ARIS SUMMARY SHEET

District Geologist, Victoria Off Confidential: 89.05.11

ASSESSMENT REPORT 17641 MINING DIVISION: Alberni

PROPERTY: Buttle Lake
LOCATION: LAT 49 32 34 LONG 125 34 13
UTM 10 5490752 314058
NTS 092F12E
CLAIM(S): X 1-2
OPERATOR(S): Cream Silver Mines
AUTHOR(S): Tomlinson, S.
REPORT YEAR: 1988, 150 Pages
COMMODITIES SEARCHED FOR: Gold,Silver
GEOLOGICAL SUMMARY: The claims cover the southern part of the Buttle Lake structural uplift in which Paleozoic Sicker Group rocks are bounded on the east and west by Upper Triassic Karmutsen Formation mafic volcanics and Lower-Middle Jurassic Island Intrusions granite respectively. The Sicker Group rocks include felsic and intermediate flows, tuffs and agglomerates which are overlain by Pennsylvanian Buttle Lake Formation limestones and lesser cherts in the eastern claims area. Massive sulphide boulders with high copper, zinc and silver values have been observed along Price Creek.

WORK DONE: Drilling
DIAD 2164.0 m 4 hole(s);NQ
RECL
SAMP 92 sample(s) ;CU,PB,ZN,AG,AU

RELATED REPORTS: 16747
MINFILE: 092F 198

C R E A M S I L V E R M I N E S L T D.

DIAMOND DRILLING REPORT
ON THE BUTTLE LAKE PROPERTY
ALBERNI MINING DIVISION
NTS 92F/12E, 5E

LOG NO: 0809 RD.
ACTION:
FILE NO:

BY
SCOTT TOMLINSON, B.Sc.

APRIL 1988

CLAIMS WORKED:

X1, X2

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,641

FILMED

LOCATION: 49°30'N LATITUDE - 125°33'W LONGITUDE
OPERATOR: CREAM SILVER MINES LTD.
OWNER: CREAM SILVER MINES LTD.
CONSULTANT: ARCHEAN ENGINEERING LTD.
PROJECT GEOLOGIST: SCOTT TOMLINSON, B.Sc., MARK MANAGEMENT LTD.

CREAM SILVER MINES LTD.
DIAMOND DRILLING REPORT
ON THE BUTTLE LAKE PROPERTY
ALBERNI MINING DIVISION

SUMMARY

Cream Silver Mines Ltd. Buttle Lake property consists of 105 mineral claims in good standing in the Alberni Mining Division of Vancouver Island, British Columbia. The mineral claims adjoin those of Westmin Resources Ltd. near the south end of Buttle Lake and access into the area is by road from Campbell River. The southern Cream Silver claims are most easily accessed by helicopter.

The initial mineral claims of the current Cream Silver property were located in 1964. Exploratory work to 1972 included geological, geochemical and geophysical surveys over much of the property area and three diamond drill holes totalling 807 metres on one of the northern claims. Exploration work since 1973 has been prohibited, until March of this year, by an effective moratorium on work on mineral claims in Provincial Parks.

The Westmin Resources Ltd. property, immediately north of the Cream Silver claims, includes four known volcanogenic massive sulfide deposits of which two, the Lynx and Myra mines, have been in production for 20 years. Recent development of the H-W deposit (15.2 million tons grading 0.07 oz/ton gold, 1.1 oz/ton silver, 2.2% copper, 0.3% lead, and 5.3% zinc) has resulted in an increase in daily milling capacity to 4,000 tons. The Westmin deposits are hosted by four rhyolitic horizons within the lower and middle sections of the Myra Formation of the Paleozoic Sicker Group.

Available data pertaining to earlier work on the Cream Silver property suggests that the same volcanic stratigraphy hosting the Westmin deposits exists in the northern part of the claim area. In addition, massive sulfide float with values in gold, silver, copper, lead and zinc has been identified near the headwaters of Price Creek in the southeastern part of the property. A number of narrow veins with locally good gold and silver grades are known in the southern claim area.

In 1987, work done by Cream Silver Mines Ltd. included geological mapping at a scale of 1:2,500, and rock chip, soil and heavy mineral concentrate sampling. Geophysical surveys were conducted over the northern portion of the property by P.E. Walcott and Associates.

In early 1988, Cream Silver Mines Ltd. drilled 4 'NQ' wire size diamond drill holes totalling 2164 m (7098 ft). These holes were targeted at geophysical anomalies located by last year's CSAMT survey near Westmin's powerhouse on Thelwood Creek. Downhole geophysics was subsequently carried out on 3 of the holes by P.E. Walcott and Associates and will be included in a separate report.

The drilling and downhole geophysics showed that the CSAMT anomalies targeted were due to carbonaceous argillite. The stratigraphy encountered is similar to that found in Westmin's H-W ore body, and several sections of the core were anomalous in copper and zinc.

The Cream Silver property is considered to be highly prospective for the discovery of Westmin type massive sulfide deposits. An exploration programme consisting of an extension of the CSAMT geophysical survey and more diamond drilling to the east of the existing sites is recommended.

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CREAM SILVER MINES LTD.
DIAMOND DRILLING REPORT
ON THE BUTTLE LAKE PROPERTY

1. INTRODUCTION

The Buttle Lake Property is a precious and base metal prospect located in the Strathcona Recreation Area on central Vancouver Island, British Columbia (FIGURE 1). The claims were staked in the late 1960's and are adjacent to those of Westmin Resources Ltd.

The claims have been held in moratorium for the last 17 years since they were located within Strathcona Provincial Park within which mineral exploration was disallowed. In March 1987, the moratorium was lifted and the status of the area was reduced from Class A Park to Recreational status, which reopened the area to mineral exploration.

From 1964 to 1970, the company carried out exploration consisting of various geophysical surveys, geochemical surveys, geological mapping, trenching, sampling and limited diamond drilling. In 1971, Westmin Resources Ltd. optioned the claim group and conducted exploration consisting of an Induced Polarization survey and diamond drilling along the common boundary (ie. the north part of the claims at Thelwood Creek), geological mapping and prospecting of the claim group.

In 1987, a cut-line grid was put in on the northern portion of the property. This grid was surveyed using Induced Polarization and Controlled Source Audio-Frequency Magneto-Tellurics (CSAMT) depending on the depth penetration required along each line. The property was mapped at a scale of 1:2,500. Rock chip, soil and heavy mineral sampling was carried out over areas of interesting geology.

From late January to late March, 1988, a diamond drilling programme was carried out to test anomalies outlined by the CSAMT

survey of the previous year. This consisted of 4 holes totalling 2164m (7098 ft).

1.1 LOCATION AND ACCESS

The property lies between Thelwood and Price Creeks, from 2 to 10 kilometres south of Buttle Lake in central Vancouver Island, British Columbia. The claims cover an area of approximately 25 km^2 which represents most of the drainage basins of Price, Thelwood, and Drinkwater Creeks. These creeks all drain westward or northward into Buttle Lake. Most of the property consists of steep sided mountain slopes with gently rolling plateau-like summits. Relief is on the order of 1700 metres (5600 feet). The geographic centre of the claim group is at 125°33' West Longitude and 49°30' North Latitude on NTS Mapsheets 92F/12E, 5E.

Access into the Buttle Lake area is by a 90 kilometre (55 mile) paved road linking the Westmin Resources' mine and mill complex with Campbell River and the Island Highway (B.C. No. 9). The lower Price Creek area, in the northern portion of the property, is partially accessible by way of old logging roads and a little used trail; this trail terminates at Cream Lake. The claims adjoining those of Westmin are located along the Thelwood Creek valley and are accessed by a gravelled road which runs from the south end of Buttle Lake to Jim Mitchell Lake. Preferably, access can be gained by helicopter from Campbell River, a distance of approximately 65 kilometres, to the centre of the claim group, or by fixed wing aircraft to Bedwell Lake, 1.5 kilometres west of the claims. From there they are reached by a foot trail which climbs approximately 300 metres to the centre of the claims.

The northeast corner, on which the most recent program was completed, is accessed from the south end of Buttle Lake by an old logging road for approximately 3 kilometres, and then by foot trail for a distance of 1.5 kilometres.

CREAM SILVER MINES LTD.

