ASSESSMENT REPORT ON THE 1990 DIAMOND DRILLING PROGRAM
DRILL HOLES CH90-115 AND CH90-131
GROUP CHEM-90A
CHEMAINUS PROJECT

PROJECT 116

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

SUMMARY

This assessment report describes CH90-115 and CH90-131 drilled in the period from March 2, 1990 to November 10, 1990 on the CHIP 1, CHIP 2 and CHIP 12FR claims.

Hole CH90-131 tested favourable stratigraphy informally known as the Anita active tuff within the McLaughlin Ridge Formation. Hole CH90-115 tested a stratigraphically higher section in the Mississippian Fourth Lake Formation sediments and Triassic (?) gabbros.

The best mineralization within the Anita active tuff is the Anita mineralized horizon which generally occurs within 15m north of the Anita felsic tuff-mafic tuffaceous sediment contact. This mineralized horizon, which has been traced discontinuously along a 3.3 km strike length of over 3km, generally consists of a 1 to 10m wide zone of disseminated to massive pyrite in foliation-parallel bands or beds up to 0.5m thick with traces to a few percent of associated chalcopyrite and sphalerite.

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

Hole #	Purpose	From	To	Length	Cu	Zn	Ag	Au	Pb	Remarks
CH90-115	I,S	74.38	74.88	0.50m	0.16%	0.01%	27.8 ppm	250 ppb	15ppm	Rhodonite bed
CH90-131	A,S	70.34	74.70	4.36m	0.44%	0.14%	5.1 ppm	401 ppb	<0.01%	Anita Horizon

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

TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF TABLES

LIST OF FIGURES

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.

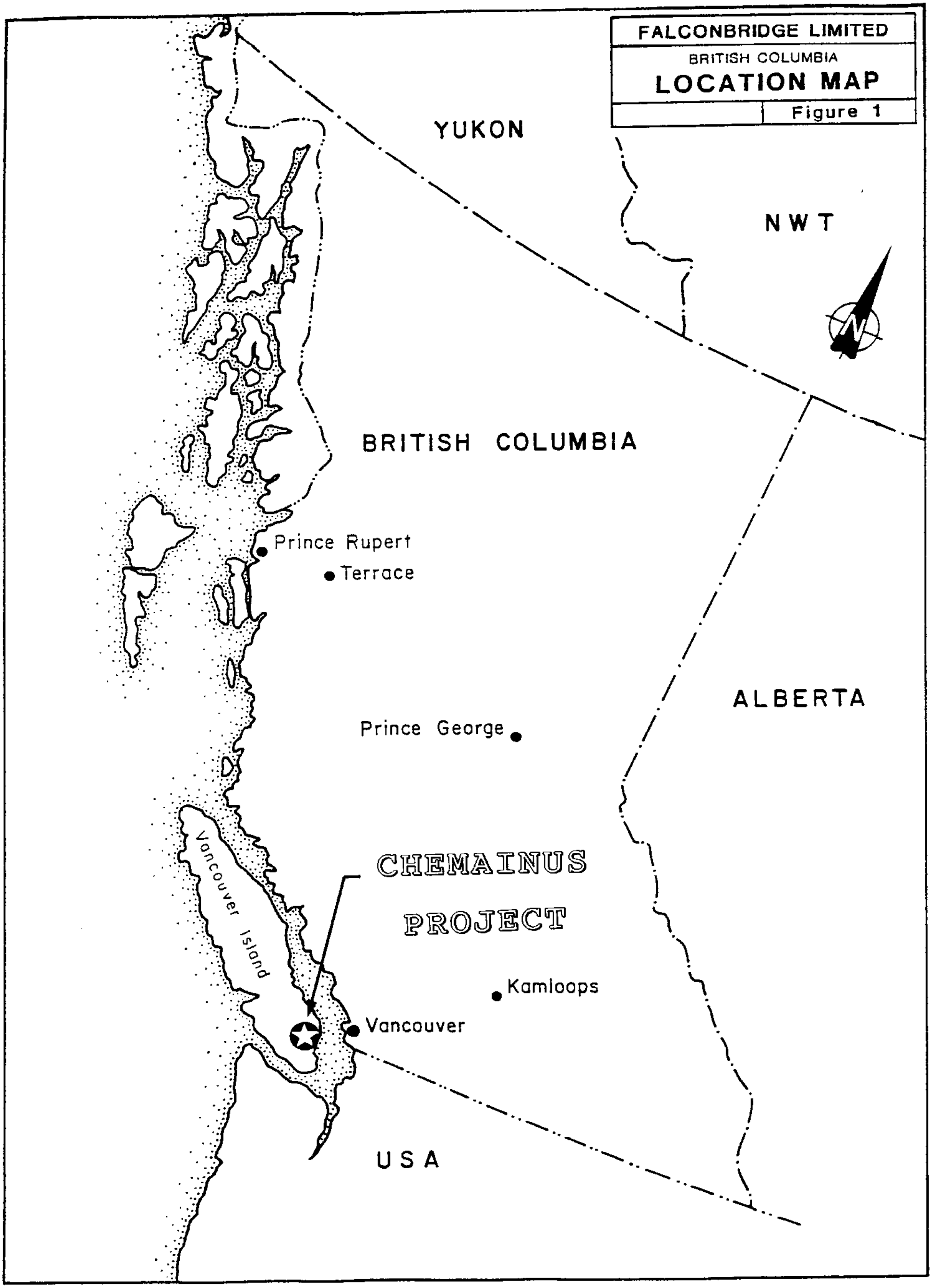
The project occurs in two separate claim groups totalling 20 claims. The 16 CHIP claims are to the west and the 4 BRENT-HOLYOAK claims are to the east. CHIP 1 to 8 and CHIP 11 to 18 comprise 119 units and 4 fractions covering 2638.3 hectares. The BRENT-HOLYOAK claims comprise 46 units (1103.8 hectares) 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).

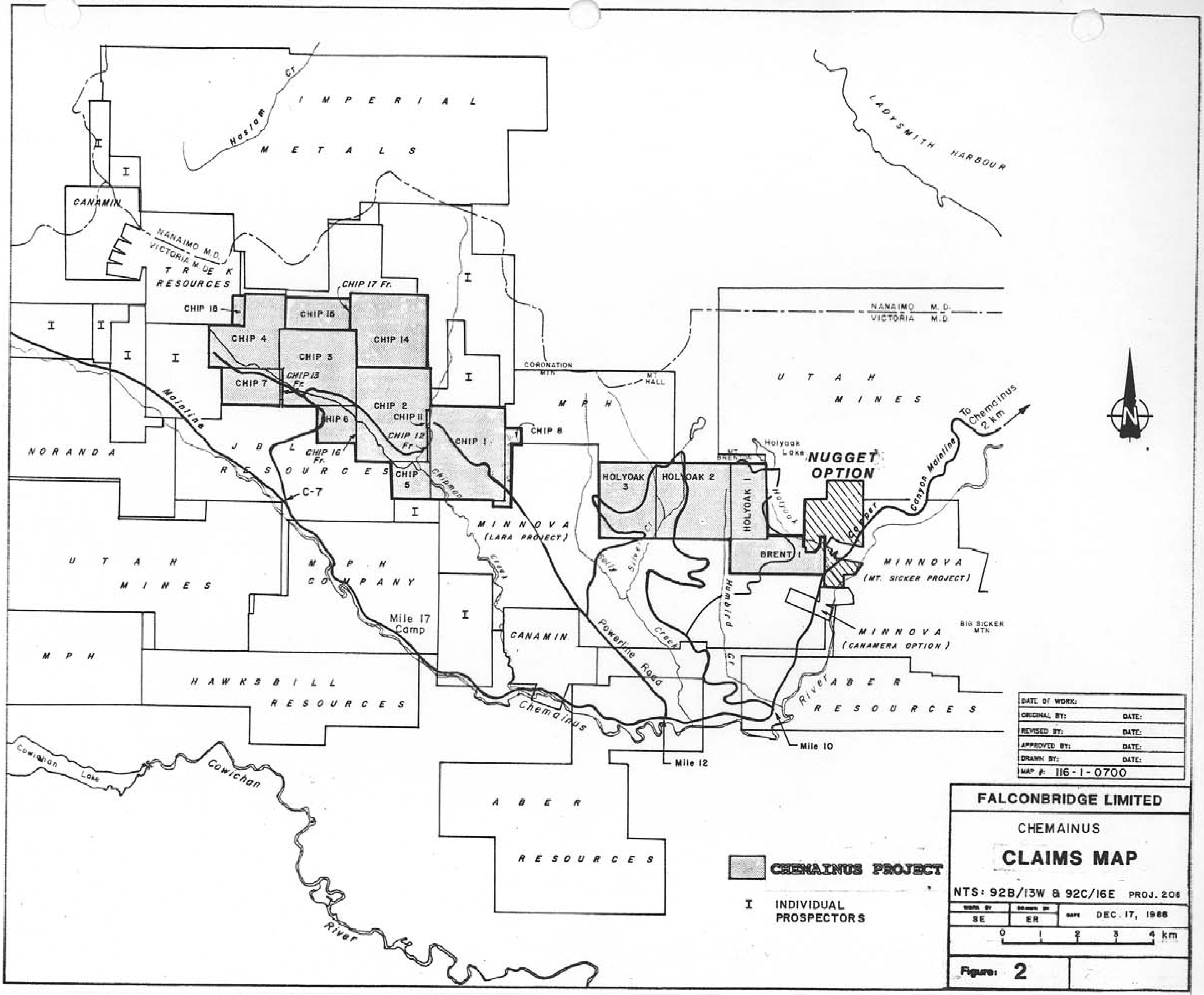
Access to the property is along dirt roads and abandoned railway grades which are part of the Mt. Brenton Forest Service Road network, the B.C. Hydro access road and logging road networks maintained by Canadian Pacific Forest Products Limited and MacMillan Bloedel Limited. These interlocking roads can 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
N
BRITISH COLUMBIA
Prince Rupert
Terrace
Prince George
ALBERTA
CHEMAINUS
PROJECT
Vancouver Island
Kamloops
Vancouver
USA



IMPERIAL METALS
Haslam Cr
LADYSMITH HARBOUR
CANAMIN
NANAIMO M.D.
VICTORIA M.D.
TREK RESOURCES
CHIP 17 Fr.
CHIP 18
CHIP 15
CHIP 14
CHIP 4
CHIP 3
CHIP 13 Fr.
CHIP 7
CHIP 2
CHIP 11
CHIP 12 Fr.
CHIP 6
CHIP 16 Fr.
CHIP 1
CHIP 8
CHIP 5
CORONATION MTN
MT HALL
MPH
UTAH MINES
To Chemainus 2 km
Holyoak Lake
MT BRENTON
NUGGET OPTION
HOLYOAK 3
HOLYOAK 2
HOLYOAK 1
BRENT 1
NORANDA
JBL RESOURCES
Mainline
C-7
MINNOVA (LARA PROJECT)
MINNOVA (MT. SICKER PROJECT)
MINNOVA (CANAMERA OPTION)
BIG SICKER MTN
Canyon Mainline
UTAH MINES
MPH COMPANY
Mile 17 Camp
CANAMIN
Powerline Road
Humbird Cr
Silver Cr
MPH
HAWKSBILL RESOURCES
ABER RESOURCES
Chemainus River
Mile 10
Mile 12
Cowichan Lake
Cowichan River
ABER RESOURCES
CHEMAINUS PROJECT
I INDIVIDUAL PROSPECTORS
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
SE ER DEC. 17, 1988
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.

CLAIM	RECORD #	UNITS	AREA	STAKING DATE	EXPIRY DATE
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-90A which is composed of the CHIP 1, CHIP 2, CHIP 4, CHIP 11, CHIP 12FR, CHIP 14, CHIP 15, CHIP 17FR and CHIP 18 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 lithogeochem 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.

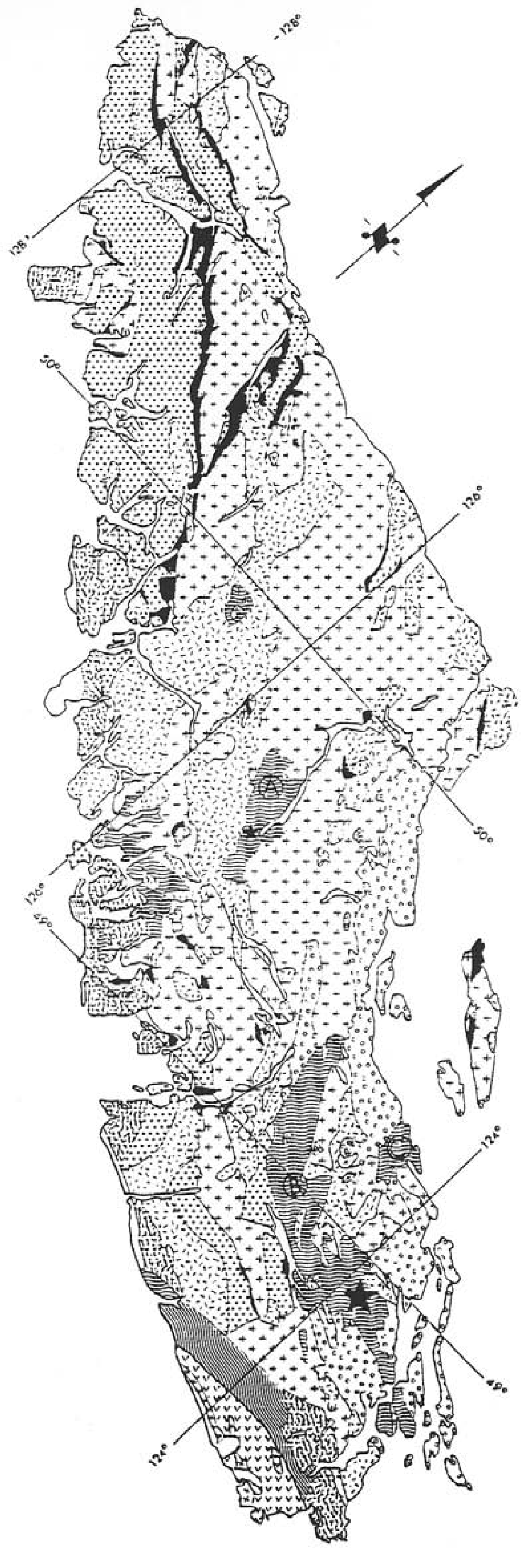
REGIONAL GEOLOGY

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 EARLY CRETACEOUS
LEECH RIVER FORMATION PACIFIC RIM COMPLEX		
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)

DRAWN BY: VJG
DATE: Dec 1988

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 dominately 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 dominately 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 prexisting 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 dominately 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. during the period from March 2, 1990 and November 10, 1990 on the CHIP 1, CHIP 2 and CHIP 12FR 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

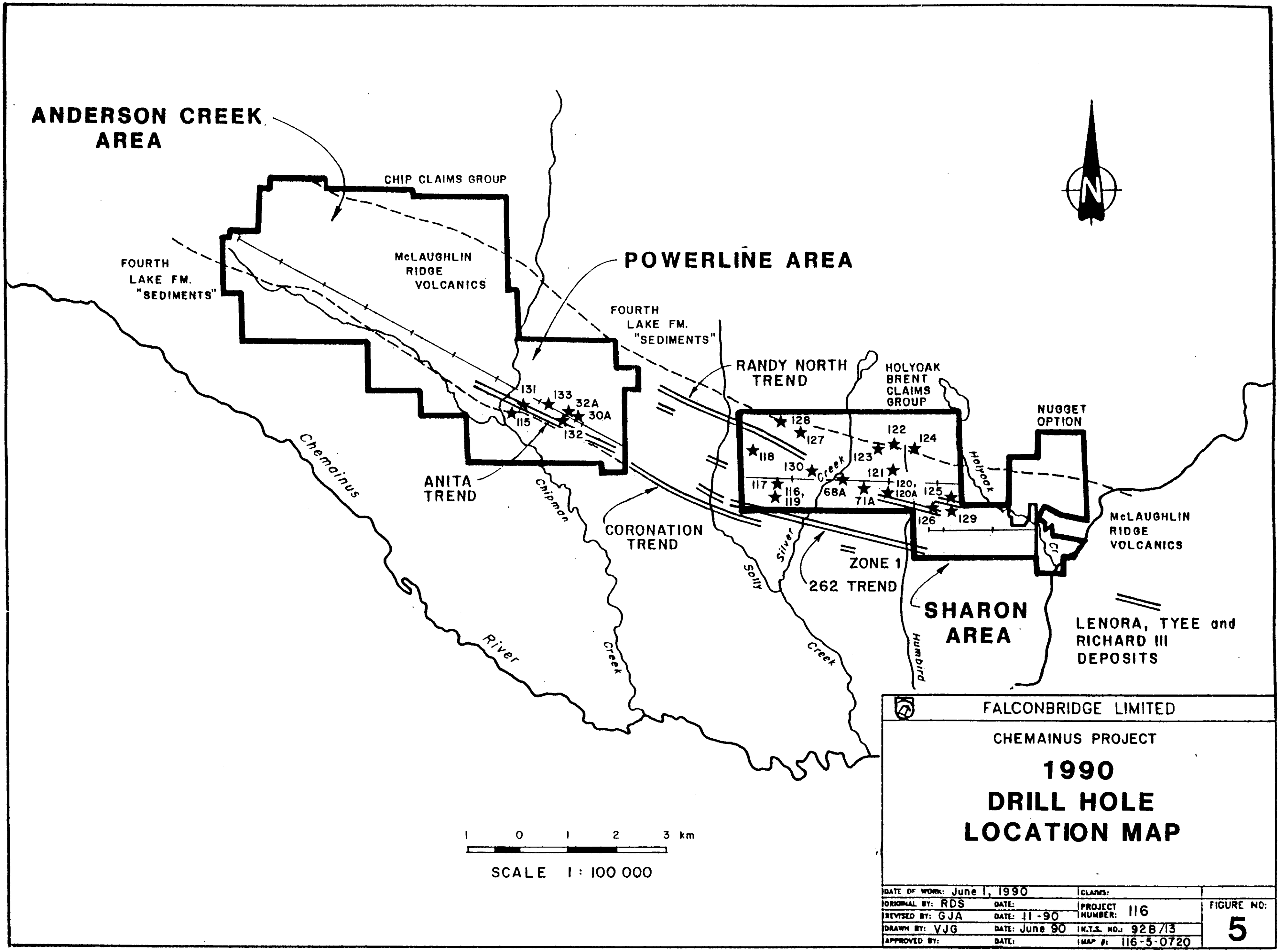
Elements of Secondary Interest

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% Na_2O 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
CHIP CLAIMS GROUP
McLAUGHLIN RIDGE VOLCANICS
FOURTH LAKE FM. "SEDIMENTS"
POWERLINE AREA
FOURTH LAKE FM. "SEDIMENTS"
N
RANDY NORTH TREND
HOLYOAK BRENT CLAIMS GROUP
NUGGET OPTION
131
133
32A
30A
115
132
128
127
118
130
117
116, 119
68A
123
122
124
121
120, 120A
71A
125
126
129
ANITA TREND
CORONATION TREND
ZONE 1
262 TREND
SHARON AREA
McLAUGHLIN RIDGE VOLCANICS
LENORA, TYEE and RICHARD III DEPOSITS
Chemainus River
Chipman Creek
Solly Creek
Silver Creek
Humbird
Holyoak
Cr
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
ORIGINAL BY: RDS
DATE:
REVISED BY: GJA
DATE: 11-90
DRAWN BY: VJG
DATE: June 90
APPROVED BY:
DATE:
CLAIMS:
PROJECT NUMBER: 116
N.T.S. NO.: 92B/13
MAP #: 116-5-0720
FIGURE NO: 5

DRILLING RESULTS

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

SUMMARY OF SIGNIFICANT RESULTS

Hole #	Purpose	From	To	Length	Cu	Zn	Ag	Au	Pb	Remarks
CH90-115	I,S	74.38	74.88	0.50m	0.16%	0.01%	27.8ppm	250 ppb	15ppm	Rhodonite bed
CH90-131	A,S	70.34	74.70	4.36m	0.44%	0.14%	5.1ppm	401 ppb	<0.01%	Anita Horizon

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

South of Anita Area

Hole: CH90-115 Section: 28+00E Depth: 200.0m

Hole CH90-115 (Figure 7) was drilled to test IP and airborne EM anomalies in Fourth Lake Formation sediments south of the Anita Trend. It was also drilled to test a geological theory. If McLaughlin Ridge Formation volcanic rocks and the Fourth Lake Formation sediments are conformable, epithermal activity related to volcanism may have continued during the later sedimentary regime. It is possible, therefore, that breaching of the sedimentary cover by metal-bearing solutions may have given rise to the formation of epigenetic base metal deposits within the sediments.

A jasper-rhodonite horizon with elevated base and precious metal values was intersected in an otherwise monotonous sequence of relatively undeformed cherty sediments. The IP anomaly may have been caused by thin films of pyrite on fracture surfaces.

The difference in metamorphism between the volcanic rocks and the overlying sedimentary rocks suggests that the two formations are in unconformable or fault contact. It is improbable, therefor, that a metallic deposit as described above would occur in the Fourth Lake Formation sediments.

Anita Area

Hole No.	Section	Depth (m)
CH90-131	27+00E	380.09

The geology of the Anita area is somewhat complex. The north part of the area consists of a series of intercalated felsic to mafic volcaniclastics. This sequence is truncated in the south by the steeply north-dipping Fulford splay thrust fault which has placed Sicker Group rocks overtop of younger Cretaceous Nanaimo Group sediments. The Nanaimo Group sediments unconformably overlie a steeply south-dipping sequence of felsic to mafic tuffs (including the Anita active felsic tuff and the target Anita horizon) and gabbroic intrusives. The Anita tuff appears to be unconformably overlain by relatively fresh mafic tuffaceous sediments. To the south of and in obscure contact with this unit are sediments of the Fourth Lake Formation and gabbroic intrusives. It is possible that the mafic tuffaceous sediments overlying the Anita active tuff are transitional between the predominantly volcanic rocks of the McLaughlin Ridge Formation and the sediments of the Fourth Lake Formation.

The best mineralization within the Anita active tuff is the Anita mineralized horizon which generally occurs within 15m north of the Anita felsic tuff-mafic tuffaceous sediment contact. This mineralized horizon, which has been traced discontinuously along a 3.3 km strike length of over 3km, generally consists of a 1 to 10m wide zone of disseminated to massive pyrite in foliation-parallel bands or beds up to 0.5m thick with traces to a few percent of associated chalcopyrite and sphalerite.

Drilling in this area was designed to provide deep intersections (as low as 50m above sea level or 600m below surface) of the Anita mineralized horizon along the projected rake of a better mineralized zone (fold hinge?) between 27+00E and 38+00E. Most holes were drilled subparallel to and commonly largely within the 'Anita active' tuff to provide maximum access for testing of the favorable horizon with a downhole pulse EM system. Drilling down the dip of the horizon also gave the maximum chance of hitting a kink or minor fold which could have localized mineralization.

Drilling intersected zones typical of the Anita horizon elsewhere and were only moderately enriched in base and precious metals. The drilling confirmed the continuity of the mineralized horizon but did not hit any significant sulphide lenses as was hoped. Due to flattening of the holes, the expansion of the coverage of the horizon was also less than was planned.

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APPENDIX A

Summary Drill Logs

SUMMARY LOG AND DESCRIPTION
CH90-131 (PROPOSED HOLE F-16)

LOCATION: 27+00E, 2+03S, 470m asl.; Chip 1 **AZIMUTH:** 209o**DIP:** -71.5°
TOTAL DEPTH: 380.09m **PROPOSED DEPTH:** 525m
STARTED: Nov. 6, 1990 **COMPLETED:** Nov. 10, 1990
REVISED: November 30, 1990
LOGGED BY: G. Allen

PURPOSE: Hole CH90-131 was designed to drill down the 'Anita active tuff' to provide access for continuous geophysical testing of the mineralized horizon to a depth of approximately 550m below surface. Drilling down the dip of the horizon would also give the maximum chance of hitting a kink or minor fold which could localize mineralization. The stratigraphy in this area is folded and it was possible that the hole could have penetrated the same mineralized horizon in three locations.

