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1987 DRILLING ASSESSMENT REPORT  
ON THE  
CHEMAINUS JOINT VENTURE  
(Chip 1, Chip 12 Fr.)

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VANCOUVER, B.C.	

Situated 14 km west of Chemainus, B.C.  
in the Victoria Mining Division

45°53'N, 123°50'W  
NTS 92B/13W

Kidd Creek Mines Ltd.  
701 - 1281 West Georgia Street  
Vancouver, B.C.

FILMED

November 1987  
S. Enns  
J. Pattison

**GEOLOGICAL BRANCH B.C.**  
**ASSESSMENT REPORT**

16,825

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## SUMMARY

This report presents results of a portion of the 1987 Chemainus Joint Venture drilling program. The target is a volcanic-hosted, polymetallic, massive sulphide deposit in the Sicker Group on Vancouver Island. Examples of such deposits in the Sicker rocks include Westmin's Buttle Lake deposits with more than 21 million tons (production plus reserves) averaging 2% Cu, 6% Zn, 1.7 oz/T Ag and 0.07 oz/T Au) and the Twin J deposits at Mount Sicker which produced over 300,000 tons of ore grading 3% Cu, 7% Zn, 2.75 oz/T Au. Abermin Corporation has announced a significant discovery on claims adjacent to the Joint Venture project. Their Coronation Zone has an average grade of 1.5% Cu, 14.9% Zn, 3.1% Pb, 6.7 oz/T Ag and 0.24 oz/T Au. over 11 feet.

The project area consists of 15 claims (139 units) in two separate claim blocks. Drilling was conducted on the Chip 1 claim of the Chip-86 Group. The drilling was part of an equally funded joint venture program between Kidd Creek Mines Ltd. (wholly owned subsidiary of Falconbridge Limited) and Esso Minerals Canada; Kidd Creek Mines Ltd. was the operator for the Joint Venture.

Positive results of the 1986 drilling program led to drilling in 1987 to follow-up on mineralization discovered on the Chip 1 claim. A total of 3366m in 9 inclined NQ drill holes forms the basis of results presented in this report. This work was conducted over the time period May 24 to July 15, 1987.



The volcanic stratigraphy of the Chip 1 claim is comprised of a steep north-dipping, felsic mafic volcanoclastic succession, the south portion of which contains mineralization and which appears to be an overturned sequence. Drilling on the east part of the claim has traced weakly mineralized felsic tuffs for 400 m along strike. The felsic host to mineralization, known as the "Active Tuff" is characterized by high sericite content, variable 2 to 30% pyrite, elevated Ba and base metals content, and depleted  $\text{Na}_2\text{O}$ .

Bore-hole geophysics using the Crone pulse-EM system was conducted on most holes. This survey succeeded in detecting pyrrhotite mineralization but gave no appreciable response to pyritic base metal mineralization which typically is a poor conductor.

## **LOCATION, ACCESS, TERRAIN**

The Chemainus project area is located 12 to 16 km west of Chemainus on southeast Vancouver Island, in southwestern British Columbia (Figure 1). Chemainus lies just off the Trans-Canada Highway about 60 km northwest of Victoria. Established port facilities and related infrastructure in Chemainus and vicinity would enhance the economics of an orebody.

Access to the two claim blocks is by MacMillan Bloedel's main haul road known as the Copper Canyon Mainline which follows the Chemainus River. From this road, three 4-wheel drive roads provide access to various parts of the claims (Figure 2). The powerline road at mile 12 was used as the main access to drilling on the Chip 1 claim. Property access within the claim area is good due to numerous logging roads and old railway grades.

Surface and timber rights on much of the Chip claims are owned by MacMillan Bloedel. Access permits are required and damage to timber is subject to compensation charges.

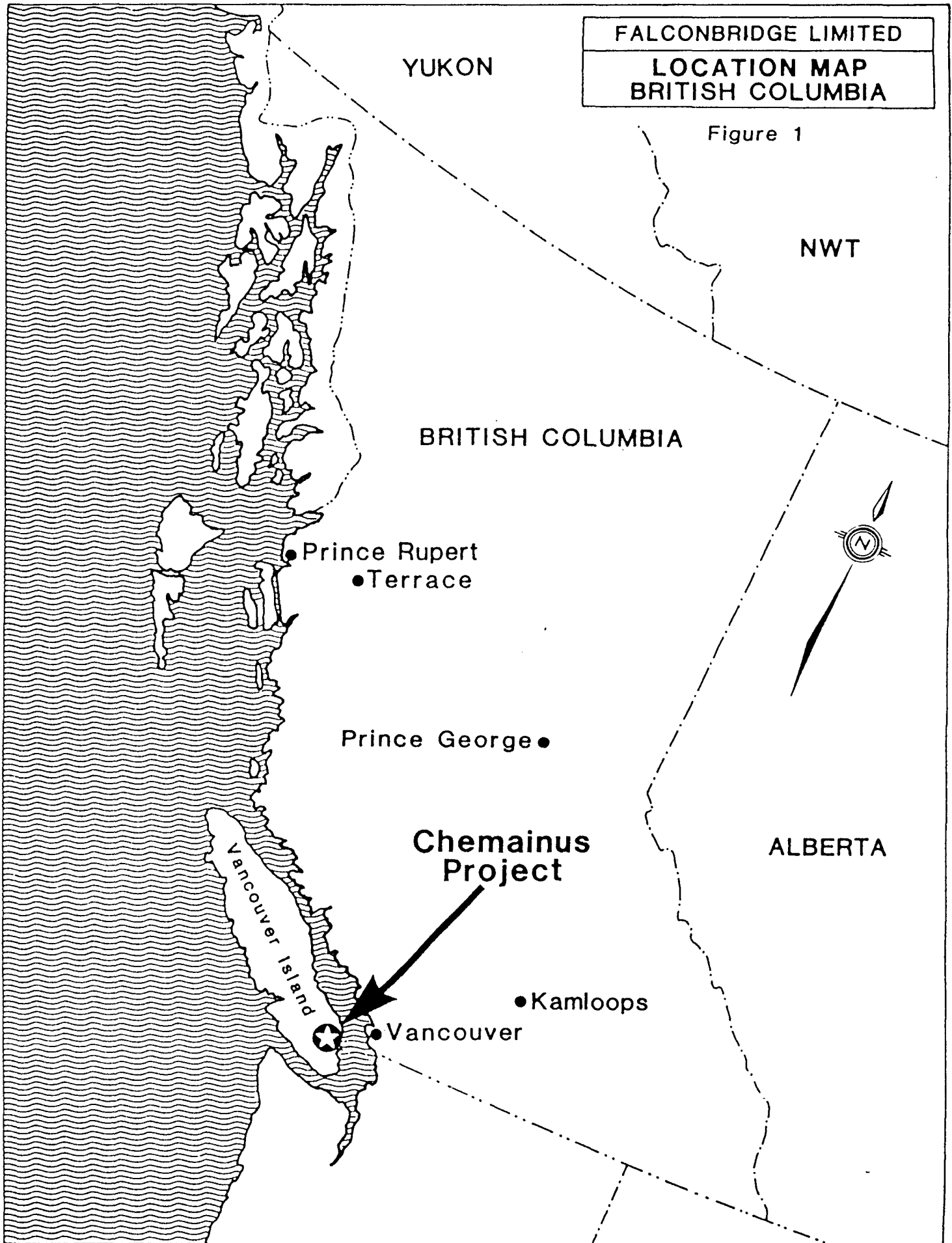
The terrain is characterized by rolling topography and incised canyons. All of the property has been logged and is in various stages of regrowth with cedar, fir and hemlock. The bush varies from dense second growth to clear cut areas. Undergrowth of salal is widespread and in places can be very thick. Elevations on the property vary between 500 and 1,100 m. Large, old stumps are a common inconvenience to the construction of access routes and drill set-ups.

A mild climate prevails with warm, dry summers and autumns, and short winters. Spring is usually wet. The higher elevations (above 1000 m) tend to have more severe winter temperatures and heavy snowfall but are usually clear of snow by the end of May. Elevations below 500 m may be snow-free throughout the entire year making extended fieldwork possible. Dry forest conditions usually occur from mid-July to mid-September, and forest closures due to high fire hazard must be taken into account when planning field work.

FALCONBRIDGE LIMITED

LOCATION MAP  
BRITISH COLUMBIA

Figure 1



YUKON

NWT

BRITISH COLUMBIA

• Prince Rupert  
• Terrace

Prince George •

**Chemainus  
Project**

ALBERTA

• Kamloops

• Vancouver

Vancouver Island

### PROPERTY DEFINITION AND CLAIMS STATUS

The Chemainus property consists of 15 claims (139 units) in two separate blocks within the Victoria Mining Division. Table 1 and Figure 2 summarize relevant details on claim data. The claims are jointly owned by Esso Minerals Canada and Kidd Creek Mines Ltd. (wholly owned subsidiary of Falconbridge Limited).

The Chip claims have all been grouped as the **Chip 86** group. At present, the Brent 1 and Holyoak 1 to 3 claims are ungrouped.

**TABLE 1: STATUS OF CLAIMS**

CLAIM	RECORD NO.	UNITS	STAKING DATE	EXPIRY DATE
Brent 1	163	10	May 5, 1978	May 11, 1996
Holyoak 1	1598	8	Oct 22, 1985	Oct 31, 1996
Holyoak 2	1599	16	Oct 23, 1985	Oct 31, 1996
Holyoak 3	1560	12	Oct 24, 1985	Oct 31, 1996
Chip 1	720	20	Nov 11, 1982	Dec 7, 1997
Chip 2	721	20	Nov 13, 1982	Dec 7, 1997
Chip 3	722	16	Nov 13, 1982	Dec 7, 1997
Chip 4	723	16	Nov 15, 1982	Dec 7, 1997
Chip 5	920	4	May 16, 1983	May 24, 1997
Chip 6	921	4	May 17, 1983	May 24, 1997
Chip 7	922	6	May 18, 1983	May 24, 1997
Chip 8	1424	4	Feb 22, 1985	Feb 27, 1997
Chip 11	1526	1	May 31, 1985	Jun 17, 1997
Chip 12 Fr	1608	1	Dec 11, 1985	Dec 12, 1997
Chip 13 Fr	1609	<u>1</u>	Dec 11, 1985	Dec 12, 1997

**Total** 15 claims 139 units

#### Notes:

The area comprised by the claims covers about 3,425 hectares (8,424 acres).

The claims are covered by NTS sheets 92 B/13W and 92C/16E.

Expiry dates are pending Gold Commissioner's approval of 1987 assessment work.



## PROPERTY HISTORY OF THE CHIP CLAIMS

The early property history on the Chip claims has been described by Everett and Cooper (1984):

"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, 15 km to the southeast. The volcanic belt has since undergone several periods of staking and prospecting.

In recent years, development of Westmin's deposit in the Buttle Lake Uplift 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."

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 Chip 1, 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 suggested the presence of  $\text{Na}_2\text{O}$  depletion on the Chip 1 claim.

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. The following year, ground follow-up of the selected airborne anomalies was started using time domain IP (Schlumberger array), VLF and magnetometer surveys, in conjunction with soil sampling and mapping of the grid lines. Most of the work focused on the Brent 1 and Holyoak 1, 2 and 3 claims and resulted in drilling 1534 m in 6 holes. Two of the holes intersected significant sulphides. The 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 m line spacing with IP, VLF and magnetometer surveys. Selected areas were covered with a deep penetrating IP survey using the Gradient Array, results of which guided the late fall drilling program. A total of 1854 m was drilled in six widely spaced holes, four of which intersected significant sulphides (three on the Chip 1 claim). The Anita shaft area was trenched with an excavator, mapped in detail and the exposed pyrrhotite lens was chip-sampled along its entire exposure.

Positive results of this work led to an aggressive drill program for 1987.



## GENERAL PROPERTY GEOLOGY

The two claim blocks lie within the Cowichan-Horne Lake Uplift, in which lower Paleozoic Sicker Group rocks are exposed. The property is underlain by felsic and mafic volcanic rocks (of Myra Formation equivalent) which trend northwest and dip steeply northeast. The surface geology of the Chip claims has been described in greater detail by Mallalieu, et al (1986), Enns (1985), and Everett and Cooper (1984). The volcanics are flanked on both sides by dark coloured pelitic and cherty sediments mapped by Muller (1980) as the "Sediment Sill Unit". These two formations are thought to be separated by a major fault at the north volcanic contact. The felsic volcanics host polymetallic sulphide mineralization.

Surface mapping on the Chip and Holyoak claims has shown that the volcanic succession is comprised of a complex, interbedded mixture of felsic tuffs and flows, mafic tuffs and flows with thin, green and black cherty beds, and minor intermediate tuffs. The volcanic stratigraphy which encloses Abermin's Coronation Zone, 2 km southeast, extends along strike onto the Chip 1 claim. Hanging wall stratigraphy in the Coronation Extension Zone underlies the southwest corner of the Holyoak 3 claim.

Small, localized quartz porphyry bodies (thick rhyolite flows) were identified at five localities and may be sites of felsic domes which could represent important, small, volcanic centres. The "footwall rhyolite" which lies beneath and east of Abermin's Coronation Zone is interpreted to be a local felsic dome.

The volcanics are intruded by late gabbroic sill-like bodies of Jurassic age. These gabbro intrusions have separated or dilated the volcanic stratigraphy, often in mineralized zones.

Cretaceous, Nanaimo sediments comprised of basal cobble conglomerate, sandstone and black shale unconformably overlies both volcanic and gabbro lithology. The Nanaimo sediments have been truncated by compressional (reverse) faulting which is bedding plane parallel. These faults have been oversteepened by a yet later structural event.

## THE 1987 DRILLING PROGRAM

The drilling was conducted over a period extending from May 14 to July 15, 1987. Although a total of 6753.7 m of NQ core was drilled in 18 inclined holes, for this report, the drilling results for 9 holes drilled on section 34+00E to section 47+00E on the Chip 1 grid are given. Table 2 summarizes the drilling data including results. The all-inclusive drilling costs for the program were \$580,000.

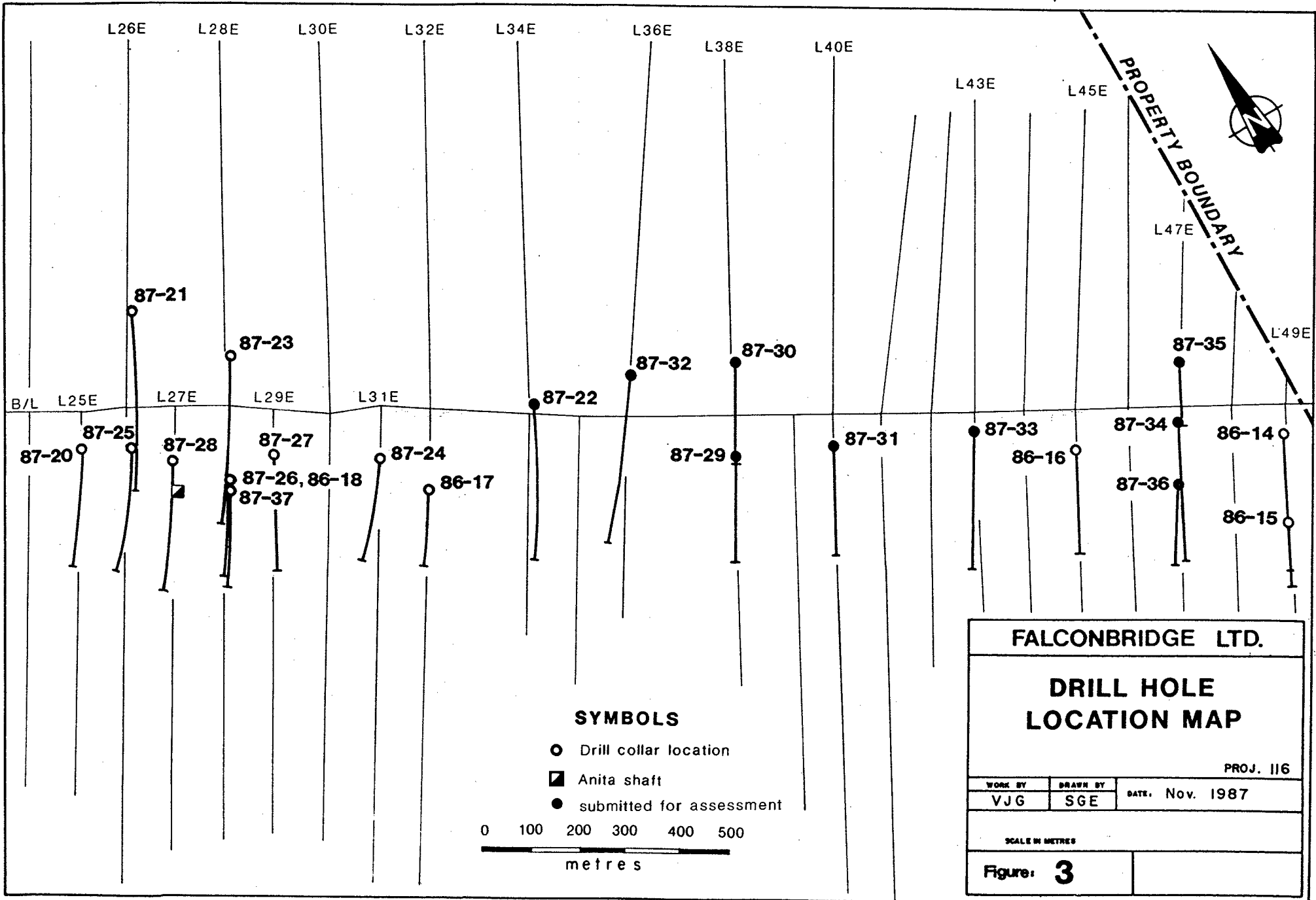
The contractor for the job was Burwash Enterprises Ltd. of Cobble Hill, B.C., who used two Longyear Super 38 drills equipped with air-cooled diesel engines. A D-6H Caterpillar tractor was used to move drills and to prepare the drill pads.

All the drill sites were accessible by four-wheel drive vehicles. Site locations were chosen to avoid large timber and steep slopes as much as possible and to take maximum advantage of abandoned logging roads.

This year, timber was cut and bucked to 8-foot lengths ahead of construction of access routes. This method significantly reduced timber damage and lowered clean-up costs.

The drill hole locations are plotted on Figure 3 at a scale of 1:10,000 and on Figure 4 at a scale of 1:2,000. Drill sections are plotted on a scale of 1:1,000 (Figures 5 to 10).

Each core run was converted to metric depth, and marked on special pre-cut wooden blocks. The drill core was then systematically photographed and logged. RQD (rock quality designation) data was also recorded for future use. Dip tests were taken by single-shot Sperry



L26E

L28E

L30E

L32E

L34E

L36E

L38E

L40E

L43E

L45E

L47E

L49E

B/L

L25E

L27E

L29E

L31E

87-21

87-23

87-32

87-30

87-35

87-22

87-20

87-25

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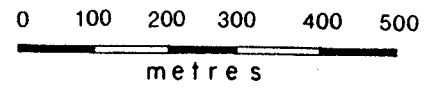
87-36

86-15

87-37

**SYMBOLS**

- Drill collar location
- ▣ Anita shaft
- submitted for assessment



PROPERTY BOUNDARY



Sun instrument with an attempt to test every 50 to 75 m. Selected mineralized intervals were split, and sawn in half for analysis. Lithogeochemical samples were taken about every 10 metres (on average). A skeletal core record was routinely selected during logging with samples about every 10 or so metres. The skeletal core and major oxide data are valuable in making lithological correlations between drill holes. The logging was conducted using Derry, Michener, Booth and Wahl's LOG II system. Data was entered on Radioshack TRS 80 computers at the core box, then uploaded into a Toshiba T-3100 computer at the end of each day for editing and print-out. Later, the analytical data were merged with the drill logs' 'files' and final logs were printed out. The drill logs are listed in Appendix A.

Most of the drill holes were surveyed with the Crone Pulse-EM bore-hole system. Surveys were conducted by Dennis Woods of White Geophysical Ltd. Prior to the survey, holes were lined with threaded, white plastic piping which was recovered on survey completion. The results from this survey are covered in separate reports.

Bondar-Clegg of North Vancouver analysed the split core by geochemical methods for Cu, Pb, Zn, Mo, Ag, Fe, Mn, Cd, Co, Ni, As and Ba. An  $\text{HNO}_3\text{-HCl}$  hot extraction and analysis by DC Plasma were used for analysis of all elements except Au and Ba. A fire assay preparation with AA finish was used for Au and X-Ray Fluorescence was used to give a total analysis for Ba. An assay preparation method was applied to all samples. Base metal levels exceeding 3000 ppm were re-analysed using standard assay techniques, as were Ag and Au levels respectively, exceeding 30 ppm and 1,000 ppb.

X-Ray assay Labs of Don Mills, Ontario analysed the litho geochemistry samples. The analysis included a standard major oxide package which includes Cu, Zn and Ba.

Results for base metal analysis are listed by hole in Appendix B and in the drill logs. Major oxide analytical results are listed by hole in Appendix C with sample plots shown on appropriate drill sections keyed to lithology. The Cu, Zn and Ba results of major oxide samples are listed in the drill logs. Major oxides were used to calculate an alkali alteration index which is shown on drill sections for those samples where the index exceeds 60. Calculation of the Ishikawa Index (Ishikawa, et al, 1976) is given by the equation:

$$I = \frac{\text{MgO} + \text{K}_2\text{O}}{\text{MgO} + \text{K}_2\text{O} + \text{Na}_2\text{O} + \text{CaO}}$$

All the drill core (including previous years' drilling) is stored on racks at a farm just outside Chemainus, at 3037 River Road.

TABLE 2: SUMMARY OF DRILLING DATA AND RESULTS

HOLE	LOCATION	DIRECTION	DEPTH	DURATION	TARGET	RESULTS
CHEM87-22 Section 34+00E	CHIP 1 Claim (Centre) Grid: 34+20E; 0+20N Elev: 555m UTM: N 5,416,700 E 430.666	-50/210 Az	474.6m	May 24/87 am May 31/87 am	Determine geology north of 'Active Tuff'. Test broad, deep resistivity low between 1+00 and 2+00S. Test VLF at 1+40S and 2+20S.	Felsic tuffs intruded by gabbro at top of hole. Fulford Fault at 195 m has thrust in Nanaimo Group sediments which unconformably overlies gabbro. Graphitic Nanaimo sediments explain resistivity low. Mafic volcanics at bottom of hole.
CHEM87-29 Section 38+00E	CHIP 1 Claim (Centre) Grid: 38+00E; 0+88S Elev: 557m UTM: N 5,416,425 E 430,962	-50/210 Az	296.3m	June 16/87 pm June 20/87 am	Test VLF anomalies at 1+60S and 2+15S and deep chargeability anomaly between 2+20S and 2+80S with a flanking weak resistivity low between 1+85S and 2+00S.	Mafic volcanics at top of hole overlie 58.8 m of felsics in fault contact with Nanaimo sediments. Nanaimo rocks unconformably overlie mafic volcanics. Fault positions explain VLF anomalies. Deep chargeability not explained by drill core.
CHEM87-30 Section 38+00E	CHIP 1 Claim (Centre) Grid: 38+05E; 1+22N Elev: 585m UTM: N 5,416,605 E 431,100	-50/210 Az	340.2m	June 17/87 am June 21/87 am	Test VLF anomalies at 0+60N and 1+60S at depth.	VLF explained by faults. Mainly felsic tuffs with short mafic and intermediate sections.
CHEM87-31 Section 40+00E	CHIP 1 Claim (Centre) Grid: 40+00E; 0+60S Elev: 570m UTM: N 5,416,350 E 431,138	-50/210 Az	340.5m	June 21/87 am June 26/87 am	Test VLF anomaly at 2+00S. Test shallow IP anomalies centred at 0+80S and 2+60S and weak, deep IP anomalies centred at 1+40S, 2+20S and 3+00S.	Mixed mafic and felsic volcanics in upper half of hole. VLF anomaly explained by strong fault at 170 m. Fulford Fault truncated top of 'Active Tuff' at 221.6 m. Chargeability explained by pyritic 'Active Tuff' at 221.6 to 239.7 m above mafic volcanics contact. Mineralized intersection includes 0.4 m @ 249.6 m of 0.50% Cu, 1.36% Pb, 134g/t Ag and 4.76g/t Au.
CHEM87-32 Section 36+00E	CHIP 1 Claim (Centre) Grid: 36+00E; 0+80N Elev: 585m UTM: N 5,416,675 E 430,910	-50/210 Az	465.1m	June 21/87 pm June 28/87 am	Test VLF conductors at 0+60N and 1+80S. Test deep chargeability centred at 1+60S and 2+40S and a broad resistivity low centred at 1+80S.	Upper 290 m is mainly felsic with minor mafic volcanic interbeds. Nanaimo shales are faulted in unconformably overlies pyritic felsic tuffs ('Active Tuff'). VLF anomaly explained by fault and resistivity low by the black graphitic Nanaimo shales. 123.5 m of 'Active Tuff' with low core angles contain: elevated Ba and Au, (2000 to 4000 ppm Ba and up to 200 ppb Au), including 4.0 m of 3700 ppm Ba @ 410.0 m, and 0.5 m of 2731 ppm Cu @ 416.4 m.

HOLE	LOCATION	DIRECTION	DEPTH	DURATION	TARGET	RESULTS
CHEM87-33 Section 43+00E	CHIP 1 Claim (East) Grid: 43+00E; 0+40S Elev: 595m UTM: N 5,416,675 E 431,407	-50/210 Az	441.3m	June 26/87 pm June 29/87 pm July 9/87 am July 13/87 pm	Test weak deep IP chargeability anomaly between 1+80S and 3+00S. Test strong VLF conductor at 2+20S. Test for strike extension of weakly mineralized zone in hole CHEM86-16, 200 m east.	85.5 m of felsic tuffs at top of hole, followed by 117.6 m of mafic tuffs and minor flows, followed by 64.4 m of faulted-in felsic tuffs and last third is gabbro. VLF anomaly explained by Fulford Fault at 226 m. "Active Tuff" absent on this section.
CHEM87-34 Section 47+00E	CHIP 1 Claim (East) Grid: 47+00E; 0+40S Elev: 660m UTM: N 5,416,150 E 431,850	-50/210 Az	391.1m	June 29/87 pm July 5/87 am	Test coincident, deep and shallow IP resistivity low at 2+05S and a shallow IP chargeability at 2+80. Test VLF conductors at 2+40S and 2+80S.	Intersected felsic tuffs to 169.7 m, then mafic tuff to 270 m with narrow pyrrhotite mineralized band in minor felsic succession. Pyrrhotite-pyrite-chalcopyrite band contains 0.69 % Cu over 1.0 m @ 224.0 m. A major fault (Fulford Fault?) at 270 m lies above "Active Tuff" which includes: 0.34 % Zn over 2.0 m @ 280.0 m. 1748 ppm Zn over 2.1 m @ 296.0 m. 1403 ppm Zn over 2.0 m @ 320.0 m. Ba-rich cherts and argillite followed by 39.0 m of gabbro at bottom of hole. Cherty argillite includes: 11,000 ppm Ba over 2.0 m at 388.0 m. VLF anomalies caused by faults. Pyrrhotite mineralization cause of VLF at 2+40S
CHEM87-35 Section 47+00E	CHIP 1 Claim (East) Grid: 47+00E; 1+83N Elev: 710m UTM: N 5,416,248 E 431,862	-50/210 Az	359.1m	June 30/87 pm July 5/87 am	Define stratigraphy north of holes CHEM87-34 and 36.	Thick succession of felsic tuffs with 44.9 m of felsic flow or dome? (183.8 to 227.7m) and minor mafic interbeds.
CHEM87-36 Section 47+00E	CHIP 1 Claim (East) Grid: 47+00E; 1+52S Elev: 640m UTM: N 5,415,970 E 432,200	-45/210 Az	257.6m	July 5/87 pm July 9/87 am	Test VLF anomaly at 2+40S and 2+80S. Test coincident, shallow and deep chargeability anomalies at 1+ 80S. Test coincident shallow and deep IP resistivity lows at 2+80S and 3+00S.	140 m felsic succession including 4.2 m of semi - massive pyrrhotite-pyrite-chalcopyrite-sphalerite with 0.89 % Cu over 0.8 m @ 107.0 m corresponds to VLF anomaly at 2+40S. Fulford Fault at 145.0 m with underlying 6.1 m of "Active Tuff" correlates with CHEM87-34 and weak chargeability anomaly and includes: 1900 ppm Zn over 1.3 m @ 150.7 m 1650 ppm Zn over 1.0 m @ 153.0 m 1228 ppm Zn over 1.8 m @ 155.0 m Bottom half of hole is mafic cherty tuffaceous sediments transitional into dark cherty argillite, as in CHEM87-34.



## DESCRIPTION OF DRILLING RESULTS

### General Statement

Drilling on the Chip 1 claim has outlined north-dipping volcanic stratigraphy along strike of Abermin Corporation's Coronation Deposit located 2 km southeast of the claim. A weakly mineralized zone was outlined along 400 m of strike on the east side of the Chip 1 claim.

A major north-dipping fault was encountered on every section drilled. This major structure divides the volcanic sequence into two blocks. It correlates with the Fulford Fault which is a north-dipping, over-steepened reverse fault with a west-northwest strike extending from Fulford Harbour on Saltspring Island along the entire Cowichan - Horne Lake Uplift. Abermin Corporation's Coronation Deposit lies within the hanging wall of this fault. On the Chip 1 claim, however, the strongest sulphide mineralization occurs in the footwall of the fault. Volcaniclastic rocks from the north have been thrust over Late Cretaceous Nanaimo Group sediments to the south along this fault between Lines 29+00E and 38+00E (in the centre of the Chip 1 claim). A north-dipping unconformity separates the Nanaimo sediments from volcaniclastics the south of the fault. Considerable relief is apparent along this conformity.

Sulphides are hosted by a belt of sericitic, felsic, ash to lapilli tuffs and flows collectively known as the "Active Tuff". The "Active Tuff" is characterised by high sericite content and 2 to 30% pyrite, high Ba levels (often 2,000 to 4,000 ppm), variably anomalous Au

levels of 50 to 300 ppb, and  $\text{Na}_2\text{O}$  depletion. Cu, Pb, Zn and Ag mineralization may be locally present; chalcopyrite commonly is accompanied by trace amounts of pale green malachite (?). Where present, the "Active Tuff" generally occurs immediately south of the Fulford Fault. The stratigraphic position of the "Active Tuff" appears to be adjacent to the mafic volcanic succession. In the central Chip 1 claim, the "Active Tuff" is partly to completely dyked out by one of several east-trending gabbros. The "Active Tuff" appears to be continuous from Line 45+00E to 49+00E and is at least 15 to 45 m wide. It contains 5 to 17% pyrite with weak base metal mineralization.

The mafic sequence which occurs immediately south of the "Active Tuff" between lines 34+00E and 40+00E is comprised of dark- to medium-green mafic ash to lapilli tuffs, flows and mafic tuffaceous sediments. Bedding is often present; occasional graded beds can be recognized. Most graded beds show tops to the south indicating that stratigraphy is overturned. The mafic tuffs and flows are often spotted with epidote patches 1 to 10 mm long and frequently contain up to 5% black, chloritized hornblende crystals (altered pyroxenes) 1 to 10 mm long. The sequence is about 115 m thick on the west side of Chip 1. The flows are massive with rare amygdaloidal sections. This mafic sequence is "dyked out" on line 43+00E and appears to pinch out into cherty argillites and siltstones farther to the east.

Few holes test the geology north of the Fulford Fault. In general, the felsic tuffs are weakly

chloritic and less sericitic than those south of the fault and they are complexly interbedded with minor mafic and intermediate tuffs.

A distinctive, magnetite-bearing felsic flow approximately 50 m thick is present on Line 47+00E (hole CHEM87-35). This flow is massive and contains up to 5% finely disseminated magnetite. Felsic lapilli tuff with clasts of pink-tinged flow material occurs immediately north and south of the flow. Pinkish tinged, magnetitebearing felsic tuffs were also noted 300 m to the east on section 43+00E (top of hole CHEM87-33).

The structure of the property is still not well understood. One major fault zone (Fulford Fault) has been recognized but numerous fault gouges in most of the holes indicate the abundance of splays and possible offsets. The lack of outcrop and ambiguous core axis angles often limit the reliability of dip measurements. Drill sections on the west side of the Chip 1 claim show that the stratigraphy south of the fault is overturned and dips at 50° to the north, whereas stratigraphy appears to dip 60° north, north of the Fulford Fault. On section 47+00E on the east side of Chip 1, the tuffs north of the fault dip 78° north.

A peculiar lithologic sequence was noted on sections 47+00E and 49+00E. The geology intersected by the two "fences" of drill holes (especially section 49+00E) indicates that in addition to the trace of the Fulford Fault, a shallow, south-dipping fault may be present but with small apparent displacement.

**Section 34+00E (Figure 5):**

Hole CHEM87-22 intersected a 170 m succession of relatively barren felsic, intermediate and mafic tuffs followed by 20.6 m of gabbro. The Fulford Fault at 197.4 m has "thrust in" a panel of younger Nanaimo Group sediments unconformably overlying a gabbro intrusion at 261.8 m. This fault appears to dip about 65° north which, when projected to surface, correlates well with the axis of the VLF conductor.

The gabbro extends to a depth of 396.00 m and appears to have completely "dyked out" the "Active Tuff".

A sequence of mafic tuffs, flows and tuffaceous sediments occur beneath the gabbro. The hole ends in a massive hornblende-bearing flow at a depth of 474.6 m.

The broad resistivity low and the broad VLF conductor centred at 2+00S are probably explained by the black graphitic argillite of the Nanaimo Group.

**Section 36+00E (Figure 6)**

Drill hole CHEM87-32 was collared in felsic tuff and intersected mainly barren felsic tuff above 289.6 m with minor intervals of chlorite schist and mafic flows, tuffs and sills. At 222.3 m, a graded bed of felsic quartz-feldspar crystal tuff fines to the north. The best assay sample is 0.5 m long, starts at 205.9 m with 4% pyrrhotite and 5% chalcopyrite assaying 1.62% Cu. The weak IP chargeability anomaly is centred on this zone.

The Fulford Fault, at 289.6 m, separates felsic tuffs from Nanaimo Group sediments. The Nanaimo

Group sediments consist of argillite, sandstone and conglomerate. The deep IP resistivity low is probably due to the graphitic Nanaimo argillite. The Nanaimo sediments rest unconformably on felsic tuffs at 322.8 m.

Pyritic felsic tuffs of the "Active Tuff" occur for 123.5 m below the unconformity. Core axis angles are low, indicating that the hole is sub-parallel to the weakly mineralized zone. Minor chalcopyrite, galena and traces of mariposite are locally present where pyrite reaches up to 8%. This unit is probably the source of the second IP chargeability anomaly centred at 2+40S. The entire unit contains anomalous amounts of Au. The longest continuous sample interval is 56.7 m (starting at 324.0 m) which averages 62 ppb Au. A 0.5 m sample taken at 416.4 m contains 2,731 ppm Cu and 2,900 ppm Ba. A 7.0 m interval starting at 410.0 m and including the previously mentioned sample contains 3,300 ppm Ba.

The hole ended in gabbro at a depth of 465.1 m.

#### **Section 38+00E (Figure 7):**

A fence of two holes CHEM87-29 and 30 was drilled along section 38+00E. Hole CHEM87-30 at the north end of the section, intersected relatively barren felsic tuffs with minor mafic tuffs and flows to a depth of 247.7 m. These tuffs are sheared and contorted; fault gouges are common. Two major fault zones occur in this interval. One is at 42 m and corresponds to the VLF conductor at 0+60N, and other is at 150 m and does not have a geophysical expression. A graded bed at 93.7 m fines to the south. Epidote-altered mafic flow occurs between 247.7 and 274.1 m. Below 274.1 m, the hole intersects felsic to intermediate tuffs until it ends at a depth of

340.2 m. A major fault occurs just above the bottom of the hole, which may be a splay off the main Fulford Fault.

CHEM87-29 was collared in epidote-spotted mafic flows with minor mafic tuffs which extend to a depth of 84.9 m. They appear to correlate with epidote-altered mafic flows between 224.3 and 274.1 m in CHEM87-30 indicating that stratigraphy dips  $53^\circ$  north. Core axis angles, however, suggest steeper dips ( $75$  to  $80^\circ$ ) to the north.

Chloritic felsic tuff with less than 2% pyrite was intersected between 84.9 and 139.6 m. Numerous minor slips occur throughout this section. A major fault zone at 100 m correlates with the fault zone at the bottom of hole CHEM87-30 (splay from Fulford Fault). It dips  $70^\circ$  north and explains the VLF conductor at 1+60S.

The Fulford Fault at 143.7 m has "faulted in" younger Nanaimo Group sediments below older mafic tuffs. The fault correlates with the VLF conductor at 2+15S. The Nanaimo sediments consist of dark brown argillite with 2-3% very fine grained pyrite and a basal pebble conglomerate. Pebble conglomerate rests unconformably on mafic ash tuff at 156.6 m. The deep resistivity low is probably an expression of the graphitic Nanaimo argillite.

The "Active Tuff" has either pinched out or been completely eroded away on this section. Mafic ash tuff with minor mafic flows and occasional beds of cherty sediments less than 10 cm thick occur below the unconformity and continue to the end of the hole at a depth of 296.3 m. This mafic unit lies directly beneath the deep and shallow IP chargeability anomalies between

2+20S and 2+80S but the amount of contained sulphides encountered in the hole is insufficient to explain the chargeability anomalies.

**Section 40+00E (Figure 8):**

Hole Chem87-31 began in barren chloritic tuff but quickly passed into a 92.3 m section of mafic tuffs and flows down to a depth of 118.4 m. The tuffs are medium- to dark-green, are often epidote-spotted and occasionally range into intermediate compositions. They lie 200 m east along strike of the epidote-spotted mafic flows encountered at the top of CHEM87-29 and in the middle of CHEM87-30 on Line 38+00E. The shallow IP chargeability anomaly at 0+40S and the deep IP chargeability anomaly at 1+25S are not explained by the core. The hole may have passed over top of the source to the anomalies.

Between 118.4 and 192.1 m a succession of barren felsic tuffs, usually quartz-eye bearing, contains several minor intervals of mafic to intermediate tuff. A fault at 175 m explains the VLF conductor at 1+80S. Another fault at 192.1 m separates chloritic quartz-feldspar crystal tuff from massive gabbro below which extends down to 221.6 m.

The gabbro contains an 0.8 m wide inclusion of felsic ash tuff and is separated by the Fulford Fault from the "Active Tuff" below.

Pyritic sericitic, mostly quartz-eye bearing felsic tuffs make up the "Active Tuff" (between 221.6 and 239.7 m) which contains 1 to 10% pyrite and nil to trace chalcopryrite. The upper 6.5 m of the section contains 1,093 ppm Cu and 103 ppb Au. Mineralization occurs directly beneath the deep IP chargeability anomaly at

2+20S. The shallow IP anomaly at 2+50S is probably an updip expression of the same zone.