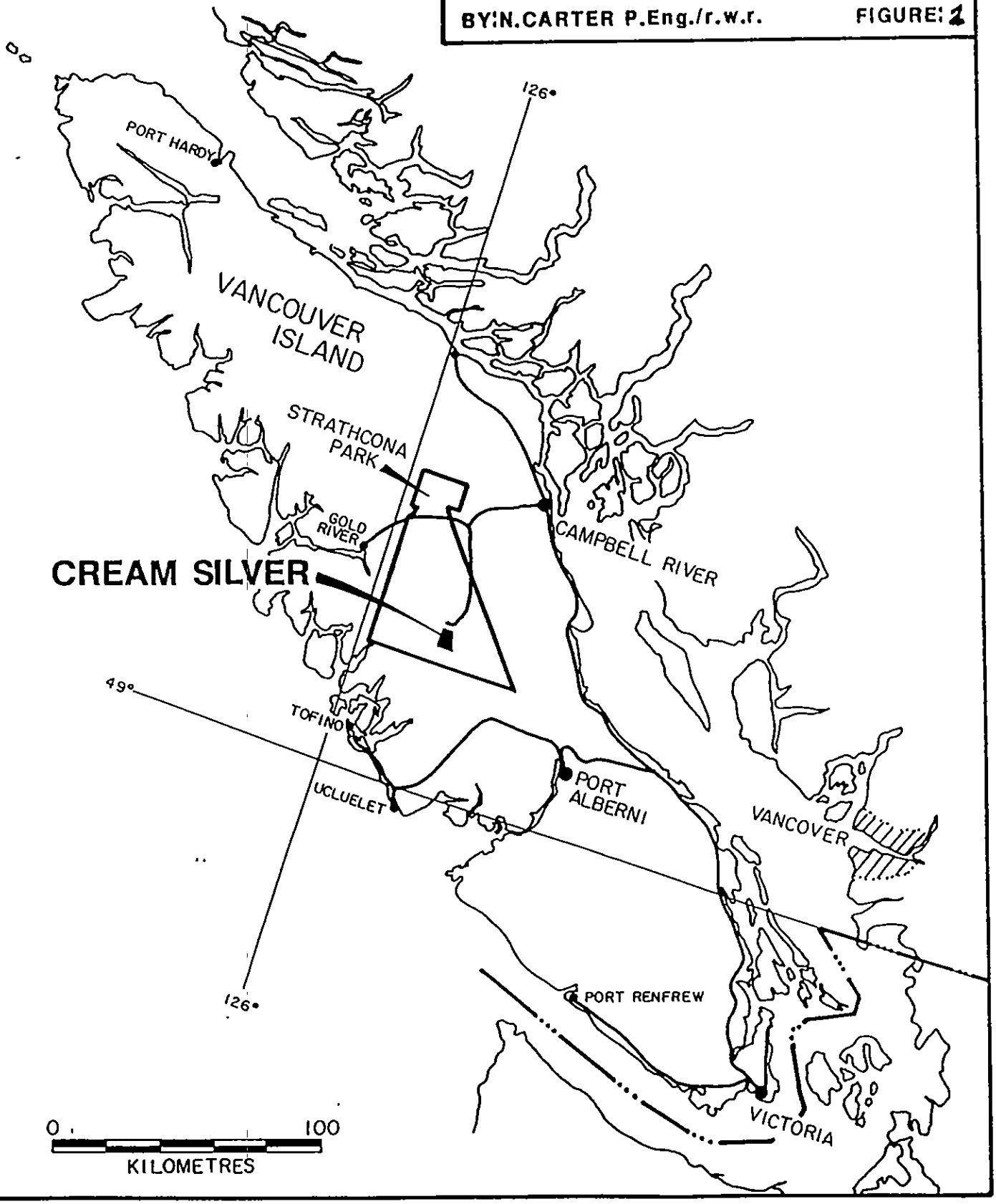
BUTTLE LAKE PROPERTY

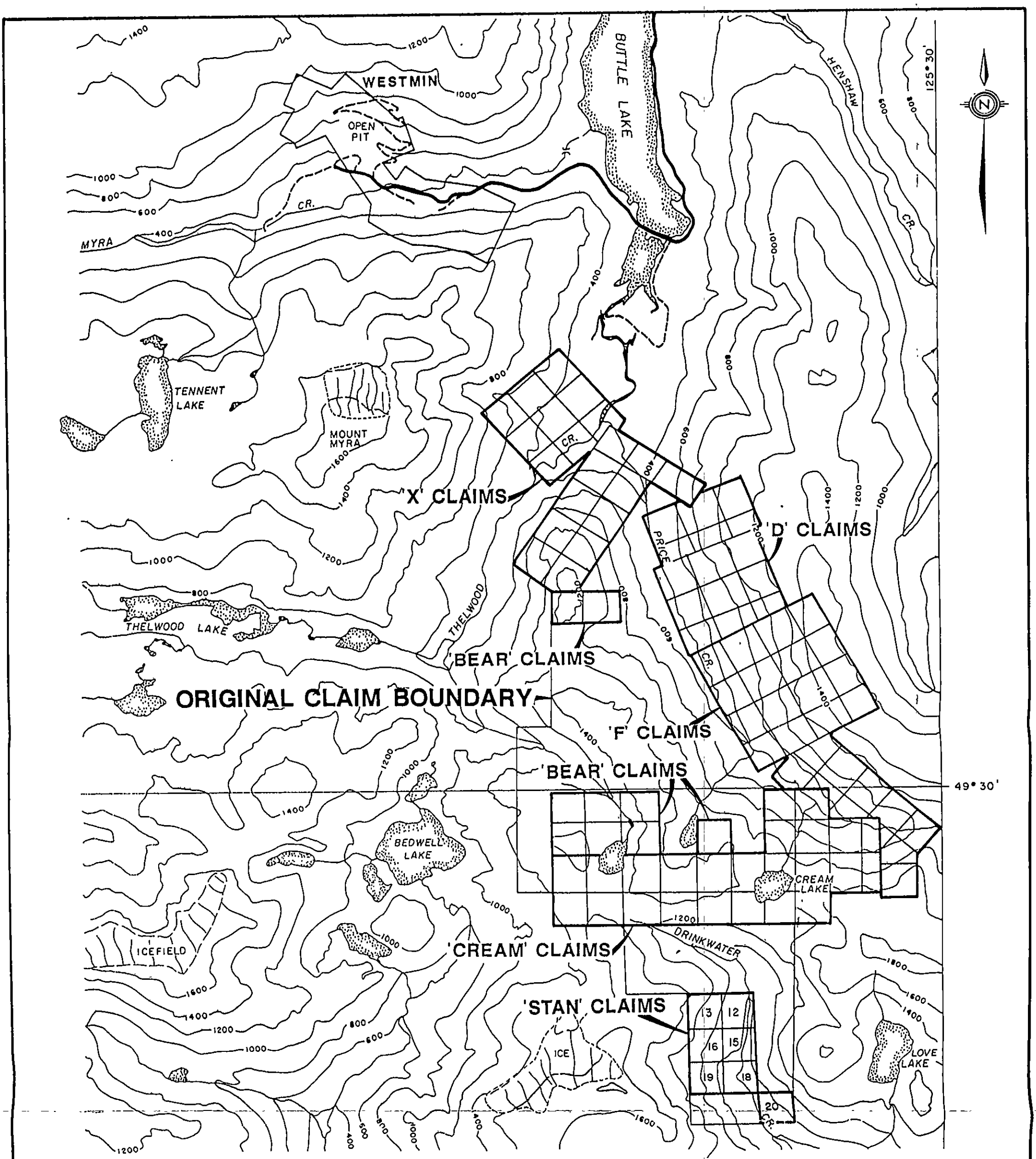
ALBERNI M.D.-B.C. NTS:92-F-5&12

LOCATION MAP

DATE:FEB.,1986

BY:N.CARTER P.Eng./r.w.r. FIGURE: 1





GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,641

CREAM SILVER MINES LTD.
BUTTLE LAKE PROPERTY
ALBERNI M.D.-B.C. NTS:92-F-5&12
CLAIM MAP
DATE: NOV.,1987 BY: L.D./rwr FIGURE: 2

1.2 PHYSIOGRAPHY, VEGETATION AND CLIMATE

Topography in the area is rugged, with elevations varying from 450 to 1525 metres above sea level. The higher portion of the claims consists of rock outcrops or rubble. The lower part of the claims is covered by dense forest. In this section, outcrop is limited to creeks or areas of sudden change in slope. Slide areas are common along the western tributaries of Price Creek, covering large sections of the main valley with boulders and rock rubble. These sections are nearly impassable due to the thick growth of alders and brush.

The Cream Silver property includes an alpine area in the southern part of the claims holdings where elevations range from 1220 to 1525 metres (4000 to 5000 feet). Bedrock, felsenmeer and talus is abundant. Below 1220 metres (4000 feet) elevation, and particularly in the lower reaches of Price and Thelwood Creeks, dense forest cover of cedar, hemlock and fir and locally thick underbrush predominates.

The area has typical Coastal climate and higher areas are snow free 3 to 4 months of the year. At Buttle Lake, summer temperatures may reach into the low 30^{o}C range, while winter lows seldom remain below zero for more than a few weeks.

1.3 CLAIM INFORMATION

Cream Silver's Buttle Lake Property is situated in the Alberni Mining Division, and consists of 105 full and fractional two post mineral claims adjacent to those held by Westmin Resources Ltd. Figure 2 shows the approximate boundaries of the claims. Claim information is listed in TABLE I.

TABLE I

CLAIM STATUS

CLAIM NAME	RECORD NO.	ANNIVERSARY DATE
CREAM 1- 2	11497-98	JULY 22
CREAM 3-12	9418-27	JULY 22
CREAM 13-14	10394-95	SEPTEMBER 23
CREAM 15-18	11574-77	OCTOBER 12
CREAM 1E-2E	11499-500	JULY 27
CREAM 3E-6E	11570-73	OCTOBER 12
BEAR 2	10353	SEPTEMBER 23
BEAR 6	10357	SEPTEMBER 23
BEAR 8	10359	SEPTEMBER 23
BEAR 21-26	10372-77	SEPTEMBER 23
X 1 - X20	15577-96	SEPTEMBER 17
F 1 - F16	15882-97	NOVEMBER 25
F17 - F28	16846-57	MAY 22
D 1 - D4	16271-74	JANUARY 27
D 6 - D18	16276-88	JANUARY 27
STAN 12,13	17057,58	SEPTEMBER 23
STAN 15,16	17060,61	SEPTEMBER 23
STAN 18-20	17063-65	SEPTEMBER 23

1.4 HISTORY

Gold and silver bearing quartz veins in the vicinity of Cream Lake were first investigated in the 1930's. Mr. F.A. Lang located 12 claims in the area in 1964 and these and other claims staked in subsequent years came under the ownership of Cream Silver Mines Ltd. in 1966.

Exploratory work by Cream Silver Mines to 1970 included airborne and ground geophysics, soil geochemistry and detailed geological mapping, trenching and sampling of several precious and base metal structures in the alpine area west of Cream Lake. Three short holes were also diamond drilled. Soil geochemical surveys were conducted east and west of Price Creek in 1969 and 1970.

Western Mines Ltd. (now Westmin Resources Ltd.) entered into an agreement in 1971 to carry out further exploration on Cream Silver's 180 claims covering an area from Drinkwater Creek on the south to the

junction of Price and Thelwood Creeks on the north. Geological mapping was undertaken over much of the claims area in 1971 and 1972 and additional soil geochemical surveys were completed in the lower Price Creek area. An Induced Polarization survey, carried out over an anomalous zinc in soils zone near the confluence of Price and Thelwood Creeks in the northern claims, indicated targets which were tested by three diamond drill holes totalling 807 metres (2,649 feet) in 1972 and 1973.

The British Columbia Government enacted legislation in early 1973 prohibiting the issuance of Park Use Permits for the purpose of carrying out exploration work on mineral claims in all classes of Provincial Parks. An Order-in-Council issued by the Government in April of 1974, and retroactive to March 1, 1973, placed a moratorium on assessment work requirements for claims in Provincial Parks until such time as "a Park Use Permit is issued or renewed or the mineral claims are otherwise disposed of." A recent (1986) Supreme Court of Canada decision overturned the B.C. Government's moratorium and has again allowed for the exploration and development of mineral claims in Parks.

1.5 PREVIOUS WORK

The following field work was completed on the Buttle Lake property by Cream Silver Mines Ltd. during the period May 4 to July 30, 1987 (see Dandy, 1988):

1) Detailed geological mapping at a scale of 1:2,500 was carried out over most of the property.

2) Soil, rock chip and heavy mineral concentrate samples were taken over areas of favourable geology.

3) A grid totalling 32 line kilometres, with a base line of 4 kilometres, was cut and chained.

4) A Controlled Source Audio-Frequency Magneto-Tellurics

(CSAMT) geophysical survey was done by P.E. Walcott and Associates of Vancouver,B.C.

1.6 WORK COMPLETED IN 1988

The field work completed on the Buttle Lake property by Cream Silver Mines Ltd. during the period January 21 to March 31,1988 consisted of:

1) Four 'NQ' wire size diamond drill holes totalling 2164m (7098 ft).

2) Three downhole Induced Polarization geophysical surveys done by P.E. Walcott and Associates of Vancouver, B.C., to be included as a separate report.