RESULTS: Hole CH90-131 collared in the 'Anita active felsic tuff' and intersected the Anita mineralized horizon sooner than expected between 70.34 and 74.70m. The zone consists of bands (beds?) up to 50cm thick of massive fine to medium-grained pyrite, minor sporadic chalcopyrite and traces of sphalerite in a sericite schist host. The mineralization lies within 10m of the south side of the Anita active tuff as is typical of the horizon.

Between 87.13 and 380.09m (E.O.H.) the hole penetrated intermediate to mafic tuff, tuffaceous sediment, siltstone and chert. Due to flattening, the hole apparently subparallelled the 'Anita active tuff' within a few metres (probably within 20m) of its southern contact below 87.13m and did not repenetrate the mineralized horizon as planned. The hole should, however, provide access for geophysical (PEM) testing of the horizon to a depth of approximately 400m below surface.

Bedding to core axis angles in the tuffaceous sediments and sediments are consistent and project into the postulated Anita felsic tuff contact at an angle of approximately 30°. This suggests that either the 'Anita active tuff'-tuffaceous sediment contact is at least partly fault controlled or that the contact actually dips steeply to the north rather than to the south.

DIRECT DRILLING COSTS: $20,239 or $53.25/m

SAMPLES:
Geochemical Samples: 65 Whole Rock Samples: 17 Thin Sections: 0

CH90-131 SUMMARY LOG:

0.0 - 6.10m	Casing
6.10 - 8.71m	Felsic Tuff/Lapilli Tuff
8.71 - 11.90m	Mafic Dyke
11.90 - 49.00m	Felsic Tuff
49.00 - 53.40m	Feldspar Phyric Felsic Lapilli Tuff
53.40 - 70.34m	Felsic Tuff
70.34 - 74.70m	Anita Sulphide Zone
74.70 - 87.13m	Felsic Tuff
87.13 - 111.22m	Mafic Tuff
111.22 - 113.60m	Feldspar Phyric Mafic Tuff
113.60 - 113.87m	Mafic Tuffaceous Sediment
113.87 - 116.41m	Feldspar Phyric Mafic Tuff
116.41 - 118.08m	Mafic Tuffaceous Sediment
118.08 - 152.08m	Feldspar (+Mafic?) Phyric Mafic Crystal Tuff
152.08 - 160.52m	Siltstone, Cherty Siltstone (Tuffaceous Sediment?)
160.52 - 162.50m	Feldspar Phyric Mafic Tuff (?) (Intrusive?)
162.50 - 170.24m	Feldspar Phyric Mafic Crystal Tuff to Lapilli Tuff
170.24 - 171.55m	Siltstone, Cherty Siltstone/Tuffaceous Sediment
171.55 - 203.07m	Feldspar Phyric Mafic Crystal Tuff
203.07 - 207.45m	Feldspar Phyric Mafic Lapilli Tuff
207.45 - 210.10m	Mafic Tuff, Tuffaceous Sediment
210.10 - 210.80m	Feldspar Phyric Mafic Tuff
210.80 - 211.60m	Chert
211.60 - 211.95m	Mafic Tuff
211.95 - 216.85m	Amygdaloidal Mafic Flow
216.85 - 238.15m	Interbedded Siltstone And Sandstone/ Tuffaceous Sediment
238.15 - 247.00m	Mafic Tuff
247.00 - 248.53m	Siltstone
248.53 - 252.37m	Mafic Tuff
252.37 - 255.12m	Feldspar Phyric Mafic Dyke
255.12 - 256.20m	Intercalated Mafic Tuff And Feldspar Phyric Mafic Dykes
256.20 - 259.00m	Feldspar Phyric Mafic Dyke
259.00 - 260.65m	Mafic Tuff(?)
260.65 - 263.80m	Feldspar Phyric Mafic Dyke
263.80 - 269.55m	Fault Zone
269.55 - 286.00m	Lithic - Feldspar Phyric Mafic Crystal Tuff
286.00 - 294.75m	Feldspar Phyric Mafic Tuff To Lapilli Tuff
294.75 - 300.50m	Siltstone, Cherty Siltstone, Tuffaceous Sediment
300.50 - 304.35m	Lithic - Feldspar Phyric Mafic Crystal Tuff
304.35 - 308.74m	Siltstone, Cherty Siltstone And Tuffaceous Siltstone
308.74 - 310.84m	Feldspar Phyric Mafic Tuff
310.84 - 312.30m	Cherty Feldspar Phyric Tuffaceous Sediment
312.30 - 324.72m	Lithic - Feldspar Phyric Mafic Crystal Tuff To Lapilli Tuff
324.72 - 325.15m	Tuffaceous Sediment

325.15 - 346.64m Lithic - Feldspar Phyric Mafic Crystal Tuff
346.64 - 352.30m Mafic Flow
352.30 - 354.72m Mafic Tuffaceous Sediment
354.72 - 358.85m Mafic Flow
358.85 - 380.09m Mafic Tuffaceous Sediment
380.09m - End Of Hole. Hole lined with plastic pipe.

CH90-131 ALTERED WHOLE ROCK SAMPLES

Sample	From	To	SiO_2	CaO	Na_2O	K_2O	MgO	Zn	Cu
VB02699	6.1	8.7	74.06	2.27	0.68	2.91	0.90	20	26
VB02700	9.0	11.9	47.33	9.85	0.79	0.45	4.69	66	221
VB02701	34.7	37.0	69.40	1.92	1.01	2.85	1.49	20	63
VB02702	64.0	67.0	68.69	0.29	1.13	2.87	0.17	20	64

CH90-131 SIGNIFICANT GEOCHEMICAL ANALYSES
(Au-ppb, other elements - ppm)

Sample	From	To	L(m)	Cu	Pb	Zn	Ag	Au	Ba
VB00932	7.45	8.77	1.32						2000
VB00935	11.90	13.28	1.38		61				2200
VB00936	13.28	14.74	1.46		75				
VB00937	14.74	15.64	0.90		51				
VB00938	15.64	16.15	0.51		72				
VB00940	17.60	18.97	1.37		48				2200
VB00941	18.97	20.30	1.33		67		2.1		2200
VB00945	24.06	25.60	1.54						2500
VB00946	25.60	25.70	0.01		392		2.0	104	
VB00947	25.70	26.82	1.12		43				2400
VB00948	26.82	27.73	0.91		130				2600
VB00949	27.73	27.90	0.17		256			284	
VB00950	27.90	29.06	1.16		81				2500
VB00951	29.06	30.46	1.40		60				3100
VB00952	30.46	31.50	1.04		102				3300
VB00954	32.87	34.15	1.28					211	
VB00963	54.56	55.45	0.89						2300
VB00968	59.50	60.11	0.61						2700
VB00969	60.11	60.60	0.49						2000
VB00970	60.60	62.03	1.43						2300
VB00972	63.00	63.88	0.88						4100
VB00973	63.88	64.40	0.52					176	4200
VB00974	64.40	65.25	0.85					124	3300
VB00975	65.25	65.85	0.60						2500
VB00976	65.85	66.35	0.50						3100
VB00977	66.35	67.80	1.45						2000
VB00978	67.80	69.05	1.25						2500
VB00979	69.05	70.34	1.29						2800
VB00980	70.34	71.40	1.06	935	29		2.7	174	4000
VB00981	71.40	71.76	0.36	1085	132	0.76%	3.9	102	7700
VB00982	71.76	72.50	0.74	1030					11700
VB00983	72.50	72.96	0.46	0.71%		7.4	390	4100	
VB00984	72.96	73.97	1.01	0.57%61	1420	7.6	785	3400	
VB00985	73.97	74.70	0.73	1.07%		7.5	694	3400	
VB00986	74.70	76.00	1.30	1198	56				4600
VB00987	76.00	77.40	1.40	566					3800
VB00988	77.40	78.90	1.50	516					8000
VB00989	78.90	79.75	0.85	1178					7900
VB00990	79.75	80.16	0.41	1249					8000
VB00991	80.16	81.72	1.56	2880					6100
VB00992	81.72	83.30	1.58						5000
VB00993	83.30	84.70	1.40	1681					4900
VB00994	84.70	85.90	1.20		67				4300
VB00995	85.90	87.13	1.23	748	45	1445			2200

SUMMARY LOG AND DESCRIPTION
CH90-115 (PROPOSED HOLE D1)

LOCATION: 28+00E, 6+87S, 497m asl.; Chip 2 Claim
AZIMUTH: 030° **DIP:** 50°
TOTAL DEPTH: 199.95m **PROPOSED DEPTH:** 200m
STARTED: April 19, 1990 **COMPLETED:** April 22, 1990
REVISED: August 7, 1990
LOGGED BY: Gord Allen
PURPOSE: Hole CH90-115 was designed to test Fourth Lake Formation (?)baritic and argillaceous felsic tuffs cut by gabbros which host INPUT Trend A-31 and IP Trend CN-2. IP Trend CN-2 has a very weak metal factor value. A source for a Schlumberger IP anomaly was expected 55m downhole and the Gradiant IP/INPUT anomaly source was expected from 125 to 140m downhole. These anomalies lie 300m south of the Anita Trend where CH87-37 intersected anomalous base metals (2.4% Cu, 2.7% Zn/2.5m).

RESULTS: The hole was predominantly in cherty siltstones for its entire length. Argillaceous sediments with 1-2% pyrite in thin films on fracture surfaces were intersected from 63.2 to 64.97m. This unit may be the source for the Schlumberger IP anomaly. A jasper-rhodonite horizon was intersected from 73.90-75.29m. At 80.50m a 1cm zone contained 10% each of fine-grained disseminated sphalerite and pyrite. Thin pyrite films on fracture surfaces may be the source for the Gradient IP/INPUT anomaly although no outstanding mineralization was noted in the target area.

DIRECT DRILLING COSTS: $11,360 or $56.80/m

0.00 - 3.80m	Casing
3.80 - 63.20m	Cherty Sediments
63.20 - 64.97m	Argillaceous Sediments
64.97 - 73.90m	Cherty Sediments
73.90 - 74.38m	Jasper-Bearing Cherty Sediments
74.38 - 74.88m	Rhodonite
74.88 - 75.29m	Jasper Breccia
75.29 - 189.10m	Cherty Sediments
189.10 - 194.20m	Gabbro
194.20 - 199.95m	Cherty Sediments

199.95m End of Hole. Hole lined with plastic pipe.

Geochemical Samples: 31, Whole Rock Samples: 5, Thin Sections: 0

CH90-115 SIGNIFICANT GEOCHEMICAL ANALYSES
(Au-ppb, other elements - ppm)

Sample	From	To	L(m)	Cu	Pb	Zn	Ag	Au	Ba
VB00001	62.00	63.20	1.20						2900
VB00002	63.20	64.97	1.77						3300
VB00003	64.97	66.37	1.40						2500
VB00004	72.50	73.90	1.40						2000
VB00006	74.38	74.88	0.50	0.16%			27.77g/T	250	
VB00007	74.88	75.29	0.41				2.7		
VB00011	75.19	80.20	1.05						2100
VB00015	92.42	92.97	0.55						3000
VB00017	100.81	101.64	0.83						2100
VB00018	101.64	102.41	0.77						2700
VB00019	134.95	136.44	1.49						3500
VB00020	136.44	137.95	1.51						3600
VB00021	137.95	138.10	0.15						2300
VB00022	138.10	139.63	1.53						3500
VB00023	142.76	144.05	1.29						3800
VB00024	146.16	146.76	0.60						3800
VB00026	179.25	180.36	1.11						2800
VB00028	180.87	182.15	1.28						2800
VB00029	182.15	183.56	0.85						2400
VB00030	183.00	183.56	0.56						2500

CH90-115 ALTERED WHOLE ROCK SAMPLES

Sample	From	To	SiO_2	CaO	Na_2O	K_2O	MgO	Zn	Cu
VB002501	4.0	7.0	75.41	0.82	1.04	2.70	1.91	42	34
VB002502	36.0	39.0	80.80	0.75	0.88	1.74	1.63	56	194
VB002503	67.5	70.0	80.31	2.59	0.65	1.15	1.53	49	27

APPENDIX B

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

See also:

Figure 6 : Anita Area		
	Section 27+00E (1:1,000), CH90-131	in pocket
Figure 7 : Anita Area		
	Section 28+00E (1:1,000), CH90-115	in pocket

ANITA AREA
SECTION 27+00E

OBJECTIVE/TARGET: CH90-131 - To test the Anita horizon at depth.

HOLE #	LOCATION	AZIMUTH	DIP	LENGTH
CH87-28	26+85E, 1+00S	210°	-50°	382.8m
CH88-48	27+00E, 1+61S	210°	-45°	256.3m
CH88-49	26+98E, 2+18S	210°	-45°	252.1m
CH88-51	26+92E, 3+10S	210°	-45°	159.7m
CH90-131	27+00E, 2+03S	209°	-71.5°	380.1m

RESULTS:

Drilling on this section was targeting the Anita mineralized horizon and its host the Anita active felsic tuff/lapilli tuff, a pyritic sodium depleted quartz sericite schist.

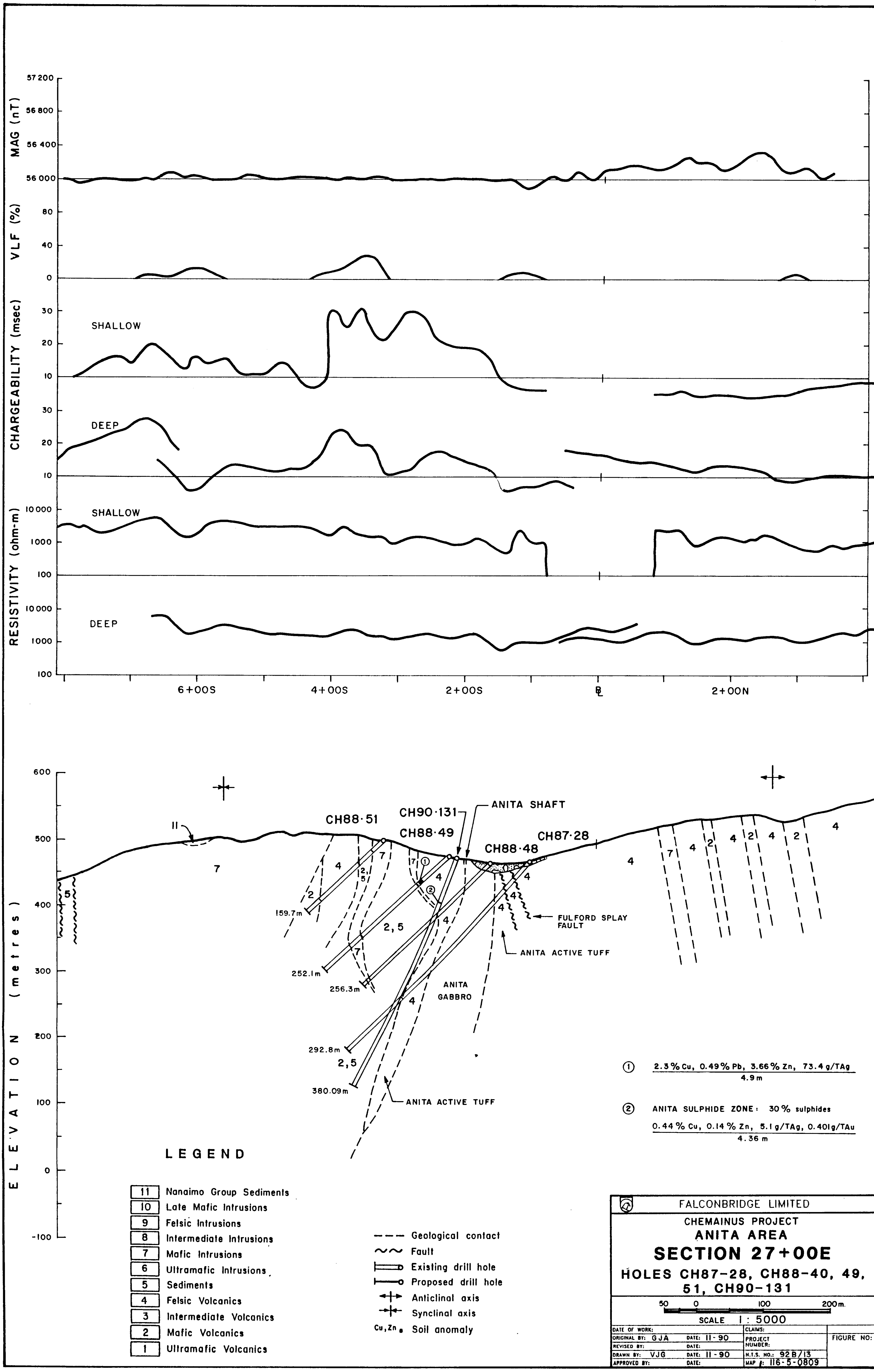
In the north part of the section steeply north-dipping intercalated mafic tuffs, felsic tuffs and gabbroic sills occur. These are truncated in the south by the steeply north-dipping Fulford splay fault. South of this fault is the steeply south-dipping Anita active tuff and an associated thick (up to 100m) gabbroic dyke.

The Anita mineralized horizon, which generally consists of a 1-4m wide zone of disseminated to massive pyrite with associated chalcopyrite and sphalerite, is located within 10m of the south margin of the Anita felsic tuff. A +/-20m zone immediately north of the sulphide horizon is generally pyritic and sporadically sodium depleted. If a volcanogenic exhalative model is used to explain the mineralization this would suggest that stratigraphic tops are to the south with a sodium depleted zone underlying a sulphide cap.

South of the Anita felsic tuff is an intercalated sequence of relatively fresh mafic flows, mafic tuffaceous sediments and sediments. Bedding to core axis angles indicate that the beds are consistently trending into the apparent mafic tuffaceous sediment-Anita felsic tuff contact at approximately 30° suggesting that the two are in fault or unconformable contact. The fresh appearance of the mafic units suggest an unconformable contact, supporting a southward stratigraphic-up interpretation.

To the south, the mafic tuffaceous sediments and flows (and some felsics) are in obscure contact with intercalated gabbroic intrusives and sediments of the Fourth Lake Formation.

Drill hole CH90-131 intersected the Anita sulphide horizon as expected and passed into relatively fresh bedded mafic tuffaceous sediments and flows. The Anita horizon is interpreted to have a fold or minor roll where CH90-131 passed through. This fold may have caused upgrading of the mineralization at this point. The interval between 70.34 and 74.70m in hole CH90-131 assayed 0.44% copper, 0.14% zinc, 5.1 g/T silver and 0.401 g/T gold across 4.36m.



MAG (nT)
57 200
56 800
56 400
56 000
VLF (%)
80
40
0
CHARGEABILITY (msec)
SHALLOW
30
20
10
DEEP
RESISTIVITY (ohm-m)
SHALLOW
10 000
1000
100
DEEP
6+00S
4+00S
2+00S
B̸L
2+00N
ELEVATION (metres)
600
500
400
300
200
100
0
-100
11
7
5
CH88·51
CH90·131
CH88·49
ANITA SHAFT
CH87·28
CH88·48
159.7m
252.1m
256.3m
292.8m
380.09m
2, 5
ANITA GABBRO
FULFORD SPLAY FAULT
ANITA ACTIVE TUFF
ANITA ACTIVE TUFF
① 2.3% Cu, 0.49% Pb, 3.66% Zn, 73.4 g/TAg
4.9 m
② ANITA SULPHIDE ZONE: 30% sulphides
0.44% Cu, 0.14% Zn, 5.1 g/TAg, 0.40 g/TAu
4.36 m
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
ANITA AREA
SECTION 27+00E
HOLES CH87-28, CH88-40, 49, 51, CH90-131
50 0 100 200m.
SCALE 1 : 5000
DATE OF WORK:
ORIGINAL BY: GJA DATE: 11-90
REVISED BY: DATE:
DRAWN BY: VJG DATE: 11-90
APPROVED BY: DATE:
CLAIMS:
PROJECT NUMBER:
N.T.S. NO.: 92 B/13
MAP #: 116-5-0809
FIGURE NO:

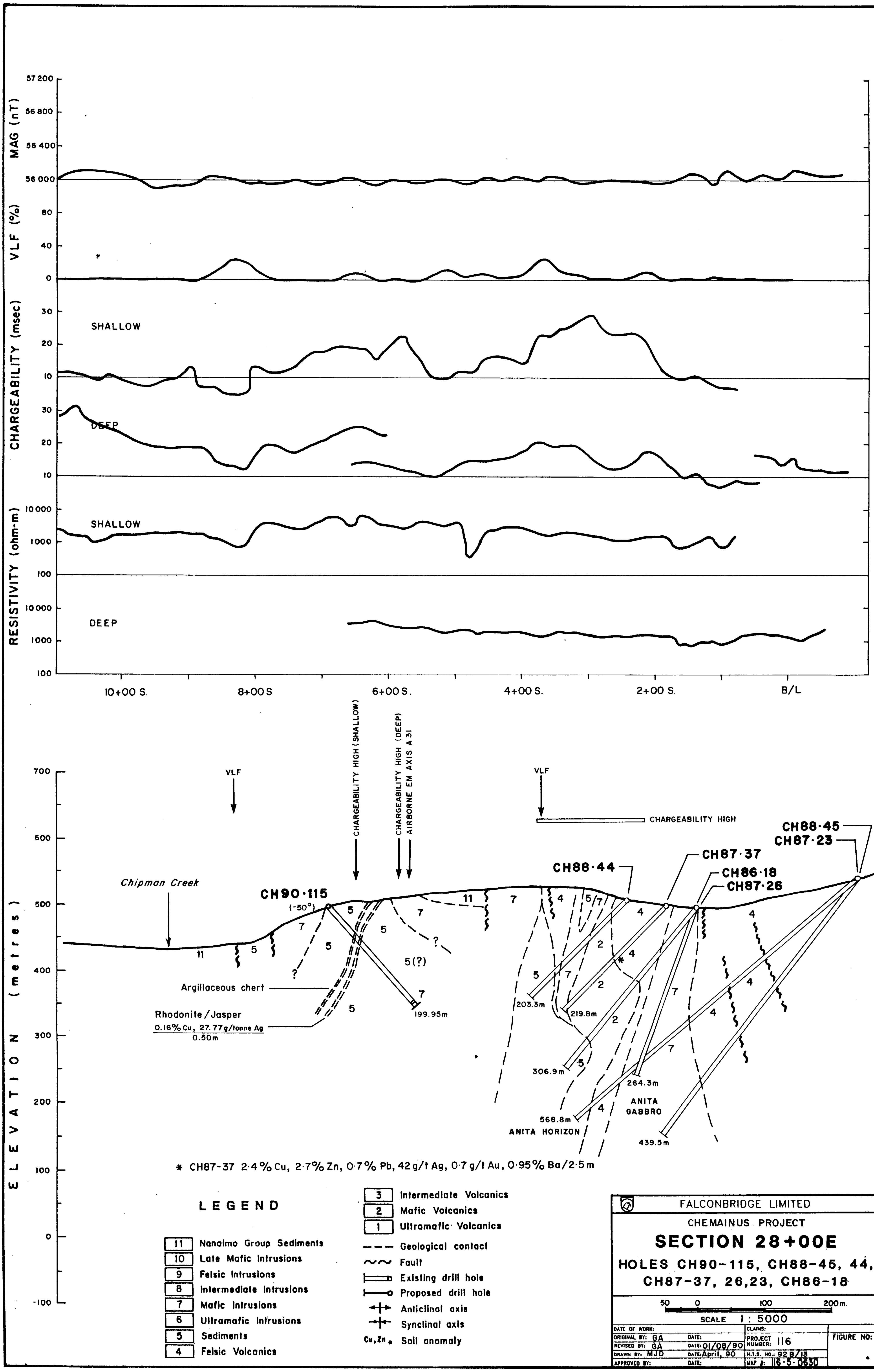
SOUTH OF ANITA AREA
SECTION 28+00E

OBJECTIVE/TARGET: To test INPUT trend A-31 and IP Trend CN-2.

HOLE #	LOCATION	AZIMUTH	DIP	LENGTH
CH90-115	28+00E, 6+87S	030°	-50°	199.95m

RESULTS:

The hole was predominantly in cherty siltstones of the Fourth Lake Formation for its entire length, well south of the McLaughlin Ridge Formation volcanics which host the Anita horizon mineralization. Argillaceous sediments with 1-2% pyrite in thin films on fracture surfaces were intersected from 63.2 to 64.97m. This unit may be the source for the Schlumberger IP anomaly. A jasper-rhodonite horizon was intersected from 73.90-75.29m. At 80.50m a 1cm zone contained 10% each of fine-grained disseminated sphalerite and pyrite. Thin pyrite films on fracture surfaces may be the source for the Gradient IP/INPUT anomaly, although no outstanding mineralization was noted in the target area.



