7/86

1985 ASSESSMENT REPORT

on the

SALTSPRING ISLAND CLAIMS

by

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G. Hendrickson, P. Geophysicist

Saltspring Island - Victoria Mining Division
NTS 92B/11, 12, 13 14

Lat. 48°45'N Long. 123°30'W

Owned and Operated by: Kidd Creek Mines Ltd.

October 1985

GEOLOGICAL BRANCH
ASSESSMENT REPORT
Vancouver, B.C.

13,996

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SUMMARY

This report presents results of 1985 fieldwork on the Saltspring Island massive sulphide project. The purpose of the project was to explore for volcanic-hosted polymetallic, massive sulphide deposits in the Sicker Group rocks using a Kuroko deposit exploration model. The nearby 1 million ton, polymetallic Twin J and Lenora deposit, and Westmin's 20 million ton Buttle Lake deposit occur in the Sicker Belt.

The project-area consists of 10 claims (122 units) located on southwest Saltspring Island, about 70 km southwest of Vancouver in the Strait of Georgia. The claims are wholly owned by Kidd Creek Mines Ltd.

Fieldwork carried out between May 2 and July 19, 1985 consisted of detailed mapping in the vicinity of Bruce Peak and Hope Hill and continuation of exploration activity on the Musgrave Anomaly Grid in the Fulford Harbour Area. The grid was expanded by the addition of one line. Soil sampling and detailed VLF and magnetometer surveys were performed on all lines. Trenching was carried out.

Results from trenching indicate that base metal content of the rock is sufficiently high to account for soil geochemical responses detected in 1984. Narrow pyrite beds in siltstone could represent part of the conductive Musgrave zone.

The claims are underlain by steeply dipping, isoclinally folded shales, siltstones and diabases of the Sediment-Sill succession, which overlie felsic to intermediate pyroclastic rocks of the Myra Formation. Both formations of late Silurian to Devonian age have been intruded by gabbro.

The 1985 exploration expenditures totalled approximately 8802.98 of which 7700.00 has been applied to assessment.

INTRODUCTION

Location, Access and Physiography

The Saltspring Island Claims (48°45'N, 123°30'W, NTS: 92B/11, 12, 13 and 14) are located on southerwestern Saltspring Island, approximately 70 km southwest of Vancouver and 35 km north of Victoria within the Strait of Georgia (Figure 1).

Saltspring Island is about 29 km long and 11 to 16 km wide. The project area is restricted to the southwest part of the Island, an area of about 50 square km. It is bounded by Musgrave Road, on the northeast and by the sea on the southwest.

Access to Saltspring Island is gained by ferry from either Tsawwassen or Horseshoe Bay on the mainland, or from Schwartz Bay or Crofton on Vancovuer Island. Ferries arrive at Fulford Harbour, Long Harbour, or Vesuvius. A small float plane base at Ganges provides charter service.

Five, moderately well maintained municipal gravel roads provide access to the network of old, unmaintained logging roads and trails, on the property.

Topography is moderate and undulatory. Elevation ranges from sea level to 700 m at Bruce Peak. Brucey Lake, one kilometre southeast of Bruce Peak, represents the only significant accumulation of fresh water. Most of the island is dry due to low annual precipitation

The thickness of glacial drift is variable. The southwestern part of the project-area displays drift

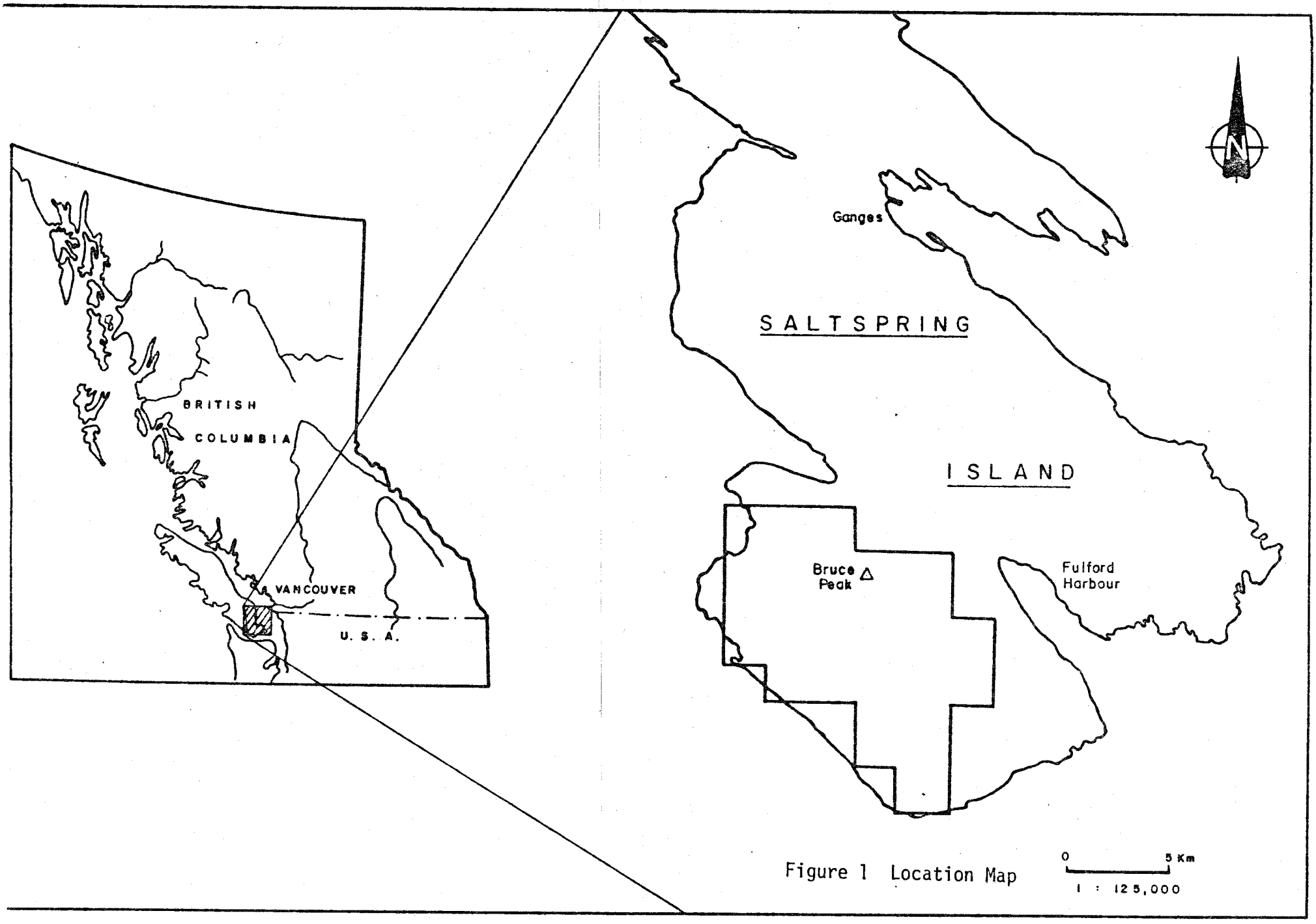

Figure 1 Location Map

thickness in excess of 2 m. Ridges and hills are devoid of overburden.

PROPERTY HISTORY

Two mineral claims (Mesabi and Gogebic) covered the magnetite-iron formation on the northwestern slope of Mount Sullivan as early as 1918.

Between 1930 and 1940, a 20 m long adit was driven down-plunge of an auriferous quartz vein located about 1.3 km east of Cape Keppel on the southernmost part of the island.

Gold in quartz veins has been reported by islanders at Beaver Point on the easternmost part of the island. These latter two occurrences are not mentioned in literature.

February 1984 saw the staking of 8 claims (116 units) by Van Alphen Exploration Services Ltd. of Smithers, B.C., on behalf of Kidd Creek Mines Ltd. Two more claims (6 units) were staked during the summer of 1984.

1985 WORK PROGRAMME

The Saltspring Island massive sulphide project was initiated to explore for a polymetallic massive sulphide deposit hosted in the volcanic Myra Formation of the Sicker Group. Work was continued in 1985 in order that a better understanding of geology could be gained and to define the cause of a zone of coincident soil and ground geophysical anomalies.

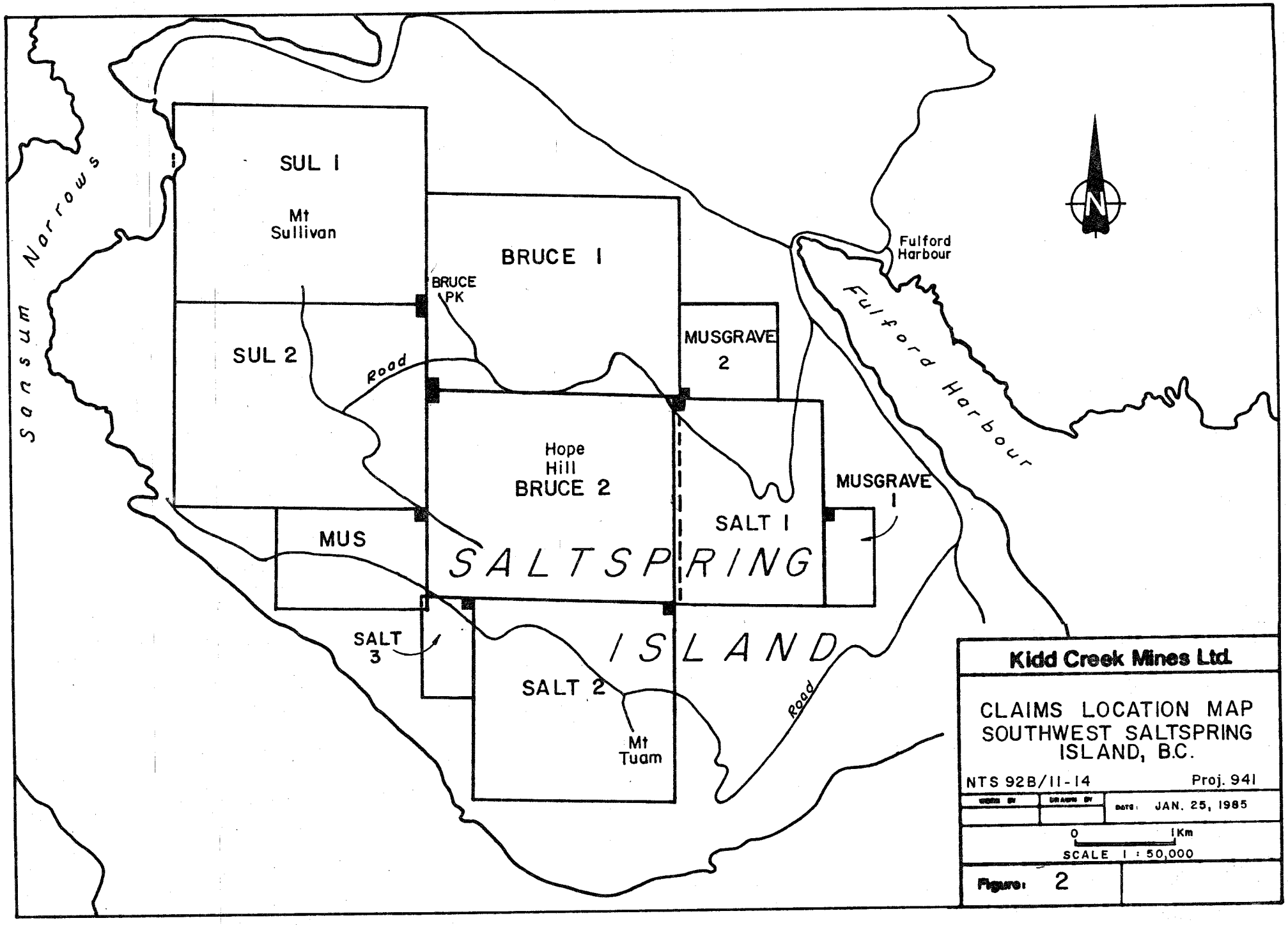
SUL 1
Mt Sullivan
BRUCE 1
BRUCE PK
SUL 2
Road
MUSGRAVE 2
Hope Hill
BRUCE 2
MUSGRAVE 1
SALT 1
MUS
SALTSPRING
ISLAND
SALT 3
SALT 2
Mt Tuam
Road
Sansum Narrows
Fulford Harbour
Fulford Harbour
N
Kidd Creek Mines Ltd.
CLAIMS LOCATION MAP
SOUTHWEST SALTSPRING
ISLAND, B.C.
NTS 92B/11-14
Proj. 941
DATE: JAN. 25, 1985
0 1Km
SCALE 1 : 50,000
Figure: 2

TABLE 1

Claim	Units	Record No.	Location Date	Record Date	*Expiry Date
†Salt 1	12	1168	02/23/84	03/08/84	03/08/89
†Bruce 1	20	1171	02/19/84	03/08/84	03/08/89
†Musgrave 1	2	1340	07/19/84	07/30/84	07/30/91
†Musgrave 2	4	1344	08/02/84	08/07/84	08/07/90

* Pending acceptance of assessment work by Gold Commissioner's office.

† Comprise the Hope group

Detailed geological mapping was conducted in the vicinity of Bruce Peak and Hope Hill (Figure 4). The Musgrave Anomaly Grid (Figure 4 and 5) was expanded by the cutting of an addional 620 m long line. Soil sampling and detailed VLF and magnetometer surveys were performed over 9.62 km of cutline. Trenching was carried out on Line F.

GEOLOGY

Regional Setting

Saltspring Island occupies a small portion of the eastern margin of the Cordilleran Insular Belt. The Belt is a highly varied assortment of volcanic, sedimentary, metamorphic and plutonic rocks ranging in age from Paleozoic to Tertiary. The allochthonous nature for the Insular belt proposed by several authors (Jones, 1977; Monger and Price, 1979; Monger and Irvine, 1980) has been widely accepted.

The Sicker Group is exposed in three separate structural highs indicated in Figure 3. The Saltspring Project occurs within the Cowichan-Horne Lake Uplift, which extends from Vancouver Island across to Saltspring Island.

The Sicker Group has been subdivided into five formations as shown by Table 2. The Myra Formation is of prime exploration importance.

The Nitinat Formation (oldest within the Sicker Group) is composed predominantly of mafic volcanic rocks. This unit consists of massive flows but more commonly it is flow breccia comprised of fragments of dark green metabasalt. Phenocrysts of uralitized pyroxene are

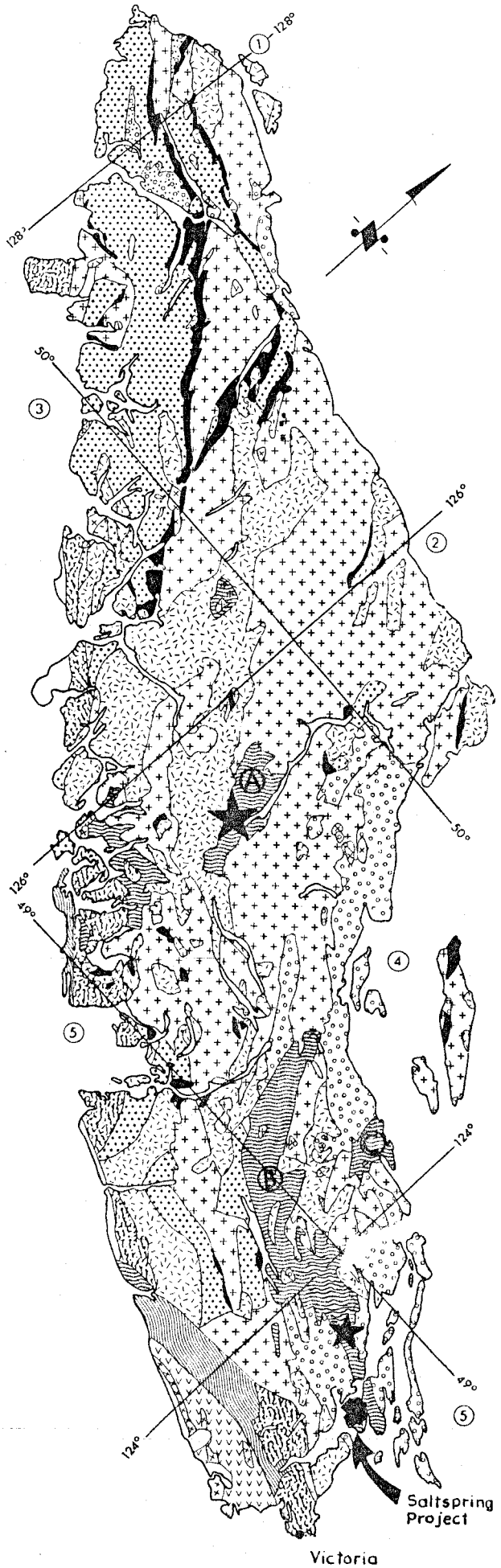

Figure 3

Geological sketch map of Vancouver Island.

LEGEND

	CARMANAH GROUP	MIDDLE TERTIARY
	CATFACE INTRUSIONS	EARLY TO MIDDLE TERTIARY
	METCHOSIN VOLCANICS	EARLY TERTIARY
	NANAIMO GROUP	LATE CRETACEOUS
	QUEEN CHARLOTTE GROUP KYUQUOT GROUP	LATE JURASSIC TO EARLY CRETACEOUS
	LEECH RIVER FORMATION PACIFIC RIM COMPLEX	
	ISLAND INTRUSIONS	EARLY AND (?) MIDDLE JURASSIC
	BONANZA GROUP	EARLY JURASSIC
	VANCOUVER GROUP PARSON BAY FORMATION QUATSINO FORMATION KARMUTSEN FORMATION	LATE AND (?) MIDDLE TRIASSIC
	SICKER BELT	PALEOZOIC
	METAMORPHIC COMPLEXES	JURASSIC AND OLDER
★	Buttle Lake - 21×10^6 tons	2% Cu, 6% Zn 2.5 oz Ag, 0.06 oz Au
★	Twin J - Produced 19×10^6 Lb Cu 738×10^3 oz Au Stockpiled 6·7% Zn	

① ALERT BAY – CAPE SCOTT, 92L – 102I (G.S.C. PAPER 74–8)

② BUTE INLET, 92 K (IN PREPARATION), O.P. MAP 345

③ NOOTKA SOUND, 92 E (IN PREPARATION)

④ ALBERNI 92 F (G.S.C. PAPER 68–50)

⑤ VICTORIA, 92 B, C (FIELD WORK IN PROGRESS: SEE G.S.C. PAPERS 75–1A, p. 21–26; 76–1A, p. 107–111, 77–1A, p. 287–294.)

A — BUTTLE LAKE UPLIFT
B — COWICHAN – HORNE LAKE UPLIFT
C — NANOOSE UPLIFT

MILES
0 20 40

TABLE 2

TABLE OF FORMATIONS OF VANCOUVER ISLAND

SEQUENTIAL LAYERED ROCKS

	PERIOD		STAGE	GROUP	FORMATION	SYM-BOL	AVE. THICK. (m)	LITHOLOGY
CENOZOIC					late Tert. volc's of Port McNeill	Tvs		
					SOOKE	mpTsb		conglomerate, sandstone, shale
			EOCENE to OLIGOCENE	CARMANAH	HESQUIAT	eoTc	1,200	sandstone, siltstone, coglomerate
					ESCALANTE	eTe	300	conglomerate, sandstone
			early EOCENE		METCHOSIN	eTm	3,000	basaltic lava, pillow lava, breccia, tuff
MESOZOIC		LATE	MAESTRICHTIAN	NANAIMO	GABRIOLA	uKGa	350	sandstone, conglomerate
					SPRAY	uKs	200	shale, siltstone
					GEOFFREY	uKG	150	conglomerate, sandstone
					NORTHUMBERLAND	uKn	250	siltstone; shale, sandstone
			CAMPANIAN		DE COURCY	uKdc	350	conglomerate, sandstone
					CEDAR DISTRICT	uKcd	300	shale, siltstone, sandstone
					EXTENSION - PROTECTION	uKep	300	conglomerate, sandstone, shale, coal
					HASLAM	uKh	200	shale, siltstone, sandstone
			SANTONIAN		COMOX	uKc	350	sandstone, conglomerate, shale, coal
		EARLY	CENOMANIAN	QUEEN	Conglomerate Unit	lKqc	900	conglomerate, greywacke
			ALBIAN					
			APTIAN?	CHARLOTTE	Siltstone–Shale Unit	lKqp	50	siltstone, shale
			VALANGINIAN	KYUQUOT	LONGARM	lKl	750	greywacke, conglomerate, siltstone
			BARREMIAN					
	JURASSIC	LATE	TITHONIAN		ONE TREE	lKot	500	siltstone, argillite, conglomerate
			CALLOVIA		KAPOOSE	uJK		
		EARLY MIDDLE	TOARCIAN?	BONANZA	Volcanics	lJb	1,500	basaltic to rhyolitic lava, tuff, breccia, minor argillite, greywacke
			PLIENSBACHIAN		HARBLEDOWN	lJh		argillite, greywacke, tuff
			SINEMURIAN					
			NORIAN		PARSON BAY	uTrpb	450	calcareous siltstone, greywacke, silty-limestone, minor conglomerate, breccia
	TRIASSIC	LATE	KARNIAN	VANCOUVER	QUATSINO	uTrQ	400	limestone
					KARMUTSEN	muTrk	4,500	basaltic lava, pillow lava breccia, tuff
		MID	LADINIAN		Sediment - Sill Unit	T ds	750	metasiltstone, diabase, limestone
PALEOZOIC	PENN. and PERM.				BUTTLE LAKE	CPBL	300	limestone, chert
					"NANOOSE"	CPss	600	metagreywacke, argillite, schist, marble
					Sediment- Sill Unit	PTds	500	metagreywacke, argillite diabase
	DEV. or EARLIER?			SICKER	MYRA	PM	1,000	silicic tuff, breccia argillite
					NITINAT	PN	2,000	basic breccia, tuff, lava, greenschist

CRYSTALLINE ROCKS, COMPLEXES OF POORLY DEFINED AGE

NAME	SYM-BOL	ISOTOPIC AGE Pb/U	ISOTOPIC AGE K/Ar	LITHOLOGY
SOOKE INTRUSIONS silicic	Tg		32–59	quartzdiorite, trondhjemite, agmatite, porphyry
SOOKE INTRUSIONS basic	Tgb		31–49	gabbro, anorthosite, agmatite
METCHOSIN SCHIST, GNEISS	Tmn		47	chlorite schist, gneissic amphibolite
LEECH RIVER FM.	JKL		38–41	phyllite, mica schist, greywacke, argillite, chert
PACIFIC RIM COMPLEX	JKP			greywacke, argillite, chert, basic volcanics, limestone
ISLAND INTRUSIONS	Jg		141–181	granodiorite, quartzdiorite, granite, quartz monzonite
WESTCOAST COMPLEX silicic	PMns	264	163–192	quartz-feldspar gneiss, metaquartzite, marble
WESTCOAST COMPLEX basic	PMnb			hornblende-plagioclase gneiss, quartz diorite, agmatite, amphibolite
diabase sills	PMb			
metavolcanic rocks	PMmv			metavolcanic rocks, minor metasediments, limestone, marble
SALTSPRING INTR	Pg	>390		metagranodiorite, metaquartzdiorite, metaquartz porphyry
TYEE QTZ. PORPHYRY				
COLQUITZ GNEISS	Pns	>390		quartz feldspar gneiss
WARK DIORITE GNEISS	Pnb	>200	163–182	hornblende-plagioclase gneiss quartz diorite, amphibolite

(after Muller, 1981)

conspicuous. Beds of massive, dark coloured tuff occur locally and are cut by irregular intrusive bodies of metadiabase or metagabbro (Muller, 1981). Muller (1980) estimated these beds have a thickness of 1500 m and an age of Ordovician to Silurian.

The Myra Formation represents a thick succession (750-1000 m) of bedded volcanic and sedimentary rock, including rhyolitic to dacitic breccia, minor andesite flows, tuff and argillite, siltstone, greywacke and minor conglomerate. The formation overlies the Nitinat Formation, possibly with minor unconformity (Muller, 1980). At Buttle Lake and Mount Sicker, this formation hosts polymetallic, massive sulphide deposits. It is Late Silurian to Devonian in age (Muller, 1981).

Tyee Quartz Porphyry and the Saltspring Intrusion intrude the Nitinat and Myra Formations. They occur as sills, dykes and a leucocratic granitoid pluton, composed of quartz, albite and secondary mafic minerals (Muller, 1981). Radiometric dating suggests a Late Silurian age.

The Sediment-Sill succession consists of pelitic sedimentary rocks with intercalated diabase sills/dykes and gabbro. The latter appear to exceed the sedimentary rocks in aggregate thickness (Muller, 1981). The unit may be coeval with the Buttle Lake Formation or slightly older. It is estimated to be 500 m thick.

The Buttle Lake Formation marks the top of the Sicker Group. It is composed dominantly of limestone, commonly crinoidal with associated chert, greywacke, and argillite. The formation is about 150 to 450 m thick (Fleming et al, 1983). It has been dated by paleontology

as Middle Pennsylvanian and Early Permian (Muller, 1980).

The Sicker Group has been deformed and metamorphosed primarily in the greenschist facies. Folding and tectonic fabrics are variably developed, however, schistose and lineated rocks are common.

Property Geology

Introduction

The Saltspring Island geology is comprised of lower Sicker Group formations including the Nitinat and Myra Formations, the Sediment-Sill succession and the Saltspring Intrusions. These are uncomformably overlain by the Cretaceous Nanaimo Group comprised of sandstone and conglomerate.

Detailed geologic mapping aided by 1:20,000 scale aerial photographs was performed in the vicinity of Hope Hill and Bruce Peak.

The new information resulting from this phase of exploration have been incorporated into Figure 4, Saltspring Island Property Geology.

The outcrop is abundant over much of the terrain but often bedrock is obscured by a thin veneer of ground vegetation. Hand stripping the vegetation reveals excellent quality bedrock exposure for mapping.

Lithology and Stratigraphy

Geology of the Saltspring project claims is shown at a scale of 1:10,000 on Figure 4. The more detailed geology (1:2,000) of the Musgrave anomaly is shown on Figure 5.

Five Formations were recognized on Saltspring Island. From oldest to youngest these formations are:

Myra Formation (map-unit 1), Saltspring Intrusion (map-unit 2), Sediment unit (map-unit 3), and the Mafic Intrusion unit (map-unit 4). All these Formations belong to the Sicker Group. The Youngest stratigraphic unit is the Extension-Protection Formation (map-unit 5) of the Nanaimo Group.

Lithological descriptions of the mapped units are given in Appendix A. The terms gabbro and diabase are used synonymously in this report.

The Sediment-Sill unit proposed by Muller (1980) has been divided into the Sediment unit (map-unit 3) and the Mafic Intrusion unit (map-unit 4).

Volcanic rocks of the Myra Formation (map-unit 1), occupy the northern part of the Saltspring Island project-area and are considered to be of greatest exploration importance; the sedimentary rocks of the Sediment unit (map-unit 4), lie mainly in the south and west part of the project area.

Volcanic rocks consist of felsic to intermediate tuff/crystal tuff/lapilli tuff, minor massive felsic flows or hypabyssal intrusions and mafic flows. Felsic tuffs are commonly laminated with light green and pale white bands. Where thinly bedded, these bands are often undulatory

In the course of geologic mapping in 1984 (Mallalieu et al, 1984) criteria for discrimination between mafaic volcanic rock (map-unit 3 m) and the Mafic Intrusion Unit (map-unit 4) was based primarily on grain size.

Cause for re-interpretation of 1984 geologic data was provided by two small outcrops of feldspar-phyric

andesite. Much of the previously interpreted mafic volcanic rock delineated in 1984 must now be considered to be a fine grained phase/chill margin of the gabbro.

The mafic volcanic rock encountered on the north side of the Musgrave Conductor has distinctly different textural characteristics than the feldspar-phyric andesite encountered on Hope Hill (sample AB 13655, Appendix E). This rock-type may represent the older Nitinat Formation which lies along strike with it on the west sode of Sansum Narrows.

The Sediment unit (map-unit 3) is composed predominantly of black shale.

Hypabyssal intrusions abound in the project-area. The Saltspring Intrusion (map-unit 2) is a holocrystalline, leucocratic quartz porphyry. It is present on the north shore of Burgoyne Bay., The Mafic Intrusion unit (map-unit 4) consists of gabbro/diabase, feldspar-glomerophyric diabase and amphibole pegmatite plutons and sills. The unit occurs throughout the Myra Formation and Sediment unit.