Below the "Active Tuff" the hole intersected a succession of mafic tuffs and flows to the end of the hole at 340.5 m. These mafic rocks differ from those found south of the "Active Tuff" in holes farther to the west in that the mafic rocks here contain trace to 3% disseminated ilmenite (average 0.95%  $\text{TiO}_2$ )

A small section of altered quartz-eye bearing felsic ash tuff occurs between 249.3 and 250.0 m with 10% pyrite, 2% chalcopryrite and 1% galena. A 0.4 m sample of this tuff contains 0.59% Cu, 1.36% Pb, 134 g/t Ag and 4.77 g/t Au.

**Section 43+00E (Figure 9):**

Drill hole CHEM87-33 was collared in a mottled pale salmon pink to green felsic tuff with traces of magnetite. The pink colouration is caused by hematization of the feldspars. This tuff is similar in appearance to magnetite-bearing felsic tuffs and flows in hole CHEM87-35 (163.9 and 250.9 m) on Line 47+00E. Magnetite-bearing tuffs (felsic and mafic) occur to a depth of 25.5 m. Chloritic felsic ash to lapilli tuffs with minor amounts of mafic ash tuff continue to a depth of 83.5 m.

Mafic ash tuffs and two feldspar porphyritic flows occur between 83.5 and 201.1 m. The feldspar porphyritic flows contain 2 to 3% leucoxene and may actually be gabbro sills. The flows contain an average of 1.89%  $\text{TiO}_2$  while the tuffs average 0.70%  $\text{TiO}_2$ . This mafic sequence is similar to the one near the top of CHEM87-31 (26.1 to 118.4 m) on Line 40+00E and in the middle of CHEM86-16 (119.5 to 139.5 m) on Line 45+00E.



Felsic tuffs with less than 1% pyrite and minor (<1.0 m thick) sections of mafic ash tuffs occur from 202.1 m to 265.5 m. The tuffs are light green and weakly chloritic above 231.7 m. The Fulford Fault occurs at 226.7 m and explains the VLF conductor at station 2+00S. The tuffs below the fault may belong to the "Active Tuff" but are not strongly pyritic. The strongly pyritic portion of the "Active Tuff" at this locality may have been "dyked out" by gabbro which was intersected from 265.5 m to the end of the hole. An inclusion of felsic and mafic tuffs occurs in gabbro between 338.8 and 352.3 m.

**Section 47+00E (Figure 10):**

This section of three holes along Line 47+00E includes the following drill holes from north to south; CHEM87-34, 35 and 36.

CHEM87-35 was set up at the north edge of the powerline clearing. It intersected a long sequence of relatively barren felsic tuffs and flows, occasionally intruded by mafic dykes, with minor amounts of mafic tuff. A massive felsic feldspar porphyritic flow which may be part of a felsic dome occurs between 183.8 and 243.8 m. It is intruded by two mafic dykes near its lower contact. The flow has a pinkish tinge similar to that in the upper part of hole CHEM87-33. It contains trace amounts of disseminated magnetite. Magnetite-bearing felsic crystal lapilli tuff with clasts of pinkish flow material occur immediately above and below the flow.

Mafic tuff and flow units alternate with thermal biotite-altered, quartz feldspar crystal tuff between 340.0 m and the end of the hole at 359.1 m. The

hole ends in a massive mafic hornblende-bearing mafic flow.

CHEM87-34 was collared in a mafic flow and cut through barren felsic tuffs with minor mafic flows, tuffs and dykes to a depth of 169.7 m. A fault at 56 m explains the VLF anomaly at 0+90S. The sequence of mafic flows and tuffs between 63.0 and 74.6 m correlates with a similar sequence at the bottom of CHEM87-35 indicating dips of 80° north.

Mafic tuffs and flows, (some hornblende-bearing), and minor felsic tuffs occur from 169.7 to 269.7 m. A narrow interval of felsic tuff with up to 15% chalcopyrite, 15% pyrrhotite and 12% pyrite occurs between 224.0 and 225.6 m. A 1.0 m sample from the top of the interval contains 0.69% Cu. A 0.2 m sample of the mafic ash tuff contains 0.76% Cu. This zone correlates in a structural sense with a similar zone between 103.6 and 107.8 m in CHEM87-36, but in hole CHEM87-36 the mineralization occurs within a thick sequence of felsic tuffs.

A fault at 271.0 m (Fulford Fault) separates mafic volcanics from felsic volcanics below and explains the VLF conductor at 2+80S.

Pyritic quartz-sericite schist ("Active Tuff") occurs from 271.0 to 324.8 m. The felsic schist contains 1 to 4% disseminated and banded pyrite. Generally the sulphide content increases downhole. This zone is probably responsible for the weak shallow and deep IP chargeability anomalies respectively centred at 2+80S and 3+00S. The best assay result from this unit is 1.0 m of 0.52% Zn starting at 280.0 m. The entire unit is slightly anomalous in Au (5 to 140 ppb). A similar but narrower

zone of pyritic, quartz-sericite schist occurs between 150.7 and 156.8 m in CHEM87-36. The quartz-sericite schist/gabbro contact appears to dip 83° to the south.

Massive fine- to coarse-grained gabbro with up to 5% ilmenite occurs from 324.8 to 365.8 m. The lower contact of the gabbro dips 73° north.

At the very bottom of this hole, cherty black argillite and siltstone with minor greywacke was intersected. A medium- to dark-green, fine-grained, altered peridotite intrudes the sediments between 380.6 and 385.4 m. This peridotite is identical to that intersected at the bottom of hole CHEM86-17. Cherty sediments above the peridotite contain trace to 5% fracture-controlled pyrite and an average of 3,400 ppm Ba. Below the peridotite, sediments contain an average 7,875 ppm Ba including a 2.0 m section averaging 1.1% Ba.

CHEM87-36 was collared in felsic feldspar crystal tuff. Felsic crystal tuffs with several gabbro intrusions extend to a depth of 140.6 m. This felsic succession does not correlate with the predominantly mafic rocks in hole CHEM87-34. A pyritic quartz-eye bearing tuff between 103.6 and 107.8 m contains an average of 5% pyrite, 2% pyrrhotite, trace to 2% chalcopyrite and nil to trace sphalerite. The bottom 0.8 m of the section contains up to 50% bedded pyrite with 2% chalcopyrite, and 10% pyrrhotite. A 0.8 m sample of this section assayed 0.89% Cu, 570 ppm Zn, and 55 ppb Au. This pyrrhotite mineralized horizon correlates with one between 224.0 and 225.6 m in CHEM87-34 (described above) and explains the VLF conductor at 2+40S indicating a dip of 67° north for the mineralization.

A thin, epidote-spotted andesite occurs below the felsic sequence to a depth of 144.7 m. The Fulford Fault from 144.7 to 150.7 m has truncated the andesite flow.

Pyritic quartz-sericite schist of the "Active Tuff" occurs below the Fulford Fault in the interval 150.7 to 156.8 m. It contains 2 to 7% disseminated and banded pyrite. A 6.1 m interval contains 1,126 ppm Zn, 52 ppb Au and 2,318 ppm Ba. This interval correlates with a similar but thicker section of pyritic quartz sericite schist in CHEM87-34. It is truncated by an 11.3 m long section of gabbro which may be part of a larger, irregular intrusion intersected by hole CHEM87-27, whose northern contact dips 83° south.

Mafic tuffaceous sediments below this gabbro are intruded by several thin gabbro dykes which may be part of the irregular gabbro body mentioned above.

Cherty argillaceous sediments were intersected at the bottom of the hole. A 2.4 m interval of these sediments contains 2,800 ppm Ba.

**REFERENCES**

- ENNS, S.G. 1987: 1986 Drilling Report on the Chemainus Joint Venture, Victoria Mining Division; Falconbridge Limited, unpublished report, 21 p.
- EVERETT, C.C. and COOPER, W.G. 1984: Geological, geochemical and geophysical report on Chemainus project, Victoria Mining Division; Esso Resources Canada Limited, unpublished report, 89 p.
- ISHIKAWA, Y., SAWAGUCHI, T., IWAYA, S., and HORIUCHI, M., 1976: Delineation of prospecting targets for Kuroko deposits based on modes of volcanism of underlying dacite and alteration haloes: Mining Geology, v. 26, p. 105-117 (in Japanese with English abs.)
- MALLALIEU, D.G., MONEY D.P., ENNS, S.G. and WHITING, C.P. 1987: 1986 Final Report on the Chemainus Project, NTS 92B/13 and 92C/16. Victoria Mining Division, Falconbridge Limited, unpublished report, 44 p.
- MULLER, J.E. 1980: The Paleozoic Sicker Group of Vancouver Island, British Columbia. Geological Survey of Canada Paper 79-30, 22 p.

## STATEMENT OF EXPENDITURES

CLAIMS: CHIP86 GROUP: work performed on the Chip 1 and  
Chip 12Fr claims

MINING DIVISION: Victoria

NTS: 092B/13E

PERIOD OF WORK: May 24, 1987 to July 15, 1987

## COSTS:

## 1. Personnel

D.Money, geologist 40 days @ \$115.00/day	\$4,600.00	
J.Pattison, geologist 40 days @ \$136.00/day	\$5,440.00	
T.Cowans, technician 40 days @ \$96.50/day	\$3,680.00	
	-----	
	\$13,720.00	\$13,720.00

## 2. Vehicle Costs

2 GMC 4x4 pickups		
2677 MK: 61 days @ \$30.00/day	\$1,830.00	
2678 MK: 61 days @ \$30.00/day	\$1,830.00	
Redhawk Rentals		
1 Toyota Landcruiser 61 days @ \$35.00/day	\$2,135.00	
	-----	
	\$5,795.00	\$5,795.00

## 3. Room and Board

120 man-days @ \$30.00/day		\$3,600.00
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## 4. Diamond Drilling Costs

Burwash Enterprises Ltd., Cobble Hill, B.C.

DDH CHEM87-22 (474.6 m)	\$25,224.88	
DDH CHEM87-29 (296.3 m)	\$16,125.75	
DDH CHEM87-30 (340.2 m)	\$17,773.18	

DDH CHEM87-31 (340.5 m)	\$19,304.78	
DDH CHEM87-32 (465.1 m)	\$27,758.10	
DDH CHEM87-33 (441.3 m)	\$32,804.57	
DDH CHEM87-34 (391.1 m)	\$22,509.94	
DDH CHEM87-35 (359.1 m)	\$23,632.49	
DDH CHEM87-36 (257.6 m)	\$15,588.45	
	-----	
	\$200,722.14	\$200,722.14
Caterpillar Tractor and operator 30 hours @ \$75.00/hr		\$2,250.00
Core Boxes		\$3,902.81
Sperry Sun Single Shot Rental 2 months @ \$1575/month		\$3,150.00
		-----
	\$210,024.95	\$210,024.95

## 5. Analytical Costs

### a. Base and Precious Metals

Bondar-Clegg and Company Ltd., Vancouver, B.C.  
Cu, Pb, Zn, Ag, Cd, Co, Mn, Fe, Ni, As, Mo, Au, Ba

214 samples @ \$20.00/sample           \$4,280.00

### b. Major Oxide Analyses

X-Ray Assay Laboratories, Don Mills, Ont.

469 samples @ \$19.25/sample           \$8,065.75  
-----  
\$12,345.75                           \$12,345.75

## 6. Report Preparation

Drafting, typing, computer use, etc.                           \$1,000.00

TOTAL:   \$246,485.70

\$111,200.00 to be applied as follows:

6 years to CHIP 1  
6 years to CHIP 2  
6 years to CHIP 3  
6 years to CHIP 4  
6 years to CHIP 5  
6 years to CHIP 6  
6 years to CHIP 7  
6 years to CHIP 8  
6 years to CHIP 11  
5 years to CHIP 12 ER  
5 years to CHIP 13 ER

The balance to be applied to PAC as follows:

50% to Kidd Creek Mines Limited PAC account  
50% to Esso Minerals Canada Limited PAC account.

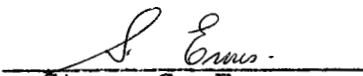


## STATEMENT OF QUALIFICATIONS AND CERTIFICATION

I, Steve G. Enns, of North Vancouver, do hereby  
certify that:

1. I am a permanently employed geologist of Falconbridge Limited at 701-1281 West Georgia Street, Vancouver, B.C. V6E 3J7
2. I have recieved my education as indicated:  
1967 B.Sc. Honours Geology from University of Manitoba  
1971 M.Sc. Economic Geology from University of Manitoba
3. Since graduation I have continuously practiced my profession in British Columbia, Alaska and the Yukon in the employment of various companies listed below:  
1971 Cerro Mining of Canada Ltd.  
1972 Hudson's Bay Oil and Gas Ltd.  
1973-1975 BP Minerals of Canada Ltd.  
1975-1979 BP Alaska Exploration Ltd.  
1979-1981 Amax of Canada Ltd.  
1982-1986 Kidd Creek Mines Ltd.  
1986- Falconbridge Ltd.
4. The information contained in this report is the result of work conducted by qualified geologists under my supervision and by myself. Individual qualifications are listed.
5. Kidd Creek Mines Ltd. (a wholly owned subsidiary of Falconbridge Limited) conducted the work as operator of the Joint Venture with Esso Minerals Canada Ltd. The expenditures accurately reflect the exploration costs.

Dated this 11 day of December, 1987 at Vancouver, B.C.

  
\_\_\_\_\_  
Steve G. Enns  
Project Geologist

## STATEMENT OF QUALIFICATION

I, John Pattison, of Burnaby, B.C. declare that:

1. I am a geologist permanently employed with Falconbridge Limited, at 701-1281 West Georgia Street, Vancouver, B.C. V6E 3J7
2. I am a graduate of the University of Toronto with a B.Sc. degree in geology (1983).
3. Since graduating, I have practiced my profession in Ontario, the Northwest Territories and British Columbia.

Dated at Vancouver, B.C. this 11 day of *December*, 1987.

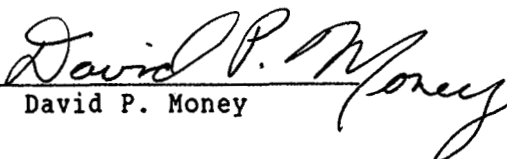
  
\_\_\_\_\_  
JOHN M. PATTISON

**STATEMENT OF QUALIFICATIONS**

I, David P. Money, an employee of Falconbridge Limited, with offices at 701 - 1281 West Georgia Street, Vancouver, British Columbia, do hereby declare that:

1. I am a graduate of the University of Toronto, Toronto, Ontario (1987) with a B.A.Sc. degree in Geological Engineering, Mineral Exploration Option.
2. For the past six years I have been actively involved in mineral exploration.
3. I am an Associate Member of the Geological Association of Canada.

Dated at Vancouver, B.C., this 11<sup>th</sup> day of December, 1987.

  
David P. Money

# APPENDIX A

DRILL LOGS AND SELECTED ANALYTICAL RESULTS

Hole Location: 34+20 E 0+20 N

NTS: 92B13 UTM: 5416700 N 430666 E  
Azimuth: 210 Elevation: 555 m  
Dip: -50 Length: 474.6 mStarted: MAY 24, 1987  
Completed: 31-MAY-87Claim No. CHIP 1  
Section No.: Line 34+00 ELogged By: S. Enns and J. Pattison  
Drilling Co.: Burwash Enterprises  
Assayed By: Bondar-Clegg & XRAL

Core Size: NQ

Purpose: To examine geology, test a deep, broad  
resistivity low between 1+00 S and 2+00 S and a  
VLF conductor between 1+40 S and 2+20 S.

## DIP TESTS

Length	Azi- muth	Dip	Length	Azi- muth	Dip
57.00	207.0	-49.5	337.40	211.0	-47.0
127.10	207.0	-48.5	410.60	214.0	-46.0
233.50	209.0	-47.0	474.50	217.0	-46.0
282.50	209.0	-47.0			

From (m)	To (m)	-----DESCRIPTION-----	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
.0	6.7	OVERBURDEN AND CASING										
6.7	17.6	CHLORITIC INTERMEDIATE CRYSTAL TUFF Fine-grained feldspar crystals quartz eyes 1 to 4mm < 5%. Locally .2 to .4 m wide crystal- rich tuff beds. Generally greenish-gray in colour. Locally lapilli-sized interval of felsic lapilli, 9.8 to 10.8m. Dark green chlorite-rich bands .1 to .2 m wide at 11.0 to 11.2m ;at 16.9 to 17.6m. Thermal biotite at 8.5 to 9.5m. Strongly foliated throughout 65 degrees to core axis at 7.4 m. 54 Degrees to core axis at 16.7 m. Quartz with minor white calcite bands 1 to 10 cm are locally present here and there between 9 and 15 m ;locally with chalcopyrite at 13.6 m. Shear zone at 14.5 to 15.0 45 degrees to core axis. Lost core: 30 cm at 14.7 m and 20 cm at 23.2 m.	AB15351	7.3	7.4	.1	17	n/a	89	n/a	n/a	662
17.6	39.0	FELSIC CRYSTAL TUFF Grey feldspar quartz sericite crystal unit. Variable proportions of quartz feldspar and sericite. 5 to 10 % quartz crystals 2 to 10 mm. Unit becomes less sericitic and better sorted between 32.5 and 35.2 m. A few local 5 to 10 cm white quartz bands are present with strongly foliated sheared contacts. The interval is strongly foliated throughout parallel to bedding. BEDDING ANGLES. Bedding 35 degrees to core axis at 20.5 m.	AB15352	31.9	32.0	.1	20	n/a	25	n/a	n/a	1180

From (m)	To (m)	-----DESCRIPTION-----	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		Bedding 40 degrees to core axis at 31.8 m. Bedding 35 degrees to core axis at 33.8 m.										
		22.8 23.4 Small fault. Variable foliations and gouge zones present.										
		26.5 29.6 0.15 m of lost core.										
		33.5 33.9 Minor pyrite (<1%) as foliation parallel disseminations.										
		36.8 38.1 Fault zone. Gouge and breccia at 43 to 55 degrees to core axis. Strongly contorted to 38.6 m.										
39.0	40.4	INTERMEDIATE CRYSTAL TUFF Dark grey chlorite rich , strongly foliated at 30 to 35 degrees to core axis. 2 to 3 % 2-4 mm quartz eyes and 10 to 12 % 1-4 mm feldspar crystals. Calcareous.										
40.4	53.1	FELSIC LITHIC CRYSTAL TUFF Hard siliceous rock criss-crossed by numerous 1-4 mm white quartz-carbonate veinlets. Many offsets. 1-4 cm white quartz masses. Generally massive grey appearance. Light grey cherty bands 4-10 mm wide at 75 degrees to core axis.	AB15353	48.2	48.3	.1	6	10	19	<1	<5	1200
		41.5 42.7 0.4 m of lost core.										
		50.0 52.3 Fault zone. Crushed locally gouge present. Fractured zone extends down to 53.0 m. Small faults (1 cm gouge zones) at 50.2 and 50.4 m at 20 to 30 degrees to core axis.										
53.1	57.1	INTERMEDIATE CRYSTAL TUFF Dark green chlorite rich and strongly foliated. Epidote patches 1 to 2 cm @ 55 degrees to core axis. Local bedding 30 degrees to core axis at 54.7m, and 30 degrees to core axis at 55.2m. Locally 4 to 5% 3 to 5mm quartz crystal with variable chlorite in local sections. Minor pyrite fractures parallel to foliation 1 to 2mm wide at 54 to 55 m with epidote quartz calcite alteration.										
57.1	88.2	FELSIC CRYSTAL TUFF White foliation quartz sericite crystal tuff. 5 to 6% 2 to 10 mm quartz. Strong foliation 25 degrees to core axis with weak banding parallel	AB19902 AB19903 AB15354	59.0 60.0 60.5	60.0 61.0 60.6	1.0 1.0 .1	26 5 22	8 67 n/a	18 43 95	<1 <1 n/a	<5 <5 n/a	700 840 900







From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
139.6	143.0	FAULT ZONE ?. Abundant quartz carbonate veining (veins up to 20 cm thick parallel to foliation) and core is broken and rubbly from 139.6 to 140.3 m. 0.25 m of lost core between 139.3 m and 142.3 m. Two to 3 % pyrite between 140.9 and 142.4 m associated with quartz veining. Clay filled slip at 141.8 m at 30 degrees to core axis.										
143.3	143.6	Zone of quartz carbonate veining at 55 to 60 degrees to core axis. Trace pyrite.										
145.6	148.1	FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF Pale green-grey with 1 to 10 % quartz eyes 2 to 4 mm in diameter and 5 to 20 % epidotized feldspar crystals 1 to 3 mm long in a fine-grained sericitic matrix. No bedding recognized. Foliation is at 50 degrees to core axis. Lower contact is at 50 degrees to core axis. Nil sulphides except for a 2 mm wide band of pyrite at 145.9 m at 68 degrees to core axis.	AB15361	146.1	146.2	.1	17	n/a	13	n/a	n/a	1350
148.1	156.5	INTERMEDIATE FELDSPAR CRYSTAL TUFF Dark green similar to 132.9 to 145.6 m. Epidotized lapilli-sized feldspar crystals comprise 5 to 20 % of the rock. Occasional lapilli to block-sized lithic clast. Nil sulphides over most of the section. Bedding is at 50 degrees to core axis at 151.3 m. Broken core at the lower contact.	AB15362	148.3	148.4	.1	135	n/a	80	n/a	n/a	830
144.3	144.4	Bleached silicified zone with 10 % pyrite filling fractures at 50 to 80 degrees to core axis.										
150.0	151.0	Moderate pervasive carbonate.										
151.0		3 cm wide clay filled slip at 50 to degrees to core axis										
151.0	151.3	Bed of felsic quartz feldspar crystal tuff at 50 degrees to core axis. Moderately carbonatized.										
151.3	156.5	FAULT ZONE ?. Many clay-filled slips at 60 to 75 degrees to core axis. Moderately carbonatized and up to 5 % hematite disseminated and along foliation planes.										
158.3		10 cm wide barren quartz carbonate vein at 60 to 80 degrees to core axis.										
156.5	176.8	MIXED SHEARED ASH TO LAPILLI FELSIC TUFF Pale to medium grn fine-grained and crushed with nil to 10 % 1 to 4 mm quartz eyes. Weakly chloritized and sericitized. Foliation at 158.5 m and at 162.1 m is at 60 degrees to core axis. Possible bedding plane at 163.7 m is at 60 degrees to core axis. Nil to 2 %	AB15363 AB15364 AB15365 AB15366	157.4 167.5 169.5 176.2	157.5 167.6 169.6 176.3	.1 .1 .1 .1	19 19 57 52	n/a n/a n/a n/a	61 15 31 20	n/a n/a n/a n/a	n/a n/a n/a n/a	1200 360 1020 770



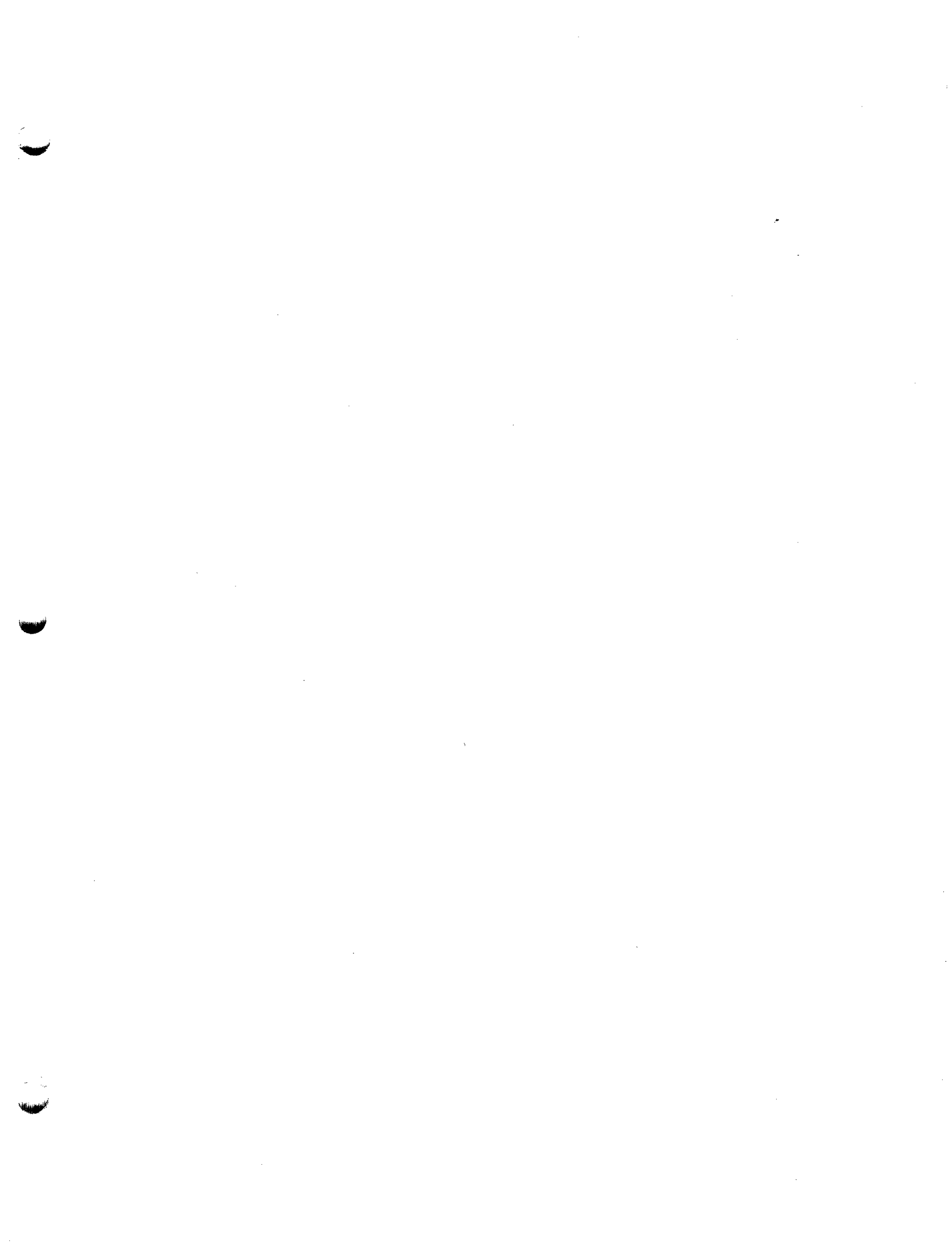






From (m)	To (m)	-----DESCRIPTION-----	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		axis.										
375.6		Quartz vein 2.0 cm wide at 50 degrees to core axis with 1 % chalcopyrite.										
377.2		0.8 X 0.8 cm wide patch of chalcopyrite and pyrite centred on a quartz clot of about the same size. Several nearby quartz-carbonate veins less than 1.0 cm wide at 20 to 30 degrees to core axis contain specks of chalcopyrite.										
394.4	395.0	Moderate chloritization. Rock is strongly foliated. Foliation is at 20 degrees to core axis.										
395.0	396.0	Moderate fracture controlled carbonatization at 30 degrees to core axis. Fault breccia at 40 degrees to core axis between 395.5 and 395.6 m.										
396.0	406.7	<b>MIXED TUFFACEOUS SEDIMENTS</b> Medium green fine-grained with patchy thermal biotite alteration. Generally mafic to intermediate in composition. Nil sulphides. Lower contact is at 20 degrees to core axis. <b>BEDDING ANGLES:</b> 20 to 30 degrees to core axis at 396.9 m. 30 Degrees to core axis at 397.8 m. 48 Degrees to core axis at 398.7 m. 50 Degrees to core axis at 400.1 m. 40 Degrees to core axis at 403.5 m.	AB15375	399.7	399.8	.1	54	n/a	59	n/a	n/a	1200
			AB15376	404.6	404.7	.1	58	n/a	30	n/a	n/a	290
	404.1	404.7 Felsic crystal tuff. Contacts are gradational.										
406.7	420.3	<b>MASSIVE MAFIC FLOW</b> Medium green fine-grained massive feldspar crystals less than 4 mm long in a chloritic matrix comprise less than 5 % of the rock. Finely disseminated hematite (?) comprises about 5 % of the core and occurs in the centre of white specks less than 2 mm in diameter (deuturic alteration of amphiboles?). Rock is very weakly magnetic. Nil sulphides. Lower contact is at 55 degrees to core axis	AB15377	413.9	414.0	.1	171	n/a	95	n/a	n/a	210
	421.1	421.6 Zone of moderate carbonatization and strong epidotization. Lower contact is at 40 degrees to core axis. Upper contact is indistinct.										
420.3	474.6	<b>MASSIVE MAFIC HORNBLLENDE-BEARING FLOW</b> As 406.7 to 420.3 but has only trace hematite smeared along foliation planes and nil to 1 % hornblende as subhedral crystals up to 2 mm in diameter above 428.0 m. Below 428.0 m up to 10 % hornblende crystals up to 4 mm in diameter. Nil to trace	AB15378	428.6	428.7	.1	75	n/a	84	n/a	n/a	460
			AB15379	438.3	438.4	.1	78	n/a	64	n/a	n/a	350
			AB15380	456.3	456.4	.1	217	n/a	61	n/a	n/a	159
			AB15381	467.2	467.3	.1	235	n/a	57	n/a	n/a	196









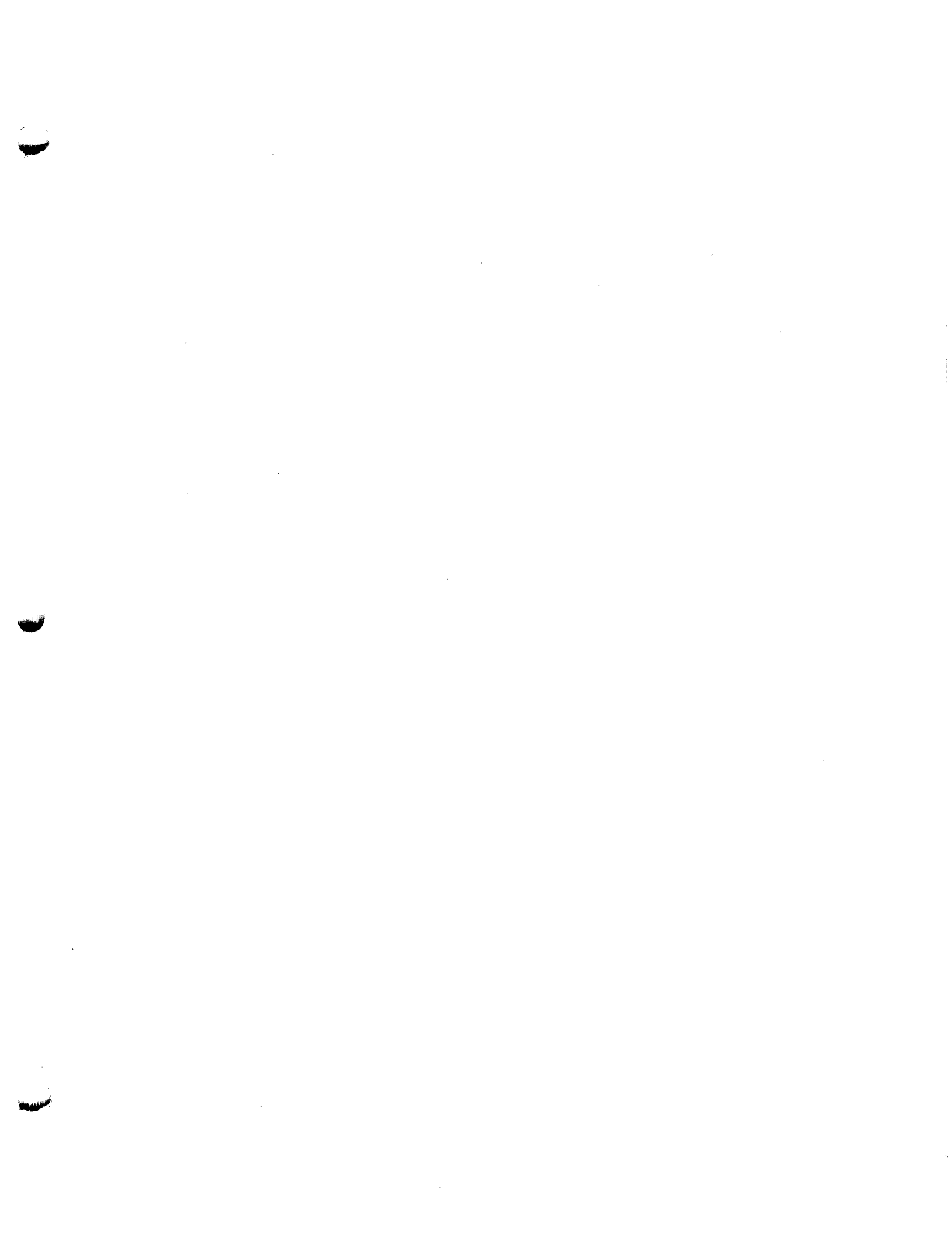








From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
241.1	241.7	Minor slip at 5 degrees to core axis.										
241.7	242.9	Blocky, highly fractured core.										
245.4	246.3	Blocky, highly fractured core. 0.2 m of lost core between 244.4 and 246.0 m.										
250.1	251.2	Blocky, highly fractured core.										
252.4	255.4	Blocky, highly fractured core. 0.3 m of lost core between 252.4 and 253.3 m.										
273.7	273.9	Blocky, highly fractured core.										
274.3	275.6	Blocky, highly fractured core. 0.3 m of lost core between 273.4 and 275.5 m.										
277.8	278.4	Bleached, quartz flooded fault breccia. Upper contact is at 12 degrees to core axis and lower contact is at 30 degrees to core axis.										
285.0	296.3	MAFIC FLOW Massive dark green and fine-grained. Nil-5 % chlorite-filled amygdales < 3 mm in diameter. Nil to trace disseminated chalcopyrite	AD02416	291.7	291.8	.1	242	n/a	76	n/a	n/a	401



Hole Location: 38+05 E 1+22 N

NTS: 092/B13 UTM: 5416605 N 431100 E  
Azimuth: 210 Elevation: 585 m  
Dip: -50 Length: 340.2 mStarted: June 17, 1987  
Completed: June 21, 1987

Purpose: To test a VLF anomalies at 0+60 N and 1+60 S.

Claim No. CHIP 1  
Section No.: 38+00 EastLogged By: David P. Money  
Drilling Co.: Burwash Enterprises  
Assayed By: Bondar-Clegg and X-Ray Assay

Core Size: NQ

## DIP TESTS

Length	Azi- muth	Dip	Length	Azi- muth	Dip
102.40	209.0	-48.0	256.00	212.0	-46.0
203.00	212.0	-48.0	340.20	213.0	-46.0

From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
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## .0 9.1 OVERBURDEN AND CASING

## 9.1 40.0 INTERMEDIATE TO FELSIC QUARTZ EYE AND FELDSPAR CRYSTAL TUFF

Light grey to medium green tuff with on average 5 %, 2 to 3 mm, quartz eyes and 10 %, 1 to 2 mm, feldspar grains. The rock is moderately contorted and hosts local dust tuff beds and/or cherty beds. The rock is oxidized with minor rust throughout and trace to nil disseminated pyrite. There are 5, 0.5 to 1.5 mm, pyrite bands from 39.4 to 39.6.

AB21636	13.3	13.4	.1	25	n/a	28	n/a	n/a	1090
AB21637	25.1	25.2	.1	22	n/a	25	n/a	n/a	1060
AB21638	38.4	38.5	.1	32	n/a	64	n/a	n/a	1510

## Foliations :.

At 10.0 the foliation is at 27 degrees to core axis.  
At 20.8 the foliation is at 52 degrees to core axis.  
At 30.5 the foliation is at 60 degrees to core axis.  
At 38.5 the foliation is at 51 degrees to core axis.

## Bedding :.

At 21.6 the bedding is at 52 degrees to core axis.  
At 24.7 the bedding is at 61 degrees to core axis.  
At 33.4 the bedding is at 45 degrees to core axis.

## 40.0 42.1 FELSIC TUFF

Rusty felsic tuff with quartz eyes, 2 to 3 %, 1 to 3 mm and no visible sulphides in a medium fine-grained greenish grey siliceous matrix. At 40.7 the foliation is at 65 degrees to core axis and the bedding is at 48 degrees to core axis.