2. GEOLOGY

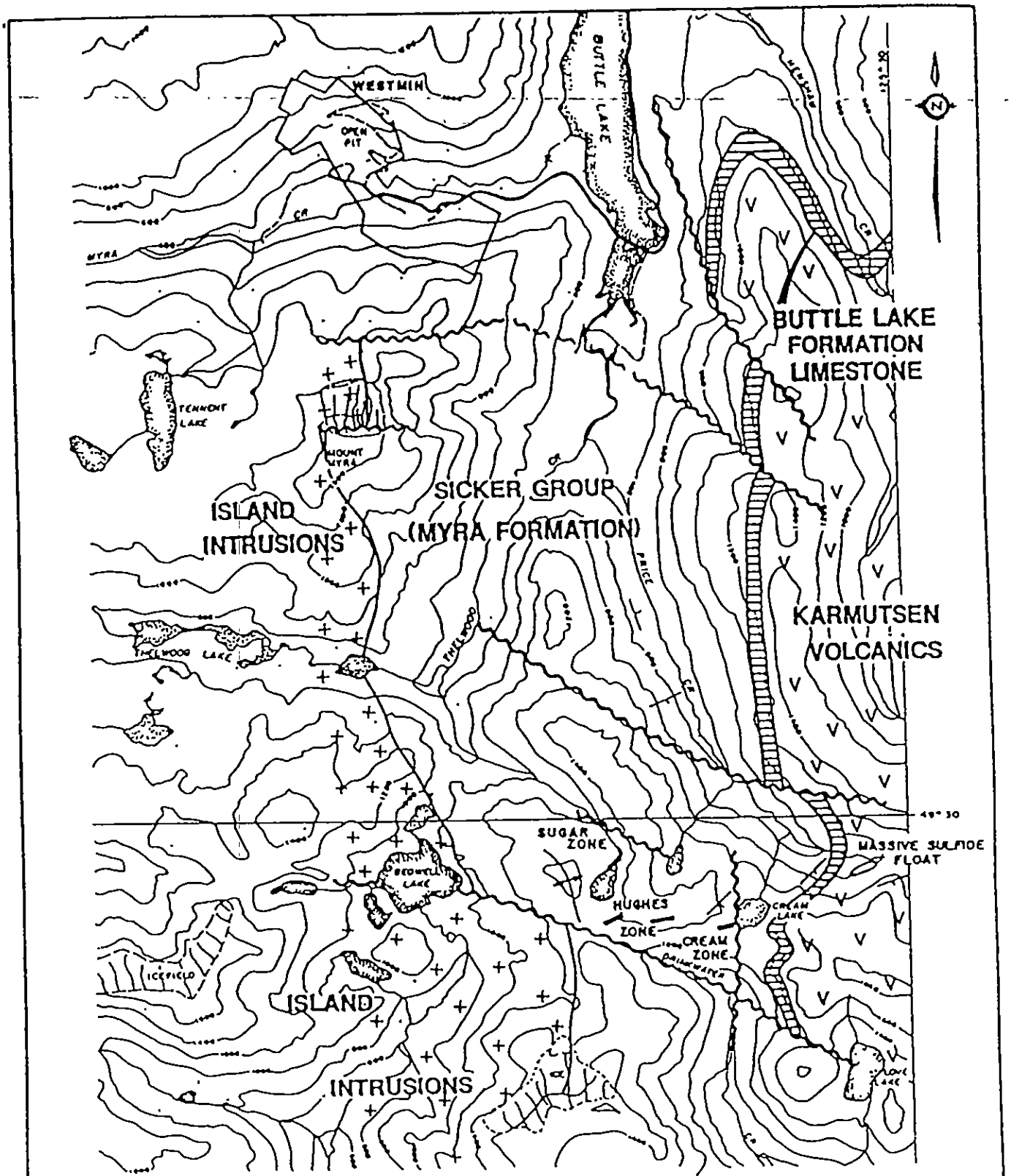
2.1 REGIONAL GEOLOGY

Vancouver Island makes up the southern part of the Insular Belt, the westernmost tectonic subdivision of the Canadian Cordillera. The southern Insular Belt is dominated by Paleozoic and Mesozoic volcanic-plutonic complexes overlain along the east coast of Vancouver Island by clastic sedimentary rocks of Cretaceous age.

Oldest rocks underlying Vancouver Island include the Paleozoic Sicker Group which is exposed in two principal uplifts in the central and southern parts of the Island - the area between Port Alberni and Duncan and the Buttle Lake area. Sicker Group comprises a 2135 to 3050 metre (7,000 to 10,000 foot) thickness of mafic to felsic volcanic rocks, intrusive equivalents and lesser sedimentary rocks which has been subdivided by Muller (1980) into three principal formations. These include the basal Nitinat Formation of pre-Devonian age which is exposed only in the Port Alberni-Duncan area and which consists of basaltic flows and flow breccias. Myra Formation of similar age overlies the Nitinat Formation and includes 915 to 1830 metres (3,000 to 6,000 feet) of intermediate to felsic volcaniclastic and lesser sedimentary rocks. Pennsylvanian to Permian limestones of the Buttle Lake Formation form the upper unit of the Sicker Group.

Much of the Sicker Group exposed in the Buttle Lake uplift is Myra Formation volcanic and lesser sedimentary rocks. Buttle Lake Formation limestones overly the Myra Formation and are exposed on the flanks of the structural uplift (FIGURE 3). The Sicker Group in the Buttle Lake area is overlain unconformably by late Triassic Karmutsen Formation basalts and is intruded by granitic rocks of the Island Intrusions.

The Myra Formation in this area has an apparent thickness of 1830 metres (6,000 feet). The lower and middle sections of the Formation host the Westmin massive sulfide deposits which have been well documented by Walker (1983a, b).



CREAM SILVER MINES LTD.
BUTTLE LAKE PROPERTY
ALBERNI M.D.-B.C. NTS:92-F-6&12
PRINCIPAL GEOLOGICAL FEATURES
DATE: BY:N. FIGURE:3

Sicker Group rocks of Vancouver Island host precious and base metal-bearing vein and fissure-filling deposits in the China Creek area east of Port Alberni and in the southern part of the Cream Silver property south of Buttle Lake. Polymetallic, volcanogenic massive sulfide deposits, examples of which include the Westmin deposits and the Mt. Sicker and Lara prospects near Duncan, represent the most significant mineral deposit type hosted by Sicker Group rocks, and more specifically the Myra Formation.

Production over the past 20 years from the Westmin Lynx and Myra Mines totals 5.7 million tons grading 0.06 oz/ton gold, 3.2 oz/ton silver, 1.5% copper, 1.1% lead and 7.6% zinc. Proven reserves at the Lynx, Myra and the partially developed Price zone are 0.75 million tons of similar grade, but most of the property reserves are contained in the H-W deposit from which production commenced in late 1985.

The H-W orebody, discovered in late 1979, is considered to be the most significant mineral discovery in the Canadian Cordillera in the last decade. Current reserves are 15.2 million tons grading 0.07 oz/ton gold, 1.1 oz/ton silver, 2.2% copper, 0.3% lead and 5.3% zinc. Production from this deposit has resulted in the expansion of daily milling capacity to 4,000 tons.

The Lynx, Myra, Price and H-W deposits are hosted by the lower and middle units of the Myra Formation, referred to by Walker (1983a, b) as the Mine Sequence. This is a 450 metre (1,500 foot) thick succession, underlain by andesitic volcanics and overlain by a distinctive sharp banded tuff unit. The Mine Sequence includes volcanoclastics, volcanic flows and lesser chemical sedimentary rocks and while lithologic units are discontinuous laterally, they have a distinct northwest trend. Mafic volcanic rocks predominate, but massive sulfide deposits are hosted by rhyolitic unit at the bottom, middle and top of the sequence.

The lowest rhyolitic unit hosts the H-W deposit and is predominantly clastic, ranging in thickness from several metres to more than 215 metres (700 feet). This is overlain by several hundred metres of andesitic flows, clastic rocks and chert. Sulfide fragments have been noted in this interval which is overlain by the middle rhyolite unit hosting the Lynx, Myra and Price deposits. This rhyolite unit has a known strike length of 5800 metres (19,000 feet) and attains a thickness of up to several hundred metres. Overlying this unit is a distinctive purple and green andesitic to basaltic sequence of flows and tuffs which also contains sulfide clasts and which has proven to be a useful stratigraphic marker horizon. Above this is the upper rhyolitic unit which hosts massive sulfides at the Lynx open pit and in a new zone 915 metres (3,000 feet) to the northwest.

Most rocks of the Mine Sequence have been intensely deformed and converted to chlorite and sericite schists particularly in proximity to mineralized zones. North and east trending faults are numerous and displace most rock units.

The Lynx, Myra and Price ore bodies are near the crest of a recumbent, northwest-trending anticline developed in the middle rhyolitic unit. These three deposits are in fact parts of one zone in which the Lynx and Myra mines are separated by erosion along Myra Creek valley. The Price is the southeast continuation of the Myra deposit which has been displaced by faulting 610 metres (2,000 feet) laterally and 305 metres (1,000 feet) vertically with the Price block up.

The Lynx, Myra and Price deposits consist of fine grained massive to banded sulfides which occur as lenses in which the principal minerals are pyrite, sphalerite, chalcopyrite, galena and barite. The H-W orebody, 245 metres (800 feet) stratigraphically lower and near the base of the lower rhyolitic unit, is a flat-lying lens-like body with thicknesses in its core of more than 30 metres. Massive sulfides average 65 weight percent pyrite as opposed to the Lynx-Myra-Price zones which average 15 weight percent. The H-W is laterally zoned from a cupriferous pyrite core to zinc, copper, lead-silver and

barite rich margins. Gold is uniformly distributed throughout the zone. Pyrite stringer zones underly the H-W and Lynx deposits.

2.2 PROPERTY GEOLOGY

Principal geological units of the Cream Silver property are shown on FIGURE 3. The claims cover the southern part of the Buttle Lake structural uplift in which Sicker Group rocks are bounded on the east and west by Karmutsen basic volcanics and Island granitic intrusions respectively.

Sicker Group rocks on the claims include felsic and intermediate flows, tuffs and agglomerates which are overlain by Buttle Lake limestones, lesser cherts and argillites in the eastern claims area. These are in turn overlain unconformably by Karmutsen basic volcanics. Granitic to dioritic dykes, related to the Island Intrusions, are numerous, particularly in the southern claims. Basic dykes are also present.

In the northern part of the claims area, between Price and Thelwood Creeks, Scott (1972a) refers to a 600 to 1400 metre (2,000 to 4,500 feet) succession which includes a basal 60 metre (200 feet) thick porphyritic rhyolite flow unit overlain by 300 metres (1,000 feet) of dacite lapilli tuff which is separated from a coarser clastic dacite by 90 metres (300 feet) of cherty bedded tuff. Up to 250 metres (800 feet) of crinoidal limestone of the Buttle Lake Formation overlies the coarse clastic dacite sequence east of Price Lake and Cream Lake. Both Wilbur (1971) and Scott (1972) refer to the basal part of the Karmutsen Formation (which overlies the Buttle Lake Formation unconformably) as being comprised of a 30 metres (100 feet) thickness of argillite and rhyolite, grading upward to typical pillow basalt with rhyolitic interbeds.