MAG (nT)
57 200
56 800
56 400
56 000
VLF (%)
80
40
0
CHARGEABILITY (msec)
SHALLOW
30
20
10
DEEP
30
20
10
RESISTIVITY (ohm-m)
SHALLOW
10 000
1000
100
DEEP
10 000
1000
100
10+00 S.
8+00 S
6+00 S.
4+00 S.
2+00 S.
B/L
CHARGEABILITY HIGH (SHALLOW)
CHARGEABILITY HIGH (DEEP)
AIRBORNE EM AXIS A 31
VLF
VLF
CHARGEABILITY HIGH
ELEVATION (metres)
700
600
500
400
300
200
100
0
-100
Chipman Creek
CH90·115
(-50°)
CH88·44
CH87·37
CH86·18
CH87·26
CH88·45
CH87·23
Argillaceous chert
Rhodonite / Jasper
0.16% Cu, 27.77 g/tonne Ag
0.50m
199.95m
203.3m
219.8m
306.9m
264.3m
568.8m
439.5m
ANITA HORIZON
ANITA GABBRO
* CH87-37 2·4% Cu, 2·7% Zn, 0·7% Pb, 42 g/t Ag, 0·7 g/t Au, 0·95% Ba/2·5 m
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 28+00E
HOLES CH90-115, CH88-45, 44, CH87-37, 26,23, CH86-18
50 0 100 200m.
SCALE 1 : 5000
DATE OF WORK:
ORIGINAL BY: GA
REVISED BY: GA
DRAWN BY: MJD
APPROVED BY:
DATE:
DATE: 01/08/90
DATE: April, 90
DATE:
CLAIMS:
PROJECT NUMBER: 116
N.T.S. NO.: 92 B/13
MAP #: 116-5-0630
FIGURE NO:

APPENDIX C

Drill Logs and Tabulated Analytical Results

HOLE NUMBER: CH90-115

FALCONBRIDGE LTD
DRILL HOLE RECORD

DATE: 1-August-1990
IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: CHEMAINUS PROJECT
PROJECT NUMBER: 116
CLAIM NUMBER: CHIP 2
LOCATION: ANITA

PLOTTING COORDS GRID: CHIP
NORTH: 687.00S
EAST: 2800.00E
ELEV: 497.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 0.00

COLLAR DIP: -50° 0' 0"
LENGTH OF THE HOLE: 199.95m
START DEPTH: 0.00m
FINAL DEPTH: 199.95m

COLLAR ASTRONOMIC AZIMUTH: 30° 0' 0"
GRID ASTRONOMIC AZIMUTH: 30° 0' 0"

DATE STARTED: April 19, 1990
DATE COMPLETED: April 22, 1990
DATE LOGGED: April 23, 1990

COLLAR SURVEY: NO
MULTISHOT SURVEY: YES
RQD LOG: NO

PULSE EM SURVEY: NO
PLUGGED: NO
HOLE SIZE: NQ

CONTRACTOR: BURWASH
CASING: 3.05m NW
CORE STORAGE: CHEMAINUS

PURPOSE: UTM coords: 5,416,445N 429,803E Hole lined with plastic pipe

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
0.00	30° 0'	-50° 0'	SING.SHOT	OK		-	-	-	-	-	
78.30	31° 0'	-49°30'	SING.SHOT	OK		-	-	-	-	-	
157.60	35° 0'	-47°30'	SING.SHOT	OK		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
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-	-	-	-	-		-	-	-	-	-	
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-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 3.80	CASING «┤ob├»					
3.80 TO 63.20	CHERTY SEDIMENTS «5rpk»	Light grey to dark brown or greenish-grey fine-grained thinly bedded (<1mm - several cm) sandstone, siltstone (about 30%) and chert or cherty sediment (about 70%). Sandstone beds are moderately soft and in coarser-grained beds composed of about 25% vaguely bounded light grey grains (feldspar ?) Some thinly bedded intervals appear to have primary sedimentary features (see remarks). 2.80 - 7.62 Dark grey to brown 7.62 - 26.78 Medium greenish-grey 26.78 - 26.96 Fine-grained mafic dyke 26.96 - 45.00 Dark greenish-grey to ruddy brown cherty sediments with about 5% fine-grained epidote as irregular 'knots' and beds. Possibly replacement of calcareous beds. 50.62 - 50.78 Medium grey medium-grained calcareous horizon parallel to bedding. 56.10 - 56.33 Pale greenish-grey relatively soft fine-grained groundmass with 10% rounded epidote masses to 2mm. Epidote concentrated along contacts at 40° to CA. Possibly an altered dyke. 62.00 - 63.20 Distinct colour difference from rest of unit. Interbedded medium greenish-grey and dark blue-grey siliceous siltstone. STRUCTURE		29.60 - 45.00 About 5% epidote replacing narrow beds up to 1 cm wide.	26.90 - 63.20 Trace to 2% (average <1%) fine to medium-grained crystalline disseminated and fracture - related pyrite. Pyrite on hairline fractures which parallel faulting. Rare coarse-grained pyrite cubes up to 5 mm in diameter. Minor pyrrhotite on some fractures.	15.25 - Possible ripple marks. Wavelength about 1.5 cm. 35.60 - 35.70 Graded bedding (2 sets) and flame structure. Tops up hole. CORE RECOVERY: 27.43 - 28.96 1.1/1.58 = 72%

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		BEDDING: 2.80 - 10.70 55-60°CA 10.70 - 40.00 80° CA AVERAGE 40.00 - 50.50 50-55° CA 50.50 - 54.00 65-75° CA 54.00 - 63.20 60-65° CA FAULT ZONES: 7.10 - 7.62 Slickensided fractures at 35° CA 7.83 - 8.53 Slickensides 90° CA 10.67 - 11.28 Fractures about 0°CA 11.73 - 13.72 Fractures about 30° CA intersecting bedding at about 90° 13.65 1 cm gouge 14.40 - 14.85 Badly broken. Minor gouge. 15.50 - 16.05 Broken core. Fractures at 30° CA 15.85 - 16.00 Gougy 18.30 - 19.20 Broken core. Fractures 0 - 30°CA 21.00 - 21.40 Broken core. Sheared about 30°CA Minor gouge. 23.00 - 25.00 Broken core. Fractures 30-35° CA 24.94 - 24.97 3 cm gouge. 26.00 - 26.80 Badly broken. Fractures 10 - 30° CA. 27.80 - 32.90 Broken, blocky core. Fractures 10 - 30° CA. Minor calcite stringers along fractures. 35.90 - 36.27 Broken core. 42.40 - 42.70 Broken core. Fractures about 25° CA, intersecting bedding at about 40°. 46.05 - 46.10 Gouge and pulverized rock. 90° CA 52.08 - 52.14 As above. Parallel bedding at 75°CA. 53.70 - 54.00 Fracture zone. Fractures about 30° CA. <1mm calcite stringers. 56.40 - 57.00 Fracture zone and pulverized rock Fractures at 30° CA. 61.20 - 62.20 Weak fracture zone subparallel to CA to 30° CA. Fracture filled with vuggy quartz - calcite stringers. VEIN: 43.55 - 2 cm white calcite vein at 55° CA,				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		parallel to bedding.				
63.20 TO 64.97	ARGILL-ACEOUS SEDIMENTS «5rop»	Thinly interbedded medium grey fine-grained siltstone and black cherty argillite. 63.20 - 63.95 Shattered and flooded with 10 - 20% white calcite stringers up to 2 mm wide. Fracture surfaces throughout unit coated with soft black powder. Carbonaceous (?). STRUCTURE BEDDING: 63.20 - 63.90 75° CA 63.90 - 64.97 40 - 45°CA CALCITE STRINGERS Subparallel and at 70°CA. SHEAR 63.86 - 3 mm gouge at 70° CA.			63.20 - 64.97 1 - 2% pyrite as thin films on fracture surfaces.	Possibly the source for the Schlumberger IP anomaly. The unit is nonconductive except on pyrite films.
64.97 TO 73.90	CHERTY SEDIMENTS «5rpk»	Medium grey to dark greenish-grey, fine-grained thinly bedded (<1 mm to 2 cm) cherty siltstone. 2 - 3% sporadic epidote as irregular rounded knots up to 1 cm, thin horizons and alteration haloes around hairline fractures. STRUCTURE BEDDING: 50 - 60 CA		Sporadic epidotization.	1 - 2% fine-grained crystalline disseminated and fracture coating pyrite. Pyrite commonly associated with epidote.	
73.90 TO 74.38	JASPER-BEARING CHERTY SEDIMENTS «5rpk,jasp»	Dark grey to dark red-brown fine-grained thinly interbedded cherty sediment and jasper. 1 - 2% epidote along fractures and replacing thin beds up to 2 mm thick. STRUCTURE BEDDING: 60° CA		Sporadic epidotization.	5% disseminated medium-grained magnetite. <1% disseminated pyrite	Strongly magnetic.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
74.38 TO 74.88	RHODONITE «5,rhodon.»	Pale pink rhodonite and irregular patches of a light yellowish-brown fine-grained hard material (combined about 50%) cut by white calcite stringers and lastly fractured and flooded by grey chalcedonic quartz.			1 - 2% disseminated Chalcopyrite. 5% disseminated 1 - 2 mm blebs of MnO.	Sharp contacts parallel to bedding at 60° CA. Probably stratiform.
74.88 TO 75.29	JASPER BRECCIA «5,jasp.bx»	Bright red to dull purplish-grey fine-grained angular jasper fragments up to 2 cm in diameter in a matrix of medium grey very thinly banded chalcedonic quartz.			3 - 5% fine-grained magnetite along fractures. 1 - 2% fine-grained crystalline pyrite along fractures and disseminated. <1% fine-grained disseminated Chalcopyrite.	Unit is moderately magnetic.
75.29 TO 189.10	CHERTY SEDIMENTS «5rpk»	Predominantly dark grey with lesser amounts of medium brownish to greenish-grey fine-grained thinly (<1 mm - 10 cm) bedded cherty siltstone. Bedding is commonly slightly crenulated. These may be soft sediment features but many of the small-scale folds have well healed crosscutting hairline fractures. 75.29 - 80.90 Predominantly dark greenish-grey. 188.85 - 189.10 Light grey quartz vein or silicified zone adjacent to gabbro contact. STRUCTURE BEDDING: 75.29 - 87.00 60 - 65° CA. 87.00 - 189.10 75 - 90° CA. FRACTURES: Well-healed hairline fractures at 20 - 30° CA, commonly with a few mm offset of bedding. VEINS: 82.71 - 82.76 4 cm barren white quartz vein 45° CA. (About 30° to bedding).		75.29 - 80.90 Sporadic weak epidotization.	75.29 - 189.1 Ubiquitous sporadic pyrite as thin films on fracture surfaces. Less than 1% overall. 80.50 - 10% each of pyrite and red-brown fine-grained Sphalerite across 1 cm, associated with 5 mm diameter quartz - epidote knot. 92.66 - 92.75 2 - 5mm calcite stringer at 20° CA with 5% pyrite and traces of chalcopyrite. 100.40 - 100.50 2-3% fine-grained disseminated and fracture-related pyrite in a 10cm quartz-flooded zone. 101.93 - 101.95 5-8% fine-grained fracture-related pyrrhotite in a narrow quartz-flooded zone. 135.61 - 1 mm mass of reddish-brown Sphalerite on hairline fractures. Associated with pyrite. 135.94 - Sporadic pyrite (About 15%) along 3 mm wide calcite flooded fracture at 15° CA. 137.60 - 1 cm wide quartz-flooded fracture zone with 20% pyrite. Fracture at 15° CA. 165.40 - 1 cm quartz-flooded	85.40 - 2 sets of graded bedding. Tops up hole. 130.60 - Graded bed. Tops up hole. No conductive zones found in deep IP target area. 152.62 - Graded bed. Tops up hole. 172.00 - Two sets of graded bedding. Tops up hole. 186.30 - 186.40 2 sets of graded bedding. Tops up hole.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		85.00 - 85.09 5 cm quartz 35° CA. 86.00 - 86.27 Barren white quartz (85%) and calcite (15%) vein at 42° CA. 81.50 - 81.90 Carbonate-quartz stringer zone 30° CA. ZONES OF BROKEN CORE: 92.97 - 93.30 Fractures 50° and subparallel to CA. 98.10 - 98.60 Fractures subparallel to CA. Minor gouge. 135.94 - 138.69 Badly broken. 140.30 - 143.70 Fractures 30° to subparallel to CA. 143.50 - 143.70 5 cm wide breccia zone with 20% calcite cement. Barren. 149.00 - 150.30 Broken core. 156.40 - 157.60 Broken core 30° to subparallel to CA. 163.90 - 168.00 Broken core 15 - 30° to CA. Bedding to fracture angle about 65°. 146.48 - 146.58 Irregular white 3 - 5 cm quartz vein about 30° CA with 2 - 3% pyrite. 171.80 - 172.21 1 mm - 3 cm white calcite stringer at 10° CA.		180.40 - 180.80 Silicified to a medium blue-grey.	fracture zone at 15° CA. 20% fine-grained crystalline pyrite. 180.51 - 1 cm wide zone of 1 mm pyrite stringers at 50° CA. 183.32 - 2, 1 - 3 mm wide bedding parallel (90° to CA) band of fine-grained crystalline pyrite in a cherty grey host.	
189.10 TO 194.20	GABBRO «7sb»	Dark green fine to medium-grained feldspar glomerophyric (phenocrysts up to 4 mm, average 1 - 2 mm) weakly to moderately foliated gabbro Sharp contacts at 30° and 25° CA. 189.10 - 190.35 Chill margin. 193.50 - 194.20 Chill margin. 192.10 - 194.20 5% prominent leucoxene suggesting possible reaction with sediments. STRUCTURE FOLIATION: 35 to core axis. STRINGERS: Irregular 1 mm - 1 cm white quartz-calcite stringers 65 - 70° to core axis.				192.10 - 194.20 5% leucoxene suggesting possible reaction with host sediments.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
194.20 TO 199.95	CHERTY SEDIMENTS «5rpk»	As above gabbro. STRUCTURE BEDDING: Average 70° to core axis. 199.95 E.O.H.				
199.95 TO 199.95	END OF HOLE	Lined with plastic pipe.				

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
VB00001	62.00	63.20	2900.0	70.0	151.0	1.1	2.5	8.0	20.0	9.0	9.0	0.5	455.0	32.	1.	SWUB
VB00002	63.20	64.97	3300.0	117.0	189.0	1.2	2.5	35.0	117.0	9.0	82.0	2.0	569.0	38.	2.	SAUBG
VB00003	64.97	66.37	2500.0	39.0	66.0	0.5	2.5	7.0	15.0	7.0	6.0	0.5	612.0	37.	1.	SHUB
VB00004	72.50	73.90	2000.0	5.0	59.0	0.3	8.0	12.0	21.0	5.0	5.0	0.5	1544.0	8.	1.	SHUB
VB00005	73.90	74.38	950.0	34.0	104.0	0.7	2.5	25.0	70.0	5.0	7.0	0.5	4857.0	25.	1.	SOUB
VB00006	74.38	74.88	110.0	1600.0	85.0	27.8	250.0	14.0	101.0	15.0	48.0	0.5	33705.0	95.	2.	SHU
VB00007	74.88	75.29	70.0	407.0	33.0	2.7	52.0	5.0	48.0	4.0	6.0	0.5	4103.0	93.	2.	SO
VB00008	75.29	76.50	1700.0	46.0	121.0	0.4	8.0	5.0	101.0	3.0	2.5	0.5	2168.0	28.	1.	SHUB
VB00009	76.50	77.72	1800.0	38.0	118.0	0.7	2.5	6.0	78.0	3.0	6.0	0.5	1196.0	24.	1.	SHUB
VB00010	77.72	79.15	1800.0	25.0	126.0	1.0	2.5	6.0	61.0	4.0	2.5	0.5	1186.0	17.	1.	SHUB
VB00011	79.15	80.20	2100.0	32.0	114.0	1.3	2.5	7.0	64.0	6.0	2.5	0.5	1143.0	22.	1.	SHUB
VB00012	80.20	80.77	1800.0	40.0	326.0	1.1	14.0	8.0	69.0	6.0	2.5	0.5	1090.0	11.	1.	SHUB
VB00013	80.77	82.22	950.0	79.0	53.0	1.3	30.0	6.0	37.0	4.0	2.5	0.5	694.0	60.	1.	SHUB
VB00014	84.89	86.40	1700.0	31.0	48.0	0.6	7.0	10.0	28.0	5.0	10.0	0.5	620.0	39.	1.	SHUB
VB00015	92.42	92.97	3000.0	55.0	256.0	0.8	13.0	7.0	21.0	7.0	12.0	0.5	430.0	18.	1.	SHUB
VB00016	100.00	100.81	1800.0	42.0	58.0	0.5	13.0	5.0	9.0	10.0	2.5	0.5	370.0	42.	2.	SHUB
VB00017	100.81	101.64	2100.0	48.0	59.0	0.5	39.0	7.0	13.0	7.0	9.0	0.5	458.0	45.	0.	SHUB
VB00018	101.64	102.41	2700.0	29.0	55.0	0.6	12.0	7.0	13.0	6.0	6.0	0.5	406.0	35.	2.	SHUB
VB00019	134.95	136.44	3500.0	33.0	59.0	0.6	17.0	8.0	19.0	5.0	7.0	0.5	498.0	36.	1.	SHUB
VB00020	136.44	137.95	3600.0	35.0	46.0	0.6	35.0	6.0	16.0	2.0	2.5	0.5	494.0	43.	1.	SHUB
VB00021	137.50	138.10	2300.0	46.0	45.0	0.7	14.0	8.0	16.0	4.0	10.0	0.5	575.0	51.	1.	SHUB
VB00022	138.10	139.63	3500.0	41.0	59.0	0.6	10.0	8.0	27.0	4.0	6.0	0.5	652.0	41.	1.	SHUB
VB00023	142.76	144.05	3800.0	40.0	80.0	0.5	134.0	10.0	17.0	27.0	2.5	0.5	1200.0	33.	1.	SHUB

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
VB00024	146.16	146.76	3800.0	40.0	81.0	0.4	7.0	9.0	18.0	5.0	2.5	0.5	1300.0	33.	1.	SHUB
VB00025	165.40	165.81	1600.0	41.0	39.0	0.4	58.0	9.0	10.0	15.0	6.0	0.5	400.0	51.	1.	SHUB
VB00026	179.25	180.36	2800.0	47.0	57.0	0.4	2.5	8.0	13.0	5.0	2.5	0.5	600.0	45.	1.	SHUB
VB00027	180.36	180.87	1300.0	64.0	64.0	0.5	34.0	7.0	16.0	10.0	9.0	0.5	500.0	50.	1.	SHUB
VB00028	180.87	182.15	2800.0	31.0	64.0	0.3	2.5	8.0	12.0	10.0	2.5	0.5	500.0	33.	1.	SHUB
VB00029	182.15	183.00	2400.0	24.0	46.0	0.2	12.0	6.0	8.0	9.0	2.5	0.5	400.0	34.	1.	SHUB
VB00030	183.00	183.56	2500.0	71.0	85.0	0.4	9.0	10.0	25.0	10.0	5.0	0.5	500.0	46.	1.	SHUB
VB00031	183.56	184.84	1600.0	34.0	60.0	0.3	25.0	7.0	9.0	11.0	2.5	0.5	500.0	36.	1.	SHUB

DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MAJOR ELEMENTS)

SAMPLE NUMBER	FROM	TO	%SIO2	%AL2O3	%CAO	%MGO	%NA2O	%K2O	%FE2O3	%TIO2	%P2O5	%MNO	%LOI	SUM	AI	NACA	ALUM
VB02501	4.00	7.00	75.41	10.81	0.82	1.91	1.04	2.70	3.97	0.35	0.10	0.12	2.23	99.46	71.	2.	237.
VB02502	36.00	39.00	80.80	8.39	0.75	1.63	0.88	1.74	3.04	0.30	0.07	0.08	1.67	99.35	67.	2.	249.
VB02503	67.50	70.00	80.31	6.75	2.59	1.53	0.65	1.15	3.86	0.30	0.12	0.15	2.31	99.72	45.	3.	154.
VB02504	96.32	98.60	77.19	9.85	1.59	2.18	1.53	1.31	3.68	0.43	0.11	0.08	2.23	100.18	53.	3.	222.
VB02505	185.63	188.52	77.79	9.06	1.64	1.64	2.23	1.16	3.65	0.35	0.12	0.07	1.90	99.61	42.	4.	180.

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
VB02501	4.00	7.00	69.0	145.0	3156.0	20.0	101.0	20.0	34.0	42.0	20.0	SHUB		DBP
VB02502	36.00	39.00	44.0	120.0	2522.0	20.0	85.0	20.0	194.0	56.0	20.0	SHUB		DBP
VB02503	67.50	70.00	31.0	177.0	2098.0	20.0	49.0	20.0	27.0	49.0	20.0	SHUB		DBP
VB02504	96.32	98.60	37.0	162.0	2149.0	25.0	83.0	20.0	37.0	61.0	20.0	SHUB		DBP
VB02505	185.63	188.52	35.0	182.0	3252.0	21.0	94.0	20.0	23.0	59.0	20.0	SHUB		DBP

HOLE NUMBER: CH90-131

FALCONBRIDGE LTD
DRILL HOLE RECORD

DATE: 8-December-1990
IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: CHEMAINUS PROJECT
PROJECT NUMBER: 116
CLAIM NUMBER: CHIP 1
LOCATION: Anita

PLOTTING COORDS GRID: Chip
NORTH: 203.00S
EAST: 2700.00E
ELEV: 470.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 0.00

COLLAR DIP: -71°30' 0"
LENGTH OF THE HOLE: 380.09m
START DEPTH: 0.00m
FINAL DEPTH: 380.09m

COLLAR ASTRONOMIC AZIMUTH: 209° 0' 0"

GRID ASTRONOMIC AZIMUTH: 30° 0' 0"

DATE STARTED: November 6, 1990
DATE COMPLETED: November 10, 1990
DATE LOGGED: November 12, 1990

COLLAR SURVEY: YES
MULTISHOT SURVEY: YES
RQD LOG: NO

PULSE EM SURVEY: YES
PLUGGED: NO
HOLE SIZE: NQ

CONTRACTOR: Burwash Contract Drilling
CASING: 6.1m NW
CORE STORAGE: Chemainus

PURPOSE: To test the Anita horizon and to provide deep access for a PEM survey.