AB21639	41.2	41.3	.1	23	n/a	17	n/a	n/a	1280
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## 42.1 46.0 FAULT ZONE

From 42.1 to 45.3 there is 0.8 m of lost core in a blocky, highly





From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
117.9	118.2											
123.3	123.7											
140.2	140.4											
		Locally minor between 142.3 and 146.5.										
		Locally minor between 148.3 and 153.6.										
		Lost core :.										
		0.1 M from 67.7 to 68.6.										
		2.0 M from 75.3 to 78.0.										
		0.2 M from 74.1 to 75.3.										
		0.3 M from 85.0 to 87.3.										
		0.15 M from 88.1 to 89.9.										
		0.1 M at 107.6.										
		1.0 M from 111.3 to 113.7.										
		Foliations :.										
		At 60.0 the foliation is at 70 degrees to core axis.										
		At 69.9 the foliation is at 35 degrees to core axis.										
		At 80.5 the foliation is at 88 degrees to core axis.										
		At 93.5 the foliation is at 55 degrees to core axis.										
		At 96.2 the foliation is at 53 degrees to core axis.										
		At 102.8 the foliation is at 56 degrees to core axis.										
		At 116.0 the foliation is at 57 degrees to core axis.										
		At 127.3 the foliation is at 55 degrees to core axis.										
		At 138.0 the foliation is at approximately 60 degrees to core axis.										
		Bedding :.										
		At 93.7 the bedding is at 48 degrees to core axis.										
		No other measurements were obtainable due to the deformed nature of the core.										
		Tops :.										
		A bedding at 93.7 indicates that tops is dowhole.										
153.6	164.0	MAFIC LAPILLI TUFF										
		Mafic to intermediate lapilli tuff with epidote lapilli and grains. The tuff is dark to medium green with minor local fault gouge, local quartz - carbonate veins and trace to nil disseminated pyrite and pyrite cubes. There are minor kinks and contortions with the foliation at 163.2 at 45 degrees to core axis and at 155.5 at 70 degrees to core axis. The bedding at 158.3 is at 52 degrees to core axis and at 162.2 it is at 54 degrees to core axis.	AB21648	157.8	157.9	.1	154	n/a	80	n/a	n/a	85
164.0	224.3	FELSIC TUFF										
		164.0 175.4 Felsic tuff with minor local intermediate zones. The tuff is white to medium grey - green in colour with epidote grains and trace lapilli. There are minor local fault slips and quartz veins. From 166.4 to 166.5 there is fault gouge and shear.	AB21649	167.3	167.4	.1	34	n/a	14	n/a	n/a	1060
			AB21650	181.4	181.5	.1	38	n/a	17	n/a	n/a	1330
			AB21651	195.6	195.7	.1	29	n/a	<10	n/a	n/a	1430
			AE08620	199.5	201.0	1.5	46	6	10	<1	<5	1500
			AE08621	201.0	201.7	.7	66	<5	20	<1	<5	1300



From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		At 222.7 the foliation is 46 degrees to core axis.										
224.3	230.0	SHEARED FINE GRAINED MAFIC FLOW Fine-grained to medium grained locally moderately sheared mafic flow with epidote grains and crystals with trace quartz eyes. The rock is massive with no layering. There are local chlorite - carbonate veins and a minor fault with clay at 229.9. The foliation at 227.8 is at 43 degrees to core axis.	AB21655	229.8	229.9	.1	252	n/a	89	n/a	n/a	475
230.0	233.5	FELSIC CRYSTAL TUFF Light grey massive siliceous felsic tuff with 15 % crystals, epidote, feldspar and quartz eyes. There are local feldspar lath rich beds. Bedding appears to be sub-parallel to foliation. The foliation at 230.8 is at 43 degrees to core axis and the foliation at 232.9 is at 54 degrees to core axis. Nil to trace disseminated pyrite occurs.	AB21656	232.8	232.9	.1	40	n/a	24	n/a	n/a	1460
233.5	242.0	FELDSPAR PORPHYRITIC MAFIC FLOW Mafic flow with 20 to 30 %, approximately 1 mm, epidote to feldspar grains and trace quartz crystals. There are minor quartz veins and trace to nil disseminated pyrite. The foliation varies locally from 30 to 90 degrees to core axis.										
242.0	244.9	FELSIC TUFF Epidote crystal rich felsic tuff with large quartz eyes, up to 6 mm in diameter. There is a 15 cm chloritic shear zone at 244.1. The foliation at 243.4 is at 46 degrees to core axis.	AB21657	243.6	243.7	.1	41	n/a	25	n/a	n/a	1300
244.9	245.7	FELDSPAR PORPHYRITIC MAFIC FLOW As from 233.5 to 242.0.										
245.7	247.7	FELSIC TUFF As from 242.0 to 244.9.										
247.7	274.1	MAFIC FLOW Mafic flow rich in epidote grains, after feldspar crystals. Minor alteration zones with chlorite stringers. Local quartz - carbonate veins up to 10 cm wide occur, which host trace chalcopyrite blebs. There is local goethitic to hematitic staining in fractures or veinlets (?). At 253.6 there is minor chloritization with 2, 1 to 2 mm, fine-grained pyrite bands. The foliation varies locally from 20 to 90 degrees to core axis.	AB21658 AB21659	249.3 264.3	249.4 264.4	.1 .1	241 178	n/a n/a	120 119	n/a n/a	n/a n/a	327 545

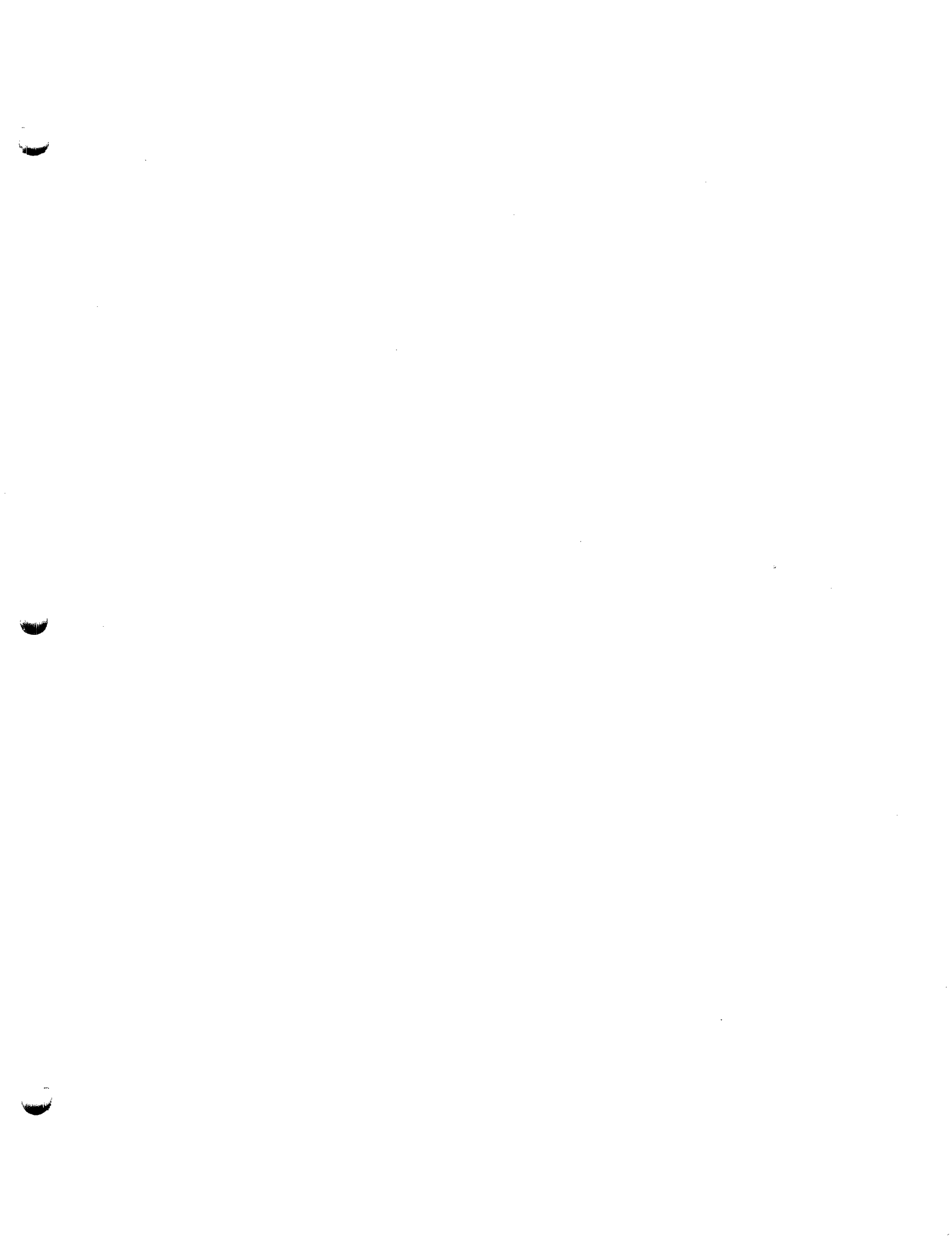
From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
274.1	279.3	MASSIVE FELSIC BLOCK TUFF Tuff breccia with epidote blocks. There are quartz - carbonate veins and veinlets with local trace pyrite and trace to nil chalcopyrite.										
279.3	283.6	INTERMEDIATE TO FELSIC QUARTZ EYE AND FELDSPAR CRYSTAL TUFF Felsic to intermediate tuff with epidote grains and minor local quartz eyes. The rock is moderately sheared and epidotized. There are local quartz veins with chlorite margins. The foliation varies locally.										
283.6	331.0	INTERMEDIATE TO FELSIC QUARTZ EYE AND FELDSPAR CRYSTAL TUFF Highly contorted and moderately sheared felsic to intermediate tuff with quartz eyes and minor chlorite shear zones, which host trace to 1 % pyrite. The foliation trend varies from 20 to 90 degrees to core axis. There are minor quartz - carbonate veins and local kink bands and minor local micro-faults.  STRUCTURE :.  Fault gouge :. 283.6 to 284.0. 286.2 to 286.4. 287.6 to 290.0. 290.7 to 291.9. 300.0 to 300.3. 303.2 to 303.3. 303.7 to 304.2.  Shear zones :. 284.0 to 284.4. 285.6 to 285.8.  Clay :. 293.8 to 294.0.										
331.0	337.0	FAULT ZONE Fault breccia with clasts of the underlying rhyolitic tuff.										
337.0	340.2	FELSIC TUFF Massive green felsic tuff or possibly (?) a flow with a cherty component and 3 % stretched epidote grains. Slightly banded with green and white bands/ beds (?). Trace disseminated pyrite occurs. There is 0.9 m of lost core from 337.1 to 340.2 and the core is moderately blocky.	AB21660	339.5	339.7	.2	44	n/a	34	n/a	n/a	153

PROPERTY: Chemainus J.V. - Chip Claims

FALCONBRIDGE LIMITED  
DIAMOND DRILL LOG

HOLE No: Page Number  
CHEM87-30 7

From (m)	To (m)	-----DESCRIPTION-----	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
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Hole Location: 40+00 E 0+60 S

NTS: 92B13 UTM: 5416350 N 431138 E  
Azimuth: 210 Elevation: 570 m  
Dip: -50 Length: 340.5 m

Started: 21-JUNE-1987  
Completed: 26-JUNE-1987

Purpose: To test a VLF conductor at 1+80 S,  
a shallow IP chargeability anomaly between 0+80 and 1+60 S,  
and an IP chargeability anomaly between 1+25 and 2+00 S.

Claim No. CHIP 1  
Section No.: Line 40+00 E

Logged By: J. Pattison  
Drilling Co.: Burwash Enterprises  
Assayed By: Bondar-Clegg and XRAL

Core Size: NQ

DIP TESTS

Length	Azi- muth	Dip	Length	Azi- muth	Dip
102.70	209.0	-50.0	290.50	210.0	-48.5
191.10	209.0	-48.5	340.50	215.0	-48.5

From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
.0	10.7	OVERBURDEN AND CASING										
10.7	26.1	CHLORITIC FELSIC TUFF Light green fine-grained moderate chloritization and sericitization and well foliated. Generally an ash tuff but occasional lapilli-sized felsic clast. Nil to 5 % 2-4 mm quartz eyes. Locally intensely microfractured and brecciated. Microfractures are filled with sericite. Below 21.0 m there are no quartz eyes. Rock varies from felsic to intermediate in composition, contains up to 25 % epidotized feldspar crystals and has a crushed almost mylonitic appearance. Nil-trace pyrite. Lower contact is at 40 degrees to core axis.  CORE AXIS ANGLES: Foliation is at 40 degrees to core axis at 12.4 m. Foliation is at 50 degrees to core axis at 15.0 m. Bedding (?) is at 50 degrees to core axis at 16.5 m. Minor slip is at 60 degrees to core axis at 17.7 m. Foliation is at 40 degrees to core axis at 18.8 m. Foliation is at 45 degrees to core axis at 19.8 m. Foliation is at 44 degrees to core axis at 23.1 m.  11.8 12.2 Blocky, highly fractured core.  13.0 Intensely microfractured zone. Microfractures are filled with sericite.  17.4 20.4 0.2 m of lost core.  19.1 21.0 MAFIC DYKE (?). Strongly chloritic and carbonatized. Rock is dark green fine-grained and mafic in composition.	AD02417	15.6	15.7	.1	33	n/a	13	n/a	n/a	940







From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
109.9	110.2	Blocky, highly fractured core. 0.2 m of lost core between 108.8 and 111.9 m.										
111.9	112.5	Blocky, highly fractured core.										
112.5	112.7	2 % pyrite 2 % pyrrhotite and trace chalcopyrite concentrated in microfractures.										
114.0	118.4	FELDSPAR PORPHYRITIC MAFIC FLOW / GABBRO As 99.8 to 103.4. Trace disseminated pyrite. Lower contact is at about 45 degrees to core axis.	AD02426	116.8	116.9	.1	271	n/a	155	n/a	n/a	65
118.4	129.6	ALTERED FELSIC ASH TUFF Light grey to green-grey fine-grained and well foliated (foliation is sometimes kinked). Core is broken and blocky over the entire section. Moderately sericitized above 120.2 m. Sericite-filled microfractures are common. Becomes moderately chloritized below 120.2 m. Chlorite tends to occur in discrete streaks and bands, 1-3 mm wide parallel to foliation. Moderate pervasive carbonatization between 121.6 and 125.0 m. Nil-trace disseminated pyrite. Broken core at lower contact.  FOLIATION ANGLES: Foliation is at 50 degrees to core axis at 118.9 m. Foliation is at 47 degrees to core axis at 119.7 m. Foliation is at 53 degrees to core axis at 122.0 m. Foliation is at 57 degrees to core axis at 124.7 m. Foliation is at 60 degrees to core axis at 128.6 m.	AD02427	120.2	120.3	.1	60	n/a	32	n/a	n/a	957
121.6	128.6	Poker chip core.										
124.9	128.0	3-10 % lapilli-sized felsic clasts and rare chloritic lapilli-sized clasts.										
127.4	128.6	0.6 m of lost core.										
129.6	139.7	QUARTZ EYE BEARING FELSIC TUFF Medium grey fine-grained moderately sericitic and weakly chloritic. 6 % clear 1-4 mm quartz eyes stretched slightly parallel to foliation. Below 137.2 m quartz eyes are <1.5 mm in diameter and comprise < 1 % of the rock. Core is broken and blocky over the entire section. Trace disseminated pyrite. Fault at lower contact.  FOLIATION ANGLES: Foliation is at 60 degrees to core axis at 131.1 m. Foliation is at 70 degrees to core axis at 133.0 m. Foliation is at 68 degrees to core axis at 137.1 m. Foliation is at 67 degrees to core axis at 138.1 m.	AD02428	131.1	131.2	.1	50	n/a	81	n/a	n/a	1140







From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
174.8	175.6	Blocky, highly fractured core. 0.3 m of lost core between 174.0 and 175.6 m.										
176.0	178.3	<b>MASSIVE CARBONATIZED MAFIC FLOW/INTRUSION</b> Massive fine-grained dark green. Moderate to strong fracture controlled and pervasive carbonatization. Locally core is speckled (<3%) with a beige alteration mineral (probably a carbonate). Moderate fracture controlled hematization. Hematite is often associated with carbonate veinlets. Core is broken and blocky over most of the section. Broken core at lower contact.	AD02436	177.0	177.1	.1	530	n/a	131	n/a	n/a	205
178.3	179.7	<b>CHLORITIC FELSIC ASH TUFF</b> Pale grey-green hard siliceous and microfractured. Weakly chloritized (microfracture controlled). Foliation is at a low angle to the core axis (< 20 degrees). Lower contact is a chloritic slip at 55 degrees to core axis.  178.9 179.1 Slip at 20 degrees to core axis.	AD02437	179.4	179.5	.1	69	n/a	26	n/a	n/a	1380
179.7	180.8	<b>LITHIC LAPILLI TUFF</b> 1-3 % lapilli-sized felsic and cherty sedimentary lithic fragments in a felsic to intermediate matrix of quartz chlorite biotite and carbonate. Core is broken and blocky over most of the section. 0.4 m of lost core between 178.3 to 180.4 m. Trace disseminated pyrite. Lower contact is a slip at 60-70 degrees to core axis.  180.8 2 X 5 cm clast of felsic quartz eye tuff with 4 % fracture controlled pyrite.										
180.8	183.8	<b>MASSIVE MAFIC ASH TUFF</b> As 176.0 to 178.3 but only weak fracture controlled carbonatization and rare <2 mm quartz eyes. Core is broken and blocky over most of the section. Lower contact is sharp at 65 degrees to core axis.	AD02438	183.3	183.4	.1	129	n/a	115	n/a	n/a	592
183.8	192.1	<b>CHLORITIC QUARTZ-FELDSPAR CRYSTAL TUFF</b> Grey-green, 5-7 %, 1-4 mm quartz and feldspar crystals in a fine-grained to aphyric siliceous matrix. Weakly to moderately sericitic. Weak thermal biotite alteration. Occasional brown lapilli-sized lithic clast. Trace disseminated pyrite. Broken core (fault) at lower contact.  190.4 Slip at 15 degrees to core axis.  1904.0 192.0 Blocky, highly fractured core. 0.2 m of lost core between 191.1 and 192.0 m.	AD02439	185.0	185.1	.1	42	n/a	46	n/a	n/a	822



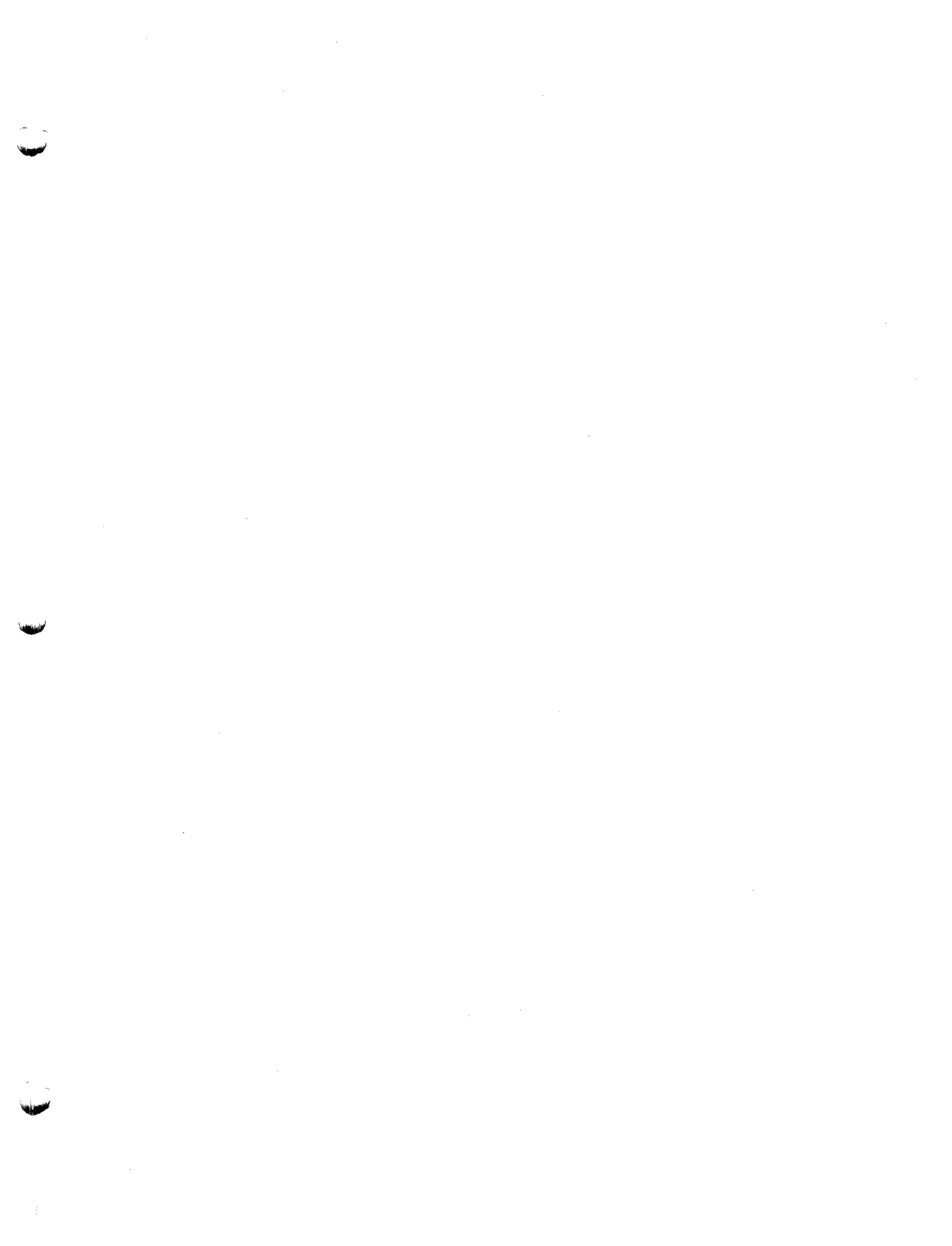




From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
238.1	238.9	Bed of MAFIC ASH TUFF. Nil sulphides. Broken core at upper and lower contacts. 0.5 cm wide clay-filled slip at 30 degrees to core axis in the middle of the bed.										
239.7	249.3	MAFIC TUFFS WITH MINOR MAFIC TUFFACEOUS SEDIMENTS Dark green massive mafic tuff or flow with minor beds and rip up clasts of pale green mafic tuffaceous sediments (<5.0 cm thick). 1-3 % finely disseminated ilmenite. Occasional epidote-rich patch up to 10 cm in diameter. Weak to nil carbonatization. Broken core at lower contact.	AE08678 AD02446 AE08679	239.7 241.9 248.6	240.7 242.0 249.6	1.0 .1 1.0	336 246 129	373 n/a 25	72 106 78	2 n/a <1	160 n/a 15	250 154 120
		BEDDING ANGLES: Bedding is at 53 degrees to core axis at 242.6 m. Bedding is at 55 degrees to core axis at 247.0 m.										
		239.7 240.4 Finely bedded pale green ash tuff. Bedding is very contorted.										
		245.0 245.4 Blocky, highly fractured core. 0.2 m of lost core.										
		248.8 249.3 Blocky, highly fractured core.										
249.3	250.0	ALTERED FELSIC ASH TUFF Massive hard and bleached looking. 10 % pyrite 2 % chalcopyrite and 1 % galena (?) concentrated in microfractures. Broken core at upper and lower contacts.	AE08680	249.6	250.0	.4	5900	13600	231	134	4766	1300
250.0	340.5	MIXED MAFIC TUFFS AND FLOWS Dark green massive with 1-2 % finely disseminated ilmenite above 275.0 m. Occasional epidote rich patches < 10.0 cm in diameter. From 250.0 to 251.7 m MAFIC LITHIC LAPILLI TUFF. About 20 % pale green lithic fragments in a chloritic matrix. From 251.7 to 259.1 m MAFIC ASH TUFF with minor beds (<3.0 cm thick) and rip up clasts of pale green cherty sediments. 1-5 %, 1-3 mm feldspars. From 259.1 to 262.4 m WEAKLY THERMAL BIOTITE ALTERED MAFIC ASH TUFF. Trace disseminated pyrite. From 262.4 to 275.0 m STRONG THERMAL BIOTITE ALTERED MAFIC TUFF. Occasional bed or clast of pale brown cherty sediment. From 275.0 to 283.5 m FINE MAFIC ASH TUFF. Weak patchy thermal biotite alteration. Occasional minor bed of cherty tuffaceous beds become more common below 279.0 m and less deformed. From 283.5 to 298.5 m massive fine-grained section rare lapilli-sized mafic clast (flow?). Up to 3 % up to 3 mm wide chlorite spots which occur in clusters < 10.0 cm thick (amygdales?). Also up to 3 % lighter coloured epidote carbonate spots <3 mm wide. Weak fracture controlled hematite-carbonate alteration. Several	AE08681 AD02447 AD02448 AD02449 AD02450 AD02451 AD02452 AD02453	250.0 257.3 262.6 273.7 286.0 296.1 314.6 331.3	251.0 257.4 262.7 273.8 286.1 296.2 314.7 331.4	1.0 .1 .1 .1 .1 .1 .1 .1	353 349 276 164 44 103 39 166	379 n/a n/a n/a n/a n/a n/a n/a	102 104 85 96 91 93 89 90	<1 n/a n/a n/a n/a n/a n/a n/a	85 n/a n/a n/a n/a n/a n/a n/a	190 154 615 1480 231 407 535 560







Hole Location: 36+00 E 0+80 N

NTS: 092/B13 UTM: 5416675 N 430910 E  
Azimuth: 210 Elevation: 585 m  
Dip: -50 Length: 465.1 m

Started: June 21, 1987  
Completed: June 28, 1987

Purpose: To test VLF conductors at 0+60 N and 1+80 S,  
a shallow IP chargeability anomaly between 0+80 and 1+00 S  
and a deep IP chargeability anomaly between 1+25 and 2+20 S.

Claim No. Chip 1  
Section No.: Line 36+00 East

Logged By: David P. Money  
Drilling Co.: Burwash Enterprises  
Assayed By: Bondar-Clegg and X-Ray Assay

Core Size: NQ

DIP TESTS

Length	Azi- muth	Dip	Length	Azi- muth	Dip
50.30	212.0	-50.0	320.30	218.0	-45.0
120.70	213.0	-46.0	388.30	220.0	-44.0
196.90	216.0	-45.0	455.70	218.0	-42.0
260.90	217.0	-45.0			

From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
.0	20.3	OVERBURDEN AND CASING										
20.3	26.1	FELSIC FELDSPAR CRYSTAL TUFF Medium to dark bluish- green tuff with up to 20 %, up to 2 mm, feldspar crystals. There is a minor fault slip at 20.6 with the orientation at 54 degrees to core axis and there is 0.6 m of lost core just prior to 23.2 and there is 2.1 m of lost core between 23.2 and 26.2. The foliation at 20.4 is at 50 degrees to core axis and at 21.3 it is at 60 degrees to core axis.	AB21661	21.9	22.0	.1	61	n/a	38	n/a	n/a	708
26.1	26.6	FAULT GOUGE										
26.6	30.6	SERICITIC QUARTZ-FELDSPAR CRYSTAL TUFF Felsic tuff with white - green sericite and 1 to 2 %, 1 to 2 mm, quartz eyes and 10 to 15 %, 2 mm, feldspar grains. There is trace to nil disseminated pyrite and a local pyrite band, 1 mm thick, at 29.1. There is 0.6 m of lost core between 28.0 and 29.3. The foliation at 29.4 is at 38 degrees to core axis.										
30.6	32.7	CHLORITIC SHEAR ZONE Chloritic shear with minor quartz eyes and calcite grains. There are quartz +/- carbonate +/- feldspar veins, up to 10 cm thick. The upper and lower contacts are at 31 degrees to core axis and 29 degrees to core axis respectively and are very sharp with minor faulting cutting the lower contact. There is minor fault gouge in the zone.	AB21662	32.1	32.2	.1	73	n/a	169	n/a	n/a	1090







From (m)	To (m)	-----DESCRIPTION-----	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
97.3	106.5	<b>FELSIC TUFF</b>										
	97.3	97.4 Weakly contorted felsic tuff with epidote grains. The foliation is at 67 degrees to core axis and the bedding is at 47 degrees to core axis.	AB21669	105.0	105.1	.1	231	n/a	103	n/a	n/a	312
	97.4	(?) fault, missing core (?).										
	97.4	99.2 Felsic tuff, intermediate lapilli tuff and fault gouge in the core with the orientation at 0 degrees to core axis.										
	99.2	99.3 Fault gouge.										
	99.3	106.5 Locally weakly to moderately contorted sericitic felsic tuff with trace to 2 %, 2 to 4 mm, quartz eyes and 5 to 15 % fine-grained epidote grains. The foliation at 101 is at 49 degrees to core axis and at 105.8 is at 25 degrees to core axis.										
106.5	110.3	<b>MAFIC TO INTERMEDIATE LAPILLI TUFF</b>										
		Intermediate / mafic lapilli tuff with epidotized clasts and minor quartz +/- carbonate veining.										
110.3	110.3	<b>FAULT GOUGE</b>										
110.3	115.8	<b>INTERMEDIATE TO FELSIC QUARTZ EYE AND FELDSPAR CRYSTAL TUFF</b>										
		Locally chloritic and sericitic tuff with local quartz - carbonate veins and kink bands. The foliation is between 60 and 90 degrees to core axis, with the rock being moderately contorted and a chlorite shear at 112.3. There is trace to 1 % local disseminated pyrite.	AB21670	114.7	114.8	.1	61	n/a	93	n/a	n/a	927
115.8	137.3	<b>SERICITIC QUARTZ-FELDSPAR CRYSTAL TUFF</b>										
		Moderately sericitic to siliceous felsic tuff with 2 to 3 %, 2 to 6 mm, quartz eyes and approximately 10 % feldspar grains. There are minor fracture controlled quartz - carbonate veinlets. The rock is grey - green in colour and at approximately 118 becomes moderately contorted and more siliceous, with an increase in quartz eyes to 4 to 5 % and in average size to 3.5 mm. The foliation at 118.6 is at 61 degrees to core axis. From 119.3 to 119.8 there is a quartz vein with a biotite margin and in spurs, which is at 20 to 25 degrees to core axis and appears to be along a fault slip. At 120.3 there is a 7 cm mafic sill or dyke with epidote grains and the orientation at 74 degrees to core axis. At 121.2 there is a chlorite - carbonate shear. The rock is highly contorted from 124 to 125. From 125 to 132.9 is darkish grey - green with local fracture controlled carbonate veinlets. At 125.1 bedding is at 36 degrees to core axis. At 126.3 the foliation is at 30 degrees to core axis. At 130.0 there is a 1 mm pyrite stringer. There is minor fault gouge at 132.2. From 132.9 to 137.3 there is a bleached	AB21671	129.1	129.2	.1	38	n/a	<10	n/a	n/a	1020
			AE08628	132.9	134.0	1.1	<1	12	8	<1	10	850
			AE08629	134.0	135.0	1.0	1	11	7	<1	<5	890
			AE08630	135.0	136.0	1.0	<1	6	9	<1	<5	910
			AE08631	136.0	137.3	1.3	<1	13	6	<1	<5	1100



From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
169.6	188.5	INTERMEDIATE TO FELSIC QUARTZ EYE AND FELDSPAR CRYSTAL TUFF Locally white and siliceous, usually medium to dark green and moderately siliceous. Hosts 20 %, up to 1 mm, crystals as 5 % quartz eyes and 15 % epidote grains. From 176 to 177 it is moderately sheared. At 178.0 there are blebs of chalcopyrite in a quartz vein. At 187.6 there is a carbonate - hematite veinlet. The tuff is bleached from 186.6 to 187.0.  Foliations :. 170.4 : 65 degrees to core axis. 174.5 : 65 degrees to core axis. 177.5 : 70 degrees to core axis. 184.1 : 50 degrees to core axis.  Bedding :. 174.8 : 53 degrees to core axis. 179.3 : 38 degrees to core axis.	AB21674	174.5	174.6	.1	49	n/a	17	n/a	n/a	1440
			AE08633	177.8	178.3	.5	410	11	38	<1	<5	200
			AB21675	184.6	184.7	.1	397	n/a	60	n/a	n/a	203
188.5	199.2	MASSIVE FELSIC CRYSTAL TUFF Massive medium grained felsic tuff with 20 to 25 % epidote, 2 to 4 mm, as grains and laths and 1 to 3 % quartz eyes, 1 to 5 mm. There are local quartz veinlets and the foliation at 191.5 is at 61 degrees to core axis.	AB21676	192.8	192.9	.1	59	n/a	18	n/a	n/a	1120
199.2	201.3	MAFIC SILL Black chloritic mafic sill or dyke with a sharp upper contact and the lower contact at a fault. There are no quartz eyes and there are 20 to 30 % epidote grains. The rock is moderately sheared with carbonate veinlets and moderate pervasive carbonatization locally. The foliation at 199.5 is at 46 degrees to core axis.	AB21677	199.3	199.4	.1	101	n/a	104	n/a	n/a	931
201.3	203.3	QUARTZ EYE BEARING FELSIC TUFF Grey to green siliceous tuff with 3 to 5 %, 2 to 4 mm, quartz eyes. The foliation at 202.6 is at 65 degrees to core axis.										
203.3	204.4	MAFIC SILL Fine-grained green sill with 30 %, up to 1 mm, epidote grain and minor chlorite - carbonate veinlets and quartz veins. There are sharp contacts, with the lower contact orientation at 58 degrees to core axis and the foliation variable between 30 and 90 degrees to core axis.										
204.4	207.6	FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF Felsic tuff with 2 to 4 %, 2 to 5 mm, quartz eyes and locally up to	AE08634	205.9	206.9	1.0	28	<5	20	<1	<5	950

From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		15 % epidote grains. From 206.85 to 207.35 there is 5 to 6 % chalcopryrite and 3 to 4 % weakly magnetic pyrrhotite as blebs and bands in quartz veins, which comprise 20 % of that interval.	AE08635	206.9	207.4	.5	16200	10	311	9	75	930
			AE08636	207.4	208.4	1.0	756	<5	56	1	<5	700
207.6	211.7	MAFIC SILL Same as from 203.3 to 204.35 with minor chalcopryrite and pyrite in a quartz vein at the base of the unit.										
211.7	214.3	MASSIVE QUARTZ-FELDSPAR CRYSTAL TUFF Massive light grey to a epidote yellow coloured felsic tuff with 5 %, 2 to 4 mm, quartz eyes and 35 %, 2 to 3 mm, epidote grains and laths, after feldspar with local epidotized blocks, up to 7 cm long.	AB21678	213.4	213.5	.1	29	n/a	23	n/a	n/a	932
214.3	217.5	MAFIC TO INTERMEDIATE LAPILLI TUFF Mafic tuff with minor quartz eyes, epidote lapilli and grains. The foliation is from 60 to 80 degrees to core axis. From 217.2 to 217.5 there is blocky, highly fractured core and fault gouge.										
217.5	219.5	MAFIC FLOW OR TUFF Massive mafic rock with approximately 1 % fracture controlled carbonate veinlets at 0 to 90 degrees to core axis. There is minor pyrite in local quartz veins. There are approximately 20 % epidote grains and no quartz eyes are present.	AB21679	218.8	218.9	.1	35	n/a	16	n/a	n/a	1270
219.5	223.2	FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF Felsic tuff with approximately 10 %, 1 to 5 mm, epidote grains and trace quartz eyes. Trace pyrite occurs. A graded crystal rich bed at 222.3 indicates that tops is uphole. At 222.7 the foliation is at 55 degrees to core axis and bedding is at 62 degrees to core axis.										
223.2	251.0	MAFIC FLOW Mafic flow with local zones of epidotization and chloritization with 2 to 3 % carbonate - hematite veinlets. There is local pyrite in the zones of epidotization. At 248.0 there is a 2 to 5 mm band of chalcopryrite and pyrite, which occurs with a quartz vein and hematite. The veins are at orientation of 0 to 90 degrees to core axis and the foliation varies from 30 to 90 degrees to core axis locally.	AB21680	228.8	228.9	.1	74	n/a	154	n/a	n/a	175
			AE08638	242.4	243.4	1.0	222	10	45	<1	<5	630
			AE08637	243.4	244.4	1.0	175	<5	60	<1	<5	1000
			AE08639	244.4	245.4	1.0	116	15	61	<1	<5	500
			AE08640	245.4	246.4	1.0	197	10	51	<1	<5	710
			AE08541	246.4	247.6	1.2	81	17	46	<1	<5	110
			AE08642	247.6	248.1	.5	2951	11	143	1	<5	530
251.0	256.0	FAULT ZONE Fault gouge with local felsic tuff and mafic flow material. From 253.8 to 255.3 there is 1 to 2 % pyrite in a felsic tuff.	AE08643	253.8	254.7	.9	50	9	20	<1	10	1000

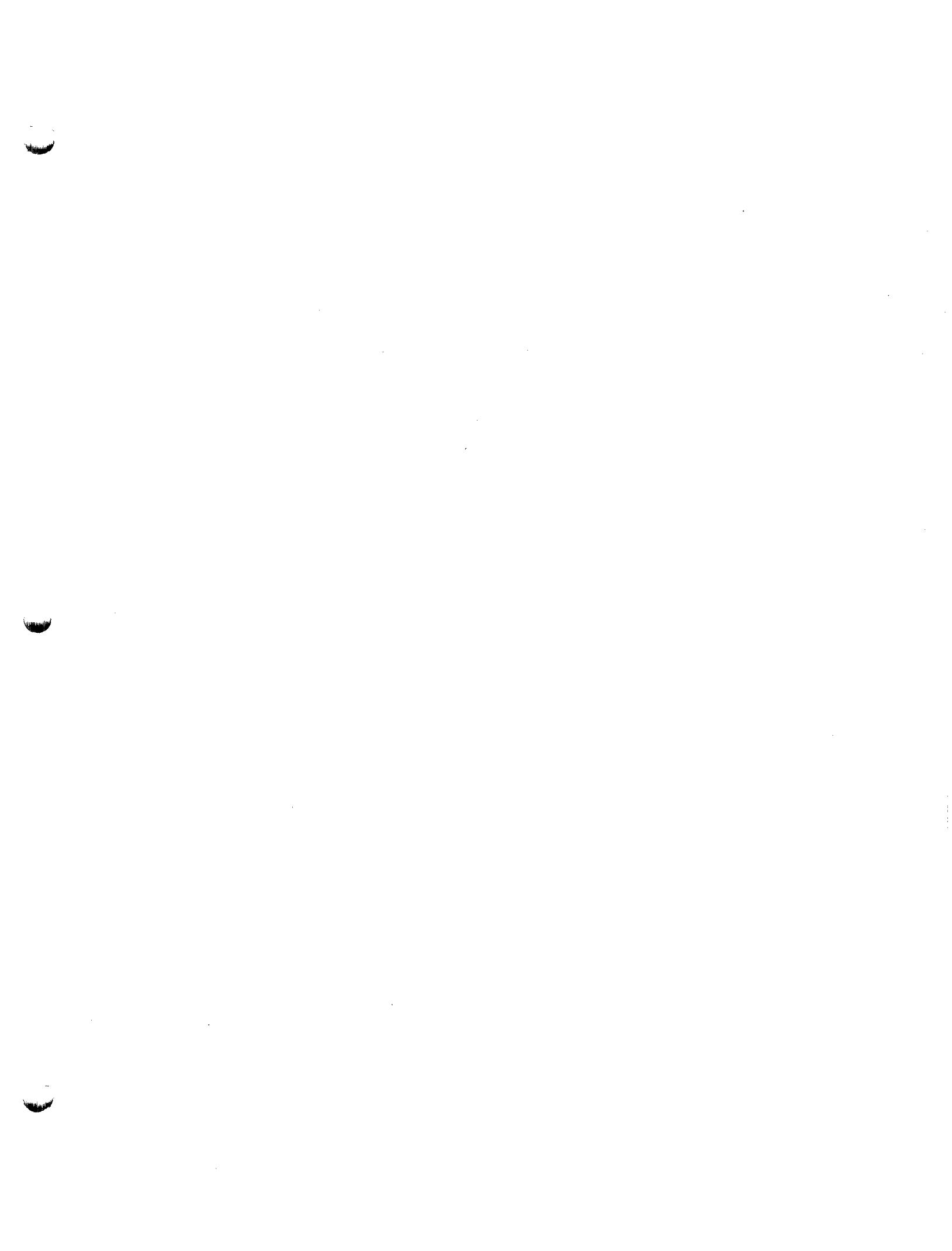


From (m)	To (m)	-----DESCRIPTION-----	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
289.6	320.4	DARK BROWN ARGILLITE Brown argillite, soft with strong to moderate pervasive carbonatization, with up to 1 % carbonate veinlets and minor pyrite blebs, trace to 1 %. There is up to 2 % very fine-grained pyrite in the matrix. The top of the unit is fault gouge to 292.1. There is blocky, highly fractured core from 314.0 to 320.4.	AB21685 AB21686	300.0 318.3	300.1 318.4	.1 .1	126 126	n/a n/a	136 144	n/a n/a	n/a n/a	637 961
320.4	321.4	SANDSTONE Brownish quartzite with bedding at 35 degrees to core axis and argillite, felsic tuff and Nanaimo conglomerate matrix as clasts in the lower 35 cm with grading indicating that tops is uphole.										
321.4	321.7	DARK BROWN ARGILLITE As before with minor inclusions of the underlying fine-grained green sandstone.										
321.7	322.4	SANDSTONE Fine-grained green sandstone with 3 to 5 % pyrite blebs.	AE08644	321.7	322.4	.7	156	14	105	<1	10	2000
322.4	322.8	NANAIMO CONGLOMERATE Gabbro and felsic tuff cobbles in a matrix similar to the green sandstone.										
322.8	446.3	PYRITIC FELSIC TUFF The unconformity with the Nanaimo Group sedimentary cover is at an orientation of 85 degrees to core axis. The tuff varies in terms of sulphide and whole rock compositions. 322.8 324.7 Brecciated with local Nanaimo Group inclusions. 324.7 349.8 Felsic tuff with trace quartz eyes and locally 5 to 15 % feldspar grains, up to 1 mm. The average pyrite content is 2 % and the content varies locally from 1 to 5 %. The pyrite is disseminated and bedded. There is 0.5 m of lower contact from 342.9 to 344.4 and 0.5 m of lower contact from 344.4 to 345.9. There is blocky, highly fractured core and fault gouge from 343 to 345.9. Locally there are fracture controlled carbonate veinlets. 349.8 Micro-fault. 349.8 351.0 Bleached felsic tuff with stringer pervasive carbonatization and 5 to 7 % pyrite and trace galena (?) 351.0 354.8 Locally weakly to moderately brecciated felsic tuff with quartz - carbonate and carbonate veins and veinlets with 1 to 2 % disseminated pyrite. The foliation is parallel to or sub-parallel to to the core axis. 354.8 355.2 Bleached felsic tuff with 7 % pyrite.	AE08645 AE08646 AE08647 AE08648 AE08649 AE08650 AE08701 AE08702 AE08703 AE08704 AE08705 AE08706 AE08707 AE08708 AE08709 AE08710 AE08711 AE08712 AE08713 AE08714	324.0 324.7 326.0 327.5 329.0 330.5 332.0 333.5 335.0 336.5 338.0 339.0 340.0 341.5 343.0 346.0 347.2 348.5 349.8 351.0 353.0	324.7 326.0 327.5 329.0 330.5 332.0 333.5 335.0 336.5 338.0 339.0 340.0 341.5 343.0 346.0 347.2 348.5 349.8 351.0 353.0	.7 1.3 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.0 1.0 1.5 1.5 3.0 1.2 1.3 1.3 1.2 2.0	29 6 6 3 10 47 75 56 39 46 52 79 60 44 40 37 26 207 167 26	43 41 60 36 50 78 169 78 102 106 107 145 83 57 53 56 41 9 17 14	56 25 24 23 52 23 20 37 55 57 217 453 89 187 99 284 101 37 203 39	<1 <1 <1 <1 <1 <1 1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	35 25 65 65 90 15 55 50 35 55 70 180 160 95 75 65 50 65 200 70	1500 3100 2000 2000 1100 1600 1500 1400 960 980 970 1500 1500 1400 1400 1400 1200 1300 380 1200