Detailed mapping carried out in 1987 outlined units of Sicker Group andesites and rhyolites, Buttle Lake Formation limestone, chert and argillite, and minor pillow basalts of the Karmutsen Formation.

Numerous dioritic and less abundant mafic dykes were found cross-cutting the Sicker Group volcanic rocks. Snow cover in the southern portion of the claim block (where elevations are higher) made geologic interpretations difficult as only about 50% of the outcrops were exposed. In the northern claims, where the most significant geophysical anomalies were outlined, little rock exposure was present and most outcrops were obscured by dense undergrowth.

2.3 STRUCTURAL GEOLOGY

Stratification within the Myra Formation is predominantly northeast with moderate dips to the southeast. Graded bedding in some of the tuff units indicates the sequence is right way up (Scott, 1972). Moderately east plunging fold structures were noted in the upper Price Creek area by Wilbur (1971a). The dominant structural features of the claims area are west-northwest faults along which lateral displacements of a few thousand feet are evident. Vertical displacements are imperfectly known, but south sides of faults represent uplifted blocks.

Faulting and folding complicates stratigraphic relationships, but assuming that Scott's (1972) cherty bedded tuff unit is equivalent to Walker's (1983) sharp banded tuff unit which directly overlies the Mine Sequence hosting the Westmin deposits, then the same stratigraphic section should be present on the Cream Silver claims, particularly in the area of lower Price Creek. Three vertical holes were drilled to depths of between 717 and 1052 feet by Western Mines Ltd. in 1972 and 1973 in the Thelwood Creek valley a short distance south of the outlet of Price Creek. These holes, drilled to test a zinc soil geochemical anomaly and and IP target, intersected a mixed sequence of rhyolite-dacite tuffs and breccias, rhyolite porphyry, and purple and green volcaniclastics. The latter are known to overlie the Lynx-Myra-Price rhyolite sequence at Westmin and in the Thelwood Creek area they may represent the southwest limb of the anticlinal structure extending southeasterly from the nearby Price zone.

Limited rock exposure due to dense vegetation and snow cover does not allow for a complete structural analysis at this time. Numerous bedding, dyking and fracture orientations were taken in the field and have been plotted on a stereonet to allow for better interpretation.

In the field very little bedding was observed as most outcrops tended to be massive volcanics. The bedding orientations tend to centre around 065/35E (striking 065° and dipping 35° to the east). This trend was found throughout the property indicating the possibility of uniform bedding with very little minor folding.

Numerous fractures orientations were recorded from all rock types encountered. Although fracture directions are quite variable, three more prominent orientations have been observed at 035/10SE, 115/65NE and 060/65NW.

Dykes, veins and contacts appear to have random orientations, indicating multiple events of deposition. One consistent feature of small dykes and veins is left lateral offsets along minor cross-cutting fractures. These offsets could be indicative of regional fault offsets.

2.4 ECONOMIC GEOLOGY

Several styles of mineralization have been mapped in place and in float within the boundaries of the Cream Silver claims. Initial work on the property was directed to vein and fissure-filling deposits containing gold and silver values in the alpine area west of Cream Lake. Several zones were identified and all are related to east-northeast striking, steeply north dipping shear zones reflected by prominent lineaments. Sphalerite, galena, pyrite, pyrrhotite and arsenopyrite are the dominant sulfide minerals and these are contained in quartz, carbonate and siderite veins and fault gouge. Better silver grades are associated with tetrahedrite, pyrargyrite and owyheeite (Holcapek, 1985) and gold values are directly related to

arsenopyrite content (Selmser, 1967). The mineralized structures pinch and swell over strike lengths of between 250 and 1200 feet and range in width from inches to 3 feet. Wallrock alteration adjacent to the mineralized structures may extend outward for distances of up to 20 feet and low gold and silver values have been reported from some of these alteration haloes. Gold and silver values are erratically distributed (Philp, 1968) and best values are in near surface oxidized zones.

Diamond drilling by Western Mines Ltd. in the Thelwood Creek valley indicated weak pyrite mineralization and isolated seams of chalcopyrite.

Significant mineralized float has been reported from an area south of the headwaters of Price Creek and 500 metres west of Price Lake. Pieces of float ranging in size from 1 cm to 75 cm (Wilbur, 1971) are found in the talus below a 200 metre cliff exposing the basal part of the Karmutsen Formation. Three varieties are present; (1) very fine grained chalcopyrite, pyrite and sphalerite in argillite, (2) pyrite in a quartz-calcite breccia, and (3) fine grained sphalerite in dark grey rhyolite. Holcapek (1970, 1985) also reports 3 foot bands of massive pyrite and pyrrhotite in place in the cirque area around Price Lake and Wilbur (1971) noted pyrite, pyrrhotite and chalcopyrite in float in terminal moraines in the same general area.

3. DIAMOND DRILLING

From late January to late March 1988, 4 'NQ' wire line sized holes (core size 4.76 cm) totalling 2164 m (7098 ft) were drilled on the property, as shown in FIGURE 5. Drilling was carried out by D.W. Coates Enterprises of Delta, B.C.

When the holes were abandoned, the casing was left in the holes, and these were later capped and then marked by rock cairns.

Sections of the drill core which showed significant sulphides (usually 5% or greater pyrite, or pyrite with other sulphides) were split and sampled. These were then sent to Chemex Labs Ltd. in North Vancouver. The remaining core is stored at Able Transport Company's yard in Campbell River.

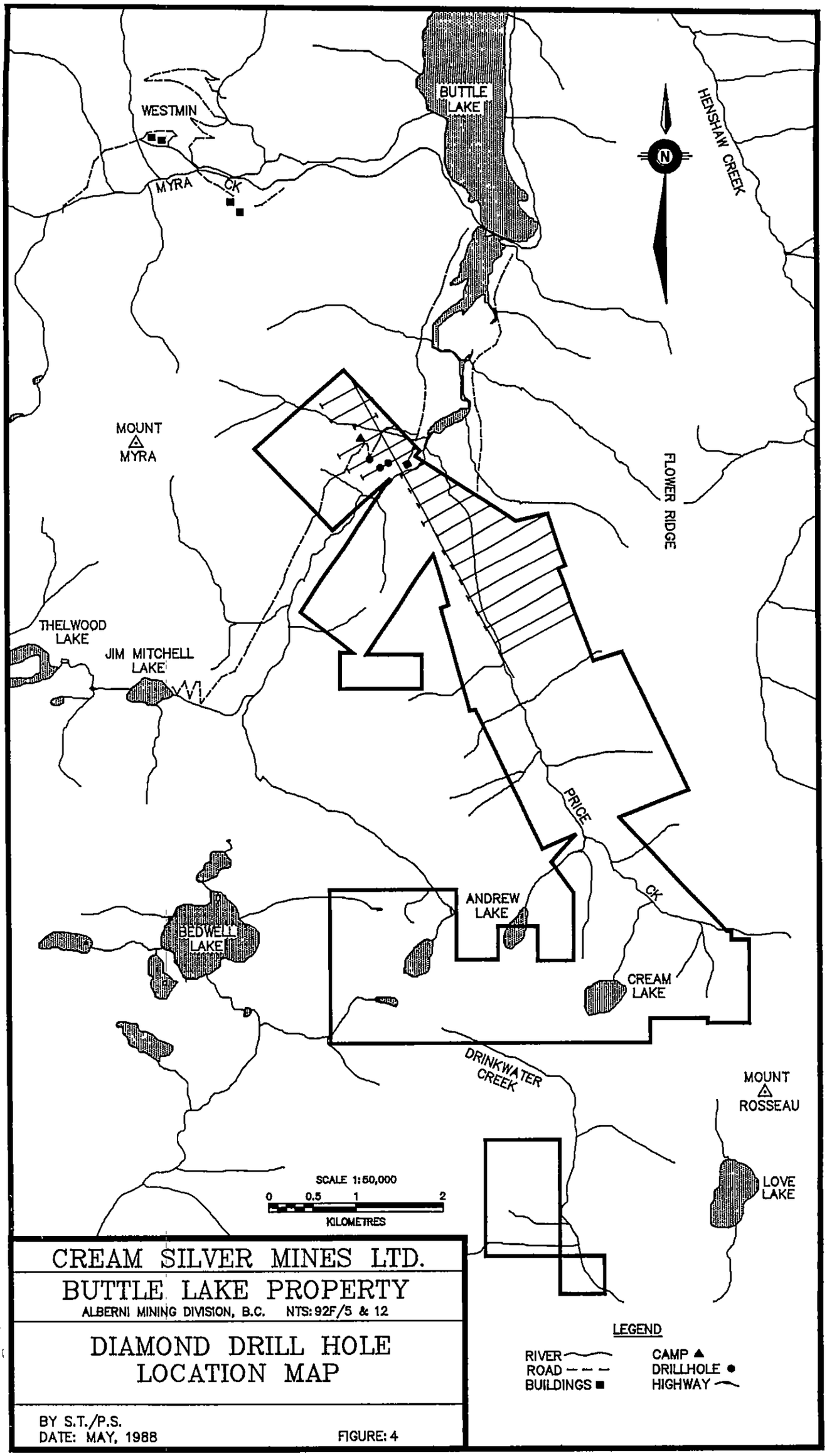
At Chemex Labs the core samples were assayed for Au, Ag, Cu, Pb, and Zn, and analysed for 32 elements. The sample preparation and analytical procedures are described in Appendix B.

A summary of diamond drill hole information is presented in TABLE II.

TABLE II

DIAMOND DRILL HOLE DATA

DRILL HOLE	CLAIM	GRID LOCATION	AZIMUTH(°)	DIP(°)	LENGTH(m)
DDH.1.88	X2	L4N 2+55W	240	-60	645
DDH.2.88	X2	L4N 2+55W	240	-74	404
DDH.3.88	X2	L2N 1+34W	240	-71	467
DDH.4.88	X1	L2N 0+60W	240	-82	647



CREAM SILVER MINES LTD.

BUTTLE LAKE PROPERTY

ALBERNI MINING DIVISION, B.C. NTS: 92F/5 & 12

DIAMOND DRILL HOLE LOCATION MAP

BY S.T./P.S.
DATE: MAY, 1988

FIGURE: 4

3.1 DRILL HOLE GEOLOGY

The drill holes intersected an interbedded volcano-sedimentary package intruded by several dykes. Specifically, andesite, rhyolite, and tuffaceous volcanics make up most of the section, with layers of volcanic graywacke, argillite, and minor chert interbedded. The divisions between the tuffaceous and sedimentary units are gradational, and there is often fine interlayering between them. The core is very competent, averaging close to 100% recovery, with only a few shear zones. These rocks correspond to the Sicker Group, mostly the Myra Formation, with the lowermost andesite in Holes 3 and 4 being the Nitinat Formation.

