VB02652	470.62	470.75	0.16	4.012				9.3	
VB02653	470.75	471.96	1.20	842					
VB02654	471.96	473.06	1.16	2033				2.8	
VB02655	473.06	473.62	0.37	646					
VB02656	473.62	474.62	1.20	642					
VB02658	474.62	476.05	1.11	769					
VB02659	476.05	476.80	0.75	1218					
VB02662	484.13	484.30	0.17	0.422					
VB02667	508.11	508.45	0.24	880					
VB02671	519.45	519.80	0.40	1071					
VB02673	527.92	528.10	0.17	1.052				0.5	
VB02675	528.10	528.65	0.30	0.302					
VB02678	545.14	545.57	0.43	1966					
VB02681	554.02	554.17	0.15	3.372				7.1	
VB02685	556.57	556.92	0.35	812					
VB02690	562.32	563.90	1.58	1251					
VB02691	563.90	564.40	0.50	1889					
VB02692	564.40	564.73	0.33	1965					
VB02706	595.33	596.33	0.76	576					
VB02709	598.30	599.46	0.36	1295					



GEOPHYSICS



LEGEND

MAJOR ROCK UNITS

- 11 Nanaimo Group Sediments
- 10 Late Mafic Intrusions
- 9 Felsic Intrusions
- 8 Intermediate Intrusions
- 7 Mafic Intrusions
- 6 Ultramafic Intrusions
- 5 Sediments
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- 3 Intermediate Volcanics
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ROCK UNIT LETTER QUALIFIERS

The second letter indicates the type of rock; if omitted a dash should be inserted if a third letter is used.

- | | |
|------------------|------------------------|
| A Tuff | K Wacke |
| B Lapilli Tuff | L Conglomerate |
| C Tuff Breccia | M Chert |
| D Massive Flow | N Iron Formation |
| E Pillowed Flow | O Limestone |
| F Flow Breccia | P Exhalite/Sulphides |
| G Pillow Breccia | Q Tuffaceous Sediments |
| H Intrusive | R Fine Grained |
| I Argillite | S Medium Grained |
| J Siltstone | T Coarse Grained |

The third and fourth letters are placed in alphabetical order; they are optional and further define the rock.

- | | |
|--------------------------|--------------------|
| A Quartz Phyric | J Melanocratic |
| B Feldspar Phyric | K Bedded |
| C Quartz-Feldspar Phyric | L Chloritic |
| D Mafic Phyric | M Graphitic |
| E Mafic-Feldspar Phyric | N Calcareous |
| F Amygdaloidal | O Argillaceous |
| G Spherulitic | P Siliceous/Cherty |
| H Variolitic | Q Sheared |
| I Leucocratic | R Massive |
| | S Lithic |

SYMBOLS

- Overburden
- Bedding
- Foliation
- Shear
- Fault
- Stratigraphic top
- Fold axis
- Na2O(%) , Zn(ppm) Whole rock sample
- Na2O(%) , Zn(ppm) Alteration sample
- Thin section
- <1.2% Na2O
- Significant intersections
- Geochemical/assay sample interval
- Geological contact (inferred)
- Felsic-mafic contact
- Broken core
- u Unconformity
- FZ Fault zone
- FB Fault breccia
- CAS Casing
- HEM Hematitic
- py Pyrite
- cpy Chalcopyrite
- po Pyrrhotite
- sp Sphalerite
- ga Galena

SIGNIFICANT ASSAYS - HOLE CH90-125

Sample	From (m)	To (m)	Na (%)	Zn (ppm)	Other
VB0035	174.00	174.25	0.25	700	9.1
VB0044	210.95	211.15	0.25	1912	
VB0064	408.62	408.95	0.33	2877	
VB0061	408.95	409.15	0.20	1281	
VB0077	504.10	505.00	0.90	423	2400



FALCONBRIDGE LIMITED
CHEMAINUS PROJECT
Vancouver Island, British Columbia
SILVER CREEK - SHARON AREA
SECTION 7+50 WEST
HOLES CH90-125, CH90-129
LOOKING WEST