From (m)	To (m)	-----DESCRIPTION-----	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		carbonatization.										
429.7	433.7	Tuff with trace to 1 % disseminated pyrite and trace to nil pyrite bands.										
433.7	434.4	Beige sill as at 429.5 with sharp lower and upper contacts at 13 degrees to core axis. The sill has been subjected to stringer pervasive carbonatization and the composition is beige biotite and carbonate.										
434.4	442.0	Quartz eye feldspar rhyolitic tuff with trace to nil pyrite and minor pyrite with quartz - carbonate veins.										
442.0	442.1	Beige sill.										
442.1	444.5	Silicified tuff, similar to 434.4 to 442.0.										
444.5	446.3	Moderately carbonitized distorted and weakly brecciated felsic tuff with 2 % pyrite. There is local fuchsite throughout in trace quantities. There are quartz - carbonate veinlets throughout, that cross-cut and have no dominant orientation.										
Foliations :												
To approximately 355 at approximately 0 degrees to core axis.												
360 : 20 degrees to core axis.												
362 : 18 degrees to core axis.												
365.2 : 13 degrees to core axis.												
370 : 10 degrees to core axis.												
375 : 14 degrees to core axis.												
380 : 21 degrees to core axis.												
385 : 25 degrees to core axis.												
388.7 : 29 degrees to core axis.												
389 : 31 degrees to core axis.												
390 : 14 degrees to core axis.												
395 : 22 degrees to core axis.												
400 : 23 degrees to core axis.												
405 : 6 degrees to core axis.												
410 : 13 degrees to core axis.												
415 : 22 degrees to core axis.												
420 : 12 degrees to core axis.												
425 : 21 degrees to core axis.												
430 : 17 degrees to core axis.												
435 : 25 degrees to core axis.												
440 : 35 degrees to core axis.												
445 : 35 degrees to core axis.												
446.3	465.1	FINE GRAINED PLAGIOPHYRIC GABBRO Chilled margin type gabbro with approximately 5 %, 1 to 3 mm, feldspar grains in a fine-grained green matrix. The gabbro is very weakly magnetic with 2 to 3 % fine-grained ilmenite, which is breaking down to hematite. There are local quartz - carbonate veins with chlorite margins.	AE08750 AB21689	446.3 456.9	447.3 457.1	1.0 .2	157 242	<5 n/a	91 96	<1 n/a	<5 n/a	<20 183







From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		Similar to 9.1 to 15.5 m but not as pink. Trace disseminated magnetite. Becomes a chloritic ash tuff below 25.5 m. Occasional chloritic lapilli-sized clast. <1 %, 3-5 mm quartz eyes and no magnetite below 25.5 m. Occasional bed of mafic tuff. Nil sulphides but rusty fractures are common throughout the unit.	AD02456	20.8	20.9	.1	37	n/a	27	n/a	n/a	874
		From 47.3 to 53.9 m 10-30 % lapilli-sized felsic clasts in a quartz + sericite + chlorite matrix. Weak-nil pervasive carbonate. No quartz eyes.	AD02457	30.0	30.1	.1	36	n/a	18	n/a	n/a	961
		From 53.9 to 58.7 m weakly carbonatized felsic ash tuff and minor argillaceous sediments. Argillaceous sediments are black to medium grey and occur in beds and rip-up clasts < 2.5 cm thick and comprise < 5 % of the section (some are graphitic).	AD02458	44.4	44.5	.1	35	n/a	24	n/a	n/a	634
		From 58.7 to 68.9 m FELDSPAR CRYSTAL TUFF (< 1% quartz eyes). 5-10 %, 1-4 mm feldspars in a hard very siliceous, almost aphyric matrix. Moderate patchy thermal biotite alteration with beds of thermal biotite altered mafic tuff and tuffaceous sediments up to 1.1 m thick	AD02459	54.2	54.3	.1	35	n/a	12	n/a	n/a	1450
		From 59.8 to 60.5 m 20 % lapilli-sized felsic clasts.	AD02460	64.5	64.6	.1	26	n/a	16	n/a	n/a	1370
		From 68.2 to 68.9 m 5 % felsic lapilli-sized clasts.	AE08682	67.9	68.9	1.0	15	5	24	<1	<5	1300
		From 68.9 to 69.8 m chloritic and rust spotted. 5 % chlorite and 2-3% rust spots <4 mm in diameter. Rusty spots are centred on specks of chalcopyrite +/- sphalerite (?). Occasional patch of malachite on fracture surfaces. Mafic tuff bed from 69.2 to 69.5 m which also contains rusty spots.	AE08683	68.9	69.8	.9	449	<5	100	<1	<5	1300
		From 69.8 to 72.2 m felsic ash tuff with rusty fractures and occasional mafic tuff beds.	AD02461	72.6	72.7	.1	47	n/a	61	n/a	n/a	181
		72.2 to 74.1 m mafic tuff with up to 5 % 1-3 mm epidote spots (altered feldspars). Minor beds with lapilli-sized clasts of cherty felsic rock. Broken core at upper contact. Lower contact is at 35 degrees to core axis.	AD02462	79.7	79.8	.1	34	n/a	17	n/a	n/a	1710
		From 74.1 to 75.4 m felsic feldspar crystal tuff. Mottled appearance due to thermal biotite alteration variable sericite and chlorite content and quartz flooding. Up to 5 % lapilli-sized felsic clasts. Grades into a mafic to intermediate tuff at the lower contact.										
		75.4-76.3 M mafic tuff with minor beds and clasts of cherty tuffaceous sediments. Grades into felsic tuff.										
		76.3-77.0 M felsic feldspar +/- quartz crystal tuff. Moderate thermal biotite alteration. Lower contact is gradational.										
		77.0-78.0 M felsic ash-lapilli tuff. Gradational lower contact.										
		78.0-82.5 M felsic quartz-feldspar crystal tuff. 15 % epidotized feldspar crystals 1-3 mm long 1-4 % quartz eyes 2-5 mm in diameter. Quartz eyes have a bluish caste. Moderate thermal biotite alteration. Grades into the mafic tuff below.										
		82.5-83.1 M mafic ash tuff. Nil-trace disseminated chalcopyrite. Lower contact is at 50 degrees to core axis.										
		83.1-83.5 M felsic quartz-feldspar crystal tuff. As 78.0 to 82.5 m. Rusty microfractures.										

## LOST CORE INTERVALS:

20.4-21.3 m 0.2 m of lost core.

21.3-21.9 m 0.2 m of lost core.







From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
194.2	195.0	Beds < 0.5 cm wide of tuffaceous sediments at 50 degrees to core axis.										
196.8	201.1	<b>FELDSPAR PORPHYRITIC MAFIC FLOW</b> As 140.2 to 146.0 m. Several quartz-carbonate veins and pods up to 3 cm wide with 1-3 % pyrrhotite and trace chalcopyrite. Lower contact is at 52 degrees to core axis.	AD02475	199.9	200.0	.1	249	n/a	115	n/a	n/a	46
	199.4	199.9										
	200.6	201.1										
201.1	215.3	<b>CHLORITIC FELSIC TUFF</b> Fine-grained medium green-grey foliated. Foliation is contorted and kinked over most of the section. Weak-nil pervasive carbonatization. Occasional 1-3 mm quartz eye. Foliation is at a very low angle (< 15 degrees) to the core axis between 204.0 and 205.3 m. Trace- 1 % disseminated and fracture controlled pyrite. Nil-trace chalcopyrite. Broken core at lower contact.	AD02476	208.3	208.4	.1	35	n/a	38	n/a	n/a	869
		<b>STRUCTURE:</b> Bedding is at 50 degrees to core axis at 202.2 m. 0.5 Cm clay-filled slip at 85 degrees to core axis at 203.2 m. Foliation is at 65 degrees to core axis at 207.3 m. Foliation is at 55 degrees to core axis at 210.8 m. Foliation is at 50 degrees to core axis at 212.4 m.										
	209.7	210.2										
	213.7	214.0										
	214.2	215.3										
215.3	217.5	<b>CHLORITIC QUARTZ EYE BEARING FELSIC TUFF</b> 3-7 %, 1-5 mm quartz eyes in a fine-grained pale green-grey, quartz+sericite+chlorite matrix. Many of the quartz eyes have a bluish caste. Trace finely disseminated pyrite. Very rare lapilli-sized pyrite clast. Foliation at 217.0 m is at 45 degrees to core axis. Lower contact is parallel to foliation at 70 degrees to core axis.	AD02477	215.7	215.8	.1	36	n/a	30	n/a	n/a	884
217.5	219.3	<b>CHLORITIC FELSIC TUFF</b> As 201.1 to 215.3 m. Dominantly an ash tuff but lapilli-sized felsic fragments are abundant between 217.6 and 217.8 m. 0.15 cm wide bed	AD02478	217.8	217.9	.1	60	n/a	34	n/a	n/a	1160





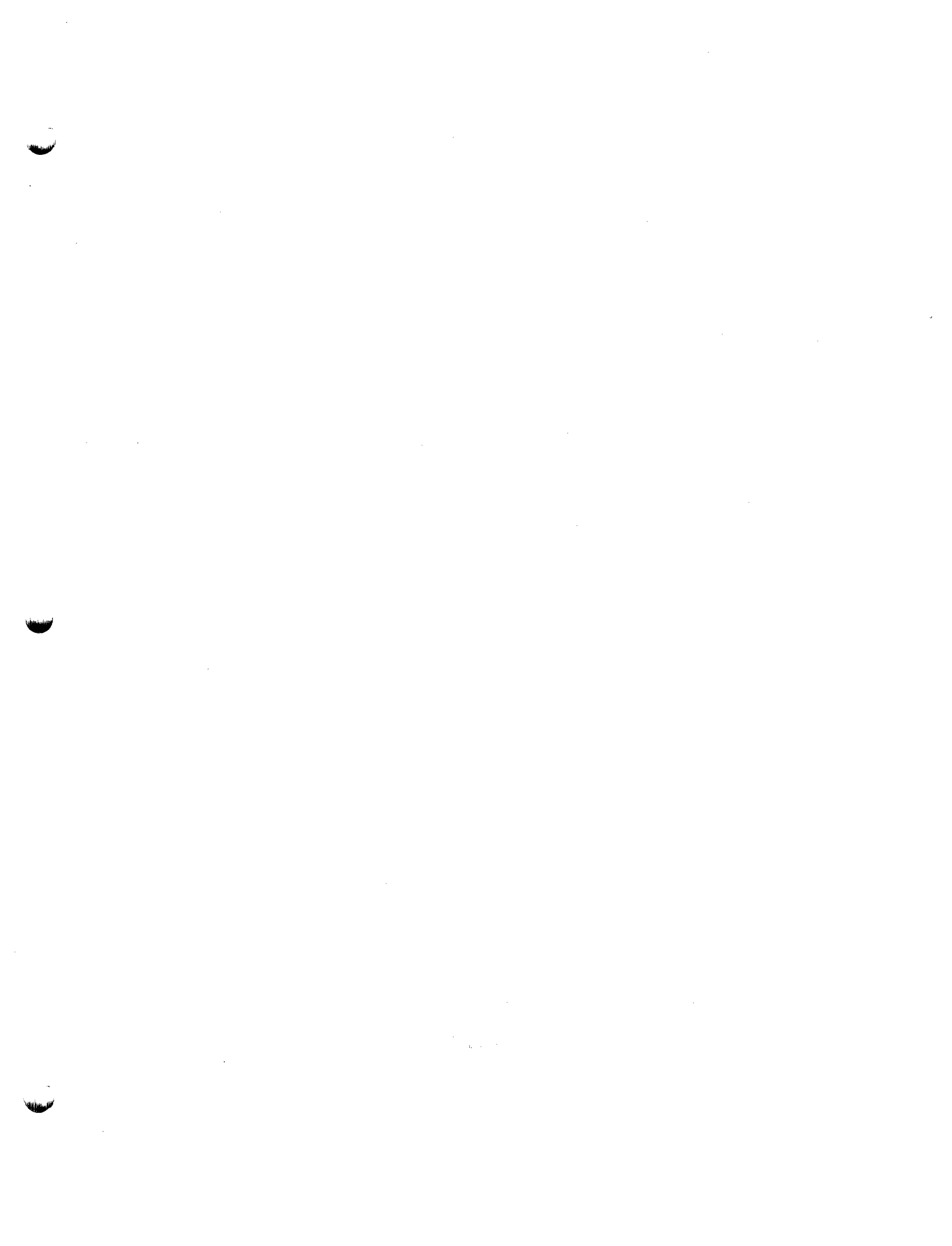












PROPERTY: Chemainus J.V. - Chip Claims

FALCONBRIDGE LIMITED  
DIAMOND DRILL LOG

HOLE No: Page Number  
CHEM87-34 1

Hole Location: 47+00 E 0+40 S

NTS: 092/B13 UTM: 5416150 N 431850 E  
Azimuth: 210 Elevation: 660 m  
Dip: -50 Length: 391.1 m

Started: June 28, 1987  
Completed: July 5, 1987

Purpose: To test VLF conductors at 0+90, 2+40 and 2+80 S,  
coincident deep and shallow IP resistivity lows at 2+05 S  
and a shallow IP chargeability anomaly at 2+80 S.

Claim No. : CHIP 1  
Section No.: Line 47+00 East

Logged By: David P. Money  
Drilling Co.: Burwash Enterprises  
Assayed By: Bondar-Clegg and X-Ray Assay

Core Size: NQ

DIP TESTS

Length	Azi- muth	Dip	Length	Azi- muth	Dip
29.30	206.0	-50.0	251.50	207.0	-42.0
87.20	205.0	-45.0	340.80	208.0	-39.5
165.80	204.0	-44.0			

From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
.0	8.2	OVERBURDEN AND CASING										
8.2	9.2	MAFIC FLOW Moderately contorted massive, but with a well developed schistosity, mafic rock, which has undergone pervasive carbonatization. Hosts trace to 2 % epidote grains and 1 to 2 % hematite cubes, up to 3 mm, after pyrite. The foliation varies locally from approximately 50 to 80 degrees to core axis.	AB21901	8.3	8.4	.1	695	n/a	77	n/a	n/a	839
9.2	11.5	FELSIC TUFF Green to grey felsic tuff with minor feldspar to epidote grains. At the top there are numerous quartz - carbonate veinlets. There is 0.3 m of lost core from 9.2 to 10.1, 0.7 m lost core from 10.1 to 11.0 and 0.4 m lost core from 11.0 to 11.9. The unit is blocky, highly fractured core with fault gouge at the lower contact.										
11.5	13.5	CHLORITIC SHEAR ZONE Chlorite - carbonate schist with minor carbonate veinlets, which has been highly sheared at approximately 70 to 80 degrees to core axis. There is 0.7 m of lower contact from 11.9 to 13.1.										
13.5	22.5	FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF Grey siliceous felsic tuff with fine-grained feldspar grains and trace quartz eyes and pyrite. The unit is oxidized throughout with strong rust (goethite) from 15.1 to 16.3. The rock is locally weakly contorted.	AB21902	14.1	14.2	.1	53	n/a	36	n/a	n/a	901





From (m)	To (m)	-----DESCRIPTION-----	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
57.3	59.6	<b>MAFIC FLOW</b> Moderately sheared carbonitized mafic flow with trace to 2 % epidote grains and local trace pyrite cubes, up to 3 mm. Hosts quartz - carbonate veins up to 5 cm thick.  Foliations :. 57.6 : 55 degrees to core axis. 58.8 : 52 degrees to core axis.										
59.6	63.0	<b>FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF</b> Green siliceous felsic tuff with approximately 5 % stretched feldspar ash and trace to 4 % ( average 3 % ), 3 to 5 mm, quartz eyes local epidote, after feldspar, rich 1 to 3 mm beds at the base of the unit, above the basal 5 cm hydraulic fracture quartz - calcite vein. There are minor sericitic zones.  Foliations :. 60.0 : 61 degrees to core axis. 61.3 : 71 degrees to core axis.  Bedding :. 59.9 : 66 degrees to core axis. 62.8 : 41 degrees to core axis.	AB21906	59.7	59.8	.1	31	n/a	16	n/a	n/a	1220
63.0	65.8	<b>MAFIC FLOW</b> Fine-grained green mafic flow with 15 to 30 % epidote grains locally. The flow is weakly sheared locally and at 64.6 there is 4 cm of quartz eye felsic tuff, indicating bedding at 51 degrees to core axis. No sulphides occur.  Foliations :. 63.4 : 43 degrees to core axis. 65.0 : 49 degrees to core axis.										
65.8	71.9	<b>FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF</b> White to medium grey - green felsic tuff with 3 to 5 %, 1 to 4 mm, quartz eyes and approximately 5 %, 1 mm, stretched feldspar grains. The first 25 cm is composed of highly contorted sericite. There is 0.7 m of lost core from 67.0 to 68.0. There is 2 mm of fault gouge at 70.6. No sulphides are present.  Foliations :. 68.2 : 49 degrees to core axis. 69.2 : 42 degrees to core axis. 71.8 : 54 degrees to core axis.  Bedding :. 66.2 : 46 degrees to core axis.	AB21907	70.3	70.4	.1	63	n/a	<10	n/a	n/a	1020

From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
71.9	74.6	MAFIC TUFF Mafic tuff with trace quartz eyes, 10 to 25 % epidote grains, after feldspar, locally and locally up to 8 % chlorite as stretched grains, after hornblende (?). To 72.7 the tuff is extremely contorted. The rock has been subjected to moderate pervasive carbonatization and there are local veins of epidote - quartz - calcite, quartz - calcite, and calcite, up to 7 cm in width.  Foliations :. 73.2 : 73 degrees to core axis. 74.0 : 75 degrees to core axis.										
74.6	75.1	MASSIVE QUARTZ EYE BEARING FELSIC TUFF Dark green siliceous felsic tuff with 3 to 5 %, < 1 mm to 5 mm, quartz eyes.	AB21908	74.7	74.8	.1	31	n/a	86	n/a	n/a	81
75.1	78.2	CHLORITIC SHEAR ZONE Sheared chlorite - carbonate schist with local very contorted zones. The foliation varies, but trends at approximately 80 degrees to core axis.										
78.2	79.6	INTERMEDIATE TO FELSIC QUARTZ EYE AND FELDSPAR CRYSTAL TUFF Chloritic and sericitic tuff with 20 to 30 % fine-grained quartz and feldspar crystals to grains. Local carbonate veinlets and weak carbonatization.  Foliation : 79.1 : 56 degrees to core axis.										
79.6	80.4	CHLORITIC SHEAR ZONE Sheared felsic and intermediate tuff with a dominant composition of chlorite - carbonate.										
80.4	81.7	SERICITIC FELSIC CRYSTAL LAPILLI TUFF Felsic lapilli in a sericite schist matrix with local zones of sericitization. The tuff is weakly to strongly contorted.										
81.7	91.3	MASSIVE QUARTZ-FELDSPAR CRYSTAL TUFF Locally light grey to medium green tuff with up to 10 % quartz eyes, < 1 to 5 mm, and up to 20 % feldspar grains, 1 to 3 mm.  Foliations :. 81.8 : 54 degrees to core axis. 84.9 : 60 degrees to core axis.	AB21909	86.7	86.8	.1	31	n/a	16	n/a	n/a	807



From (m)	To (m)	-----DESCRIPTION-----	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
101.8	103.3	MAFIC SILL Fine-grained green mafic sill with white barren bull quartz veins and locally epidote / feldspar phyrlic.										
103.3	104.5	FELSIC CRYSTAL LAPILLI TUFF Locally biotitic white rhyolitic lapilli tuff with felsic lapilli and feldspar crystals. From 103.9 to 140.1 there is rusty blocky, highly fractured core.  Bedding :. 103.6 : 68 degrees to core axis. 103.9 : 70 degrees to core axis.										
104.5	108.6	FINE GRAINED PLAGIOPHYRIC GABBRO Fine-grained gabbro with 5 to 7 %, 1 to 2 mm, feldspar grains and local quartz - chlorite veins.	AB21912	106.5	106.6	.1	263	n/a	116	n/a	n/a	96
108.6	116.2	ALTERED FELSIC CRYSTAL LAPILLI TUFF Bleached felsic tuff with felsic lapilli and sausritized feldspar grains. Hosts 2 to 3 % fracture controlled pyrrhotite with trace chalcopryrite. There is 1.8 m of lost core as approximately 10 cm blocky, highly fractured core from 112.8 to 114.6. Thermal biotite appears throughout and increases with depth.  Foliations :. 115.0 : 80 degrees to core axis. 116.0 : 80 degrees to core axis.	AE08751 AE08752 AE08753	111.4 112.8 114.6	112.8 114.6 116.2	1.4 1.8 1.6	45 28 57	5 8 8	22 18 26	<1 <1 <1	<5 <5 <5	1500 1600 1000
116.2	120.7	MASSIVE QUARTZ-FELDSPAR PORPHYRITIC FLOW Grey to green oxidized felsic flow with 10 to 15 %, 1 to 2 mm, sausritized feldspar grains and 1 to 3 % quartz grains. The foliation varies locally and averages 55 degrees to core axis.	AE08754 AB21913	116.2 118.4	117.7 118.5	1.5 .1	28 44	5 n/a	45 24	<1 n/a	<5 n/a	1000 1360
120.7	121.4	MAFIC SILL Fine-grained green mafic sill with sharp lower and upper contacts, at 42 and 47 degrees to core axis. The sill hosts 1 to 2 % pyrite and trace carbonate veinlets. The foliation averages 45 degrees to core axis.										
121.4	154.3	MASSIVE QUARTZ-FELDSPAR CRYSTAL TUFF Dark black to medium grey - green felsic tuff with locally variable crystal content, 2 to 25 % ( average 15 % ), 1 to 3 mm, feldspar grains to laths and trace to 5 %, ( average < 1 % ) quartz crystals. There are up to 5 % epidotized clasts, which range from	AE08755 AE08756 AE08757 AB21914	125.0 126.4 127.0 128.6	126.4 127.0 128.0 128.8	1.4 .6 1.0 .1	41 88 10 37	6 6 8 n/a	31 73 30 23	<1 <1 <1 n/a	5 <5 <5 n/a	890 1800 1200 847

From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		1 cm by 0.5 cm to 10 cm thick and continuous across the core. Some clasts have been completely replaced by epidote and others have been rimmed by ep or have 20 to 50 % epidote interstitial to feldspar grains. There is very rusty, bleached and cooked tuff from 142.0 to 143.2 and from 146.2 to 151.6. There is only trace pyrite in the rusty zones. There are trace local, approximately 5 cm, quartz - chlorite - calcite veins. From 144 to 146.5 the thermal biotite is a dominant feature and it occurs to a lesser degree throughout.	AB21915	134.6	134.8	.1	56	n/a	25	n/a	n/a	675
			AE08758	146.6	148.1	1.5	12	6	31	<1	<5	1200
			AB21916	148.8	148.9	.1	38	n/a	21	n/a	n/a	680
			AE08759	148.1	149.0	.9	27	<5	28	<1	<5	1100
			AE08760	149.0	150.0	1.0	11	11	26	<1	<5	930
			AE08761	150.0	151.9	1.9	13	5	23	<1	<5	1200
		There are minor other lithologies :. 123.7 123.8 Rusty mafic sill. 126.4 127.0 Intermediate lapilli tuff with epidote lapilli, 20 to 35 %, in a thermal biotite matrix with 1 to 2 % pyrrhotite and trace chalcopyrite.										
		Foliations :. 126.6 : 59 degrees to core axis. 131.5 : 61 degrees to core axis. 134.5 : 41 degrees to core axis. 144.1 : 60 degrees to core axis. 152.4 : 56 degrees to core axis.										
154.3	155.9	INTERMEDIATE LAPILLI TUFF 30 to 40 % epidote grains and lapilli in a intermediate to felsic matrix. The tuff is massive and possibly is a flow.	AB21917	154.5	154.6	.1	51	n/a	125	n/a	n/a	120
155.9	169.7	MASSIVE QUARTZ-FELDSPAR CRYSTAL TUFF At upper contact is similar to 121.4 to 154.3 til 161 where clasts disappear and tuff is locally light green and black zones with on average 5 % feldspar and quartz crystals. There are minor dust tuff beds. Locally there is fracture controlled carbonatization.	AB21918	163.5	163.6	.1	34	n/a	24	n/a	n/a	1970
		Foliations :. 162.3 : 43 degrees to core axis. 163.5 : 20 degrees to core axis. 166.0 : 54 degrees to core axis. 168.5 : 50 degrees to core axis.										
		Bedding :. 162.5 : 43 degrees to core axis. 162.0 : 70 degrees to core axis.										
169.7	224.0	INTERMEDIATE TO MAFIC QUARTZ EYE AND FELDSPAR CRYSTAL TUFF Dominantly andesitic tuffs with local felsic tuffaceous components with a gradational transition into rhyolitic tuff for 1 to 2 m. The tuff hosts 5 to 30 % epidote to feldspar grains, up to 2 mm, and trace to 2 %, up to 2 mm, quartz eyes. There are minor local	AB21919	185.5	185.6	.1	181	n/a	234	n/a	n/a	805
			AB21920	201.5	201.6	.1	129	n/a	134	n/a	n/a	366
			AB21921	206.5	206.6	.1	196	n/a	107	n/a	n/a	638
			AE08762	212.1	213.1	1.0	1050	70	78	<1	<5	1000



From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		Fine-grained massive felsic flow with purple tint, due to thermal biotite. Blocky, highly fractured core from 228.8 to 231.1.										
231.1	242.0	MAFIC FLOW Medium green mafic flow with 20 to 30 % epidote grains. There are local quartz +/- chlorite +/- epidote veins. In the upper 1 m there are felsic dust tuff beds or cherty beds, 1 mm to 2 cm thick with bedding at 60 degrees to core axis.	AB21924	233.3	233.4	.1	27	n/a	110	n/a	n/a	536
242.0	247.3	SERICITIC QUARTZ EYE BEARING FELSIC TUFF 8 to 9 %, 2 to 8 mm, quartz eyes in a rhyolitic tuff to sericite schist, which is weakly to moderately contorted with local kink bands. Bedding appears to be sub-parallel to the foliation.  Foliations :. 242.3 : 41 degrees to core axis. 243.5 : 61 degrees to core axis. 245.3 : 58 degrees to core axis.	AB21925	242.1	242.2	.1	44	n/a	49	n/a	n/a	1090
247.3	247.4	FAULT GOUGE Fault gouge to clay green rubble.										
247.4	269.7	MAFIC FLOW Andesitic fine-grained light green flow with approximately 30 % up to 1 mm epidote grains and local quartz +/- chlorite +/- carbonate veins to veinlets. There is local trace to 0.5 % disseminated pyrite. Contain locally trace to 4 % quartz grains, averages approximately 1 %.  Foliations :. 249.0 : 46 degrees to core axis. 261.0 : 51 degrees to core axis.	AB21926	264.6	264.8	.1	142	n/a	98	n/a	n/a	187
269.7	271.0	FAULT GOUGE Andesitic fault gouge and clay for 30 cm from upper contact and then felsic fault gouge to lower contact.										
271.0	324.8	PYRITIC QUARTZ-SERICITE SCHIST										
271.0	272.8	Highly to moderately contorted felsic with a deformational breccia structure. Hosts 1 to 2 % pyrite, mostly concordant with some disseminated.	AE08767	272.8	274.1	1.3	712	64	560	1	80	1200
			AE08768	280.0	281.0	1.0	912	286	5200	<1	30	1500
			AE08769	281.0	282.0	1.0	593	438	1587	1	65	1800
272.8	273.0	FAULT ZONE black pyrite rich matrix with minor brecciated clasts.	AE08770	282.0	283.0	1.0	222	42	396	1	45	1600
			AE08771	285.0	286.0	1.0	80	94	262	<1	5	1600
273.0	274.1	Brecciated zone with fault gouge and black fault material. Trend at approximately 70 degrees to core	AE08772	286.0	287.0	1.0	57	38	96	<1	10	2000
			AE08773	287.0	288.0	1.0	173	20	48	<1	35	2000





From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)	
307.0	307.8	Dark green mafic sheared and carbonitized sill. Upper contact at 20 degrees to core axis and lower contact is sharp, but irregular.											
307.8	308.5	Contorted white to light green sericite schist with approximately 5 %, up to 2 mm, quartz eyes.											
308.5	308.7	Mafic sill as from 307.0 to 307.8.											
308.7	309.1	Sericite schist as from 307.8 to 308.5 with silicification below the sill for approximately 10 cm. Foliation at 309.1 : 59 degrees to core axis.											
309.1	309.4	0.3 m of lost core.											
309.4	310.1	2 to 3 % banded pyrite in contorted quartz - sericite schist. Local quartz eyes.											
310.1	312.2	Quartz - sericite schist with 3 to 5 %, 1 to 3 mm, quartz eyes and trace to 1 % local disseminated and banded pyrite.											
312.2	312.3	Mafic sill, as from 308.5 to 308.7 with fault gouge over lower 5 cm.											
312.3	324.5	Quartz - sericite with local quartz eyes, up to 5 %, up to 4 mm. Local fuchsite, 1 cm thick, semi-continuous band at 315 .1. Pyrite averages approximately 1 %, locally trace to 2 % is both disseminated and rarely bands, fine-grained up to 3 mm. Foliations : 316.1 : 35 degrees to core axis, 320.4 : 51 degrees to core axis, 323.2 : 38 degrees to core axis and 324.4 : 51 degrees to core axis.											
324.5	324.8	Fault gouge and quartz veins.											
324.8	365.8	GABBRO											
	324.8	348.1	Fine-grained gabbro, chilled margin, feldspar phyrlic, up to 20 %, up to 2 mm. Contains numerous epidote, quartz, and carbonate veins and veinlets. There is minor hematite lining some vnlts' and after ilmenite. Up to 5 % leucoxene also occurs and the rock is weakly magnetic.	AD02651	325.8	326.0	.3	150	5	76	<1	<5	50
				AB21927	356.8	357.0	.2	260	n/a	103	n/a	n/a	328
	348.1	357.4	Coarse grained gabbro with 3 to 5 % weakly magnetic ilmenite.										
	357.4	361.4	Medium grained.										
	361.4	365.8	Fine-grained gabbro, less veining than at upper contact.										
365.8	380.6	CHERTY BLACK ARGILLITE AND SILTSTONE WITH MINOR GREYWACKE											
	365.8	368.9	Medium to dark green to grey siliceous siltstone with minor black argillite beds and local fracture controlled carbonate veinlets and local quartz veins. There is trace to 0.5 % fracture controlled pyrite. Bedding at 368 is at 60 degrees to core axis.	AD02652	367.8	368.9	1.1	32	7	64	<1	<5	2800
				AD02653	368.9	370.3	1.4	50	14	58	<1	<5	4500
				AD02654	371.1	372.0	.9	37	7	111	<1	<5	2900
				AD02655	372.7	374.0	1.3	33	7	58	<1	<5	2700
				AD02656	374.0	375.0	1.0	35	9	54	<1	<5	4000
	368.9	370.3	Black cherty argillites with local whitish chert beds. There are numerous cross-cutting fracture controlled carbonate veinlets. The zone hosts approximately 5 % pyrite, about 1 % is disseminated and fine-grained, 1 %	AD02657	375.0	376.0	1.0	31	<5	87	<1	<5	4600
				AD02658	376.0	377.0	1.0	25	7	90	<1	<5	3500
				AD02659	377.0	377.7	.7	32	6	73	<1	<5	3500
				AD02660	377.7	378.5	.8	58	11	59	<1	<5	3700





Hole Location: 47+00 E 1+83 N

NTS: 92B13 UTM: 5416248 N 431862 E  
Azimuth: 210 Elevation: 710 m  
Dip: -50 Length: 359.1 m

Started: 30-June-1987  
Completed: 5-July-1987

Purpose: To define stratigraphy north of IP and  
VLF anomalies tested by holes CHEM87-34 and 36.