DIRECTIONAL DATA: UTM Coordinates: 5,416,920N 429,962E

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
0.00	0° 0'	0° 0'	SING.SHOT			-	-	-	-	-	
154.53	0° 0'	0° 0'	SING.SHOT		Blank	-	-	-	-	-	
172.21	214°30'	-66° 0'	SING.SHOT	OK		-	-	-	-	-	
227.08	216°30'	-65° 0'	SING.SHOT	OK		-	-	-	-	-	
380.09	219°30'	-61° 0'	SING.SHOT	OK		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 6.10	CASING «-|ob|-»					
6.10 TO 8.71	FELSIC TUFF TO LAPILLI TUFF «4a,4b»	Mottled medium to light blue-grey fine-grained sericite schist with vague lithic fragments (?) up to 1 cm x 2 cm flattened parallel to foliation. STRUCTURE: FOLIATION: 25 - 35° CA.			3-4% fine-grained disseminated pyrite. Sporadic distribution.	
8.71 TO 11.90	MAFIC DYKE «7r»	Medium greenish-grey to pinkish-grey very fine-grained aphanitic homogeneous massive to banded mafic (intermediate?) dyke. Upper contact: Sharp at 50° CA. Lower contact: Sharp at 65° CA. Quartz-calcite stringer along contact. STRUCTURE: <1 mm to 1 cm colour banding and stringers 25 - 45° CA.			5 - 6% fine-grained pyrite, disseminated and in bands/stringers up to 1 cm wide. Traces pyrrhotite and CHALCOPYRITE.	
11.90 TO 49.00	FELSIC TUFF «4a»	Mottled medium to light bluish-grey fine-grained sericite schist. 23.20 - 23.35 - Mafic dyke parallel to foliation. 35.0 - 35.66 - Lapilli tuff. 38.0 - 49.0 - Alteration zone. Sporadically siliceous weak stringer zone, with quartz-carbonate stringers and veins up to 10 cm wide in a stockwork. Foliation less pronounced. Vague feldspar phenocrysts up to 2 mm. Stringers crosscut and parallel foliation. STRUCTURE: FOLIATION: 35 - 40° CA.		16.4 - 17.4 - Weak to moderate sporadic silicification. 38.0 - 49.0 - Weak sporadic silicification.	11.9 - 38.0 - 3-8% (average 5%) fine-grained sporadically distributed pyrite; disseminated and concentrated in discontinuous foliation - parallel bands and lenses up to 3 mm wide. 15.6 - 16.15 - 8-10% pyrite. 25.60 - 25.70 - 30-40% fine to medium-grained pyrite in a calcareous groundmass. 27.73 - 27.90 - 40-50% fine to medium-grained pyrite. 38.0 - 49.0 - Sporadic 2-4% pyrite.	Sulphide content drops in silicified zones.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
49.00 TO 53.40	FELDSPAR PHYRIC FELSIC LAPILLI TUFF «4bb»	Mottled medium to light blue-grey fine-grained sericite schist with up to 30% slightly darker than groundmass flattened lithic fragments up to 1 cm x 5 mm, and clusters of feldspar phenocrysts up to 2 cm in diameter which probably define lithic fragments. Contacts gradational. STRUCTURE: FOLIATION: 35 - 45° CA.		50.9 - 53.4 - Weak to moderate sporadic silicification.	3-5% fine-grained disseminated pyrite with local concentrations along 1-2 cm bands parallel to foliation.	
53.40 TO 70.34	FELSIC TUFF «4a»	Interbanded (generally 1-5 cm) light and medium to dark grey very fine-grained ash tuff. The darker bands or beds are hard and could be cherty in nature. They are commonly discontinuous and appear to be breaking up in the lighter sericitic groundmass. 56.3 - 56.5 - Fine-grained pinkish-grey intermediate dyke parallel to foliation. 60.27 - 60.4 - Dyke as 56.3 - 56.5 - 7-8% fine-grained pyrite. 63.2 - 63.9 - Very soft dark grey to light blue-green soapy sericitic ash tuff. STRUCTURE: FOLIATION: 53.4 - 58.0 - 45° CA. 58.0 - 63.0 - 50 - 60° CA. 63.0 - 66.0 - 35 - 40° CA. 66.0 - 70.34 - 45° CA. FAULT: 63.0 - 2 cm gouge/crush zone.			1-4% very fine-grained disseminated pyrite with local concentrations up to 7-8%. 54.27 - 54.56 - 5-7% fine-grained disseminated pyrite. 58.57 - 59.50 - 5-7% fine-grained pyrite concentrated along 1 mm - 1 cm bands parallel to foliation. 59.50 - 63.0 - 3-4% pyrite as above. 63.0 - 64.4 - 5-8% fine-grained disseminated pyrite. 64.4 - 70.34 - 3-5% fine-grained disseminated pyrite.	
70.34 TO 74.70	ANITA SULPHIDE ZONE «4a, Sulphide Zone»	Blue-grey fine-grained sericite schist (felsic tuff) with 50% beds of massive fine to medium-grained pyrite up to 50 cm thick. Upper contact appears to be conformable. Lower contact along a chloritic shear parallel to foliation. STRUCTURE: BEDDING/BANDING AND FOLIATION: 50° CA.			72.50 - 72.80 - 20% fine-grained pyrite in bands up to 2 cm thick with 5% CHALCOPYRITE in irregular masses up to 1 cm wide. 72.96 - 73.97 - Core of zone. 70% fine-grained massive pyrite. Traces CHALCOPYRITE.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		FAULT: 70.86 - 71.40 - Broken core, gouge, sheared 80° CA. Chunks of massive pyrite in zone.			73.97 - 74.70 - 30% fine-grained massive pyrite in beds/bands up to 15 cm thick. Traces CHALCOPYRITE.	
74.70 TO 87.13	FELSIC TUFF «4a»	Medium to light blue-grey fine-grained sericite schist. STRUCTURE: FOLIATION: 35 - 45° CA.			74.70 - 83.3 - 3-5% fine-grained pyrite; disseminated and concentrated in discontinuous foliation - parallel bands up to 1 cm wide. Traces to 1% CHALCOPYRITE in masses up to 5 mm wide. 83.3 - 84.7 - 3-4% each of pyrite and pyrrhotite and 1-2% CHALCOPYRITE disseminated and in bands and irregular masses up to 1 cm in diameter in a felsic host. Possible SPHALERITE (?). 84.7 - 87.13 - as 74.7 - 83.3. Traces pyrrhotite.	
87.13 TO 111.22	MAFIC TUFF «2a»	Medium to dark green fine-grained massive to thinly bedded sandy to ash tuff with rare 1-2 mm lithic fragments. Poorly foliated, homogeneous. Upper contact abrupt, conformable. Rock is cut by abundant hairline stringers and fractures at all angles to core axis with associated bleaching of host to lighter greenish-grey. 109.25 - 111.22 - Greenish to brownish-grey thinly bedded feldspar phyric mafic tuff. STRUCTURE: BEDDING: 40° CA. FAULTS: 101.0 - 101.2 - Broken core. Sheared 40° CA. 106.4 - 107.29 - Broken core. Sheared 20° CA.			101.75 - 101.95 - Light greenish-grey fine-grained feldspar phyric zone (fragment?) with 5% fracture-related pyrrhotite. 107.29 - 107.4 - 2 cm wide quartz-flooded zone adjacent fault. 30% pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
111.22 TO 113.60	FELDSPAR PHYRIC MAFIC TUFF «2ab»	Medium to dark greenish-grey fine-grained massive groundmass with 20% 1-3 mm subhedral light greenish-grey stubby feldspar crystal fragments and rare feldspar phyric lithic fragments up to 5 mm in diameter. Massive, homogeneous.				
113.60 TO 113.87	MAFIC TUFFACEOUS SEDIMENT «2qk»	Medium greenish-grey thinly bedded fine-grained sediment. STRUCTURE: BEDDING: 45° CA.				
113.87 TO 116.41	FELDSPAR PHYRIC MAFIC TUFF «2ab»	Medium greenish-grey massive homogeneous sandy tuff with 20% <1 mm stubby dark green feldspar crystals (mafics?)				
116.41 TO 118.08	MAFIC TUFFACEOUS SEDIMENT «2qb»	Dark brownish-grey fine-grained massive homogeneous sandy tuff with 5% stubby feldspar crystals up to 1 mm.			118.88 - 118.95 - 8% fracture-related pyrite. Traces CHALCOPYRITE.	
118.08 TO 152.08	FELDSPAR (+MAFIC?) PHYRIC MAFIC CRYSTAL TUFF «2ab»	Medium bluish to greenish-grey fine-grained groundmass with 30 - 40% 1-2 mm stubby subhedral to rounded dark green feldspar crystals and chloritic pseudomorphs after feldspar or mafic crystals. Massive. Homogeneous. Rare lithic fragments up to 5 mm. The rock is cut by hairline fractures at all angles to core axis with associated light green alteration. 149.93 - 150.35 - Medium greenish-grey fine-grained massive to thinly bedded tuffaceous sediment. 150.35 - 152.08 - Coarse-grained sandy feldspar phyric crystal mafic massive tuff with 5% fine-grained lithic fragments up to 1.5 cm x 5 mm. STRUCTURE: 137.40 - 137.86 - Quartz vein zone at 40° CA in a chloritized host.				The rock is very fresh in appearance and may not be part of the McLaughlin Ridge Formation.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		FOLIATION: Weak. 45° CA. 149.93 - 150.35 - Bedding: 35° CA.				
152.08 TO 160.52	SILTSTONE, CHERTY SILTSTONE (TUFFACEOUS SEDIMENT?) «5jkp(2q?)»	Medium to dark greenish to brownish-grey thinly bedded (<1 mm - 20 cm) siltstone (tuffaceous?) and cherty siltstone. Very fresh in appearance. Fourth Lake Formation? STRUCTURE: BEDDING: 40° CA.				
160.52 TO 162.50	FELDSPAR PHYRIC MAFIC TUFF(?) (INTRUSIVE ?) «2ab»	Medium to dark greenish-grey fine-grained equigranular groundmass of feldspar and chlorite (?) with 5% </=1 mm stubby feldspar crystals. Massive. Homogeneous. Conformable.			3-4% fine-grained disseminated pyrite.	
162.50 TO 170.24	FELDSPAR PHYRIC MAFIC CRYSTAL TUFF TO LAPILLI TUFF «2ab,2bb»	Medium greenish-grey fine-grained groundmass hosting 30% <1 - 3 mm feldspar crystal fragments and 5-10% indistinct feldspar lithic fragments up to 2 cm in diameter.		Spotty epidotic alteration.		
170.24 TO 171.55	SILTSTONE, CHERTY SILTSTONE/ TUFFACEOUS SEDIMENT «5jp,2q»	Interbedded brownish thinly bedded cherty siltstone and fine-grained sandy greenish-grey massive tuffaceous sediment. STRUCTURE: BEDDING: 40° CA.				
171.55 TO 203.07	FELDSPAR PHYRIC MAFIC CRYSTAL TUFF «2ab»	Medium greenish-grey fine-grained groundmass hosting 20% </=1 mm feldspar crystal fragments. Massive. Homogeneous. 171.55 - 182.4 - 5-10% quartz stringers up to 5 cm wide at 60° CA.				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
203.07 TO 207.45	FELDSPAR PHYRIC MAFIC LAPILLI TUFF «2bb»	Medium brownish to greenish coarse-grained sandy feldspar phyric (25% 1-2 mm) lapilli tuff with aphanitic and feldspar phyric lithic fragments up to 2 cm x 1 cm. Massive. Homogeneous. Fresh in appearance. 203.5 - 203.73 - Fine-grained bed. Some lithic fragments are amygdaloidal. STRUCTURE: BEDDING: 203.5 - 203.73 - 40° CA.				This unit is similar to volcanic units drilled on the north part of the holyoak grid.
207.45 TO 210.10	MAFIC TUFF, TUFFACEOUS SEDIMENT «2a,2q»	Interbedded greenish-grey medium-grained feldspar phyric sandy, massive crystal tuff and dark grey thinly bedded siltstone or tuffaceous sediment.				
210.10 TO 210.80	FELDSPAR PHYRIC MAFIC TUFF «2ab»	Dark grey fine-grained groundmass hosting 15-20% white stubby 1-2 mm diameter subhedral feldspar crystals. Siliceous groundmass.				
210.80 TO 211.60	CHERT «5mk»	Medium bluish to brownish-grey thinly bedded to massive chert. Fractured and flooded by quartz-carbonate stringers. STRUCTURE: BEDDING: 40° CA.				
211.60 TO 211.95	MAFIC TUFF «2a»					
211.95 TO 216.85	AMYG-DALOIDAL MAFIC FLOW «2df»	Medium greenish-grey fine-grained massive flow with 15% calcite amygdules up to 1.5 cm x 5 mm (average 2-5 mm). Broken core along both contacts. Appears to be conformable. Fresh appearance.				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
216.85 TO 238.15	INTERBEDDED SILTSTONE AND SANDSTONE/ TUFFACEOUS SEDIMENT «5jk,2q»	Medium brownish-grey fine-grained sandy tuff and siltstone. Thinly bedded to massive. Massive parts up to 1 m wide. Poorly foliated. STRUCTURE: BEDDING: 35 - 40° CA. SHEAR ZONE: 221.7 - 222.10 - Broken core. Sheared 10° CA.				
238.15 TO 247.00	MAFIC TUFF «2ak»	Medium greenish-grey fine-grained massive to thinly bedded sandy mafic tuff. Differentiation from unit above based largely on colour. STRUCTURE: BEDDING: 55 - 60° CA.				
247.00 TO 248.53	SILTSTONE «5jk»	Thinly bedded light to dark brown siltstone. Gradational contact with unit above. STRUCTURE: BEDDING: 45° CA.				
248.53 TO 252.37	MAFIC TUFF «2ab»	Medium to dark greenish-grey fine to medium-grained sandy feldspar crystal tuff. Massive. 249.9 - 250.1 - Thinly bedded cherty tuff. STRUCTURE: BEDDING: 249.9 - 250.1 - 40 - 45° CA.				
252.37 TO 255.12	FELDSPAR PHYRIC MAFIC DYKE «7rb»	Medium to dark green fine-grained massive crystalline aggregate of feldspar and chloritized mafics hosting 5% </=2 mm stubby white feldspar phenocrysts commonly in clusters up to 5 mm in diameter. Typical fine-grained Karmutsen intrusive.				
255.12 TO 256.20	INTER- CALATED MAFIC TUFF AND FELDSPAR	Mafic dykes as above with intervals of fine-grained chloritic mafic tuff (?). Tuff intervals: 255.12 - 255.40 255.67 - 255.76 255.84 - 256.2				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
	PHYRIC MAFIC DYKES «2a,7rb»	STRUCTURE: Contacts sharp 30 - 70° CA.				
256.20 TO 259.00	FELDSPAR PHYRIC MAFIC DYKE «7rb»	As 252.37 - 255.12. Slightly coarser-grained. 257.42 - 257.84 - Fine-grained chloritic foliated mafic tuff.				
259.00 TO 260.65	MAFIC TUFF? «2a?»	Dark green fine-grained chloritic massive mafic tuff with irregular epidotization in thin stringers and brecciated intervals.		Irregular epidotization.		
260.65 TO 263.80	FELDSPAR PHYRIC MAFIC DYKE «7rb»					
263.80 TO 269.55	FAULT ZONE «FZ,2a»	263.8 - 264.15 - Mafic chloritic tuff. Broken core. Sheared subparallel CA. 264.15 - 268.0 - Broken core. Appears to be drilling along contact between mafic dyke and tuff. Sheared subparallel to core axis. 268.0 - 268.6 - Light greenish-grey massive fractured cherty tuff in contact with dark greenish-grey fine-grained mafic dyke or tuff. Contact subparallel to core axis. 268.6 - 269.55 - Sheared gougy dark greenish-grey mafic dyke or tuff. STRUCTURE: Sheared subparallel CA.				
269.55 TO 286.00	LITHIC-FELDSPAR PHYRIC MAFIC CRYSTAL TUFF «2abrs»	Medium greenish-grey medium to coarse-grained sandy tuff with 30% </=2 mm dark green chloritic pseudomorphs after feldspar (mafics?, lithics?) and rounded lithic fragments up to 4 mm. Massive. Homogeneous. Cut by hairline calcite stringers and fractures at all angles to core axis with associated light green alteration.				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		STRUCTURE: 273.25 - 275.0 - Broken core. Fractured subparallel to core axis. 279.2 - 280.0 - As above. 285.0 - 286.0 - As above.				
286.00 TO 294.75	FELDSPAR PHYRIC MAFIC TUFF TO LAPILLI TUFF «2ab,2bb»	Tuff as 269.55 - 286.0 with up to 20% rounded feldspar phyric lithic fragments up to 1 cm in diameter. Massive. Upper contact: Shear at 20° CA. Lower contact: Sharp. 55° CA.				
294.75 TO 300.50	SILTSTONE, CHERTY SILTSTONE, TUFFACEOUS SEDIMENT «5jkp,2qk»	Dark brown to medium greenish-grey thinly bedded siltstone and cherty siltstone interbedded with mafic tuffaceous sediment in massive beds up to 30 cm thick. STRUCTURE: BEDDING: 45 - 50° CA. 294.75 - 295.0 - Sheared parallel to bedding. Broken core.				
300.50 TO 304.35	LITHIC-FELDSPAR PHYRIC MAFIC CRYSTAL TUFF «2abs»	Medium greenish-grey coarse-grained massive crystal tuff with 20 - 25% </=2 mm feldspar crystal fragments and flattened lithic fragments up to 1 cm x 2 cm. STRUCTURE: FOLIATION: Weakly foliated 45° CA.				
304.35 TO 308.74	SILTSTONE, CHERTY SILTSTONE AND TUFFACEOUS SEDIMENT «5jkp,2qk»	As 294.75 - 300.50. Conformable contacts. STRUCTURE: Bedded: 40° CA.				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
308.74 TO 310.84	FELDSPAR PHYRIC MAFIC TUFF «2ab»	Medium greenish-grey fine to medium-grained massive sandy feldspar crystal tuff.				
310.84 TO 312.30	CHERTY FELDSPAR PHYRIC TUFFACEOUS SEDIMENT «2qbp»	Medium greenish-grey to brown cherty equivalent of unit above. Poorly bedded. STRUCTURE: Bedding: 40° CA.				
312.30 TO 324.72	LITHIC-FELDSPAR PHYRIC MAFIC CRYSTAL TUFF TO LAPILLI TUFF «2abs,2bbs»	Medium greenish-grey fine-grained massive groundmass hosting 25% </=3 mm subhedral feldspar crystal fragments and rounded feldspar phyric to aphanitic lithic fragments averaging <3 mm but ranging up to 1 cm in diameter. Homogeneous. Massive. Fresh appearance.				
324.72 TO 325.15	MAFIC TUFFACEOUS SEDIMENT «2qk»	Medium greenish-grey fine-grained silty to cherty thinly bedded tuffaceous sediment. STRUCTURE: BEDDING: 45° CA.				
325.15 TO 346.64	LITHIC-FELDSPAR PHYRIC MAFIC CRYSTAL TUFF «2abrs»	Medium greenish-grey fine to medium-grained massive, homogeneous sandy feldspar crystal tuff with rounded lithic fragments up to 4 mm in diameter. Fresh in appearance. 339.55 - 339.95 - Cherty tuff. 341.95 - 342.65 - Medium greenish-grey thinly bedded silty tuffaceous sediment. 344.06 - 344.58 - Thinly bedded to massive cherty tuff. 344.58 - 344.70 - Amygdaloidal fragment (?). STRUCTURE: 341.95 - 342.65 - Bedded 25° CA.		Pervasive weak epidotic alteration.		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
346.64 TO 352.30	MAFIC FLOW «2df»	Medium greenish-grey fine-grained aphanitic massive +/- mafic phyric (chloritic pseudomorphs) volcanic flow with sporadic calcite and epidote amygdules up to 5 mm.				
352.30 TO 354.72	MAFIC TUFFACEOUS SEDIMENT «2qk»	Dark brownish-grey thinly bedded to massive fine-grained sandy tuff. STRUCTURE: Bedded: 40 - 45° CA.				
354.72 TO 358.85	MAFIC FLOW «2df»	Medium to dark greenish-grey fine-grained massive flow with flattened calcite amygdules up to 5 mm x 1 cm. Sharp conformable contacts. STRUCTURE: FOLIATION/ Flattened amygdules 55° CA.				
358.85 TO 380.09	MAFIC TUFFACEOUS SEDIMENT «2qk» E.O.H.	Dark greenish-grey to brownish-grey fine-grained massive to thinly bedded weakly foliated tuffaceous sediment. STRUCTURE: FOLIATION/BEDDING: 45 - 50° CA. 380.09 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	ETS	ROCK
VB00931	6.10	7.45	1700.0	56.0	111.0	0.1	67.0	7.0	3.0	15.0	9.0	0.5	138.0	34.	4.	TFA-
VB00932	7.45	8.77	2000.0	17.0	24.0	0.1	10.0	6.0	1.0	18.0	2.5	0.5	121.0	41.	4.	TFA-
VB00933	8.77	10.22	760.0	272.0	81.0	0.7	12.0	32.0	10.0	11.0	15.0	0.5	696.0	77.	5.	PMA
VB00934	10.22	11.90	480.0	278.0	89.0	0.9	6.0	32.0	8.0	11.0	10.0	0.5	789.0	76.	5.	PMA
VB00935	11.90	13.28	2200.0	112.0	385.0	0.3	16.0	8.0	0.5	61.0	2.5	0.5	164.0	23.	5.	TFA
VB00936	13.28	14.74	1700.0	148.0	433.0	0.6	25.0	9.0	0.5	75.0	2.5	0.5	50.0	25.	5.	TFA
VB00937	14.74	15.64	1800.0	45.0	35.0	0.9	12.0	10.0	0.5	51.0	6.0	0.5	102.0	56.	5.	TFA
VB00938	15.64	16.15	1700.0	163.0	33.0	1.0	31.0	12.0	0.5	72.0	9.0	0.5	50.0	83.	8.	TFA
VB00939	16.15	17.60	1700.0	51.0	17.0	0.2	8.0	7.0	0.5	17.0	2.5	0.5	50.0	75.	1.	TFA
VB00940	17.60	18.97	2200.0	55.0	20.0	0.3	14.0	8.0	5.0	48.0	14.0	0.5	50.0	73.	5.	TFA
VB00941	18.97	20.30	2200.0	25.0	16.0	2.1	12.0	10.0	0.5	67.0	7.0	0.5	50.0	61.	5.	TFA
VB00942	20.30	21.75	1800.0	21.0	11.0	0.4	6.0	9.0	0.5	32.0	5.0	0.5	50.0	66.	5.	TFA
VB00943	21.75	22.74	1900.0	33.0	20.0	0.5	2.5	9.0	0.5	24.0	6.0	0.5	50.0	62.	5.	TFA
VB00944	22.74	26.06	1500.0	36.0	37.0	0.7	6.0	12.0	3.0	16.0	8.0	0.5	215.0	49.	5.	TFA
VB00945	24.06	25.60	2500.0	43.0	24.0	0.3	22.0	11.0	0.5	27.0	14.0	0.5	50.0	64.	5.	TFA
VB00946	25.60	25.70	1000.0	209.0	54.0	2.0	104.0	24.0	0.5	392.0	167.0	0.5	110.0	79.	35.	TFA
VB00947	25.70	26.82	2400.0	17.0	23.0	0.2	12.0	8.0	0.5	43.0	2.5	0.5	50.0	43.	4.	TFA
VB00948	26.82	27.73	2600.0	24.0	29.0	0.6	15.0	9.0	0.5	130.0	6.0	0.5	50.0	45.	4.	TFA
VB00949	27.73	27.90	800.0	453.0	130.0	1.0	284.0	58.0	0.5	256.0	243.0	0.5	127.0	78.	45.	TFA
VB00950	27.90	29.06	2500.0	184.0	201.0	0.7	38.0	7.0	0.5	81.0	29.0	0.5	50.0	48.	5.	TFA
VB00951	29.06	30.46	3100.0	65.0	27.0	0.8	54.0	10.0	0.5	60.0	19.0	0.5	50.0	71.	6.	TFA
VB00952	30.46	31.50	3300.0	48.0	175.0	0.6	56.0	6.0	0.5	102.0	29.0	0.5	50.0	22.	5.	TFA
VB00953	31.50	32.87	1900.0	35.0	24.0	0.3	20.0	6.0	0.5	16.0	5.0	0.5	50.0	59.	3.	TFA