Structure

The volcanic and sedimentary rock succession present on the Saltspring project is steeply dipping and is interpreted to be overturned and isoclinally folded, as shown by the schematic cross-section on Figure 4. Fold axes have a shallow plunge to the northwest.

The succession generally strikes northwest with a mean dip of 57° to the southwest. Bedding is common in the felsic tuffs and siltstones of the Myra Formation. Soft sediment deformation is locally exemplified by load casts and slump structures. Angular shale rip-up clasts are locally present and suggest the presence of weak

marine currents. Facing determinations are made difficult by fine-grain size in siltstone, the prevalence of laminate-type bedding and by the presence of minor fold structures. These determinations in laminated siltstones indicate bedding tops to the west, but the overall folding geometry is insufficiently known to relate them to fold limbs in the stratigraphy.

Schistosity in the shales of the Sediment unit (map-unit 3) is moderately well developed. Intersections of schistosity and subtle bedding are rare.

Two major faults occur in the project area. In the north, the Fulford Harbour Fault occupies the centre of the Burgoyne Bay-Fulford Harbour Valley and trends 120°. In the south, the Tzuhalem Fault separates the Extension-Protection Formations from the Sediment unit. The Tzuhalem Fault is northwesterly trending and northeasterly dipping (Groves, 1960). It brings in contact a small wedge of the Extension-Protection Formation conglomerate (map-unit 5) of the Nanaimo Group with the Sediment and Mafic Intrusion units of the Sicker Group.

Elsewhere in the project-area, faulting was not perceived as a major feature.

Metamorphism

The Myra Formation, the Sediment and Mafic Intrusion units on Saltspring Island have been affected by low-grade greenschist facies metamorphism.

Contact metamorphism was noted adjacent to gabbroic intrusions. It predates regional metamorphism of sedimentary and volcanic rocks and resulted in localized zones of silicification and bleaching of country rock near the intrusive contact.

Mineralization

Bedded and fracture controlled pyrite mineralization in black siltstone, cherty siltstone was detected in a ditch adjacent to the Musgrave Road, just north of Line F, 26+60W.

A euxinic environment likely generated some sulphide i.e., pyrite disseminations and blebs; however 1.5 cm thick pyrite beds likely required a hydrothermal source.

Trenching

A 15 m long trench was dug west from Line F 26+60W on the Musgrave Anomaly Grid. Black siltstone and cherty siltstone hosting minor pyrite disseminations and rare beds was intersected. Trenching was only about 50% successful due to thickening of the overburden and strong ground water flow.

GEOPHYSICS

Introduction

To aid in the delineation of trenches are not conductive on the MUSGRAVE grid. V.L.F. and magnetic survey of all the grid lines was completed. This survey complemented the existing horizontal loop coverage of the grid. This work was done on May 3 , July 18 and July 19 of 1985.

Personnel

HUTTEMANN, Tim - Junior Geophysicist - Kidd Creek Mines Ltd.
- conducted the field work, Vanc.

HENDRICKSON, Grant - Staff Geophysicist - Kidd Creek Mines Ltd.
- Supervisor

MELNYK, Jay - Student, Geophysical Assistant - Kidd Creek Mines Ltd.

Field work was conducted by T. Hutteman and J. Melnyk

Equipment

1 - Scintrex MP-3 base station total field magnetometer
1 - Scintrex I.G.S. - 2 systems control console - a portable combination V.L.F./Total field magnetometer

Data Presentation

The geophysical data is shown as profiles on a plan map of the grid. These maps are at a scale 1 to 2500. Profiles of the V.L.F. vertical field strength and the magnetic total field intensity are presented. This format facilitates correlation of conductive and magnetic zones.

Computer listings of the following data are provided in Appendix F.

a) V.L.F. in-phase vertical field strength.

b) V.L.F. quadrature vertical field strength.

c) V.L.F. horizontal field strength.

d) magnetic intensity.

Survey Procedure

For the magnetic survey, a base station magnetometer was run continuously (sampling every 60 seconds) to monitor the diurnal shift of the earth's magnetic field. The base station was situated to isolate it from cultural effects and it's location was checked prior to the survey to ensure against a steep magnetic gradient in the area. A portable magnetometer was used

with the sensor mounted on a back-frame. Accuracy per reading is plus or minus five nanotesla.

Both instruments were total-field measuring, microprocessor-controlled instruments capable of performing automatic diurnal corrections and plotting when connected to each other and a suitable printer.

A base station standard of 56,000 nanotesla was assumed for all diurnal corrections, by taking several measurements prior to the actual magnetic survey.

The VLF survey was conducted simultaneously with the magnetic survey by using the VLF receiver mounted in the same console as the magnetometer and a sensor mounted below the mag. sensor. Since the assumed trends of the anomalous zone(s) and structures were approximately north/south, the VLF communication station of Seattle (24.8 kHz) was used. Seattle is approximately southeast of the Musgrave Grid and provided good signal strength at the grid location.

Three components of the VLF-magnetic field were measured. These include the vertical in-phase, the vertical quadrature and the horizontal field strength. The sign convention for the vertical in-phase is as follows; when facing the station a field dipping to your right will be positive.

The magnetometer and VLF data was stored in the 32k memory of the system's control console. The combination of the VLF receiver and magnetometer effectively halved the time taken to complete the VLF/magnetometer survey and proved to be convenient, reliable and durable.

Discussion of the Data

Conductive zones, some with direct magnetic anomaly correlation have been very well delineated by this survey. The eastern two conductive zones relate well to the horizontal loop electromagnetic anomalies found and reported upon last year (Mallalieu et al, 1984).

The conductive zone on the extreme west side of the grid has not been well delineated since it is located at the western edge of the grid. A perusal of the geology map suggests this anomaly is due to the siltstone/iron formation present in the area

It should be noted that the grid lies on a steep east facing slope thus there is a general east tilt (or negative) to the V.L.F. electromagnetic field.

In studying the V.L.F. data the reader should refer to the data listings at the back of this report. The horizontal field strength data is particularly interesting. This survey is an excellent example of the efficiency of V.L.F. surveying.

All of the V.L.F. and magnetic anomalies are near surface and should be subcropping beneath the thin veneer of overburden present on the property.

Conclusion

Interesting conductive and magnetic zones have been further delineated by the survey. These zones must also be correlated with the geology and geochemistry of the area to see if further work, such as trenching and drilling, is warranted.

GEOCHEMISTRY

Introduction

Soil Sampling

The geochemical soil survey conducted between May 2 and May 4 was performed in order to determine if base/precious metal anomalies would be generated where there had been no significant geophysical responses.

Sampling of B-Fe soil horizon was carried out at 20 m intervals along cut lines A through K on the Musgrave Grid (Figure 5). 295 soil samples were collected.

Soil horizon development is excellent in the vicinity of the Musgrave Anomaly Grid. The B-Fe horizon is commonly as little as 2 cm below the organic-rich A horizon and in some places, is up to 40 cm thick.

Soil sampling was carried out by using a soil mattock. Collecting sixty to seventy samples per man-day was considered good progress.

Samples were collected in Kraft paper envelopes, partially dried at room temperature, and delivered to Acme Analytical Laboratories Ltd. (Acme), Vancouver. The samples were dried at 60°C, seived to -80 mesh and analysed. All pulp and oversize were retained.

The -80 mesh fraction was analysed as follows:- a 0.500 g sample was digested with 3 ml of a 3:1:2 solution of $HCl-HNO_3-H_2O$ at 95°C for one hour and diluted to 10 ml with water. The solution was then

analysed by inductively coupled plasma (ICP) for Ag, Cu, Pb, Zn and Mn. Using the same sample preparation as above, Atomic Absorption Spectrometry (AA) analysis was performed for Au and Ba on alternate samples. A larger sample (10 g) was used in this case.

Rock Sampling

Rock geochemical sampling was mainly restricted to areas in which detailed mapping was carried out and to where trenching was performed.

Pulps from 9 rock samples taken from the Musgrave Anomaly Grid in 1984 were re-analysed for major oxides and minor elements. A total of 77 rock samples were collected. Locations are plotted on the geology map (Figures 4 and 5).

Sample masses ranged from 0.5 to 4 kg of unweathered material. All samples were pulverized to -100 mesh. Acme Analytical Laboratories Ltd. determined Cu, Pb, Zn, Ag and Mn by ICP. Ba and Au was determined by AA methods. X-Ray Assay Laboratories Limited (X-RAY) of Don Mills, Ontario, performed whole rock analysis by X-ray fluorescence (XRF) and 35-element analysis by neutron activation (NAA) and direct current plasma analysis (DCP).

Results

Presentation

The location of all soil geochemical samples is shown on Figure 8. Soil geochemical results are presented on Figures 9 and 10.

The location of all rock samples is shown on Figures 4 and 5.

Base and precious metal results for rock and soil are listed in Appendes B, C and D. Statistics generated on soil and rock geochemical results are displayed in Tables 4 and 5. Lithology for rock samples may be determined from the geology maps (Figures 4 and 5). Computer print-out reports for whole-rock analyses are given in Appendix E.

Soil Anomalies

Soil geochemical responses are disappointing. The most significant trend consists of three weak Cu anomalies overlying mafic volcanic rock between lines C and F, just above the lower logging road.

These anomalies carry values of 170,103 and 119 ppm repectively. Downslope of the Line D anomaly is a small anomalous soil zone. This zone contains a weak and strong Zn anomaly (335 and 676 ppm). An elevated Ag response of 0.9 ppm is associated with the latter sample. All other Cu anomalies are weak and isolated.

Zn anomalies are relatively rare. Where present they are in close proximity to strong Cu values.

Apart from the weak Ag anomaly on Line D, (see above), the only other anomalous Ag value (0.8 ppm) overlies non-mineralized feldspar crystal tuff on Line C, 25+40W.

Two samples are anomalous in Mn. A weakly anomalous sample (3670 ppm) at about 0+80W, Line B is interpreted to overlie feldspar crystal tuff. The strongly

Table 3
Definition of Soil Geochemical Anomalies

	Strong	Weak	Background
Ag (ppm)	> 1.6	> 0.7	0.3
Au (ppb)	> 60	> 20	7
Cu (ppm)	> 200	> 100	36
Mn (ppm)	> 500	>3500	880
Pb (ppm)	> 50	n/a	10
Zn (ppm)	> 600	> 300	110

TABLE 4
Statistics on Soil Geochemical Results

	Cu	Pb	Zn	Ag	Mn
Number of Samples	295	295	295	295	295
Minimum (ppm)	3	2	15	0	73
Maximum (ppm)	618	25	676	1	24118
Mean (ppm)	35	8	90	0	897
Standard Deviation (ppm)	42	5	65	0	1472
Median (ppm)	26	7	75	0	633
Mode (ppm)	18	2	55	0	324
Skewness	1	0	1	2	1
Kurtosis	131	4	35	17	210
Number of Classes	20	20	20	20	20
Class Interval (ppm)	31	2	34	1	1203

TABLE 5
Statistics on Rock Geochemical Results - Trench F

	Cu	Pb	Zn	Ag	Mn	*Au	Ba
Number of Samples	59	59	59	59	59	59	59
Minimum (ppm)	8	2	5	0	43	1	16
Maximum (ppm)	70	26	2166	4	5777	22	2162
Mean (ppm)	64	7	407	1	683	5	155
Standard Deviation (ppm)	55	5	550	1	1248	5	289
Median (ppm)	38	5	133	0	375	4	90
Mode (ppm)	30	2	15	0	200	1	38
Skewness	1	1	1	1	1	1	1
Kurtosis	5	7	5	8	12	5	40
Number of Classes	20	20	20	20	20	20	20
Class Interval (ppm)	14	2	109	1	287	2	109

* Sample results reported in ppb.

anomalous sample (24118 ppm) taken at 8+50W, Line E is located immediately downslope of a jaspillite outcrop.

Pb, Au and Ba display no anomalous values

Rock Sampling Results

Most of the rock samples collected were taken from Trench F and its immediate vicinity (Figure 5). Base nd precious metal content was determined (Appendix D).

Metal values are low but are considered to be sufficiently high to be reflected in soil geochemical results (Mallalieu et al, 1984).

Discussion of Rock Geochemical Results with Respect to 1984 Soil Geochemical Results

The Cu response of rock sampled is generally low (about 60 ppm); however twelve samples display results in excess of 120 ppm. This would be sufficient to explain most of the 1984 soil geochemical anomalies.

Rock geochemical results for Pb are dismal (Table 5). Results are typically in the range of 2-10 ppm. These responses may or may not be reflected in soil in the vicinity of the Musgrave Conductor (10-25 ppm). Evidence for a two fold enrichment in soil relative to rock is not evident therefore it cannot be unequivocally stated that soil geochemical results generated in 1984 have been explained.

The Zn content of rock from Trench F is variable, ranging from 5-2166 ppm. If a threefold

hydromorphic enrichment in soil relative to rock is considered then the Zn content of bedrock in the vicinity of Trench F is more than sufficient to explain a 1984 mean soil geochemical response of 172 ppm.

The Mn content of the rock is typically 400-500 ppm. Responses in soil (1984) were typically 500-1200 ppm in the vicinity of the Musgrave Conductor. A two fold enrichment in soil would not be unexpected.

Au and Ba responses were low in rock and in soil; one must therefore conclude that it is not present in either medium in any appreciable quantity.

CONCLUSIONS

Detailed mapping around Bruce Peak and Hope Hill has confirmed the extensive nature of both the lapilli tuff and feldspar crystal tuff units. Feldspar crystal tuff has now been delineated over a strike length of 4 km through the Musgrave Anomaly Grid.

The presence of feldspar-phyric andesite on Hope Hill has provided cause for re-interpretation of 1984 geologic data. Much of what was previously interpreted as mafic volcanic rock must now be considered a fine grained phase of the gabbro.

Bedded and fracture controlled pyrite mineralization in siltstone, cherty-siltstone was detected in a ditch and trench adjacent to the Musgrave Road, just north of Line F, 26+60W. Pyrite disseminations and blebs were likely generated in a euxinic environment; however more thickly bedded pyrite (1.5 cm) likely required a

hydrothermal source.

The bedded pyrite is conductive. It could represent a part of the Musgrave Conductor (Mallalieu et al, 1984). Most black siltstone has a sufficiently high Zn content to explain Zn responses in 1984 soil geochemical samples (Mallalieu et al, 1984).

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APPENDIX A
LITHOLOGICAL DESCRIPTIONS OF MAPPED ROCK-TYPES
SALTSPRING ISLAND

APPENDIX A
LITHOLOGICAL DESCRIPTIONS OF MAPPED ROCK-TYPES

Unit 5a Polymictic conglomerate

Polymictic conglomerate was mapped northeast of Cape Keppel on the north side of South Mount Tuam Road. Matrix-supported clasts (2 to 40 cm, 50%) are rounded and consist of chert, diorite and jasper magnetite. The matrix is beige to light green, and psammitic in nature. Granules of quartz, shale and sandstone (<4mm, <20%) are randomly distributed throughout the fine-grained groundmass. Jasper clasts (35%) are composed of angular jasper fragments (<10 m, 40%), supported in a massive, grey-white cryptocrystalline quartz-magnetite matrix.

Bedding is rare.

Unit 5b Siltstone

Siltstone is a black to dark grey, fine-grained gritty textured rock. Locally, dark and light-grey bedding is displayed on fracture/joint facies. It is locally calcareous, with carbonate existing as aphanitic interstitial grains (<2%).

Unit 4a Gabbro/Diabase

Gabbro/diabase of the mafic intrusion unit is massive, medium green, and fine- to coarse-grained. Plagiocalse and actinolite (0.5-10 mm, 50:50) phenocrysts are subhedral blocky to euhedral lath-like. They are randomly distributed throughout a fine-grained subophitic textured matrix of identical mineralogy. Massive equigranular phases will contain minor interstitial anhedral plagioclase and actinolite.

Unit 4b Feldspar-glomerophyric diabase

Feldspar-glomerophyric diabase (Plate 3a) is a fine-grained, medium dark green, massive rock in which glomerophyric textures are generated by the clustering of individual plagioclase phenocrysts into rosettes (1-2 cm <20%)) or snowflake patterns. The groundmass is composed predominantly of fine-grained actinolite and isolated, equant greenish-white (1-2 mm, 7%) plagioclase. This lithology often occurs near the diabase/gabbro contact and may be a contact phase.

Unit 4c Amphibole pegmatite

Amphibole pegmatite is a massive black rock composed of random oriented euhedral to subhedral (5-15 mm) amphibole laths (50-80%) locally dusted with red powdery hematite. Plagioclase is white, anhedral to subhedral lath-like (2 mm) and interstitial to amphibole.

Units 3s Blackshale-siltstone

The blackshale-silststone is a fine-grained fissile, to weakly fissile, dull black rock. It is thinly bedded. When in close proximity to diabase sill, silicification of this rock results in the 'bleaching' to a pale green-white.

Carbonate occurs as individual grains (<0.5 mm, <5%) randomly distributed throughout or as rare, narrow veinlets (1-6 mm) accounting for up to 40% of the rock. Veinlets are aligned parallel to cleavage. Minor pyrrhotite and pyrite (totalling <2%) occur locally as disseminations and blebs. Pyrite accounts for up to 5% of the mode as smears on fracture surfaces. Graptolite? or plant debris(?), fossils were encountered on a road quarry about 2 km south of Bruce Peak .

Unit 3p Muscovite Schist

Muscovite schist was intersected on the south side of Musgrave Road in the vicinity of the road quarry It is a fine-grained, pale green, highly lustrous, schistose rock. A rusty weathered unknown metallic mineral (1 mm, <2%) is randomly distributed throughout. It is stretched into the plane of schistosity.

Unit 3g Greywacke, psammite

Greywacke is a massive, fine-grained grey to grey-green rock composed of detrital quartz, feldspar and calcite. Rock fragments are not evident.

Psammite is a light grey, fine-grained rock containing minor (<1%) fragments of feldspar (10 mm) hosted in a quartz-rich groundmass. Orange-weathered, needle-like (3 x 0.2 mm, 5%) mica grains defines a slight schistosity.

Unit 3c Marble and impure carbonate

Marble is a massive, fine-grained, transluscent white rock exhibiting a rough "scaley" fracture surface. The rock effervesces vigorously upon exposure to HCl. Impure carbonate is a fine-grained, (<0.1 mm) grey to grey-green rock with a gritty texture. Bedding is defined by subtle colour variations and by 5 to 10 mm thick, pale white siliceous interbeds. The rock reacts only slightly to HCl.

Unit 3i Lapilli tuff

Lapilli tuff was recognized in only one locality within the Sediment unit. It was intersected immediately west of Mount Tuam near the eastern property boundary of the Tibetan Buddhist retreat.

It is a medium green, slightly chloritic, massive, intermediate to mafic-composition rock. Randomly distributed throughout are anhedral white feldspar crystals (1 to 2 mm, 2 to 3%) and lithic clasts of felsic composition (1 by 2 cm, <5%). Lapilli are aligned parallel to a mild deformation fabric.

Unit 3m Mafic volcanic rocks

Mafic volcanic rocks are massive, fine- to coarse-grained and dark green. Only rarely is a slight foliation evident. Greenish-white, anhedral sub-equant to subhedral lath-like plagioclase phenocrysts (1 to 3 mm, 1 to 7%) are randomly distributed throughout a fine-grained groundmass. Matrix is subophitic textured. It is composed of subhedral lath-like amphibole (green to black) <2 mm, 40-50%) partially enclosing plagioclase laths.

Flow textures and fabrics are conspicuously absent.

Unit 3d Dacite

Dacite is a massive, buff-white weathering unit. The fresh surface is light greenish, composed of a fine-grained aggregate of quartz, feldspar and amphibole. A lineation is defined by acicular, dark grey amphiboles (1 by 10 mm) aligned parallel to a weak foliation.

Unit 2a Quartz porphyry

Quartz porphyry of the Saltspring Intrusion is a leucocratic granitoid rock occupying the north shore of Burgoyne Bay.

Grey to light-blue subhedral equant quartz-eyes (3 to 5 mm, 5%) and anhedral fine-grained hornblende and biotite clots (5mm, 5 to 15%) are randomly distributed throughout a fine-grained grey to white quartz-feldspar matrix.

Unit 1t Rhyolitic tuff

Rhyolitic tuff is a pale white to pale green, fine-grained to cryptocrystalline, finely laminated, cherty rock. Needle-like plagioclase crystallites (0.1 by 1 mm) are rare. Crystallites are off-white, aligned parallel to bedding and locally account for up to 5% of the mode.

The best example of rhyolitic tuff exhibiting laminated bedding is on Line B; east side of Musgrave Road (Plate 4a). Beds, 3 cm thick contain white, elliptical feldspar crystals (1.5 by 4 mm, 25%) alternate with beds 4 cm thick devoid of crystals (cherty interbeds). Grading in crystal-rich beds is not evident.

Unit 1x Feldspar crystal tuff

Feldspar crystal tuff is encountered north of the Musgrave Road and is most evident in the vicinity of the eastern half of the Musgrave Grid.

It is a grey fine-grained moderately schistose to massive intermediate composition rock. Randomly distributed throughout are equant to elliptical, cream-white plagioclase crystals (1 mm, 20%) on elongate, off-white, feldspar-rich lapilli (2 by10 mm, 10%), aligned parallel to schistosity (Plate 4b). Minor equant quartz crystals (<1 mm, <1%) are disseminated throughout.

Unit 1p Chlorite-sericite schist, chlorite schist

Chlorite-sericite schist and chlorite schist are gradational units. They are usually in close proximity to feldspar crystal tuff.

The rock is pale-green, lustrous, aphanitic, and strong to weakly schistose. Rarely highly diffuse, elongate feldspar crystals (2 by 4 mm) account for up to 10% of the mode.

Unit li Lapilli tuff, lapilli-block tuff

Lapilli tuff, lapilli-block tuff was encountered in three areas within the Myra Formation:

a) the western slopes of Hope Hill
b) the northern and western slopes of Bruce Peak and
c) the western and northern slopes of Mount Sullivan

The rock is monolithic in all localities except in location (a), where its heterolithic nature is displayed. The matrix of the rock is dark green, medium-grained, moderately chloritic to finegrained grey. Sausseritized feldspar crystals (3 mm, 7%) are randomly distributed throughout. Composition ranges from mafic to intermediate.

Lapilli are buff-white, about 3 cm in diameter rounded to angular and account for 5 to 7% of the rock. Elliptical blocks, up to 100 cm in length and 15 cm in width (25%) are buff-white to grey-green and aligned parallel to a mild schistosity. Locally, (Hope Hill) a grey reaction 1 m 4 cm thick, surrounds the blocks.

Clasts are intermediate to mafic in composition. Mafic clasts are composed of fine-grained, lath-like actinolite and feldspar. Anhedral feldspar crystals (3mm, 15%) are randomly distributed throughout.

Unit 1q Quartz-feldspar-phyric rhyodacite to rhyolite

Quartz-feldspar-phyric rhyodacite to rhyolite is a massive grey green to pale-white, fine-grained rock. Cream-white, subhedral blocky to anhedral plagioclase phenocrysts (3 mm, 10%) and locally subhedral quartz phenocrysts (1 mm, <2%) are randomly distributed throughout.

Randomly oriented, barren, white quartz veins (<100 cm) are locally present.

Unit 1d Dacite

Dacite is a massive grey to light-green, fine-grained, aphyric to feldspar phyric rock. Subhedral lath-like to blocky feldspar phenocrysts (1 mm, 3%) are yellowish-green and randomly distributed throughout.

Unit 1m Mafic volcanic rocks.

Mafic volcanic rocks are, for the most part, identical in composition and texture as those described in Unit 3m.

The mafic volcanic rock encountered on the Musgrave Grid is massive, fine-grained, grey with a slight mauve tinge. Anhedral, grey to transluscent grey feldspar phenocrysts (1 mm, 2%) are distributed through a non-chloritized matrix. Flow textures and fabrics are conspicuously absent.

Outcrop is typically rubbly and exposure is poor.

Unit 1a Amphibolite

Is a massive, blue-green, moderately chloritic rock. Amphibole is subhedral lath-like (< 1 cm, 80%),

randomly oriented throughout. Feldspar is anhedral, equant, and interstitial to amphibole. It is up to 5 mm in diameter. It displays a greenish-white rim and dark green core. It locally accounts for 50% of the rock.

Amphibolite likely represents a metamafic flow.

Unit 1s Siltstone

Siltstone is a fine-grained blocky, massive to moderately fissile rock. It is thinly bedded and is 'bleached' to a pale green-white when in proximity to diabase sills.

Interbeds (< 1 cm) of grey to black siltstone (50%) and white, fine-grained felsic tuff (50%) locally exhibit graded bedding (Plate 6). Angular rip-up clasts of siltstone (3 x 15 cm, 15%) encompased in felsic tuff was encountered in one locality.

"Pillow-like" concretionary structures up to 50 cm in diameter were recognized in a single outcrop east of Burgoyne Bay.

Unit 1c Impure carbonate

Impure carbonate was encountered in a single outcrop on the Musgrave Grid. It is fine-grained, sugary textured, siliceous rock exhibiting diffuse thin, white and blue-black (4 cm) bedding. It is moderately calcareous.

The rock is likely related to interbedded siltstone and felsic tuff.

APPENDIX B
BA ANALYSES OF SELECTED SOIL GEOCHEMICAL SAMPLES
1984
SALTSPRING ISLAND

SAMPLE#	Ba ppm
STD CB-400	1220
SA 20741	261
SA 20742	338
SA 20748	328
SA 20749	656
SA 20761	474
SA 20766	1387
SA 20767	920
SA 20838	603
SA 20839	907
SA 20840	1146
SA 20841	899
SA 20843	562
SA 20844	711
SA 20845	489
SA 20850	1536
SA 20854	873
SA 20855	509
SA 20856	640
SA 20857	386
SA 20859	367
SA 20860	543
SA 20864	488
SA 20865	508
SA 20866	900
SA 20895	128
SA 20896	211
SA 20897	517
SA 20911	500
SA 20980	418
SA 20981	242
SA 20982	213
SA 20983	226
SA 20984	105
SA 21001	739
SA 21007	834
SA 21008	967
SA 21011	561
SA 21012	778
SA 21017	122
SA 21018	234
SA 21019	230
STD CB-400	1199

APPENDIX C
SOIL GEOCHEMICAL RESULTS - 1985
SALTSPRING ISLAND

	Cu	Pb	Zn	Ag	Mn	Au*	Ba
SA08001	50.00	19.00	92.00	0.10	870.00	1.00	403.00
SA08002	70.00	4.00	99.00	0.20	911.00	0.00	0.00
SA08003	37.00	1.00	89.00	0.10	1082.00	1.00	274.00
SA08004	84.00	3.00	116.00	0.10	2678.00	0.00	0.00
SA08005	75.00	30.00	90.00	0.30	1760.00	5.00	243.00
SA08006	23.00	1.00	85.00	0.10	2293.00	0.00	0.00
SA08007	43.00	17.00	64.00	0.20	547.00	1.00	468.00
SA08008	48.00	22.00	331.00	0.30	1395.00	0.00	0.00
SA08009	55.00	6.00	124.00	0.20	1610.00	1.00	377.00
SA08010	18.00	15.00	73.00	0.20	892.00	0.00	0.00
SA08011	7.00	14.00	88.00	0.30	736.00	1.00	291.00
SA08012	30.00	10.00	96.00	0.80	585.00	0.00	0.00
SA08013	24.00	35.00	291.00	0.50	1817.00	5.00	623.00
SA08014	16.00	9.00	140.00	0.20	389.00	0.00	0.00
SA08015	40.00	10.00	165.00	0.10	1812.00	1.00	351.00
SA08016	34.00	2.00	146.00	0.20	1883.00	0.00	0.00
SA08017	70.00	3.00	115.00	0.30	1187.00	1.00	253.00
SA08018	22.00	9.00	71.00	0.10	799.00	0.00	0.00
SA08019	21.00	13.00	210.00	0.30	2546.00	2.00	332.00
SA08020	18.00	10.00	73.00	0.10	605.00	0.00	0.00
SA08021	17.00	8.00	82.00	0.10	1822.00	1.00	322.00
SA08022	7.00	14.00	91.00	0.20	403.00	0.00	0.00
SA08023	60.00	25.00	676.00	0.90	3202.00	3.00	717.00
SA08024	16.00	14.00	91.00	0.30	835.00	0.00	0.00
SA08025	30.00	15.00	335.00	0.30	3944.00	1.00	461.00
SA08026	170.00	12.00	151.00	0.20	3202.00	0.00	0.00
SA08027	86.00	8.00	161.00	0.10	2761.00	1.00	535.00
SA08028	26.00	2.00	108.00	0.10	940.00	0.00	0.00

* Results reported in ppb, all others reported in ppm.