Claim No. CHIP 1  
Section No.: Line 47+00 E

Logged By: S.G. Enns and J. Pattison  
Drilling Co.: Burwash Enterprises  
Assayed By: Bondar-Clegg & Co and XRAL

Core Size: NQ

DIP TESTS

Length	Azi- muth	Dip	Length	Azi- muth	Dip
32.60	206.0	-52.0	281.90	206.0	-47.5
127.10	206.0	-48.0	353.60	206.0	-42.0
215.50	206.0	-49.0			

From (m)	To (m)	-----DESCRIPTION-----	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
.0	3.4	OVERBURDEN AND CASING										
3.4	19.1	FELSIC QUARTZ CRYSTAL TUFF Overall colour of unit is pale greenish-gray but in detail white and dark green slightly chloritic steaks produce a distinctly banded appearance. White 2 to 8 cm bands are parallel to foliation as beds (?). Unit is strongly foliated and sericite-rich. Foliation and bedding (?) 60 degrees to core axis at 8.7 m. 50 Degrees to core axis at 10.7 m. 8 to 15 % 2 to 8 mm quartz eyes, up to 1 cm locally; feldspars generally nil to minor. 2 to 3 mm white quartz veins about 2 per m 70 to 80 degrees to core axis. Rare pyrite as 1 to 4 mm cubes up to 1 cm - less than 1 %. White irregular quartz vein masses several cm wide at 17.0 to 17.4 m and 18.2 to 18.4 m. Fine grained dark green section 17.4 to 17.6 m - early mafic dyke ?. Lower contact becomes darker green but retains quartz content and is weakly calcareous.	AD02480	16.8	16.9	.1	32	n/a	28	n/a	n/a	903
19.1	24.6	MAFIC TUFF Probably a sheared mafic tuff. Unit has a dark green colour, is streaky in appearance, strongly foliated and calcareous. 5 to 6 % 2 to 3 mm quartz eyes are present in this unit. Abrupt, gradational upper contact; lower contact grades into massive	AD02481	21.3	21.4	.1	255	n/a	103	n/a	n/a	142

From (m)	To (m)	-----DESCRIPTION-----	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		quartz bearing tuff. At 24.2 m a massive dark green quartz crystal tuff is present. Locally, epidote stringers parallel foliation cleavage.										
24.6	36.5	CHLORITIC FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF Unit has a dark green colour, is strongly foliated 60 degrees to core axis at 31.5 m 50 degrees to core axis at 34.7 m. Quartz eyes 4 to 7 %, 2 to 6 mm and up to 8 mm and gray feldspar 7 to 10 %, 3 to 6 mm. At 25 to 26 m a few white flattened lithic clasts 2 to 5 mm by 20 mm long. Pyrite as foliation parallel stringers 2 to 3 % from 25 to 30 m. Unit has a steaky appearance caused by variably chlorite-rich dark green and pale green epidote (after feldspar) bands 5 to 10 mm wide. Weakly calcareous.	AE08684	25.0	26.0	1.0	317	<5	63	<1	<5	1100
			AE08685	26.0	27.0	1.0	63	<5	49	<1	<5	760
			AE08686	27.0	28.0	1.0	51	<5	40	<1	<5	790
			AE08687	28.0	29.0	1.0	43	<5	35	<1	5	770
36.5	108.2	FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF Unit is similar to 3.4 to 19.1 m. Upper contact grades from 10 % feldspar to quartz-rich sericite tuff. 12 to 15 %, 2 to 8 mm quartz and abundant sericite. Generally sub-massive; locally streaky due to variable sericite content. A few sericitic lithic clasts parallel foliation cleavage at 41.2 m. Foliation at 40.2 m is at 60 degrees to core axis. Dark green chlorite-rich (plus epidote) strongly sheared section 55 degrees to core axis at 35.5 to 35.7 m. Streaky sections 46.7 to 49.0 defined by finer grained more chlorite-rich. And epidote altered feldspar bands (beds ?) 60 degrees to core axis ;they are often subtle. Pale pistachio green epidote veined sections with irregular quartz veining 43.9 to 44.2 m. Feldspars generally more common, 6 to 10 % 2 to 6 mm and generally epidote altered at 50 to 53 m. At 54.1 to 54.5 m white quartz veins with dark chlorite. A finer grained crystal tuff interval 46.0 to 48.5 m gives a streaky appearance to this generally massive unit. Local steaking is caused by variable chlorite content. Foliation of streaks at 62.0 m is at 60 degrees to core axis. Small fault (chlorite slip) 5 cm wide at 59.2 m. Occasional pyrite crystals, overall less than quarter %. At 61.5 to 63.4 m foliation parallel fine grained pyrite locally reaches 2 to 3 % in fine grained siliceous looking gray quartz sericite tuff.	AD02482	40.3	40.4	.1	36	n/a	38	n/a	n/a	1070
			AD02483	53.2	53.3	.1	37	n/a	36	n/a	n/a	1120
			AE08688	61.3	62.3	1.0	8	<5	18	<1	5	1000
			AE08689	62.3	63.3	1.0	4	6	21	<1	<5	1100
			AD02484	70.2	70.3	.1	25	n/a	27	n/a	n/a	1250
			AD02485	85.5	85.6	.1	23	n/a	26	n/a	n/a	1020
			AD02486	95.3	95.4	.1	49	n/a	64	n/a	n/a	1240
			AD02487	105.1	105.2	.1	34	n/a	24	n/a	n/a	649

From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		<p>Below 66.0 m the unit becomes predominantly greener due to increase in chlorite. Feldspar also increases to 8 to 10 % as 2 to 4 mm crystals.</p> <p>Foliation at 69.0 m is at 55 degrees to core axis.</p> <p>Stretched lithic clasts at 69.5 and 72.3 m.</p> <p>White quartz vein masses accompanied by dark chlorite at 71.0 to 72.2 m.</p> <p>From 69.0 to 90.0 m monotonous lithology of variably streaked overall light greenish quartz feldspar crystal tuff. Probable bedding is defined by increased darker chlorite content relative to quartz and feldspar. Feldspar generally is subordinate in amount to quartz.</p> <p>Bedding defines foliation cleavage:.</p> <p>50 Degrees to core axis at 74.6 m.</p> <p>55 Degrees to core axis at 80.0 m.</p> <p>55 Degrees to core axis at 80.3 m.</p> <p>55 Degrees to core axis at 86.8 m.</p> <p>55 Degrees to core axis at 93.7 m.</p> <p>50 Degrees to core axis at 101.4 m.</p> <p>Blocky core 88.2 to 89.2 m small fault 35 degrees to core axis.</p> <p>Blocky core 90.4 to 91.2 m.</p> <p>Rare pyrite crystals 4 to 6 mm at 89.1 m.</p> <p>Small fault with gouge 92.5 m.</p> <p>Small fault with gouge 105.8 is at 50 degrees to core axis.</p> <p>Dark green chlorite calcite epidote sheared sections:.</p> <p>50 Degrees to core axis at 97.5 98.1 m.</p> <p>50 Degrees to core axis at 99.1 99.3 m with small fault.</p> <p>50 Degrees to core axis at 102.2 102.9 m.</p> <p>Lower contact sharp.</p>										
108.2	113.5	<p>QUARTZ-FELDSPAR PORPHYRITIC FELSIC FLOW</p> <p>This interval is massive less sericitic and only moderately foliated compared to the above unit.</p> <p>Darker gray coloured, possible flow unit.</p> <p>Moderate foliation at 109.0 m is at 55 degrees to core axis.</p>	AD02488	110.2	110.3	.1	24	n/a	25	n/a	n/a	1170
113.5	127.8	<p>FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF</p> <p>Same gray colour as unit above but with stronger foliation.</p> <p>Lithic clasts here and there.</p> <p>10 to 13 % 2 to 4 mm quartz eyes, 8 to 10 % 2 to 4 mm feldspars with proportional ratios quite variable in broad 0.1 to 0.7 m bands.</p> <p>Also, local 1 to 7 cm dark green chlorite shear zones. Local white quartz veins here and there parallel foliation.</p> <p>Lithic clasts 115.3 m.</p> <p>Fault with gouge 114.2 to 114.9 m; adjacent foliation 45 degrees to</p>	AD02489	124.8	124.9	.1	105	n/a	35	n/a	n/a	726



From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		Lower contact 40 degrees to core axis.										
148.0	155.5	FELSIC ASH TUFF Felsic to intermediate composition dust and ash tuff with hard cherty intervals and minor dark green intervals. Strong foliation cleavage, except near faults 60 to 68 degrees to core axis. Faults : 149.0 to 149.2 m 53 degrees to core axis Lost Core 0.2 m. 150.0 to 150.4 m 30 to 74 degrees to core axis gouge and Lost Core 0.4 m. 150.7 to 150.8 m 70 degrees to core axis.										
155.5	158.2	EARLY MAFIC DYKE Sharp upper contact 62 degrees to core axis ; lower contact broken core. White calcite veinlets and irregular patches; pervasive calcite throughout. Fine grained equigranular.	AD02491	157.6	157.7	.1	47	n/a	86	n/a	n/a	682
158.2	160.7	FELSIC CRYSTAL ASH TUFF Mainly broken core hard, cherty, and siliceous. 1/2 % pyrite dissemination.										
160.7	163.9	EARLY MAFIC DYKE As above in 155.5 to 158.2. Small 2 cm fault with gouge at 162.5 m 80 degrees to core axis.										
163.9	183.8	FELSIC CRYSTAL LAPILLI TUFF Mottled appearance with gray-green and pink tinged white patches. Possible weak chloritic alteration on fractures especially 166 to 170 m. Pale pink hue appears to be on larger lithic clasts 2 to 3 cm with poorly defined outlines. (Perhaps a welded lithic tuff ?) Very fine grained less than 1/2 mm disseminated magnetite crystals noted - about 1/2 % and cause of pinkish tinge. Darker matrix to the pale patches (clasts) is quartz feldspar crystal composition similar to unit 141 to 148 m above.	AD02492 AD02493	169.5 177.8	169.6 177.9	.1 .1	44 63	n/a n/a	35 47	n/a n/a	n/a n/a	786 1100









From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		core axis.										
281.7	285.8	MAFIC AND FELSIC TUFFS Roughly 60 % felsic ash tuff in beds 0.3 to 1.4 m thick and 40 % mafic ash tuff in beds 0.2 to 1.0 m thick. The felsic tuffs are light to medium grey-green relatively massive weakly chloritized ash tuffs. The mafic tuffs are dark green foliated contain 1-10 %, 1-3 mm long epidotized feldspars and are weakly to moderately carbonatization with calcite-filled gashes and microfractures. STRUCTURE: Bedding is at 42 to degrees to core axis at 281.8 m. Foliation is at 42 to degrees to core axis at 281.8 m. Minor slip is at 76 degrees to core axis at 282.4 m. Bedding is at 60 degrees to core axis at 282.5 m. Bedding is at 65 degrees to core axis at 283.3 m. Bedding is at 68 degrees to core axis at 283.5 m. Foliation is at 62 degrees to core axis at 284.0 m. Bedding is at 74 degrees to core axis at 284.2 m. Bedding is at 76 degrees to core axis at 284.4 m. 0.5 Cm wide clay-filled slip is at 65 degrees to core axis at 285.4 m Minor clay-filled slip is at 60 degrees to core axis at 285.5 m. Minor clay-filled slip is at 55 degrees to core axis at 285.7 m.	AD02601	282.7	282.8	.1	33	n/a	61	n/a	n/a	813
			AD02602	283.8	283.9	.1	29	n/a	<10	n/a	n/a	1550
281.7	282.2	Moderately carbonatized MAFIC TUFF. Nil sulphides. Quartz-carbonate vein at lower contact.										
282.2	282.5	Felsic tuff with 5 % 1-3 mm epidote spots (altered feldspars ). Lower contact is a chloritic slip at 70 degrees to core axis.										
282.5	283.5	MAFIC ASH TUFF. 5.0 cm wide bed of felsic ash tuff at 65 degrees to core axis at 283.3 m. Lower contact is at 68 degrees to core axis.										
283.5	284.2	FELSIC ASH TUFF. Lower contact is at 74 degrees to core axis.										
284.2	284.4	Mafic tuff. Lower contact is at 76 to degrees to core axis.										
284.4	285.8	FELSIC TUFF. 5.0 cm wide mafic ash tuff bed at 60-70 degrees to core axis near the upper contact. Below 285.4 m rock has a crushed tectonized appearance. Several clay-filled slips at 60-70 degrees to core axis. Bed of mafic tuff between 285.5 and 285.6 m. Lower contact is at 65 degrees to core axis.										
285.8	291.4	MAFIC FLOWS/DYKES AND FELSIC TUFFS Mafic flows/dykes are fine-grained dark green with numerous	AD02603	287.1	287.2	.1	27	n/a	64	n/a	n/a	1850

From (m)	To (m)	-----DESCRIPTION-----	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		calcite-filled microfractures and clots. Up to 10 % 1-3 mm epidotized feldspars. Very similiar to the Early Mafic Dykes described earlier in this hole. They alternate with beds of grey felsic tuff described in more detail below. Lower contact is at 70 degrees to core axis. STRUCTURE: Bedding is at 70 degrees to core axis at 288.2 m. 0.5 Cm wide clay-filled slip at 55 degrees to core axis at 288.4 m. Bedding is at 70 degrees to core axis at 289.7 m. Bedding is at 60 degrees to core axis at 290.7 m.										
	287.2	287.5 FELSIC TUFF. Rare lapilli-sized felsic clast. Lower contact is a slip at 30 degrees to core axis.										
	288.2	288.5 Bed of FELSIC TUFF with <1% rusty <2 mm in diameter centred on a silver metallic mineral ( arsenopyrite or metal from the core barrel).										
	289.1	289.2 FELSIC TUFF.										
	289.7	0.3 cm wide FELSIC TUFF bed at 70 degrees to core axis.										
	290.7	291.0 CHERTY MAFIC TUFFACEOUS SEDIMENTS. Numerous sericite-filled fractures and gashes. Upper contact is at 60 degrees to core axis and the lower contact is at 75 degrees to core axis.										
291.4	294.9	MAFIC TUFF WITH MINOR BEDS OF CHERTY SEDIMENTS Dark green moderately carbonatized mafic tuff with occasional beds up to 1.5 cm thick of cherty sediments. Nil-trace disseminated chalcopyrite. Lower contact is gradational. STRUCTURE: Bedding is at 50 degrees to core axis at 292.5 m. Bedding is at 65 degrees to core axis at 292.6 m. Minor slip is at 65 degrees to core axis at 293.3 m. Foliation is at 55 degrees to core axis at 294.2 m.										
294.9	335.6	CHLORITIC FELSIC ASH-LAPILLI TUFF Medium green hard siliceous and aphyric with up to 10 % ash-sized epidotized feldspars. Feldspars tend to occur in bands or patches 3.0 - 7.0 cm wide. < 1-5% lapilli-sized felsic clasts. Moderate to strong chloritization. 2-3 %, 2-5 mm quartz eyes between 317.6 and 319.6 m and between 332.0 and 334.0 m. Foliation is at a low angle to degrees to core axis (<25 degrees) between 301.4 and 303.9 m. STURCTURE: Bedding is at 60 degrees to core axis at 296.5 m. Foliation is at 65 degrees to core axis at 300.4 m. Minor slip is at 25 degrees to core axis at 301.8 m. Minor slip is at 15 degrees to core axis at 302.8 m.	AD02606	295.7	295.8	.1	19	n/a	14	n/a	n/a	688
			AD02604	296.8	296.9	.1	23	n/a	13	n/a	n/a	1180
			AD02605	307.4	307.5	.1	30	n/a	16	n/a	n/a	1240
			AD02607	319.4	319.5	.1	28	n/a	16	n/a	n/a	1780
			AD02608	332.5	332.6	.1	34	n/a	14	n/a	n/a	1020











Hole Location: 47+00 E 1+50 S

NTS: 092/B13 UTM: 5415970 N 432200 E  
Azimuth: 210 Elevation: 640 m  
Dip: -45 Length: 257.6 m

Started: July 6, 1987  
Completed: July 9, 1987

Claim No. CHIP 1  
Section No.: Line 47+00 East

Logged By: David P. Money  
Drilling Co.: Burwash Enterprises, Cobble Hill  
Assayed By: Bondar-Clegg, Vancouver and X-Ray Assay, Don Mills

Core Size: NQ

Purpose: To test VLF anomalies at 2+40 and 2+80 S, coincident shallow and deep IP chargeability anomalies at 1+80 S, coincident deep and shallow IP resistivity lows at 2+05 S and IP chargeability anomalies at 2+80 and 3+00 S

DIP TESTS

Length	Azi- muth	Dip	Length	Azi- muth	Dip
32.00	211.5	-46.0	203.00	210.0	-44.0
110.90	211.0	-46.0	257.60	211.5	-44.0

From (m)	To (m)	-----DESCRIPTION-----	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
.0	11.0	OVERBURDEN AND CASING										
11.0	21.9	FELSIC FELDSPAR CRYSTAL TUFF Same as tuff beginning at 9.2 in DDH CHEM87-34. Blue to white rusty, oxidized felsic tuff, locally siliceous with 5 to 15 %, up to 2 mm, average 1 mm, feldspar grains. Locally weakly contorted. Minor local vugs, may have hosted calcite, some associated with minor local quartz veins and veinlets. Trace disseminated pyrite occurs.  Bedding : 11.5 : 73 degrees to core axis. 17.0 : 68 degrees to core axis. 21.6 : 54 degrees to core axis.  Foliations : 12.6 : 58 degrees to core axis. 17.1 : 63 degrees to core axis.	AB21930	17.1	17.3	.2	52	n/a	371	n/a	n/a	1670
21.9	22.0	FAULT ZONE Rusty clay and blocky, highly fractured core.										
22.0	34.2	FINE GRAINED PLAGIOPHYRIC GABBRO Dyke or sill of chilled margin type gabbro with 5 to 10 %, up to 2 mm, feldspar phenocrysts. The gabbro is rusty and broken with 0.7 m lost core from 32.0 to 33.4. There are numerous vugs throughout the gabbro and in the rare quartz veins.	AB21931	27.8	27.9	.1	204	n/a	106	n/a	n/a	155

From (m)	To (m)	-----DESCRIPTION-----	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
34.2	55.5	<b>FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF</b>										
	34.2	35.4 Rusty blocky, highly fractured core with 0.4 m of lost core.	AB21932	38.6	38.7	.1	25	n/a	24	n/a	n/a	1310
	35.4	40.0 Very rusty tuff with 2 % biotite +/- goethite (?). The tuff is white to medium grey and is very likely altered hydrothermally, with the est A.I. = 75, H.A.I. = 82. The crystal content varies from 2 to 10 %, 1 to 3 mm, quartz eyes and 5 to 15 %, up to 2 mm, feldspar grains. There is trace local pyrite.	AB21933	51.2	51.3	.1	37	n/a	27	n/a	n/a	1670
	40.0	41.5 Medium grey to bluish siliceous tuff with approximately 10 % feldspar to epidote grains and trace quartz eyes.										
	41.5	43.8 Moderately rusty version of 40.0 to 41.5.										
	43.8	55.5 Grey to blue tuff with local rusty zones, up to 30 cm thick, with thermal biotite appearing at 48.8. The rust is centred on fractures. There tuff is locally crystal poor, with up to 10 % feldspar grains in the more porous rusty zones and trace to 1 % quartz eyes and trace to 2 % feldspar grains in the weakly contorted grey siliceous zones. There is local epidotization, up to 5 cm thick with 1 to 2 % associated disseminated and fracture controlled pyrite. There is trace to 1 % local disseminated and stringer pyrite throughout the zone.										
		Foliations :.										
		36.4 : 70 degrees to core axis.										
		44.4 : 73 degrees to core axis.										
		50.4 : 52 degrees to core axis.										
55.5	61.6	<b>FINE GRAINED PLAGIOPHYRIC GABBRO</b>										
		Fine-grained gabbro with 3 to 10 % feldspar grains and rust coated fracture and local vugs, concentrated especially in the trace local quartz veins.	AB21934	56.3	56.4	.1	208	n/a	97	n/a	n/a	98
		Lost core :.										
		0.5 M from 56.7 to 58.5.										
		0.2 M from 58.5 to 60.7.										
		0.3 M from 60.7 to 61.6.										
61.6	63.0	<b>INTERMEDIATE TO FELSIC QUARTZ EYE AND FELDSPAR CRYSTAL TUFF</b>										
		Rusty and vuggy green tuff with 5 to 10 % feldspar grains and trace quartz eyes. Hosts local quartz veins.										
63.0	65.9	<b>ALTERED FELSIC CRYSTAL TUFF</b>										
		Siliceous or silicified grey to white felsic tuff with up to 1 % pyrite +/- goethite stringers. The crystal content varies from approximately nil to 30 % epidote grain to crystals, up to 3 mm. There are local quartz +/- carbonate veins and local chlorite +/- goethite veins.	AB21935	64.4	64.5	.1	125	n/a	<10	n/a	n/a	1540

From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		Foliations :. 63.8 : 47 degrees to core axis. 65.6 : 38 degrees to core axis.										
65.9	67.6	MAFIC SILL Weakly magnetic mafic sill, dyke or flow with approximately 20 % epidote grains in a medium to dark green fine-grained matrix. There are local minor quartz - carbonate +/- biotite veinlets and trace pyrite.										
67.6	76.3	FELSIC FELDSPAR CRYSTAL TUFF Moderately siliceous bluish grey locally rusty tuff with 5 to 15 %, up to 2 mm feldspar / epidote grains. There are minor quartz +/- carbonate +/- biotite veins and veinlets. There is trace local disseminated and fracture controlled pyrite.  Foliations :. 68.8 : 43 degrees to core axis. 74.5 : 34 degrees to core axis.  Lost core : 0.2 m from 71.9 to 73.2.										
76.3	77.5	MASSIVE FELSIC LAPILLI TUFF Massive light green felsic tuff with epidotized lapilli.										
77.5	82.0	FELSIC FELDSPAR CRYSTAL TUFF Medium grey locally oxidized and vuggy felsic tuff with trace to 20 % feldspar to epidote grains. There is bleaching centred at 80.6. The foliation averages approximately 70 to 80 degrees to core axis.										
82.0	83.0	MAFIC SILL Salt and pepper texture mafic sill or dyke. Weak pervasive carbonatization. Non-magnetic.	AB21936	82.4	82.5	.1	147	n/a	77	n/a	n/a	261
83.0	103.6	FELSIC TUFF 83.0 89.0 FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF, moderately sericitic to siliceous medium grey felsic tuff with 5 to 15 % fine-grained feldspar / epidote and trace to 5 %, up to 3 mm, quartz eyes. There are local kink bands. There are white bull quartz veins +/- chlorite +/- biotite +/- pyrite. 89.0 95.0 SILICIFIED FELSIC FELDSPAR CRYSTAL TUFF, silicified white to light grey, locally weakly to moderately contorted felsic tuff with average 10 %, up to 2 mm,	AB21937 AB21938 AD02670	86.8 91.6 102.0	87.0 91.7 103.6	.2 .1 1.6	33 24 13	n/a n/a <5	28 14 62	n/a n/a <1	n/a n/a <5	1410 2900 1300

From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		feldspar grains with minor feldspar / epidote crystal rich, up to 10 cm bands. There is local pyrite blebs and fracture controlled stringers which are up to 1 % over 1 m										
95.0	103.6	Locally varies from silicified lapilli tuff, with epidotized lapilli to as at the start, ie. 83 - 89. Local quartz +/- chlorite veins with trace to 5 % pyrite over up to 5 cm. Local kink bands and is weakly contorted										
Foliations :												
85.2 : 61 degrees to core axis.												
88.0 : 56 degrees to core axis.												
93.0 : 49 degrees to core axis.												
99.2 : 49 degrees to core axis.												
102.2 : 75 degrees to core axis.												
Bedding :												
89.7 : 73 degrees to core axis.												
94.1 : 65 degrees to core axis.												
103.6	107.8	<b>PYRITIC QUARTZ EYE BEARING FELSIC TUFF</b> Locally bleached and sheared felsic tuff with trace to 5 %, up to 4 mm, quartz eyes. Hosts pyrite, pyrrhotite, chalcopyrite and sphalerite.	AD02671	103.6	104.8	1.2	1900	22	765	1	20	1800
			AD02672	104.8	106.0	1.2	700	32	360	<1	45	2600
			AD02673	106.0	107.0	1.0	365	8	189	<1	<5	2100
			AD02674	107.0	107.8	.8	8900	41	570	5	55	2300
103.6	103.9	7 % pyrite, 2 % chalcopyrite, 2 % pyrrhotite and trace sphalerite. Siliceous grey rhyolitic tuff with the pyrite as fine-grained cubes in pseudo-bands with the other sulphides in the pyrite bands.										
103.9	105.4	Weakly to moderately bleached grey to white, weakly contorted tuff with quartz eyes and 1 to 2 % disseminated pyrite, approximately 1 % disseminated pyrrhotite and trace to 1 % disseminated chalcopyrite and sphalerite.										
105.4	105.7	Sheared sericite and chlorite with approximately 4 % pyrrhotite and trace to 0.5 % chalcopyrite.										
105.7	106.8	Similar to both 103.9 to 105.4 and 105.4 to 105.7. Greyish moderately to weakly sheared tuff with sericite development and quartz eyes. Sulphide stringers appear to be parallel to foliation, but this may be due to deformation. Hosts approximately 2 % pyrrhotite, 1 % pyrite and trace to 0.5 % chalcopyrite and sphalerite.										
106.8	107.4	50 % coarse grained pyrite in beds with up to 2 % chalcopyrite. There are trace local pyrrhotite stringers										
107.4	107.8	10 % pyrrhotite and up to 1 % chalcopyrite in rock similar to 105.4 to 105.7.										
107.8	140.6	<b>FELSIC QUARTZ-FELDSPAR CRYSTAL TUFF</b> Locally light grey to medium - dark black - green weakly sericitic to siliceous felsic tuff, changes are transitional and moderate.	AD02675	107.8	109.0	1.2	310	5	110	<1	<5	2100
			AB21939	114.9	115.0	.1	64	n/a	48	n/a	n/a	850

From (m)	To (m)	DESCRIPTION	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
		Hosts trace to 4 %, up to 3 mm, quartz eyes and locally up to 15 % epidote / feldspar grains. From 138.0 to 140.6 appears to be silicified with thermal biotite. Is sericitic at the upper contact. There are local minor quartz +/- biotite veins and veinlets. Oxidized to 128.6.	AB21940	128.8	128.9	.1	32	n/a	35	n/a	n/a	811
			AB21941	138.8	138.9	.1	32	n/a	34	n/a	n/a	744
		Foliations : 109.5 : 64 degrees to core axis. 115.0 : 61 degrees to core axis. 128.8 : 76 degrees to core axis. 137.1 : 61 degrees to core axis. 140.2 : 72 degrees to core axis.										
140.6	144.7	EPIDOTE SPOTTED ANDESITE Light to medium green flow, locally contorted with chevron kinks. Hosts 10 to 30 % epidote grains. Trace local quartz - carbonate veinlets.	AB21942	143.3	143.4	.1	188	n/a	119	n/a	n/a	989
144.7	150.7	FAULT ZONE 144.7 145.0 Chloritic fault gouge and green and grey clays. 145.0 145.9 Sheared to fault gouge chlorite and carbonate. 145.9 147.1 Grey clay and sericite shear and rubble with local minor chlorite bands. 147.1 149.1 Chlorite clay, shears and local rock with pyrite and quartz veins. 149.1 150.7 Felsic shear, clay and rubble.  Trend varies, average approximately 60 to 80 degrees to core axis.	AD02676	149.0	150.7	1.7	92	33	86	<1	15	1200
150.7	156.8	PYRITIC QUARTZ-SERICITE SCHIST 150.7 151.1 Sericite schist with foliation at 30 degrees to core axis and 1 % disseminated pyrite and 2 to 3 % pyrite parallel to foliation. 151.1 155.2 Light grey fault gouge to schist with foliation approximately 0 degrees to core axis and is moderately contorted. Hosts trace local fuchsite and 2 % disseminated pyrite. 155.2 156.8 Moderate contorted light greenish sericite schist with trace local quartz eyes, 1 % disseminated and parallel to foliation pyrite to 156.0 and 5 to 7 % banded pyrite with trace to 0.25 % chalcopryrite in up to 5 mm bands.  Foliations : To 154 : 0 to 30 degrees to core axis locally, contorted. 155.0 : 16 degrees to core axis. 155.5 : 51 degrees to core axis. 156.0 : 53 degrees to core axis. 156.3 : 58 degrees to core axis.	AD02677	150.7	152.0	1.3	96	44	1900	2	55	2600
			AD02678	152.0	153.0	1.0	23	29	265	1	45	3000
			AD02679	153.0	154.0	1.0	63	165	1650	2	75	2300
			AD02680	154.0	155.0	1.0	27	30	275	1	35	2100
			AD02681	155.0	156.0	1.0	71	45	1050	1	20	1600
			AD02682	156.0	156.8	.8	880	147	1450	3	90	2200



From (m)	To (m)	-----DESCRIPTION-----	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
206.6	208.2	FINE GRAINED PLAGIOPHYRIC GABBRO Gabbro sill or dyke with approximately 5 to 10 % feldspar grain in fine-grained green matrix with local quartz and epidote veinlets.										
208.2	232.0	CHERTY TUFFACEOUS SEDIMENTS Begins with brown sandstone/ quartzite as in DDH CHEM87-34 and alternates with green cherty tuffaceous sediments. Bedding is not visible and the foliation ranges very locally from 30 to 70 degrees to core axis.  Lost core :. 0.5 M from 198.0 to 198.7. 0.2 M from 223.1 to 223.2. 0.2 M from 230.0 to 231.0.										
232.0	242.2	FINE GRAINED PLAGIOPHYRIC GABBRO From 232 to 240 is competent and relatively unbroken gabbro with 5 to 15 %, up to 2 mm, feldspar grains and local quartz +/- chlorite +/- biotite and epidote veins to veinlet. From 240 on it is sheared or blocky, highly fractured core.  Lost core :. 0.6 M from 240.0 to 240.8.	AB21945	237.9	238.1	.2	73	n/a	93	n/a	n/a	204
242.2	257.6	CHERTY ARGILLACEOUS SEDIMENTS Black, brown and grey cherty beds and argillites as in DDH CHEM87-34 with minor mafic tuffaceous sediment inclusions.  Lost core :. 0.7 M from 242.3 to 243.8. 0.3 M from 245.2 to 246.2. 0.4 M from 250 to 250.5. 0.8 M from 250.5 to 251.9. 0.2 M from 251.9 to 252.3. 0.2 M from 252.3 to 253.0. 0.7 M from 253.0 to 254.2.  Bedding :. 243.9 : 47 degrees to core axis. 245.3 : 47 degrees to core axis. 255.4 : 36 degrees to core axis.	AD02685	244.0	246.4	2.4	58	7	46	<1	<5	2800



# APPENDIX B

ANALYTICAL RESULTS -- METALS

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

SAMPLE NUMBER	FROM	TO	BA	CU	ZN	AG	AU	CO	NI	PB	AS	CD	MO	CU/(CU+ZN)	ROCK	CODES	
			(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)		* 100	ALT
AB15353	48.20	48.30	1200.0	6.0	19.0	<0.5	<5.0	<1.0	1.0	10.0	6.0	<1.0	<1.0	24.0	IFAYEL	?	A
AB19902	59.00	60.00	700.0	26.0	18.0	<0.5	<5.0	2.0	2.0	8.0	5.0	<1.0	2.0	59.1			
AB19903	60.00	61.00	840.0	5.0	43.0	<0.5	<5.0	2.0	2.0	67.0	7.0	<1.0	2.0	10.4			
AB19904	61.00	62.00	1000.0	8.0	16.0	<0.5	<5.0	1.0	1.0	58.0	<5.0	<1.0	1.0	33.3			
AB19905	62.00	63.00	1000.0	4.0	26.0	<0.5	<5.0	1.0	5.0	53.0	7.0	<1.0	2.0	13.3			
AB19906	63.00	64.00	1000.0	5.0	25.0	<0.5	<5.0	4.0	2.0	19.0	6.0	<1.0	1.0	16.7			
AB19907	64.00	65.00	950.0	5.0	29.0	<0.5	<5.0	4.0	2.0	23.0	6.0	<1.0	2.0	14.7			
AB19908	79.00	80.00	480.0	7.0	18.0	<0.5	<5.0	<1.0	1.0	16.0	<5.0	<1.0	<1.0	28.0			
AB19909	91.30	92.30	1200.0	28.0	25.0	<0.5	<5.0	4.0	5.0	6.0	65.0	<1.0	2.0	52.8			
AB19910	97.00	98.00	970.0	29.0	36.0	<0.5	<5.0	7.0	12.0	9.0	363.0	<1.0	2.0	44.6			
AB21551	363.00	364.00	160.0	78.0	84.0	<0.5	<5.0	36.0	191.0	12.0	9.0	<1.0	<1.0	48.2			
AB21552	364.00	365.00	160.0	269.0	119.0	<0.5	5.0	36.0	130.0	<5.0	<5.0	<1.0	<1.0	69.3			
AB21553	365.00	366.00	50.0	57.0	84.0	<0.5	5.0	19.0	64.0	<5.0	<5.0	<1.0	<1.0	40.4			
AB21554	366.00	367.00	40.0	161.0	63.0	<0.5	<5.0	18.0	54.0	5.0	<5.0	<1.0	<1.0	71.9			
AB21555	367.00	368.00	60.0	336.0	96.0	<0.5	<5.0	25.0	79.0	<5.0	<5.0	<1.0	<1.0	77.8			
AB21556	377.00	378.00	140.0	252.0	98.0	<0.5	<5.0	25.0	74.0	5.0	<5.0	<1.0	<1.0	72.0			

**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)	MO (ppm)	CU/(CU+ZN) * 100	ROCK	CODES	
																ALT	MIN
AE08600	139.60	140.60	1500.0	496.0	115.0	1.1	15.0	14.0	3.0	36.0	10.0	<1.0	1.0	81.2			
AE08655	248.00	249.00	350.0	126.0	205.0	<0.5	<5.0	25.0	22.0	66.0	21.0	<1.0	1.0	38.1			
AE08656	249.00	250.00	420.0	127.0	206.0	<0.5	<5.0	25.0	16.0	61.0	16.0	<1.0	<1.0	38.1			
AE08657	250.00	251.00	300.0	84.0	132.0	<0.5	<5.0	22.0	24.0	57.0	19.0	<1.0	1.0	38.9			

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

SAMPLE NUMBER	FROM	TO	BA	CU	ZN	AG	AU	CO	NI	PB	AS	CD	MO	CU/(CU+ZN) * 100	ROCK	CODES	
			(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	ALT		MIN	
AE08620	199.50	201.00	1500.0	46.0	10.0	<0.5	<5.0	8.0	3.0	6.0	43.0	<1.0	1.0	82.1			
AE08621	201.00	201.70	1300.0	66.0	20.0	<0.5	<5.0	14.0	6.0	<5.0	16.0	<1.0	1.0	76.7			
AE08622	201.70	203.20	1100.0	7.0	3.0	<0.5	<5.0	3.0	2.0	8.0	75.0	<1.0	1.0	70.0			

**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)	MO (ppm)	CU/(CU+ZN) ROCK * 100	CODES ALT	MIN
AE08624	85.70	86.70	830.0	277.0	87.0	<0.5	<5.0	26.0	20.0	28.0	19.0	<1.0	1.0	76.1		
AE08625	86.70	87.70	990.0	260.0	56.0	<0.5	10.0	26.0	15.0	20.0	163.0	<1.0	2.0	82.3		
AE08626	87.70	88.70	790.0	105.0	47.0	<0.5	<5.0	19.0	13.0	6.0	52.0	<1.0	1.0	69.1		
AE08627	88.70	89.70	950.0	110.0	88.0	<0.5	5.0	21.0	21.0	54.0	19.0	<1.0	2.0	55.6		
AE08658	220.60	221.60	180.0	206.0	77.0	<0.5	<5.0	33.0	79.0	8.0	<5.0	<1.0	<1.0	72.8		
AE08659	221.60	222.60	1200.0	400.0	1645.0	<0.5	110.0	9.0	11.0	86.0	25.0	8.0	2.0	19.6		
AE08660	222.60	223.70	920.0	649.0	509.0	<0.5	130.0	7.0	4.0	21.0	29.0	2.0	2.0	56.0		
AE08661	223.70	224.40	940.0	2112.0	156.0	<0.5	240.0	11.0	3.0	33.0	23.0	<1.0	2.0	93.1		
AE08662	224.40	225.40	970.0	1079.0	149.0	<0.5	95.0	5.0	1.0	19.0	19.0	<1.0	2.0	87.9		
AE08663	225.40	226.30	1000.0	964.0	196.0	<0.5	75.0	6.0	2.0	19.0	12.0	<1.0	3.0	83.1		
AE08664	226.30	227.10	1100.0	2231.0	161.0	<0.5	70.0	4.0	2.0	23.0	18.0	<1.0	1.0	93.3		
AE08665	227.10	228.10	1100.0	784.0	432.0	<0.5	30.0	1.0	1.0	5.0	<5.0	1.0	<1.0	64.5		
AE08666	228.10	229.10	1700.0	163.0	190.0	<0.5	10.0	5.0	2.0	33.0	8.0	<1.0	2.0	46.2		
AE08667	229.10	230.00	30.0	119.0	68.0	<0.5	<5.0	38.0	195.0	13.0	110.0	<1.0	1.0	63.6		
AE08668	230.00	230.50	730.0	56.0	88.0	<0.5	<5.0	14.0	66.0	19.0	28.0	<1.0	2.0	38.9		
AE08669	230.50	231.50	640.0	72.0	92.0	<0.5	<5.0	18.0	84.0	14.0	34.0	<1.0	2.0	43.9		
AE08670	231.50	232.50	830.0	18.0	68.0	<0.5	<5.0	4.0	6.0	14.0	9.0	<1.0	3.0	20.9		

**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)	MO (ppm)	CU/(CU+ZN) * 100	ROCK	CODES	
																ALT	MIN
AE08671	232.50	233.50	760.0	15.0	73.0	<0.5	<5.0	3.0	7.0	15.0	9.0	<1.0	2.0	17.0			
AE08672	233.50	234.50	380.0	53.0	73.0	<0.5	10.0	15.0	28.0	10.0	13.0	<1.0	3.0	42.1			
AE08673	234.50	235.50	810.0	20.0	122.0	<0.5	30.0	8.0	17.0	24.0	13.0	<1.0	4.0	14.1			
AE08674	235.50	236.50	960.0	14.0	51.0	<0.5	10.0	3.0	1.0	12.0	12.0	<1.0	2.0	21.5			
AE08675	236.50	237.50	1300.0	14.0	51.0	<0.5	35.0	4.0	2.0	22.0	8.0	<1.0	3.0	21.5			
AE08676	237.50	238.50	1400.0	29.0	60.0	<0.5	30.0	2.0	1.0	11.0	13.0	<1.0	2.0	32.6			
AE08677	238.50	239.70	1200.0	210.0	41.0	<0.5	25.0	15.0	35.0	56.0	23.0	<1.0	2.0	83.7			
AE08678	239.70	240.70	250.0	336.0	72.0	1.6	160.0	35.0	82.0	373.0	20.0	<1.0	1.0	82.3			
AE08679	248.60	249.60	120.0	129.0	78.0	<0.5	15.0	33.0	77.0	25.0	7.0	<1.0	1.0	62.3			
AE08680	249.60	250.00	1300.0	5900.0	231.0	134.4	4765.6	9.0	7.0	13600.0	<5.0	7.0	7.0	96.2			
AE08681	250.00	251.00	190.0	353.0	102.0	<0.5	85.0	36.0	69.0	379.0	16.0	<1.0	2.0	77.6			

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

SAMPLE NUMBER	FROM	TO	BA	CU	ZN	AG	AU	CO	NI	PB	AS	CD	MO	CU/(CU+ZN)	ROCK	CODES	MIN
			(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	* 100	ALT	
AE08628	132.90	134.00	850.0	<1.0	8.0	<0.5	10.0	2.0	5.0	12.0	<5.0	<1.0	<1.0				
AE08629	134.00	135.00	890.0	1.0	7.0	<0.5	<5.0	3.0	3.0	11.0	<5.0	<1.0	1.0	12.5			
AE08630	135.00	136.00	910.0	<1.0	9.0	<0.5	<5.0	1.0	1.0	6.0	<5.0	<1.0	<1.0				
AE08631	136.00	137.30	1100.0	<1.0	6.0	<0.5	<5.0	1.0	2.0	13.0	<5.0	<1.0	1.0				
AE08632	137.30	138.20	640.0	66.0	25.0	<0.5	<5.0	27.0	6.0	9.0	<5.0	<1.0	1.0	72.5			
AE08633	177.75	178.25	200.0	410.0	38.0	<0.5	<5.0	20.0	11.0	11.0	<5.0	<1.0	1.0	91.5			
AE08634	205.85	206.85	950.0	28.0	20.0	<0.5	<5.0	3.0	7.0	<5.0	<5.0	<1.0	1.0	58.3			
AE08635	206.85	207.35	930.0	16200.0	311.0	8.5	75.0	74.0	23.0	10.0	13.0	4.0	4.0	98.2			
AE08636	207.35	208.35	700.0	756.0	56.0	1.0	<5.0	16.0	15.0	<5.0	<5.0	<1.0	<1.0	93.1			
AE08638	242.40	243.40	630.0	222.0	45.0	<0.5	<5.0	19.0	7.0	10.0	<5.0	<1.0	<1.0	83.2			
AE08637	243.40	244.40	1000.0	175.0	60.0	<0.5	<5.0	13.0	10.0	<5.0	<5.0	<1.0	<1.0	74.5			
AE08639	244.40	245.40	500.0	116.0	61.0	<0.5	<5.0	19.0	10.0	15.0	<5.0	<1.0	1.0	65.5			
AE08640	245.40	246.40	710.0	197.0	51.0	<0.5	<5.0	19.0	8.0	10.0	<5.0	<1.0	<1.0	79.4			
AE08641	246.40	247.60	530.0	465.0	72.0	<0.5	<5.0	22.0	18.0	<5.0	<5.0	<1.0	1.0	86.6			
AE08642	247.60	248.10	530.0	2951.0	143.0	1.2	<5.0	32.0	27.0	11.0	<5.0	<1.0	1.0	95.4			
AE08643	253.80	254.70	1000.0	50.0	20.0	<0.5	10.0	8.0	3.0	9.0	<5.0	<1.0	1.0	71.4			
AE08644	321.70	322.40	2000.0	156.0	105.0	<0.5	10.0	17.0	18.0	14.0	<5.0	<1.0	2.0	59.8			