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)	CR (ppm)	MN (ppm)	CUZN	EIS	ROCK
VB00954	32.87	34.15	1400.0	15.0	15.0	0.3	211.0	8.0	0.5	12.0	2.5	0.5	50.0	50.	5.	TFA
VB00955	34.15	35.66	1200.0	117.0	11.0	0.5	23.0	7.0	0.5	18.0	12.0	0.5	50.0	91.	5.	TFA
VB00956	35.66	36.60	1200.0	255.0	17.0	0.9	36.0	14.0	0.5	11.0	13.0	0.5	124.0	94.	6.	TFA
VB00957	36.60	37.92	1900.0	122.0	17.0	0.3	45.0	11.0	0.5	5.0	13.0	0.5	50.0	88.	5.	TFA
VB00958	37.92	39.62	930.0	130.0	18.0	0.6	28.0	13.0	1.0	7.0	14.0	0.5	150.0	88.	5.	TFA
VB00959	39.62	41.13	720.0	52.0	15.0	0.5	12.0	8.0	0.5	9.0	9.0	0.5	143.0	78.	5.	TFA
VB00960	41.13	42.37	1100.0	30.0	13.0	0.3	2.5	8.0	0.5	6.0	2.5	0.5	203.0	70.	5.	TFA
VB00961	42.37	43.78	1200.0	342.0	13.0	0.8	10.0	10.0	0.5	5.0	2.5	0.5	142.0	96.	4.	TFA
VB00962	54.27	54.56	1800.0	83.0	14.0	0.7	23.0	22.0	11.0	14.0	23.0	0.5	50.0	86.	8.	TFA
VB00963	54.56	55.45	2300.0	51.0	8.0	0.2	21.0	8.0	0.5	3.0	2.5	0.5	50.0	86.	4.	TFA
VB00964	55.45	56.53	1600.0	112.0	24.0	0.4	21.0	20.0	19.0	24.0	12.0	0.5	170.0	82.	5.	TFA
VB00965	56.53	57.91	1800.0	129.0	24.0	0.3	12.0	14.0	6.0	7.0	2.5	0.5	148.0	84.	3.	TFA
VB00966	57.91	58.57	1900.0	115.0	3.0	0.5	10.0	12.0	4.0	3.0	2.5	0.5	50.0	97.	3.	TFA
VB00967	58.57	59.50	1900.0	100.0	6.0	0.4	12.0	12.0	2.0	5.0	2.5	0.5	50.0	94.	5.	TFA
VB00968	59.50	60.11	2700.0	37.0	14.0	0.2	12.0	10.0	4.0	3.0	2.5	0.5	50.0	73.	2.	TFA
VB00969	60.11	60.60	2000.0	128.0	54.0	1.1	39.0	28.0	23.0	11.0	18.0	0.5	264.0	70.	5.	TFA
VB00970	60.60	62.03	2300.0	56.0	4.0	0.5	19.0	15.0	8.0	1.0	9.0	0.5	50.0	93.	5.	TFA
VB00971	62.03	63.00	1900.0	73.0	1.0	0.4	23.0	18.0	7.0	2.0	10.0	0.5	50.0	99.	5.	TFA
VB00972	63.00	63.88	4100.0	214.0	5.0	0.6	94.0	21.0	8.0	1.0	18.0	0.5	50.0	98.	7.	TFA
VB00973	63.88	64.40	4200.0	155.0	10.0	0.6	176.0	18.0	7.0	3.0	23.0	0.5	50.0	94.	7.	TFA
VB00974	64.40	65.25	3300.0	72.0	5.0	0.4	124.0	14.0	6.0	1.0	15.0	0.5	50.0	94.	4.	TFA
VB00975	65.25	65.85	2500.0	51.0	0.5	0.4	18.0	14.0	5.0	1.0	5.0	0.5	50.0	99.	3.	TFA
VB00976	65.85	66.35	3100.0	199.0	8.0	0.8	38.0	32.0	17.0	1.0	26.0	0.5	50.0	96.	6.	TFA

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
VB00977	66.35	67.80	2000.0	79.0	5.0	0.6	23.0	13.0	4.0	1.0	9.0	0.5	50.0	94.	3.	TEA
VB00978	67.80	69.05	2500.0	97.0	4.0	0.5	20.0	15.0	6.0	4.0	8.0	0.5	50.0	96.	2.	TEA
VB00979	69.05	70.34	2800.0	80.0	4.0	0.6	30.0	15.0	6.0	8.0	11.0	0.5	50.0	95.	3.	TEA
VB00980	70.34	71.40	4000.0	935.0	722.0	2.7	174.0	87.0	44.0	29.0	36.0	0.5	267.0	56.	20.	TEA
VB00981	71.40	71.76	7700.0	1085.0	7600.0	3.9	102.0	9.0	5.0	132.0	40.0	29.0	50.0	12.	15.	TEA
VB00982	71.76	72.50	11700.0	1030.0	575.0	1.9	68.0	11.0	3.0	9.0	26.0	0.5	50.0	64.	8.	TEA
VB00983	72.50	72.96	4100.0	7100.0	742.0	7.4	390.0	9.0	17.0	11.0	220.0	0.5	50.0	91.	20.	TEA
VB00984	72.96	73.97	3400.0	5700.0	1420.0	7.6	785.0	9.0	9.0	61.0	115.0	3.0	50.0	80.	70.	TEA
VB00985	73.97	74.70	3400.0	10700.0	546.0	7.5	694.0	4.0	9.0	12.0	72.0	0.5	50.0	95.	30.	TEA
VB00986	74.70	76.00	4600.0	1198.0	89.0	1.3	22.0	11.0	16.0	56.0	12.0	0.5	50.0	93.	4.	TEA
VB00987	76.00	77.40	3800.0	566.0	82.0	0.7	10.0	11.0	5.0	31.0	8.0	0.5	50.0	87.	4.	TEA
VB00988	77.40	78.90	8000.0	516.0	40.0	0.8	18.0	14.0	5.0	10.0	19.0	0.5	50.0	93.	4.	TEA
VB00989	78.90	79.75	7900.0	1178.0	42.0	1.4	29.0	11.0	5.0	13.0	11.0	0.5	50.0	97.	4.	TEA
VB00990	79.75	80.16	8000.0	1249.0	42.0	1.2	42.0	13.0	5.0	17.0	12.0	0.5	50.0	97.	8.	TEA
VB00991	80.16	81.72	6100.0	2880.0	84.0	3.1	60.0	19.0	7.0	28.0	26.0	0.5	50.0	97.	5.	TEA
VB00992	81.72	83.30	5000.0	282.0	125.0	0.6	65.0	12.0	4.0	28.0	17.0	0.5	50.0	69.	4.	TEA
VB00993	83.30	84.70	4900.0	1681.0	72.0	1.6	85.0	10.0	3.0	20.0	38.0	0.5	50.0	96.	10.	TEA
VB00994	84.70	85.90	4300.0	343.0	731.0	0.8	62.0	10.0	2.0	67.0	8.0	2.0	50.0	32.	3.	TEA
VB00995	85.90	87.13	2200.0	748.0	1445.0	1.0	14.0	15.0	22.0	45.0	12.0	6.0	127.0	34.	4.	TEA

DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD
(MAJOR ELEMENTS)

SAMPLE NUMBER	FROM	TO	%SIO2	%AL203	%CAO	%MGO	%NA2O	%K2O	%FE203	%TIO2	%P205	%MNO	%LOI	SUM	AI	NACA	ALUM
VB02699	6.10	8.70	74.06	12.59	2.27	0.90	0.68	2.91	2.34	0.29	0.04	0.01	2.92	99.01	56.	3.	215.
VB02700	9.00	11.90	47.33	15.50	9.85	4.69	0.79	0.45	11.14	2.14	0.35	0.13	4.38	96.75	33.	11.	140.
VB02701	34.70	37.00	69.40	15.49	1.92	1.49	1.01	2.85	3.07	0.36	0.04	0.01	3.81	99.45	60.	3.	268.
VB02702	64.00	67.00	68.69	17.62	0.29	0.17	1.13	2.87	3.97	0.47	0.04	0.01	4.17	99.43	68.	1.	411.
VB02703	75.00	78.00	80.11	10.36	0.46	0.14	1.38	1.79	2.63	0.26	0.05	0.01	1.96	99.15	51.	2.	285.
VB02704	88.00	91.00	48.18	14.23	10.41	7.87	2.53	0.20	12.15	1.29	0.13	0.21	2.06	99.26	38.	13.	108.
VB02705	120.00	123.00	49.26	14.31	11.83	8.71	2.46	0.24	9.79	0.55	0.10	0.18	2.08	99.51	39.	14.	98.
VB02706	146.00	149.00	53.89	16.78	5.75	4.09	4.37	0.52	8.46	0.87	0.31	0.12	4.11	99.27	31.	10.	158.
VB02707	182.50	185.50	49.13	14.65	10.79	8.66	2.35	0.46	9.85	0.58	0.11	0.16	3.04	99.78	41.	13.	108.
VB02708	203.07	206.00	46.09	16.81	11.63	4.89	1.92	1.59	10.02	0.73	0.15	0.16	5.64	99.63	32.	14.	111.
VB02709	212.00	215.00	47.47	12.80	9.88	9.66	3.10	0.47	9.87	0.64	0.15	0.19	5.64	99.87	44.	13.	95.
VB02710	240.00	243.00	50.90	16.44	5.43	7.02	4.17	1.72	8.97	0.71	0.17	0.14	3.64	99.31	48.	10.	145.
VB02711	270.00	273.00	47.61	12.46	13.34	9.52	1.74	0.28	9.50	0.50	0.10	0.15	4.79	99.99	39.	15.	81.
VB02712	300.50	303.50	50.74	16.73	8.55	4.00	3.78	0.78	8.24	0.83	0.28	0.15	5.56	99.64	28.	12.	128.
VB02713	330.00	333.00	50.18	13.93	10.13	8.49	3.14	0.31	9.67	0.56	0.11	0.15	3.22	99.89	40.	13.	103.
VB02714	355.00	358.00	48.28	12.85	9.45	8.92	3.68	0.33	9.60	0.63	0.16	0.17	5.28	99.35	41.	13.	95.
VB02715	377.00	380.00	50.31	17.24	5.68	7.27	4.26	0.90	10.27	0.83	0.18	0.19	2.86	99.99	45.	10.	159.

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	ALTE	MINE
VB02699	6.10	8.70	52.0	114.0	1853.0	20.0	123.0	20.0	26.0	20.0	20.0	TFA		DCP
VB02700	9.00	11.90	21.0	306.0	488.0	37.0	174.0	20.0	221.0	66.0	20.0	PHA		DDP
VB02701	34.70	37.00	55.0	225.0	3481.0	20.0	148.0	20.0	63.0	20.0	20.0	TFB		DDP
VB02702	64.00	67.00	55.0	142.0	3139.0	20.0	136.0	20.0	64.0	20.0	20.0	TSA		DCP
VB02703	75.00	78.00	31.0	131.0	6175.0	20.0	109.0	20.0	731.0	49.0	20.0	TFA		DCP
VB02704	88.00	91.00	20.0	271.0	329.0	20.0	85.0	20.0	108.0	36.0	33.0	THA		A
VB02705	120.00	123.00	20.0	383.0	215.0	20.0	52.0	20.0	174.0	20.0	20.0	TIA		A
VB02706	146.00	149.00	20.0	305.0	204.0	20.0	93.0	20.0	46.0	67.0	20.0	TIA		DBP
VB02707	182.50	185.50	20.0	423.0	411.0	20.0	48.0	20.0	93.0	22.0	20.0	TIA		DBP
VB02708	203.07	206.00	20.0	329.0	745.0	24.0	60.0	20.0	72.0	54.0	20.0	TIB		DBP
VB02709	212.00	215.00	20.0	243.0	342.0	20.0	50.0	20.0	114.0	31.0	32.0	VMAY		A
VB02710	240.00	243.00	20.0	275.0	698.0	20.0	71.0	20.0	101.0	53.0	22.0	TIA		DBP
VB02711	270.00	273.00	20.0	338.0	751.0	20.0	50.0	20.0	79.0	21.0	20.0	TIAF		DBP
VB02712	300.50	303.50	26.0	340.0	406.0	25.0	81.0	20.0	45.0	63.0	20.0	TIAF		DBP
VB02713	330.00	333.00	20.0	333.0	172.0	20.0	65.0	20.0	117.0	20.0	20.0	TIAF		DBP
VB02714	355.00	358.00	20.0	226.0	283.0	20.0	41.0	20.0	95.0	27.0	30.0	VHAY		A
VB02715	377.00	380.00	20.0	281.0	391.0	20.0	72.0	20.0	124.0	40.0	20.0	TIA		DBP

APPENDIX D

Geochemical Certificates

XRF - Analysis

From : Cominco Lab. Job no. X90-74 Reported 06-21-1990

To : Falconbridge Ltd. Project name Chemainus no. 605-608-116

7? samples Shipped from Gord Allen Shipment no. COM90-1

	Field number	CaO %	K2O %	P2O5 %	SiO2 %	Al2O3 %	MgO %	Na2O %	Fe2O3 %	TiO2 %	MnO %	LOI %	Total %
1	VB02501 CH90-115	0.82	2.70	0.10	SH 75.41	10.81	1.91	1.04	3.97	0.35	0.12	2.23	99.47
2	VB02502	0.75	1.74	0.07	SH 80.80	8.39	1.63	0.88	3.04	0.30	0.08	1.67	99.35
3	VB02503	2.59	1.15	0.12	SH 80.31	6.75	1.53	0.65	3.86	0.30	0.15	2.31	99.72
4	VB02504	1.59	1.31	0.11	SH 77.19	9.85	2.18	1.53	3.68	0.43	0.08	2.23	100.18
5	VB02505	1.64	1.16	0.12	SH 77.79	9.06	1.64	2.23	3.65	0.35	0.07	1.90	99.61
6	VB02506 CH90-116	3.33	2.69	0.09	TF 69.57	14.01	1.14	1.87	2.50	0.29	0.08	4.14	99.71
7	VB02507	4.02	1.70	0.09	TF 70.50	11.89	1.32	2.45	2.97	0.24	0.12	3.57	98.87
8	VB02508	2.50	2.84	0.08	TF 70.79	12.75	1.50	1.33	2.47	0.26	0.09	3.38	97.99
9	VB02509	1.92	2.81	0.08	TF 71.99	12.86	2.10	1.28	2.63	0.26	0.09	3.53	99.56
10	VB02510	1.02	2.60	0.09	TF 72.80	12.07	2.70	0.89	3.69	0.25	0.09	2.86	99.06
11	VB02511	1.33	2.58	0.09	TF 71.26	13.47	2.33	1.79	2.82	0.27	0.14	2.66	98.75
12	VB02512	0.99	2.69	0.09	TF 70.97	13.66	2.67	1.65	2.91	0.27	0.13	2.91	98.94
13	VB02513	0.46	2.26	0.08	TF 73.32	13.50	2.29	2.71	1.98	0.27	0.07	2.28	99.22
14	VB02514	1.61	2.11	0.08	TF 71.24	13.05	3.00	2.18	2.72	0.25	0.22	2.86	99.33
15	VB02515	0.81	3.18	0.11	TF 69.67	14.20	2.73	1.59	3.36	0.31	0.09	3.49	99.54
16	VB02516	2.09	1.82	0.10	TF 69.37	12.88	3.25	2.46	3.61	0.26	0.13	3.10	99.08
17	VB02517	0.54	3.48	0.12	TF 68.54	13.85	4.17	0.46	4.19	0.34	0.10	3.94	99.74
18	VB02518	1.12	1.54	0.16	TI 52.85	15.95	8.43	1.78	9.91	0.61	0.26	6.28	98.89
19	VB02519	7.98	1.17	0.58	PI 54.92	18.60	1.75	3.81	7.57	0.56	0.25	2.61	99.81
20	VB02520	6.89	0.44	0.14	TM 50.36	16.20	6.51	2.02	10.92	0.63	0.48	4.83	99.42
21	VB02521 CH90-117	16.54	0.44	0.14	PI 45.56	18.04	6.17	1.42	7.53	0.71	0.24	3.34	100.14
22	VB02522	5.77	1.67	0.14	PF 59.79	16.16	2.80	2.09	5.66	0.51	0.13	3.18	97.91
23	VB02523	11.60	0.80	0.27	PF 47.27	17.82	5.44	2.71	9.35	0.76	0.19	3.08	99.30
24	VB02524	1.97	1.40	0.07	PF 71.30	13.29	1.32	4.63	2.73	0.23	0.07	1.73	98.74
25	VB02525	1.77	1.74	0.08	TF 72.40	12.87	1.48	3.44	2.84	0.22	0.06	2.32	99.22
26	VB02526	2.59	2.56	0.08	PF 72.05	12.75	1.31	2.46	2.24	0.21	0.05	3.23	99.53
27	VB02527	1.11	1.59	0.08	PF 72.76	13.69	1.38	4.48	2.57	0.24	0.04	1.56	99.51
28	VB02528 CH90-[illegible]	3.82	3.76	0.31	TM 57.55	18.10	1.14	3.07	5.97	0.30	0.19	5.21	99.53
29	VB02529	3.78	2.78	0.22	TM 61.95	15.98	1.27	2.67	5.82	0.21	0.19	4.88	99.75
30	VB02530	5.62	0.99	0.45	TM 47.01	19.02	4.12	4.06	10.60	0.97	0.14	6.86	98.84
31	VB02531	4.52	1.16	0.19	TI 61.66	15.44	2.33	3.22	5.06	0.44	0.10	5.68	99.82
32	VB02532	6.54	0.82	0.28	TF 64.33	11.72	1.59	2.10	5.22	0.36	0.10	5.95	99.03
33	VB02533	8.64	1.16	0.18	TF 52.05	16.29	2.08	2.21	7.23	0.65	0.15	8.88	99.54
34	VB02534	12.91	1.09	0.15	TM 43.08	14.87	3.63	2.17	8.72	0.58	0.18	12.83	100.22
35	VB02535	3.19	2.27	0.09	TF 68.31	15.30	1.66	2.42	2.94	0.24	0.07	3.76	100.25
36	VB02536	2.89	1.25	0.10	TM 69.54	13.13	1.20	3.56	4.48	0.32	0.08	3.48	100.08
37	VB02537	2.58	1.90	0.09	TF 71.48	14.53	1.26	2.81	2.46	0.24	0.06	2.62	100.03
38	VB02538	2.68	2.21	0.08	TF 70.91	14.17	1.72	1.98	2.81	0.23	0.08	2.70	99.47
39	VB02539	2.86	1.90	0.07	TF 71.87	13.27	0.67	4.10	1.68	0.16	0.06	3.09	99.73
40	VB02540	2.16	3.69	0.08	TF 69.32	14.85	1.20	2.10	2.49	0.23	0.06	3.35	99.54
41	VB02541	3.87	1.48	0.08	TF 70.60	11.90	1.07	3.42	2.46	0.18	0.11	4.33	99.52
42	VB02542 CH90-119	2.66	2.82	0.09	TF 68.82	14.12	1.93	1.15	3.18	0.29	0.07	4.25	99.38
43	VB02543	3.04	2.22	0.10	TF 70.04	13.14	1.61	2.26	2.95	0.29	0.08	4.10	99.83
44	VB02544	0.95	2.71	0.09	TF 72.58	14.05	1.48	2.22	2.86	0.28	0.06	2.54	99.84
45	VB02545	3.07	2.16	0.08	TF 69.40	12.72	1.68	2.60	3.06	0.25	0.15	4.16	99.33
46	VB02546	0.87	2.51	0.09	TF 70.30	14.81	2.24	3.06	3.01	0.29	0.07	2.67	99.92
47	VB02547	2.40	1.48	0.08	TF 73.10	10.85	1.33	2.96	2.64	0.21	0.09	3.50	98.64
48	VB02548	0.84	2.09	0.10	TF 71.75	13.64	2.46	3.14	3.14	0.30	0.09	2.24	99.80
49	VB02549	1.52	2.28	0.09	TF 71.41	13.67	1.94	2.66	3.45	0.25	0.14	2.21	99.62
50	VB02550	2.14	2.25	0.13	VI 66.58	16.12	1.73	4.01	4.50	0.43	0.10	1.79	99.78

XRF - Analysis

From : Cominco Lab. Job no. X90-74 Reported 06-21-1990
To : Falconbridge Ltd. Project name Chemainus no. 605-608-116
79 samples Shipped from Gord Allen Shipment no. COM90-1

	Field number		Ba ppm	Cu ppm	Zn ppm	Ni ppm	Rb ppm	Sr ppm	Y ppm	Zr ppm	Nb ppm
1	VB02501	CH90-115	3156.	34.	42.	20.	69.	145.	20.	101.	20.
2	VB02502		2522.	194.	56.	20.	44.	120.	20.	85.	20.
3	VB02503		2098.	27.	49.	20.	31.	177.	20.	49.	20.
4	VB02504		2149.	37.	61.	20.	37.	162.	25.	83.	20.
5	VB02505		3252.	23.	59.	20.	35.	182.	21.	94.	20.
6	VB02506	CH90-116	846.	20.	44.	20.	51.	198.	20.	136.	20.
7	VB02507		770.	20.	50.	20.	30.	167.	20.	118.	20.
8	VB02508		934.	20.	38.	20.	52.	103.	20.	122.	20.
9	VB02509		718.	20.	92.	20.	46.	90.	22.	120.	20.
10	VB02510		796.	185.	120.	20.	51.	56.	20.	115.	20.
11	VB02511		1520.	26.	460.	20.	48.	102.	20.	119.	20.
12	VB02512		1718.	49.	151.	20.	54.	86.	20.	114.	20.
13	VB02513		1776.	20.	50.	20.	43.	106.	20.	134.	20.
14	VB02514		1216.	46.	93.	20.	42.	90.	20.	125.	20.
15	VB02515		2218.	131.	78.	20.	45.	77.	20.	122.	20.
16	VB02516		674.	296.	64.	20.	31.	114.	20.	104.	20.
17	VB02517		1575.	35.	64.	20.	52.	25.	20.	100.	22.
18	VB02518		827.	426.	123.	20.	33.	60.	20.	59.	20.
19	VB02519		1497.	166.	50.	20.	29.	268.	25.	141.	20.
20	VB02520		533.	214.	226.	25.	20.	184.	20.	56.	20.
21	VB02521	CH90-117	282.	20.	98.	20.	26.	314.	20.	57.	20.
22	VB02522		717.	114.	95.	24.	33.	254.	20.	91.	20.
23	VB02523		311.	99.	65.	41.	24.	398.	20.	86.	24.
24	VB02524		1201.	24.	29.	20.	23.	225.	20.	114.	20.
25	VB02525		939.	20.	28.	20.	34.	73.	20.	121.	20.
26	VB02526		1266.	20.	20.	20.	54.	87.	20.	111.	20.
27	VB02527		701.	20.	27.	20.	32.	153.	20.	121.	20.
28	VB02528	CH90-118	990.	20.	75.	20.	77.	273.	20.	147.	20.
29	VB02529		809.	20.	78.	20.	61.	209.	20.	162.	20.
30	VB02530		160.	20.	139.	20.	32.	291.	28.	66.	25.
31	VB02531		558.	20.	72.	20.	34.	264.	23.	123.	20.
32	VB02532		475.	25.	102.	20.	31.	230.	20.	81.	20.
33	VB02533		500.	71.	87.	53.	33.	315.	23.	94.	20.
34	VB02534		242.	64.	78.	20.	29.	251.	20.	63.	20.
35	VB02535		1077.	20.	41.	20.	51.	385.	20.	142.	20.
36	VB02536		616.	20.	57.	20.	22.	134.	42.	157.	20.
37	VB02537		1186.	20.	39.	20.	37.	395.	20.	153.	20.
38	VB02538		1099.	20.	40.	20.	51.	342.	20.	138.	20.
39	VB02539		584.	20.	41.	20.	31.	164.	20.	141.	20.
40	VB02540		1140.	20.	23.	20.	74.	109.	20.	119.	20.
41	VB02541		572.	20.	40.	20.	34.	142.	20.	101.	20.
42	VB02542	CH90-119	782.	26.	46.	20.	57.	129.	21.	145.	20.
43	VB02543		651.	20.	38.	20.	36.	149.	20.	136.	20.
44	VB02544		1160.	20.	56.	20.	53.	112.	20.	130.	20.
45	VB02545		853.	20.	54.	20.	46.	113.	20.	136.	20.
46	VB02546		890.	97.	50.	20.	47.	78.	20.	145.	20.
47	VB02547		734.	76.	27.	20.	28.	109.	20.	117.	20.
48	VB02548		853.	20.	47.	20.	47.	51.	20.	129.	22.
49	VB02549		896.	20.	41.	20.	41.	86.	20.	117.	20.
50	VB02550		1015.	34.	44.	20.	37.	117.	20.	118.	20.