	Cu	Pb	Zn	Ag	Mn	Au*	Ba
[illegible]	34.00	15.00	114.00	[illegible]	1039.00	[illegible]	429.00
SA08030	36.00	9.00	88.00	0.10	483.00	0.00	0.00
SA08031	29.00	9.00	90.00	0.10	760.00	1.00	400.00
SA08032	18.00	16.00	164.00	0.10	763.00	0.00	0.00
SA08033	20.00	11.00	100.00	0.10	1492.00	1.00	357.00
SA08201	35.00	19.00	137.00	0.40	1611.00	1.00	348.00
SA08202	32.00	11.00	135.00	0.10	1943.00	0.00	0.00
SA08203	16.00	9.00	66.00	0.10	450.00	1.00	262.00
SA08204	18.00	9.00	47.00	0.10	396.00	0.00	0.00
SA08205	78.00	10.00	183.00	0.20	1907.00	1.00	677.00
SA08206	35.00	9.00	153.00	0.10	1349.00	0.00	0.00
SA08207	29.00	11.00	71.00	0.10	661.00	1.00	306.00
SA08208	18.00	8.00	113.00	0.10	533.00	0.00	0.00
SA08209	31.00	13.00	64.00	0.20	359.00	1.00	309.00
SA08210	15.00	15.00	126.00	0.10	1531.00	0.00	0.00
SA08211	35.00	6.00	114.00	0.10	685.00	1.00	683.00
SA08212	17.00	10.00	171.00	0.10	2083.00	0.00	0.00
SA08213	50.00	12.00	106.00	0.10	914.00	1.00	539.00
SA08214	125.00	9.00	93.00	0.60	804.00	0.00	0.00
SA08215	33.00	10.00	132.00	0.10	683.00	3.00	536.00
SA08216	22.00	11.00	73.00	0.10	592.00	0.00	0.00
SA08217	28.00	11.00	104.00	0.10	1113.00	1.00	293.00
SA08218	34.00	10.00	116.00	0.10	766.00	0.00	0.00
SA08219	43.00	10.00	131.00	0.30	1051.00	1.00	1126.00
SA08220	45.00	9.00	90.00	0.10	884.00	0.00	0.00
SA08221	36.00	5.00	135.00	0.20	2586.00	1.10	776.00
SA08222	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SA08223	[illegible]	11.00	209.00	[illegible]	671.00	1.00	1558.00
SA08224	26.00	11.00	130.00	[illegible]	[illegible]	0.00	0.00
SA08225	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SA08226	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SA08227	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SA08228	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

* Results reported in ppb, all others reported in ppm.

	Cu	Pb	Zn	Ag	Mn	Au*	Ba
	80.00	13.00	78.00	0.30	946.00	1.00	335.00
SA08250	63.00	12.00	79.00	0.30	458.00	0.00	0.00
SA08251	119.00	10.00	301.00	0.10	2380.00	1.00	445.00
SA08252	49.00	18.00	55.00	0.10	421.00	0.00	0.00
SA08253	27.00	8.00	158.00	0.10	829.00	1.00	307.00
SA08254	34.00	21.00	239.00	0.20	2372.00	0.00	0.00
SA08255	12.00	15.00	139.00	0.10	1959.00	1.00	247.00
SA08256	22.00	17.00	128.00	0.10	1684.00	0.00	0.00
SA08257	108.00	6.00	100.00	0.10	1056.00	1.00	239.00
SA08258	19.00	6.00	109.00	0.10	810.00	0.00	0.00
SA08259	18.00	9.00	79.00	0.20	377.00	4.00	293.00
SA08240	23.00	15.00	135.00	0.10	627.00	0.00	0.00
SA08241	24.00	10.00	62.00	0.10	484.00	3.00	333.00
SA08242	36.00	8.00	47.00	0.10	507.00	0.00	0.00
SA08243	40.00	2.00	55.00	0.10	762.00	1.00	392.00
SA08244	72.00	2.00	34.00	0.10	247.00	0.00	0.00
SA08245	65.00	7.00	97.00	0.30	611.00	5.00	328.00
SA08246	20.00	3.00	93.00	0.10	533.00	0.00	0.00
SA08247	24.00	8.00	86.00	0.10	410.00	1.00	382.00
SA08248	14.00	5.00	50.00	0.10	337.00	0.00	0.00
SA08249	34.00	3.00	55.00	0.10	265.00	3.00	406.00
SA08250	16.00	4.00	32.00	0.10	375.00	0.00	0.00
SA08251	21.00	9.00	40.00	0.10	398.00	1.00	416.00
SA08252	46.00	2.00	43.00	0.10	281.00	0.00	0.00
SA08253	25.00	5.00	65.00	0.10	405.00	1.00	382.00
SA08254	53.00	2.00	50.00	0.20	388.00	0.00	0.00
SA08255	62.00	13.00	64.00	0.20	1089.00	10.00	322.00
SA08256	75.00	6.00	50.00	0.10	447.00	2.00	0.00
SA08257	38.00	6.00	159.00	0.30	741.00	4.00	508.00
SA08258	109.00	2.00	143.00	0.40	1299.00	0.00	0.00
SA08259	95.00	9.00	368.00	0.60	1541.00	11.00	1546.00
SA08260	59.00	13.00	539.00	0.40	2032.00	0.00	0.00
SA08261	23.00	6.00	127.00	0.40	592.00	1.00	440.00

* Results reported in ppb, all others reported in ppm.

	Cu	Pb	Zn	Ag	Mn	Au*	Ba
	38.00	20.00	129.00	0.30	1494.00	0.00	0.00
SA08263							
	68.00	9.00	106.00	0.20	1041.00	2.00	575.00
SA08264							
	27.00	11.00	77.00	0.30	821.00	0.00	0.00
SA08265							
	18.00	9.00	101.00	0.20	1349.00	1.00	504.00
SA08266							
	34.00	8.00	129.00	0.10	952.00	0.00	0.00
SA08267							
	30.00	5.00	66.00	0.10	727.00	2.00	506.00
SA08268							
	21.00	13.00	93.00	0.30	513.00	0.00	0.00
SA08269							
	37.00	8.00	126.00	0.30	613.00	1.00	470.00
SA08270							
	21.00	6.00	55.00	0.10	431.00	0.00	0.00
SA08271							
	18.00	2.00	46.00	0.30	191.00	1.00	328.00
SA08272							
	16.00	2.00	76.00	0.20	374.00	0.00	0.00
SA21039							
	28.00	2.00	58.00	0.10	335.00	2.00	392.00
SA21040							
	25.00	2.00	63.00	0.20	634.00	0.00	0.00
SA21041							
	31.00	2.00	49.00	0.10	410.00	5.00	426.00
SA21042							
	13.00	6.00	62.00	0.10	796.00	0.00	0.00
SA21043							
	13.00	3.00	49.00	0.20	516.00	1.00	484.00
SA21044							
	28.00	16.00	72.00	0.10	1083.00	0.00	0.00
SA21045							
	38.00	6.00	67.00	0.10	527.00	1.00	311.00
SA21046							
	36.00	11.00	78.00	0.10	561.00	0.00	0.00
SA21047							
	38.00	2.00	68.00	0.10	335.00	3.00	388.00
SA21048							
	23.00	13.00	56.00	0.10	491.00	0.00	0.00
SA21049							
	40.00	10.00	62.00	0.10	549.00	1.00	364.00
SA21050							
	29.00	8.00	54.00	0.10	262.00	0.00	0.00
SA21051							
	31.00	2.00	71.00	0.30	324.00	1.00	279.00
SA21052							
	24.00	9.00	63.00	0.10	536.00	0.00	0.00
SA21053							
	74.00	11.00	96.00	0.10	796.00	2.00	341.00
SA21054							
	33.00	7.00	67.00	0.10	339.00	0.00	0.00
SA21055							
	25.00	8.00	76.00	0.20	380.00	1.00	307.00
SA21056							
	8.00	5.00	36.00	0.10	239.00	0.00	0.00
SA21057							
	20.00	7.00	82.00	0.10	977.00	2.00	336.00
SA21058							
	18.00	5.00	111.00	0.10	1187.00	0.00	0.00
SA21059							
	36.00	14.00	107.00	0.20	341.00	3.00	485.00
SA21061							
	50.00	5.00	81.00	0.30	344.00	1.00	357.00

* Results reported in ppb, all others reported in ppm.

	Cu	Pb	Zn	Ag	Mn	Au*	Mn
	28.00	5.00	77.00	0.30	341.00	0.00	0.00
SA21063	148.00	16.00	124.00	0.20	2411.00	5.00	159.00
SA21064	46.00	6.00	68.00	0.20	569.00	0.00	0.00
SA21065	44.00	13.00	79.00	0.20	582.00	1.00	299.00
SA21066	17.00	13.00	173.00	0.20	1440.00	0.00	0.00
SA21067	36.00	12.00	138.00	0.10	2624.00	1.00	342.00
SA21068	77.00	14.00	396.00	0.50	1144.00	0.00	0.00
SA21069	41.00	9.00	44.00	0.20	428.00	3.00	315.00
SA21070	56.00	4.00	104.00	0.30	1345.00	0.00	0.00
SA21071	40.00	8.00	62.00	0.20	317.00	1.00	246.00
SA21072	119.00	9.00	82.00	0.40	599.00	0.00	0.00
SA21073	49.00	6.00	93.00	0.40	365.00	1.00	258.00
SA21074	22.00	3.00	67.00	0.10	1174.00	0.00	0.00
SA21075	30.00	4.00	45.00	0.10	377.00	5.00	275.00
SA21076	30.00	8.00	82.00	0.10	430.00	0.00	0.00
SA21077	618.00	8.00	58.00	0.20	543.00	1.00	309.00
SA21078	39.00	8.00	61.00	0.10	770.00	0.00	0.00
SA21079	37.00	10.00	49.00	0.20	418.00	1.00	271.00
SA21080	14.00	13.00	63.00	0.20	490.00	0.00	0.00
SA21082	17.00	6.00	77.00	0.10	736.00	0.00	0.00
SA21083	28.00	8.00	55.00	0.10	693.00	45.00	290.00
SA21084	34.00	12.00	76.00	0.20	1097.00	0.00	0.00
SA21085	33.00	4.00	44.00	0.10	300.00	1.00	240.00
SA21086	31.00	2.00	59.00	0.10	848.00	0.00	0.00
SA21087	19.00	5.00	68.00	0.10	541.00	3.00	299.00
SA21088	22.00	3.00	63.00	0.10	305.00	0.00	0.00
SA21089	19.00	7.00	69.00	0.10	439.00	1.00	219.00
SA21090	29.00	3.00	66.00	0.20	469.00	0.00	0.00
SA21091	29.00	6.00	58.00	0.20	548.00	1.00	218.00
SA21092	46.00	3.00	143.00	0.10	1055.00	0.00	0.00
SA21093	30.00	11.00	59.00	0.10	209.00	1.00	240.00
SA21094	36.00	5.00	46.00	0.20	184.00	0.00	0.00
SA21095	19.00	9.00	45.00	0.10	164.00	0.00	200.00

* Results reported in ppb, all others reported in ppm.

	Cu	Pb	Zn	Ag	Mn	Au*	Ba
SA21097	22.00	9.00	60.00	0.10	976.00	0.00	0.00
SA21098	9.00	10.00	71.00	0.10	1645.00	1.00	245.00
SA21099	25.00	10.00	68.00	0.10	437.00	0.00	0.00
SA21100	24.00	7.00	72.00	0.20	396.00	1.00	200.00
SA21101	31.00	2.00	68.00	0.10	345.00	0.00	0.00
SA21102	40.00	3.00	76.00	0.10	374.00	2.00	342.00
SA21103	25.00	2.00	44.00	0.30	222.00	0.00	0.00
SA21104	47.00	3.00	155.00	0.30	745.00	4.00	330.00
SA21105	16.00	5.00	100.00	0.10	339.00	0.00	0.00
SA21107	57.00	9.00	125.00	0.40	505.00	1.00	314.00
SA21108	30.00	7.00	63.00	0.30	332.00	1.00	289.00
SA21109	18.00	10.00	95.00	0.10	959.00	0.00	0.00
SA21110	38.00	2.00	83.00	0.10	811.00	1.00	279.00
SA21111	9.00	12.00	61.00	0.10	1598.00	0.00	0.00
SA21112	49.00	11.00	123.00	0.30	2247.00	1.00	318.00
SA21113	41.00	2.00	85.00	0.10	800.00	0.00	0.00
SA21115	50.00	5.00	80.00	0.20	900.00	1.00	338.00
SA21116	31.00	8.00	75.00	0.10	398.00	1.00	336.00
SA21117	78.00	4.00	63.00	0.30	311.00	0.00	0.00
SA21118	15.00	4.00	82.00	0.10	742.00	1.00	347.00
SA21119	26.00	7.00	85.00	0.20	1577.00	0.00	0.00
SA21120	22.00	9.00	86.00	0.30	730.00	7.00	290.00
SA21121	21.00	7.00	52.00	0.20	397.00	0.00	0.00
SA21123	45.00	16.00	69.00	0.10	1542.00	2.00	321.00
SA21123	25.00	3.00	57.00	0.10	382.00	0.00	0.00
SA21124	46.00	4.00	50.00	0.10	267.00	1.00	267.00
SA21125	26.00	4.00	78.00	0.10	579.00	0.00	0.00
SA21126	26.00	5.00	66.00	0.20	601.00	1.00	455.00
SA21127	56.00	12.00	100.00	0.10	1013.00	0.00	0.00
SA21128	59.00	16.00	109.00	0.10	2474.00	2.00	515.00
SA21129	114.00	2.00	134.00	0.20	1099.00	0.00	0.00
SA21130	26.00	3.00	78.00	0.30	666.00	1.00	411.00
	25.00	3.00	50.00	0.20	350.00	0.00	0.00

* Results reported in ppb, all others reported in ppm.

	Cu	Pb	Zn	Ag	Mn	Au*	Ba
SA21137	17.00	7.00	54.00	0.10	890.00	1.00	410.00
SA21138	30.00	4.00	65.00	0.10	1674.00	0.00	0.00
SA21139	46.00	8.00	50.00	0.10	860.00	1.00	426.00
SA21140	21.00	5.00	73.00	0.10	1409.00	0.00	0.00
SA21141	27.00	2.00	42.00	0.10	347.00	1.00	416.00
SA21142	20.00	5.00	65.00	0.30	575.00	0.00	0.00
SA21601	14.00	3.00	53.00	0.10	876.00	1.00	410.00
SA21602	35.00	4.00	105.00	0.10	1153.00	0.00	0.00
SA21603	34.00	13.00	60.00	0.10	572.00	1.00	461.00
SA21604	19.00	16.00	66.00	0.10	807.00	0.00	0.00
SA21605	32.00	9.00	95.00	0.10	774.00	1.00	410.00
SA21606	22.00	7.00	55.00	0.10	307.00	0.00	0.00
SA21607	17.00	4.00	75.00	0.10	972.00	1.00	416.00
SA21608	13.00	2.00	104.00	0.10	761.00	0.00	0.00
SA21609	21.00	4.00	56.00	0.10	255.00	1.00	347.00
SA21610	30.00	5.00	65.00	0.10	368.00	0.00	0.00
SA21611	23.00	8.00	59.00	0.10	1532.00	1.00	406.00
SA21612	29.00	2.00	80.00	0.10	562.00	0.00	0.00
SA21613	32.00	2.00	65.00	0.10	432.00	1.00	331.00
SA21614	18.00	2.00	86.00	0.10	1114.00	0.00	0.00
SA21615	6.00	7.00	15.00	0.20	73.00	1.00	381.00
SA21616	21.00	7.00	46.00	0.10	182.00	0.00	0.00
SA21617	21.00	6.00	45.00	0.10	476.00	1.00	426.00
SA21618	7.00	3.00	52.00	0.10	531.00	0.00	0.00
SA21619	26.00	10.00	54.00	0.10	365.00	1.00	402.00
SA21620	13.00	11.00	75.00	0.10	876.00	0.00	0.00
SA21621	39.00	2.00	50.00	0.10	387.00	1.00	441.00
SA21622	39.00	3.00	90.00	0.10	629.00	0.00	0.00
SA21623	20.00	5.00	74.00	0.10	956.00	1.00	362.00
SA21624	33.00	13.00	74.00	0.20	1258.00	0.00	0.00
SA21625	32.00	2.00	89.00	0.10	571.00	0.00	313.00
SA21626	47.00	14.00	50.00	0.40	1563.00	0.00	0.00
SA21627	11.00	2.00	60.00	0.30	513.00	0.00	304.00

* Results reported in ppb, all others reported in ppm.

	Cu	Pb	Zn	Ag	Mn	Au*	Ba
	10.00	4.00	60.00	0.30	707.00	0.00	0.00
SA21623	13.00	3.00	32.00	0.30	137.00	1.00	324.00
SA21624	17.00	2.00	32.00	0.10	130.00	0.00	0.00
SA21625	21.00	8.00	67.00	0.20	447.00	2.00	329.00
SA21626	32.00	2.00	65.00	0.10	1172.00	0.00	0.00
SA21627	27.00	2.00	53.00	0.20	368.00	1.00	267.00
SA21628	10.00	10.00	62.00	0.30	834.00	0.00	0.00
SA21629	24.00	9.00	82.00	0.10	882.00	1.00	319.00
SA21630	17.00	8.00	64.00	0.30	553.00	0.00	0.00
SA21631	7.00	2.00	71.00	0.10	848.00	1.00	345.00
SA21632	3.00	2.00	31.00	0.10	183.00	0.00	0.00
SA21633	18.00	8.00	66.00	0.20	306.00	2.00	360.00
SA21634	16.00	5.00	93.00	0.10	1160.00	0.00	0.00
SA21635	27.00	4.00	55.00	0.10	349.00	3.00	329.00
SA21636	6.00	2.00	31.00	0.10	526.00	0.00	0.00
SA21637	20.00	6.00	75.00	0.10	841.00	1.00	308.00
SA21638	33.00	10.00	104.00	0.10	2309.00	0.00	0.00
SA21639	18.00	7.00	81.00	0.20	1300.00	1.00	308.00
SA21640	20.00	4.00	75.00	0.10	1039.00	0.00	0.00
SA21641	32.00	12.00	96.00	0.20	1092.00	1.00	345.00
SA21642	18.00	5.00	120.00	0.30	807.00	0.00	0.00
SA21643	39.00	11.00	121.00	0.10	567.00	3.00	277.00
SA21644	29.00	2.00	89.00	0.10	692.00	0.00	0.00
SA21645	11.00	6.00	49.00	0.10	351.00	1.00	298.00
SA21646	31.00	2.00	77.00	0.10	1096.00	0.00	0.00
SA21647	39.00	11.00	71.00	0.10	1095.00	2.00	288.00
SA21648	25.00	3.00	80.00	0.30	722.00	0.00	0.00
SA21649	8.00	6.00	50.00	0.10	831.00	1.00	386.00
SA21650	23.00	4.00	90.00	0.10	1597.00	0.00	0.00
SA21651	19.00	13.00	68.00	0.10	1043.00	1.00	329.00
SA21652	13.00	5.00	64.00	0.10	322.00	0.00	0.00
SA21653	13.00	11.00	51.00	0.10	390.00	2.00	339.00
SA21654	26.00	8.00	82.00	0.10	968.00	0.00	0.00

* Results reported in ppb, all others reported in ppm.

	Cu	Pb	Zn	Ag	Mn	Au*	Ba
	12.00	3.00	39.00	0.10	347.00	1.00	370.00
SA21656	45.00	2.00	55.00	0.20	431.00	0.00	0.00
SA21657	11.00	6.00	35.00	0.10	157.00	1.00	300.00
SA21658	20.00	6.00	54.00	0.20	334.00	0.00	0.00
SA21659	22.00	9.00	73.00	0.30	726.00	2.00	240.00
SA21660	17.00	2.00	109.00	0.10	829.00	0.00	0.00
SA21661	19.00	4.00	57.00	0.20	324.00	3.00	260.00
SA21662	23.00	11.00	60.00	0.30	291.00	0.00	0.00
SA21663	12.00	2.00	50.00	0.10	368.00	0.00	0.00
SA21664	27.00	2.00	54.00	0.10	368.00	0.00	0.00
SA21665	148.00	2.00	75.00	0.30	1013.00	1.00	240.00
SA21666	23.00	9.00	80.00	0.10	1969.00	0.00	0.00
SA21667	25.00	4.00	88.00	0.10	455.00	1.00	334.00
SA21668	35.00	2.00	57.00	0.30	372.00	0.00	0.00
SA21669	14.00	11.00	37.00	0.30	311.00	1.00	473.00
SA21670	31.00	5.00	45.00	0.10	264.00	0.00	0.00
SA21671	34.00	6.00	90.00	0.10	318.00	3.00	290.00
SA21672	95.00	2.00	80.00	0.20	341.00	0.00	0.00
SA21673	21.00	6.00	79.00	0.20	379.00	1.00	321.00
SA21674	20.00	5.00	58.00	0.10	1110.00	0.00	0.00
SA21675	24.00	4.00	95.00	0.20	519.00	3.00	265.00
SA21676	29.00	3.00	64.00	0.10	289.00	0.00	0.00
SA21677	17.00	7.00	63.00	0.10	525.00	4.00	250.00
SA21678	41.00	3.00	60.00	0.10	353.00	0.00	0.00
SA21679	27.00	3.00	92.00	0.10	682.00	1.00	284.00
SA21680	13.00	11.00	108.00	0.10	1717.00	0.00	0.00
SA21681	12.00	30.00	45.00	0.10	949.00	1.00	347.00
SA21682	22.00	10.00	65.00	0.10	250.00	0.00	0.00
SA21683	18.00	4.00	60.00	0.10	318.00	3.00	275.00
SA21684	36.00	3.00	88.00	0.10	374.00	1.00	284.00
SA21686	14.00	9.00	77.00	0.10	770.00	0.00	0.00
SA21687	17.00	9.00	84.00	0.10	871.00	1.00	265.00
SA21688	21.00	4.00	47.00	0.10	340.00	3.00	0.00

* Results reported in ppb, all others reported in ppm.

	Cu	Pb	Zn	Ag	Mn	Au*	Ba
	11.00	9.00	76.00	0.10	1001.00	1.00	395.00
SA21690	13.00	11.00	67.00	0.10	988.00	0.00	0.00
SA21691	33.00	3.00	143.00	0.10	1057.00	1.00	750.00

* Results reported in ppb,
all others reported in ppm.

APPENDIX D
ROCK GEOCHEMICAL RESULTS - TRENCH F
SALTSPRING ISLAND

ACME ANALYTICAL LABORATORIES LTD. 852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6 PHONE 253-3158 DATA LINE 251-1011

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: ROCK CHIPS AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: MAY 16 1985 DATE REPORT MAILED: May 27/85 ASSAYER: T. Saundry DEAN TOYE OR TOM SAUNDRY, CERTIFIED B.C. ASSAYER

KIDD CREEK MINES PROJECT - 941 FILE # 85-0610 PAGE 1

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
AB-13618	1	19	7	13	.6	21	4	196	2.84	9	5	ND	1	9	1	2	2	22	.13	.01	2	30	.10	32	.02	20	.34	.01	.02	1	1
AB-13619	1	47	4	21	.5	17	7	359	2.00	4	5	ND	1	8	1	2	2	25	.36	.21	4	13	.15	122	.04	13	.34	.01	.02	1	2
AB-13620	1	35	3	15	.3	18	5	520	1.98	3	5	ND	1	4	1	2	2	31	.11	.04	4	19	.18	133	.04	23	.41	.01	.02	1	1
AB-13621	1	34	3	21	.3	15	5	369	1.74	2	5	ND	1	15	1	2	2	26	.75	.47	7	16	.13	144	.04	25	.34	.01	.02	1	3
AB-13622	1	61	2	22	1.0	25	9	464	2.57	4	5	ND	1	3	1	2	2	31	.12	.05	3	17	.18	98	.04	9	.40	.01	.02	1	2
AB-13623	1	33	2	15	.1	16	4	499	1.88	5	5	ND	1	4	1	2	5	27	.19	.10	4	16	.17	109	.03	27	.37	.01	.01	1	8
AB-13624	2	41	5	529	.5	20	5	291	2.22	39	5	ND	1	28	4	2	2	57	1.98	1.08	10	27	.19	221	.05	18	.52	.01	.04	1	22
AB-13625	1	28	5	26	.1	34	2	151	1.15	11	5	ND	1	11	1	2	2	55	.18	.02	2	19	.09	396	.03	18	.39	.01	.03	1	4
AB-13626	11	130	3	313	.9	49	11	517	4.06	7	5	ND	1	9	2	2	2	73	.25	.11	9	14	.27	57	.07	9	.71	.01	.04	1	8
AB-13627	8	120	2	283	.8	51	12	542	4.10	4	5	ND	1	11	2	2	2	75	.44	.25	10	15	.28	52	.06	12	.71	.01	.03	1	8
AB-13628	8	113	4	334	.4	50	11	531	4.05	3	5	ND	1	11	2	2	2	72	.36	.20	12	13	.27	64	.06	18	.71	.01	.04	1	16
AB-13629	8	121	3	342	.6	45	12	549	3.85	5	6	ND	1	9	2	2	2	74	.19	.08	9	15	.28	76	.06	17	.72	.01	.04	1	6
AB-13630	19	216	4	99	1.4	66	15	386	4.31	14	5	ND	1	5	1	2	2	54	.10	.03	4	9	.20	27	.06	14	.57	.01	.03	1	4
AB-13631	13	90	3	113	.4	75	8	370	3.26	3	5	ND	1	5	1	2	2	77	.10	.03	5	9	.18	86	.06	11	.52	.01	.03	1	20
AB-13632	25	270	6	77	2.1	67	23	404	7.37	61	5	ND	1	15	1	3	2	75	.24	.05	6	13	.24	16	.14	26	.98	.01	.03	1	16
AB-13633	20	133	3	112	.9	60	13	394	3.82	9	5	ND	1	5	1	2	3	61	.10	.03	5	9	.21	38	.06	18	.62	.01	.04	1	14
AB-13634	1	60	2	14	.1	12	4	200	1.24	2	5	ND	1	4	1	2	2	29	.07	.01	2	12	.39	113	.04	21	.43	.02	.04	1	4
AB-13635	1	81	2	46	.1	8	6	215	1.32	2	5	ND	1	2	1	2	5	23	.06	.01	2	9	.39	33	.03	9	.37	.02	.01	1	14
AB-13636	1	27	3	5	.2	3	2	83	1.20	2	5	ND	1	2	1	2	2	9	.01	.01	2	2	.01	131	.01	11	.04	.01	.01	1	2
AB-13637	9	125	2	212	1.0	49	13	586	4.43	13	5	ND	1	8	2	2	3	71	.17	.06	7	19	.30	38	.07	6	.76	.01	.03	1	16
AB-13638	16	152	5	146	1.6	59	19	440	5.33	25	5	ND	2	12	1	2	2	66	.18	.06	6	15	.24	26	.10	12	.78	.01	.04	1	12
AB-13639	13	89	3	133	.6	59	8	371	2.80	3	5	ND	2	4	1	2	3	58	.08	.03	4	9	.18	61	.05	13	.50	.01	.04	1	4
AB-13660	20	155	5	182	1.7	69	17	431	5.43	25	5	ND	1	10	1	2	2	66	.24	.11	6	12	.24	22	.08	13	.72	.01	.04	1	6
AB-13661	19	129	4	105	1.1	68	12	375	3.64	13	5	ND	1	7	1	2	3	65	.12	.03	5	11	.19	31	.07	11	.54	.01	.04	1	4
AB-13662	21	186	4	91	2.0	63	25	426	5.96	40	9	ND	3	11	3	2	2	74	.15	.04	6	13	.26	19	.10	15	.86	.01	.03	1	1
AB-13663	1	22	4	105	.1	24	3	541	1.37	14	5	ND	1	4	1	2	2	15	.09	.01	2	9	.34	289	.04	16	.51	.01	.03	1	4
AB-13664	74	112	26	601	3.8	172	12	75	3.75	53	5	ND	1	14	4	5	2	33	.48	.04	2	3	.05	17	.07	2	.99	.01	.06	1	1
AB-13665	21	134	6	96	1.6	72	21	388	6.95	27	5	ND	1	11	1	2	2	67	.26	.10	3	12	.22	17	.10	10	.86	.01	.04	1	4
AB-13666	1	45	2	16	.3	28	6	152	1.48	5	5	ND	1	12	1	2	2	18	.13	.01	2	10	.19	248	.04	18	.52	.01	.12	1	4
AB-13667	1	59	9	103	.5	25	5	325	2.93	6	5	ND	1	20	1	2	2	12	.22	.02	5	8	.12	112	.02	19	.59	.01	.04	1	1
AB-13668	26	44	14	794	1.2	99	5	55	1.75	25	5	ND	1	27	5	2	2	17	.34	.02	2	2	.02	37	.04	8	.66	.01	.04	1	1
AB-13669	3	35	7	1277	.3	12	5	442	1.91	11	5	ND	1	26	9	2	2	17	.59	.01	2	8	.26	304	.06	16	.79	.01	.05	1	10
AB-13670	37	45	11	509	1.3	88	6	165	3.95	19	5	ND	1	20	3	2	2	32	.27	.03	4	4	.06	42	.02	11	.59	.01	.05	1	4
AB-13671	38	38	13	182	1.1	107	4	82	1.81	13	5	ND	1	24	1	2	2	20	.33	.03	2	3	.03	56	.04	9	.58	.01	.05	1	1
AB-13672	220	64	24	1833	2.9	126	9	83	3.00	15	5	ND	1	14	12	3	2	42	.28	.03	2	4	.04	19	.04	3	.56	.01	.06	1	1
AB-13673	36	34	9	778	1.2	88	5	81	2.85	3	5	ND	1	18	5	2	2	39	.25	.03	3	4	.04	57	.04	3	.51	.01	.06	1	4
STD C/AU 0.5	20	61	40	133	7.5	71	27	1189	3.95	40	17	7	36	49	18	15	23	59	.48	.16	39	59	.89	179	.09	37	1.74	.07	.12	12	490