A probable model for this area is a submarine volcanic rhyolite vent producing lava flows (andesite) and volcano-sedimentary units (volcanic graywacke, tuffs). In between eruptive events, sediments (argillite) were deposited. These sedimentary units would be thicker distal to the vent as there would be less volcanic activity, which would also result in less mineralization. This latter scenario would appear to be the case encountered in this preliminary drilling.

Vertical cross sections of Holes 1 and 2 and Holes 3 and 4 are shown in FIGRUES 6 and 7 respectively. Detailed diamond drill logs for these holes are in Appendix A.

3.2 MINERALIZATION

The mineralization encountered in the drill holes has three main occurrences:

i) Disseminated pyrite, usually in argillaceous units, but also significant in other units.

ii) Other disseminated sulphides, usually pyrrhotite, sphalerite, chalcopyrite, and galena, with pyrite in tuffs.

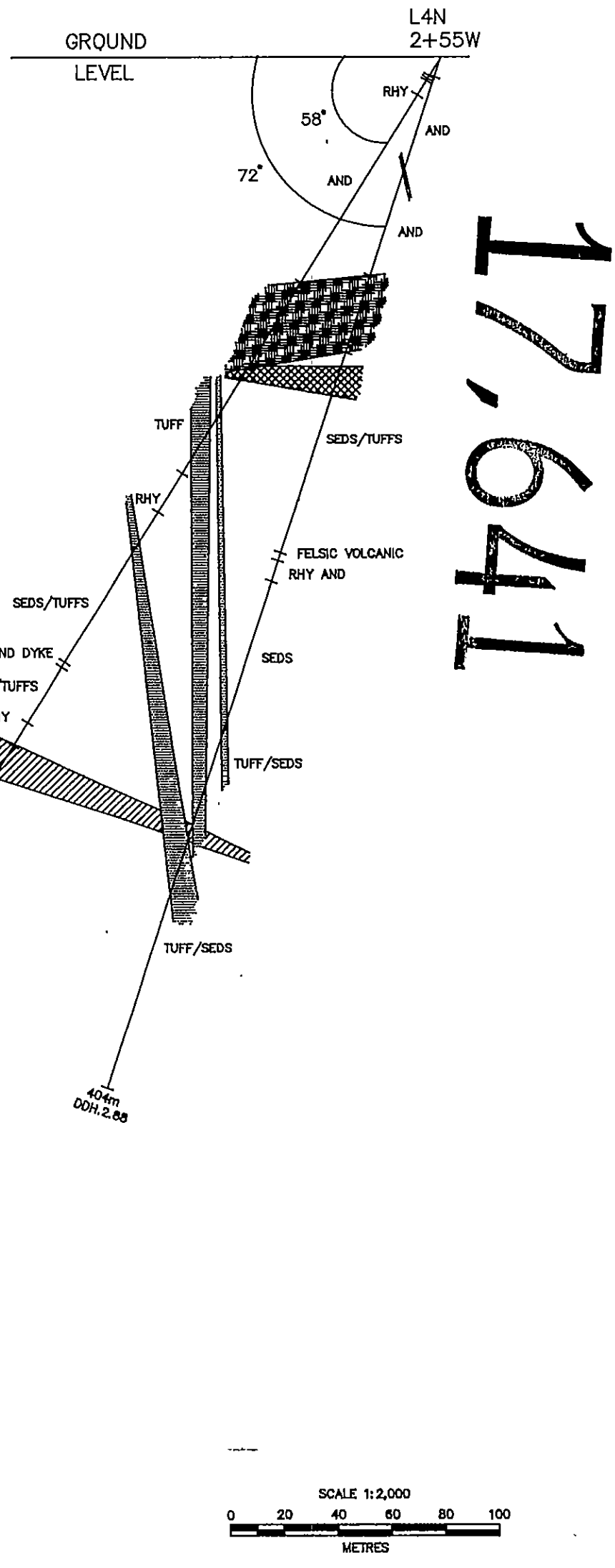
iii) Massive sulphide clasts, mostly sphalerite, chalcopyrite,

and pyrrhotite, in a breccia tuff.

Although all three types of mineralization occurred in all of the holes, the assay results were low (see Appendix B). The best intersection came from Hole No.4, where disseminated sulphides in rhyolite assayed 0.43 oz/t Ag, 0.35% Cu, and 0.33% Zn.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,671



SCALE 1:2,000

0 20 40 60 80 100

METRES

LEGEND

- TUFFS
- SULPHIDES
- POR AND DYKE
- CHERTY TUFFS

AND=ANDESITE
RHY=RHYOLITE
SCH=SCHISTOSE
SEDS=SEDIMENTS

CREAM SILVER MINES LTD.

BUTTLE LAKE

VERTICAL DRILL
CROSS SECTION

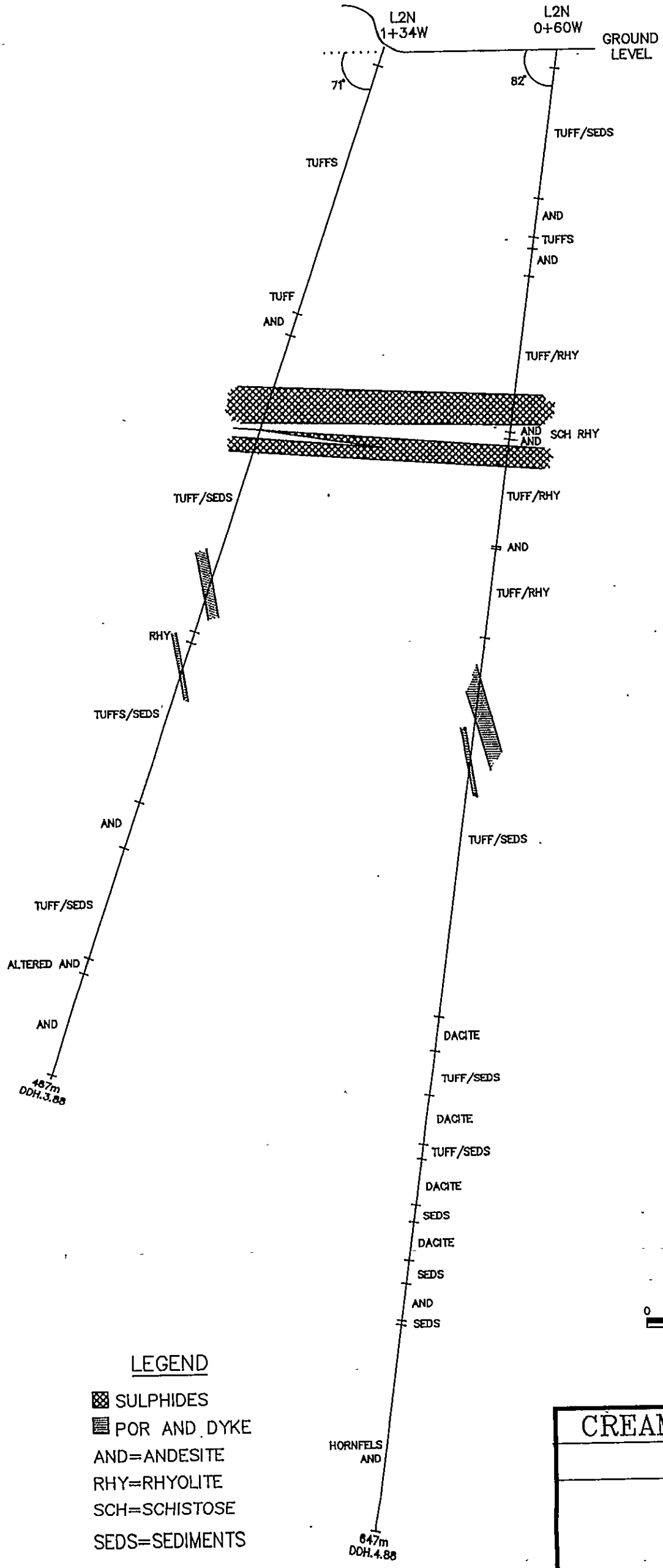
DDH.1.88 & DDH.2.88

BY: S.T./p.s.
DATE: MAY, 1988

FIGURE: 5

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,641



LEGEND

- SULPHIDES
- POR AND DYKE
- AND=ANDESITE
- RHY=RHYOLITE
- SCH=SCHISTOSE
- SEDS=SEDIMENTS

CREAM SILVER MINES LTD.	
BUTTLE LAKE	
VERTICAL DRILL CROSS SECTION DDH.3.88 & DDH.4.88	
BY: S.T./p.s. DATE: MAY, 1988	FIGURE: 6

4. CONCLUSIONS

Available data suggests that the volcanic stratigraphy which hosts the Westmin Resources ore deposits underlies the northern part of the Cream Silver claims area. This is based on lithologies and mineralogy intersected in diamond drill holes located in the Thelwood Creek valley, as well as surface geology and float mineralization encountered in the 1987 field programme.

Vein type mineralization west of Cream Lake includes some interesting gold and silver values, but these targets are considered secondary to the massive sulfide potential of the property.

Results of the 1988 drilling programme may be summarized as follows:

1) The property, where drilled, is underlain by volcanic and sedimentary rocks of the Sicker Group, consisting mostly of the Myra and Nitinat Formations.

2) Mineralization occurs in all of the drill holes, and increases to the East, although assays from this programme gave only sub-economic values.

3) Based on the results of downhole Induced Polarization geophysics, the 1987 CSAMT geophysical anomally tested by this drill programme consisted of argillite, though other targets delineated by this geophysical method may be the result of massive sulphides.

5. RECOMMENDATIONS

Additional exploration of the Buttle Lake property, especially to the east, is warranted. This work should include extending the present grid system along Price Creek for a CSAMT geophysical survey, and more diamond drilling based on targets outlined by CSAMT geophysics and geology.

Respectfully submitted,

Scott Tomlinson

Scott Tomlinson, B.Sc., Geology,
Mark Management Ltd.

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STATEMENT OF QUALIFICATIONS

SCOTT TOMLINSON, B.Sc.

ACADEMIC

1983	B.Sc. Geology	University of British Columbia

PROFFESIONAL

1988	Mark Management Ltd. Vancouver, B.C.	Project Geologist on diamond drilling programme on Vancouver Island.
1987 1986	Mark Management Ltd. Vancouver, B.C.	Assistant Project Geologist on geological, geophysical, geochemical and diamond and rotary drilling programme in the Yukon.
1985	Gewargis Geological Consulting Vancouver, B.C.	Geologist on geological, geophysical, geochemical and drilling programmes in B.C.
1984 1983	Mark Management Ltd. Vancouver, B.C.	Geologist on geological, geophysical and geochemical programmes in northern B.C.