XRF - Analysis

From : Cominco Lab. Job no. X90-74 Reported 06-21-1990
To : Falconbridge Ltd. Project name Chemainus no. 605-608-116
79 samples Shipped from Gord Allen Shipment no. COM90-1

	Field number	CaO %	K2O %	P2O5 %	SiO2 %	Al2O3 %	MgO %	Na2O %	Fe2O3 %	TiO2 %	MnO %	LOI %	Total %
51	VB02551	2.43	1.53	0.11	TI 68.74	14.57	1.97	3.67	3.77	0.33	0.11	1.78	99.01
52	VB02552	1.55	2.05	0.12	VF 70.12	14.59	2.13	4.00	3.01	0.32	0.07	1.80	99.76
53	VB02553	8.28	2.95	0.39	PI 44.43	19.89	3.11	0.75	14.16	0.69	0.16	5.05	99.86
54	VB02554	2.36	1.92	0.11	TF 70.51	13.94	2.20	2.80	3.54	0.30	0.08	1.93	99.70
55	VB02555	2.19	1.33	0.14	TF 65.56	15.49	3.26	4.64	4.32	0.36	0.14	2.19	99.62
56	VB02556	1.20	2.58	0.14	TF 68.06	16.94	1.41	5.28	2.21	0.38	0.06	1.57	99.83
57	VB02557	5.44	0.40	0.14	TI 55.14	17.06	5.31	4.27	8.28	0.58	0.17	2.98	99.77
58	VB02558	4.76	0.23	0.13	TI 53.86	16.00	7.71	3.22	9.05	0.60	0.23	3.79	99.58
59	VB02559	7.11	0.34	0.17	TI 47.09	14.66	6.94	2.04	12.17	1.25	0.20	6.94	98.91
60	VB02560	1.22	1.70	0.06	TF 71.71	12.41	4.57	1.60	3.58	0.16	0.07	2.78	99.96
61	VB02561	4.39	0.34	0.12	TI 53.18	17.39	7.14	3.08	9.14	0.66	0.22	4.05	99.71
62	VB02562	1.53	1.25	0.13	TI 53.20	16.20	9.46	2.17	9.34	0.55	0.20	5.42	99.47
63	VB02563	0.83	2.34	0.10	TF 69.35	14.43	3.08	2.91	3.71	0.27	0.07	2.33	99.43
64	VB02564	4.77	0.24	0.14	TI 55.21	16.15	6.91	4.04	8.07	0.52	0.17	3.16	99.39
65	VB02565	5.68	2.62	0.18	TF 59.99	17.68	2.51	1.79	5.95	0.28	0.07	2.78	99.53
66	VB02566	2.82	1.07	0.16	TF 58.08	16.69	4.86	3.89	7.26	0.55	0.20	3.68	99.26
67	VB02567	4.78	0.52	0.16	TM 46.92	17.15	6.22	4.25	11.53	0.72	0.25	5.48	97.98
68	VB02568	8.87	0.38	0.17	TM 50.58	16.49	5.19	2.91	11.16	0.67	0.33	2.80	99.55
69	VB02569	1.63	0.93	0.09	TF 69.75	12.89	2.67	3.77	4.84	0.25	0.11	2.52	99.45
70	VB02570	2.85	1.03	0.15	TF 57.99	16.58	4.64	3.98	7.47	0.47	0.14	3.62	99.02
71	VB02571	9.21	0.41	0.57	PI 52.21	17.42	2.56	3.32	9.72	0.78	0.12	2.50	98.84
72	VB02572	1.81	3.12	0.07	TF 72.47	13.31	1.32	2.20	2.27	0.23	0.03	2.24	99.07
73	VB02573	3.26	1.74	0.14	TM 66.23	14.86	2.45	3.21	4.65	0.33	0.06	2.73	99.66
74	VB02574	2.64	1.37	0.15	TF 61.89	14.54	4.10	3.15	7.53	0.41	0.12	3.56	99.51
75	VB02575	6.87	1.34	0.19	TM 53.28	16.19	6.05	2.16	9.63	0.57	0.19	3.27	99.74
76	VB02576	7.20	0.86	0.22	PI 52.45	17.56	4.50	3.58	9.62	0.62	0.14	3.09	99.94
77	VB02577	5.85	1.57	0.20	TM 55.64	15.82	5.08	2.76	8.83	0.56	0.16	2.79	99.26
78	VB02578	6.58	0.67	0.17	TM 54.09	17.23	4.61	4.09	8.43	0.64	0.13	3.12	99.76
79	VB02579	14.34	0.14	0.17	TM 45.19	16.70	4.50	0.73	13.99	0.65	0.14	3.34	99.89

XRF - Analysis

From : Cominco Lab. Job no. X90-74 Reported 06-21-1990
To : Falconbridge Ltd. Project name Chemainus no. 605-608-116
79 samples Shipped from Gord Allen Shipment no. COM90-1

	Field number	Ba ppm	Cu ppm	Zn ppm	Ni ppm	Rb ppm	Sr ppm	Y ppm	Zr ppm	Nb ppm
51	VB02551	676.	20.	55.	20.	32.	180.	20.	118.	20.
52	VB02552	1139.	20.	46.	20.	35.	124.	20.	114.	20.
53	VB02553	1401.	475.	98.	20.	53.	417.	20.	117.	20.
54	VB02554	970.	44.	62.	20.	39.	175.	20.	120.	20.
55	VB02555	841.	20.	59.	20.	26.	122.	20.	94.	24.
56	VB02556	975.	20.	20.	20.	50.	125.	20.	105.	20.
57	VB02557	206.	90.	98.	20.	24.	162.	20.	83.	20.
58	VB02558	102.	557.	149.	20.	20.	135.	20.	52.	20.
59	VB02559	158.	110.	147.	42.	20.	147.	20.	94.	21.
60	VB02560	667.	20.	25.	20.	27.	74.	20.	135.	20.
61	VB02561	143.	98.	107.	20.	20.	159.	20.	50.	20.
62	VB02562	572.	159.	131.	29.	32.	66.	20.	63.	20.
63	VB02563	826.	20.	27.	20.	40.	77.	20.	90.	20.
64	VB02564	237.	100.	79.	21.	20.	183.	20.	78.	20.
65	VB02565	1020.	66.	20.	20.	49.	248.	20.	153.	20.
66	VB02566	637.	125.	335.	20.	24.	125.	20.	53.	20.
67	VB02567	360.	355.	118.	20.	20.	95.	20.	60.	20.
68	VB02568	146.	346.	54.	25.	20.	267.	20.	76.	20.
69	VB02569	974.	30.	32.	20.	23.	116.	20.	95.	20.
70	VB02570	593.	47.	52.	20.	21.	141.	20.	62.	20.
71	VB02571	189.	137.	31.	20.	20.	433.	32.	140.	20.
72	VB02572	1512.	33.	20.	20.	57.	89.	20.	127.	20.
73	VB02573	1252.	70.	22.	20.	35.	151.	20.	108.	20.
74	VB02574	582.	36.	54.	20.	25.	130.	20.	95.	20.
75	VB02575	625.	258.	45.	20.	24.	245.	20.	84.	20.
76	VB02576	471.	120.	42.	20.	20.	348.	20.	107.	20.
77	VB02577	749.	433.	44.	20.	43.	251.	20.	79.	20.
78	VB02578	430.	20.	38.	20.	20.	274.	20.	68.	20.
79	VB02579	63.	20.	34.	20.	20.	639.	20.	84.	20.

Certified by

Fred W. T. Lo

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

	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

	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

Fred Y. J. Lo

Chemist ,X-Ray analyst.

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BONDAR-CLEGG

Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V90-00559.1 (COMPLETE)

REFERENCE INFO: SHIPMENT #90-1

CLIENT: FALCONBRIDGE LIMITED
PROJECT: 605-116

SUBMITTED BY: R. CALOW
DATE PRINTED: 7-JUN-90

ORDER		ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Ag	Silver	23	0.2 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
2	Cu	Copper	23	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
3	Pb	Lead	23	2 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
4	Zn	Zinc	23	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
5	Mo	Molybdenum	23	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
6	Ni	Nickel	23	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
7	Co	Cobalt	23	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
8	Cd	Cadmium	23	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
9	Bi	Bismuth	23	5 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
10	As	Arsenic	23	5 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
11	Sb	Antimony	23	5 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
12	Fe	Iron	23	0.01 PCT	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
13	Mn	Manganese	23	100 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
14	Te	Tellurium	23	10 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
15	Cr	Chromium	23	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
16	V	Vanadium	23	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
17	Sn	Tin	23	20 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
18	W	Tungsten	23	10 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
19	La	Lanthanum	23	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
20	Al	Aluminum	23	0.02 PCT	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
21	Mg	Magnesium	23	0.05 PCT	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
22	Ca	Calcium	23	0.05 PCT	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
23	Na	Sodium	23	0.05 PCT	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
24	K	Potassium	23	0.05 PCT	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
25	Sr	Strontium	23	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
26	Y	Yttrium	23	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma

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A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

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REFERENCE INFO: SHIPMENT #90-1

CLIENT: FALCONBRIDGE LIMITED
PROJECT: 605-116

SUBMITTED BY: R. CALOW
DATE PRINTED: 7-JUN-90

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
D DRILL CORE	22	2 -150	22	SAMPLES FROM STORAGE	23
P PREPARED PULP	1	4 AS REC'D	1		

REMARKS: THIS IS A CORRECTION CERTIFICATE AND SUPERCEDES
THE PLASMA DATA REPORTED ON REPORT 559.0.
PLEASE NOTE THE ORIGINAL ICP DATA WAS SUBJECT
TO AN ERROR IN CALIBRATION.

REPORT COPIES TO: MR. NILS VON FERSEN
MR. BOB STEWART
MR. GORD ALLEN

INVOICE TO: MR. NILS VON FERSEN
MR. BOB STEWART

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SAMPLE NUMBER	ELEMENT UNITS	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM
D2 VB00001		1.1	70	9	151	<1	20	8	<1	<5	9	6
D2 VB00002		1.2	117	9	189	19	117	35	2	8	82	8
D2 VB00003		0.5	39	7	66	<1	15	7	<1	<5	6	<5
D2 VB00004		0.3	5	5	59	<1	21	12	<1	6	5	<5
D2 VB00005		0.7	34	5	104	<1	70	25	<1	9	7	5
D2 VB00006		30.0	1483	15	85	<1	101	14	<1	33	48	32
D2 VB00007		2.7	407	4	33	1	48	5	<1	7	6	<5
D2 VB00008		0.4	46	3	121	<1	101	5	<1	10	<5	<5
D2 VB00009		0.7	38	3	118	1	78	6	<1	<5	6	<5
D2 VB000010		1.0	25	4	126	<1	61	6	<1	10	<5	<5
D2 VB000011		1.3	32	6	114	<1	64	7	<1	6	<5	<5
D2 VB000012		1.1	40	6	326	<1	69	8	<1	7	<5	<5
D2 VB000013		1.3	79	4	53	<1	37	6	<1	<5	<5	<5
D2 VB000014		0.6	31	5	48	<1	28	10	<1	5	10	5
D2 VB000015		0.8	55	7	256	<1	21	7	<1	6	12	<5
D2 VB000016		0.5	42	10	58	<1	9	5	<1	6	<5	<5
D2 VB000017		0.5	48	7	59	<1	13	7	<1	<5	9	<5
D2 VB000018		0.6	29	6	55	<1	13	7	<1	6	6	<5
D2 VB000019		0.6	33	5	59	<1	19	8	<1	5	7	<5
D2 VB000020		0.6	35	2	46	1	16	6	<1	6	<5	<5
D2 VB000021		0.7	46	4	45	<1	16	8	<1	<5	10	<5
D2 VB000022		0.6	41	4	59	<1	27	8	<1	6	6	<5
P4 VA09963		0.6	323	181	78	3	5	2	<1	<5	9	14

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A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

Geochemical Lab Report

DATE PRINTED: 7-JUN-90

REPORT: V90-00559.1

PROJECT: 605-116 PAGE 1B

SAMPLE NUMBER	ELEMENT UNITS	Fe PCT	Mn PPM	Te PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT
D2 VB00001		2.40	455	<10	61	57	<20	<10	11	1.40	0.93	1.70
D2 VB00002		2.39	569	<10	100	48	<20	<10	7	1.18	0.83	1.59
D2 VB00003		2.48	612	<10	76	32	<20	<10	7	1.27	0.94	1.34
D2 VB00004		1.36	1544	<10	102	22	<20	<10	3	1.22	1.18	0.62
D2 VB00005		6.81	4857	18	90	99	<20	<10	3	1.11	1.04	1.43
D2 VB00006		2.10	32705	24	33	133	<20	<10	3	0.85	0.56	8.71
D2 VB00007		5.51	4103	14	144	118	<20	<10	<1	0.30	0.22	0.60
D2 VB00008		2.68	2168	11	77	26	<20	<10	3	1.33	1.27	0.39
D2 VB00009		3.44	1196	13	96	29	<20	<10	2	1.42	1.29	0.45
D2 VB000010		4.86	1186	15	89	34	<20	<10	3	1.96	1.51	0.45
D2 VB000011		3.96	1143	<10	72	63	<20	<10	3	1.99	1.38	0.87
D2 VB000012		4.81	1090	14	53	80	<20	<10	2	2.19	1.54	0.70
D2 VB000013		1.96	694	<10	88	34	<20	<10	2	1.09	0.69	2.91
D2 VB000014		3.38	620	11	81	40	<20	<10	4	1.70	1.15	1.48
D2 VB000015		3.55	430	12	65	44	<20	<10	4	1.75	1.23	1.48
D2 VB000016		2.03	370	<10	103	31	<20	<10	4	1.26	1.06	1.07
D2 VB000017		2.50	458	<10	76	45	<20	<10	4	1.34	1.15	0.98
D2 VB000018		2.49	406	<10	102	56	<20	<10	3	1.20	1.08	0.97
D2 VB000019		3.39	498	<10	72	51	<20	<10	5	1.54	1.36	0.67
D2 VB000020		3.24	494	12	102	55	<20	<10	4	1.39	1.18	0.59
D2 VB000021		3.76	575	13	84	55	<20	<10	5	1.51	1.23	0.71
D2 VB000022		3.99	652	13	61	44	<20	<10	3	1.87	1.54	0.56
P4 VA09963		1.20	242	<10	269	5	25	<10	4	2.57	0.11	0.42

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DATE PRINTED: 7-JUN-90
PROJECT: 605-116

SAMPLE NUMBER	ELEMENT UNITS	Na PCT	K PCT	Sr PPM	Y PPM
D2 VB00001		<0.05	0.16	40	17
D2 VB00002		<0.05	0.14	45	14
D2 VB00003		<0.05	0.11	49	11
D2 VB00004		<0.05	0.23	35	9
D2 VB00005		<0.05	0.36	56	14
D2 VB00006		<0.05	0.06	263	7
D2 VB00007		<0.05	<0.05	29	3
D2 VB00008		<0.05	0.29	30	8
D2 VB00009		<0.05	0.14	39	8
D2 VB000010		<0.05	0.27	40	10
D2 VB000011		<0.05	0.48	32	12
D2 VB000012		<0.05	0.43	27	11
D2 VB000013		<0.05	0.16	30	9
D2 VB000014		<0.05	0.33	58	13
D2 VB000015		<0.05	0.13	34	15
D2 VB000016		<0.05	0.14	35	9
D2 VB000017		<0.05	0.11	20	9
D2 VB000018		<0.05	0.07	15	7
D2 VB000019		<0.05	0.09	25	10
D2 VB000020		<0.05	0.05	21	8
D2 VB000021		<0.05	0.08	21	9
D2 VB000022		<0.05	0.16	20	8
P4 VA09963		0.38	1.23	19	10

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Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V90-00559.2 (COMPLETE)

REFERENCE INFO: SHIPMENT #90-1

CLIENT: FALCONBRIDGE LIMITED
PROJECT: 605-116

SUBMITTED BY: R. CALOW
DATE PRINTED: 12-JUN-90

ORDER		ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Cu	Copper	23	1 PPM	HNO3-HCl Hot Extr.	Atomic Absorption
2	Pb	Lead	23	2 PPM	HNO3-HCl Hot Extr.	Atomic Absorption

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
D DRILL CORE	22	2 -150	22	SAMPLES FROM STORAGE	23
P PREPARED PULP	1	4 AS REC'D	1		

REMARKS: Retests of Cu and Pb by AAS from report
V90-00559.1. Data matches ICP data.
Russ Calow.

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MR. GORD ALLEN

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MR. BOB STEWART

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Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V90-00559.2

DATE PRINTED: 12-JUN-90
PROJECT: 605-116

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM
D2 VB00001		67	9
D2 VB00002		118	9
D2 VB00003		41	5
D2 VB00004		7	3
D2 VB00005		33	6
D2 VB00006		1508	12
D2 VB00007		385	4
D2 VB00008		49	3
D2 VB00009		38	4
D2 VB00010		25	4
D2 VB00011		31	5
D2 VB00012		41	4
D2 VB00013		74	4
D2 VB00014		32	7
D2 VB00015		55	6
D2 VB00016		41	8
D2 VB00017		68	4
D2 VB00018		28	6
D2 VB00019		31	4
D2 VB00020		32	2
D2 VB00021		45	3
D2 VB00022		40	5
P4 VA09963		347	162

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Certificate of Analysis

REPORT: V90-00559.6 (COMPLETE)

REFERENCE INFO: SHIPMENT #90-1

CLIENT: FALCONBRIDGE LIMITED
PROJECT: 605-116

SUBMITTED BY: G. ALLEN
DATE PRINTED: 11-MAY-90

ORDER		ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Ag	Silver	1	0.02 OPT	HCL-HNO3-HF	Atomic Absorption
2	Cu	Copper	1	0.01 PCT	HCL-HNO3-HF	Atomic Absorption

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
D DRILL CORE	1	2 -150	1	SAMPLES FROM STORAGE	1

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Certificate of Analysis

DATE PRINTED: 11-MAY-90

REPORT: V90-00559.6

PROJECT: 605-116 PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Ag OPT	Cu PCT
D2 VB00006		0.81	0.16

Registered Assayer, Province of British Columbia

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A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

Geochemical Lab Report

REPORT: V90-00618.0 (COMPLETE)

REFERENCE INFO: SHIPMENT #90-3

CLIENT: FALCONBRIDGE LIMITED
PROJECT: 605-116

SUBMITTED BY: G. ALLEN
DATE PRINTED: 14-MAY-90

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au 10g	Gold - Fire Assay	118	5 PPB	Fire-Assay	Fire Assay AA
2	Ag	Silver	118	0.2 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
3	Cu	Copper	118	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
4	Pb	Lead	118	2 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
5	Zn	Zinc	118	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
6	Mo	Molybdenum	118	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
7	Ni	Nickel	118	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
8	Co	Cobalt	118	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
9	Cd	Cadmium	118	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
10	Bi	Bismuth	118	5 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
11	As	Arsenic	118	5 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
12	Sb	Antimony	118	5 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
13	Fe	Iron	118	0.01 PCT	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
14	Mn	Manganese	118	0.01 PCT	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
15	Te	Tellurium	118	10 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
16	Ba	Barium	118	20 PPM		X-Ray Fluorescence
17	Cr	Chromium	118	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
18	V	Vanadium	118	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
19	Sn	Tin	118	20 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
20	W	Tungsten	118	10 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
21	La	Lanthanum	118	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
22	Al	Aluminum	118	0.02 PCT	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
23	Mg	Magnesium	118	0.05 PCT	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
24	Ca	Calcium	118	0.05 PCT	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
25	Na	Sodium	118	0.05 PCT	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
26	K	Potassium	118	0.05 PCT	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
27	Sr	Strontium	118	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
28	Y	Yttrium	118	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma

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Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V90-00618.0 (COMPLETE)

REFERENCE INFO: SHIPMENT #90-3

CLIENT: FALCONBRIDGE LIMITED
PROJECT: 605-116

SUBMITTED BY: G. ALLEN
DATE PRINTED: 14-MAY-90

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
D DRILL CORE	117	2 -150	117	CRUSH,PULVERIZE -150	118
P PREPARED PULP	1	4 AS REC'D	1		

REMARKS: Assay of Cu >3000 ppm to follow on V90-00618.6.

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Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 14-MAY-90

REPORT: V90-00618.0

PROJECT: 605-116

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 VB00023		134	0.5	40	27	80	<1	17	10	<1	<5	<5
D2 VB00024		7	0.4	40	5	81	1	18	9	<1	<5	<5
D2 VB00025		58	0.4	41	15	39	<1	10	9	<1	<5	6
D2 VB00026		<5	0.4	47	5	57	<1	13	8	<1	<5	<5
D2 VB00027		34	0.5	64	10	64	2	16	7	<1	<5	9
D2 VB00028		<5	0.3	31	10	64	<1	12	8	<1	<5	<5
D2 VB00029		12	0.2	24	9	46	<1	8	6	<1	<5	<5
D2 VB00030		9	0.4	71	10	85	4	25	10	<1	<5	5
D2 VB00031		25	0.3	34	11	60	<1	9	7	<1	<5	<5
D2 VB00032		<5	0.4	28	6	62	<1	<1	4	<1	<5	<5
D2 VB00033		14	0.4	21	10	37	5	3	11	<1	<5	<5
D2 VB00034		9	0.5	24	10	46	3	3	13	<1	<5	9
D2 VB00035		<5	0.3	49	6	73	<1	1	4	<1	<5	<5
D2 VB00036		<5	0.6	36	8	209	<1	4	22	<1	<5	<5
D2 VB00037		10	0.2	22	8	87	<1	3	10	<1	<5	6
D2 VB00038		<5	<0.2	11	4	59	<1	<1	5	<1	<5	<5
D2 VB00039		<5	<0.2	34	7	116	2	2	5	<1	<5	5
D2 VB00040		18	1.0	278	18	365	5	19	24	<1	<5	12
D2 VB00041		75	3.9	3964	91	112	21	8	28	2	6	34
D2 VB00042		47	1.9	1666	29	352	6	22	35	<1	13	26
D2 VB00043		<5	0.2	147	7	78	<1	<1	6	<1	<5	<5
D2 VB00044		<5	0.5	366	2	59	<1	<1	9	<1	<5	<5
D2 VB00045		<5	0.3	252	4	67	<1	<1	5	<1	6	<5
D2 VB00046		<5	0.7	560	2	106	7	<1	8	<1	<5	<5
D2 VB00047		<5	0.2	110	3	85	<1	<1	6	<1	11	<5
D2 VB00048		<5	0.3	237	4	75	<1	<1	5	<1	9	<5
D2 VB00049		<5	0.4	120	6	69	3	<1	12	<1	9	11
D2 VB00050		<5	0.2	43	<2	61	<1	<1	6	<1	6	<5
D2 VB00055		<5	<0.2	9	4	69	<1	1	4	<1	<5	<5
D2 VB00056		15	0.8	232	62	376	2	2	15	<1	12	<5
D2 VB00057		<5	0.5	41	6	252	<1	<1	15	<1	7	8
D2 VB00058		18	0.6	129	9	1533	2	<1	6	11	5	10
D2 VB00059		14	0.5	85	40	127	<1	<1	3	<1	5	13
D2 VB00060		9	0.2	117	17	143	<1	<1	3	<1	7	7
D2 VB00061		8	0.5	137	2	208	<1	<1	8	<1	8	<5
D2 VB00062		10	1.0	1100	8	261	<1	1	7	<1	10	6
D2 VB00063		8	0.8	258	5	180	<1	<1	5	<1	10	12
D2 VB00064		13	0.7	139	5	137	<1	<1	7	<1	7	19
D2 VB00065		6	0.5	35	7	120	<1	<1	6	<1	9	9
D2 VB00066		<5	0.3	12	15	113	<1	<1	5	<1	6	8

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Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 14-MAY-90