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
AB-13674	30	43	9	868	1.0	98	5	58	1.69	17	5	ND	1	23	5	2	2	24	.37	.03	2	2	.05	31	.05	19	.69	.01	.06	1	1
AB-13675	1	27	2	181	.2	12	4	210	1.52	2	5	ND	1	5	1	2	2	12	.07	.01	2	8	.22	262	.03	5	.37	.01	.03	1	4
AB-13676	7	25	11	2166	.7	62	3	100	2.81	2	5	ND	1	26	13	2	2	49	.36	.03	3	10	.05	68	.06	5	.72	.01	.07	1	6
AB-13677	41	30	10	475	.7	81	4	52	1.64	2	5	ND	1	23	3	2	2	35	.30	.03	3	3	.03	58	.03	4	.60	.01	.05	1	1
AB-13678	29	40	11	864	1.2	93	6	56	1.78	36	5	ND	1	28	4	2	2	23	.40	.03	2	3	.02	38	.04	5	.77	.01	.04	1	4
AB-13679	3	30	5	1678	.3	10	4	400	1.87	10	5	ND	1	8	11	2	2	19	.17	.01	2	9	.32	187	.05	4	.56	.01	.06	1	8
AB-13680	3	32	11	1484	.1	14	5	426	1.85	12	5	ND	1	14	9	2	2	20	.46	.01	2	10	.28	236	.05	3	.57	.01	.05	1	7
AB-13681	1	30	3	215	.1	19	4	200	1.51	2	5	ND	1	12	1	2	2	11	.24	.15	2	8	.18	244	.04	10	.36	.01	.04	1	3
AB-13682	1	24	5	120	.2	11	4	173	1.12	3	5	ND	1	2	1	2	2	7	.07	.01	2	6	.13	173	.03	9	.21	.01	.03	1	2
AB-13683	7	37	10	1538	.4	13	5	439	2.14	22	5	ND	1	14	10	2	2	18	.47	.01	2	9	.31	104	.06	5	.64	.01	.05	1	5
AB-13684	2	35	6	43	.6	19	4	276	2.10	2	5	ND	1	36	1	2	2	29	.61	.22	4	24	.21	263	.03	19	.94	.01	.02	1	4
AB-13685	20	41	16	1553	.9	23	5	517	2.31	3	5	ND	2	40	10	2	2	23	.63	.02	2	10	.32	97	.10	2	1.42	.01	.06	1	1
AB-13686	36	33	20	320	1.0	61	4	89	1.85	21	5	ND	1	31	2	2	2	14	.41	.02	2	4	.02	56	.03	9	.69	.01	.02	1	4
AB-13687	1	34	8	44	.1	17	6	373	2.40	4	5	ND	1	28	1	2	2	49	.72	.21	6	27	.44	2162	.10	13	1.30	.04	.04	1	5
AB-13688	2	37	10	211	.1	25	9	1524	9.11	2	10	ND	3	17	1	2	2	51	.43	.06	8	22	.40	202	.14	10	1.19	.04	.05	1	1
AB-13689	1	8	2	35	.1	24	12	694	2.49	2	7	ND	2	24	1	2	9	53	.62	.14	5	42	2.19	52	.15	10	1.96	.03	.02	1	1
AB-13690	5	21	11	32	.1	6	4	208	2.17	2	5	ND	2	4	1	2	6	18	.12	.03	6	3	.74	130	.08	15	.81	.01	.13	1	1
AB-13691	2	29	6	42	.1	19	8	4398	2.08	2	5	ND	4	26	1	2	5	45	.29	.05	13	27	.49	157	.13	15	1.41	.05	.07	1	2
AB-13692	4	19	2	46	.2	17	7	5777	2.02	2	7	ND	5	24	1	2	4	44	.25	.05	16	28	.47	113	.13	18	1.29	.05	.08	1	1
AB-13693	2	14	2	43	.1	16	5	5550	1.92	2	5	ND	4	35	1	2	5	39	.23	.04	16	22	.39	122	.15	10	1.19	.07	.09	1	1
AB-13694	1	10	7	42	.1	9	4	5036	1.80	2	5	ND	3	30	1	2	2	37	.23	.04	16	20	.38	90	.15	18	.94	.07	.11	1	1
AB-13695	5	30	7	1653	.3	13	5	656	2.07	16	5	ND	1	12	11	2	2	21	.25	.01	2	10	.30	243	.07	12	.65	.01	.05	1	7
AB-13696	3	30	6	818	.3	15	4	1062	1.85	8	5	ND	1	46	6	2	2	22	.63	.02	4	10	.27	740	.10	16	1.20	.01	.05	1	12
STD C/AU 0.5	20	59	40	131	7.3	69	27	1175	3.88	41	17	7	37	49	17	16	21	57	.48	.15	39	57	.87	175	.08	38	1.70	.07	.11	12	495

APPENDIX E
WHOLE ROCK GEOCHEMICAL ANALYSIS DATA
SALTSPRING ISLAND

==== K I D D C R E E K M I N E S L T D ====
=== KIDD CREEK MINESITE COMPUTER SYSTEM ===

REPORT #2000
PRINTED 20-OCT-85
SAMPLE ID # AB13637 WHOLE ROCK GEOCHEMICAL ANALYSIS 10:32:12

LAB REPORT # 24400 FIELD NUMBER : DM84185019 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE :
NTS : 092B14 PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 0.0 N : 0.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE,THIN SECTION

FIELD NAME : VOLCANICLASTIC,INTERMEDIATE,ASH,TECTONIZED,CRYSTAL ,LOOK AT COMMENTS FILE.
FINAL NAME :
ALTERATION : METAMORPHOSED ,CHLORITIZATION,MODERATE.
MINERALIZATION : NIL ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D. MALLALIEU. DATE : 09-MAY-85 ANALYTICAL
ANALYZED BY : XRAL DATE : 05-JUN-85 TECHNIQUE : X-RAY FLUORESCENCE

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	61.30	63.45	59.14
AL2O3	17.20	17.80	19.56
FE2O3	5.66	2.16	1.52
FEO	0.00	3.32	2.59
CAO	3.44	3.56	3.56
MGO	3.47	3.59	4.99
NA2O	2.78	2.88	5.20
K2O	2.29	2.37	2.82
TIO2	0.59	0.61	0.43
P2O5	0.16	0.17	0.13
MNO	0.08	0.08	0.07
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR2O3	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H2O+	0.00	0.00	0.00
H2O-	0.00	0.00	0.00
LOI	3.16	0.00	0.00
TOTAL	96.61	100.00	100.00

NORMS	
Q	21.94
C	4.86
OR	14.11
AB	26.00
AN	16.69
LC	0.00
NE	0.00
KP	0.00
AC	0.00
DI	0.00
HE	0.00
EN	9.98
FS	2.94
FO	0.00
FA	0.00
WO	0.00
LN	0.00
MT	2.28
IL	0.86
CR	0.00
HM	0.00
AP	0.35
PO	0.00
NS	0.00
KS	0.00
RU	0.00
AG	0.00
OL	0.00
OPX	12.9%
CPX	0.00
AB*	26.00

CLASSIFICATIONS AND INDICES

NA2O+K2O 5.25 SIO2 63.45 SUBALKALINE
OL* 15.92 NE* 25.63 Q* 58.45 SUBALKALINE
CPX 0.00 OL 0.00 OPX 100.00 SUBALKALINE
A 37.19 F 37.36 M 25.45 THOLEITIC
AL2O3 17.80 NORM PLAG 39.10 CALC-ALKALINE
AN 29.38 AB* 45.78 OR 24.84 K-RICH SERIES
CI 16.05 NORM PLAG 39.10 ANDESITE

JENSEN CALC-ALKALINE ANDESITE
AL 67.10 FE 15.79 MG 17.11

COLOR INDEX : 16.05
HASHIMOTO INDEX : 48.08

TRACE ELEMENTS (P.P.M.) AU,PT (P.P.B.)

CR 0.00:RB	50.00:SR	420.00:Y	40.00:ZR	150.00:NB	30.00:BA	920.00:AU	0.00:LI	0.00:	
BE 0.00:B	0.00:SC	0.00:V	0.00:CR	0.00:CO	0.00:NI	0.00:CU	0.00:ZN	0.00:	
AS 0.00:SE	0.00:BR	0.00:MO	0.00:AG	0.00:CD	0.00:SB	0.00:CS	0.00:LA	0.00:	
CE 0.00:ND	0.00:SM	0.00:EU	0.00:YB	0.00:LU	0.00:HF	0.00:TA	0.00:W	0.00:	
PB 0.00:BI	0.00:TH	0.00:U	0.00:						

COMMENTS : FELDSPAR CRYSTAL TUFF,FELDSPAR,BLOCKY,1-2 MM. IN DIAMETER,7-10%,SET IN AN INTERMEDIATE GROUND MASS,CHLORITE-FELDSPAR.

==== K I D D C R E E K M I N E S L T D ====
=== KIDD CREEK MINESITE COMPUTER SYSTEM ===

REPORT #2000

SAMPLE ID # AB13638 WHOLE ROCK GEOCHEMICAL ANALYSIS

LAB REPORT # 24400 FIELD NUMBER : DM94185019 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE :
NTS : 092B13 PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 0.0 N : 0.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME :
FINAL NAME :
ALTERATION :
MINERALIZATION :
FORMATION :

SAMPLED BY : D. MALLALIEU. DATE : 06-MAY-85
ANALYZED BY : XRAL DATE : 05-JUN-85
ANALYTICAL TECHNIQUE : X-RAY FLUORESCENCE

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	51.20	53.35	48.69
AL2O3	17.80	18.55	19.95
FE2O3	9.53	2.48	1.70
FEO	0.00	6.70	5.12
CAO	5.48	5.71	5.58
MGO	5.13	5.35	7.27
NA2O	4.97	5.18	9.16
K2O	1.29	1.34	1.57
TIO2	0.88	0.92	0.63
P2O5	0.22	0.23	0.18
MNO	0.19	0.20	0.15
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR2O3	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H2O+	0.00	0.00	0.00
H2O-	0.00	0.00	0.00
LOI	3.31	0.00	0.00
TOTAL	95.97	100.00	100.00

NORMS		CLASSIFICATIONS AND INDICES				
Q	0.00	NA2O+K2O 6.52	SIO2	53.35	ALKALINE	
C	0.00					
OR	7.83	OL* 25.07	NE* 44.25	Q*	30.68	ALKALINE
AB	45.81					
AN	23.05	CPX 14.24	OL 70.34	OPX	15.42	SUBALKALINE
LC	0.00					
NE	0.00	A 31.35	F 42.95	M	25.69	THOLEIITIC
KP	0.00					
AC	0.00	AL2O3 18.55	NORM PLAG	33.48	CALC-ALKALINE	
DI	1.78					
HE	0.93	AN 30.06	AB* 59.73	OR	10.21	SODIC
EN	1.93					
FS	1.00	CI 22.83	NORM PLAG	33.48	HAWAIITE	
FO	8.79					
FA	4.58					
WO	0.00	JENSEN CALC-ALKALINE BASALT				
LN	0.00	AL 57.29	FE 21.83	MG	20.88	
MT	2.55					
IL	1.26					
CR	0.00	COLOR INDEX : 22.83				
HM	0.00	HASHIMOTO INDEX : 38.06				
AP	0.47					
PO	0.00					
NS	0.00					
KS	0.00					
RU	0.00					
AG	0.00					
OL	13.37					
OPX	3.93					
CPX	2.71					
AB*	45.81					

TRACE ELEMENTS (P.P.M.) AU,PT (P.P.B.)

CR	50.00:RB	10.00:SR	240.00:Y	30.00:ZR	50.00:NB	20.00:BA	370.00:AU	0.00:LI	0.00:
BE	0.00:B	0.00:SC	0.00:V	0.00:CR	0.00:CO	0.00:NI	0.00:CU	0.00:ZN	0.00:
AS	0.00:SE	0.00:BR	0.00:MO	0.00:AG	0.00:CD	0.00:SB	0.00:CS	0.00:LA	0.00:
CE	0.00:ND	0.00:SM	0.00:EU	0.00:YB	0.00:LU	0.00:HF	0.00:TA	0.00:W	0.00:
PB	0.00:BI	0.00:TH	0.00:U	0.00:					

COMMENTS : LAPPILI-BLOCK TUFF,MONOLITHIC,ACCOUNTS FOR 50% CLASTS UP TO 10 CM,BY 10 CM. MATRIX IS INTERMEDIATE-CHLORITIZED

SAMPLE ID # AB13639 WHOLE ROCK GEOCHEMICAL ANALYSIS

LAB REPORT # 24400 FIELD NUMBER : DM94185020 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE :
NTS : 092B13 PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 0.0 N : 0.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANICLASTIC.MAFIC ,ASH.TECTONIZED,LOOK AT COMMENTS FILE.
FINAL NAME :
ALTERATION : METAMORPHOSED .EPIDOTIZATION ,MODERATE.
MINERALIZATION : NODULES ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D. MALLALIEU. DATE : 06-MAY-85 ANALYTICAL
ANALYZED BY : XRAL DATE : 05-JUN-85 TECHNIQUE : X-RAY FLUORESCENCE

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	52.20	54.67	49.50
AL203	16.60	17.38	18.55
FE203	8.35	2.34	1.59
FEO	0.00	5.77	4.37
CAO	5.63	5.90	5.72
MGO	5.84	6.12	8.25
NA2O	5.53	5.79	10.17
K2O	0.84	0.88	1.02
TIO2	0.73	0.76	0.52
P2O5	0.20	0.21	0.16
MNO	0.18	0.19	0.14
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR2O3	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H2O+	0.00	0.00	0.00
H2O-	0.00	0.00	0.00
LOI	3.62	0.00	0.00
TOTAL	95.49	100.00	100.00

NORMS		NORMS	
Q	0.00	AP	0.43
C	0.00	FO	0.00
OR	5.09	NS	0.00
AB	50.83	KS	0.00
AN	18.43	RU	0.00
LC	0.00	AG	0.00
NE	0.00	OL	15.91
KP	0.00	OPX	0.81
AC	0.00	CPX	7.07
DI	5.10	ABA	50.83
HE	1.97		
EN	0.59		
FS	0.23		
FO	10.03		
FA	3.88		
WO	0.00		
LN	0.00		
MT	2.39		
IL	1.04		
CR	0.00		
HM	0.00		

CLASSIFICATIONS AND INDICES

NA2O+K2O 6.67 SIO2 54.67 ALKALINE

OLA 22.15 NEA 46.52 QA 31.32 ALKALINE

CPX 32.43 OL 63.84 OPX 3.73 SUBALKALINE

A 32.30 F 38.09 M 29.61 THOLEIITIC

AL203 17.38 NORM PLAG 26.61 CALC-ALKALINE

AN 24.78 ABA 68.37 OR 6.84 SODIC

CI 25.22 NORM PLAG 26.61 HAWAIITE

JENSEN CALC-ALKALINE BASALT
AL 55.50 FE 19.81 MG 24.69

COLOR INDEX : 25.22
HASHIMOTO INDEX : 37.44

TRACE ELEMENTS (P.P.M.) AU.FT (P.P.B.)

CR	150.00:RB	20.00:SR	340.00:Y	30.00:ZR	40.00:NB	20.00:BA	270.00:AU	0.00:LI	0.00:
BE	0.00:B	0.00:SC	0.00:V	0.00:CR	0.00:CO	0.00:NI	0.00:CU	0.00:ZN	0.00:
AS	0.00:SE	0.00:BR	0.00:MO	0.00:AG	0.00:CD	0.00:SB	0.00:CS	0.00:LA	0.00:
CE	0.00:ND	0.00:SM	0.00:EU	0.00:YB	0.00:LU	0.00:HF	0.00:TA	0.00:W	0.00:
PB	0.00:BI	0.00:TH	0.00:U	0.00:					

COMMENTS : PS303/90 CHLORITIC,MAFIC TUFF,MATRIX TO LAPPILI BLOCK TUFF,BLOCKY FELDSPARS AVG'T FOR 30% AND ARE 1mm, BLACK

LAB REPORT # 24400 FIELD NUMBER : DM94183021 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE :
NTS : 092B13 PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 0.0 N : 0.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANIC,INTERMEDIATE,FINE,TECTONIZED,FELDSPAR PORPHYRITIC.
FINAL NAME :
ALTERATION : METAMORPHOSED ,CHLORITIZATION,WEAK.
MINERALIZATION : DISSEMINATED AND BLEBS,1-5%,PYRITE.
FORMATION :

SAMPLED BY : D. MALLALIEU. DATE : 06-MAY-85 ANALYTICAL
ANALYZED BY : XRAL DATE : 05-JUN-85 TECHNIQUE : X-RAY FLUORESCENCE

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	52.90	55.77	51.36
AL2O3	16.90	17.82	19.34
FE2O3	10.50	3.03	2.10
FEO	0.00	7.24	5.57
CAO	1.75	1.85	1.82
MGO	5.84	6.16	8.45
NA2O	4.29	4.53	8.07
K2O	1.43	1.51	1.77
TIO2	1.37	1.44	1.00
P2O5	0.45	0.47	0.37
MNO	0.18	0.19	0.15
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR2O3	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H2O+	0.00	0.00	0.00
H2O-	0.00	0.00	0.00
LOI	4.00	0.00	0.00
TOTAL	94.85	100.00	100.00

NORMS			
Q	7.29		
C	7.09		
OR	8.87		
AB	40.37		
AN	6.01		
LC	0.00		
NE	0.00		
KP	0.00		
AC	0.00		
DI	0.00		
HE	0.00		
EN	16.90		
FS	7.35		
FO	0.00		
FA	0.00		
WO	0.00		
LN	0.00		
MT	3.15		
IL	2.00		
CR	0.00		
HM	0.00		
AP	0.99		
PO	0.00		
NS	0.00		
KS	0.00		
NU	0.00		
AG	0.00		
OL	0.00		
OPX	24.25		
CPX	0.00		
ABX	40.37		

CLASSIFICATIONS AND INDICES

NA2O+K2O	6.03	SIO2	55.77	SUBALKALINE		
OLX	25.29	NEX	33.69	QX	41.02	SUBALKALINE
CPX	0.00	OL	0.00	OPX	100.00	SUBALKALINE
A	27.23	F	44.97	M	27.80	THOLEITIC
AL2O3	17.82	NORM PLAG	13.96			CALC-ALKALINE
AN	10.88	ABX	73.07	OR	16.05	AVERAGE SERIES
CI	29.39	NORM PLAG	12.96			ANDESITE

JENSEN CALC-ALKALINE BASALT
AL 52.83 FE 24.09 MG 23.08

COLOR INDEX : 29.39
HASHIMOTO INDEX : 54.62

TRACE ELEMENTS (P.P.M.) AU.PT (P.P.B.)

CR 0.00:RB	30.00:SR	110.00:Y	30.00:ZR	130.00:NB	30.00:BA	1130.00:AU	-10.00:LI	10.00:
BE -10.00:S	20.00:SC	37.00:V	240.00:CR	2.00:CO	38.00:NI	8.00:CU	47.00:ZN	260.00:
AS -2.00:SE	-3.00:BR	1.00:MO	-5.00:AG	-0.50:CD	-0.20:SB	0.30:CS	-0.50:LA	14.00:
CE 41.00:ND	20.00:SM	6.40:EU	1.40:TB	4.20:LU	0.78:HF	-1.00:TA	-1.00:W	-3.00:
PB 36.00:BI	-0.50:TH	3.30:U	-0.50:					

COMMENTS : PS140/38NE, FINE GRAINED APHYRIC ANDESITE.MODERATELY CHLORITIC,ESSENTIALLY CHLORITE-SUMISI.

==== K I D D C R E E K M I N E S L T D ====
=== KIDD CREEK MINESITE COMPUTER SYSTEM ===

REPORT #2000 PAGE 1
PRINTED 20-OCT-85
SAMPLE ID # AB13641 WHOLE ROCK GEOCHEMICAL ANALYSIS 10:36:19

LAB REPORT # 24400 FIELD NUMBER : DM94105022 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE :
NTS : 092B13 PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 0.0 N : 0.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANICLASTIC.INTERMEDIATE.ASH.HETEROGENEOUS ,TECTONIZED.CRYSTAL.
FINAL NAME :
ALTERATION : METAMORPHOSED ,CHLORITIZATION.MODERATE.
MINERALIZATION : NIL ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D. MALLALIEU. DATE : 06-MAY-85 ANALYTICAL
ANALYZED BY : XRAL DATE : 05-JUN-85 TECHNIQUE : X-RAY FLUORESCENCE

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %		NORMS
SIO2	53.10	55.75	50.84	Q	3.34
AL2O3	18.10	19.00	20.43	C	7.42
FE2O3	9.48	2.58	1.77	OR	13.39
FEO	0.00	6.63	5.06	AB	42.69
CAO	1.19	1.35	1.22	AN	4.48
MGO	5.91	6.20	8.43	LC	0.00
NA2O	4.60	4.83	8.54	NE	0.00
K2O	2.19	2.30	2.68	KP	0.00
TIO2	0.96	1.01	0.69	AC	0.00
P2O5	0.24	0.25	0.19	DI	0.00
MNO	0.18	0.19	0.15	HE	0.00
S	0.00	0.00	0.00	EN	16.87
NIO	0.00	0.00	0.00	FS	7.25
CR2O3	0.00	0.00	0.00	FO	0.00
CO2	0.00	0.00	0.00	FA	0.00
H2O+	0.00	0.00	0.00	WO	0.00
H2O-	0.00	0.00	0.00	LN	0.00
LOI	4.00	0.00	0.00	MT	2.66
				IL	1.38
TOTAL	95.25	100.00	100.00	CR	0.00
				HM	0.00
				AP	0.52
				PO	0.00
				NS	0.00
				KS	0.00
				NU	0.00
				AG	0.00
				OL	0.00
				OPX	34.12
				CPX	0.00
				AB*	42.69

CLASSIFICATIONS AND INDICES

NA2O+K2O 7.13 SIO2 55.75 ALKALINE
OL* 25.79 NE* 36.51 Q* 37.70 SUBALKALINE
CPX 0.00 OL 0.00 OPX 100.00 SUBALKALINE
A 31.98 F 40.18 M 27.84 THOLEIITIC
AL2O3 19.00 NORM PLAG 9.50 CALC-ALKALINE
AN 7.40 AB* 70.49 OR 22.11 SODIC
CI 28.16 NORM PLAG 9.50 MUGEARITE

JENSEN CALC-ALKALINE BASALT
AL 55.92 FE 20.99 MG 23.09

COLOR INDEX : 28.16
HASHIMOTO INDEX : 58.32

TRACE ELEMENTS (P.P.M.) AU.PT (P.P.B.)

CR 110.00:RB	30.00:SR	120.00:Y	10.00:ZR	60.00:NB	10.00:BA	1270.00:AU	0.00:LI	0.00:
BE 0.00:B	0.00:SC	0.00:V	0.00:CR	0.00:CO	0.00:NI	0.00:CU	0.00:ZN	0.00:
AS 0.00:SE	0.00:BR	0.00:MO	0.00:AG	0.00:CD	0.00:SB	0.00:CS	0.00:LA	0.00:
CE 0.00:ND	0.00:SM	0.00:EU	0.00:YB	0.00:LU	0.00:HF	0.00:TA	0.00:W	0.00:
PB 0.00:BI	0.00:TH	0.00:U	0.00:					

COMMENTS : PS314/90. MODERATELY CHLORITIC, MEDIUM GREEN, FINE GRAINED, INTERMEDIATE COMPOSITION TUFF WITH SUB-EQUANT QTZ.FELDSPAR
CRYSTALS (1MM -25%) RANDOMLY DISTRIBUTED THROUGHOUT NO MINERALIZATION

==== K I D D C R E E K M I N E S L T D ====
=== KIDD CREEK MINESITE COMPUTER SYSTEM ===

REPORT #2000
PRINTED 20-OCT-85
SAMPLE ID # A813642 WHOLE ROCK GEOCHEMICAL ANALYSIS 10:37:21

LAB REPORT # 24400 FIELD NUMBER : 0M941340218 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE :
NTS : 092B13 PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 0.0 N : 0.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANICLASTIC,MAFIC ,ASH,TECTONIZED,CRYSTAL .LOOK AT COMMENTS FILE.
FINAL NAME :
ALTERATION : METAMORPHOSED ,CHLORITIZATION,WEAK.
MINERALIZATION : NIL ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D. MALLALIEU. DATE : 06-MAY-85 ANALYTICAL
ANALYZED BY : XRAL DATE : 05-JUN-85 TECHNIQUE : X-RAY FLUORESCENCE

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	58.00	56.03	51.06
AL2O3	17.90	18.92	20.33
FE2O3	8.80	2.55	1.75
FEO	0.00	6.08	4.63
CAO	1.70	1.80	1.75
MGO	5.63	5.95	8.08
NA2O	4.61	4.87	8.61
K2O	2.28	2.41	2.81
TIO2	0.91	0.96	0.66
P2O5	0.22	0.23	0.18
MNO	0.18	0.19	0.15
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR2O3	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H2O+	0.00	0.00	0.00
H2O-	0.00	0.00	0.00
LOI	4.00	0.00	0.00
TOTAL	94.59	100.00	100.00

NORMS			
Q	2.57		
C	6.00		
OR	14.03		
AB	43.05		
AN	7.28		
LC	0.00		
NE	0.00		
KP	0.00		
AC	0.00		
DI	0.00		
HE	0.00		
EN	16.17		
FS	6.49		
FO	0.00		
FA	0.00		
WO	0.00		
LN	0.00		
MT	2.62		
IL	1.32		
CR	0.00		
HM	0.00		
AP	0.48		
PO	0.00		
NS	0.00		
KS	0.00		
FU	0.00		
AG	0.00		
OL	0.00		
OPX	32.66		
CPX	0.00		
AB*	43.05		

CLASSIFICATIONS AND INDICES

NA2O+K2O	7.28	SIO2	56.03	ALKALINE			
OL*	24.89	NE*	37.83	Q*	37.28	SUBALKALINE	
CPX	0.00	OL	0.00	OPX	100.00	SUBALKALINE	
A	33.71	F	38.74	M	27.55	THOLEIITIC	
AL2O3	18.92	NORM PLAG	14.46	CALC-ALKALINE			
AN	11.31	AB*	66.90	OR	21.80	SODIC	
CI	26.60	NORM PLAG	14.46	MUGEARITE			

JENSEN CALC-ALKALINE BASALT
AL 57.10 FE 20.19 MG 22.71

COLOR INDEX : 26.60
HASHIMOTO INDEX : 55.63

TRACE ELEMENTS (P.P.M.) AU.PT (P.P.B.)