**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)	MO (ppm)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
AE08645	324.00	324.70	1500.0	29.0	56.0	<0.5	35.0	5.0	8.0	43.0	<5.0	<1.0	1.0	34.1			
AE08646	324.70	326.00	3100.0	6.0	25.0	<0.5	25.0	2.0	2.0	41.0	<5.0	<1.0	1.0	19.4			
AE08647	326.00	327.50	2000.0	6.0	24.0	<0.5	65.0	3.0	2.0	60.0	<5.0	<1.0	1.0	20.0			
AE08648	327.50	329.00	2000.0	3.0	23.0	<0.5	65.0	3.0	4.0	36.0	<5.0	<1.0	2.0	11.5			
AE08649	329.00	330.50	1100.0	10.0	52.0	<0.5	90.0	4.0	<1.0	50.0	<5.0	<1.0	1.0	16.1			
AE08650	330.50	332.00	1600.0	47.0	23.0	<0.5	15.0	5.0	15.0	78.0	7.0	<1.0	4.0	67.1			
AE08701	332.00	333.50	1500.0	75.0	20.0	0.7	55.0	6.0	1.0	169.0	6.0	<1.0	1.0	78.9			
AE08702	333.50	335.00	1400.0	56.0	37.0	<0.5	50.0	5.0	5.0	78.0	<5.0	<1.0	2.0	60.2			
AE08703	335.00	336.50	960.0	39.0	55.0	<0.5	35.0	4.0	<1.0	102.0	<5.0	<1.0	1.0	41.5			
AE08704	336.50	338.00	980.0	46.0	57.0	<0.5	55.0	4.0	<1.0	106.0	<5.0	<1.0	<1.0	44.7			
AE08705	338.00	339.00	970.0	52.0	217.0	<0.5	70.0	5.0	<1.0	107.0	6.0	<1.0	1.0	19.3			
AE08706	339.00	340.00	1500.0	79.0	453.0	<0.5	180.0	4.0	<1.0	145.0	17.0	2.0	1.0	14.9			
AE08707	340.00	341.50	1500.0	60.0	89.0	<0.5	160.0	5.0	<1.0	83.0	23.0	<1.0	2.0	40.3			
AE08708	341.50	343.00	1400.0	44.0	187.0	<0.5	95.0	4.0	<1.0	57.0	14.0	<1.0	2.0	19.0			
AE08709	343.00	346.00	1400.0	40.0	99.0	<0.5	75.0	4.0	1.0	53.0	11.0	<1.0	2.0	28.8			
AE08710	346.00	347.20	1400.0	37.0	284.0	<0.5	65.0	4.0	2.0	56.0	<5.0	1.0	2.0	11.5			
AE08711	347.20	348.50	1200.0	26.0	101.0	<0.5	50.0	4.0	1.0	41.0	<5.0	<1.0	2.0	20.5			



**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)	MO (ppm)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
AE08712	348.50	349.80	1300.0	207.0	37.0	0.9	65.0	6.0	3.0	9.0	8.0	<1.0	<1.0	84.8			
AE08713	349.80	351.00	380.0	167.0	203.0	<0.5	200.0	27.0	50.0	17.0	35.0	<1.0	<1.0	45.1			
AE08714	351.00	353.00	1200.0	26.0	39.0	<0.5	70.0	7.0	10.0	14.0	7.0	<1.0	1.0	40.0			
AE08715	353.00	355.00	1200.0	74.0	585.0	<0.5	65.0	7.0	8.0	33.0	14.0	3.0	1.0	11.2			
AE08716	355.00	357.00	1500.0	52.0	133.0	<0.5	60.0	10.0	10.0	36.0	17.0	<1.0	1.0	28.1			
AE08717	357.00	359.00	1400.0	13.0	77.0	<0.5	65.0	4.0	1.0	42.0	8.0	<1.0	1.0	14.4			
AE08718	359.00	361.00	1300.0	21.0	95.0	<0.5	30.0	5.0	<1.0	61.0	9.0	<1.0	1.0	18.1			
AE08719	361.00	363.00	1000.0	12.0	94.0	<0.5	35.0	4.0	<1.0	92.0	7.0	<1.0	1.0	11.2			
AE08720	363.00	365.00	1100.0	19.0	284.0	<0.5	20.0	4.0	<1.0	54.0	9.0	1.0	1.0	6.3			
AE08721	365.00	367.00	2300.0	15.0	54.0	<0.5	35.0	5.0	<1.0	30.0	9.0	<1.0	1.0	21.7			
AE08722	367.00	369.00	1700.0	45.0	48.0	<0.5	60.0	5.0	<1.0	16.0	7.0	<1.0	2.0	48.4			
AE08723	369.00	371.00	1700.0	40.0	59.0	<0.5	80.0	5.0	1.0	14.0	8.0	<1.0	1.0	40.4			
AE08724	371.00	373.00	1600.0	27.0	43.0	<0.5	100.0	4.0	<1.0	10.0	<5.0	<1.0	2.0	38.6			
AE08725	373.00	375.00	1400.0	32.0	30.0	<0.5	35.0	4.0	<1.0	12.0	8.0	<1.0	1.0	51.6			
AE08726	375.00	377.00	1700.0	120.0	38.0	<0.5	25.0	6.0	<1.0	16.0	<5.0	<1.0	2.0	75.9			
AE08727	377.00	379.00	1200.0	282.0	45.0	<0.5	30.0	6.0	2.0	12.0	5.0	<1.0	2.0	86.2			
AE08728	379.00	380.70	1500.0	104.0	17.0	<0.5	25.0	7.0	2.0	21.0	5.0	<1.0	1.0	85.9			

**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)	MO (ppm)	CU/(CU+ZN) * 100	ROCK	CODES	
																ALT	MIN
AE08729	387.00	388.60	2800.0	57.0	13.0	<0.5	60.0	5.0	<1.0	11.0	7.0	<1.0	3.0	81.4			
AE08730	388.60	389.80	2000.0	484.0	35.0	<0.5	10.0	12.0	2.0	10.0	12.0	<1.0	3.0	93.3			
AE08731	389.80	391.40	1300.0	65.0	17.0	<0.5	110.0	5.0	<1.0	8.0	<5.0	<1.0	2.0	79.3			
AE08732	391.40	392.00	1200.0	17.0	12.0	<0.5	5.0	4.0	1.0	24.0	<5.0	<1.0	2.0	58.6			
AE08733	392.00	393.00	1200.0	14.0	18.0	<0.5	40.0	5.0	1.0	23.0	<5.0	<1.0	2.0	43.7			
AE08734	393.00	395.00	1300.0	35.0	16.0	<0.5	35.0	3.0	1.0	7.0	<5.0	<1.0	2.0	68.6			
AE08735	400.50	402.00	1800.0	31.0	12.0	<0.5	15.0	5.0	1.0	29.0	<5.0	<1.0	2.0	72.1			
AE08736	402.00	403.00	2100.0	67.0	11.0	<0.5	40.0	4.0	1.0	39.0	<5.0	<1.0	5.0	85.9			
AE08737	403.00	404.00	2200.0	19.0	16.0	<0.5	10.0	3.0	<1.0	63.0	<5.0	<1.0	2.0	54.3			
AE08738	404.00	404.80	2100.0	53.0	51.0	<0.5	20.0	3.0	1.0	172.0	<5.0	<1.0	2.0	51.0			
AE08739	404.80	406.30	2600.0	18.0	16.0	<0.5	<5.0	3.0	<1.0	49.0	<5.0	<1.0	1.0	52.9			
AE08740	410.00	412.50	4000.0	37.0	21.0	<0.5	<5.0	3.0	<1.0	22.0	<5.0	<1.0	2.0	63.8			
AE08741	412.50	414.00	3300.0	104.0	24.0	<0.5	20.0	4.0	<1.0	70.0	<5.0	<1.0	2.0	81.2			
AE08742	415.00	416.40	2900.0	51.0	35.0	<0.5	<5.0	3.0	1.0	29.0	<5.0	<1.0	2.0	59.3			
AE08743	416.40	416.90	2900.0	2731.0	236.0	4.3	120.0	11.0	1.0	68.0	5.0	2.0	3.0	92.1			
AE08744	416.90	418.00	2400.0	66.0	40.0	0.6	<5.0	3.0	41.0	22.0	<5.0	<1.0	5.0	62.3			
AE08745	427.30	428.70	1000.0	45.0	17.0	<0.5	<5.0	5.0	22.0	12.0	<5.0	<1.0	3.0	72.6			

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

SAMPLE NUMBER	FROM	TO	BA	CU	ZN	AG	AU	CO	NI	PB	AS	CD	MO	CU/(CU+ZN)	ROCK	CODES	
			(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)		* 100	ALT
AE08746	428.70	429.50	750.0	187.0	26.0	<0.5	30.0	17.0	13.0	83.0	71.0	<1.0	17.0	87.8			
AE08747	429.50	431.00	810.0	61.0	30.0	<0.5	<5.0	8.0	16.0	19.0	8.0	<1.0	5.0	67.0			
AE08748	444.00	445.00	710.0	172.0	21.0	<0.5	30.0	13.0	11.0	11.0	<5.0	<1.0	6.0	89.1			
AE08749	445.00	446.30	740.0	327.0	32.0	<0.5	15.0	17.0	15.0	11.0	11.0	<1.0	3.0	91.1			
AE08750	446.30	447.30	<20.0	157.0	91.0	<0.5	<5.0	30.0	61.0	<5.0	10.0	<1.0	2.0	63.3			

**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)	MO (ppm)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
AE08682	67.90	68.90	1300.0	15.0	24.0	<0.5	<5.0	9.0	23.0	5.0	<5.0	<1.0	1.0	38.5			
AE08683	68.90	69.80	1300.0	449.0	100.0	<0.5	<5.0	18.0	18.0	<5.0	<5.0	1.0	1.0	81.8			

**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)	MO (ppm)	CU/(CU+ZN) * 100	ROCK	CODES	
																ALT	MIN
AE08751	111.40	112.80	1500.0	45.0	22.0	<0.5	<5.0	6.0	5.0	5.0	47.0	<1.0	1.0	67.2			
AE08752	112.80	114.60	1600.0	28.0	18.0	<0.5	<5.0	7.0	6.0	8.0	47.0	<1.0	1.0	60.9			
AE08753	114.60	116.20	1000.0	57.0	26.0	<0.5	<5.0	7.0	3.0	8.0	25.0	<1.0	1.0	68.7			
AE08754	116.20	117.70	1000.0	28.0	45.0	<0.5	<5.0	6.0	6.0	5.0	5.0	<1.0	1.0	38.4			
AE08755	125.00	126.40	890.0	41.0	31.0	<0.5	5.0	10.0	1.0	6.0	<5.0	<1.0	1.0	56.9			
AE08756	126.40	127.00	1800.0	88.0	73.0	<0.5	<5.0	15.0	3.0	6.0	<5.0	<1.0	2.0	54.7			
AE08757	127.00	128.00	1200.0	10.0	30.0	<0.5	<5.0	6.0	2.0	8.0	<5.0	<1.0	1.0	25.0			
AE08758	146.60	148.10	1200.0	12.0	31.0	<0.5	<5.0	5.0	3.0	6.0	5.0	<1.0	1.0	27.9			
AE08759	148.10	149.00	1100.0	27.0	28.0	<0.5	<5.0	5.0	1.0	<5.0	<5.0	<1.0	1.0	49.1			
AE08760	149.00	150.00	930.0	11.0	26.0	<0.5	<5.0	5.0	2.0	11.0	<5.0	<1.0	1.0	29.7			
AE08761	150.00	151.90	1200.0	13.0	23.0	<0.5	<5.0	3.0	3.0	5.0	<5.0	<1.0	1.0	36.1			
AE08762	212.10	213.10	1000.0	1050.0	78.0	<0.5	<5.0	17.0	10.0	70.0	<5.0	<1.0	18.0	93.1			
AE08763	223.00	224.00	1600.0	182.0	73.0	<0.5	<5.0	23.0	13.0	<5.0	<5.0	<1.0	5.0	71.4			
AE08764	224.00	225.00	1400.0	6900.0	151.0	2.1	35.0	55.0	18.0	17.0	12.0	<1.0	50.0	97.9			
AE08765	225.00	225.40	<20.0	568.0	92.0	<0.5	<5.0	36.0	72.0	<5.0	<5.0	<1.0	5.0	86.1			
AE08766	225.40	225.60	60.0	7600.0	195.0	2.2	25.0	35.0	66.0	<5.0	<5.0	1.0	63.0	97.5			
AE08767	272.80	274.10	1200.0	712.0	560.0	0.5	80.0	10.0	8.0	64.0	42.0	3.0	5.0	56.0			

**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)	MO (ppm)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
AE08768	280.00	281.00	1500.0	912.0	5200.0	<0.5	30.0	12.0	10.0	286.0	61.0	36.0	6.0	14.9			
AE08769	281.00	282.00	1800.0	593.0	1587.0	0.6	65.0	17.0	12.0	438.0	<5.0	9.0	5.0	27.2			
AE08770	282.00	283.00	1600.0	222.0	396.0	0.6	45.0	6.0	3.0	42.0	<5.0	2.0	3.0	35.9			
AE08771	285.00	286.00	1600.0	80.0	262.0	<0.5	5.0	6.0	3.0	94.0	<5.0	1.0	3.0	23.4			
AE08772	286.00	287.00	2000.0	57.0	96.0	<0.5	10.0	7.0	3.0	38.0	6.0	<1.0	3.0	37.3			
AE08773	287.00	288.00	2000.0	173.0	48.0	<0.5	35.0	10.0	5.0	20.0	33.0	<1.0	5.0	78.3			
AE08774	288.00	289.00	1300.0	300.0	31.0	<0.5	65.0	10.0	3.0	24.0	57.0	<1.0	3.0	90.6			
AE08775	289.00	290.00	890.0	122.0	16.0	<0.5	45.0	11.0	2.0	12.0	38.0	<1.0	2.0	88.4			
AE08776	290.00	291.60	860.0	68.0	7.0	<0.5	20.0	10.0	3.0	6.0	13.0	<1.0	2.0	90.7			
AE08777	291.60	292.60	550.0	70.0	7.0	<0.5	20.0	10.0	5.0	6.0	20.0	<1.0	2.0	90.9			
AE08778	292.60	293.80	630.0	95.0	7.0	<0.5	30.0	11.0	7.0	8.0	22.0	<1.0	5.0	93.1			
AE08779	293.80	295.00	1800.0	186.0	232.0	<0.5	20.0	17.0	17.0	11.0	11.0	1.0	3.0	44.5			
AE08780	295.00	296.00	1800.0	237.0	415.0	<0.5	5.0	11.0	10.0	108.0	<5.0	4.0	2.0	36.3			
AE08781	296.00	297.10	1800.0	275.0	1814.0	<0.5	30.0	8.0	34.0	17.0	<5.0	15.0	2.0	13.2			
AE08782	297.10	298.10	1500.0	482.0	1675.0	1.7	130.0	12.0	30.0	48.0	<5.0	12.0	2.0	22.4			
AE08783	298.10	299.00	1700.0	449.0	487.0	<0.5	55.0	9.0	15.0	68.0	<5.0	3.0	2.0	48.0			
AE08784	299.00	299.90	1700.0	896.0	275.0	<0.5	15.0	6.0	12.0	13.0	<5.0	2.0	1.0	76.5			

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

SAMPLE NUMBER	FROM	TO	BA	CU	ZN	AG	AU	CO	NI	PB	AS	CD	MO	CU/(CU+ZN)ROCK	CODES ALT	MIN
			(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	* 100		
AE08785	300.00	300.70	640.0	569.0	342.0	<0.5	30.0	32.0	64.0	<5.0	<5.0	<1.0	1.0	62.5		
AE08786	300.70	302.00	1400.0	986.0	185.0	<0.5	15.0	5.0	8.0	10.0	<5.0	1.0	1.0	84.2		
AE08787	302.00	303.00	1400.0	416.0	210.0	<0.5	15.0	5.0	6.0	16.0	<5.0	1.0	1.0	66.4		
AE08788	303.00	304.00	1100.0	277.0	352.0	<0.5	95.0	17.0	17.0	45.0	<5.0	2.0	1.0	44.0		
AE08789	304.00	305.00	1700.0	122.0	432.0	<0.5	55.0	7.0	5.0	38.0	<5.0	3.0	1.0	22.0		
AE08790	305.00	306.00	1600.0	132.0	217.0	<0.5	45.0	10.0	6.0	13.0	<5.0	1.0	1.0	37.8		
AE08791	306.00	307.00	1300.0	122.0	57.0	<0.5	15.0	8.0	9.0	10.0	<5.0	<1.0	2.0	68.2		
AE08792	307.00	307.80	<20.0	82.0	49.0	<0.5	<5.0	33.0	190.0	12.0	<5.0	<1.0	1.0	62.6		
AE08793	307.80	309.40	860.0	54.0	27.0	<0.5	<5.0	9.0	49.0	21.0	<5.0	<1.0	3.0	66.7		
AE08794	309.40	310.40	1200.0	50.0	17.0	<0.5	35.0	5.0	7.0	8.0	8.0	<1.0	3.0	74.6		
AE08795	310.40	312.00	1200.0	19.0	33.0	<0.5	25.0	5.0	5.0	16.0	7.0	<1.0	3.0	36.5		
AE08796	313.00	314.50	1100.0	80.0	386.0	0.5	20.0	8.0	5.0	13.0	<5.0	4.0	4.0	17.2		
AE08797	314.50	316.00	990.0	39.0	141.0	1.1	35.0	4.0	5.0	28.0	<5.0	<1.0	4.0	21.7		
AE08798	316.00	317.50	1200.0	50.0	210.0	2.1	50.0	6.0	4.0	97.0	<5.0	1.0	4.0	19.2		
AE08799	320.00	322.00	2300.0	173.0	1403.0	3.7	140.0	5.0	3.0	147.0	<5.0	9.0	5.0	11.0		
AE08800	323.50	324.50	2400.0	248.0	1297.0	1.2	45.0	5.0	5.0	105.0	<5.0	7.0	5.0	16.0		
AD02651	325.75	326.00	50.0	150.0	76.0	<0.5	<5.0	36.0	104.0	5.0	44.0	<1.0	2.0	66.4		

**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)	MO (ppm)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
AD02652	367.80	368.90	2800.0	32.0	64.0	<0.5	<5.0	8.0	45.0	7.0	<5.0	<1.0	2.0	33.3			
AD02653	368.90	370.30	4500.0	50.0	58.0	<0.5	<5.0	5.0	40.0	14.0	<5.0	<1.0	2.0	46.3			
AD02654	371.10	372.00	2900.0	37.0	111.0	<0.5	<5.0	5.0	26.0	7.0	<5.0	<1.0	2.0	25.0			
AD02655	372.70	374.00	2700.0	33.0	58.0	<0.5	<5.0	23.0	166.0	7.0	22.0	<1.0	2.0	36.3			
AD02656	374.00	375.00	4000.0	35.0	54.0	<0.5	<5.0	4.0	32.0	9.0	<5.0	<1.0	2.0	39.3			
AD02657	375.00	376.00	4600.0	31.0	87.0	<0.5	<5.0	3.0	28.0	<5.0	<5.0	<1.0	11.0	26.3			
AD02658	376.00	377.00	3500.0	25.0	90.0	<0.5	<5.0	3.0	22.0	7.0	<5.0	<1.0	4.0	21.7			
AD02659	377.00	377.70	3500.0	32.0	73.0	<0.5	<5.0	3.0	21.0	6.0	<5.0	<1.0	4.0	30.5			
AD02660	377.70	378.50	3700.0	58.0	59.0	<0.5	<5.0	4.0	39.0	11.0	<5.0	<1.0	7.0	49.6			
AD02661	378.50	379.50	3200.0	35.0	51.0	<0.5	<5.0	3.0	26.0	7.0	<5.0	<1.0	5.0	40.7			
AD02662	379.50	380.60	2000.0	52.0	163.0	<0.5	35.0	9.0	57.0	8.0	<5.0	<1.0	2.0	24.2			
AD02663	380.60	381.70	1900.0	94.0	177.0	<0.5	<5.0	36.0	194.0	6.0	<5.0	<1.0	3.0	34.7			
AD02664	381.70	381.90	1800.0	239.0	120.0	<0.5	75.0	40.0	230.0	8.0	<5.0	<1.0	3.0	66.6			
AD02665	381.90	382.80	830.0	145.0	161.0	<0.5	<5.0	44.0	301.0	7.0	<5.0	<1.0	3.0	47.4			
AD02666	387.00	388.00	5600.0	33.0	80.0	<0.5	<5.0	5.0	20.0	5.0	42.0	<1.0	<1.0	29.2			
AD02667	388.00	389.00	11000.0	58.0	27.0	<0.5	<5.0	5.0	28.0	7.0	35.0	<1.0	2.0	68.2			
AD02668	389.00	390.00	11000.0	72.0	36.0	<0.5	<5.0	5.0	26.0	8.0	<5.0	<1.0	1.0	66.7			



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

SAMPLE NUMBER	FROM	TO	BA	CU	ZN	AG	AU	CO	NI	PB	AS	CD	MO	CU/(CU+ZN)	ROCK	CODES	
			(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	* 100		ALT	MIN
AD02669	390.00	391.00	3900.0	39.0	24.0	<0.5	<5.0	2.0	18.0	6.0	18.0	<1.0	<1.0	61.9			

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

SAMPLE NUMBER	FROM	TO	BA	CU	ZN	AG	AU	CO	NI	PB	AS	CD	MO	CU/(CU+ZN)	ROCK	CODES	
			(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	* 100		ALI	MIN
AE08684	25.00	26.00	1100.0	317.0	63.0	<0.5	<5.0	16.0	17.0	<5.0	<5.0	<1.0	2.0	83.4			
AE08685	26.00	27.00	760.0	63.0	49.0	<0.5	<5.0	15.0	16.0	<5.0	<5.0	<1.0	3.0	56.2			
AE08686	27.00	28.00	790.0	51.0	40.0	<0.5	<5.0	14.0	15.0	<5.0	<5.0	<1.0	1.0	56.0			
AE08687	28.00	29.00	770.0	43.0	35.0	<0.5	5.0	11.0	12.0	<5.0	<5.0	<1.0	<1.0	55.1			
AE08688	61.30	62.30	1000.0	8.0	18.0	<0.5	5.0	3.0	1.0	<5.0	<5.0	<1.0	<1.0	30.8			
AE08689	62.30	63.30	1100.0	4.0	21.0	<0.5	<5.0	3.0	2.0	6.0	<5.0	<1.0	<1.0	16.0			

**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)	MO (ppm)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
AD02670	102.00	103.60	1300.0	13.0	62.0	<0.5	<5.0	5.0	4.0	<5.0	8.0	<1.0	<1.0	17.3			
AD02671	103.60	104.80	1800.0	1900.0	765.0	1.0	20.0	7.0	6.0	22.0	57.0	5.0	10.0	71.3			
AD02672	104.80	106.00	2600.0	700.0	360.0	<0.5	45.0	12.0	10.0	32.0	40.0	2.0	7.0	66.0			
AD02673	106.00	107.00	2100.0	365.0	189.0	<0.5	<5.0	6.0	4.0	8.0	32.0	1.0	2.0	65.9			
AD02674	107.00	107.80	2300.0	8900.0	570.0	5.0	55.0	46.0	30.0	41.0	93.0	4.0	79.0	94.3			
AD02675	107.80	109.00	2100.0	310.0	110.0	<0.5	<5.0	8.0	8.0	5.0	32.0	<1.0	4.0	73.8			
AD02676	149.00	150.70	1200.0	92.0	86.0	<0.5	15.0	5.0	11.0	33.0	10.0	<1.0	4.0	51.7			
AD02677	150.70	152.00	2600.0	96.0	1900.0	1.5	55.0	5.0	4.0	44.0	6.0	8.0	6.0	4.8			
AD02678	152.00	153.00	3000.0	23.0	265.0	1.0	45.0	5.0	4.0	29.0	32.0	1.0	6.0	8.0			
AD02679	153.00	154.00	2300.0	63.0	1650.0	2.0	75.0	5.0	6.0	165.0	20.0	9.0	9.0	3.7			
AD02680	154.00	155.00	2100.0	27.0	275.0	0.5	35.0	5.0	6.0	30.0	33.0	<1.0	4.0	8.9			
AD02681	155.00	156.00	1600.0	71.0	1050.0	0.5	20.0	5.0	4.0	45.0	34.0	4.0	4.0	6.3			
AD02682	156.00	156.80	2200.0	880.0	1450.0	3.0	90.0	4.0	6.0	147.0	54.0	5.0	10.0	37.8			
AD02683	156.80	158.00	80.0	150.0	795.0	<0.5	10.0	35.0	83.0	9.0	23.0	<1.0	2.0	15.9			
AD02684	189.00	191.00	1500.0	106.0	63.0	<0.5	<5.0	20.0	28.0	6.0	32.0	<1.0	1.0	62.7			
AD02685	244.00	246.40	2800.0	58.0	46.0	<0.5	<5.0	7.0	30.0	7.0	<5.0	<1.0	7.0	55.8			

**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)	MO (ppm)	CU/(CU+ZN) * 100	ROCK		CODES	
															ALT	MIN	ALT	MIN
AE08690	15.20	16.60	1000.0	14.0	31.0	<0.5	<5.0	4.0	4.0	5.0	<5.0	<1.0	3.0	31.11				
AE08691	16.60	18.00	920.0	79.0	30.0	<0.5	<5.0	8.0	6.0	<5.0	6.0	<1.0	3.0	72.48				
AE08692	18.00	19.00	1300.0	315.0	43.0	<0.5	15.0	15.0	10.0	6.0	<5.0	<1.0	7.0	87.99				
AE08693	19.00	20.00	1500.0	310.0	41.0	<0.5	25.0	12.0	8.0	7.0	13.0	<1.0	7.0	88.32				
AE08694	20.00	21.00	1600.0	28.0	26.0	<0.5	5.0	7.0	5.0	7.0	14.0	<1.0	3.0	51.85				
AE08695	21.00	22.00	1900.0	28.0	24.0	<0.5	<5.0	6.0	3.0	9.0	<5.0	<1.0	2.0	53.85				
AE08696	22.00	23.00	1700.0	23.0	29.0	<0.5	<5.0	4.0	2.0	7.0	33.0	<1.0	4.0	44.23				
AE08697	23.00	24.00	1200.0	50.0	25.0	<0.5	<5.0	7.0	4.0	6.0	<5.0	<1.0	3.0	66.67				
AE08698	24.00	25.00	1600.0	34.0	29.0	<0.5	<5.0	6.0	4.0	7.0	<5.0	<1.0	3.0	52.97				
AE08699	25.00	26.00	1700.0	14.0	23.0	<0.5	<5.0	4.0	2.0	8.0	26.0	<1.0	3.0	37.84				
AE08700	26.00	27.00	1200.0	14.0	14.0	<0.5	<5.0	1.0	2.0	7.0	17.0	<1.0	2.0	50.00				
AB21951	27.00	28.00	1300.0	45.0	36.0	0.5	<5.0	4.0	5.0	14.0	15.0	<1.0	2.0	55.56				
AB21952	28.00	29.00	1900.0	104.0	25.0	<0.5	10.0	13.0	8.0	8.0	31.0	<1.0	4.0	80.62				
AB21953	29.00	30.00	1500.0	57.0	22.0	<0.5	<5.0	7.0	4.0	9.0	8.0	<1.0	3.0	72.15				
AB21954	30.00	31.00	2000.0	74.0	26.0	<0.5	<5.0	7.0	5.0	8.0	12.0	<1.0	3.0	74.00				
AB21955	31.00	32.00	2100.0	32.0	28.0	<0.5	10.0	6.0	3.0	6.0	23.0	<1.0	1.0	53.33				
AB21956	32.00	33.00	2000.0	29.0	23.0	<0.5	<5.0	5.0	4.0	8.0	19.0	<1.0	<1.0	55.77				

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

SAMPLE NUMBER	FROM	TO	BA	CU	ZN	AG	AU	CO	NI	PB	AS	CD	MO	CU/(CU+ZN)	ROCK	CODES	
			(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)		* 100	ALT
AB21957	33.00	34.00	1800.0	31.0	18.0	<0.5	<5.0	3.0	5.0	9.0	<5.0	<1.0	<1.0	63.27			
AB21958	34.00	35.00	2400.0	24.0	19.0	<0.5	15.0	7.0	5.0	10.0	12.0	<1.0	1.0	55.81			
AB21959	35.00	36.00	2300.0	48.0	17.0	<0.5	10.0	5.0	4.0	9.0	<5.0	<1.0	1.0	73.85			
AB21960	36.00	37.00	2100.0	88.0	41.0	0.5	10.0	7.0	6.0	17.0	12.0	<1.0	1.0	68.22			
AB21961	37.00	38.00	2400.0	23.0	25.0	<0.5	<5.0	5.0	4.0	24.0	<5.0	<1.0	<1.0	47.92			
AB21962	38.00	39.00	2100.0	53.0	42.0	<0.5	10.0	5.0	3.0	40.0	26.0	<1.0	1.0	55.79			
AB21963	39.00	40.00	910.0	110.0	76.0	<0.5	10.0	25.0	12.0	17.0	10.0	<1.0	1.0	59.14			
AB21964	40.00	41.00	1700.0	99.0	75.0	<0.5	10.0	17.0	10.0	11.0	79.0	<1.0	3.0	56.90			
AB21965	41.00	42.00	2800.0	44.0	56.0	<0.5	5.0	12.0	8.0	12.0	<5.0	<1.0	1.0	44.00			
AB21966	42.00	43.00	2300.0	30.0	42.0	<0.5	20.0	5.0	2.0	50.0	9.0	<1.0	2.0	41.67			
AB21967	43.00	44.00	2600.0	39.0	46.0	<0.5	5.0	4.0	4.0	63.0	26.0	<1.0	1.0	45.88			
AB21968	44.00	45.00	2900.0	19.0	26.0	<0.5	<5.0	5.0	4.0	37.0	11.0	<1.0	<1.0	42.22			
AB21969	45.00	46.00	2900.0	52.0	55.0	<0.5	25.0	9.0	6.0	107.0	20.0	<1.0	2.0	48.60			
AB21970	46.00	47.00	4500.0	240.0	615.0	3.0	40.0	7.0	6.0	395.0	28.0	3.0	5.0	28.07			
AB21971	47.00	48.00	4500.0	200.0	750.0	2.0	70.0	7.0	4.0	200.0	<5.0	3.0	5.0	21.05			
AB21972	48.00	49.00	2600.0	22.0	28.0	<0.5	95.0	8.0	3.0	12.0	31.0	<1.0	4.0	44.00			
AB21973	49.00	50.00	2300.0	26.0	30.0	<0.5	70.0	6.0	4.0	13.0	24.0	<1.0	5.0	46.43			

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

SAMPLE NUMBER	FROM	TO													CODES	
			BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	MO (ppm)	CU/(CU+ZN) * 100	ROCK	ALT
AB21974	50.00	51.00	4100.0	132.0	64.0	1.0	110.0	12.0	7.0	8.0	26.0	<1.0	5.0	67.35		
AB21975	51.00	52.00	3200.0	12.0	11.0	<0.5	40.0	9.0	4.0	<5.0	<5.0	<1.0	4.0	52.17		
AB21976	52.00	53.00	1700.0	29.0	14.0	<0.5	25.0	5.0	3.0	<5.0	37.0	<1.0	3.0	67.44		
AB21977	53.00	54.00	2100.0	10.0	13.0	<0.5	<5.0	6.0	3.0	5.0	<5.0	<1.0	4.0	43.48		
AB21978	54.00	55.00	1600.0	30.0	15.0	<0.5	<5.0	7.0	3.0	<5.0	21.0	<1.0	4.0	66.67		
AB21979	55.00	56.00	1700.0	41.0	21.0	<0.5	5.0	9.0	5.0	7.0	8.0	<1.0	3.0	66.13		
AB21980	56.00	57.00	1700.0	119.0	25.0	<0.5	15.0	11.0	6.0	13.0	7.0	<1.0	6.0	82.64		
AB21981	57.00	58.00	1900.0	138.0	26.0	<0.5	15.0	7.0	6.0	16.0	12.0	<1.0	6.0	84.15		
AB21982	58.00	59.00	1800.0	20.0	39.0	<0.5	<5.0	6.0	4.0	7.0	11.0	<1.0	3.0	33.90		
AB21983	59.00	60.00	1100.0	7.0	25.0	<0.5	<5.0	3.0	3.0	6.0	<5.0	<1.0	4.0	21.87		
AB21984	60.00	61.00	960.0	20.0	22.0	<0.5	<5.0	5.0	4.0	6.0	<5.0	<1.0	3.0	47.62		
AB21985	61.00	62.00	1100.0	53.0	16.0	<0.5	<5.0	4.0	4.0	6.0	18.0	<1.0	3.0	76.81		
AB21986	62.00	63.00	960.0	19.0	17.0	<0.5	<5.0	2.0	2.0	7.0	<5.0	<1.0	2.0	52.78		
AB21987	63.00	64.00	1000.0	5.0	18.0	<0.5	<5.0	2.0	2.0	<5.0	6.0	<1.0	2.0	21.74		
AB21988	64.00	65.00	720.0	20.0	19.0	<0.5	<5.0	4.0	3.0	5.0	20.0	<1.0	1.0	51.28		
AB21989	65.00	66.00	960.0	40.0	15.0	<0.5	<5.0	4.0	3.0	<5.0	<5.0	<1.0	1.0	72.73		
AB21990	66.00	67.00	1200.0	14.0	12.0	<0.5	<5.0	4.0	4.0	<5.0	27.0	<1.0	1.0	53.85		

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

SAMPLE NUMBER	FROM	TO												CODES		
			BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	MO (ppm)	CU/(CU+ZN) * 100	ROCK	ALT
AB21991	67.00	68.00	1200.0	8.0	11.0	<0.5	15.0	4.0	2.0	<5.0	21.0	<1.0	1.0	42.11		
AB21992	68.00	69.00	1600.0	18.0	14.0	<0.5	<5.0	4.0	3.0	<5.0	21.0	<1.0	2.0	56.25		
AB21993	69.00	70.00	1900.0	5.0	13.0	<0.5	<5.0	4.0	2.0	<5.0	<5.0	<1.0	1.0	27.78		
AB21994	70.00	70.60	2000.0	6.0	21.0	<0.5	<5.0	2.0	2.0	<5.0	<5.0	<1.0	1.0	32.22		
AB21995	70.60	71.60	630.0	63.0	113.0	<0.5	<5.0	26.0	40.0	5.0	<5.0	<1.0	1.0	35.80		
AB21996	72.30	73.30	270.0	260.0	82.0	<0.5	<5.0	29.0	61.0	<5.0	<5.0	<1.0	1.0	76.02		
AB21997	73.30	74.00	2400.0	116.0	31.0	<0.5	<5.0	14.0	12.0	12.0	<5.0	<1.0	3.0	78.91		
AB21998	74.00	75.00	1800.0	320.0	480.0	1.5	150.0	14.0	17.0	28.0	24.0	2.0	6.0	40.00		
AB21999	75.00	76.00	1600.0	440.0	63.0	<0.5	20.0	13.0	10.0	7.0	17.0	<1.0	5.0	87.48		
AB22000	76.00	77.20	3600.0	410.0	49.0	1.0	50.0	11.0	10.0	10.0	47.0	<1.0	3.0	89.32		
AF00151	77.20	78.00	3700.0	720.0	3800.0	6.0	750.0	10.0	8.0	101.0	14.0	20.0	20.0	15.93		
AF00152	78.00	79.30	2800.0	260.0	104.0	1.5	35.0	6.0	4.0	11.0	24.0	<1.0	8.0	71.43		
AF00153	79.30	80.30	1900.0	86.0	30.0	1.0	5.0	4.0	3.0	11.0	9.0	<1.0	4.0	74.14		
AF00154	80.30	81.10	850.0	580.0	103.0	1.0	10.0	34.0	41.0	17.0	33.0	<1.0	4.0	84.92		
AF00155	81.10	82.10	1600.0	280.0	1900.0	0.5	55.0	8.0	8.0	20.0	20.0	10.0	4.0	12.84		
AF00156	82.10	83.10	1500.0	168.0	230.0	<0.5	15.0	7.0	4.0	19.0	18.0	1.0	4.0	42.21		
AF00157	83.10	84.00	1800.0	410.0	405.0	1.0	35.0	7.0	4.0	18.0	22.0	2.0	5.0	50.31		

**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)	MO (ppm)	CU/(CU+ZN) * 100	ROCK	CODES ALT	MIN
AF00158	84.00	84.50	1400.0	540.0	970.0	1.0	10.0	25.0	34.0	32.0	16.0	7.0	4.0	35.76			
AF00159	84.60	85.60	410.0	77.0	165.0	<0.5	<5.0	25.0	54.0	8.0	<5.0	<1.0	5.0	31.82			
AF00160	98.30	99.30	2500.0	600.0	1000.0	3.5	274.3	14.0	13.0	1116.0	30.0	6.0	2.0	37.50			
AF00161	99.30	99.50	4000.0	28500.0	236100.0	78.5	1440.0	19.0	27.0	3700.0	31.0	807.0	95.0	10.77			
AF00162	99.50	99.70	6400.0	4900.0	22900.0	45.3	2262.8	14.0	13.0	4800.0	48.0	148.0	14.0	17.63			
AF00163	99.70	100.70	6300.0	15400.0	9800.0	30.0	445.7	25.0	40.0	473.0	10.0	76.0	20.0	61.11			
AF00164	100.70	101.80	14000.0	33800.0	6200.0	54.9	548.6	58.0	59.0	76.0	<5.0	79.0	17.0	84.50			
AF00165	101.80	102.80	7900.0	12500.0	1300.0	20.0	171.4	14.0	9.0	135.0	13.0	12.0	4.0	90.58			
AF00166	102.80	103.50	9800.0	12800.0	800.0	21.0	68.6	13.0	9.0	38.0	<5.0	8.0	5.0	94.12			
AF00167	103.50	104.30	8900.0	1600.0	700.0	6.4	<68.6	8.0	3.0	695.0	29.0	5.0	3.0	69.57			
AF00168	104.30	105.00	12000.0	2300.0	600.0	2.3	137.1	42.0	17.0	94.0	<5.0	4.0	3.0	79.31			
AF00169	105.00	105.50	31000.0	4800.0	7600.0	7.0	137.1	104.0	64.0	124.0	8.0	94.0	19.0	38.71			
AF00170	105.50	106.00	30000.0	8100.0	300.0	12.0	480.0	70.0	53.0	62.0	<5.0	2.0	13.0	96.43			
AF00171	106.00	106.50	24000.0	16500.0	300.0	26.0	788.6	28.0	20.0	194.0	15.0	3.0	12.0	98.21			
AF00172	106.50	107.10	15000.0	3300.0	200.0	6.0	68.6	73.0	60.0	284.0	<5.0	2.0	16.0	94.29			
AF00173	107.10	108.10	1700.0	600.0	300.0	0.5	68.6	39.0	105.0	125.0	31.0	<1.0	3.0	66.67			



# APPENDIX C

ANALYTICAL RESULTS -- MAJOR OXIDES

DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD  
(MAJOR ELEMENTS)