SUMMER EMPLOYMENT

1982	B.C. Hydro	Senior Assistant
1981	Mark Management	Junior Assistant

COST STATEMENT
CREAM SILVER MINES LTD.
BUTTLE LAKE PROPERTY
JANUARY 21 - MARCH 31, 1988

GENERAL COSTS

FOOD AND ACCOMMODATION: 129MDAYS @ $60.84		$ 7,848.53
SUPPLIES:		2,078.70
FIELD TELEPHONE SERVICE:		340.29
SHIPPING:		826.59
FERRY & SUNDRY TRAVEL:		424.05
FIXED WING:		225.50
HELICOPTER:		
VAN ISLE 206B, 18 DEC., 0.5HRS @ $571.20	$ 285.63	
OKANAGHAN 206B, 1 - 17 FEB., 1 HR	587.60	873.23
FUEL:		1,075.43
REPAIRS & MAINTENANCE:		1,536.65
RENTALS:		
EZEKIEL EXPLN FIELD EQUIP, 125 MDAYS @ $6.00	$ 750.00	
GABRIEL RES. 4WD BLAZER, 13 JAN. - 31 MAR., 64 DAYS @ $50.00	3,200.00	
GALLANT GOLD MINES 4WD BLAZER, 10 FEB. - 30 MAR., 37 DAYS @ $50.00	1,850.00	5,800.00
CONSULTANT FEES:		
ADDER EXPLORATION & DEVELOPMENT	$ 2,156.25	
ARCHEAN ENGINEERING LTD.	11,700.00	13,856.25
REPORT PREPARATION:		6,387.55
TOTAL GENERAL COSTS:		$ 41,339.77

STAND BY (DUE TO DEMONSTRATIONS) COST

SALARIES AND WAGES: 2 PERS., 11 MDAYS @ $117.99		1,297.91
BENEFITS: @ 20%		259.82
FOOD & ACCOMMODATION: 94 MDAYS @ $45.00 (TO D.W. COATES)		4,230.00
SITE SECURITY: COASTAL SECURITY SERVICES, 2-27 FEB.	$ 22,377.19	
PINKERTON'S OF CANADA 1-29 MAR.	23,753.98	46,131.17
FIXED WING: AIR B.C.		151.00
HELICOPTER: OKANAGHAN 206B, 1-2 FEB., 2.1 HRS @ 585.50		1,229.55
DRILLING: D.W. COATES ,22 JAN.- 15 MAR.		32,817.50
BULLDOZER: GREENSTONE CREEK, D9H, 23 JAN.- 1FEB., 33 HRS @ $155.00		5,115.00

RENTALS:		
ENGLISH CAR CENTRE, TRAILOR & GENERATOR,		
10 FEB. - 31 MAR., 51 DAYS @ $20.76	$ 1,058.72	
GABRIEL RESORCES, 4WD BLAZER,		
13 JAN. - 31MAR., 9 DAYS @ $50.00	450.00	
EZEKIEL EXPLORATION, FIELD EQUIPMENT,		
11 MDAYS @ $6.00	66.00	1,574.72
SUPPLIES:		123.27
LEGAL FEES: TO 18 FEB.		16,432.39
TOTAL STAND BY COST:		$ 109,362.33

ROADS, DRILL SITES PREP., & RECLAIMATION COST

SALARIES & WAGES: 2 PERS., 6 MDAYS @ $123.96 (INCLUDES 3 DAYS IN APRIL)		$ 743.75
BENEFITS: @ 20%		148.75
CULVERTS & TIMBERS: GREENSTONE CREEK		2,051.25
CASUAL LABOUR, FALLER: CLIFF FRIESEN, 8 DAYS @ $243.75		1,950.00
BULLDOZER: GREENSTONE CREEK, HD16, CAT 235, D7, D9H 21 JAN. - 30 MAR., 308 HRS @ $126.58		38,987.50
EXCAVATOR: COUGAR CREEK, KH35, 5 DAYS @ $306.30		1,531.50
GENERAL COSTS APPORTIONED: (6/125 X $41,339.77)		1,984.31
TOTAL ROADS, DRILL SITES PREP., & RECLAIMATION COST:		$ 47,397.06

DIAMOND DRILLING COST

SALARIES & WAGES: 3 PERS, 119 MDAYS @ $124.19		$ 14,779.16
BENEFITS: @ 20%		2,955.83
RENTALS:		
NCI, CORE SPLITTER	$ 185.39	
SPERRY-SUN, MAG., SINGLE SHOT "B",		
21 JAN. - 31 MAR.	4,131.09	4,316.48
CONTRACTORS:		
ARCHEAN ENGINEERING	$ 300.00	
GARY BENVENUTI	325.00	
B.E. SPENCER ENGINEERING	530.90	1,155.90
DIAMOND DRILLING: D.W. COATES, 2,164m @ $105.16		227,569.87
DOWNHOLE SURVEYS: P.E. WALCOTT & ASSOCS		13,722.30
SUPPLIES:		
CORE RACKS, AXTON INDUSTRIES	$ 1,493.00	
SPC200 PADS, VERSATECH	543.68	2,036.68
CORE SAMPLES CARTAGE: ABLE TRANSPORT		2,702.50

ASSAYS & ANALYSES: CHEMEX LABS,		
92 ROCK FOR Cu, Pb, Zn, Ag, Au @ $32.40	$ 2,981.00	
92 PULP FOR G-32 @ $6.87	632.00	3,613.00
GENERAL COSTS APPORITIONED: (119/125 X $41,339.77)		39,355.46
		$ 312,207.18

OTHER COSTS

CLAIMS PERIMETER SURVEY: UNDERHILL & UNDERHILL (IN PROGRESS)	$ 13,155.20

APPENDIX A

DIAMOND DRILL HOLE LOGS

Perry Grunenberg - 1982 B.Sc. UBC
Geologist

DIAMOND DRILL RECORD

PROPERTY CREAM SILVER
Buttle Lake

HOLE NO. DDH-1-88 PAGE 1 OF 30

LATITUDE	49°30'N	DIPS—COLLAR -60°	AZIMUTH	240°	STARTED Feb. 2, 1988.
LONGITUDE	125°33'W		CORE SIZE	HQ to 26.2m, NQ to end.	COMPLETED Feb. 18, 1988.
ELEVATION	1700m		CONTRACTOR	D.W. Coates Enterprises	LENGTH 645m
SHEET NO.	NTS 92F/12E, SE				LOGGED BY Scott Tomlinson, Linda Dandy and
TARGET	To test a CSAMT geophysical target.				DATE Perry Grunenberg

SECTION FROM	SECTION TO	ROCK DESCRIPTION.	% REC	INTV.	RQD	MINERALIZATION SUMMARY	ASSAYS: SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
0	8.2	OVERBURDEN - NO CORE										
8.2	8.7	DIORITE Plag : 45% Hornb: 20% Bio : 5% Pyx : 10% Qtz : 10% Muse : 10% -Medium to coarse grained. -Fine grained xenolith of wallrock. -Lower contact sharp, @ 70° t.c.a. with 3cm chilled margin.										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-1-88 | PAGE 2 OF 30

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
8.7	9.8	ANDESITE -Fine grained, no phenocrysts. -With occassional tuff fragments. -Flow banding. -Lower contact broken.				Very minor rusty fracture fillings. Very minor manganese staining along fractures.						
9.8	16.8	RHYOLITE -Siliceous, light colored. -Flow banding; bands 1mm to 1cm thick, avrg. 1mm; banding at 26°t.c.a.				Very minor rusty fracture fillings Very minor manganese staining along fractures.						
16.8	96.6	LITHIC TUFF -Lithic tuff with varying amounts of clasts. -Matrix is fine-grained to massive, siliceous, competent; may be finely laminated, especially where many clasts occur. -Clasts types are: Massive andesite. Clastic andesite. Porphyritic andesite.				Very minor rusty fracture fillings. Very minor manganese staining along fractures.						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-1-88 | PAGE 3 OF 30

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
		MUDSTONE CLASTS -Varies from 20% clasts avg. 2mm to matrix-supported clasts up to 5cm; clasts are most common in center of section. -Occassional layers of finely laminated mudstone up to 30cm thick. -Approximately every 2m, a 10 to 20cm band of light green to tan chalcedonic material (silicification?); epidote rich; warpy, irregular contacts, sometimes gradational; may have andesite fragments to 5cm within; cross-cutting quartz veinlets. -5% of core as irregular cross-cutting stringers of quartz and occassionally calcite.										
16.8	22.9	-Clasts avg. 5mm, consist of massive andesite and mudstone; coarse layering and fine laminating of matrix; siliceous bands; little offsets are left lateral, 1cm or less.										
22.9	23.5	-Interlayered fine grained light green siliceous mudstone and medium grained medium green wacke; mudstone has lamallae; layers of units are 5mm-1cm, wavy.										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-1-88 | PAGE 4 OF 30

SECTION FEET FROM	TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
42.1		-Slickenside surface of 2mm wide fracture; surface 35°t.c.a.; serpentinized along surface; plunges 80° off of t.c.a. along surface.										
53.3	54.9	-Breccia zone; 1mm-10cm clasts; clast supported in fine grained andesite matrix; cross-cutting quartz stringer Clasts are: -Siliceous clasts, light green, fine grained, 1cm, 10% hornblende andesite porphyry, medium green, 40% clastic andesite, light green, 40% epidotized andesite, olive green,1cm, 10%.										
55.0	55.5	CHALCEDONIC AREA										
56.8	57.2	CHALCEDONIC AREA										
57.9	58.7	CHALCEDONIC AREA										
61.0	63.4	Fine and medium-grained sediments; fine grained sediments laminated; cross-cutting veins, layering 55° t.c.a. @ 62.8.				Pyrite;blebs;<1%						
64.9	65.2	CHALCEDONIC AREA										
66.3	66.6	CHALCEDONIC AREA										
75.7	76.0	CHALCEDONIC AREA										
77.6	78.0	CHALCEDONIC AREA										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-1-88 | PAGE 5 OF 30

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
78.0		Quartz vein, 2cm wide, 15°t.c.a.										
79.6	80.0	CHALCEDONIC AREA										
83.8	96.6	-Fewer chalcedinic areas; more irregularly laminated, deformed, 1-8mm layers; no large fragments or clasts towards bottom; very minor iron rich lamallae.				Pyrite;blebs:up to 1cm; < 1%						
90.4	90.8	-More massive andesite; sharp irregular contact at =30°t.c.a.										
93.9		-Banding at 45°t.c.a.										
96.6	101.7	VOLCANO SEDIMENTARY -Andesite unit as above, except fewer fragments and chert present as clasts or layers; brecciated texture. -15% chert, increasing to 30% towards bottom. -Chert is red or occassionally green.				Pyrite,rusty staining and boxwork from 96.6-97.4. Pyrite;cubes;disseminations;masses,and stringers,up to 10% from 97.4-98.1,then 5% from 98.1-101.7.	88DDH-1-001 88DDH1-002 88DDH1-003 88DDH1-004	96.6-97.4 97.4-98.1 98.1-99.7 99.7 to 101.7	0.8 0.7 1.6 2.0			