CR 120.00:RB	40.00:SR	140.00:Y	10.00:ZR	50.00:NB	30.00:BA	1410.00:AU	0.00:LI	0.00:	
BE 0.00:B	0.00:SC	0.00:V	0.00:CR	0.00:CO	0.00:NI	0.00:CU	0.00:ZN	0.00:	
AS 0.00:SE	0.00:BR	0.00:MO	0.00:AG	0.00:CD	0.00:SB	0.00:CS	0.00:LA	0.00:	
CE 0.00:ND	0.00:SM	0.00:EU	0.00:YB	0.00:LU	0.00:HF	0.00:TA	0.00:W	0.00:	
PB 0.00:BI	0.00:TH	0.00:U	0.00:						

COMMENTS : PS140/60NE. LIGHT GREEN, CHLORITIC, MAFIC, TUFFACEOUS IN NATURE, PALE WHITE FELDSPAR CRYSTALS, EQUANT IN SHAPE, 1-3 MM
CNT 10%

==== K I D D C R E E K M I N E S L T D ====
=== KIDD CREEK MINESITE COMPUTER SYSTEM ===

REPORT #2000
PRINTED 20-OCT-85
10:38:32

SAMPLE ID # AB13643 WHOLE ROCK GEOCHEMICAL ANALYSIS

LAB REPORT # 24400 FIELD NUMBER : DM94185022 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE :
NTS : 092B13 PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 0.0 N : 0.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANICLASTIC,FELSIC,LAPILLI,CLAST SUPPORTED,TECTONIZED,LOOK AT COMMENTS FILE.
FINAL NAME :
ALTERATION : PERVASIVE ,SILICIFICATION,WEAK.
MINERALIZATION : DISSEMINATED AND BLEBS,1-5%,PYRITE.
FORMATION :

SAMPLED BY : D. MALLALIEU. DATE : 06-MAY-85 ANALYTICAL
ANALYZED BY : XRAL DATE : 05-JUN-85 TECHNIQUE : X-RAY FLUORESCENCE

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	70.20	70.87	65.04
AL203	14.30	14.44	15.62
FE203	3.40	1.98	1.37
FEO	0.00	1.31	1.00
CAO	1.49	1.50	1.48
MGO	1.22	1.23	1.68
NA2O	6.41	6.47	11.51
K2O	1.55	1.56	1.83
TIO2	0.46	0.46	0.32
P2O5	0.11	0.11	0.09
MNO	0.06	0.06	0.05
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR2O3	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H2O+	0.00	0.00	0.00
H2O-	0.00	0.00	0.00
LOI	1.16	0.00	0.00
TOTAL	99.06	100.00	100.00

NORMS	
Q	20.80
C	0.00
OR	9.17
AB	57.57
AN	5.67
LC	0.00
NE	0.00
KP	0.00
AC	0.00
DI	0.78
HE	0.02
EN	2.98
FS	0.08
FO	0.00
FA	0.00
WO	0.00
LN	0.00
MT	2.05
IL	0.64
CM	0.00
HM	0.00
AP	0.33
PO	0.00
NS	0.00
KS	0.00
RU	0.00
AG	0.00
OL	0.00
OPX	5.06
CPX	0.80
AB*	57.57

CLASSIFICATIONS AND INDICES

NA2O+K2O 8.04 SIO2 70.87 SUBALKALINE

OL* 2.82 NE* 42.42 Q* 54.76 SUBALKALINE

CPX 20.77 OL 0.00 OPX 79.33 SUBALKALINE

A 65.04 F 25.00 M 9.97 CALC-ALKALINE

AL203 14.44 NORM PLAG 8.97 CALC-ALKALINE

AN 7.83 AB* 79.50 OR 12.66 AVERAGE SERIES

CI 6.56 NORM PLAG 8.97 RHYOLITE

JENSEN CALC-ALKALINE DACITE
AL 77.93 FE 13.66 MG 8.41

COLOR INDEX : 6.56
HASHIMOTO INDEX : 35.96

TRACE ELEMENTS (P.P.M.) AU.PI (P.P.B.)

CR	20.00:RB	10.00:SR	220.00:Y	50.00:ZR	150.00:NB	10.00:BA	800.00:AU	0.00:LI	0.00:
BE	0.00:B	0.00:SC	0.00:V	0.00:CR	0.00:CU	0.00:NI	0.00:CU	0.00:ZN	0.00:
AS	0.00:SE	0.00:BR	0.00:MO	0.00:AG	0.00:CD	0.00:SB	0.00:CS	0.00:LA	0.00:
CE	0.00:ND	0.00:SM	0.00:EU	0.00:YB	0.00:LU	0.00:HF	0.00:TA	0.00:W	0.00:
PB	0.00:BI	0.00:TH	0.00:U	0.00:					

COMMENTS : PS314/90. CLASTS OF RHYODACITIC COMPOSITION, MATRIX DARK GREEN CRYPTOCRYSTALLINE. RANDOMLY DISTRIBUTED MAFIC ELONGATE MINERALS (AMPHIBOLE), 0.2 MM, BY 10 MM. CLAST AT [illegible]

==== K I D D C R E E K M I N E S L I D ====
=== KIDD CREEK MINESITE COMPUTER SYSTEM ===

REPORT #2000
PRINTED 20-OCT-85
10:39:25

SAMPLE ID # AB13644 WHOLE ROCK GEOCHEMICAL ANALYSIS

LAB REPORT # 24400 FIELD NUMBER : DM94185006 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE :
NTS : 092B13 PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 0.0 N : 0.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : PLUTONIC,MAFIC OR MELANOCRATIC,FINE,FELDSPAR PORPHYRITIC,MASSIVE ,LOOK AT COMMENTS FILE.
FINAL NAME :
ALTERATION : METAMORPHOSED ,CHLORITIZATION,WEAK.
MINERALIZATION : NIL ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D. MALLALIEU. DATE : 06-MAY-85 ANALYTICAL
ANALYZED BY : XRAL DATE : 05-JUN-85 TECHNIQUE : X-RAY FLUORESCENCE

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	48.90	50.27	47.39
AL203	13.90	14.29	15.84
FE203	12.10	3.15	3.23
FEO	0.00	8.36	6.58
CAO	12.00	12.33	13.43
MGO	7.39	7.60	10.65
NA20	1.71	1.76	3.31
K20	0.30	0.31	0.37
TIO2	1.56	1.60	1.13
P205	0.15	0.15	0.12
MNO	0.18	0.19	0.15
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR203	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H20+	0.00	0.00	0.00
H20-	0.00	0.00	0.00
LOI	1.54	0.00	0.00
TOTAL	97.28	100.00	100.00

NORMS		NORMS
Q	3.07	
C	0.00	
OR	1.85	
AB	16.03	
AN	30.67	
LC	0.00	
NE	0.00	
KP	0.00	
AC	0.00	
DI	17.16	
HE	7.33	
EN	12.72	
FS	5.35	
FO	0.00	
FA	0.00	
WO	0.00	
LN	0.00	
MT	3.34	
IL	3.27	
CR	0.00	
HM	0.00	
AP	0.33	
PO	0.00	
NS	0.00	
KS	0.00	
RU	0.00	
AG	0.00	
OL	0.00	
OPX	18.07	
CPX	24.38	
AB*	16.03	

CLASSIFICATIONS AND INDICES

NA20+K20	2.07	SIO2	50.27	SUBALKALINE	
OL*	36.46	NEA	25.88	QA	37.66	SUBALKALINE
CPX	57.44	OL	0.00	OPX	42.56	ALKALINE
A	9.91	F	53.67	M	36.43	THOLEIITIC
AL203	14.29	NORM PLAG	65.67	THOLEIITIC
AN	63.17	AB*	33.02	OR	3.82	AVERAGE SERIES
CI	48.06	NORM PLAG	65.67	BASALT

JENSEN HIGH MAGNESIUM THOLEIITIC BASALT
AL 43.31 FE 27.58 MG 29.11

COLOR INDEX : 48.06
HASHIMOTO INDEX : 35.93

TRACE ELEMENTS (P.P.M.) AU,PT (P.P.B.)

CR	0.00:RB	10.00:SR	140.00:Y	-10.00:ZR	90.00:NB	20.00:BA	200.00:AU	-10.00:LI	10.00:
BE	-10.00:B	30.00:SC	41.00:V	360.00:CR	210.00:CU	46.00:NI	120.00:CU	150.00:ZN	99.00:
AS	-3.00:SE	-3.00:BR	-1.00:MO	41.00:AG	-0.50:CD	-0.20:SB	0.40:CS	-0.50:LA	7.60:
CE	21.00:ND	12.00:SM	3.40:EU	0.90:YB	2.10:LU	0.31:HF	2.00:TA	1.00:W	-3.00:
PB	26.00:BI	-0.50:TH	-0.50:U	-0.50:					

COMMENTS : FINE GRAINED PHASE OF GABBRO, DARK GREEN, SLIGHTLY GREENISH WHITE ANHEDRAL PLAGIOCLASE CRYSTALS 2 MM...3% SET IN FINE

==== K I D D C R E E K M I N E S L T D ====
=== KIDD CREEK MINESITE COMPUTER SYSTEM ===

REPORT #2000

PRINTED 20-OCT-85
10:40:27

SAMPLE ID # AB13645 WHOLE ROCK GEOCHEMICAL ANALYSIS

LAB REPORT # 24400 FIELD NUMBER : DM94185009 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE :
NTS : 092B13 PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 0.0 N : 0.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : PLUTONIC,MAFIC OR MELANOCRATIC,PEGMATITIC,MASSIVE ,OPHITIC ,LOOK AT COMMENTS FILE.
FINAL NAME :
ALTERATION : METAMORPHOSED ,LOOK AT COMMENTS,LOOK AT COMMENTS.
MINERALIZATION : DISSEMINATED AND BLEBS,1-5%,PYRRHOTITE.
FORMATION :

SAMPLED BY : D. MALLALIEU. DATE : 05-MAY-85 ANALYTICAL
ANALYZED BY : XRAL DATE : 05-JUN-85 TECHNIQUE : X-RAY FLUORESCENCE

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	48.20	49.37	47.61
AL203	12.00	12.27	13.97
FE203	18.20	4.99	3.63
FEO	0.00	12.25	9.90
CAO	9.13	9.33	9.66
MGO	5.28	5.40	7.77
NA20	2.10	2.15	4.02
K20	0.42	0.43	0.53
TIO2	3.38	3.45	2.51
P205	0.23	0.24	0.19
MNO	0.23	0.24	0.19
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR203	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H20+	0.00	0.00	0.00
H20-	0.00	0.00	0.00
LOI	1.31	0.00	0.00
TOTAL	97.84	100.00	100.00

NORMS	
Q	6.36
C	0.00
OR	2.65
AB	20.11
AN	23.55
LC	0.00
NE	0.00
KP	0.00
AC	0.00
DI	10.64
HE	7.89
EN	10.23
FS	7.59
FO	0.00
FA	0.00
WO	0.00
LN	0.00
MT	5.44
IL	5.02
CR	0.00
HM	0.00
AP	0.51
PU	0.00
NS	0.00
KS	0.00
WU	0.00
AG	0.00
OL	0.00
OPX	17.83
CPX	18.53
AB*	20.11

CLASSIFICATIONS AND INDICES

NA20+K20	2.58	SIO2	49.37	SUBALKALINE		
OL*	30.18	NE*	27.24	Q*	42.58	SUBALKALINE
CPX	50.97	OL	0.00	OPX	49.03	SUBALKALINE
A	10.42	F	67.74	M	21.84	THOLEITIC
AL203	12.27	NORM PLAG	53.94	THOLEITIC		
AN	50.86	AB*	43.42	OR	5.72	AVERAGE SERIES
CI	46.81	NORM PLAG	53.94	BASALT		

JENSEN HIGH IRON THOLEIITIC BASALT
AL 36.79 FE 42.74 MG 20.47

COLOR INDEX : 46.81
HASHIMOTO INDEX : 33.67

TRACE ELEMENTS (P.P.M.) AU,PT (P.P.B.)

CR	0.00:RB	30.00:SR	160.00:Y	30.00:ZR	130.00:NB	20.00:BA	280.00:AU	-10.00:LI	10.00:
BE	-10.00:B	30.00:SC	47.00:V	790.00:CR	15.00:CO	57.00:NI	62.00:CU	290.00:ZN	130.00:
AS	-3.00:SE	-3.00:BR	-1.00:MO	-5.00:AG	-0.50:CD	-0.20:SB	0.50:CS	-0.50:LA	12.00:
CE	31.00:ND	17.00:SM	5.60:EU	1.30:YB	3.00:LU	0.46:HF	3.00:TA	1.00:W	-3.00:
PB	26.00:BI	-0.50:TH	0.80:U	-0.50:					

COMMENTS : PEGMATITE GABBRO. DARK GREEN AMPHIBOLE, SUBHEDRAL,10 MM. BY 3 MM. RANDOM ORIENTATION. DISTRIBUTION, 40% GREENISH-WHITE PLAGIOCLASE, INTERSTITIAL TO AMPHIBOLE. MAGNETITE, 5% OF SMALL GRAINS AND AGGREGATES, 5% OF

==== K I D D C R E E K M I N E S L T D ====
=== KIDD CREEK MINESITE COMPUTER SYSTEM ===

REPORT #2000
PRINTED 20-OCT-85
SAMPLE ID # AB13646 WHOLE ROCK GEOCHEMICAL ANALYSIS 10:41:28

LAB REPORT # 24400 FIELD NUMBER : DM94185030 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE :
NTS : PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 0.0 N : 0.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANICLASTIC,FELSIC,ASH,BEDDED,LOOK AT COMMENTS FILE.
FINAL NAME :
ALTERATION : UNKNOWN ,LOOK AT COMMENTS,NO COMMENT.
MINERALIZATION : NIL ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D. MALLALIEU. DATE : 06-MAY-85 ANALYTICAL
ANALYZED BY : XRAL DATE : 05-JUN-85 TECHNIQUE : X-RAY FLUORESCENCE

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	73.10	75.70	71.28
AL203	11.60	12.01	13.33
FE203	3.75	2.03	1.44
FEO	0.00	1.67	1.31
CAO	0.73	0.76	0.76
MGO	2.25	2.33	3.27
NA2O	3.49	3.61	6.60
K2O	1.28	1.33	1.59
TIO2	0.46	0.48	0.34
P2O5	0.05	0.05	0.04
MNO	0.04	0.04	0.03
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR2O3	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H2O+	0.00	0.00	0.00
H2O-	0.00	0.00	0.00
LOI	2.00	0.00	0.00
TOTAL	96.57	100.00	100.00

NORMS	
Q	41.76
C	3.75
OR	7.97
AB	32.99
AN	3.47
LC	0.00
NE	0.00
KP	0.00
AC	0.00
DI	0.00
HE	0.00
EN	6.54
FS	0.58
FO	0.00
FA	0.00
WO	0.00
LN	0.00
MT	2.16
IL	0.67
CR	0.00
HM	0.00
AP	0.11
PO	0.00
NS	0.00
KS	0.00
KU	0.00
AG	0.00
OL	0.00
OPX	7.13
CPX	0.00
AB*	32.99

CLASSIFICATIONS AND INDICES

NA2O+K2O 4.94 SIO2 75.70 SUBALKALINE

OL* 6.52 NE* 24.18 Q* 69.30 SUBALKALINE

CPX 0.00 OL 0.00 OPX 100.00 SUBALKALINE

A 45.89 F 32.46 M 21.65 THOLEITIC

AL203 12.01 NORM PLAG 9.52 THOLEITIC

AN 7.81 AB* 74.25 OR 17.94 AVERAGE SERIES

CI 9.95 NORM PLAG 9.52 RHYOLITE

JENSEN CALC-ALKALINE ANDESITE
AL 67.59 FE 15.83 MG 16.58

COLOR INDEX : 9.95
HASHIMOTO INDEX : 45.55

TRACE ELEMENTS (P.P.M.) AU.PT (P.P.B.)

CR 40.00	NB 30.00	SR 200.00	Y 20.00	ZR 50.00	NB 10.00	BA 7370.00	AU 0.00	LI 0.00	
BE 0.00	B 0.00	SC 0.00	V 0.00	CR 0.00	CO 0.00	NI 0.00	CU 0.00	ZN 0.00	
AS 0.00	SE 0.00	BR 0.00	MO 0.00	AG 0.00	CD 0.00	SB 0.00	CS 0.00	LA 0.00	
CE 0.00	ND 0.00	SM 0.00	EU 0.00	YB 0.00	LU 0.00	HF 0.00	TA 0.00	W 0.00	
PB 0.00	BI 0.00	TH 0.00	U 0.00						

COMMENTS : RHYODACITIC TUFF, CHERTY TUFF, GREENISH-WHITE (5 GY) W/ FM INTERBEDS OF WHITE CHERT, SHOWS UNDULATORY BEDDING,PINCH
SWELL

==== K I D D C R E E K M I N E S L T D ====
=== KIDD CREEK MINESITE COMPUTER SYSTEM ===

REPORT #2000

PRINTED 20-OCT-85
10:42:30

SAMPLE ID # A813647

WHOLE ROCK GEOCHEMICAL ANALYSIS

LAB REPORT # 24400 | FIELD NUMBER : DM94185030A | PROJECT # 941
TOWNSHIP : | LOT : 0 CONCESSION : | PROVINCE :
NTS : | | PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 | GRID COORDINATES : E : 0.0 N : 0.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANICLASTIC,FELSIC,ASH,BEDDED,TECTONIZED,LOOK AT COMMENTS FILE.
FINAL NAME :
ALTERATION : UNKNOWN ,CHLORITIZATION,MODERATE.
MINERALIZATION : NIL ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D. MALLALIEU. | DATE : 09-MAY-85 | ANALYTICAL
ANALYZED BY : XRAL | DATE : 05-JUN-85 | TECHNIQUE : X-RAY FLUORESCENCE

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %		NORMS
SIO2	75.00	77.31	73.22	Q	48.08
AL203	10.00	10.31	11.51	C	4.04
FE203	4.03	1.96	1.40	OR	3.80
FEO	0.00	1.98	1.56	AB	26.21
CAO	0.82	0.85	0.86	AN	3.67
MGO	3.48	3.59	5.06	LC	0.00
NA2O	2.77	2.86	5.24	NE	0.00
K2O	0.61	0.63	0.76	KP	0.00
TIO2	0.40	0.41	0.29	AC	0.00
P2O5	0.09	0.09	0.07	DI	0.00
MNO	0.03	0.03	0.02	HE	0.00
S	0.00	0.00	0.00	EN	10.13
NIO	0.00	0.00	0.00	FS	1.20
CR2O3	0.00	0.00	0.00	FO	0.00
CO2	0.00	0.00	0.00	FA	0.00
H2O+	0.00	0.00	0.00	WO	0.00
H2O-	0.00	0.00	0.00	LN	0.00
LOI	2.16	0.00	0.00	MT	2.09
				IL	0.59
TOTAL	97.02	100.00	100.00	CR	0.00
				HM	0.00
				AP	0.20
				PO	0.00
				NS	0.00
				KS	0.00
				RU	0.00
				AG	0.00
				OL	0.00
				OPX	11.33
				CPX	0.00
				ABA	26.23

CLASSIFICATIONS AND INDICES

NA2O+K2O 3.48 SIO2 77.31 SUBALKALINE
OLA 9.93 NEA 18.37 QA 71.71 SUBALKALINE
CPX 0.00 OL 0.00 OPX 100.00 SUBALKALINE
A 32.23 F 34.58 M 33.19 THOLEITIC
AL203 10.31 NORM PLAG 13.27 THOLEITIC
AN 10.69 ABA 77.82 OR 11.29 AVERAGE SERIES
CI 14.00 NORM PLAG 12.27 DACITE

JENSEN CALC-ALKALINE BASALT
AL 57.97 FE 16.52 MG 25.51

COLOR INDEX : 14.00
HASHIMOTO INDEX : 53.26

TRACE ELEMENTS (P.P.M.) AU.PT (P.P.B.)

CR	30.00:RB	30.00:SR	130.00:Y	20.00:ZR	50.00:NB	10.00:BA	2550.00:AU	0.00:LI	0.00:
BE	0.00:B	0.00:SC	0.00:V	0.00:CR	0.00:CO	0.00:NI	0.00:CU	0.00:ZN	0.00:
AS	0.00:SE	0.00:BR	0.00:MO	0.00:AG	0.00:CD	0.00:SB	0.00:CS	0.00:LA	0.00:
CE	0.00:ND	0.00:SM	0.00:EU	0.00:YB	0.00:LU	0.00:HF	0.00:TA	0.00:W	0.00:
PB	0.00:BI	0.00:TH	0.00:U	0.00:					

COMMENTS : SLIGHTLY MORE CHLORITIC VARIATION OF A813646. SEDDED FELSIC TUFF. INTERBEDS ARE 1-2 MM. THICK DARK GREEN, CHLORITIC.

SAMPLE ID # A813648 WHOLE ROCK GEOCHEMICAL ANALYSIS

LAB REPORT # 24400 FIELD NUMBER : DM94185044 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE :
NTS : PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 0.0 N : 0.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANICLASTIC.INTERMEDIATE.ASH.TECTONIZED.CRYSTAL .LOOK AT COMMENTS FILE.
FINAL NAME :
ALTERATION : METAMORPHOSED ,CHLORITIZATION.MODERATE.
MINERALIZATION : NIL ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D. MALLALIEU. DATE : 09-MAY-85 ANALYTICAL
ANALYZED BY : XRAL DATE : 05-JUN-85 TECHNIQUE : X-RAY FLUORESCENCE

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	55.30	58.36	53.79
AL2O3	17.80	18.79	20.41
FE2O3	9.03	2.62	1.82
FEO	0.00	6.22	4.79
CAO	2.44	2.58	2.54
MGO	3.51	3.70	5.09
NA2O	4.99	5.27	9.41
K2O	0.75	0.79	0.93
TIO2	0.98	1.03	0.72
P2O5	0.37	0.39	0.30
MNO	0.24	0.25	0.20
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR2O3	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H2O+	0.00	0.00	0.00
H2O-	0.00	0.00	0.00
LOI	3.00	0.00	0.00
TOTAL	94.75	100.00	100.00

NORMS	
Q	10.24
C	6.00
OR	4.66
AB	47.05
AN	10.17
LC	0.00
NE	0.00
KP	0.00
AC	0.00
DI	0.00
HE	0.00
EN	10.18
FS	6.74
FO	0.00
FA	0.00
WO	0.00
LN	0.00
MT	2.72
IL	1.43
CR	0.00
HM	0.00
AP	0.81
PO	0.00
NS	0.00
KS	0.00
RU	0.00
AG	0.00
UL	0.00
OPX	16.91
CPX	0.00
ABA	47.05

CLASSIFICATIONS AND INDICES

NA2O+K2O 6.06 SIO2 58.36 SUBALKALINE

OLA 17.09 NEA 38.04 QA 44.86 SUBALKALINE

CPX 0.00 OL 0.00 OPX 100.00 SUBALKALINE

A 33.04 F 46.76 M 20.20 THOLEITIC

AL2O3 18.79 NORM PLAG 17.78 CALC-ALKALINE

AN 16.44 ABA 76.03 OR 7.53 AVERAGE SERIES

CI 21.07 NORM PLAG 17.78 ANDESITE

JENSEN CALC-ALKALINE ANDESITE
AL 61.80 FE 22.79 MG 15.41

COLOR INDEX : 21.07
HASHIMOTO INDEX : 36.44

TRACE ELEMENTS (P.P.M.) AU.PT (P.P.B.)

CR	20.00:RB	30.00:SR	290.00:Y	40.00:ZR	110.00:NB	30.00:BA	780.00:AU	0.00:LI	0.00:
BE	0.00:B	0.00:SC	0.00:V	0.00:CR	0.00:CO	0.00:NI	0.00:CU	0.00:ZN	0.00:
AS	0.00:SE	0.00:BR	0.00:MO	0.00:AG	0.00:CD	0.00:SB	0.00:CS	0.00:LA	0.00:
CE	0.00:ND	0.00:SM	0.00:EU	0.00:YB	0.00:LU	0.00:HF	0.00:TA	0.00:W	0.00:
PB	0.00:BI	0.00:TH	0.00:U	0.00:					

COMMENTS : ROCK IS CRYSTAL-LAPPILLI TUFF, INTERMEDIATE TO MAFIC COMPOSITION. MATRIX IS MEDIUM GREEN DISTRIBUTED RANDOMLY
THROUGHOUT ANDESIAN TO SUB-RHYANT SHITE FRAGMENTS [illegible]

==== K I D D C R E E K M I N E S L T D ====
=== KIDD CREEK MINESITE COMPUTER SYSTEM ===

REPORT #2000
PRINTED 20-OCT-85
10:44:34

SAMPLE ID # AB13649 WHOLE ROCK GEOCHEMICAL ANALYSIS

LAB REPORT # 24400 FIELD NUMBER : 0M941350444A PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE :
NTS : PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 0.0 N : 0.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE,THIN SECTION

FIELD NAME : VOLCANICLASTIC,INTERMEDIATE,ASH,MATRIX SUPPORTED,CRYSTAL ,LOOK AT COMMENTS FILE.
FINAL NAME :
ALTERATION : UNKNOWN ,EPIDOTIZATION ,WEAK.
MINERALIZATION : NIL ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D. MALLALIEU. DATE : 09-MAY-85 ANALYTICAL
ANALYZED BY : XRAL DATE : 05-JUN-85 TECHNIQUE : X-RAY FLUORESCENCE

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	64.40	66.37	63.27
AL2O3	14.80	15.25	17.14
FE2O3	7.20	2.42	1.74
FEO	0.00	4.50	3.59
CAO	4.72	4.86	4.97
MGO	2.22	2.29	3.25
NA2O	2.17	2.24	4.13
K2O	0.76	0.78	0.95
TIO2	0.65	0.68	0.68
P2O5	0.24	0.25	0.20
MNO	0.16	0.16	0.18
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR2O3	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H2O+	0.00	0.00	0.00
H2O-	0.00	0.00	0.00
LOI	2.77	0.00	0.00
TOTAL	97.03	100.00	100.00

NORMS	
Q	33.27
C	2.78
OR	4.77
AB	20.67
AN	23.18
LC	0.00
NE	0.00
KP	0.00
AC	0.00
DI	0.00
HE	0.00
EN	6.50
FS	4.44
FO	0.00
FA	0.00
WO	0.00
LN	0.00
MT	2.61
IL	1.26
CR	0.00
HM	0.00
AP	0.53
PO	0.00
NS	0.00
KS	0.00
RU	0.00
AG	0.00
UL	0.00
OPX	10.95
CPX	0.00
ABA	30.67

CLASSIFICATIONS AND INDICES

NA2O+K2O 3.02 SIO2 66.37 SUBALKALINE

OLA 13.65 NEA 19.11 QA 68.33 SUBALKALINE

CPX 0.00 OL 0.00 OPX 100.00 SUBALKALINE

A 25.20 F 55.71 M 19.09 THOLEITIC

AL2O3 15.25 NORM PLAG 52.86 THOLEITIC

AN 47.68 ABA 42.51 OR 9.81 AVERAGE SERIES

CI 14.81 NORM PLAG 52.86 ANDESITE

JENSEN THOLEIITIC DACITE
AL 64.74 FE 22.98 MG 12.28

COLOR INDEX : 14.81
HASHIMOTO INDEX : 30.19

TRACE ELEMENTS (P.P.M.) AU,PT (P.P.B.)