SAMPLE NUMBER	FROM	TO	%SI02	%AL2O3	%CAO	%MGO	%NA2O	%K2O	%FE2O3	%TI02	%P2O5	%MNO	%LOI	SUM	A. I.	Cu (ppm)	Zn (ppm)	100*Cu/(Cu+Zn)
AB15351	7.30	7.40	53.00	16.30	7.05	2.23	3.00	2.63	7.20	0.46	0.34	0.26	7.77	100.24	32.60	17.00	89.00	16.04
AB15352	31.90	32.00	72.60	13.50	2.23	0.83	3.00	2.47	2.09	0.23	0.06	0.06	2.93	100.00	38.69	20.00	25.00	44.44
AB15354	60.50	60.60	70.80	13.60	2.80	0.68	1.06	3.80	2.78	0.23	0.05	0.05	2.93	98.78	53.72	22.00	95.00	18.80
AB15355	72.30	72.40	70.00	13.60	3.31	1.32	1.05	3.43	2.12	0.25	0.06	0.04	3.85	99.03	52.14	28.00	16.00	63.64
AB15356	98.10	98.20	66.10	15.30	3.68	1.37	0.55	4.01	3.53	0.41	0.13	0.05	4.62	99.75	55.98	38.00	24.00	61.29
AB15357	113.20	113.30	42.80	12.40	14.50	4.89	0.71	1.12	8.82	0.53	0.10	0.27	14.08	100.22	28.32	19.00	44.00	30.16
AB15358	121.30	121.40	50.80	16.20	6.09	7.77	4.30	0.32	10.50	0.68	0.11	0.19	3.46	100.42	43.78	24.00	86.00	21.82
AB15360	133.20	133.30	49.40	15.90	8.87	5.28	3.40	0.06	10.00	0.66	0.11	0.23	5.70	99.61	30.32	63.00	73.00	46.32
AB15361	146.10	146.20	71.60	13.70	4.34	0.51	2.36	2.27	2.14	0.25	0.06	0.05	2.70	99.98	29.32	17.00	13.00	56.67
AB15362	148.30	148.40	52.90	17.80	6.50	3.20	1.97	2.00	9.01	0.69	0.14	0.19	5.54	99.94	38.04	135.00	80.00	62.79
AB15363	157.40	157.50	72.00	14.80	0.71	1.69	3.75	2.23	2.21	0.31	0.09	0.04	2.08	99.91	46.78	19.00	61.00	23.75
AB15364	167.50	167.60	73.20	12.20	2.36	1.09	5.71	0.43	2.40	0.27	0.06	0.05	2.31	100.08	15.85	19.00	15.00	55.88
AB15365	169.50	169.60	68.90	13.20	2.04	2.36	2.99	1.48	4.86	0.30	0.07	0.07	3.23	99.50	43.29	57.00	31.00	64.77
AB15366	176.20	176.30	73.50	12.30	2.94	0.55	5.12	1.14	2.13	0.22	0.07	0.04	1.85	99.86	17.33	52.00	20.00	72.22
AB15367	178.20	178.30	49.60	13.30	10.10	6.24	2.70	0.18	11.80	1.76	0.14	0.16	3.85	99.83	33.40	37.00	82.00	31.09
AB15368	195.50	195.60	48.70	12.90	10.00	6.98	2.37	0.34	13.40	1.83	0.16	0.22	2.85	99.75	37.18	228.00	104.00	68.67
AB15369	263.30	263.40	48.40	13.70	10.90	7.24	2.14	0.10	12.50	1.66	0.15	0.18	3.16	100.13	36.02	185.00	91.00	67.03

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

SAMPLE NUMBER	FROM	TO	%SI02	%AL2O3	%CAO	%MGO	%NA2O	%K2O	%FE2O3	%TI02	%P2O5	%MNO	%LOI	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/(Cu+Zn)
AB15370	287.40	287.50	43.70	17.70	4.98	7.26	4.46	0.07	12.60	2.27	0.21	0.15	6.93	100.33	43.71	13.00	160.00	7.51
AB15371	308.40	308.50	50.20	17.40	5.59	4.50	4.39	0.78	9.27	0.66	0.26	0.17	6.08	99.30	34.60	146.00	156.00	48.34
AB15372	315.40	315.50	48.90	14.20	11.30	6.51	1.80	0.15	12.70	1.77	0.17	0.19	2.00	99.69	33.70	148.00	90.00	62.18
AB15373	349.60	349.70	48.90	13.60	11.60	6.24	2.09	0.15	10.50	1.50	0.12	0.16	4.93	99.79	31.82	336.00	87.00	79.43
AB15374	369.20	369.30	48.20	17.70	7.69	4.94	3.08	1.30	9.83	0.75	0.18	0.17	6.24	100.08	36.68	287.00	148.00	65.98
AB15375	399.70	399.80	55.80	16.20	4.98	3.85	4.16	1.24	8.07	0.87	0.27	0.16	3.77	99.37	35.77	54.00	59.00	47.79
AB15376	404.60	404.70	70.20	12.90	4.75	0.75	5.28	0.36	3.21	0.34	0.08	0.06	2.16	100.09	9.96	58.00	30.00	65.91
AB15377	413.90	414.00	47.80	14.40	11.40	7.06	2.05	0.26	13.10	1.78	0.17	0.20	1.93	100.15	35.24	171.00	95.00	64.29
AB15378	428.60	428.70	48.20	17.80	4.96	7.97	4.34	0.45	11.50	1.08	0.11	0.16	3.39	99.96	47.52	75.00	84.00	47.17
AB15379	438.30	438.40	47.80	14.40	12.50	8.80	1.68	0.55	10.70	0.57	0.13	0.17	2.77	100.07	39.74	78.00	64.00	54.93
AB15380	456.30	456.40	49.60	12.20	12.10	10.30	2.16	0.21	9.68	0.53	0.12	0.17	3.08	100.15	42.43	217.00	61.00	78.06
AB15381	467.20	467.30	50.30	14.30	11.10	8.27	2.98	0.22	9.62	0.60	0.15	0.16	2.39	100.09	37.62	235.00	57.00	80.48

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

SAMPLE NUMBER	FROM	TO	XSI02	XAL203	XCAO	XMG0	XNA20	XK20	XFE203	XTI02	XP205	XMNO	XLOI	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/(Cu+Zn)
AD02401	24.20	24.30	54.00	17.30	7.54	4.41	3.22	0.68	9.14	0.66	0.12	0.18	2.85	100.10	32.11	105.00	111.00	48.61
AD02402	51.30	51.40	53.80	17.80	4.79	5.10	4.25	0.84	9.02	0.68	0.12	0.15	3.08	99.63	39.65	100.00	111.00	47.39
AD02403	63.70	63.80	53.90	20.20	1.86	5.73	6.60	0.93	5.59	0.83	0.16	0.10	3.54	99.44	44.05	43.00	67.00	39.09
AD02404	79.90	80.00	52.10	15.40	5.85	7.50	2.74	0.04	9.81	0.66	0.08	0.19	5.31	99.68	46.75	152.00	115.00	56.93
AD02405	85.70	85.80	66.10	16.30	3.15	0.99	3.90	2.01	3.88	0.23	0.13	0.06	2.85	99.60	29.85	138.00	38.00	78.41
AD02406	99.40	99.50	70.80	14.50	1.72	1.14	5.88	1.11	2.73	0.29	0.07	0.05	1.93	100.22	22.84	99.00	33.00	75.00
AD02407	119.30	119.40	69.00	14.60	2.52	1.40	3.33	3.09	2.82	0.27	0.08	0.07	3.00	100.18	43.42	37.00	65.00	36.27
AD02408	131.70	131.80	50.10	20.60	3.64	4.75	4.98	1.67	7.11	0.92	0.16	0.08	5.47	99.48	42.69	141.00	47.00	75.00
AD02409	141.00	141.10	72.60	15.10	0.99	1.01	2.96	2.72	1.77	0.35	0.07	0.06	1.93	99.56	48.57	51.00	37.00	57.95
AD02410	159.70	159.80	49.30	16.70	4.29	10.10	4.21	0.50	9.45	0.72	0.18	0.18	4.62	100.25	55.50	218.00	83.00	72.43
AD02411	173.40	173.50	53.10	15.10	4.94	7.96	3.73	2.36	9.02	0.68	0.17	0.17	2.16	99.39	54.34	100.00	83.00	54.64
AD02412	192.70	192.80	43.50	15.80	6.27	10.60	1.29	2.41	13.30	1.02	0.20	0.25	4.47	99.11	63.25	163.00	110.00	59.71
AD02413	217.60	217.70	47.10	17.20	5.35	10.40	2.62	2.09	10.10	0.69	0.18	0.19	3.85	99.77	61.05	204.00	78.00	72.34
AD02414	223.40	223.50	49.70	17.10	6.41	7.13	2.89	2.95	9.27	0.82	0.23	0.20	2.54	99.24	52.01	140.00	97.00	59.07
AD02415	260.30	260.40	49.80	17.50	5.01	6.91	4.25	1.32	10.60	0.89	0.21	0.19	2.70	99.38	47.06	230.00	245.00	48.42
AD02416	291.70	291.80	48.90	16.00	7.97	8.30	3.51	0.26	11.20	0.83	0.17	0.21	2.85	100.20	42.71	242.00	76.00	76.10

DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD  
(MAJOR ELEMENTS)

SAMPLE NUMBER	FROM	TO	%SI02	%AL2O3	%CAO	%MGO	%NA2O	%K2O	%FE2O3	%TI02	%P2O5	%MNO	%LOI	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/(Cu+Zn)
AB21636	13.30	13.40	69.90	14.50	1.00	1.36	4.02	3.06	2.56	0.28	0.07	0.09	2.08	98.92	46.82	25.00	28.00	47.17
AB21637	25.10	25.20	69.00	13.60	3.68	1.00	2.48	3.00	1.65	0.24	0.06	0.08	4.08	98.87	39.37	22.00	25.00	46.81
AB21638	38.40	38.50	65.40	12.60	5.28	2.09	1.64	2.13	3.59	0.27	0.07	0.13	5.93	99.13	37.88	32.00	64.00	33.33
AB21639	41.20	41.30	70.30	14.40	3.41	0.31	2.45	2.97	1.64	0.26	0.07	0.13	4.08	100.02	35.89	23.00	17.00	57.50
AB21640	47.00	47.10	59.70	13.60	6.62	2.92	3.20	1.91	4.65	0.36	0.07	0.17	7.00	100.20	32.97	52.00	49.00	51.49
AB21641	57.10	57.20	65.30	14.20	3.66	1.99	4.12	2.15	3.70	0.33	0.07	0.08	4.24	99.84	34.73	67.00	38.00	63.81
AB21642	64.20	64.40	70.40	13.30	3.02	0.90	2.64	2.91	2.08	0.24	0.06	0.09	4.08	99.72	40.23	28.00	34.00	45.16
AB21643	71.10	71.20	66.20	12.10	5.98	1.34	0.70	3.17	3.17	0.25	0.06	0.17	6.85	99.99	40.30	18.00	46.00	28.12
AB21644	88.70	88.80	70.70	13.90	2.74	0.71	2.93	2.63	2.23	0.25	0.07	0.10	3.46	99.72	37.07	39.00	100.00	28.06
AB21645	97.20	97.30	69.20	13.90	3.37	0.49	3.01	2.84	2.19	0.29	0.07	0.10	3.93	99.39	34.29	41.00	126.00	24.55
AB21646	114.50	114.60	71.10	13.60	2.96	0.46	3.48	2.37	1.89	0.25	0.06	0.07	3.39	99.63	30.53	26.00	36.00	41.94
AB21647	128.30	128.40	71.20	13.90	2.35	0.70	2.23	2.81	2.63	0.24	0.06	0.06	3.31	99.49	43.39	23.00	61.00	27.38
AB21648	157.75	157.90	46.20	15.10	10.70	5.74	2.64	0.04	10.10	0.69	0.11	0.23	8.54	100.09	30.23	154.00	80.00	65.81
AB21649	167.30	167.40	68.50	13.30	5.03	1.35	2.53	1.74	2.70	0.29	0.07	0.04	4.39	99.94	29.01	34.00	14.00	70.83
AB21650	181.40	181.50	71.70	14.00	2.17	1.23	4.12	1.65	2.83	0.33	0.08	0.06	1.77	99.94	31.41	38.00	17.00	69.09
AB21651	195.60	195.70	70.40	13.40	3.67	0.82	1.57	3.06	1.84	0.24	0.06	0.04	4.00	99.10	42.54	29.00	<10.00	152.63
AB21652	205.40	205.50	70.00	15.10	2.51	0.74	4.75	1.75	2.49	0.38	0.10	0.07	1.54	99.43	25.54	39.00	12.00	76.47

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

SAMPLE NUMBER	FROM	TO	%SI02	%AL2O3	%CAO	%MGO	%NA2O	%K2O	%FE2O3	%TI02	%P2O5	%MNO	%LOI	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/(Cu+Zn)
AB21653	213.60	213.70	72.00	14.20	1.65	0.86	4.71	1.51	2.50	0.26	0.06	0.03	1.31	99.09	27.15	51.00	12.00	80.95
AB21654	218.20	218.30	72.60	13.80	2.20	0.97	3.02	2.33	1.96	0.35	0.06	0.02	2.77	99.98	38.73	47.00	17.00	73.44
AB21655	229.80	229.90	51.40	18.30	6.07	4.31	3.85	1.09	10.20	0.72	0.13	0.19	3.23	99.49	35.25	252.00	89.00	73.90
AB21656	232.80	232.90	72.20	13.50	2.15	1.24	4.86	1.52	2.77	0.26	0.06	0.05	1.47	100.08	28.25	40.00	24.00	62.50
AB21657	243.60	243.70	72.10	13.60	2.57	0.81	3.31	2.31	3.03	0.26	0.06	0.07	1.70	99.82	34.67	41.00	25.00	62.12
AB21658	249.30	249.40	53.20	17.10	4.67	6.59	4.35	0.54	9.43	0.71	0.14	0.20	3.23	100.16	44.15	241.00	120.00	66.76
AB21659	264.30	264.40	49.60	17.20	6.09	7.78	2.69	0.98	10.40	0.73	0.13	0.23	4.16	99.99	49.94	178.00	119.00	59.93
AB21660	339.50	339.70	77.00	11.40	1.95	0.35	6.31	0.12	1.50	0.14	0.04	0.04	1.16	100.01	5.38	44.00	34.00	56.41

DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD  
(MAJOR ELEMENTS)

SAMPLE NUMBER	FROM	TO	ZSI02	ZAL203	ZCA0	ZHG0	ZNA20	ZK20	ZFE203	ZTI02	ZP205	ZMNO	ZLOI	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/(Cu+Zn)
AB21661	21.90	22.00	65.50	14.40	3.48	1.66	3.51	2.47	4.21	0.34	0.07	0.09	4.39	100.12	37.14	61.00	38.00	61.62
AB21662	32.10	32.20	61.90	15.90	3.96	2.11	3.54	2.36	4.79	0.26	0.18	0.14	5.00	100.14	37.34	73.00	169.00	30.17
AB21663	43.70	43.80	70.20	13.60	2.55	0.91	3.17	2.74	2.05	0.25	0.06	0.09	3.85	99.47	38.95	27.00	64.00	29.67
AB21664	55.20	55.30	70.80	14.20	2.03	0.92	3.77	2.66	1.83	0.26	0.06	0.06	3.39	99.98	38.17	36.00	30.00	54.55
AB21665	66.40	66.60	72.00	13.90	1.75	1.03	4.52	1.57	2.24	0.30	0.07	0.06	2.46	99.90	29.31	40.00	42.00	48.78
AB21666	72.70	72.80	70.60	11.90	4.32	1.21	3.38	1.57	1.85	0.27	0.07	0.10	4.70	99.97	26.53	55.00	18.00	75.34
AB21667	84.70	84.80	67.00	13.80	4.22	1.17	2.35	2.55	3.33	0.30	0.08	0.10	4.77	99.67	36.15	54.00	44.00	55.10
AB21668	93.40	93.50	68.70	14.40	4.05	0.88	1.97	2.87	2.20	0.31	0.07	0.04	4.62	100.11	38.38	29.00	14.00	67.44
AB21669	105.00	105.10	47.90	16.90	9.99	4.03	2.51	0.49	11.00	0.78	0.14	0.26	6.16	100.16	26.56	231.00	103.00	69.16
AB21670	114.70	114.80	57.50	13.90	7.45	3.18	1.47	2.49	5.23	0.43	0.12	0.25	8.08	100.10	38.86	61.00	93.00	39.61
AB21671	129.10	129.20	69.50	13.40	4.61	0.76	0.79	3.47	2.28	0.27	0.06	0.04	4.85	100.03	43.93	38.00	<10.00	
AB21672	141.30	141.40	70.70	15.60	1.87	0.84	3.33	3.12	1.70	0.37	0.13	0.04	1.77	99.47	43.23	53.00	10.00	84.13
AB21673	156.90	157.00	72.10	14.90	1.10	1.20	4.40	2.09	2.26	0.36	0.10	0.05	1.54	100.10	37.43	31.00	23.00	57.41
AB21674	174.50	174.60	69.50	14.60	3.08	1.11	3.53	2.23	2.10	0.27	0.06	0.03	2.54	99.05	33.57	49.00	17.00	74.24
AB21675	184.60	184.70	53.20	16.50	6.98	4.21	4.02	0.57	9.23	0.66	0.13	0.17	4.31	99.98	30.29	397.00	60.00	86.87
AB21676	192.80	192.90	72.40	13.80	2.59	1.17	4.92	1.53	1.81	0.26	0.06	0.05	1.47	100.06	26.44	59.00	18.00	76.62
AB21677	199.30	199.40	48.10	16.40	6.69	5.02	2.58	2.01	10.90	0.70	0.11	0.23	6.85	99.59	43.13	101.00	104.00	49.27

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

SAMPLE NUMBER	FROM	TO	XSI02	XAL203	XCAO	XMG0	XNA20	XK20	XFE203	XTI02	XP205	XNN0	XLOI	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/(Cu+Zn)
AB21678	213.40	213.50	73.20	13.90	2.84	0.87	2.16	2.68	2.40	0.25	0.06	0.06	1.77	100.19	41.52	29.00	23.00	55.77
AB21679	218.80	218.90	71.70	13.40	2.20	0.83	2.09	3.19	2.83	0.30	0.07	0.07	2.39	99.07	48.38	35.00	16.00	68.63
AB21680	228.80	228.90	51.20	16.10	4.86	6.81	2.85	1.14	9.14	0.67	0.12	0.24	6.93	100.06	50.77	74.00	154.00	32.46
AB21681	258.20	258.30	71.00	13.70	3.01	1.04	5.25	1.22	1.56	0.26	0.09	0.03	3.16	100.32	21.48	32.00	12.00	72.73
AB21682	273.40	273.50	44.40	12.80	8.25	6.55	1.93	0.55	13.00	1.87	0.17	0.17	10.08	99.77	41.09	348.00	112.00	75.65
AB21683	281.00	281.10	71.90	14.00	2.08	0.51	4.87	2.40	1.73	0.26	0.09	0.03	2.23	100.10	29.51	43.00	36.00	54.43
AB21684	286.40	286.50	45.40	12.60	10.30	5.15	2.35	0.37	10.80	1.47	0.15	0.18	11.00	99.77	30.38	243.00	99.00	71.05
AB21685	300.00	300.10	54.40	17.90	2.95	3.60	2.29	1.71	8.32	0.89	0.21	0.09	6.47	98.83	50.33	126.00	136.00	48.09
AB21686	318.30	318.40	53.60	17.20	2.33	3.46	2.42	1.85	10.30	0.90	0.22	0.10	6.85	99.23	52.78	126.00	144.00	46.67
AB21687	427.20	427.30	74.80	15.70	0.91	0.62	0.94	3.09	1.18	0.35	0.12	0.01	2.46	100.18	66.73	34.00	17.00	66.67
AB21688	434.10	434.20	44.30	11.80	11.70	8.86	0.33	0.05	9.99	0.68	0.15	0.11	10.31	98.28	42.55	170.00	237.00	41.77
AB21689	456.90	457.10	49.10	14.30	11.40	6.55	1.59	0.19	12.90	1.73	0.17	0.20	2.16	100.29	34.16	242.00	96.00	71.60



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

SAMPLE NUMBER	FROM	TO	ZSI02	ZAL203	ZCA0	ZMG0	ZNA20	ZK20	ZFE203	ZTI02	XP205	ZMNO	ZLOI	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/(Cu+Zn)
AD02454	10.60	10.70	71.00	12.40	3.63	0.61	5.65	0.92	2.01	0.28	0.07	0.10	3.16	99.83	14.15	57.00	31.00	64.77
AD02455	16.30	16.40	55.30	16.90	5.43	2.60	2.26	2.91	6.94	0.47	0.35	0.17	6.16	99.49	41.74	42.00	106.00	28.38
AD02456	20.80	20.90	73.90	13.50	1.49	0.65	5.74	1.19	1.66	0.29	0.08	0.05	1.77	100.32	20.29	37.00	27.00	57.81
AD02457	30.00	30.10	68.70	13.60	3.99	1.45	2.29	2.38	2.46	0.26	0.06	0.04	4.77	100.00	37.88	36.00	18.00	66.67
AD02458	44.40	44.50	72.30	13.20	1.34	1.32	5.10	1.19	3.07	0.24	0.06	0.06	2.23	100.11	28.04	35.00	24.00	59.32
AD02459	54.20	54.30	66.50	14.40	4.45	1.38	0.78	3.68	2.75	0.29	0.07	0.03	5.54	99.87	49.17	35.00	12.00	74.47
AD02460	64.50	64.60	69.00	14.90	3.47	2.57	3.00	2.47	2.44	0.32	0.08	0.04	1.70	99.99	43.79	26.00	16.00	61.90
AD02461	72.60	72.70	51.80	16.80	8.54	5.38	2.75	0.44	10.80	0.76	0.13	0.17	2.85	100.42	34.02	47.00	61.00	43.52
AD02462	79.70	79.80	72.70	13.80	2.65	0.66	4.01	2.41	2.65	0.26	0.06	0.04	0.85	100.09	31.55	34.00	17.00	66.67
AD02463	88.40	88.50	50.70	17.20	5.69	7.15	4.11	0.93	10.60	0.68	0.09	0.21	2.93	100.29	45.19	16.00	83.00	16.16
AD02464	98.20	98.30	48.80	16.70	6.84	7.38	2.92	1.01	12.10	0.76	0.14	0.25	3.46	100.36	46.23	51.00	98.00	34.23
AD02465	108.70	108.80	51.90	18.00	6.29	4.37	5.70	0.36	9.20	0.72	0.14	0.25	2.46	99.39	28.29	277.00	650.00	29.88
AD02466	124.40	124.50	56.00	17.50	4.21	4.58	6.00	1.12	7.76	0.68	0.12	0.16	2.00	100.13	35.83	179.00	134.00	57.19
AD02467	136.80	136.90	55.30	17.80	4.34	4.39	6.84	0.46	7.39	0.66	0.11	0.16	2.08	99.53	30.26	98.00	101.00	49.25
AD02468	143.30	143.40	47.90	14.20	10.20	6.45	1.44	0.29	13.60	1.87	0.18	0.20	3.08	99.41	36.67	253.00	118.00	68.19
AD02469	153.60	153.70	54.80	16.90	7.35	3.71	4.36	0.80	8.07	0.62	0.12	0.16	2.77	99.66	27.81	381.00	90.00	80.89
AD02470	154.90	155.00	70.60	13.80	2.51	1.09	5.04	1.99	3.02	0.29	0.06	0.06	1.39	99.85	28.97	40.00	27.00	59.70

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

SAMPLE NUMBER	FROM	TO	ZSI02	ZAL203	ZCA0	ZMG0	ZNA20	ZK20	ZFE203	ZTI02	ZP205	ZMNO	ZLO1	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/(Cu+Zn)
AD02471	165.20	165.30	51.20	17.90	6.98	5.97	4.42	0.94	8.83	0.72	0.13	0.26	2.70	100.05	37.74	126.00	125.00	50.20
AD02472	169.30	169.40	69.90	11.90	6.45	1.26	2.59	0.86	4.64	0.30	0.10	0.14	1.93	100.07	19.00	32.00	321.00	9.07
AD02473	180.40	180.50	53.10	17.50	4.08	6.58	5.19	0.82	8.54	0.73	0.13	0.20	2.93	99.80	44.39	157.00	138.00	53.22
AD02474	192.20	192.30	62.30	17.30	7.65	1.08	2.04	1.99	4.79	0.24	0.15	0.14	2.23	99.91	24.06	79.00	43.00	64.75
AD02475	199.90	200.00	49.10	13.30	11.50	6.20	1.10	0.12	13.60	1.90	0.19	0.21	2.31	99.53	33.40	249.00	115.00	68.41
AD02476	208.30	208.40	73.70	12.00	3.15	0.72	0.72	3.16	2.63	0.28	0.06	0.08	3.31	99.81	50.06	35.00	38.00	47.95
AD02477	215.70	215.80	73.20	13.50	1.92	0.70	1.96	3.14	1.98	0.25	0.06	0.07	2.54	99.22	50.39	36.00	30.00	54.55
AD02478	217.80	217.90	74.30	13.40	1.40	0.67	0.62	3.62	2.47	0.29	0.07	0.06	2.54	99.44	67.99	60.00	34.00	63.83
AD02479	223.60	223.70	72.90	14.70	0.62	0.81	2.60	3.39	1.94	0.30	0.07	0.04	1.85	99.12	56.60	37.00	54.00	40.66
AD02637	230.50	230.60	65.90	15.20	2.46	2.06	1.42	3.62	3.48	0.24	0.06	0.07	4.31	98.82	59.41	21.00	45.00	31.82
AD02638	239.30	239.40	75.80	12.60	1.35	0.37	6.09	0.84	0.89	0.20	0.06	0.02	1.47	99.69	13.99	28.00	16.00	63.64
AD02639	246.40	246.50	70.70	14.70	1.52	0.88	4.25	2.80	2.16	0.24	0.06	0.04	2.08	99.43	38.94	16.00	21.00	43.24
AD02640	248.40	248.50	76.20	13.00	0.36	1.28	3.29	2.40	1.35	0.20	0.05	0.02	1.54	99.69	50.20	19.00	16.00	54.29
AD02641	251.10	251.20	69.60	13.40	2.29	2.35	2.62	2.71	0.99	0.22	0.06	0.02	4.39	98.65	50.75	25.00	10.00	71.43
AD02642	264.40	264.50	73.20	12.90	2.33	0.30	3.17	3.44	1.33	0.20	0.05	0.03	2.39	99.34	40.48	17.00	27.00	38.64
AD02643	269.40	269.50	47.80	18.60	5.25	4.91	4.42	0.29	12.60	0.87	0.41	0.18	3.54	98.87	34.97	128.00	103.00	55.41
AD02644	280.70	280.80	47.90	13.30	9.17	5.33	1.88	0.19	15.30	2.42	0.21	0.22	3.08	99.00	33.31	333.00	122.00	73.19

DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD  
(MAJOR ELEMENTS)

SAMPLE NUMBER	FROM	TO	XSI02	XAL203	XCA0	XMG0	XNA20	XK20	XFE203	XTI02	XP205	XMNO	XLOI	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/(Cu+Zn)
AD02645	304.30	304.40	48.50	13.40	9.62	4.73	2.06	0.34	15.30	2.45	0.22	0.22	1.93	98.77	30.27	335.00	116.00	74.28
AD02646	329.60	329.70	48.50	13.30	10.50	6.28	1.94	0.18	13.60	1.88	0.16	0.21	2.85	99.40	34.18	308.00	89.00	77.58
AD02647	339.20	339.30	68.20	13.50	3.26	0.89	3.86	2.54	3.35	0.33	0.07	0.08	3.08	99.16	32.51	29.00	34.00	46.03
AD02648	347.20	347.30	54.30	17.30	5.46	1.39	6.27	1.01	8.21	1.06	0.37	0.16	3.54	99.07	16.99	86.00	80.00	51.81
AD02649	359.30	359.40	47.60	14.30	11.80	7.92	1.81	0.41	11.20	1.29	0.11	0.18	2.39	99.01	37.97	88.00	68.00	56.41
AD02650	404.40	404.50	48.00	14.60	11.30	7.93	2.12	0.44	10.60	1.15	0.11	0.16	2.62	99.03	38.41	110.00	62.00	63.95

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

SAMPLE NUMBER	FROM	TO	XSI02	XAL203	XCA0	XMG0	XNA20	XK20	XFE203	XTI02	XP205	XMNO	XLOI	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/(Cu+Zn)
AB21901	8.30	8.40	50.00	17.20	6.60	2.91	2.18	2.98	9.10	0.74	0.13	0.17	7.85	99.86	40.15	695.00	77.00	90.03
AB21902	14.10	14.20	67.10	12.40	5.31	1.21	1.79	2.29	3.24	0.27	0.07	0.14	6.00	99.82	33.02	53.00	36.00	59.55
AB21903	25.50	25.60	68.40	17.00	1.45	0.46	4.49	2.83	2.09	0.38	0.07	0.05	2.54	99.76	35.64	43.00	27.00	61.43
AB21904	43.80	43.95	66.20	14.30	4.73	1.44	3.76	1.25	3.18	0.31	0.07	0.05	4.85	100.14	24.06	48.00	<10.00	
AB21905	51.30	51.45	69.30	13.40	4.03	0.98	2.37	2.23	2.88	0.35	0.10	0.04	4.47	100.15	33.40	35.00	10.00	77.78
AB21906	59.70	59.85	70.00	14.20	2.97	1.21	3.47	1.98	2.52	0.26	0.07	0.04	3.23	99.95	33.13	31.00	16.00	65.96
AB21907	70.30	70.40	69.70	13.90	3.50	1.16	2.56	2.31	2.28	0.27	0.07	0.03	4.54	100.32	36.41	63.00	<10.00	
AB21908	74.70	74.80	43.00	15.80	8.79	8.54	1.52	0.08	12.20	0.79	0.21	0.22	9.00	100.15	45.54	31.00	86.00	26.50
AB21909	86.70	86.80	70.90	13.50	2.78	1.33	2.79	2.30	2.48	0.26	0.06	0.03	3.62	100.05	39.46	31.00	16.00	65.96
AB21910	92.60	92.75	72.70	12.80	2.14	0.93	4.50	1.46	2.08	0.24	0.06	0.04	2.54	99.49	26.47	38.00	<10.00	
AB21911	95.40	95.60	71.70	13.50	1.68	1.46	3.76	1.96	2.83	0.26	0.06	0.05	2.54	99.80	38.60	20.00	16.00	55.56
AB21912	106.50	106.60	48.00	14.00	10.60	6.40	1.97	0.21	13.30	1.90	0.18	0.20	2.31	99.07	34.46	263.00	116.00	69.39
AB21913	118.40	118.50	73.00	13.80	2.12	0.47	5.29	1.99	2.43	0.33	0.07	0.07	0.77	100.34	24.92	44.00	24.00	64.71
AB21914	128.60	128.75	71.70	13.90	1.72	0.85	5.80	1.30	2.87	0.33	0.07	0.08	0.93	99.55	22.23	37.00	23.00	61.67
AB21915	134.60	134.75	72.20	13.60	2.63	0.90	5.33	1.21	2.84	0.31	0.06	0.07	1.24	100.39	20.95	56.00	25.00	69.14
AB21916	146.85	146.95	74.50	13.10	1.62	0.77	5.74	0.86	2.21	0.30	0.06	0.05	0.93	100.14	18.13	38.00	21.00	64.41
AB21917	154.50	154.60	43.40	18.70	11.40	5.47	1.23	0.46	14.00	0.92	0.15	0.32	4.00	100.05	31.95	51.00	125.00	28.98

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

SAMPLE NUMBER	FROM	TO	%SI02	%AL2O3	%CAO	%MGO	%NA2O	%K2O	%FE2O3	%TIO2	%P2O5	%MNO	%LOI	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/(Cu+Zn)
AB21918	163.50	163.60	70.60	14.90	1.35	1.44	2.51	3.95	2.56	0.34	0.07	0.04	1.54	99.30	58.27	34.00	24.00	58.62
AB21919	185.50	185.60	54.20	16.90	6.35	4.89	4.96	0.77	7.64	0.68	0.18	0.20	2.93	99.70	33.35	181.00	234.00	43.61
AB21920	201.50	201.60	50.60	15.90	7.94	7.58	3.59	0.65	9.87	0.67	0.12	0.24	2.23	99.39	41.65	129.00	134.00	49.05
AB21921	206.50	206.60	52.80	16.50	7.09	5.35	1.02	2.25	11.30	0.69	0.20	0.25	2.70	100.15	48.38	196.00	107.00	64.69
AB21922	218.40	219.50	49.40	16.80	9.37	4.89	0.73	0.80	12.90	0.70	0.14	0.28	3.70	99.71	36.04	329.00	140.00	70.15
AB21923	224.50	224.60	74.50	13.00	2.01	1.03	3.30	2.10	1.88	0.31	0.07	0.05	1.77	100.02	37.09	18.00	18.00	50.00
AB21924	233.30	233.40	51.00	17.00	6.38	5.26	2.68	1.12	10.30	0.71	0.11	0.20	5.08	99.84	41.32	27.00	110.00	19.71
AB21925	242.10	242.20	68.10	13.30	3.15	2.35	2.16	2.53	4.41	0.29	0.08	0.09	3.23	99.69	47.89	44.00	49.00	47.31
AB21926	264.65	264.80	54.70	17.10	8.41	2.97	2.99	0.37	8.93	0.66	0.13	0.18	3.62	100.06	22.66	142.00	98.00	59.17
AB21927	356.80	356.95	48.00	13.80	10.30	6.39	2.31	0.31	12.70	1.73	0.16	0.19	3.54	99.43	34.70	260.00	103.00	71.63
AB21928	380.70	380.80	44.20	13.80	7.02	11.40	1.73	1.46	12.30	1.63	0.22	0.38	4.16	98.30	59.51	47.00	401.00	10.49
AB21929	384.30	384.40	41.00	7.78	8.25	22.60	0.23	0.19	11.80	1.14	0.27	0.19	6.08	99.53	72.88	7.50	100.00	6.98

DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD  
(MAJOR ELEMENTS)

SAMPLE NUMBER	FROM	TO	ZSI02	ZAL203	ZCA0	ZMG0	ZNA20	ZK20	ZFE203	ZTI02	ZP205	ZMNO	ZLOI	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/(Cu+Zn)
AD02480	16.80	16.90	69.30	13.10	4.64	0.58	2.65	2.66	2.07	0.24	0.06	0.05	4.39	99.74	30.77	32.00	28.00	53.33
AD02481	21.30	21.40	45.00	17.00	6.77	6.09	4.49	0.30	11.20	0.91	0.14	0.20	6.85	98.95	36.20	255.00	103.00	71.23
AD02482	40.30	40.40	70.10	14.20	2.39	0.82	3.08	3.27	2.33	0.26	0.06	0.07	2.85	99.43	42.78	36.00	38.00	48.65
AD02483	53.20	53.30	69.60	14.60	2.86	1.54	2.05	3.19	2.48	0.25	0.06	0.06	2.62	99.31	49.07	37.00	36.00	50.68
AD02484	70.20	70.30	69.40	14.90	2.64	1.03	2.43	3.64	1.82	0.27	0.06	0.06	3.54	99.79	47.95	25.00	27.00	48.08
AD02485	85.50	85.60	70.50	12.80	3.72	0.98	2.51	2.63	1.79	0.22	0.05	0.09	4.24	99.53	36.69	23.00	26.00	46.94
AD02486	95.30	95.40	70.10	14.80	0.92	2.10	2.66	2.76	3.25	0.26	0.06	0.05	2.70	99.66	57.58	49.00	64.00	43.36
AD02487	105.10	105.20	73.90	10.80	3.59	1.05	3.35	1.41	1.68	0.19	0.05	0.08	3.46	99.56	26.17	34.00	24.00	58.62
AD02488	110.20	110.30	77.10	12.00	0.41	1.81	3.38	1.73	1.26	0.22	0.05	0.03	1.70	99.69	48.29	24.00	25.00	48.98
AD02489	124.80	124.90	66.10	13.70	4.00	1.52	5.90	1.25	3.13	0.30	0.07	0.09	3.93	99.99	21.86	105.00	35.00	75.00
AD02490	137.40	137.50	71.30	13.30	2.47	0.98	2.87	2.64	2.15	0.23	0.06	0.04	3.93	99.97	40.40	46.00	33.00	58.23
AD02491	157.60	157.70	51.20	18.10	5.46	3.78	3.78	0.92	8.97	0.53	0.23	0.16	6.39	99.52	33.72	47.00	86.00	35.34
AD02492	169.50	169.60	68.90	13.00	2.98	1.40	3.93	1.97	2.68	0.24	0.06	0.10	4.77	100.03	32.78	44.00	35.00	55.70
AD02493	177.80	177.90	65.00	14.70	3.17	1.61	3.43	2.72	3.11	0.34	0.08	0.09	5.54	99.79	39.62	63.00	47.00	57.27
AD02494	187.00	187.10	70.50	13.60	1.98	0.80	4.43	2.08	2.36	0.24	0.06	0.08	3.46	99.59	31.00	31.00	37.00	45.59
AD02495	196.30	196.40	70.90	13.30	2.00	0.84	4.49	1.95	2.25	0.24	0.06	0.07	3.31	99.41	30.06	43.00	30.00	58.90
AD02496	206.10	206.20	68.60	13.00	3.46	0.99	3.51	2.37	2.69	0.23	0.05	0.11	4.85	99.86	32.53	40.00	46.00	46.51

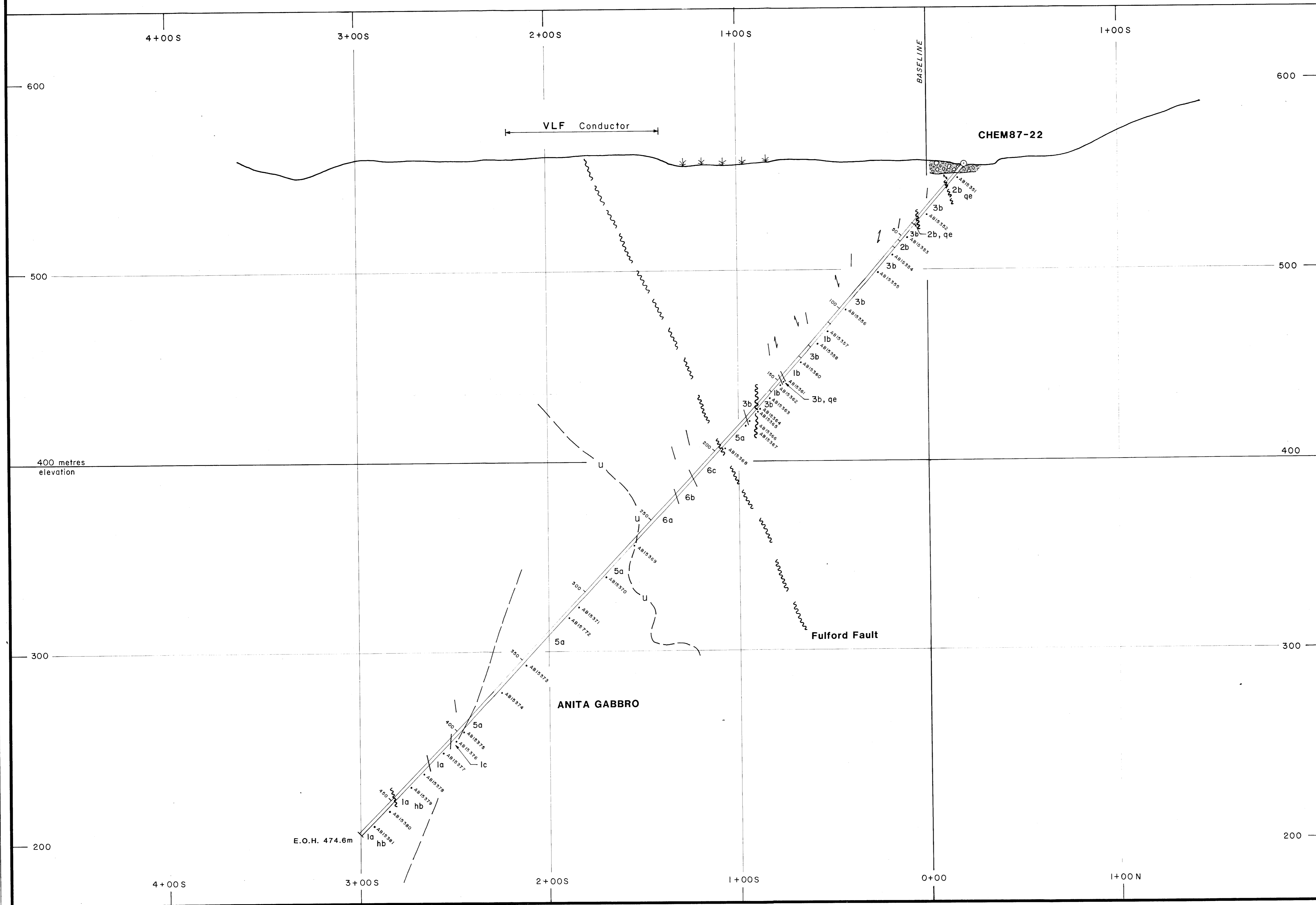
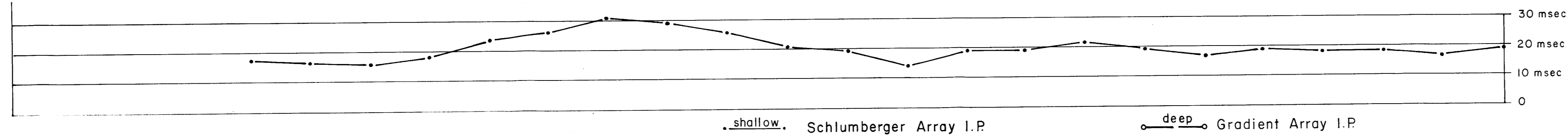
**DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD  
(MAJOR ELEMENTS)**