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-1-88 | PAGE 6 OF 30

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
101.7	103.2	LITHIC TUFF -Mottled, brecciated texture. -Layered, but very dense and siliceous. -Chert clasts to 3cm; 1%				Pyrite; fine disseminations; << 1%	88DDH1-005	101.7 to 103.2	1.5			
103.2	114.0	ANDESITE -Mottled green and purple massive andesite.				Pyrite; stringers and blebs; less than 1% overall	88DDH1-006	103.2 to 104.2	1.0			
							88DDH1-007	104.2 to 105.5	1.3			
							88DDH1-008	105.5 to 107.0	1.5			
							88DDH1-009	107.0 to 107.9	0.9			
							88DDH1-010	107.9 to 108.5	0.6			
							88DDH1-011	108.5 to 109.1	0.6			
114.0	134.9	VOLCANO SEDIMENTARY -60% fine grained mottled green/purple andesite. -30% red irregularly banded chert, 5-15cm thick. -10% massive cherty mudstone. -Bedding 35°t.c.a. -Occassional quartz stringers.				Pyrite; along fracture surfaces and in quartz stringers; < 1%	88DDH1-012	117.8 to 119.2	1.4			

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-1-88 | PAGE 7 OF 30

SECTION FEET FROM	TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
134.9	136.4	FLOW-BANDED ANDESITE -Andesite with flow bands. -Minor chert clasts. -Bands ore irregular, but average 85°t.c.a.				Pyrite;blebs to 5mm stringers; < 1% chalcopyrite; 1 bleb at 135.9						
135.9		-Cross-cutting 1cm quartz stringer.										
136.4	136.9	LAYERED TUFFS -Fine grained, siliceous (cherty). -Possibly a chill margin. -Medium grained component-gradational with chert.				Pyrite;fine disseminations and along fractures; up to 1%						
136.9	141.1	ANDESITIC TUFF-LITHIC -Fine grained matrix, 15%. -Clasts avg. 1cm, but up to 5cm -Clasts are sub-rounded to sub-angular. -Clast types: feldspar porphyry andesite 10% fine grained andesite 68% grey chert 10% light green cherty mudstone 10% sphalerite 2% -Subrounded fragments elongate perpendicular t.c.a. -Very minor quartz stringers. -Lower contact sharp, 45°t.c.a.				Paragenesis;first to last; chalcopyrite;blebs;10% pyrrhotite;blebs and disseminations 20%; sphalerite; separate fragments; 40% galena;blebs; 5% pyrite;disseminations;25% total sulphides 5%	88DDH1 -013	136.9 to 137.6	0.7			
							88DDH1 -014	137.6 to 139.0	1.4			
							88DDH1 -015	139.0 to 140.5	1.5			
							88DDH1 -016	140.5 to 141.0	0.5			

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-1-88 | PAGE 8 OF 30

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
141.1	145.5	LAYERED TUFFS -Siliceous fine-grained to medium-grained green layered tuff. -Andesitic composition. -Occassional faint layering. -Argillaceous layers, up to 1cm wide. -Layering 50°t.c.a. -Cross-cutting fractures; offset up to 5mm				Pyrite;disseminated; 1%						
145.5	146.5	ARGILLITE -Black,fine grained,banded argillite. -Occassional interlayered layered tuffs near contacts. -Layers 1-5mm. -Layers and contacts at 40°t.c.a. -Cross cutting quartz stringers, up to 1cm.				Pyrite;along fractures <1%						
146.5	153.0	LAYERED TUFF -Gradational bedding;grades from massive at top to medium grained over about 1m length. -Minor argillite and mudstone layers. -Layers 50°t.c.a. at top, 70°t.c.a. at bottom. -Quartz bleb, 20cm x 8cm, minor pyrite. -Very gradational lower contact.				Pyrite;fractures; <1% pyrrhotite;blebs in fine-grained sections;up to 1% over 15cm						
150.7												

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-1-88 | PAGE 9 OF 30

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
153.0	156.4	PORPHYRITIC ANDESITE -Fine grained matrix with 15% as plagioclose phenocrysts. -Phenocrysts are deformed; up to 5mm.				Pyrite;disseminated <<1%						
156.4	160.2	LAYERED TUFF -Mostly fine grained. -Layers are 65°t.c.a. -Lower contact at 10°t.c.a.;4cm quartz sweat along; warpy.				Pyrrhotite;blebs; < 1%						
160.2	161.8	CHILL MARGIN -Fine grained, siliceous,brown,andesitic unit. -Minor cross-cutting quartz stringers. -Lower contact very irregular;about 45°, less brown and more siliceous towards bottom.				Pyrite;disseminated < 1%						
161.8	174.3	PORPHYRITIC ANDESITE -Fine grained matrix with 25% as plagioclose phenocrysts. -Phenocrysts are subhebral and 2mm avg up to 4mm -Also 5% mafic phenocrysts, 1mm. -5-10% of plagioclose phenocrysts show alteration to clay. -Minor cross cutting quartz stringers. -Broken lower contact.				Pyrite;disseminated <<1%						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-1-88 | PAGE 10 OF 30

SECTION FEET FROM	TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
174.3	179.7	LAYERED TUFF -Mostly fine grained siliceous andesitic tuff;occassionally medium grained;green. -Occassional argillaceous layers;10% of core. -Tuff may be dark, possibly due to some argilleceous material within tuff. -Minor cross cutting quartz stringers.				Pyrite;disseminated; stringers; < 1%						
179.7	196.6	PORPHYRITIC ANDESITE -Fine grained anesitic matrix with plagioclose phenocrysts avg 3mm. -Phenocrysts vary in concentration from 10% to 50%, and varies in crystal distinguishability. -Brown near argillite.				Pyrite;blebs; <1% Pyrrhotite;blebs;<1%						
184.6	184.9	-Graphitic argillite;sheared;bedding 40°t.c.a.;minor quartz;breccia fragments.										
186.2		-Graphitic argillite; 7cm layer: 45°t.c.a.;mildly sheared.										
187.8	189.0	-Graphitic argillite; sheared at lower contact; 75°t.c.a.; stringer quartz and calcite.				Pyrite;blebs to 1cm stringers in fracture to 1%						
189.1	189.6	-Graphitic argillite; irregular layers at 60°t.c.a.; quartz stringers;bottom contact sheared.				Pyrite;blebs						
191.9	192.3	-Argillite,slightly graphitic,minor interbands of porphyry; cross-cutting hairline calcite strigers; contact subparallel t.c.a				to 1cm;stringers along fractures; to 2%.						
192.6		-10cm moderately sheared graphitic argillite; 4cm irregular quartz wedge parallel to contact; 35°t.c.a.				Pyrite;blebs and along fractures <<1%						

Rub. -RUBBLE
Gou. -GOUGE

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
196.6	197.8	ARGILLITE -Fine grained,equitextured,slightly graphitic along fractures. -Quartz stringers crosscutting;minor offsets at 30°t.c.a. -Upper contact broken; lower contact sheared at 75°t.c.a.				Pyrite;blebs to 3mm and on fractures; 1%; stringers on fractures parallel shear.						
197.8	200.1	LITHIC TUFF,ANDESITE TUFF -Matrix is fine grained, medium grey-green 20%. -Lithic fragments avg 2mm; mostly fine grained; minor chert fragments to 3cm. -Minor sphalerite fragments. -Foliation caused by fragments elongate at 80°t.c.a. -Warpy cross cutting quartz stringers. -Upper contact is descoloured;lower contact at 60°t.c.a.,sharp.				Sphalerite,red brown as fragments to 5mm diameter,1% overall. Pyrite disseminated and as cubes along fractures about 1%.	88DDH1 -017 88DDH1 -018	197.8 to 198.7 198.7 to 200.1	0.9 1.4			
198.7		-10cm band of argillite;also fragments of argillite in surrounding tuff to 1cm diameter.										
200.1	201.5	ARGILLITE -Black,slightly graphitic along cleavage surfaces, fine grained. -5% light grey-green, fine grained andesite tuff interlayers. -Fine hairline stringer of calcite. -Cleavage is at 90°t.c.a. -Minor fracturing at 15°t.c.a. -Lower contact at 201.5 is sheared, with a 1cm quartz stringer along it and minor carbonate. Shear =65°t.c.a.				Pyrite,along cleavage and fractures (90°-15°)as blebs & stringer up to 1%.						

Rub. -RUBBLE
Gou. -GOUGE

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
201.5	201.9	PORPHYRITIC LITHIC TUFF -Fine grained tuff matrix with plagioclase phenocrysts to 15%. -Phenocrysts subhedral and some altered to clay. -Fine grained,undistinguishable lithic andesite fragments plus minor chert fragments to 1cm diameter. -Chert fragments =10%. -Plagioclase phenocrysts =15%. -Fine lithic fragments + matrix = 75%. -Light grey becoming darker towards lower contact. -Warpy lower contact =60°t.c.a. (appears conformable)										
201.9	202.2	ARGILLITE -Black, fine grained, slightly graphitic along surfaces. -Minor grey beds-likely fine grained andesite tuff (5%) -Bedding at =65°t.c.a.				Pyrite along fractures and along bedding (65%) up to 1% Pyrrhotite as blebs to 1cm diameter<<1%						
202.2	203.9	ANDESITE TUFF -Medium grey with 1mm tuff fragments (sandy looking). -Upper contact warpy =90°t.c.a. -Equigranular. -Small folded and offset quartz stringers to 5mm, crosscutting. -Lower contact is sheared with a 2cm quartz vein =60°t.c.a.				Pyrite<< 1% as small stringers parallel to quartz veins.						

Rub. -RUBBLE
Gou. -GOUGE

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
203.9	211.2	PORPHYRITIC LITHIC TUFF -30% white plagioclase phenocrysts as crystal agglomerates (poorly formed flowers) upto 5mm diameter. -10% of whole rock is lithic components. Of the lithic fragments 90% are comprised of argillite, upto 3cm. Lithic fragments are elongated. 65°t.c.a. -60% is fine grained andesitic matrix. -Minor fine grained tuff bands upto 0.5 (1 band) + 5 10cm bands. Bands are all parallel with orientations of 60°t.c.a. -Lower contact is brecciated with flower porphipy fragments in the tuff. No orientation visible.				Minor pyritic and pyrrhotite throughout as small blebs < 1% 210.0-210.5 is 1% evenly disseminted pyrrhotite blebs in fine grained tuff.						
211.2	214.0	PORPHYRITIC ANDESITE (FLOWER PORPHYRY) -10% feldspar (plagioclase) flowers as phenocrysts in a fine grained medium grey andesitic matrix. -Chilled margin 15cm at both contacts. -Lower contact sharp at 75°t.c.a. -This unit is possibly a dyke (?)				Pyrrhotite as 1-2mm stringer subparallel t.c.a. near both upper and lower contact and throughout section pyrite, fine, disseminated throughout. Total sulfides to 1%.						