CR	10.00:RB	30.00:SR	390.00:Y	50.00:ZR	190.00:NB	30.00:BA	520.00:AU	0.00:LI	0.00:
BE	0.00:B	0.00:SC	0.00:V	0.00:CR	0.00:CU	0.00:NI	0.00:CU	0.00:ZN	0.00:
AS	0.00:SE	0.00:BR	0.00:MO	0.00:AG	0.00:CD	0.00:SB	0.00:CS	0.00:LA	0.00:
CE	0.00:ND	0.00:SM	0.00:EU	0.00:YB	0.00:LU	0.00:HF	0.00:TA	0.00:W	0.00:
PB	0.00:BI	0.00:TH	0.00:U	0.00:					

COMMENTS : PS310/Y6SW. FELDSPAR CRYSTAL ANDESITE TUFF. LIGHT GREEN, FINE GRAINED MATRIX, RANDOMLY DISTRIBUTED THROUGHOUT.
ORANGE TINTED, SUB-EQUANT FELDSPAR (1 MM... (5%)... ANDESITE

SAMPLE ID # A813650 WHOLE ROCK GEOCHEMICAL ANALYSIS

LAB REPORT # 24400 FIELD NUMBER : DM94185047 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE :
NTS : PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 0.0 N : 0.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANICLASTIC,INTERMEDIATE,ASH,TECTONIZED,CRYSTAL ,LOOK AT COMMENTS FILE.
FINAL NAME :
ALTERATION : PERVASIVE ,CHLORITIZATION,STRONG.
MINERALIZATION : NIL ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D. MALLALIEU. DATE : 09-MAY-85 ANALYTICAL
ANALYZED BY : XRAL DATE : 05-JUN-85 TECHNIQUE : X-RAY FLUORESCENCE

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	63.20	64.75	59.64
AL2O3	19.60	20.08	21.80
FE2O3	4.37	2.11	1.46
FEO	0.00	2.13	1.64
CAO	0.95	0.97	0.96
MGO	2.14	2.19	3.01
NA2O	4.29	4.40	7.85
K2O	2.59	2.65	3.12
TIO2	0.56	0.57	0.40
P2O5	0.08	0.08	0.06
MNO	0.06	0.06	0.05
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR2O3	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H2O+	0.00	0.00	0.00
H2O-	0.00	0.00	0.00
LOI	2.54	0.00	0.00
TOTAL	97.61	100.00	100.00

NORMS	
Q	21.45
C	9.13
OR	15.61
AB	39.24
AN	4.27
LC	0.00
NE	0.00
KP	0.00
AC	0.00
DI	0.00
HE	0.00
EN	6.02
FS	1.12
FO	0.00
FA	0.00
WO	0.00
LN	0.00
MT	2.19
IL	0.79
CR	0.00
HM	0.00
AP	0.17
PU	0.00
NS	0.00
KS	0.00
NU	0.00
AG	0.00
OL	0.00
OPX	7.14
CPX	0.00
ABA	39.24

CLASSIFICATIONS AND INDICES

NA2O+K2O 7.05 SIO2 64.75 SUBALKALINE

OL* 7.89 NEA 34.71 QA 57.40 SUBALKALINE

CPX 0.00 OL 0.00 OPX 100.00 SUBALKALINE

A 53.13 F 30.36 M 16.52 THOLEITIC

AL2O3 20.08 NORM PLAG 9.81 CALC-ALKALINE

AN 7.22 ABA 66.38 OR 26.40 K-RICH SERIES

CI 10.13 NORM PLAG 9.81 RHYOLITE

JENSEN CALC-ALKALINE DACITE
AL 76.87 FE 12.51 MG 10.61

COLOR INDEX : 10.13
HASHIMOTO INDEX : 47.44

TRACE ELEMENTS (P.P.M.) AU,PT (P.P.B.)

CR	10.00:RB	60.00:SR	180.00:Y	50.00:ZR	220.00:NB	10.00:BA	1480.00:AU	0.00:LI	0.00:
BE	0.00:B	0.00:SC	0.00:V	0.00:CR	0.00:CO	0.00:NI	0.00:CU	0.00:ZN	0.00:
AS	0.00:SE	0.00:BR	0.00:MO	0.00:AG	0.00:CD	0.00:SB	0.00:CS	0.00:LA	0.00:
CE	0.00:ND	0.00:SM	0.00:EU	0.00:YB	0.00:LU	0.00:HF	0.00:TA	0.00:W	0.00:
PB	0.00:BI	0.00:TH	0.00:U	0.00:					

COMMENTS : FS135/67NE. MEDIUM GREEN,HIGHLY CHLORITIC ANDESITIC TUFF (CHLORITE SCHIST) RANDOMLY DISTRIBUTED THROUGHOUT. DIFFUSE PINKISH FELDSPAR CRYSTALS. (2 AM., 3%), NO MINERALIZATION

==== K I D D C R E E K M I N E S L T D ====
=== KIDD CREEK MINESITE COMPUTER SYSTEM ===

REPORT #2000 PAGE 1
PRINTED 20-OCT-85
10:46:38

SAMPLE ID # AB13651 WHOLE ROCK GEOCHEMICAL ANALYSIS

LAB REPORT # 24400 FIELD NUMBER : DM94185048 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE :
NTS : PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 0.0 N : 0.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANICLASTIC.MAFIC ,ASH,TECTONIZED,CRYSTAL ,LOOK AT COMMENTS FILE.
FINAL NAME :
ALTERATION : PERVASIVE ,EPIDOTIZATION ,MODERATE.
MINERALIZATION : NIL ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D. MALLALIEU. DATE : 09-MAY-85 ANALYTICAL
ANALYZED BY : XRAL DATE : 05-JUN-85 TECHNIQUE : X-RAY FLUORESCENCE

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	51.10	53.33	51.39
AL2O3	19.10	19.93	22.64
FE2O3	13.80	2.70	1.96
FEO	0.00	10.53	8.48
CAO	4.97	5.19	5.36
MGO	2.03	2.12	3.04
NA2O	0.35	0.37	0.68
K2O	4.11	4.29	5.28
TIO2	1.09	1.14	0.82
P2O5	0.27	0.28	0.23
MNO	0.13	0.14	0.11
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR2O3	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H2O+	0.00	0.00	0.00
H2O-	0.00	0.00	0.00
LOI	3.47	0.00	0.00
TOTAL	99.83	100.00	100.00

NORMS	
Q	13.73
C	6.74
OR	26.39
AB	3.41
AN	24.86
LC	0.00
NE	0.00
KP	0.00
AC	0.00
DI	0.00
HE	0.00
EN	6.09
FS	13.58
FO	0.00
FA	0.00
WO	0.00
LN	0.00
MT	2.94
IL	1.65
CM	0.00
HM	0.00
AP	0.61
PO	0.00
NS	0.00
KS	0.00
RU	0.00
AG	0.00
OL	0.00
OPX	19.67
CPX	0.00
AB*	3.41

CLASSIFICATIONS AND INDICES

NA2O+K2O 4.65 SIO2 53.33 SUBALKALINE
OL* 40.07 NE* 5.56 Q* 54.37 SUBALKALINE
CPX 0.00 OL 0.00 OPX 100.00 SUBALKALINE
A 23.59 F 65.67 M 10.74 THOLEITIC
AL2O3 19.93 NORM PLAG 87.93 CALC-ALKALINE
AN 45.47 AB* 6.24 OR 48.28 K-RICH SERIES
CI 24.25 NORM PLAG 87.93 BASALT

JENSEN THOLEIITIC DACITE
AL 61.09 FE 30.70 MG 8.21

COLOR INDEX : 24.25
HASHIMOTO INDEX : 53.58

TRACE ELEMENTS (P.P.M.) AU,PT (P.P.B.)

CR	20.00:RB	70.00:SR	300.00:Y	30.00:ZR	40.00:NB	-10.00:BA	1490.00:AU	0.00:LI	0.00:
BE	0.00:B	0.00:SC	0.00:V	0.00:CR	0.00:CO	0.00:NI	0.00:CU	0.00:ZN	0.00:
AS	0.00:SE	0.00:BR	0.00:MO	0.00:AG	0.00:CD	0.00:SB	0.00:CS	0.00:LA	0.00:
CE	0.00:ND	0.00:SM	0.00:EU	0.00:YB	0.00:LU	0.00:HF	0.00:TA	0.00:W	0.00:
PB	0.00:BI	0.00:TH	0.00:U	0.00:					

COMMENTS : ACICULAR GRAINED, DARK GREEN CHLORITE SCHIST CONTAINING MINOR FELDSPAR GRAINS. APHYRAL SUB-ROUNDED (1 MM., 3%).
[illegible] SERICITIZED MAFIC CRYSTAL TUFF

SAMPLE ID # AB13652 WHOLE ROCK GEOCHEMICAL ANALYSIS

LAB REPORT # 24400 FIELD NUMBER : 0M94185049 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE :
NTS : PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 0.0 N : 0.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANICLASTIC,MAFIC ,ASH,TECTONIZED,CRYSTAL .LOOK AT COMMENTS FILE.
FINAL NAME :
ALTERATION : PERVASIVE ,EPIDOTIZATION ,MODERATE.
MINERALIZATION : NIL ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D. MALLALIEU. DATE : 09-MAY-85
ANALYZED BY : XRAL DATE : 05-JUN-85
ANALYTICAL TECHNIQUE : X-RAY FLUORESCENCE

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	63.80	66.34	63.70
AL203	15.50	16.12	18.24
FE203	8.47	2.42	1.75
FEO	0.00	5.75	4.61
CAO	1.33	1.38	1.42
MGO	3.08	3.20	4.58
NA20	0.52	0.54	1.01
K20	3.04	3.16	3.88
TIO2	0.83	0.86	0.62
P205	0.13	0.12	0.10
MNO	0.09	0.09	0.08
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR203	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H20+	0.00	0.00	0.00
H20-	0.00	0.00	0.00
LOI	3.31	0.00	0.00
TOTAL	96.16	100.00	100.00

NORMS			
Q	38.77		
C	10.85		
OR	19.38		
AB	5.03		
AN	6.27		
LC	0.00		
NE	0.00		
KP	0.00		
AC	0.00		
DI	0.00		
HE	0.00		
EN	9.17		
FS	6.38		
FO	0.00		
FA	0.00		
WO	0.00		
LN	0.00		
MT	2.63		
IL	1.35		
CR	0.00		
HM	0.00		
AP	0.27		
PO	0.00		
NS	0.00		
KS	0.00		
RU	0.00		
AG	0.00		
GL	0.00		
OPX	15.53		
CPX	0.00		
AB*	5.03		

CLASSIFICATIONS AND INDICES

NA20+K20	3.70	SIO2	66.34	SUBALKALINE		
OL*	19.65	NE*	5.09	Q*	75.26	SUBALKALINE
CPX	0.00	OL	0.00	OPX	100.00	SUBALKALINE
A	24.96	F	53.44	M	21.60	THOLEIITIC
AL203	16.12	NORM PLAG	55.46			THOLEIITIC
AN	20.43	AB*	16.40	OR	63.17	K-RICH SERIES
CI	19.42	NORM PLAG	55.46			BASALT

JENSEN CALC-ALKALINE ANDESITE
AL 61.03 FE 23.63 MG 15.33

COLOR INDEX : 19.42
HASHIMOTO INDEX : 76.79

TRACE ELEMENTS (P.P.M.) AU.PT (P.P.B.)

CR	10.00:RB	70.00:SR	80.00:Y	40.00:ZR	130.00:NB	30.00:BA	2740.00:AU	0.00:LI	0.00:
BE	0.00:B	0.00:SC	0.00:V	0.00:CR	0.00:CO	0.00:NI	0.00:CU	0.00:ZN	0.00:
AS	0.00:SE	0.00:BR	0.00:MO	0.00:AG	0.00:CD	0.00:SB	0.00:CS	0.00:LA	0.00:
CE	0.00:ND	0.00:SM	0.00:EU	0.00:YB	0.00:LU	0.00:HF	0.00:TA	0.00:W	0.00:
PB	0.00:BI	0.00:TH	0.00:U	0.00:					

COMMENTS : PS137/77NE. FELDSPAR CRYSTAL ANDESITE TUFF. ORANGE (CO)SITE, CLINOZOIS) TINTED FELDSPAR CRYSTALS (1MM.,15%).
GROUNDMASS IS ACICULAR CHLORITE AND AMPHIBOLE. ON [illegible]

SAMPLE ID # AB13653 WHOLE ROCK GEOCHEMICAL ANALYSIS

LAB REPORT # 24400 FIELD NUMBER : 0M94185051 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE : BRITISH COLUMBIA
NTS : PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 0.0 N : 0.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANICLASTIC,INTERMEDIATE,BLOCK ,HETEROGENEOUS ,TECTONIZED,LOOK AT COMMENTS FILE.
FINAL NAME :
ALTERATION : UNKNOWN ,LOOK AT COMMENTS,NO COMMENT.
MINERALIZATION : NIL ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D. MALLALIEU. DATE : 09-MAY-85 ANALYTICAL
ANALYZED BY : XRAL DATE : 05-JUN-85 TECHNIQUE : X-RAY FLUORESCENCE

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	54.60	57.07	52.89
AL203	17.90	18.71	20.44
FE203	7.60	2.50	1.74
FEO	0.00	4.90	3.80
CAO	5.39	5.63	5.59
MGO	3.64	3.80	5.26
NA20	3.52	3.68	6.61
K20	2.03	2.12	2.51
TIO2	0.89	0.93	0.65
P205	0.44	0.46	0.36
MNO	0.18	0.19	0.15
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR203	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H20+	0.00	0.00	0.00
H20-	0.00	0.00	0.00
LOI	4.20	0.00	0.00
TOTAL	95.67	100.00	100.00

NORMS	
Q	7.86
C	1.33
OR	12.56
AB	33.05
AN	24.96
LC	0.00
NE	0.00
KP	0.00
AC	0.00
DI	0.00
HE	0.00
EN	10.51
FS	4.85
FO	0.00
FA	0.00
WO	0.00
LN	0.00
MT	2.61
IL	1.30
CR	0.00
HM	0.00
AP	0.96
PO	0.00
NS	0.00
KS	0.00
RU	0.00
AG	0.00
OL	0.00
OPX	15.36
CPX	0.00
AB*	33.05

CLASSIFICATIONS AND INDICES

NA20+K20 5.80 SIO2 57.07 SUBALKALINE
OL* 20.47 NE* 35.24 Q* 44.29 SUBALKALINE
CPX 0.00 OL 0.00 OPX 100.00 SUBALKALINE
A 34.63 F 42.66 M 22.71 THOLEIITIC
AL203 18.71 NORM PLAG 43.02 CALC-ALKALINE
AN 35.37 AB* 46.84 OR 17.79 AVERAGE SERIES
CI 19.27 NORM PLAG 43.03 ANDESITE

JENSEN CALC-ALKALINE ANDESITE
AL 63.81 FE 19.78 MG 16.41

COLOR INDEX : 19.27
HASHIMOTO INDEX : 38.89

TRACE ELEMENTS (P.P.M.) AU.PT (P.P.B.)

CR	0.00:RB	40.00:SR	250.00:Y	30.00:ZR	90.00:NB	10.00:BA	1120.00:AU	-10.00:LI	50.00:
BE	-10.00:B	30.00:SC	23.00:V	120.00:CR	19.00:CO	13.00:NI	13.00:CU	2.00:ZN	120.00:
AS	3.00:SE	-3.00:BR	1.00:MO	-5.00:AG	-0.50:CD	-0.20:SB	0.40:CS	-0.50:LA	14.40:
CE	31.00:ND	17.00:SM	4.70:EU	1.30:YB	0.70:LU	0.57:HF	2.00:TA	-1.00:W	-3.00:
PB	28.00:BI	-0.50:TH	3.30:U	0.90:					

COMMENTS : DACITIC COMPOSITION, FINE GRAINED, GREY MATRIX, HETEROGENOUS ORIGIN, ACCEPTS FOR 70% OF ROCK, MODES REFERENCING, CLASTS
UP TO 30 CM., ALTERED TO CHLORITE [illegible]

==== K I D D C R E E K M I N E S L T D ====
=== KIDD CREEK MINESITE COMPUTER SYSTEM ===

REPORT #2000
PRINTED 20-OCT-85
SAMPLE ID # AS13654 WHOLE ROCK GEOCHEMICAL ANALYSIS 10:49:44

LAB REPORT # 24400 FIELD NUMBER : DM94185052 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE : BRITISH COLUMBIA
NTS : PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 0.0 N : 0.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANICLASTIC,INTERMEDIATE,LAPILLI,TECTONIZED.LOOK AT COMMENTS FILE.
FINAL NAME :
ALTERATION : UNKNOWN ,LOOK AT COMMENTS,NO COMMENT.
MINERALIZATION : NIL ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D. MALLALIEU. DATE : 09-MAY-85 ANALYTICAL
ANALYZED BY : XRAL DATE : 05-JUN-85 TECHNIQUE : X-RAY FLUORESCENCE

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	57.80	60.31	56.63
AL2O3	17.70	18.47	20.44
FE2O3	7.28	2.48	1.75
FEO	0.00	4.60	3.61
CAO	4.84	5.05	5.08
MGO	4.21	4.39	6.15
NA2O	2.01	2.10	3.82
K2O	1.27	1.33	1.59
TIO2	0.88	0.92	0.65
P2O5	0.22	0.23	0.18
MNO	0.12	0.13	0.10
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR2O3	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H2O+	0.00	0.00	0.00
H2O-	0.00	0.00	0.00
LOI	3.85	0.00	0.00
TOTAL	95.84	100.00	100.00

NORMS	
Q	22.52
C	5.48
OR	7.95
AB	19.09
AN	23.88
LC	0.00
NE	0.00
KP	0.00
AC	0.00
DI	0.00
HE	0.00
EN	12.29
FS	4.37
FO	0.00
FA	0.00
WO	0.00
LN	0.00
MT	2.63
IL	1.30
CR	0.00
HM	0.00
AP	0.49
PU	0.00
NS	0.00
KS	0.00
NU	0.00
AB	0.00
UL	0.00
OPX	16.67
CPX	0.00
AB*	19.09

CLASSIFICATIONS AND INDICES

NA2O+K2O 3.42 SIO2 60.31 SUBALKALINE
OL* 21.45 NE* 19.65 Q* 58.90 SUBALKALINE
CPX 0.00 OL 0.00 OPX 100.00 SUBALKALINE
A 23.36 F 46.65 M 29.98 THOLEIITIC
AL2O3 18.47 NORM PLAG 55.58 CALC-ALKALINE
AN 46.90 AB* 37.49 OR 15.61 AVERAGE SERIES
CI 20.60 NORM PLAG 55.58 BASALT

JENSEN CALC-ALKALINE ANDESITE
AL 62.50 FE 18.70 MG 18.80

COLOR INDEX : 20.60
HASHIMOTO INDEX : 44.44

TRACE ELEMENTS (P.P.M.) AU,PT (P.P.B.)

CR 10.00	:RB 30.00	:SR 350.00	:Y 30.00	:ZR 140.00	:NB 20.00	:BA 1650.00	:AU 0.00	:LI 0.00	:
BE 0.00	:B 0.00	:SC 0.00	:V 0.00	:CR 0.00	:CO 0.00	:NI 0.00	:CU 0.00	:ZN 0.00	:
AS 0.00	:SE 0.00	:BR 0.00	:MO 0.00	:AG 0.00	:CD 0.00	:SB 0.00	:CS 0.00	:LA 0.00	:
CE 0.00	:ND 0.00	:SM 0.00	:EU 0.00	:YB 0.00	:LU 0.00	:HF 0.00	:TA 0.00	:W 0.00	:
PB 0.00	:BI 0.00	:TH 0.00	:U 0.00	:					

COMMENTS : PS502/44SW.FINE GRAINED LT. TO MED. GREEN ANDESITIC MATRIX,1??..?5%,SUB-EQUANT FELDSPAR DISTRIBUTED THROUGHOUT.RARE

==== K I D D   C R E E K   M I N E S   L T D ====
=== KIDD CREEK MINESITE COMPUTER SYSTEM ===

REPORT #2000 PAGE 1
PRINTED 20-OCT-85
SAMPLE ID # A813655 WHOLE ROCK GEOCHEMICAL ANALYSIS 10:50:46

LAB REPORT # 24400 FIELD NUMBER : DM94185050 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE : BRITISH COLUMBIA
NTS : PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 0.0 N : 0.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANIC,INTERMEDIATE,FINE,EQUIGRANULAR,FELDSPAR PORPHYRITIC,MASSIVE.
FINAL NAME :
ALTERATION : PERVASIVE ,EPIDOTIZATION ,STRONG.
MINERALIZATION : NIL ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D. MALLALIEU. DATE : 09-MAY-85 ANALYTICAL
ANALYZED BY : XRAL DATE : 05-JUN-85 TECHNIQUE : X-RAY FLUORESCENCE

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %		NORMS
SIO2	52.20	54.39	50.94	Q	8.41
AL2O3	18.40	19.17	21.16	C	0.00
FE2O3	9.04	2.51	1.77	OR	1.99
FEO	0.00	6.22	4.87	AB	26.86
CAO	8.98	9.36	9.39	AN	38.48
MGO	3.45	3.59	5.02	LC	0.00
NA2O	2.84	2.96	5.37	NE	0.00
K2O	0.32	0.33	0.40	KP	0.00
TIO2	0.91	0.95	0.67	AC	0.00
P2O5	0.28	0.29	0.23	DI	3.08
MNO	0.22	0.23	0.18	HE	2.15
S	0.00	0.00	0.00	EN	8.49
NIO	0.00	0.00	0.00	FS	5.92
CR2O3	0.00	0.00	0.00	FO	0.00
CO2	0.00	0.00	0.00	FA	0.00
H2O+	0.00	0.00	0.00	WO	0.00
H2O-	0.00	0.00	0.00	LN	0.00
LOI	3.00	0.00	0.00	MT	2.65
				IL	1.34
TOTAL	95.98	100.00	100.00	CR	0.00
				HM	0.00
				AP	0.62
				PO	0.00
				NS	0.00
				KS	0.00
				RU	0.00
				AG	0.00
				OL	0.00
				OPX	14.42
				CPX	5.23
				AB*	26.86

CLASSIFICATIONS AND INDICES

NA2O+K2O	3.29	SIO2			54.39	SUBALKALINE
OL*	21.76	NE*	33.44	Q*	45.80	SUBALKALINE
CPX	26.62	OL	0.00	OPX	73.38	SUBALKALINE
A	21.43	F	55.17	M	23.40	THOLEIITIC
AL2O3	19.17	NORM PLAG			58.89	CALC-ALKALINE
AN	57.14	AB*	39.89	OR	2.96	AVERAGE SERIES
CI	23.63	NORM PLAG			58.89	BASALT

JENSEN CALC-ALKALINE ANDESITE
AL 62.86 FE 22.24 MG 14.90

COLOR INDEX : 23.63
HASHIMOTO INDEX : 24.18

TRACE ELEMENTS (P.P.M.) AU.PT (P.P.B.)

CR	0.00:RB	20.00:SR	690.00:Y	30.00:ZR	120.00:NB	20.00:BA	220.00:AU	-10.00:LI	50.00:
BE	-10.00:B	20.00:SC	26.00:V	190.00:CR	11.00:CO	16.00:NI	11.00:CU	24.00:ZN	110.00:
AS	-2.00:SE	-3.00:BR	-1.00:MO	-5.00:AG	-0.50:CD	-0.20:SB	0.20:CS	-0.50:LA	15.40:
CE	36.00:ND	20.00:SM	4.90:EU	1.30:YB	3.?0:LU	0.58:HF	2.00:TA	-1.00:W	-3.00:
PB	32.00:BI	-0.50:TH	2.00:U	1.20:					

COMMENTS : FELDSPAR-PHYR C ANDESITE MATRIX IS MED.GREEN AND FINE GRAINED, RANDOMLY DISTRIBUTED THROUGHOUT SUBHEDRAL BLOCKY
[illegible]

LAB REPORT # 24008 FIELD NUMBER : 0M9418#399C PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE : BRITISH COLUMBIA
NTS : 092B14 PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 465692.0 N : 5400087.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANICLASTIC,FELSIC,ASH,BEDDED,QUARTZ AND FELDSPAR PORPHYRITIC,TECTONIZED.
FINAL NAME :
ALTERATION : PERVASIVE ,SERICITIZATION,STRONG.
MINERALIZATION : DISSEMINATED AND BLEBS,<1% ,PYRRHOTITE PLUS CHALCOPYRITE.
FORMATION :

SAMPLED BY : D.MALLALIEU DATE : 21-JUL-84 ANALYTICAL
ANALYZED BY : XRAL DATE : 14-MAR-85 TECHNIQUE : ATOMIC ABSORPTION

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	68.20	70.31	65.57
AL2O3	15.30	15.77	17.34
FE2O3	3.49	1.91	1.34
FEO	0.00	1.52	1.19
CAO	2.67	2.75	2.75
MGO	1.30	1.34	1.86
NA2O	4.08	4.21	7.60
K2O	1.56	1.61	1.92
TIO2	0.35	0.36	0.25
P2O5	0.16	0.16	0.13
MNO	0.06	0.06	0.05
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR2O3	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H2O+	0.00	0.00	0.00
H2O-	0.00	0.00	0.00
LOI	2.08	0.00	0.00
TOTAL	97.01	100.00	100.00

NORMS	
Q	29.77
C	2.75
OR	9.58
AB	38.02
AN	12.67
LC	0.00
NE	0.00
KP	0.00
AC	0.00
DI	0.00
HE	0.00
EN	3.73
FS	0.65
FO	0.00
FA	0.00
WO	0.00
LN	0.00
MT	2.01
IL	0.51
CR	0.00
HM	0.00
AP	0.35
PO	0.00
NS	0.00
KS	0.00
RU	0.00
AG	0.00
UL	0.00
OPX	4.35
CPX	0.00
ABX	38.02

CLASSIFICATIONS AND INDICES

NA2O+K2O 5.81 SIO2 70.31 SUBALKALINE
OL* 4.52 NE* 31.62 QA 63.85 SUBALKALINE
CPX 0.00 OL 0.00 OPX 100.00 SUBALKALINE
A 55.95 F 31.15 M 12.90 THOLEIITIC
AL2O3 15.77 NORM FLAG 24.99 CALC-ALKALINE
AN 31.02 AB* 63.09 OR 15.89 AVERAGE SERIES
C1 6.87 NORM FLAG 24.99 DACITE

JENSEN CALC-ALKALINE DACITE
AL 78.71 FE 12.83 MG 8.46

COLOR INDEX : 6.87
HASHIMOTO INDEX : 29.76

TRACE ELEMENTS (P.P.M.) AU,PT (P.P.B.)

CU 15.00:PB	22.00:ZN	46.00:AG	-0.50:AU	-10.00:MN	386.00:BA	1700.00:C	0.00:LR	4.00:	
RB 30.00:SR	1050.00:Y	20.00:ZR	170.00:NB	10.00:SC	8.40:CO	1.00:NI	4.00:AS	-2.00:	
SE -3.00:BR	-1.00:MO	-5.00:CD	-0.20:SB	0.60:CS	-0.50:LA	11.70:CE	26.00:ND	11.00:	
SM 2.80:EU	0.50:YB	3.00:LU	0.55:HF	4.00:TA	-1.00:W	-3.00:BI	-0.50:TH	5.40:	
U 2.00:									

COMMENTS : SP0355/555W

LAB REPORT # 24008 FIELD NUMBER : DM94184400A PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE : BRITISH COLUMBIA
NTS : 092B14 PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 465660.0 N : 5400064.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANICLASTIC,INTERMEDIATE,ASH,MASSIVE ,HOMOGENEOUS ,TECTONIZED.
FINAL NAME :
ALTERATION : METAMORPHOSED ,LOOK AT COMMENTS,STRONG.
MINERALIZATION : NIL ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D.MALLALIEU DATE : 21-JUL-84 ANALYTICAL
ANALYZED BY : XRAL DATE : 14-MAR-85 TECHNIQUE : ATOMIC ABSORPTION

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	69.70	72.48	69.02
AL2O3	14.40	14.97	16.81
FE2O3	3.18	1.90	1.36
FEO	0.00	1.26	1.01
CAO	2.70	2.81	2.86
MGO	1.65	1.72	2.44
NA2O	1.26	1.31	2.42
K2O	2.94	3.06	3.72
TIO2	0.33	0.34	0.25
P2O5	0.08	0.08	0.07
MNO	0.06	0.06	0.05
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR2O3	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H2O+	0.00	0.00	0.00
H2O-	0.00	0.00	0.00
LOI	2.31	0.00	0.00
TOTAL	96.16	100.00	100.00

NORMS	
Q	42.54
C	5.16
OR	18.59
AB	12.09
AN	13.76
LC	0.00
NE	0.00
KP	0.00
AC	0.00
DI	0.00
HE	0.00
EN	4.87
FS	0.26
FO	0.00
FA	0.00
WO	0.00
LN	0.00
MT	2.05
IL	0.49
CR	0.00
HM	0.00
AP	0.18
PO	0.00
NS	0.00
KS	0.00
RU	0.00
AG	0.00
OL	0.00
OPX	5.13
CPX	0.00
AB*	12.09

CLASSIFICATIONS AND INDICES

NA2O+K2O 4.37 SIO2 72.48 SUBALKALINE

OL* 6.44 NE* 12.14 Q* 81.42 SUBALKALINE

CPX 0.00 OL 0.00 OPX 100.00 SUBALKALINE

A 48.21 F 32.85 M 18.94 THOLEITIC

AL2O3 14.97 NORM PLAG 53.23 THOLEITIC

AN 30.97 AB* 27.21 OR 41.82 K-RICH SERIES

CI 7.66 NORM PLAG 53.23 ANDESITE

JENSEN CALC-ALKALINE DACITE
AL 76.72 FE 12.17 MG 11.11

COLOR INDEX : 7.66
HASHIMOTO INDEX : 53.68

TRACE ELEMENTS (P.P.M.) AU.PT (P.P.B.)