SAMPLE NUMBER	FROM	TO	XSI02	XAL203	XCA0	XMG0	XNA20	XK20	XFE203	XTI02	XP205	XMNO	XL01	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/(Cu+Zn)
AD02497	219.80	219.90	72.10	13.60	2.07	0.59	3.45	2.47	2.12	0.25	0.06	0.05	3.08	99.84	35.66	36.00	19.00	65.45
AD02498	227.70	227.80	61.80	16.60	3.54	1.25	3.07	3.09	5.36	0.26	0.18	0.11	4.77	100.03	39.63	38.00	83.00	31.40
AD02499	230.60	230.70	64.10	17.00	2.17	1.15	3.33	3.06	4.58	0.27	0.19	0.09	3.77	99.71	43.36	39.00	96.00	28.89
AD02500	262.40	262.50	72.40	11.10	3.58	1.30	2.65	1.73	2.90	0.27	0.08	0.11	3.77	99.89	32.72	48.00	128.00	27.27
AD02601	282.70	282.80	50.60	20.80	4.47	4.67	3.72	1.01	9.00	0.73	0.54	0.07	4.16	99.77	40.95	33.00	61.00	35.11
AD02602	283.80	283.90	70.50	14.40	4.33	0.51	2.56	2.07	1.81	0.33	0.10	0.03	3.39	100.03	27.24	29.00	<10.00	152.63
AD02603	287.10	287.20	46.50	15.70	9.82	4.74	2.59	0.93	9.06	0.70	0.13	0.14	9.54	99.85	31.36	27.00	64.00	29.67
AD02606	295.70	295.80	64.20	15.20	5.40	1.51	5.56	0.48	4.48	0.38	0.11	0.08	2.77	100.17	15.37	19.00	14.00	57.58
AD02604	296.80	296.90	67.30	14.10	4.05	1.40	5.40	0.82	3.37	0.37	0.10	0.07	2.85	99.83	19.02	23.00	13.00	63.89
AD02605	307.40	307.50	66.00	14.60	4.05	1.35	2.41	2.62	3.44	0.43	0.10	0.04	4.77	99.81	38.06	30.00	16.00	65.22
AD02607	319.40	319.50	71.70	13.00	3.74	0.82	1.99	2.18	2.09	0.23	0.05	0.04	3.85	99.69	34.36	28.00	16.00	63.64
AD02608	332.50	332.60	70.10	13.40	3.51	1.41	1.93	2.48	2.68	0.25	0.07	0.05	4.08	99.96	41.69	34.00	14.00	70.83
AD02609	337.20	337.30	67.50	14.10	4.29	1.09	2.05	2.99	3.54	0.35	0.10	0.05	3.16	99.22	39.16	25.00	15.00	62.50
AD02610	341.20	341.30	51.80	16.80	8.12	4.79	2.87	1.25	9.49	0.63	0.12	0.16	4.24	100.27	35.47	37.00	48.00	43.53
AD02611	345.40	345.50	71.90	13.50	2.76	1.40	4.12	1.52	2.82	0.25	0.06	0.04	1.47	99.84	29.80	47.00	22.00	68.12
AD02612	350.80	350.90	52.90	16.80	6.76	5.13	3.53	0.91	9.80	0.65	0.13	0.15	2.46	99.22	36.99	37.00	45.00	45.12
AD02613	358.60	358.70	53.10	17.10	4.81	6.64	5.89	0.32	8.63	0.66	0.12	0.14	2.54	99.95	39.41	296.00	172.00	63.25

DIAMOND DRILL CORE LITHOGEOCHEMICAL RECORD  
(MAJOR ELEMENTS)

SAMPLE NUMBER	FROM	TO	XSI02	XAL203	XCAO	XMG0	XNA20	XK20	XFE203	XTI02	XP205	XMNO	XL01	SUM	A.I.	Cu (ppm)	Zn (ppm)	100*Cu/(Cu+Zn)
AB21930	17.10	17.30	71.00	14.70	2.41	0.96	3.76	1.94	2.65	0.35	0.07	0.11	1.62	99.57	31.97	52.00	371.00	12.29
AB21931	27.80	27.90	49.00	14.50	10.90	6.12	1.58	0.32	12.80	1.82	0.17	0.19	2.70	100.10	34.04	204.00	106.00	65.81
AB21932	38.60	38.70	72.70	13.70	1.11	0.62	4.53	1.89	2.75	0.33	0.06	0.07	1.70	99.46	30.80	25.00	24.00	51.02
AB21933	51.20	51.30	69.20	15.10	2.85	0.83	3.59	2.74	2.53	0.36	0.07	0.06	1.85	99.18	35.66	37.00	27.00	57.81
AB21934	56.30	56.40	49.00	14.00	10.80	6.22	2.16	0.24	12.60	1.78	0.17	0.20	2.16	99.33	33.26	208.00	97.00	68.20
AB21935	64.40	64.50	74.40	12.20	2.59	0.28	4.31	1.80	2.23	0.28	0.08	0.04	1.39	99.60	23.16	125.00	<10.00	
AB21936	82.40	82.50	44.50	13.10	10.30	15.60	0.53	0.47	10.10	0.42	0.07	0.19	4.31	99.59	59.74	147.00	77.00	65.62
AB21937	86.80	87.00	70.10	14.30	2.36	1.92	0.92	4.00	2.38	0.34	0.08	0.06	3.39	99.85	64.35	33.00	28.00	54.10
AB21938	91.60	91.70	74.80	12.80	1.63	1.26	2.63	2.68	1.11	0.29	0.06	0.04	1.47	98.77	48.05	24.00	14.00	63.16
AB21939	114.90	115.00	67.50	15.60	2.73	1.36	4.38	1.75	4.28	0.45	0.13	0.12	1.62	99.92	30.43	64.00	48.00	57.14
AB21940	128.80	128.90	72.10	13.90	2.25	1.45	4.33	1.48	2.88	0.29	0.07	0.06	1.47	100.28	30.81	32.00	35.00	47.76
AB21941	138.80	138.90	69.90	14.90	2.65	1.14	5.01	1.27	3.37	0.36	0.09	0.07	1.39	100.15	23.93	32.00	34.00	48.48
AB21942	143.30	143.40	53.20	17.10	7.72	3.85	1.77	1.71	8.24	0.63	0.12	0.21	5.16	99.71	36.94	188.00	119.00	61.24
AB21943	162.20	162.40	48.40	13.50	10.50	6.46	2.32	0.45	12.30	1.67	0.16	0.19	3.46	99.41	35.02	260.00	90.00	74.29
AB21944	173.30	173.40	49.10	15.80	3.37	9.95	3.63	1.65	9.39	0.73	0.19	0.18	5.77	99.76	62.37	120.00	77.00	60.91
AB21945	237.95	238.15	46.20	11.90	11.30	8.74	1.80	0.21	13.60	1.65	0.15	0.21	2.93	98.69	40.59	73.00	93.00	43.98





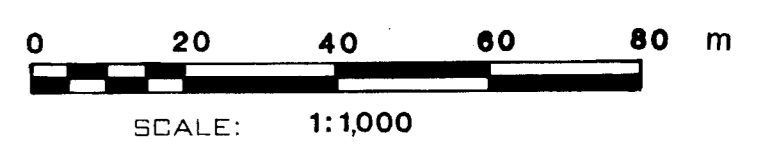
# LEGEND

- NANAIMO GROUP**
- 6c Argillite
  - 6b Greywacke
  - 6a Conglomerate
- INTRUSIVE ROCK**
- 5c Peridotite
  - 5b Mafic sill
  - 5a Gabbro
- SICKER GROUP**
- 4b Cherty black argillite and siltstone with minor greywacke
  - 4a Brown greywacke
  - 3b Felsic tuff
  - 3a Felsic flow
  - 2b Intermediate tuff
  - 2a Intermediate flow
  - 1c Mixed mafic tuffaceous sediments
  - 1b Mafic tuff
  - 1a Mafic flow

- SYMBOLS**
- py pyrite
  - cpy chalcopyrite
  - ga galena
  - hb hornblende
  - po pyrrhotite
  - sp sphalerite
  - qe quartz eyes
  - ep epidote
- bedding
  - foliation
  - fault
  - younging direction
  - whole rock sample, Ishikawa index >60
  - geochemical/assay sample
  - rocks with komatiitic compositions
  - unconformity
  - geological contact (inferred)
  - active tuff
  - significant sulphides (>2%, >10% total)

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

## 16,825

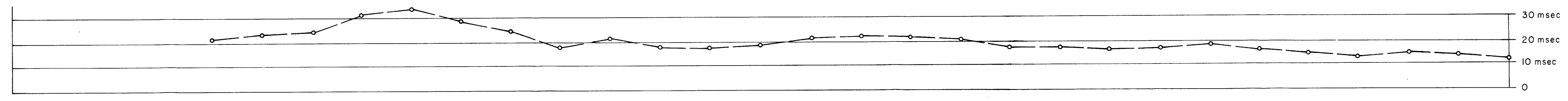


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CHEMAINUS JOINT VENTURE  
Vancouver Island, British Columbia

**SECTION 34 + 00E**  
(looking west)  
DDH CHEM87-22

WORK BY: JP	PROJECT NO: 116	FIG. NO.: 5
DATE OF WORK: July, 1987	N.T.S. NO.: 92B/13	
DRAWN BY: VJG		
DATE: Sept. 9, 1987		



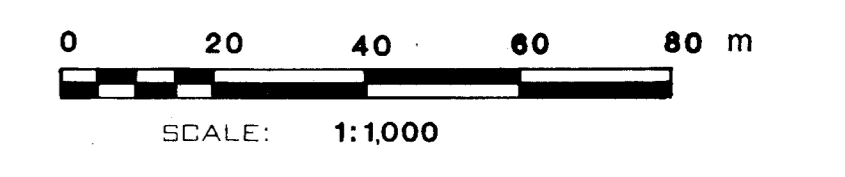
**LEGEND**

- NANAIMO GROUP**
- 6c Argillite
  - 6b Greywacke
  - 6a Conglomerate
- INTRUSIVE ROCK**
- 5c Peridotite
  - 5b Mafic sill
  - 5a Gabbro
- SICKER GROUP**
- 4b Cherty black argillite and siltstone with minor greywacke
  - 4a Brown greywacke
  - 3b Felsic tuff
  - 3a Felsic flow
  - 2b Intermediate tuff
  - 2a Intermediate flow
  - 1c Mixed mafic tuffaceous sediments
  - 1b Mafic tuff
  - 1a Mafic flow

- SYMBOLS**
- py pyrite
  - cpy chalcopyrite
  - ga galena
  - hb hornblende
  - po pyrrhotite
  - sp sphalerite
  - qe quartz eyes
  - ep epidote
- bedding
  - foliation
  - fault
  - younging direction
  - \* Ab1951, 65 whole rock sample, Ishikawa index >60
  - geochemical/assay sample
  - K rocks with komatiitic compositions
  - u unconformity
  - - - geological contact (inferred)
  - active tuff
  - significant sulphides (>2%, >10% total)

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

**16,825**

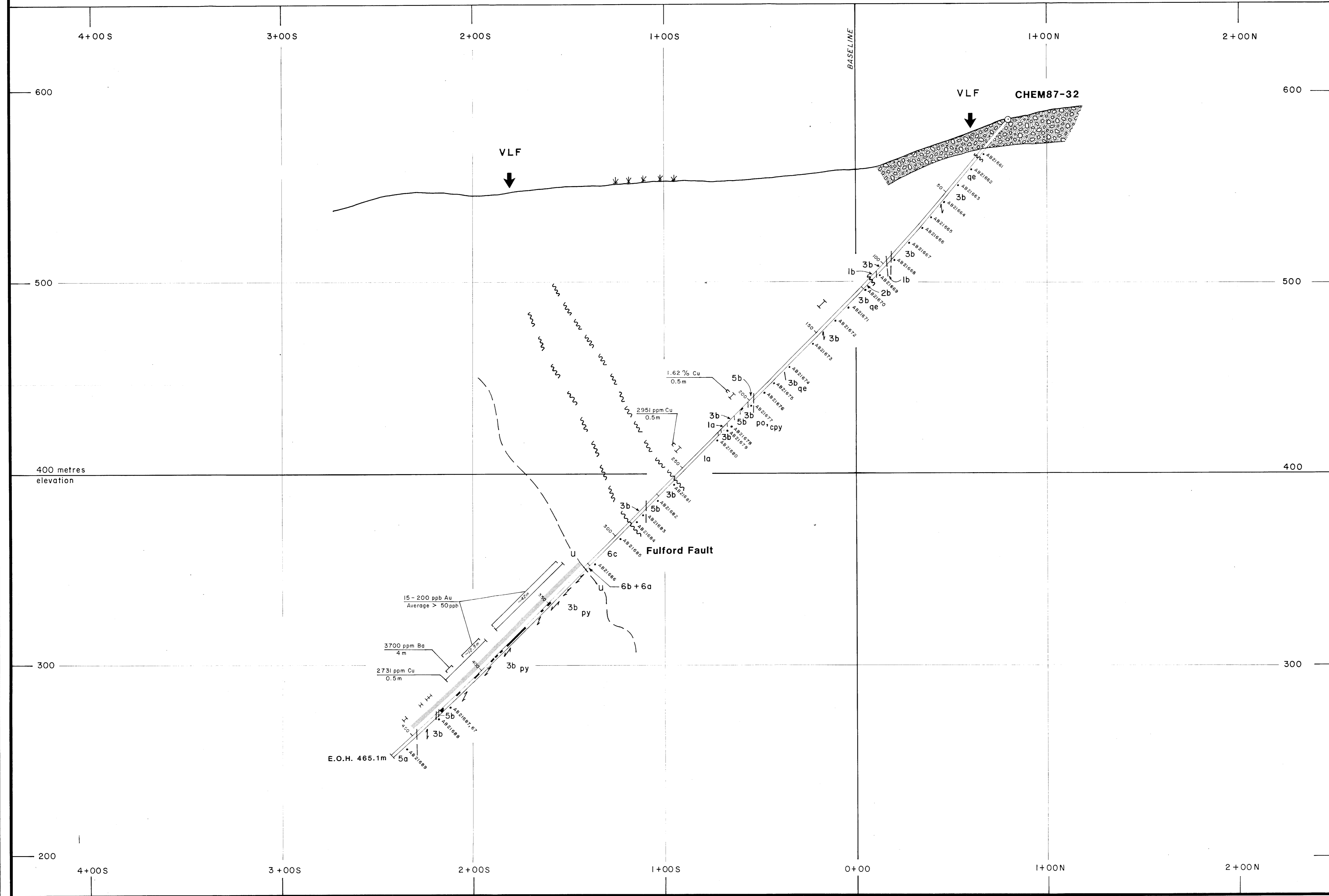


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**CHEMAINUS JOINT VENTURE**  
Vancouver Island, British Columbia

**SECTION 36 + 00E**  
(looking west)  
DDH CHEM87-32

WORK BY: DPM	PROJECT NO: 116	FIG. NO.: 6
DATE OF WORK: July, 1987	N.T.S. NO.: 92B/13	
DRAWN BY: VJG		
DATE: Sept. 9, 1987		



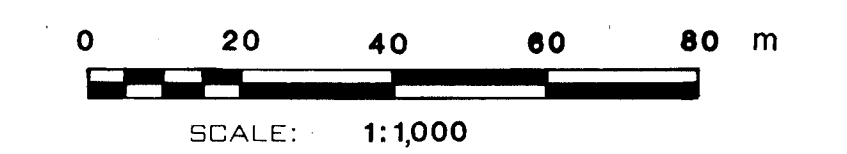
**LEGEND**

- NANAIMO GROUP**  
 6c Argillite  
 6b Greywacke  
 6a Conglomerate
- INTRUSIVE ROCK**  
 5c Peridotite  
 5b Mafic sill  
 5a Gabbro
- SICKER GROUP**  
 4b Cherty black argillite and siltstone with minor greywacke  
 4a Brown greywacke  
 3b Felsic tuff  
 3a Felsic flow  
 2b Intermediate tuff  
 2a Intermediate flow  
 1c Mixed mafic tuffaceous sediments  
 1b Mafic tuff  
 1a Mafic flow

- SYMBOLS**
- |                  |                |
|------------------|----------------|
| py pyrite        | po pyrrhotite  |
| cpy chalcopyrite | sp sphalerite  |
| ga galena        | qe quartz eyes |
| hb hornblende    | ep epidote     |
- bedding  
 foliation  
 fault  
 younging direction
- \*A819951, 65 whole rock sample, Ishikawa index >60  
 geochemical/assay sample  
 K rocks with komatiitic compositions  
 u unconformity  
 geological contact (inferred)  
 active tuff  
 significant sulphides (>2%, >10% total)

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

**16,825**



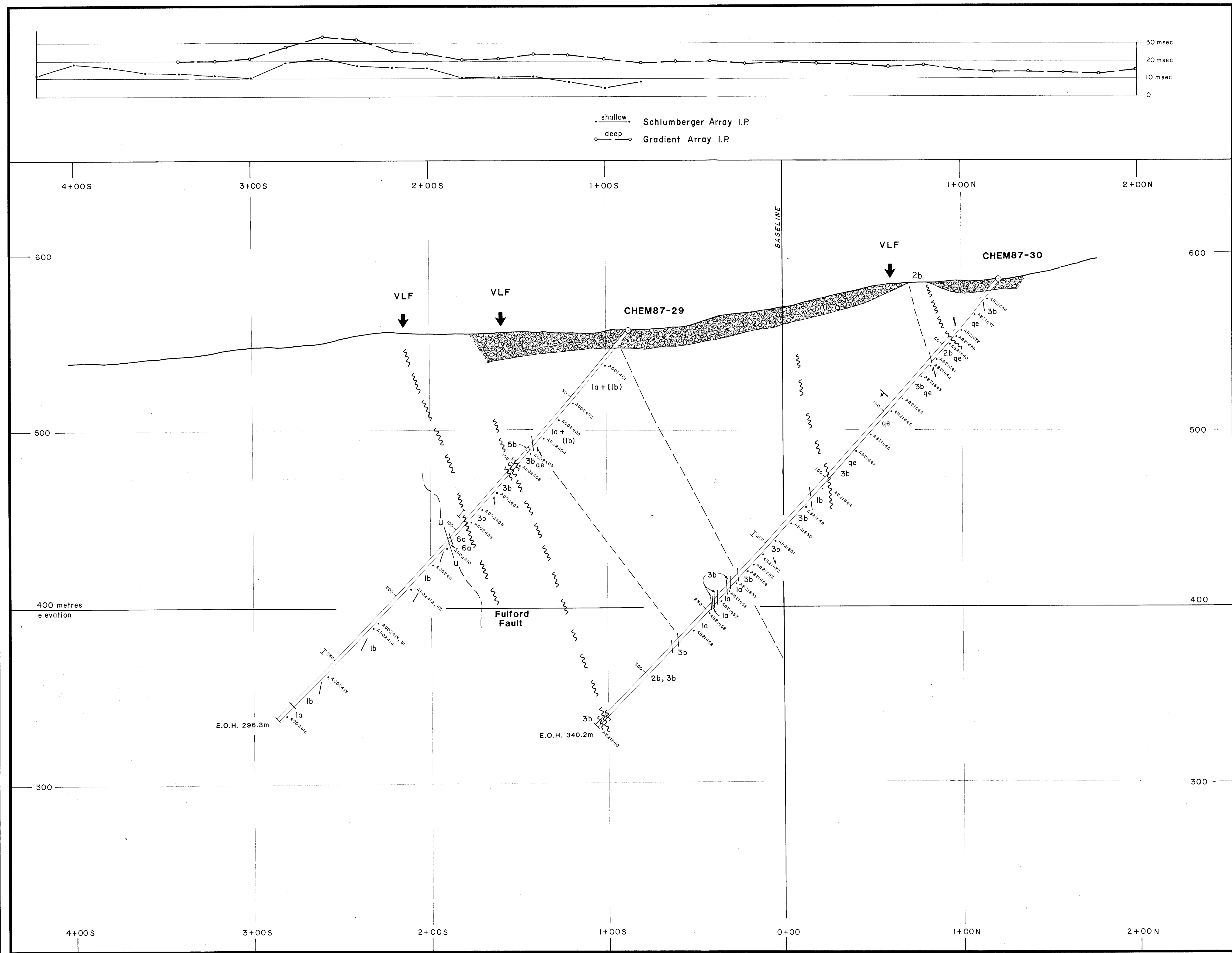
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**CHEMAINUS JOINT VENTURE**  
Vancouver Island, British Columbia

**SECTION 38 + 00E**  
(looking west)

DDHs CHEM87-29 and 30

WORK BY: JMP, DPM		
DATE OF WORK: July, 1987	PROJECT NO: 116	FIG. NO.: 7
DRAWN BY: VJG	N.T.S. NO.: 92B/13	
DATE: Sept. 9, 1987		







# LEGEND

## NANAIMO GROUP

- 6c Argillite
- 6b Greywacke
- 6a Conglomerate

## INTRUSIVE ROCK

- 5c Peridotite
- 5b Mafic sill
- 5a Gabbro

## SICKER GROUP

- 4b Cherty black argillite and siltstone with minor greywacke
- 4a Brown greywacke
- 3b Felsic tuff
- 3a Felsic flow
- 2b Intermediate tuff
- 2a Intermediate flow
- 1c Mixed mafic tuffaceous sediments
- 1b Mafic tuff
- 1a Mafic flow

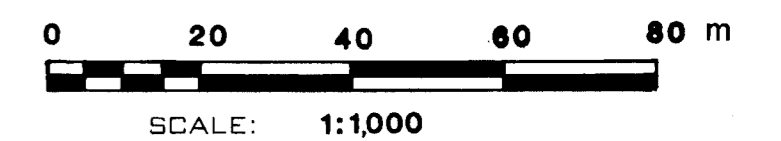
## SYMBOLS

- |                  |                |
|------------------|----------------|
| py pyrite        | po pyrrhotite  |
| cpy chalcopyrite | sp sphalerite  |
| ga galena        | qe quartz eyes |
| hb hornblende    | ep epidote     |

- bedding
- foliation
- fault
- younging direction
- whole rock sample, Ishikawa index >60
- geochemical/assay sample
- rocks with komatiitic compositions
- unconformity
- geological contact (inferred)
- active tuff
- significant sulphides (>2%, >10% total)

## GEOLOGICAL BRANCH ASSESSMENT REPORT

# 16,825

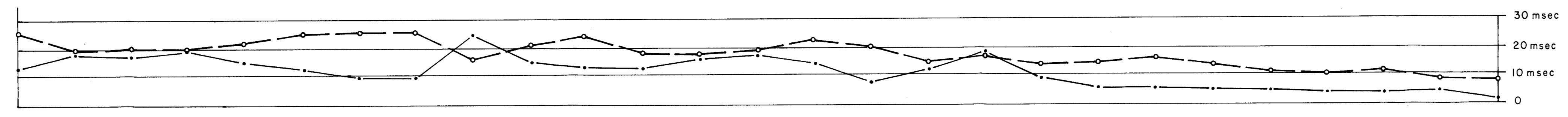


FALCONBRIDGE LTD.

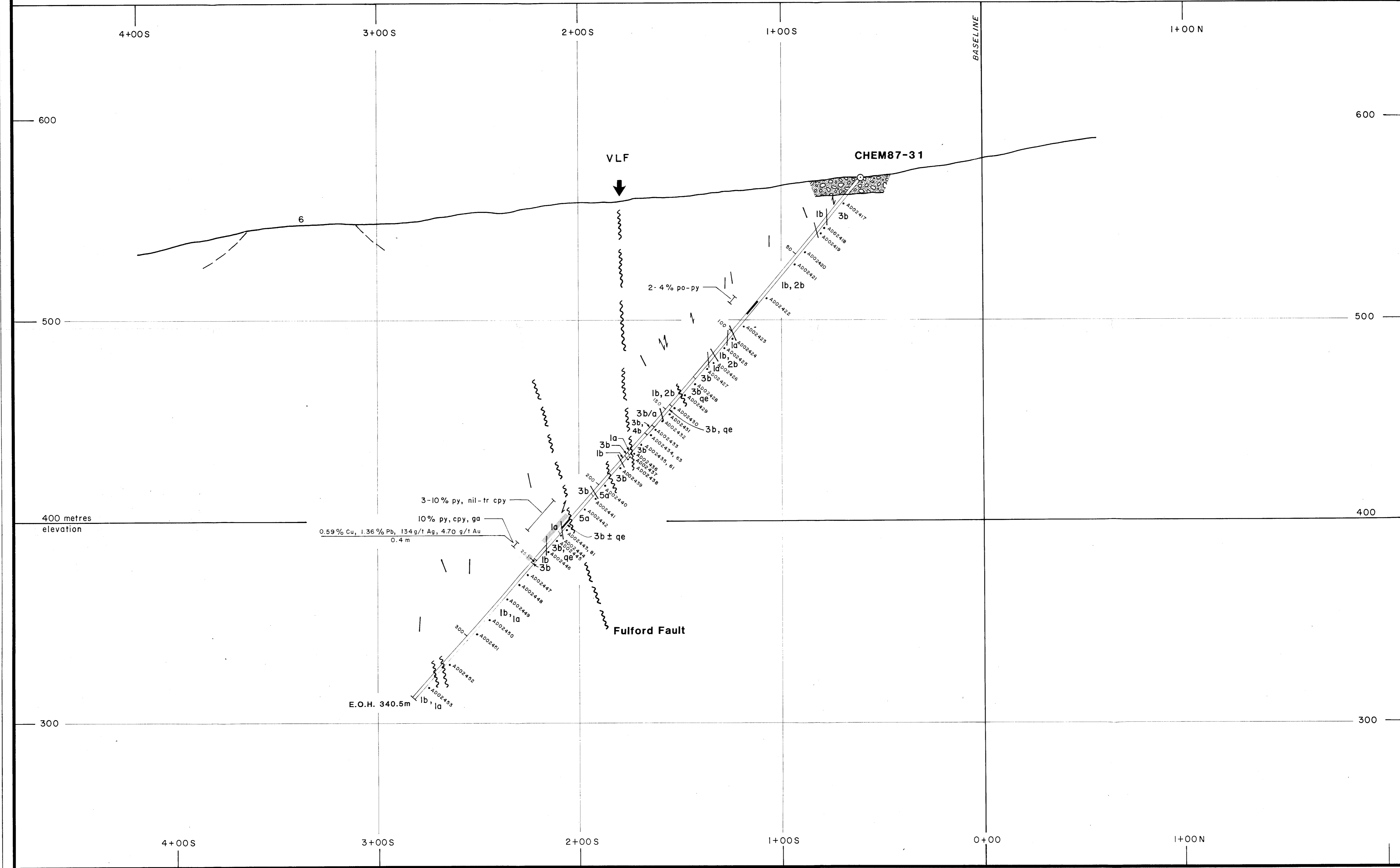
CHEMAINUS JOINT VENTURE  
Vancouver Island, British Columbia

**SECTION 40 + 00E**  
(looking west)  
DDH CHEM87-31

WORK BY: JP	PROJECT NO: 116	FIG. NO.: 8
DATE OF WORK: July, 1987	N.T.S. NO.: 92B/13	
DRAWN BY: VJG		
DATE: Sept. 9, 1987		



shallow Schlumberger Array I.P.  
deep Gradient Array I.P.

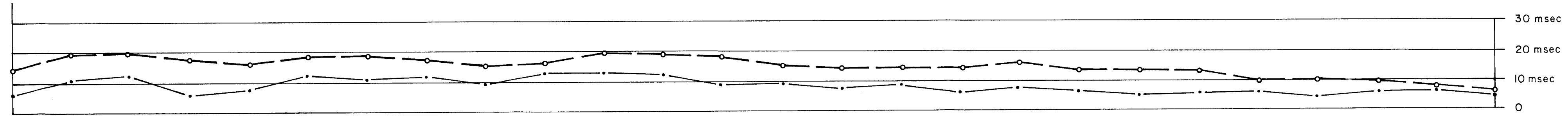


0.59% Cu, 1.36% Pb, 13.4 g/t Ag, 4.70 g/t Au  
0.4 m

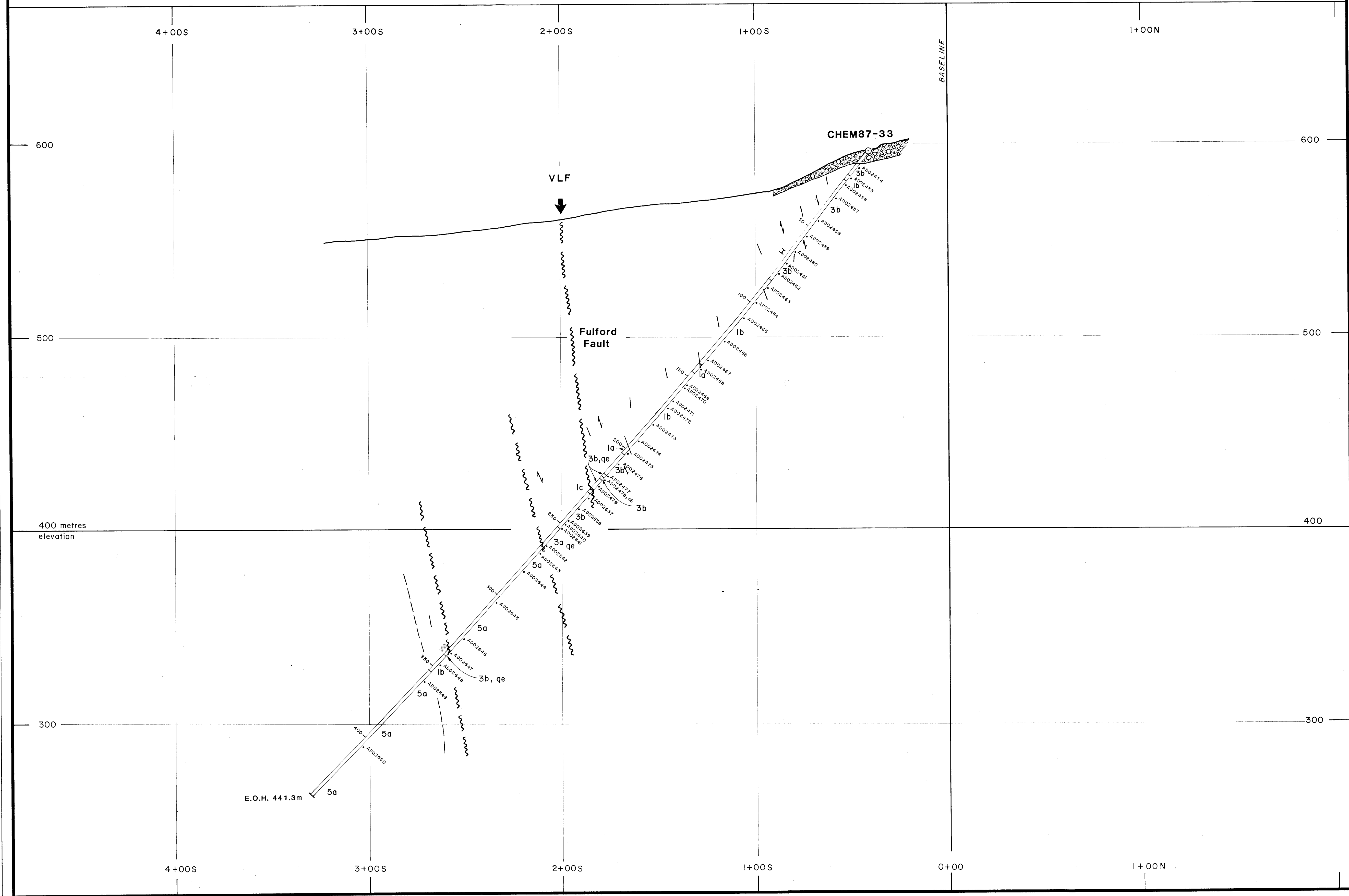
E.O.H. 340.5m

4+00S 3+00S 2+00S 1+00S 0+00 1+00N

400 metres elevation



shallow Schlumberger Array I.P.  
 deep Gradient Array I.P.



# LEGEND

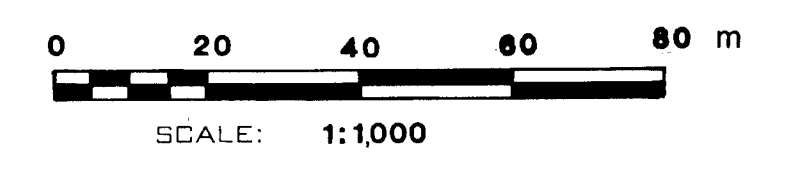
- NANAIMO GROUP**
- 6c Argillite
  - 6b Greywacke
  - 6a Conglomerate
- INTRUSIVE ROCK**
- 5c Peridotite
  - 5b Mafic sill
  - 5a Gabbro
- SICKER GROUP**
- 4b Cherty black argillite and siltstone with minor greywacke
  - 4a Brown greywacke
  - 3b Felsic tuff
  - 3a Felsic flow
  - 2b Intermediate tuff
  - 2a Intermediate flow
  - 1c Mixed mafic tuffaceous sediments
  - 1b Mafic tuff
  - 1a Mafic flow

## SYMBOLS

- py pyrite
  - cpy chalcopyrite
  - ga galena
  - hb hornblende
  - po pyrrhotite
  - sp sphalerite
  - qe quartz eyes
  - ep epidote
- bedding
  - foliation
  - fault
  - younging direction
  - whole rock sample, Ishikawa index >60
  - geochemical/assay sample
  - rocks with komatiitic compositions
  - unconformity
  - geological contact (inferred)
  - active tuff
  - significant sulphides (>2%, >10% total)

GEOLOGICAL BRANCH  
 ASSESSMENT REPORT

# 16,825



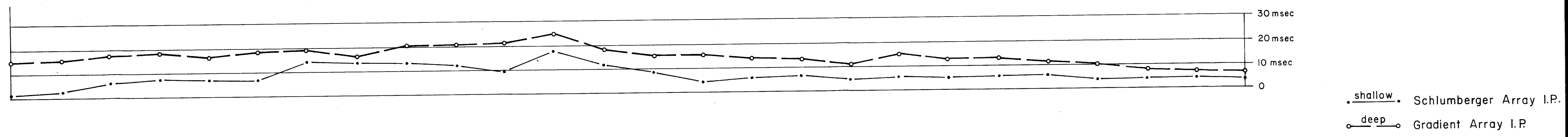
FALCONBRIDGE LTD.

**CHEMAINUS JOINT VENTURE**  
 Vancouver Island, British Columbia

**SECTION 43 + 00E**  
 (looking west)  
 DDH CHEM87-33

WORK BY: JP	PROJECT NO: 116	FIG. NO.: 9
DATE OF WORK: July, 1987	N.T.S. NO.: 92B/13	
DRAWN BY: VJG		
DATE: Sept. 9, 1987		





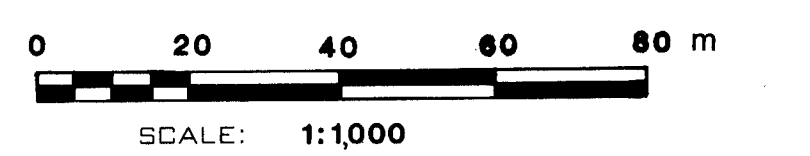
**LEGEND**

- NANAIMO GROUP**
- 6c Argillite
  - 6b Greywacke
  - 6a Conglomerate
- INTRUSIVE ROCK**
- 5c Peridotite
  - 5b Mafic sill
  - 5a Gabbro
- SICKER GROUP**
- 4b Cherty black argillite and siltstone with minor greywacke
  - 4a Brown greywacke
  - 3b Felsic tuff
  - 3a Felsic flow
  - 2b Intermediate tuff
  - 2a Intermediate flow
  - 1c Mixed mafic tuffaceous sediments
  - 1b Mafic tuff
  - 1a Mafic flow

- SYMBOLS**
- py pyrite
  - cpy chalcopyrite
  - ga galena
  - hb hornblende
  - po pyrrhotite
  - sp sphalerite
  - qe quartz eyes
  - ep epidote
- bedding
  - - - foliation
  - ~ ~ ~ fault
  - ⬇ younging direction
  - \*A19901, 05 whole rock sample, Ishikawa index >60
  - geochemical/assay sample
  - K rocks with komatiitic compositions
  - u unconformity
  - - - geological contact (inferred)
  - active tuff
  - significant sulphides (>2%, >10%total)

GEOLOGICAL BRANCH ASSESSMENT REPORT

**16,825**



FALCONBRIDGE LTD.

**CHEMAINUS JOINT VENTURE**  
Vancouver Island, British Columbia

**SECTION 47 + 00E**  
(looking west)

DDHs CHEM87-34, 35 and 36

WORK BY: DPM, SGE, JMP		
DATE OF WORK: July, 1987	PROJECT NO: 116	FIG. NO.: 10
DRAWN BY: VJG		
DATE: Sept. 9, 1987	N.T.S. NO.: 92B/13	