REPORT: V90-00618.0

PROJECT: 605-116

SAMPLE NUMBER	ELEMENT UNITS	Sb PPM	Fe PCT	Mn PCT	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT
D2 VB00023		<5	4.09	0.12	14	3800	83	81	<20	<10	6	2.17
D2 VB00024		<5	4.34	0.13	12	3800	71	86	<20	<10	5	2.27
D2 VB00025		<5	3.34	0.04	<10	1600	94	47	<20	<10	4	1.36
D2 VB00026		<5	3.48	0.06	11	2800	93	62	<20	<10	5	1.64
D2 VB00027		<5	3.43	0.05	<10	1300	94	45	<20	<10	6	1.43
D2 VB00028		<5	3.44	0.05	<10	2800	62	45	<20	<10	6	1.77
D2 VB00029		<5	2.53	0.04	<10	2400	72	29	<20	<10	6	1.52
D2 VB00030		<5	4.02	0.05	10	2500	90	53	<20	<10	5	1.47
D2 VB00031		<5	2.99	0.05	<10	1600	85	31	<20	<10	7	1.56
D2 VB00032		<5	2.06	0.06	<10	990	31	7	<20	<10	7	1.74
D2 VB00033		<5	2.77	0.07	<10	800	47	6	<20	<10	6	1.15
D2 VB00034		<5	3.71	0.09	11	650	41	6	<20	<10	4	1.24
D2 VB00035		<5	2.14	0.08	<10	860	35	6	<20	<10	8	1.76
D2 VB00036		<5	6.72	0.09	16	1300	33	32	<20	<10	16	3.39
D2 VB00037		<5	3.06	0.09	<10	780	123	14	<20	<10	17	1.72
D2 VB00038		<5	1.60	0.07	<10	860	52	7	<20	<10	10	1.33
D2 VB00039		<5	1.63	0.05	<10	990	45	5	<20	<10	11	1.50
D2 VB00040		<5	6.92	0.08	16	1100	89	60	<20	<10	3	4.01
D2 VB00041		5	7.51	0.10	18	1300	38	15	<20	12	2	1.52
D2 VB00042		8	8.71	0.14	22	800	73	84	<20	12	<1	4.67
D2 VB00043		6	2.57	0.08	<10	760	41	5	<20	<10	5	1.46
D2 VB00044		<5	2.70	0.07	<10	780	43	5	<20	<10	6	1.43
D2 VB00045		<5	2.41	0.11	<10	770	54	7	<20	<10	5	1.62
D2 VB00046		<5	3.87	0.07	11	890	24	6	<20	10	8	2.33
D2 VB00047		<5	2.91	0.07	<10	880	44	5	<20	<10	9	2.03
D2 VB00048		<5	2.72	0.08	<10	710	66	5	<20	<10	8	1.75
D2 VB00049		<5	4.12	0.08	13	670	29	4	<20	<10	3	1.60
D2 VB00050		<5	1.90	0.07	<10	640	36	4	<20	<10	10	1.47
D2 VB00055		<5	1.78	0.06	<10	1400	63	4	<20	<10	6	1.13
D2 VB00056		<5	5.46	0.26	15	1400	27	27	<20	<10	4	3.61
D2 VB00057		<5	4.61	0.13	12	2100	18	15	<20	<10	10	2.81
D2 VB00058		<5	2.35	0.07	<10	1500	38	3	<20	<10	5	1.64
D2 VB00059		<5	3.21	0.14	10	2000	54	2	<20	<10	2	1.13
D2 VB00060		<5	2.62	0.06	<10	2000	46	2	<20	<10	4	1.28
D2 VB00061		<5	2.65	0.19	12	2300	60	4	<20	<10	10	2.05
D2 VB00062		<5	3.50	0.18	11	1500	25	17	<20	<10	3	2.95
D2 VB00063		<5	3.36	0.12	<10	2200	35	4	<20	<10	2	1.73
D2 VB00064		<5	3.93	0.14	14	1600	30	8	<20	<10	2	1.75
D2 VB00065		6	3.42	0.14	<10	1600	40	3	<20	<10	2	2.06
D2 VB00066		<5	3.23	0.12	<10	1600	29	2	<20	10	2	1.84

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Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V90-00618.0

DATE PRINTED: 14-MAY-90

PROJECT: 605-116

SAMPLE NUMBER	ELEMENT UNITS	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM
D2 VB00023		1.87	1.09	0.06	0.19	30	10
D2 VB00024		1.99	1.19	<0.05	0.21	31	11
D2 VB00025		1.00	0.67	<0.05	0.14	16	7
D2 VB00026		1.26	0.79	<0.05	0.10	27	7
D2 VB00027		1.06	0.85	<0.05	0.10	35	8
D2 VB00028		1.29	0.65	<0.05	0.39	24	12
D2 VB00029		0.99	0.76	<0.05	0.38	39	12
D2 VB00030		0.97	1.21	<0.05	0.12	40	9
D2 VB00031		1.07	1.01	0.06	0.20	40	12
D2 VB00032		1.03	2.14	<0.05	0.25	38	4
D2 VB00033		0.65	3.11	<0.05	0.23	40	4
D2 VB00034		0.84	3.94	<0.05	0.18	59	5
D2 VB00035		1.29	2.91	<0.05	0.19	39	4
D2 VB00036		2.30	2.21	<0.05	0.29	45	5
D2 VB00037		1.09	3.29	<0.05	0.23	56	5
D2 VB00038		0.74	2.93	<0.05	0.27	41	4
D2 VB00039		1.11	0.91	<0.05	0.29	18	3
D2 VB00040		4.10	0.70	<0.05	0.24	24	3
D2 VB00041		1.45	1.35	<0.05	0.34	37	3
D2 VB00042		5.35	1.06	<0.05	0.13	35	3
D2 VB00043		1.34	0.98	<0.05	0.18	25	3
D2 VB00044		1.34	0.90	<0.05	0.24	29	2
D2 VB00045		1.56	1.60	<0.05	0.18	34	4
D2 VB00046		2.23	0.59	<0.05	0.18	19	3
D2 VB00047		1.85	0.65	<0.05	0.21	23	2
D2 VB00048		1.72	0.84	<0.05	0.17	25	2
D2 VB00049		1.62	0.99	<0.05	0.16	31	2
D2 VB00050		1.22	1.10	<0.05	0.20	39	3
D2 VB00055		1.01	0.98	<0.05	0.19	16	3
D2 VB00056		3.94	4.58	<0.05	0.19	77	5
D2 VB00057		2.71	1.45	<0.05	0.26	45	3
D2 VB00058		1.59	0.62	<0.05	0.20	18	2
D2 VB00059		0.99	2.10	<0.05	0.20	25	4
D2 VB00060		1.16	0.47	<0.05	0.23	12	2
D2 VB00061		1.80	3.30	<0.05	0.24	48	6
D2 VB00062		4.01	0.83	<0.05	0.13	12	3
D2 VB00063		1.80	0.64	<0.05	0.19	15	2
D2 VB00064		1.94	1.09	<0.05	0.16	18	3
D2 VB00065		2.23	0.89	<0.05	0.19	15	2
D2 VB00066		2.03	0.80	<0.05	0.18	16	2

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Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V90-02742.0 (COMPLETE) | REFERENCE INFO: SHIPMENT #90-14

CLIENT: FALCONBRIDGE LIMITED
PROJECT: 605-116

SUBMITTED BY: G. ALLEN
DATE PRINTED: 28 NOV-90

ORDER		ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au 10g	Gold - Fire Assay	90	5 PPB	Fire Assay	Fire Assay AA
2	Ag	Silver	90	0.2 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
3	Cu	Copper	90	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
4	Pb	Lead	90	2 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
5	Zn	Zinc	90	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
6	Mo	Molybdenum	90	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
7	Ni	Nickel	90	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
8	Co	Cobalt	90	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
9	Cd	Cadmium	90	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
10	Bi	Bismuth	90	5 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
11	As	Arsenic	90	5 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
12	Sb	Antimony	90	5 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
13	Fe	Iron	90	0.01 PCT	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
14	Mn	Manganese	90	100 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
15	Te	Tellurium	90	10 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
16	Ba	Barium	90	20 PPM		X-Ray Fluorescence
17	Cr	Chromium	90	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
18	V	Vanadium	90	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
19	Sn	Tin	90	20 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
20	W	Tungsten	90	10 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
21	La	Lanthanum	90	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
22	Al	Aluminum	90	0.02 PCT	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
23	Mg	Magnesium	90	0.05 PCT	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
24	Ca	Calcium	90	0.05 PCT	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
25	Na	Sodium	90	0.05 PCT	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
26	K	Potassium	90	0.05 PCT	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
27	Sr	Strontium	90	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma
28	Y	Yttrium	90	1 PPM	HNO3-HCl Hot Extr.	Ind. Coupled Plasma

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Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V90-02742.0 (COMPLETE)

REFERENCE INFO: SHIPMENT #90-14

CLIENT: FALCONBRIDGE LIMITED
PROJECT: 605-116

SUBMITTED BY: G. ALLEN
DATE PRINTED: 28-NOV-90

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
P PREPARED PULP	1	4 AS REC'D	1	CRUSH,PULVERIZE -150	89
D DRILL CORE	89	2 -150	89	AS RECEIVED, NO SP	1

NOTES: = indicates SEE REMARKS

REMARKS: =Ba - interference noted due to Fe.

Assay of high Cu and ZN to follow on
V90-02742.6.

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

INVOICE TO: MR. NILS VON FERSEN

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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 VA13501		<5	<0.2	18	25	119	11	16	4	1	<5	11
D2 VB00931		67	<0.2	56	15	111	3	3	7	<1	<5	9
D2 VB00932		10	<0.2	17	18	24	2	1	6	<1	<5	<5
D2 VB00933		12	0.7	272	11	81	<1	10	32	<1	<5	15
D2 VB00934		6	0.9	278	11	89	<1	8	32	<1	<5	10
D2 VB00935		16	0.3	112	61	385	<1	<1	8	<1	<5	<5
D2 VB00936		25	0.6	148	75	433	<1	<1	9	<1	<5	<5
D2 VB00937		12	0.9	45	51	35	<1	<1	10	<1	<5	6
D2 VB00938		31	1.0	163	72	33	<1	<1	12	<1	<5	9
D2 VB00939		8	0.2	51	17	17	<1	<1	7	<1	<5	<5
D2 VB00940		14	0.3	55	48	20	5	5	8	<1	<5	14
D2 VB00941		12	2.1	25	67	16	<1	<1	10	<1	<5	7
D2 VB00942		6	0.4	21	32	11	<1	<1	9	<1	<5	5
D2 VB00943		<5	0.5	33	24	20	<1	<1	9	<1	<5	6
D2 VB00944		6	0.7	36	16	37	<1	3	12	<1	<5	8
D2 VB00945		22	0.3	43	27	24	2	<1	11	<1	<5	14
D2 VB00946		1004	2.0	209	392	54	19	<1	24	<1	<5	167
D2 VB00947		12	0.2	17	43	23	<1	<1	8	<1	<5	<5
D2 VB00948		15	0.6	24	130	29	<1	<1	9	<1	<5	6
D2 VB00949		284	1.0	453	256	130	17	<1	58	<1	27	243
D2 VB00950		38	0.7	184	81	201	7	<1	7	<1	<5	29
D2 VB00951		54	0.8	65	60	27	1	<1	10	<1	<5	19
D2 VB00952		56	0.6	48	102	175	2	<1	6	<1	<5	29
D2 VB00953		20	0.3	35	16	24	<1	<1	6	<1	<5	5
D2 VB00954		211	0.3	15	12	15	<1	<1	8	<1	<5	<5
D2 VB00955		23	0.5	117	18	11	<1	<1	7	<1	<5	12
D2 VB00956		36	0.9	255	11	17	<1	<1	14	<1	<5	13
D2 VB00957		45	0.3	122	5	17	<1	<1	11	<1	<5	13
D2 VB00958		28	0.6	130	7	18	<1	1	13	<1	<5	14
D2 VB00959		12	0.5	52	9	15	<1	<1	8	<1	<5	9
D2 VB00960		<5	0.3	30	6	13	<1	<1	8	<1	<5	<5
D2 VB00961		10	0.8	342	5	13	<1	<1	10	<1	<5	<5
D2 VB00962		23	0.7	83	14	14	1	11	22	<1	<5	23
D2 VB00963		21	0.2	51	3	8	<1	<1	8	<1	<5	<5
D2 VB00964		21	0.4	112	24	24	<1	19	20	<1	<5	12
D2 VB00965		12	0.3	129	7	24	<1	6	14	<1	<5	<5
D2 VB00966		10	0.5	115	3	3	4	4	12	<1	<5	<5
D2 VB00967		12	0.4	100	5	6	3	2	12	<1	<5	<5
D2 VB00968		12	0.2	37	3	14	7	4	10	<1	<5	<5
D2 VB00969		39	1.1	128	11	54	7	23	28	<1	<5	18

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DATE PRINTED: 28-NOV-90

REPORT: V90-02742.0

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 VA13501		<5	1.75	207	<10	740	21	18	<20	<10	44	0.49
D2 VB00931		<5	2.00	138	<10	1700	51	7	<20	<10	4	1.09
D2 VB00932		<5	1.49	121	<10	2000	53	7	<20	<10	<1	1.10
D2 VB00933		<5	7.84	696	13	760	18	103	<20	<10	<1	3.40
D2 VB00934		<5	7.73	789	<10	480	16	104	<20	<10	<1	3.57
D2 VB00935		<5	2.23	164	<10	2200	54	6	<20	<10	<1	1.17
D2 VB00936		<5	2.39	<100	<10	1700	40	2	<20	<10	<1	1.03
D2 VB00937		<5	2.51	102	<10	1800	48	2	<20	<10	<1	1.08
D2 VB00938		<5	4.82	<100	<10	1700	48	1	<20	<10	<1	0.82
D2 VB00939		<5	1.50	<100	<10	1700	49	4	<20	<10	<1	1.02
D2 VB00940		<5	2.33	<100	<10	2200	48	6	<20	<10	4	0.97
D2 VB00941		<5	2.02	<100	<10	2200	40	2	<20	<10	<1	0.94
D2 VB00942		<5	1.93	<100	<10	1800	53	4	<20	<10	<1	0.96
D2 VB00943		<5	1.65	<100	<10	1900	38	3	<20	<10	<1	1.16
D2 VB00944		<5	2.91	215	<10	1500	46	34	<20	<10	<1	1.71
D2 VB00945		<5	3.56	<100	<10	2500	35	5	<20	<10	<1	1.09
D2 VB00946		<5	>10.00	110	<10	1000	54	3	<20	<10	<1	0.88
D2 VB00947		<5	1.76	<100	<10	2400	40	2	<20	<10	<1	1.00
D2 VB00948		<5	2.93	<100	<10	2600	52	2	<20	<10	<1	0.99
D2 VB00949		14	2.12	127	<10	800	35	7	<20	<10	<1	1.10
D2 VB00950		<5	4.94	<100	<10	2500	48	6	<20	<10	<1	1.16
D2 VB00951		<5	5.83	<100	<10	3100	39	<1	<20	<10	<1	0.92
D2 VB00952		<5	5.05	<100	<10	3300	48	<1	<20	<10	<1	0.99
D2 VB00953		<5	1.64	<100	<10	1900	37	2	<20	<10	<1	1.28
D2 VB00954		<5	3.02	<100	<10	1400	34	4	<20	<10	<1	2.27
D2 VB00955		<5	3.36	<100	<10	1200	28	5	<20	<10	<1	2.48
D2 VB00956		<5	5.89	124	10	1200	35	11	<20	<10	<1	2.43
D2 VB00957		<5	4.42	<100	<10	1900	26	6	<20	<10	<1	1.91
D2 VB00958		<5	4.52	150	<10	930	30	46	<20	<10	<1	4.46
D2 VB00959		<5	2.61	143	<10	720	24	19	<20	<10	<1	5.20
D2 VB00960		<5	2.27	203	<10	1100	25	16	<20	<10	1	5.08
D2 VB00961		<5	2.86	142	<10	1200	24	16	<20	<10	1	4.81
D2 VB00962		<5	7.61	<100	<10	1800	47	21	<20	<10	<1	2.95
D2 VB00963		<5	2.95	<100	<10	2300	36	7	<20	<10	<1	1.83
D2 VB00964		<5	4.36	170	<10	1600	113	40	<20	<10	<1	2.40
D2 VB00965		<5	2.30	148	<10	1800	59	14	<20	<10	<1	1.93
D2 VB00966		<5	2.77	<100	<10	1900	69	7	<20	<10	2	1.29
D2 VB00967		<5	2.84	<100	<10	1900	52	7	<20	<10	2	1.24
D2 VB00968		<5	1.39	<100	<10	2700	61	6	<20	<10	5	1.04
D2 VB00969		<5	6.06	264	13	2000	154	77	<20	<10	3	3.31

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SAMPLE NUMBER	ELEMENT UNITS	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM
P4 VA13501		0.27	0.38	<0.05	0.08	13	16
D2 VB00931		0.35	1.53	<0.05	0.26	24	10
D2 VB00932		0.50	1.06	<0.05	0.24	17	10
D2 VB00933		2.41	3.61	0.08	0.10	58	14
D2 VB00934		2.61	3.27	0.07	0.07	70	14
D2 VB00935		0.52	1.19	<0.05	0.28	20	10
D2 VB00936		0.34	0.86	<0.05	0.27	18	8
D2 VB00937		0.31	1.40	0.05	0.30	23	12
D2 VB00938		0.30	0.48	<0.05	0.26	10	10
D2 VB00939		0.28	1.17	<0.05	0.27	18	9
D2 VB00940		0.26	1.09	<0.05	0.31	26	10
D2 VB00941		0.21	1.41	<0.05	0.29	17	9
D2 VB00942		0.28	1.80	<0.05	0.26	18	11
D2 VB00943		0.39	1.27	<0.05	0.25	21	9
D2 VB00944		0.98	1.81	<0.05	0.24	25	8
D2 VB00945		0.36	0.80	<0.05	0.26	17	7
D2 VB00946		0.42	1.62	<0.05	0.14	12	11
D2 VB00947		0.34	1.25	<0.05	0.26	19	7
D2 VB00948		0.35	1.43	<0.05	0.25	15	7
D2 VB00949		0.63	1.21	<0.05	0.09	9	10
D2 VB00950		0.48	0.98	<0.05	0.23	12	8
D2 VB00951		0.30	0.61	<0.05	0.22	9	8
D2 VB00952		0.28	1.01	<0.05	0.24	12	9
D2 VB00953		0.34	1.63	<0.05	0.23	26	10
D2 VB00954		0.38	2.84	<0.05	0.19	58	11
D2 VB00955		0.50	2.84	0.14	0.17	75	8
D2 VB00956		0.68	2.98	0.19	0.18	75	12
D2 VB00957		0.74	1.52	0.07	0.18	44	8
D2 VB00958		1.17	3.84	0.37	0.12	151	11
D2 VB00959		1.11	5.58	0.30	0.09	167	11
D2 VB00960		1.26	6.03	0.47	0.14	183	11
D2 VB00961		1.22	4.18	0.46	0.14	224	11
D2 VB00962		0.38	1.88	0.30	0.12	117	11
D2 VB00963		0.19	1.14	0.13	0.15	108	7
D2 VB00964		0.55	2.98	0.14	0.13	92	7
D2 VB00965		0.50	1.88	0.15	0.12	62	9
D2 VB00966		0.06	0.97	0.08	0.16	47	5
D2 VB00967		0.06	0.76	0.06	0.15	40	4
D2 VB00968		0.14	0.39	0.05	0.24	28	8
D2 VB00969		0.93	2.11	0.19	0.26	81	8

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D2 VB00970		19	0.5	56	<2	4	5	8	15	<1	<5	9
D2 VB00971		23	0.4	73	2	1	4	7	18	<1	<5	10
D2 VB00972		94	0.6	214	<2	5	4	8	21	<1	<5	18
D2 VB00973		176	0.6	155	3	10	7	7	18	<1	<5	23
D2 VB00974		124	0.4	72	<2	5	6	6	14	<1	<5	15
D2 VB00975		18	0.4	51	<2	<1	4	5	14	<1	<5	5
D2 VB00976		38	0.8	199	<2	8	6	17	32	<1	<5	26
D2 VB00977		23	0.6	79	<2	5	3	4	13	<1	<5	9
D2 VB00978		20	0.5	97	4	4	3	6	15	<1	<5	8
D2 VB00979		30	0.6	80	8	4	3	6	15	<1	<5	11
D2 VB00980		174	2.7	935	29	722	4	44	87	<1	5	36
D2 VB00981		102	3.9	1085	132	8096	18	5	9	29	18	40
D2 VB00982		68	1.9	1030	9	575	9	3	11	<1	6	26
D2 VB00983		390	7.4	6963	11	742	16	17	9	<1	46	220
D2 VB00984		785	7.6	5150	61	1420	18	9	9	3	55	115
D2 VB00985		694	7.5	10212	12	546	30	9	4	<1	34	72
D2 VB00986		22	1.3	1198	56	89	5	16	11	<1	<5	12
D2 VB00987		10	0.7	566	31	82	5	5	11	<1	<5	8
D2 VB00988		18	0.8	516	10	40	3	5	14	<1	<5	19
D2 VB00989		29	1.4	1178	13	42	5	5	11	<1	<5	11
D2 VB00990		42	1.2	1249	17	42	5	5	13	<1	<5	12
D2 VB00991		60	3.1	2880	28	84	5	7	19	<1	7	26
D2 VB00992		65	0.6	282	28	125	3	4	12	<1	<5	17
D2 VB00993		85	1.6	1681	20	72	3	3	10	<1	<5	38
D2 VB00994		62	0.8	343	67	731	3	2	10	2	<5	8
D2 VB00995		14	1.0	748	45	1445	7	22	15	6	<5	12
D2 VB00996		23	0.8	274	13	68	3	9	26	<1	<5	11
D2 VB00997		<5	0.3	40	4	99	<1	3	11	<1	<5	<5
D2 VB00998		36	0.6	27	15	50	4	7	13	<1	<5	24
D2 VB00999		19	0.7	42	99	463	3	6	10	3	<5	17
D2 VB01000		56	0.6	75	244	763	3	10	18	5	<5	26
D2 VB01001		19	0.5	144	32	980	4	4	8	4	<5	14
D2 VB01002		29	0.4	130	17	1390	7	4	7	6	<5	8
D2 VB01003		26	0.4	109	13	975	5	4	8	4	<5	16
D2 VB01004		21	0.3	93	14	736	4	4	8	3	<5	15
D2 VB01005		25	0.6	86	127	1116	2	4	7	4	<5	<5
D2 VB01006		19	0.9	250	74	1833	3	4	7	8	<5	12
D2 VB01007		31	0.5	94	57	1478	3	4	7	6	<5	9
D2 VB01008		55	0.5	89	72	1436	2	3	7	5	<5	9
D2 VB01009		23	0.4	139	36	1174	3	4	7	4	<5	<5

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PROJECT: 605-116 PAGE 2B

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D2 VB00970		<5	2.61	<100	<10	2300	61	8	<20	<10	6	1.21
D2 VB00971		<5	2.22	<100	<10	1900	61	5	<20	<10	5	0.64
D2 VB00972		<5	6.34	<100	<10	4100	30	3	<20	<10	<1	0.91
D2 VB00973		<5	6.02	<100	<10	4200	49	4	<20	<10	2	0.69
D2 VB00974		<5	3.63	<100	<10	3300	45	4	<20	<10	3	0.60
D2 VB00975		<5	2.66	<100	<10	2500	36	4	<20	<10	2	0.56
D2 VB00976		<5	7.92	<100	10	3100	42	13	<20	<10	<1	0.77
D2 VB00977		<5	3.88	<100	<10	2000	39	5	<20	<10	3	0.69
D2 VB00978		<5	3.91	<100	<10	2500	42	5	<20	<10	3	0.56
D2 VB00979		<5	3.37	<100	<10	2800	50	6	<20	<10	5	0.91
D2 VB00980		<5	>10.00	267	16	4000	121	45	<20	<10	<1	2.10
D2 VB00981		<5	7.47	<100	17	7700	60	6	<20	<10	2	0.60
D2 VB00982		<5	6.22	<100	<10	11700	37	3	<20	<10	4	0.42
D2 VB00983		8	>10.00	<100	16	4100	90	7	27	<10	<1	0.22
D2 VB00984		18	2.28	<100	<10	3400=	54	6	<20	<10	<1	0.16
D2 VB00985		<5	>10.00	<100	20	3400	105	9	39	<10	<1	0.22
D2 VB00986		<5	2.51	<100	<10	4600	145	13	<20	<10	3	0.79
D2 VB00987		<5	2.00	<100	<10	3800	139	6	<20	<10	5	0.45
D2 VB00988		<5	4.69	<100	<10	8000	78	5	<20	<10	3	0.60
D2 VB00989		<5	2.57	<100	<10	7900	85	4	<20	<10	4	0.47
D2 VB00990		<5	2.53	<100	<10	8000	84	4	<20	<10	5	0.51
D2 VB00991		<5	6.36	<100	<10	6100	76	4	<20	<10	<1	0.64
D2 VB00992		<5	3.50	<100	<10	5000	54	6	<20	<10	6	0.66
D2 VB00993		<5	>10.00	<100	<10	4900	40	8	<20	<10	1	0.88
D2 VB00994		<5	4.68	<100	<10	4300	41	5	<20	<10	9	0.75
D2 VB00995		<5	3.34	127	11	2200	78	20	<20	<10	9	1.26
D2 VB00996		<5	5.16	192	11	1200	66	18	<20	<10	4	1.13
D2 VB00997		<5	2.07	252	<10	1100	53	13	<20	<10	6	1.56
D2 VB00998		<5	3.41	397	<10	980	60	8	<20	<10	1	0.81
D2 VB00999		<5	3.02	493	<10	940	60	7	<20	<10	2	0.93
D2 VB01000		<5	3.86	400	11	880	50	10	<20	<10	3	1.09
D2 VB01001		<5	2.72	338	<10	1200	57	8	<20	<10	5	1.26
D2 VB01002		<5	2.65	255	<10	1100	60	5	<20	<10	5	1.15
D2 VB01003		<5	2.60	160	<10	1200	58	6	<20	<10	4	1.03
D2 VB01004		<5	2.42	310	<10	1200	62	7	<20	<10	6	1.26
D2 VB01005		<5	3.04	674	<10	1100	56	7	<20	<10	5	1.43
D2 VB01006		<5	2.83	288	<10	1200	62	6	<20	<10	5	1.23
D2 VB01007		<5	2.82	312	<10	1200	55	5	<20	<10	5	1.06
D2 VB01008		<5	2.89	536	<10	1300	56	6	<20	<10	5	1.28
D2 VB01009		<5	2.65	492	11	1300	63	7	<20	<10	6	1.36