CU 16.00	PB 24.00	ZN 73.00	AG -0.50	AU -10.00	MN 360.00	BA 3200.00	C 0.00	CR 6.00	
RB 70.00	SR 1330.00	Y 40.00	ZR 140.00	NB 20.00	SC 13.00	CO 4.00	NI 7.00	AS -2.00	
SE -3.00	BR -1.00	MO -5.00	CD -0.20	SB 0.80	CS 1.60	LA 12.10	CE 37.00	ND 13.00	
SM 3.80	EU 0.90	TB 3.00	LU 0.53	HF 3.00	TA -1.00	W -3.00	BI -0.50	TH 3.50	
U 1.40									

COMMENTS : SPOSIO/4SEW

SAMPLE ID # AB16914 WHOLE ROCK GEOCHEMICAL ANALYSIS

LAB REPORT # 24008 FIELD NUMBER : 0M94184402 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE : BRITISH COLUMBIA
NTS : 092B14 PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 465650.0 N : 5400052.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANICLASTIC.INTERMEDIATE.ASH.HOMOGENEOUS .TECTONIZED.LOOK AT COMMENTS FILE.
FINAL NAME :
ALTERATION : METAMORPHOSED .SERICITIZATION.MODERATE.
MINERALIZATION : NIL .NIL .NO COMMENT.
FORMATION :

SAMPLED BY : D.MALLALIEU DATE : 21-JUL-84 ANALYTICAL
ANALYZED BY : XRAL DATE : 14-MAR-85 TECHNIQUE : ATOMIC ABSORPTION

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	71.60	73.49	69.78
AL2O3	14.80	15.19	17.00
FE2O3	2.00	1.80	1.28
FEO	0.00	0.23	0.18
CAO	2.51	2.58	2.62
MGO	1.02	1.05	1.48
NA2O	1.47	1.51	2.78
K2O	3.69	3.79	4.59
TIO2	0.25	0.26	0.18
P2O5	0.06	0.06	0.05
MNO	0.05	0.05	0.04
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR2O3	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H2O+	0.00	0.00	0.00
H2O-	0.00	0.00	0.00
LOI	1.93	0.00	0.00
TOTAL	97.42	100.00	100.00

NORMS			
Q	41.11		
C	4.55		
OR	22.97		
AB	13.89		
AN	12.69		
LC	0.00		
NE	0.00		
KP	0.00		
AC	0.00		
DI	0.00		
HE	0.00		
EN	2.96		
FS	0.00		
FO	0.00		
FA	0.00		
WO	0.00		
LN	0.00		
MT	0.12		
IL	0.37		
CR	0.00		
HM	1.20		
AP	0.13		
PO	0.00		
NS	0.00		
KS	0.00		
RU	0.00		
AG	0.00		
OL	0.00		
OPX	2.96		
CPX	0.00		
ABA	13.89		

CLASSIFICATIONS AND INDICES

NA2O+K2O 5.30 SIO2 73.49 SUBALKALINE

OL* 3.83 NE* 14.38 Q* 81.79 SUBALKALINE

CPX 0.00 OL 0.00 OPX 100.00 SUBALKALINE

A 64.66 F 22.55 M 12.78 CALC-ALKALINE

AL2O3 15.19 NORM PLAG 47.75 THOLEIITIC

AN 25.62 AB* 28.03 OR 46.35 K-RICH SERIES

CI 4.65 NORM PLAG 47.75 HIGH ALUMINA ANDESITE

JENSEN CALC-ALKALINE RHYOLITE
AL 84.27 FE 8.38 MG 7.34

COLOR INDEX : 4.65
HASHIMOTO INDEX : 54.20

TRACE ELEMENTS (P.P.M.) AU.PT (P.P.B.)

CU	7.50:PB	25.00:ZN	90.00:AG	-0.50:AU	410.00:MN	305.00:BA	1300.00:C	0.00:CR	3.00:
RB	60.00:SR	910.00:Y	50.00:ZR	210.00:NB	10.00:SC	13.00:CO	2.00:NI	6.00:AS	-2.00:
SE	-3.00:BR	-1.00:MO	-5.00:CD	-0.50:SB	1.30:CS	1.10:LA	24.20:CE	90.00:ND	36.00:
SM	7.90:EU	1.00:YB	3.00:LU	0.54:HF	6.00:TA	-1.00:W	-3.00:RE	-0.50:TH	4.60:
U	1.80:								

COMMENTS : SP0814/2004

SAMPLE ID # A816919 WHOLE ROCK GEOCHEMICAL ANALYSIS

LAB REPORT # 24005 FIELD NUMBER : DM94184423 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE : BRITISH COLUMBIA
NTS : 092B14 PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 465613.0 N : 5309615.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANICLASTIC,INTERMEDIATE,ASH,HOMOGENEOUS ,TECTONIZED,LOOK AT COMMENTS FILE.
FINAL NAME :
ALTERATION : METAMORPHOSED ,SERICITIZATION,WEAK.
MINERALIZATION : NIL ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D.MALLALIEU DATE : 21-JUL-84 ANALYTICAL
ANALYZED BY : XRAL DATE : 14-MAR-85 TECHNIQUE : ATOMIC ABSORPTION

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	65.80	68.13	63.36
AL2O3	14.90	15.43	16.91
FE2O3	4.83	2.18	1.53
FEO	0.00	2.53	1.97
CAO	1.84	1.91	1.90
MGO	2.68	2.77	3.85
NA2O	4.02	4.16	7.50
K2O	1.85	1.92	2.28
TIO2	0.61	0.63	0.44
P2O5	0.24	0.25	0.20
MNO	0.08	0.08	0.07
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR2O3	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H2O+	0.00	0.00	0.00
H2O-	0.00	0.00	0.00
LOI	2.39	0.00	0.00
TOTAL	96.58	100.00	100.00

NORMS	
Q	26.20
C	3.99
OR	11.38
AB	37.52
AN	7.86
LC	0.00
NE	0.00
KP	0.00
AC	0.00
DI	0.00
HE	0.00
EN	7.69
FS	1.66
FO	0.00
FA	0.00
WO	0.00
LN	0.00
MT	2.29
IL	0.88
CR	0.00
HM	0.00
AP	0.52
PO	0.00
NS	0.00
KS	0.00
RU	0.00
AS	0.00
OL	0.00
OPX	9.35
CPX	0.00
AB*	37.52

CLASSIFICATIONS AND INDICES

NA2O+K2O 6.08 SIO2 68.13 SUBALKALINE
OL* 9.60 NE* 30.81 Q* 59.59 SUBALKALINE
CPX 0.00 OL 0.00 OPX 100.00 SUBALKALINE
A 45.52 F 33.70 M 20.78 THOLEITIC
AL2O3 15.43 NORM PLAG 17.32 CALC-ALKALINE
AN 13.85 AB* 66.11 OR 30.04 AVERAGE SERIES
CI 12.53 NORM PLAG 17.32 DACITE

JENSEN CALC-ALKALINE ANDESITE
AL 68.29 FE 16.18 MG 15.53

COLOR INDEX : 12.53
HASHIMOTO INDEX : 43.60

TRACE ELEMENTS (P.P.M.) AU.FT (P.P.B.)

CU 14.00:PB	20.00:ZN	110.00:AG	-0.50:AU	-10.00:MN	515.00:BA	1100.00:C	0.00:CR	-10.00:
RB 40.00:SR	300.00:Y	30.00:ZR	110.00:NB	10.00:SC	18.00:CO	6.00:NI	8.00:AS	2.00:
SE -3.00:BR	-1.00:MO	-5.00:CD	-0.20:SB	0.40:CS	2.50:LA	19.50:CE	39.00:ND	18.00:
SM 4.70:EU	1.00:YB	4.00:LU	0.63:HF	2.00:TA	-1.00:W	-3.00:BI	-0.50:TH	3.10:
U 1.70:								

COMMENTS : GPS306/386W

==== K I D D C R E E K M I N E S L T D ====
=== KIDD CREEK MINESITE COMPUTER SYSTEM ===

REPORT #2000
PRINTED 20-OCT-85
11:49:04

SAMPLE ID # A816921 WHOLE ROCK GEOCHEMICAL ANALYSIS

LAB REPORT # 24008 FIELD NUMBER : DN94184426A PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE : BRITISH COLUMBIA
NTS : 092B14 PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 465651.0 N : 5399661.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANICLASTIC,FELSIC,ASH,HOMOGENEOUS ,TECTONIZED,LOOK AT COMMENTS FILE.
FINAL NAME :
ALTERATION : METAMORPHOSED ,SERICITIZATION,STRONG.
MINERALIZATION : NIL ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D.MALLALIEU DATE : 21-JUL-84 ANALYTICAL
ANALYZED BY : XRAL DATE : 14-MAR-85 TECHNIQUE : ATOMIC ABSORPTION

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	73.50	75.52	71.39
AL2O3	13.00	13.36	14.88
FE2O3	2.52	1.73	1.23
FEO	0.00	0.78	0.61
CAO	1.34	1.38	1.39
MGO	1.52	1.56	2.20
NA2O	2.43	2.50	4.58
K2O	2.83	2.91	3.51
TIO2	0.18	0.18	0.13
P2O5	0.04	0.04	0.03
MNO	0.05	0.05	0.04
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR2O3	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H2O+	0.00	0.00	0.00
H2O-	0.00	0.00	0.00
LOI	1.54	0.00	0.00
TOTAL	97.33	100.00	100.00

NORMS	
Q	42.25
C	4.12
OR	17.55
AB	22.88
AN	6.70
LC	0.00
NE	0.00
KP	0.00
AC	0.00
DI	0.00
HE	0.00
EN	4.40
FS	0.00
FO	0.00
FA	0.00
WO	0.00
LN	0.00
MT	1.57
IL	0.26
CR	0.00
HM	0.18
AP	0.09
PU	0.00
NS	0.00
KS	0.00
FO	0.00
AU	0.00
OL	0.00
OPX	4.40
CPX	0.00
ABA	22.88

CLASSIFICATIONS AND INDICES

NA2O+K2O	5.40	SIO2	75.52	SUBALKALINE		
OL*	4.75	NE*	19.74	Q*	75.51	SUBALKALINE
CPX	0.00	OL	0.00	OPX	100.00	SUBALKALINE
A	58.14	F	25.06	M	16.80	CALC-ALKALINE
AL2O3	13.36	NORM PLAG	22.65	THOLEIITIC		
AN	14.21	AB*	48.54	OR	37.24	K-RICH SERIES
C1	6.41	NORM PLAG	22.65	DACITE		

JENSEN CALC-ALKALINE DACITE
AL 77.93 FE 10.55 MG 11.52

COLOR INDEX : 6.41
HASHIMOTO INDEX : 53.57

TRACE ELEMENTS (P.P.M.) AU.PT (P.P.B.)

CU	7.50:PB	18.00:ZN	100.00:AG	-0.50:AU	-10.00:MN	315.00:BA	1200.00:C	0.00:CR	-10.00:
RB	70.00:SR	300.00:Y	50.00:ZR	190.00:NB	30.00:SC	7.70:CD	2.00:N(	5.00:AS	-2.00:
SE	-3.00:BR	1.00:MO	-5.00:CD	-0.30:SB	0.00:CS	0.90:LA	25.30:CE	58.00:ND	27.00:
SM	6.30:EU	1.50:YB	6.00:LU	0.94:HF	5.00:TA	-1.00:W	-3.00:BI	-0.50:TH	5.50:
U	3.30:								

COMMENTS : SPS305/66SW

==== K I D D C R E E K M I N E S L T D ====
=== KIDD CREEK MINESITE COMPUTER SYSTEM ===

REPORT #2000

SAMPLE ID # AB16928 WHOLE ROCK GEOCHEMICAL ANALYSIS

LAB REPORT # 24006 FIELD NUMBER : DM941@4440 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE : BRITISH COLUMBIA
NTS : 092B14 PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 464585.0 N : 5400609.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANICLASTIC,FELSIC,ASH,BEDDED,HOMOGENEOUS ,CRYSTAL.
FINAL NAME :
ALTERATION :
MINERALIZATION : NIL ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D.MALLALIEU DATE : 26-JUL-84 ANALYTICAL
ANALYZED BY : XRAL DATE : 14-MAR-85 TECHNIQUE : ATOMIC ABSORPTION

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %		NORMS
SIO2	90.60	92.29	90.48	Q	79.87
AL203	3.47	3.53	4.08	C	0.47
FE203	1.44	1.47	1.08	OR	0.26
FEO	0.00	0.00	0.00	AB	15.49
CAO	0.37	0.28	0.29	AN	1.16
MGO	0.47	0.48	0.70	LC	0.00
NA2O	1.60	1.63	3.10	NE	0.00
K2O	0.04	0.04	0.05	KP	0.00
TIO2	0.20	0.20	0.15	AC	0.00
P2O5	0.04	0.04	0.03	DI	0.00
MNO	0.04	0.04	0.03	HE	0.00
S	0.00	0.00	0.00	EN	1.40
NIO	0.00	0.00	0.00	FS	0.00
CR2O3	0.00	0.00	0.00	FO	0.00
CO2	0.00	0.00	0.00	FA	0.00
H2O+	0.00	0.00	0.00	WO	0.00
H2O-	0.00	0.00	0.00	LN	0.00
LOI	0.62	0.00	0.00	MT	0.00
				IL	0.07
TOTAL	98.17	100.00	100.00	CR	0.00
				HM	1.08
				AP	0.09
				PO	0.00
				NS	0.00
				KS	0.00
				RU	0.12
				AG	0.00
				OL	0.00
				OPX	1.40
				CPX	0.00
				AB*	15.49

CLASSIFICATIONS AND INDICES

NA2O+K2O 1.67 SIO2 92.39 SUBALKALINE

OL* 1.08 NE* 9.60 Q* 89.31 SUBALKALINE

CPX 0.00 OL 0.00 OPX 100.00 SUBALKALINE

A 48.15 F 38.05 M 13.80 THOLEIITIC

AL203 3.53 NORM PLAG 6.98 THOLEIITIC

AN 6.87 AB* 91.62 OR 1.51 K-POOR SERIES

CI 3.55 NORM PLAG 6.98 RHYOLITE

JENSEN CALC-ALKALINE ANDESITE
AL 67.51 FE 20.93 MG 11.56

COLOR INDEX : 2.55
HASHIMOTO INDEX : 21.43

TRACE ELEMENTS (P.P.M.) AU,FT (P.P.B.)

CU	28.00:PB	10.00:ZN	50.00:AG	-0.50:AU	-10.00:MN	342.00:BA	-150.00:C	0.00:CR	20.00:
RB	-10.00:SR	40.00:Y	20.00:ZR	30.00:NB	10.00:SC	6.40:CO	3.00:NI	12.00:AS	-2.00:
SE	-3.00:BR	-1.00:MO	-5.00:CD	-0.20:SB	-0.20:CS	-0.50:LA	4.10:CE	18.00:ND	-10.00:
SM	2.30:EU	0.40:YB	2.00:LU	0.83:HF	1.00:TA	-1.00:W	-3.00:BI	-0.50:TH	2.50:
U	0.90:								

COMMENTS : SP0312/55SW

LAB REPORT # 34008 FIELD NUMBER : DM94134441 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE : BRITISH COLUMBIA
NTS : 092B14 PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 464555.0 N : 5400773.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANICLASTIC,FELSIC,ASH,BEDDED,HOMOGENEOUS ,CRYSTAL.
FINAL NAME :
ALTERATION :
MINERALIZATION : NIL ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D.MALLALIEU DATE : 26-JUL-84 ANALYTICAL
ANALYZED BY : XRAL DATE : 14-MAR-85 TECHNIQUE : ATOMIC ABSORPTION

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %		NORMS
SIO2	80.20	80.93	75.73	Q	43.36
AL2O3	9.90	9.99	11.02	C	0.00
FE2O3	1.30	1.31	0.92	OR	0.86
FEO	0.00	0.00	0.00	AB	49.33
CAO	1.16	1.17	1.17	AN	2.70
MGO	0.63	0.64	0.89	LC	0.00
NA2O	5.39	5.44	9.87	NE	0.00
K2O	0.06	0.06	0.07	KP	0.00
TIO2	0.40	0.40	0.38	AC	0.00
P2O5	0.04	0.04	0.03	DI	2.52
MNO	0.02	0.02	0.02	HE	0.00
S	0.00	0.00	0.00	EN	0.61
NIO	0.00	0.00	0.00	FS	0.00
CR2O3	0.00	0.00	0.00	FO	0.00
CO2	0.00	0.00	0.00	FA	0.00
H2O+	0.00	0.00	0.00	WO	0.00
H2O-	0.00	0.00	0.00	LN	0.00
LOI	0.39	0.00	0.00	MT	0.00
				IL	0.03
TOTAL	99.10	100.00	100.00	CR	0.00
				HM	0.92
				AP	0.09
				PU	0.00
				NS	0.00
				KS	0.00
				RU	0.27
				AG	0.00
				OL	0.00
				OPX	0.61
				CPX	2.32
				AB*	49.33

CLASSIFICATIONS AND INDICES

NA2O+K2O 5.50 SIO2 80.92 SUBALKALINE

OL* 0.49 NE* 31.72 Q* 67.79 SUBALKALINE

CPX 79.15 OL 0.00 OPX 20.85 ALKALINE

A 75.18 F 16.13 M 8.69 CALC-ALKALINE

AL2O3 9.99 NORM PLAG 5.19 THOLEIITIC

AN 5.15 AB* 94.16 OR 0.69 K-POOR SERIES

CI 3.89 NORM PLAG 5.19 RHYOLITE

JENSEN CALC-ALKALINE RHYOLITE
AL 83.93 FE 9.32 MG 6.75

COLOR INDEX : 3.89
MASHIMOTO INDEX : 9.53

TRACE ELEMENTS (P.P.M.) AU.PT (P.P.B.)

CU 7.00	PB 10.00	ZN 18.00	AG -0.50	AU -10.00	MN 164.00	BA 300.00	C 0.00	CR 10.00	
RB 10.00	SR 180.00	Y 20.00	ZR 50.00	NB 10.00	SC 15.00	CO 5.00	NI 15.00	AS -2.00	
SE -3.00	BR -1.00	MO -5.00	CD -0.20	SB -0.50	CS -0.50	LA 5.60	CE 17.00	ND 10.00	
SM 2.40	EU -0.30	YB 2.00	LU 0.31	HF 2.00	TA -1.00	W -3.00	BI -0.50	TH 1.60	
U -0.50									

COMMENTS : SPD317/90

SAMPLE ID # AB16933 WHOLE ROCK GEOCHEMICAL ANALYSIS

LAB REPORT # 24008 FIELD NUMBER : DM941844508 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE : BRITISH COLUMBIA
NTS : 092B14 PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 464540.0 N : 5400755.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : VOLCANICLASTIC,FELSIC,ASH,BEDDED,HOMOGENEOUS ,LOOK AT COMMENTS FILE.
FINAL NAME :
ALTERATION :
MINERALIZATION : NIL ,NIL ,NO COMMENT.
FORMATION :

SAMPLED BY : D.MALLALIEU DATE : 26-JUL-84 ANALYTICAL
ANALYZED BY : XRAL DATE : 14-MAR-85 TECHNIQUE : ATOMIC ABSORPTION

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	86.60	89.41	87.61
AL2O3	4.51	4.66	5.38
FE2O3	3.41	1.68	1.24
FEO	0.00	0.72	0.59
CAO	0.26	0.27	0.28
MGO	1.43	1.48	2.16
NA2O	0.94	0.97	1.84
K2O	0.54	0.56	0.70
TIO2	0.13	0.13	0.10
P2O5	0.03	0.03	0.03
MNO	0.08	0.08	0.07
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR2O3	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H2O+	0.00	0.00	0.00
H2O-	0.00	0.00	0.00
LOI	1.31	0.00	0.00
TOTAL	96.85	100.00	100.00

NORMS	
Q	77.36
C	2.36
OR	3.49
AB	9.22
AN	1.19
LC	0.00
NE	0.00
KP	0.00
AC	0.00
DI	0.00
HE	0.00
EN	4.31
FS	0.00
FO	0.00
FA	0.00
WO	0.00
LN	0.00
MT	1.69
IL	0.20
CR	0.00
HM	0.11
AP	0.07
PO	0.00
NS	0.00
KS	0.00
FU	0.00
AG	0.00
OL	0.00
OPX	4.31
CPX	0.00
AB*	9.22

CLASSIFICATIONS AND INDICES

NA2O+K2O 1.53 SIO2 89.41 SUBALKALINE

OL* 3.56 NE* 6.09 Q* 90.36 SUBALKALINE

CPX 0.00 OL 0.00 OPX 100.00 SUBALKALINE

A 29.14 F 42.70 M 28.16 THOLEITIC

AL2O3 4.66 NORM PLAG 11.47 THOLEITIC

AN 8.59 AB* 66.31 OR 25.09 AVERAGE SERIES

CI 6.31 NORM PLAG 11.47 RHYOLITE

JENSEN CALC-ALKALINE BASALT
AL 56.39 FE 21.00 MG 22.61

COLOR INDEX : 6.31
HASHIMOTO INDEX : 63.15

TRACE ELEMENTS (P.P.M.) AU.PT (P.P.B.)

CU	130.00:PB	10.00:ZN	48.00:AG	-0.50:AU	22.00:MN	584.00:BA	2900.00:C	0.00:CR	-10.00:
RB	20.00:SR	60.00:Y	20.00:ZR	10.00:NB	-10.00:SC	5.30:CO	11.00:NI	38.00:AS	5.00:
SE	-3.00:BR	-1.00:MO	-5.00:CD	-0.20:SB	0.30:CS	-0.50:LA	19.30:CE	32.00:ND	12.00:
SM	1.90:EU	0.30:YB	1.00:LU	0.17:HF	1.00:TA	-1.00:W	-3.00:BI	-0.50:TH	1.60:
U	0.60:								

COMMENTS : SLIGHTLY GUSSUNOUS FELDSPAR CRYSTAL RHYODACITIC TO RHYOLITIC TUFF INTERBEDDED WITH CHERTY TUFF.

SAMPLE ID # A818572 WHOLE ROCK GEOCHEMICAL ANALYSIS

LAB REPORT # 24008 FIELD NUMBER : E-60 PROJECT # 941
TOWNSHIP : LOT : 0 CONCESSION : PROVINCE : BRITISH COLUMBIA
NTS : 092B14 PROJECT : SALTSPRING BASE METAL
UTM ZONE : 10 GRID COORDINATES : E : 0.0 N : 0.0 EL : 0.0
SAMPLE TYPE : GRAB SAMPLE

FIELD NAME : SEDIMENTARY ,OXIDE IRON FORMATION,SILT,LAMINATED.
FINAL NAME :
ALTERATION :
MINERALIZATION : BEDDED,5-20% ,MAGNETITE.
FORMATION :

SAMPLED BY : S.ENNS DATE : 28-OCT-84 ANALYTICAL
ANALYZED BY : XRAL DATE : 14-MAR-85 TECHNIQUE : ATOMIC ABSORPTION

	WT %	NORMALIZED ANHYDROUS WT %	NORMALIZED ANHYDROUS CATION %
SIO2	86.50	89.14	90.75
AL2O3	0.24	0.25	0.30
FE2O3	11.00	1.57	1.20
FEO	0.00	8.79	7.48
CAO	0.12	0.12	0.13
MGO	0.01	0.01	0.02
NA2O	-0.01	-1.00	-1.00
K2O	0.03	0.03	0.04
TIO2	0.02	0.02	0.02
P2O5	0.04	0.04	0.04
MNO	0.03	0.03	0.03
S	0.00	0.00	0.00
NIO	0.00	0.00	0.00
CR2O3	0.00	0.00	0.00
CO2	0.00	0.00	0.00
H2O+	0.00	0.00	0.00
H2O-	0.00	0.00	0.00
LOI	0.93	0.00	0.00
TOTAL	97.03	99.00	99.00

NORMS	
Q	86.57
C	1.11
OR	0.20
AB	-5.00
AN	0.38
LC	0.00
NE	0.00
KP	0.00
AC	0.00
DI	0.00
HE	0.00
EN	0.03
FS	13.79
FO	0.00
FA	0.00
WO	0.00
LN	0.00
MT	1.80
IL	0.03
CR	0.00
HM	0.00
AP	0.09
PO	0.00
NS	0.00
KS	0.00
RU	0.00
AU	0.00
OL	0.00
OPX	13.82
CPX	0.00
AB*	-5.00

CLASSIFICATIONS AND INDICES

NA2O+K2O 0.03 SIO2 89.14 SUBALKALINE
OL* 10.33 NE* 0.00 Q* 89.67 SUBALKALINE
CPX 0.00 OL 0.00 OPX 100.00 SUBALKALINE
A 0.30 F 99.60 M 0.10 THOLEITIC
AL2O3 0.25 NORM PLAG 100.00 THOLEITIC
AN 65.28 AB* 0.00 OR 34.72 K-RICH SERIES
CI 15.65 NORM PLAG 100.00 BASALT

JENSEN HIGH IRON THOLEIITIC BASALT
AL 3.28 FE 96.54 MG 0.17

COLOR INDEX : 15.65
HASHIMOTO INDEX : 25.00

TRACE ELEMENTS (P.P.M.) AU.PT (P.P.B.)

CU 21.00:PB	18.00:ZN	15.00:AG	-0.50:AU	24.00:MN	302.00:BA	-150.00:CR	-10.00:RB	10.00:
SR 10.00:Y	-10.00:ZR	-10.00:NB	20.00:SC	0.60:CO	0.00:NI	8.00:AS	23.00:SE	-3.00:
BR -1.00:MO	-5.00:CD	-0.20:SB	0.80:CS	0.60:LA	1.20:CE	3.00:ND	-10.00:SM	0.30:
EU -0.20:YB	0.00:LU	0.06:HF	-1.00:TA	-1.00:W	-3.00:BI	-0.50:TH	-0.50:U	0.60:

COMMENTS : BEDDING 130/60W. CLEAVAGE PARALLEL. FINE MAGNETITE BDS WITH MINOR JASPER .<1/2% PIRITE ALONG BEDDING
MINOR MNOX. LINE G 34+00W

APPENDIX F

V.L.F AND MAGNETOMETER COMPUTER PRINT-OUTS

APPENDIX G
STATEMENT OF EXPENDITURES
SALTSPRING ISLAND

CLAIMS: Hope Group Comprised of Bruce 1, Bruce 2, Salt 1, Musgrave 1, Musgrave 2.

MINING DIVISION: Victoria

NTS: 92B/11, 12, 13, 14

SUMMARY OF WORK: Linecutting, detailed geological mapping, geochemical sampling, ground geophysical surveying.

PERIOD OF WORK: May 2 - July 19, 1985

COSTS:

A. LINECUTTING AND GRID CHAINING: 0.62 1-km, 20 m stations, horiz. chaining

PERSONNEL			
G. Hendrickson, geophysicist May 2 - 3	2 days @$227/day	454.00	
		454.00	454.00
ROOM AND BOARD			
2 man-days @ $30/day		60.00	60.00
TRANSPORATION			
Toyota diesel 4 x 4 Redhawk Rentals, Burnaby, B.C.	2 days @ $1,000/month	66.00	
Diesel fuel		30.00	
4 Ferry Crossings	@$5.00/crossing	20.00	116.66
TOTAL COST: Linecutting and grid		116.66	$ 630.66

B. TRENCHING

PERSONNEL			
HENDRICKSON, G., Geophysicist May 7	1 day @$227/day	227.00	
MALLALIEU, D., Geologist May 7	1 day @$92/day	92.00	
		319.00	319.00
ROOM AND BOARD			
2 man days @ $30/day		60.00	60.00

TRANSPORTATION			
Toyota 4x4 Pick-up	1 day @ $500/day	16.66	16.66
BACKHOE AND OPERATOR			
	45 hours. @ $44/hour	200.00	200.00
TOTAL: Trenching			595.66
TOTAL COST: Line cutting, grid chaining and trenching			$1,226.32
$1,200 of this cost to be applied to:			
Musgrave 1 2 units	Record No. 1340 July 3 years @		1,200.00
GROUND GEOPHYSICS: HLEM and Magnetometer surveys 0.62-km			
PERSONNEL			
HUTTEMAN, T., Junior Geophysicist			
May 3, July 18-19	3 days @$78/day	234.00	
MELNYK, J., Junior Geophysical Assistant	2 days @$66/day	132.00	
		366.00	366.00
ROOM AND BOARD			
5 man-days @ $30/day		150.00	150.00
TRANSPORTATION			
Toyota diesel 4x4	3 days @ $1000/month	100.00	
Redhawk Rentals, Burnaby, B.C.			
Diesel fuel		30.00	
6 Ferry crossings	@ $6/crossing	36.00	
		166.00	166.00

REPORT PREPARATION

HENDRICKSON, G., Geophysicist

October 21	1 day @ $277.00	277.00	277.00
			909.00

D. GEOCHEMICAL SAMPLING: Soil and Rock Geochemistry

PERSONNEL

MALLALIEU, D., Geologist			
May 2-4	3 days @ $92/day	276.00	
HUTTEMAN, T., Junior Geophysicist			
May 2	1 day @$78/day	78.00	
MELNYK, Junior Geophysical Assistant			
May 2-3	2 days @$66/day	132.00	
CAMBEN, Junior Geological Assistant			
May 2-3	2 days @$62/day	124.00	
MONGER, J., Junior Geological Assistant			
May 3	1 day @$68/day	68.00	
		678.00	$678.00

ROOM AND BOARD

9 man days @ 30/day		270.00	270.00

TRANSPORTATION

Toyota 4x4 Pick-up	2 days @$500/month	33.33	
Redhawk Rentals, Burnaby, B.C.			
Gasoline		30.00	
Toyota diesel 4x4 Landcruiser	3 days @$1000/month	100.00	
Diesel fuel		30.00	
10 Ferry Crossings	@ $6/crossing	60.00	
		$253.33	253.33

GEOCHEMICAL ANALYSES

Acme Analytical Laboratory, Vanc. B.C.

189 soil for Ba @$3.00		567.00
1		

148 soil for Au @$4.00	592.00	
295 soil for Cu, Pb, Zn, Ag, Mn @$4.60	1,357.00	
15 references for Cu, Pb, Zn, Ag, Mn @$4.60	64.00	
7 references for Ba @ 3.00	21.00	
7 references for Au @ 4.00	28.00	
59 rock for 30 element ICP @ 8.75	516.25	
	3,150.25	$3,150.25
X-Ray Assay Laboratories Ltd., Don Mills, Ontario		
27 rock for Whole Rock Analysis @ 20.25	546.75	
14 rock for multi element Analysis @ 27.00	378.00	
	924.75	924.75
TOTAL COST: Geochemical Sampling		$5,276.33

E. GEOLOGICAL MAPPING:

PERSONNEL

MALLALIEU, Geologist			
May 5-6, 8-9	4 days @ $92/day	368.00	

ROOM AND BOARD

4 man-days @ $30/day	120.00	120.00

TRANSPORTATION

Toyota 4x4 Pick-up	4 days @$1000/month	133.33	
Redhawk Rentals, Burnaby, B.C.			
Gasoline		30.00	
8 ferry crossings	@ $5/crossing	40.00	
		203.33	203.33

REPORT PREPARATION	700.00
TOTAL: Geological Mapping	$1,391.33

TOTAL COST: Ground geophysics, geochemical sampling, and geological mapping $7,576.66

$6,500 of this plus $1,500 of PAC to be applied to:

Musgrave 2	4 units	Record No. 1344	Aug.	2 years @ 1600.00
Bruce 1	20 units	Record No. 1171	Feb.	1 year @ 4000.00
Salt 1	12 units	Record No. 1168	Feb.	1 year @ 2400.00

The excess $1076.66 to be applied to future work on Bruce 1.

APPENDIX H

STATEMENTS OF QUALIFICATIONS

SALTSPRING ISLAND

STATEMENT OF QUALIFICATIONS

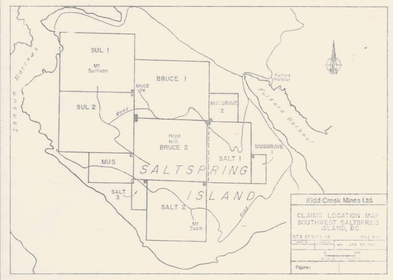
NAME: David Mallalieu

ADDRESS: 701 - 1281 West Georgia, Vancouver, B.C. V6E 3J7

EDUCATION: B.Sc. - Honours Geology, 1983
Carleton University

EXPERIENCE:

May-Sept 1981	Mattagami Lake Exploration Ltd. Junior Geological Assistant
May-Sept 1982	Mattagami Lake Exploration Ltd. Senior Geological Assistant
April-Dec 1983	Billiton Canada Ltd. - Vancouver Senior Geological Assistant
May-Dec 1984	Kidd Creek Mines Ltd. Geologist
March-Nov 1985	Kidd Creek Mines Ltd. Geologist



LEGEND

NANAIMO GROUP

Extension - Protection Formation (Map Unit 5)

5a Polymictic conglomerate, 5b Siltstone

SICKER GROUP

Mafic Intrusion Unit (Map Unit 4)

4a Gabbro/Diabase, 4b Feldspar-glomerophyric diabase, 4c Amphibole pegmatite

SEDIMENT UNIT (Map Unit 3)

3s Black shale/Siltstone
3p Muscovite schist
3g Greywacke, psammite
3c Marble and impure carbonate
3l Lapilli tuff
3m Mafic volcanic rocks: andesite, basaltic-andesite, basalt

SALTSPRING INTRUSION (Map Unit 2)

2a Quartz porphyry

MYRA FORMATION (Map Unit 1)

1t Rhyolitic tuff
1x Feldspar crystal tuff
1p Chlorite-sericite schist, chlorite schist
1i Lapilli tuff, lapilli-block tuff
1q Quartz-feldspar-phyric rhyodacite to rhyolite
1d Dacite
1m Mafic volcanic rock
1a Amphibolite
1s Siltstone
1c Impure carbonate

SYMBOLS

- Outcrop; defined, approximate
- Geologic contact; defined, inferred
- Formational contact
- Bedding; horizontal, vertical, inclined
- Bedding with tops direction indicated; horizontal, vertical, inclined
- Foliation, cleavage; horizontal, vertical, inclined
- Fold axis; antiformal, synformal
- Fold axis plunge
- Fault; defined, approximate, inferred
- Rock sample for major oxides
- Rock sample for base-precious metals

Qtz Quartz
Py Pyrite
Mt Magnetite
Cpy Chalcopyrite
Jasp Jaspellite
Rho Rhodonite
F Fossil locality
Ca Pervasive carbonate veining

Vancouver Island
BURGOYNE BAY
Ford Lake
BURGOYNE BAY FULFORD HARBOUR FAULT
Fulford Creek
Lake Stewart
FULFORD HARBOUR
MT. SULLIVAN
Mount Sullivan Prospect
Trail to Jones Road
Power Line
SUL 1
SUL 2
MYRA FORMATION
SEDIMENT UNIT
BRUCE 1
SALTSPRING ISLAND
Musgrave Anomaly Grid
See Fig. 5 for detail
MUSGRAVE 2
MUSGRAVE 1
Old logging road
Rhodonite Quarry
Trench F
Brucey Lake
Company Lake
Hope Mill
Quarry
MUS
BRUCE 2
SALT 1
SALT 3
SALT 2
Buddist Camp
PARK RESERVE
SATELLITE
IZUHALEN FAULT
EXTENSION-PROTECTION FORMATION
Auriferous Quartz veins Qtz cpy
Cape Keppel
CHANNEL
SEDIMENT UNIT
MYRA FORMATION

Geological Schematic Cross Section A - B

HORIZONTAL SCALE 1 : 10,000
VERTICAL SCALE 1 : 5,000

GEOLOGICAL BRANCH
ASSESSMENT REPORT
13,996

Kidd Creek Mines Ltd.

SALTSPRING ISLAND, B.C.

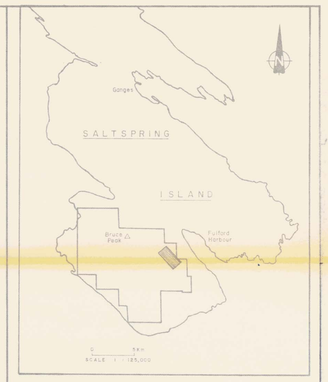
PROPERTY GEOLOGY

NTS 92B/11-14 Proj. 941

WORK BY | DRAWN BY | DATE FEB.18, 1985

SCALE IN METRES 1 : 10,000

Figure: 4



Note:- All lines have been chained independently of one another.

— LEGEND —

MAFIC INTRUSION UNIT

4 Gabbro/diabase
Feldspar-gloneophyric diabase
Amphibole pegmatite

MYRA FORMATION

1t Rhyolitic tuff
1m Mafic volcanic rock
1q Quartz-feldspar-phyric rhyodacite to rhyolite
1x Feldspar crystal tuff
1p Chlorite-sericite-schist, chlorite schist
1s Black silstone
IF IRON FORMATION

SYMBOLS

- Outcrop; defined, approximate
- × Float
- Geologic contact; defined, inferred
- Bedding; horizontal, vertical, inclined
- Bedding with tops, direction indicated; horizontal, vertical, inclined
- Foliation, cleavage; horizontal, vertical, inclined
- Fold axis; antiformal, synformal
- Fold axis plunge
- Qtz Quartz
- Mt Magnetite
- Cpy Chalcopyrite
- Jasp Jaspellite
- ■ Rock sample for major oxides
- ■ Rock sample for base-precious metals
- H.L.E.M. Conductor

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,996

Kidd Creek Mines Ltd.

SALTSPRING ISLAND, B.C.

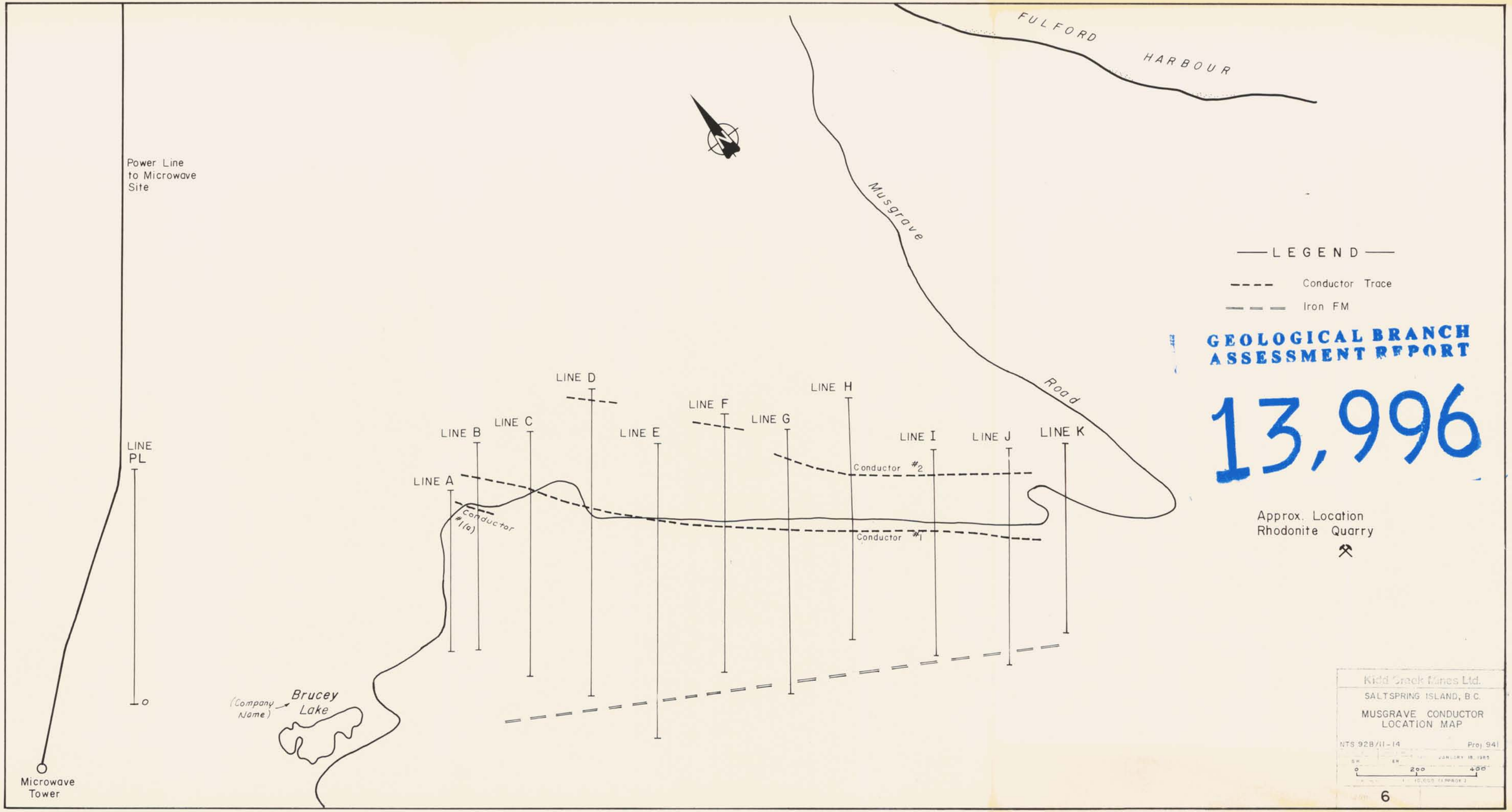
MUSGRAVE GRID
GEOLOGY

NTS 92B/11-14 Proj 941

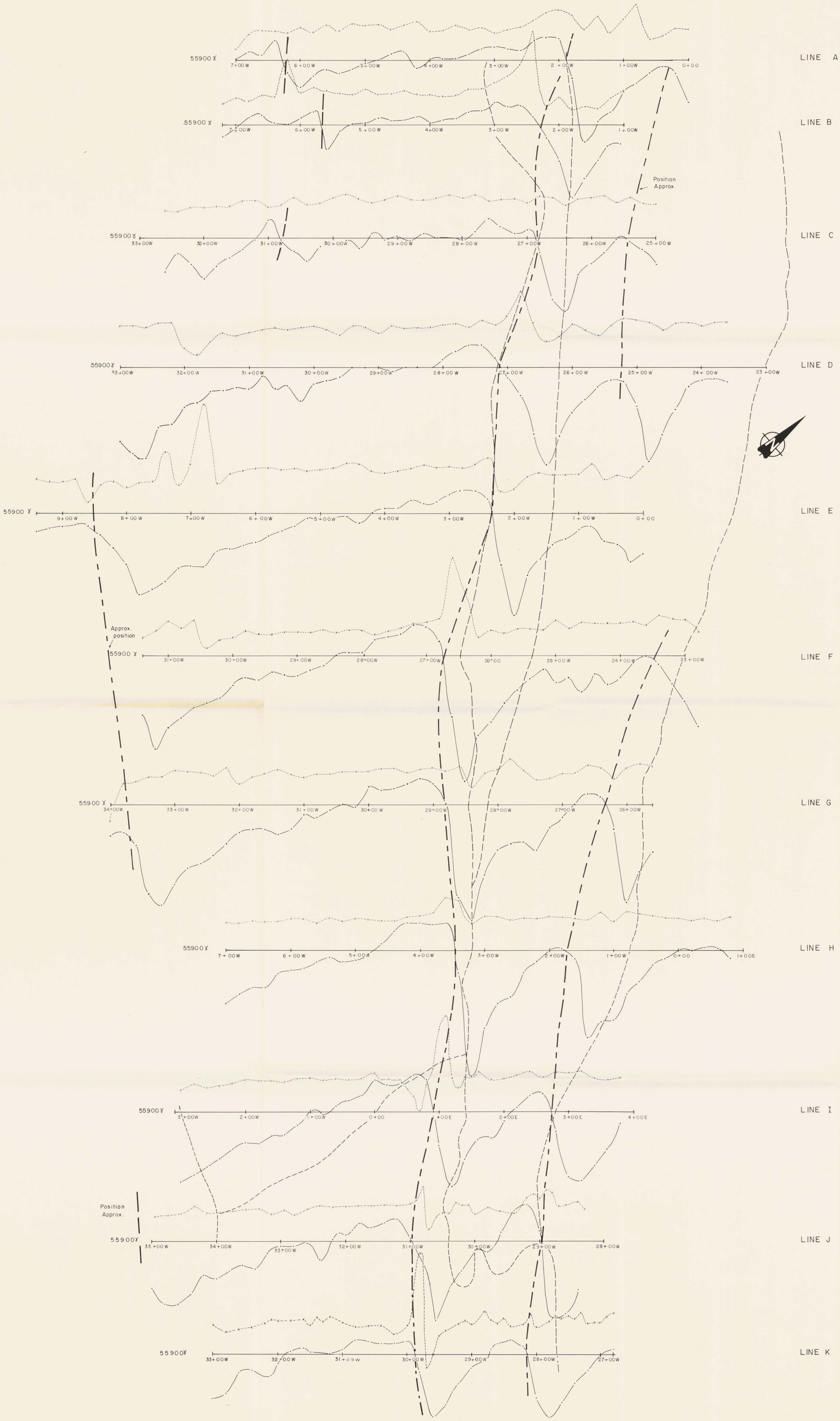
WORK BY	DRAWN BY	DATE: FEB. 6, 1985

40 20 0 40 80 120 160m
SCALE IN METRES 1:2000

Figure: 5



GEOLOGICAL BRANCH
ASSESSMENT REPORT
13,996



Road

Total Field Mag (γ) 1cm = 100γ

V.L.F In-Phase (%) 1cm = 10% Vertical Field

V.L.F Conductor Trace

Note Lines were chained independently of each other, however were tied to the main access road

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,996

Kidd Creek Mines Ltd.

SALTSPRING ISLAND, B.C.
MUSGRAVE GRID

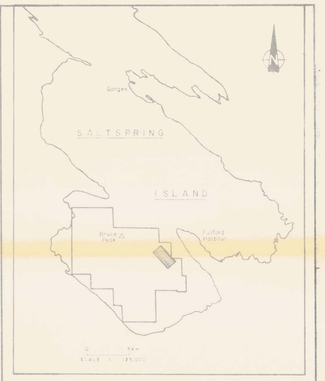
PROFILES OF VLF & MAGNETIC DATA

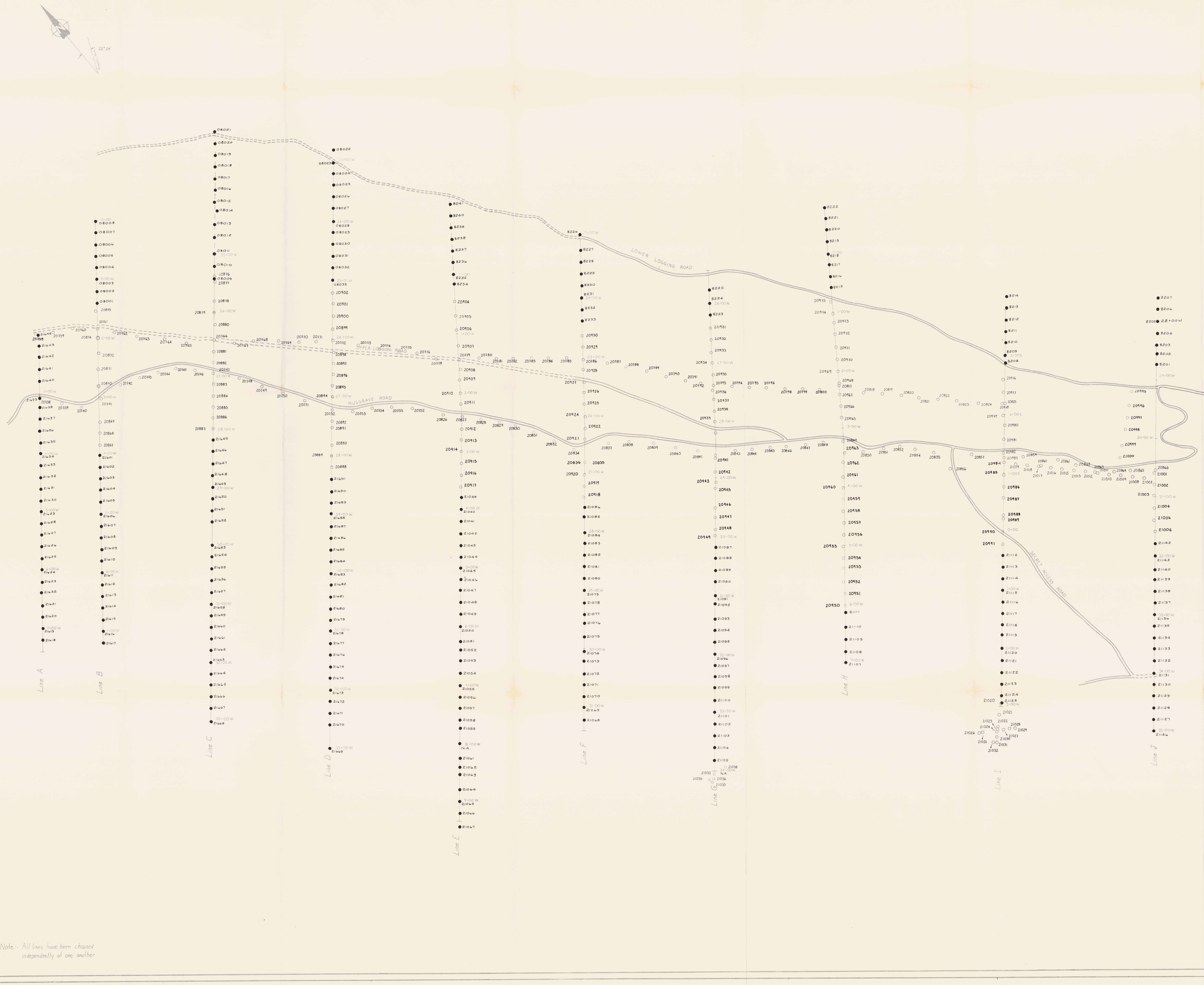
Proj. 941

WORK BY	DRAWN BY	DATE: OCTOBER 17, 1985
DM	ER	

50 0 50 100 150 200
SCALE IN METRES 1 : 2500

Figure: 7





Note:- All lines have been chained independently of one another.

○ 1984 Soil Sample, SA Series
● 1985 Soil Sample

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,996

Kidd Creek Mines Ltd.

SALTSPRING ISLAND, B.C.

MUSGRAVE GRID

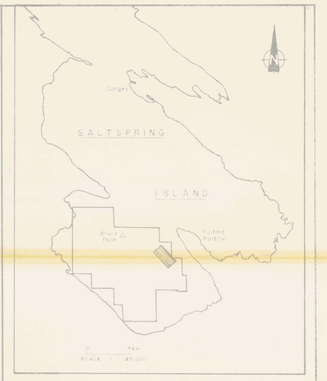
SOIL SAMPLE LOCATIONS

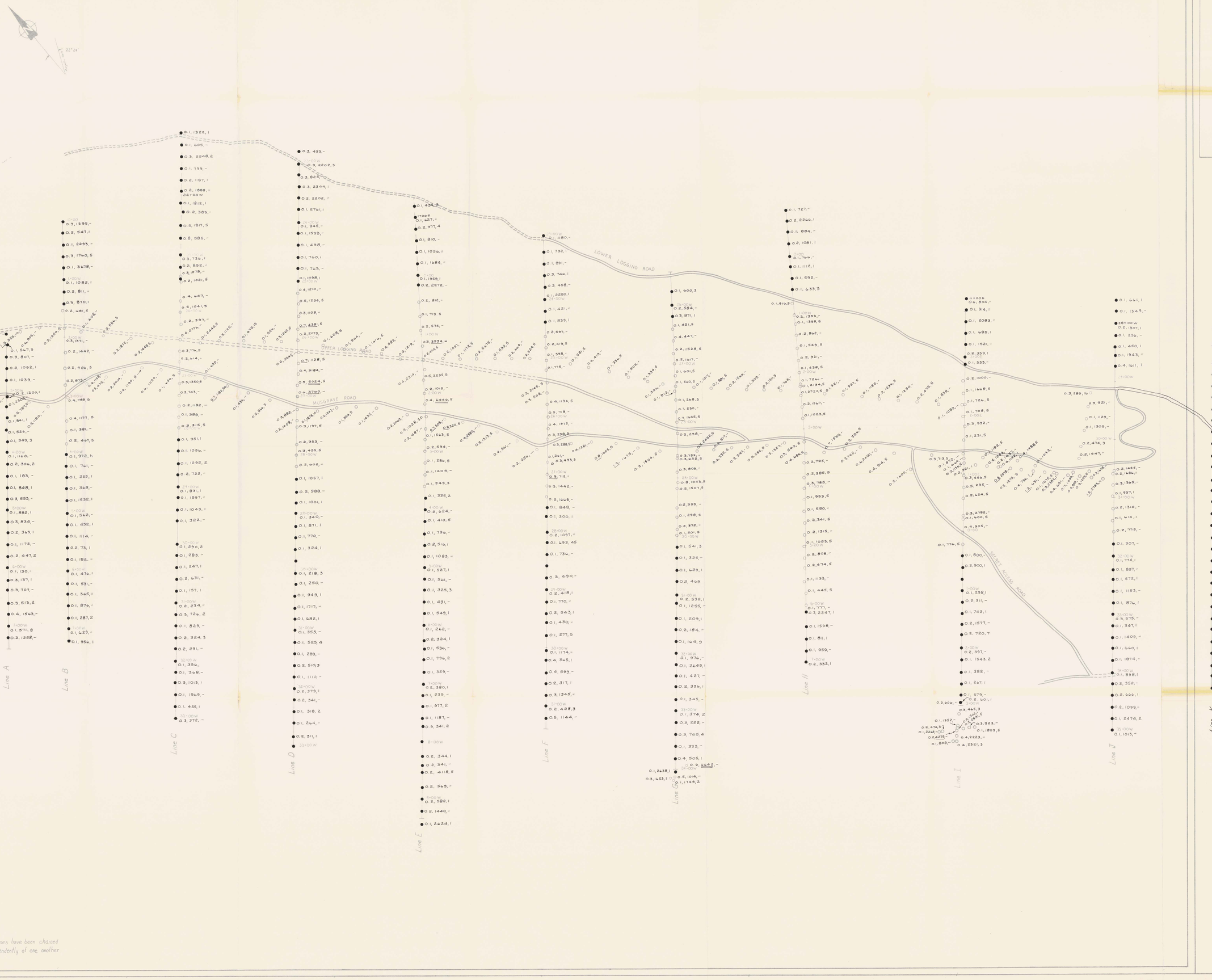
NTS 92B/11-14 Proj. 941

WORK BY	DRAWN BY	DATE
		OCT., 1985

40 20 0 40 80 120 160m
SCALE IN METRES 1:2000

Figure: 8





Note - All lines have been chained independently of one another.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,996

Ag, Mn, Au (All values in ppm except Au in ppb)

- 1984 Sample
- 1985 Sample

Threshold Values	Ag	Mn	Au
Weak	>0.7	>3500	>20
Strong	>1.6	>5000	>50

Kidd Creek Mines Ltd.

SALTSPRING ISLAND, B.C.

MUSGRAVE GRID

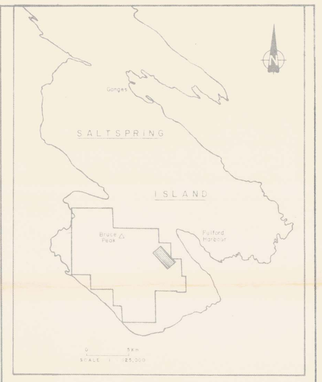
Ag, Mn, Au SOIL RESULTS

NTS 92B/11-14 Proj. 941

WORK BY	DRAWN BY	DATE
		OCT., 1985

SCALE 1:2000

Figure: 10



Line A

Line B

Line C

Line D

Line E

Line F

Line G

Line H

Line I

Line J

Line K

LOWER LOGGING ROAD

UPPER LOGGING ROAD

MUSGRAVE ROAD

MCCLEAN ROAD

Note:- All lines have been chained independently of one another.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,996

Limit of anomalous Zn in Soils

1984 Sample

1985 Sample

Samples reassayed for Ba in 1985

Threshold Values

	Cu	Pb	Zn	Ba
Weak	>100	>30	>300	>475
Strong	>200	>50	>600	>850

Kidd Creek Mines Ltd.

SALTSPRING ISLAND, B.C.

MUSGRAVE GRID

Cu, Pb, Zn, Ba SOIL RESULTS

NTS 92B/11-14 Proj. 941

WORK BY | DRAWN BY | DATE OCT, 1985

SCALE 1:5000

Figure: 9