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

BONDAR-CLEGG

Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 28-NOV-90

REPORT: V90-02742.0

PROJECT: 605-116

SAMPLE NUMBER	ELEMENT UNITS	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM
D2 VB00970		0.05	0.73	0.08	0.21	47	4
D2 VB00971		<0.05	0.19	0.06	0.19	24	2
D2 VB00972		<0.05	0.26	0.13	0.16	28	3
D2 VB00973		<0.05	0.19	0.07	0.20	16	4
D2 VB00974		<0.05	0.15	0.07	0.20	16	3
D2 VB00975		<0.05	0.09	0.08	0.17	14	3
D2 VB00976		<0.05	0.21	0.07	0.23	11	2
D2 VB00977		<0.05	0.10	0.07	0.22	13	2
D2 VB00978		<0.05	0.10	0.05	0.20	10	3
D2 VB00979		<0.05	0.44	0.08	0.24	30	2
D2 VB00980		1.39	1.04	<0.05	0.20	14	8
D2 VB00981		0.11	0.72	<0.05	0.23	7	7
D2 VB00982		<0.05	0.11	<0.05	0.21	4	5
D2 VB00983		<0.05	0.35	<0.05	0.08	3	6
D2 VB00984		<0.05	0.37	<0.05	0.07	2	10
D2 VB00985		0.05	0.11	<0.05	0.08	2	9
D2 VB00986		0.31	0.74	<0.05	0.13	12	2
D2 VB00987		<0.05	0.19	<0.05	0.16	8	2
D2 VB00988		<0.05	0.23	<0.05	0.25	7	5
D2 VB00989		<0.05	0.12	<0.05	0.19	7	3
D2 VB00990		<0.05	0.13	<0.05	0.22	8	3
D2 VB00991		<0.05	0.19	<0.05	0.18	4	4
D2 VB00992		<0.05	0.14	0.09	0.19	29	4
D2 VB00993		<0.05	0.12	0.11	0.20	28	7
D2 VB00994		0.13	0.14	<0.05	0.29	11	7
D2 VB00995		0.66	0.73	<0.05	0.37	13	9
D2 VB00996		0.47	0.61	<0.05	0.29	18	6
D2 VB00997		0.69	0.80	<0.05	0.35	41	7
D2 VB00998		0.31	2.00	<0.05	0.30	22	6
D2 VB00999		0.41	1.95	<0.05	0.34	26	7
D2 VB01000		0.56	2.18	<0.05	0.39	26	8
D2 VB01001		0.66	1.75	<0.05	0.44	23	7
D2 VB01002		0.59	1.06	<0.05	0.40	17	5
D2 VB01003		0.42	0.49	<0.05	0.43	9	3
D2 VB01004		0.61	1.07	<0.05	0.47	15	5
D2 VB01005		1.00	1.76	<0.05	0.42	20	5
D2 VB01006		0.64	0.58	<0.05	0.45	10	3
D2 VB01007		0.55	0.72	<0.05	0.40	11	5
D2 VB01008		0.75	1.13	<0.05	0.43	14	6
D2 VB01009		0.81	1.42	<0.05	0.46	17	4

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

BONDAR-CLEGG

Certificate of Analysis

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V90-02742.6 (COMPLETE)

REFERENCE INFO: SHIPMENT #90-14

CLIENT: FALCONBRIDGE LIMITED
PROJECT: 605-116

SUBMITTED BY: G. ALLEN
DATE PRINTED: 4-DEC-90

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

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
D DRILL CORE	4	2 -150	4	SAMPLES FROM STORAGE	4

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

INVOICE TO: MR. NILS VON FERSEN

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
V7P 2R5
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BONDAR-CLEGG

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

Certificate of Analysis

REPORT: V90-02742.6

DATE PRINTED: 4-DEC-90
PROJECT: 605-116 PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PCT	Zn PCT
D2 VB00981			0.76
D2 VB00983		0.71	
D2 VB00984		0.57	
D2 VB00985		1.07	

Registered Assayer, Province of British Columbia

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
V7P 2R5
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BONDAR-CLEGG

Certificate of Analysis

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V90-02742.6

DATE PRINTED: 4-DEC-90
PROJECT: 605-116

SAMPLE NUMBER	ELEMENT UNITS	Cu PCT	Zn PCT
VB00981			0.76
Duplicate			0.76
VB00985		1.07	
Duplicate		1.06	

Registered Assayer, Province of British Columbia

APPENDIX E

Statement of Costs

STATEMENT OF COSTS

Drilling Costs

Burwash Contract Drilling			$ 31,819.08

Site Preparation and Reclamation

Ellison Excavating			$ 1,500.00

Analytical

Bondar Clegg			$ 1,632.00
Cominco			$ 462.00

Personnel

R. Stewart	Project Geologist	2 days	$ 500.00
G. Allen	Geologist	10 days	$ 2,000.00
R. Barrick	Technician	5 days	$ 450.00
B. Cochrane	Technician	2 days	$ 220.00

Vehicle

3/4 ton truck	10 days		$ 450.00

Office Overhead

Rent, utilities, report costs			$ 850.00

ACTUAL TOTAL: **$ 39,883.08**

TOTAL REPORTED ON STATEMENT OF WORK: **$ 35,000.00**

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.

February 8, 1991

Robert Stewart

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.

Gordon J. Allen

Gordon J. Allen, P. Geol.

Chemainus, B.C.

Dec. 21, 1990

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,955

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	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
		u	Chlorite Schist

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-Felspar 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

- Small bedrock outcrop
- Area of bedrock outcrop
- Bedding, top unknown; (inclined, vertical)
- Bedding, top(arrow); (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
- A A¹ Location of cross-section
- Base metal mineralized zone

ABBREVIATIONS

py	pyrite
po	pyrrhotite
sph	sphalerite
jsp	jasper
cpy	chalcopyrite
mt	magnetite
ep	epidotized
carb	carbonatized
sil	silicified
ser	sericitized
chl	chloritized
hem	hematitized
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:	DATE:
REVISED BY: GJA	DATE: 11-90
APPROVED BY:	DATE:
DRAWN BY:	DATE:
MAP #: 116-1-0198	

The McElhanney 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 1:5000	CONTOUR INTERVAL 20 metres
DATE COMPILED June 1987	SHEET NUMBER C W

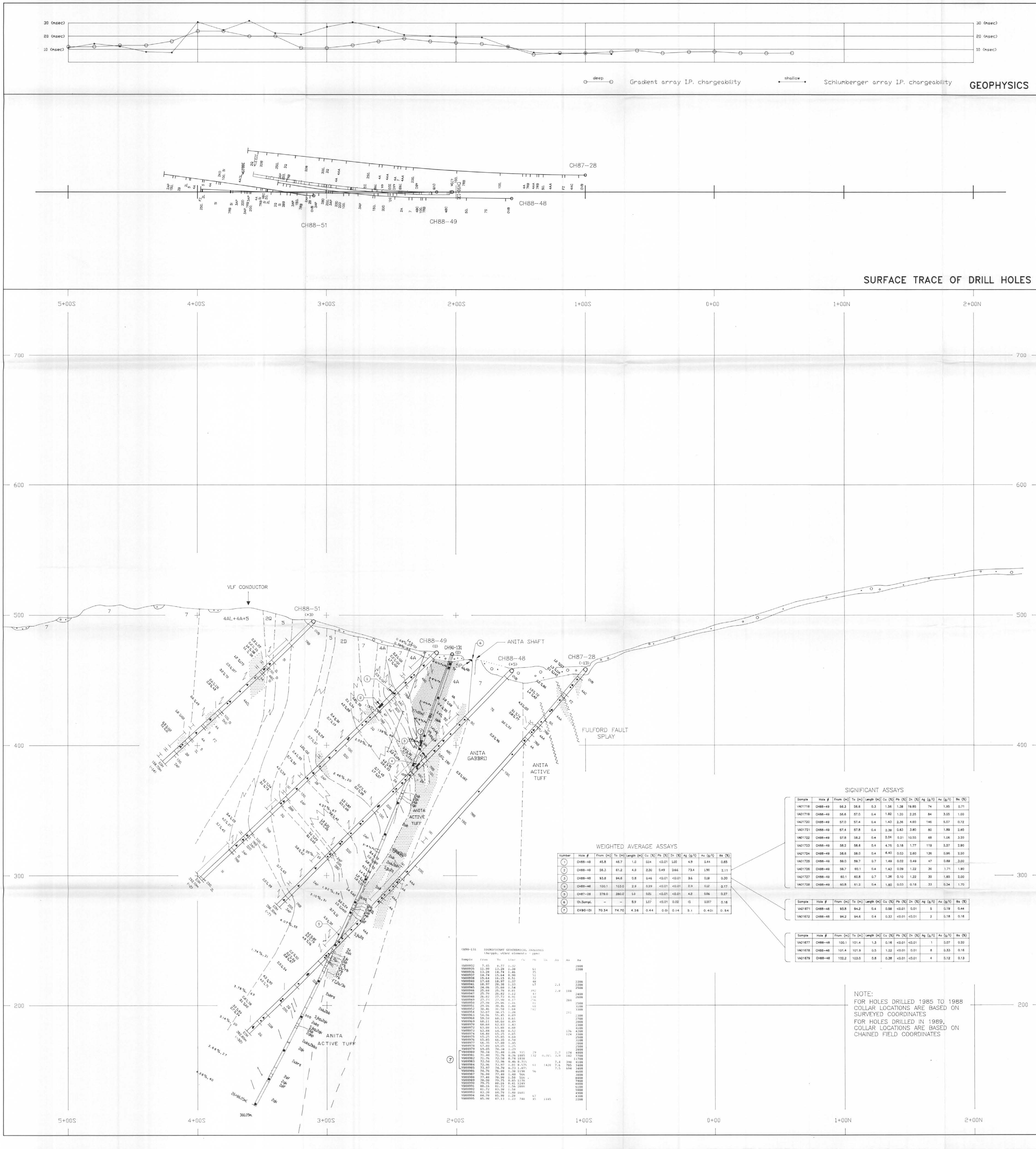
FALCONBRIDGE LIMITED

CHEMAINUS JOINT VENTURE

GEOLOGY

100 0 100 200 300 metres

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



WEIGHTED AVERAGE ASSAYS

Number	Hole #	From (m)	To (m)	Length (m)	Cu (%)	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)	Ba (%)
1	CH88-49	45.8	46.7	1.0	0.14	<0.01	1.00	4.9	0.44	0.65
2	CH88-49	56.3	61.2	4.9	2.30	0.49	3.66	73.4	1.90	2.11
3	CH88-48	93.8	94.6	0.8	0.46	<0.01	<0.01	3.6	0.18	0.30
4	CH88-48	100.1	103.0	2.9	0.39	<0.01	<0.01	2.9	0.12	0.17
5	CH87-28	279.0	280.0	1.0	0.21	<0.01	<0.01	4.2	0.06	0.27
6	Ch.Sampl.	–	–	0.9	1.07	<0.01	0.02	<1	0.107	0.16
7	CH90-131	70.34	74.70	4.36	0.44	0.01	0.14	5.1	0.401	0.54

SIGNIFICANT ASSAYS

Sample	Hole #	From (m)	To (m)	Length (m)	Cu (%)	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)	Ba (%)
VA01718	CH88-49	56.3	56.6	0.3	1.56	1.38	19.85	74	1.95	0.71
VA01719	CH88-49	56.6	57.0	0.4	1.92	1.20	2.25	84	3.05	1.00
VA01720	CH88-49	57.0	57.4	0.4	1.43	2.36	4.60	146	5.07	0.72
VA01721	CH88-49	57.4	57.8	0.4	2.39	0.63	3.80	80	1.89	2.60
VA01722	CH88-49	57.8	58.2	0.4	2.04	0.21	10.55	68	1.06	3.20
VA01723	CH88-49	58.2	58.6	0.4	4.75	0.18	1.77	119	2.57	2.90
VA01724	CH88-49	58.6	59.0	0.4	6.40	0.03	2.60	136	0.96	2.50
VA01725	CH88-49	59.0	59.7	0.7	1.49	0.02	0.49	47	0.69	3.00
VA01726	CH88-49	59.7	60.1	0.4	1.43	0.09	1.22	36	1.71	1.90
VA01727	CH88-49	60.1	60.8	0.7	1.36	0.10	1.22	35	1.65	2.00
VA01728	CH88-49	60.8	61.2	0.4	1.60	0.03	0.18	33	0.34	1.70

Sample	Hole #	From (m)	To (m)	Length (m)	Cu (%)	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)	Ba (%)
VA01671	CH88-48	93.8	94.2	0.4	0.58	<0.01	0.01	5	0.19	0.44
VA01672	CH88-48	94.2	94.6	0.4	0.33	<0.01	<0.01	2	0.18	0.16

Sample	Hole #	From (m)	To (m)	Length (m)	Cu (%)	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)	Ba (%)
VA01677	CH88-48	100.1	101.4	1.3	0.16	<0.01	<0.01	1	0.07	0.20
VA01678	CH88-48	101.4	101.9	0.5	1.22	<0.01	0.01	8	0.33	0.16
VA01679	CH88-48	102.2	103.0	0.8	0.38	<0.01	<0.01	4	0.12	0.13

CH90-131 SIGNIFICANT GEOCHEMICAL ANALYSES
(Au-ppb, other elements - ppm)

Sample	From	To	L(m)	Cu	Pb	Zn	Ag	Au	Ba
VB00932	7.45	8.77	1.32						2000
VB00935	11.90	13.28	1.38		61				2200
VB00936	13.28	14.74	1.46		75				
VB00937	14.74	15.64	0.90		51				
VB00938	15.64	16.15	0.51		72				
VB00940	17.60	18.97	1.37		48				2200
VB00941	18.97	20.30	1.33		67		2.1		2200
VB00945	24.06	25.60	1.54						2500
VB00946	25.60	25.70	0.01		392		2.0	104	
VB00947	25.70	26.82	1.12		43				2400
VB00948	26.82	27.73	0.91		130				2600
VB00949	27.73	27.90	0.17		256			284	
VB00950	27.90	29.06	1.16		81				2500
VB00951	29.06	30.46	1.40		60				3100
VB00952	30.46	31.50	1.04		102				3300
VB00954	32.87	34.15	1.28					211	
VB00963	54.56	55.45	0.89						2300
VB00968	59.50	60.11	0.61						2700
VB00969	60.11	60.60	0.49						2000
VB00970	60.60	62.03	1.43						2300
VB00972	63.00	63.88	0.88						4100
VB00973	63.88	64.40	0.52					176	4200
VB00974	64.40	65.25	0.85					124	3300
VB00975	65.25	65.85	0.60						2500
VB00976	65.85	66.35	0.50						3100
VB00977	66.35	67.80	1.45						2000
VB00978	67.80	69.05	1.25						2500
VB00979	69.05	70.34	1.29						2800
VB00980	70.34	71.40	1.06	935	29		2.7	174	4000
VB00981	71.40	71.76	0.36	1085	132	0.76%	3.9	102	7700
VB00982	71.76	72.50	0.74	1030					11700
VB00983	72.50	72.96	0.46	0.71%			7.4	390	4100
VB00984	72.96	73.97	1.01	0.57%	61	1420	7.6	785	3400
VB00985	73.97	74.70	0.73	1.07%			7.5	694	3400
VB00986	74.70	76.00	1.30	1198	56				4600
VB00987	76.00	77.40	1.40	566					3800
VB00988	77.40	78.90	1.50	516					8000
VB00989	78.90	79.75	0.85	1178					7900
VB00990	79.75	80.16	0.41	1249					8000
VB00991	80.16	81.72	1.56	2880					6100
VB00992	81.72	83.30	1.58						5000
VB00993	83.30	84.70	1.40	1681					4900
VB00994	84.70	85.90	1.20		67				4300
VB00995	85.90	87.13	1.23	748	45	1445			2200

NOTE:
FOR HOLES DRILLED 1985 TO 1988 COLLAR LOCATIONS ARE BASED ON SURVEYED COORDINATES
FOR HOLES DRILLED IN 1989, COLLAR LOCATIONS ARE BASED ON CHAINED FIELD COORDINATES

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 Phyric	J	Melanocratic
B	Feldspar Phyric	K	Bedded
C	Quartz-Felspar 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	R	Sheared
I	Leucocratic	R	Massive
		S	Lithic

SYMBOLS

- Overburden
- Bedding
- Foliation
- Fault
- Stratigraphic top
- 2.3 %120 • Na20(%), Zn(ppm) Whole rock sample
- 2.3 %100 ▲ Na20(%), Zn(ppm) Alteration sample
- <1.2% Na20
- Significant intersections
- Geochemical/assay sample interval
- Geological contact (inferred)
- Felsic-mafic contact

u	Unconformity	py	Pyrite
FZ	Fault zone	cpy	Chalcopyrite
FB	Fault breccia	po	Pyrrhotite
CAS	Casing	sp	Sphalerite
		ga	Galena

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,955

0 20 40 60 80 M
SCALE 1 : 1000

FALCONBRIDGE LIMITED

CHEMAINUS JOINT VENTURE
Vancouver Island, British Columbia

ANITA AREA

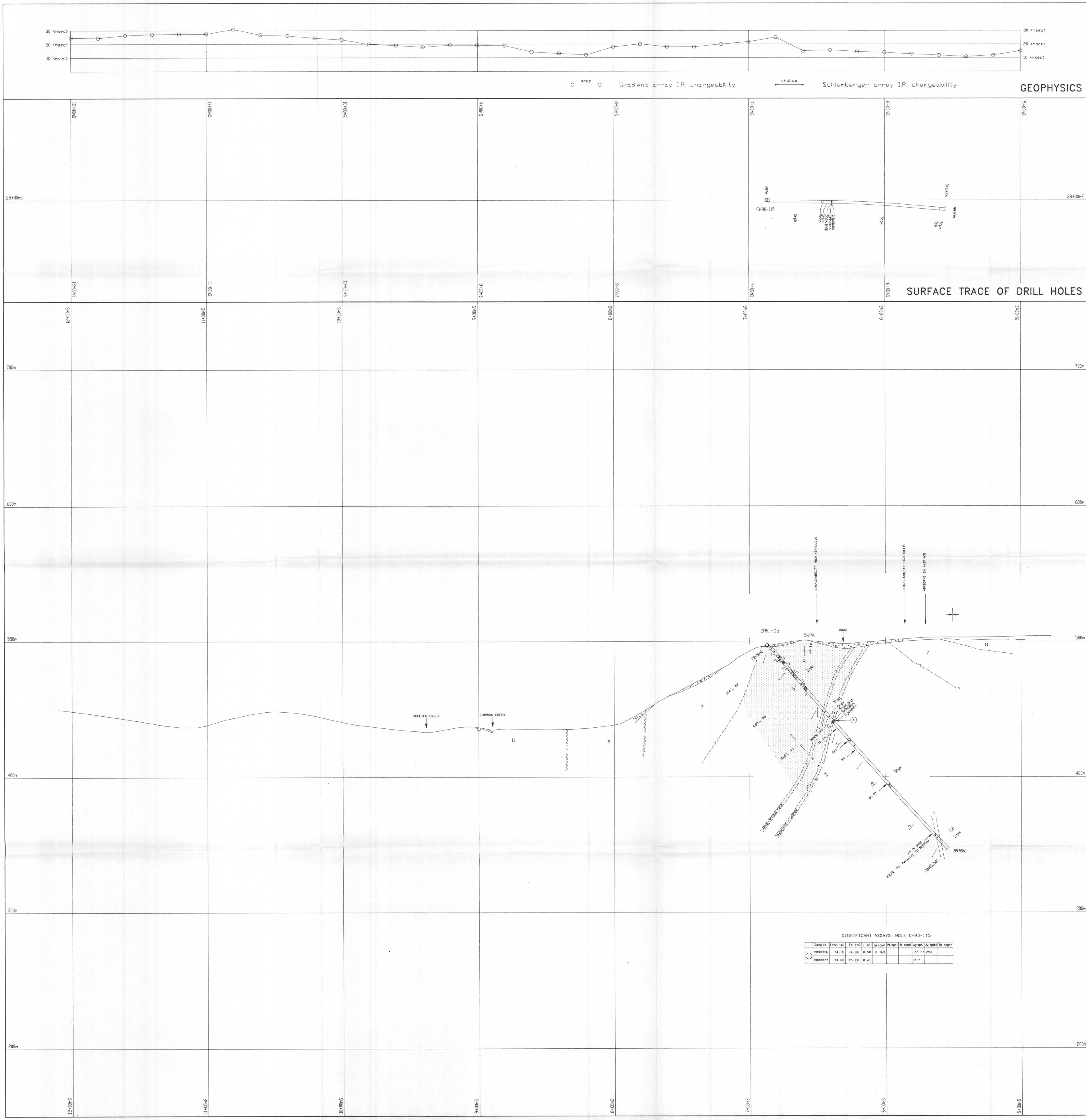
SECTION 27+00 EAST

HOLES CH87-28, CH88-48,-49,-51, CH90-131

WORK BY: GJA	CLAIM: CHIP 1	DWG.#116-5-0016	
DATE OF WORK: DEC 10 1990	PROJECT NO: 116		FIG NO: 6
DRAWN BY: I.P.S.			
DATE DRAWN: DEC 10 1990	N.T.S. NO.: 092B/13W		

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,955



SIGNIFICANT ASSAYS: HOLE CH90-115

	Sample	From (m)	To (m)	L (m)	Cu (ppm)	Pb(ppm)	Zn (ppm)	Ag(ppm)	Au (ppb)	Ba (ppm)
1	VB00006	74.38	74.88	0.50	0.16%			27.77	250	
	VB00007	74.88	75.29	0.41				2.7		

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 Phyric	J	Melanocratic
B	Feldspar Phyric	K	Bedded
C	Quartz-Felspar 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
2.3 Zn120 Na2O(%), Zn(ppm) Whole rock sample
2.5 Zn100 Na2O(%), Zn(ppm) Alteration sample
<1.2% Na2O
Significant intersections
Geochemical/assay sample interval
Geological contact (inferred)
Felsic-mafic contact
Broken core

U	Unconformity	py	Pyrite
FZ	Fault zone	cpy	Chalcopyrite
FB	Fault breccia	po	Pyrrhotite
CAS	Casing	sp	Sphalerite
HEM	Hematitic	ga	Galena

0 20 40 60 80 M
SCALE 1 : 1,000

FALCONBRIDGE LIMITED
CHEMAINUS PROJECT
Vancouver Island, British Columbia

ANITA AREA

SECTION 28+00 EAST

HOLE CH90-115

LOOKING 300° (TRUE)

DATE OF WORK: MAY 1990		CLAIMS: CHIP 2	
ORIGINAL BY: GJA	DATE: JUNE 1990	PROJECT NUMBER: 116	FIGURE NO: 7
REVISED BY:	DATE:		
DRAWN BY: CPW	DATE: AUG 30 1990	N.T.S. NO.: 092B/13W	
APPROVED BY:	DATE:	MAP #: 116-5-0807	