Rub. -RUBBLE
Gou. -GOUGE

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SECTION FEET FROM	TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
214.0	217.0	COARSE LITHIC TUFF -Matrix,fine grained andesite -5% -Lithic fragments 95% 50% fine grained andesite 40% feldspar porphyry andesite 10% argillite -Fragments avg. 2cm to 15cm, rounded, not very distinct. -Poorly visible lower contact =60°t.c.a.				Pyrrhotite-minor blebs<<<1% No visible pyrite.						
217.0	221.7	BEDDED SEDIMENTS -Interbedded, 1mm to 15cm argillite (black), mudstone (light grey and greywacke, medium grey). -Bedding is consistant at 75°t.c.a. -40% argillite, 40% greywacke, 20% mudstone. -Lower cintact 55°, irregular.				Pyrite,along fractures only in argillite <<1%						
221.7	232.0	LITHIC ANDESITE TUFF -Matrix 10% quartz carbonate fine grained. -Lithic fragments 90%,angular,2mm-15cm range, average is 2cm. Compositions: 80% feldspar porphyry 10% fine grained andesite 10% chert and andesite -Fragments get more distinct to lower portion of section. Also more brown colour. -Lower contact, wavy,sharp 65°t.c.a.Pyrite along contact.				No visible mineralization (small blob of pyrrhotite has been spotted) Pyrite along contact.						

Rub. -RUBBLE
Gou. -GOUGE

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
232.0	233.2	ARGILLITE -Black, graphitic, bedded at 75°t.c.a. -Near upper contact is 20cm of brown greywacke bed. -Lower contact, distinct,straight 55°t.c.a.				Pyrite-along cleaves and crosscutting fractures. Often is smeared. =1%						
233.2	238.4	PORPHYRITIC LITHIC TUFF -25% individual subhedral plagioclase phenocrysts, 2-3mm diameters -Distinguishable fragments are 10% of whole rock. Fragments are argillite and chert. -65% is fine grained and andesite. -Lower contact is broken.				Pyrite, fine grained, disseminated, Very much < 1%.						
238.4	239.3	FINE GRAINED ANDESITE TUFF. -Green, fine grained equigranular andesite. -Very minor rounded argillite clasts. -Cleavage at 75°t.c.a., and tuff fragments are aligned parallel to cleavage. -Minor cross cutting quartz stringers. -Lower contact is broken.				No visible mineralization.						
239.3	254.2	PORPHYRITIC LITHIC TUFF -Dark grey to light green. -Individual feldspar crystals and agglomerate crystals=25%. -Dim,hard to distinguish lithic fragments to 20%. -Lithic fragments are chert and argillite. -55% is fine grained andesite some of which may be lithic. -Crosscutting warpy quartz 2cm wide, subparallel to core axis.				Very minor pyrite on fractures Pyrite smear on slickenside surface 015° t.c.a. slides are 90°t.c.a.						

Rub. -RUBBLE
Gou. -GOUGE

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SECTION FEET FROM	TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
254.2	257.3	BEDDED SEDIMENTS 70% argillite-Black,massive,fine grained 15% greywacke-Coarser grained,medium grey 15% mudstone-Light grey -Laminations average 1mm width,greywacke bands wider to 8cm. -Orientation of bedding=70°t.c.a. -Some offsets of bedding. -Lower contact is 65°t.c.a.,very sharp.				Abundant pyrite along fractures and cleaves; to a total 2%	88DDH1 -019	255.4 to 257.3	1.9			
257.3	262.3	BEDDED SEDIMENTS 10% argillite-Black,fine grained 30% greywacke-Coarse,grey-green volcanic origin. 60% fine grained,light-green,mudstones. -Laminations have minor offsets at 85°. 1mm to 2cm lamination. -The greywacke and mudstones are of volcanic origin and may be a banded tuff interlayered with argillite quartz carbonate stringers to 5mm subparalleling core axis. -Lower contact broken =60°t.c.a.				Pyrite as minor blebs<1%						
262.3	263.5	ANDESITE DYKE -Grey-brown,fine to medium grained. -Anhedral plagioclase phenocrysts -1mm. -TIny anhedral mafics Feldspar 20% Mafics 20% Matrix 60% -Lower contact 80°t.c.a.				Pyrite<1% along fractures.						

Rub. -RUBBLE
Gou. -GOUGE

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMB
263.5	276.6	LITHIC ANDESITE TUFF -Varies from fine grained mudstone to a clast supported breccia. -Clasts upto 10cm -Argillite bands at 273.0-274.3 -Clasts are: argillite-black fine grained andesite porphyritic andesite tuffaceous,lithic class crystalline tuff -Percentages vary within clasts -Feldspar (plagioclase) crystals to 1cm -Irregular quartz and calcite stringers -Colour varies from light green to brownish1 -Lower contact is gradational (ie, interbedded with unit below it) -Interbeds are at 50°t.c.a.				Pyrite,very little as blebs<<1%. Pyrrhotite,minor masses<<1%. Sphalerite,small blebs <1cm diameter <<1%. Sulfides are only present as blebs. Approx. 1 bleb per 30cm of core.						
276.6	279.8	BEDDED SEDIMENTS/ARGILLITE/WACKE -90% is an andesitic derived medium grey coloured,equigranular graywacke. -10% minor argillite bands near upper and lower contacts. -Bedding is at 55° t.c.a. -One large brecciated argillite clast to 8cm diameter at 277.1 -Minor quartz stringers to 2mm as cross cutting and parallel to bedding. -Carbonate along fractures. -Lower contact is wavy-average 55°t.c.a.				Pyrite,minor along fractures <<1%						

Rub. -RUBBLE
Gou. -GOUGE

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: COUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBE
279.8	286.8	LITHIC ANDESITE TUFF -Silicous,grey-green,with poorly distinguishable lithic components mafic fragments to 2cm diameter (average 5mm) in siliceous (cherty) light green matrix, may be rhyolitic. 50% mafic lithic component 50% siliceous (to cherty) matrix. -Fracture surface 30° to core axis. -Slickenside direction 60° to core axis in fracture plane. -Cross cutting quartz carbonate stringers to 1% -Contact to lower unit fairly sharp at 25°t.c.a.				Pyrite smeared along slickenside fracture surfaces to 30% of surface area, with pyrite blebs to less than 1% total.						
286.6	288.0	SANDSTONE (ASH TUFF) -Mostly massive,grey colored,equigranular,andesite derived? -Cross cutting quartz carbonate stringers to 2cm, to less than 1%. -Lower contact 25°t.c.a.				Minor sulfide (pyrite,sphalerite?) adjacent to quartz carbonate veining.						
288.0	297.3	SILICEOUS LITHIC TUFF (RHYOLITE) -60% poorly distinguishable,rounded lithic clasts. -40% light green,siliceous matrix. -Lithic clasts 90% broen,fine grained,10% light grey to white chert. -Quartz carbonate stringers to 2mm along fractures. -Lower contact is warpy, averages 35°t.c.a.				Pyrite and minor pyrrhotite along fracture surface <1% up to 5% of any given surface.	88DDH1 -020	288.0 to 289.3	1.3			

Rub. -RUBBLE
Gou. -GOUGE

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBE
297.3	303.3	PORPHYRITIC,LITHIC TUFF -Brown colored,biotite rich matrix,enclosing subhedral feldspar phenocrysts and small lithic andesite/argillite/chert clasts. 25% matrix 20% feldspar phenocryst 15% chert clasts ------ to 1 to 2cm,avg.3mm 5% argillite clasts — green to brown,fine grained 35% andesite clasts---- -Lower contact gradational with color change,lack of feldspar phenos.,and increase in clast size.				Minor pyrite blebs,less than 1%. Pyrrhotite (clasts?) and as component of some of the mafic clasts, to 1% total.						
303.3	309.8	LITHIC ANDESITE TUFF -Light to medium green color overall 10% matrix 90% clasts-60% andesite,fine grained light to dark green. 10% lithic andesite clasts 10% porphyritic andesite clasts 20% chert clasts, light to dark grey. -Subangular,medium destinguishable clasts mildly elongated at 80°t.c.a. -Cross cutting 1mm quartz stringers,warpy in places. -Lower contact is 65°t.c.a.				Pyrrhotite appears to form individual clasts within matrix and within some of the andesite clasts, and as bleb in quartz stringers to a total of 0.5%						

Rub. -RUBBLE
Gou. -GOUGE

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU oz/T	AG P.P.M.	TAG NUMBER
309.8	317.9	PORPHYRITIC ANDESITE -Dark green to slightly brownish,fine grained andesite matrix with about 10% subhedral 1-2mm plagioclase phenocrysts. (No flower agglomerates; just individual crystals). Thin,fine grained light green (mudstone?) laminations at 50°t.c.a. Minor clasts of cherty material. (Note; whole rock has a coarse sandstone appearance at a distance.) -Fine grained,green-brown, mudstone and black argillite bands (2mm-1cm layers) at 312.7 (5cm),313.0 (7cm),313.3 (10cm), 314.2 (20cm), and 317.8 (5cm). All are 50°t.c.a. -Lower contact has quartz carbonate veining at 55°t.c.a.				No visible mineralization in porphyry. Minor pyrite as coarse blebs and fine disseminate within the argillite bands.						
317.9	332.5	CRYSTAL TUFF -30% feldspar (plagioclase) are individual, sub to anhedral crystals. Minor agglomerates to 5mm diameter, Average grain size 2-3mm. -20% Mafics (elongate,prismatic hornblende and minor biotite) -5% Quartz - large (to 1cm diameter) rounded individual crystals. -45% Medium green,fine grained matrix of andesite. -Minor cross cutting quartz and quartz carbonate and wpidote stringers to 5mm -Becomes finer grained,darker and has upto 10% lithic component towards lower contact (0.6) -Lower contact is broken.				Pyrrhotite blebs < 1% to 3mm						

Rub. -RUBBLE
Gou. -GOUGE

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au oz/T	Ag P.P.M.	TAG NUMBER
332.5	338.9	BEDDED SEDIMENTS -Cherty mudstone 30% -Mudstone 55% -Argillite 10% -Minor grey wacke 5% -Most argillite is in first 1.5 of section, as fine bands to 1cm -Grey wacke only as last 0.3 of section (ie section tends to be coarser grained at the base) -Bedding at 65°t.c.a. -Lower contact is sharp at 70°t.c.a.				Pyrrhotite and pyrite blebs and minor fracture filling stringers and very finely disseminated in argillite to 2%. Pyrrhotite as coarse blebs to 4cm x 1cm with minor chalcopyrite. Also some fracture filling pyrrhotite in cherty mudstone. To 2% pyrrhotite and <1% chalcopyrite Minor pyrite and pyrrhotite blebs <<1% Small pyrite cubes and blebs in quartz veins (1 bleb in 1') <<<1%	88DDH1 -021	334.1 to 335.3	1.2			
338.9	350.8	LITHIC ANDESITE TUFF -90% Lithic clasts -10% Matrix, green, siliceous with fine grained biotite. -Lithic clasts 20% feldspar porphyry clasts 40% hornblende-quartz-feldspar crystal tuff clasts 20% fine grained, dark grey, andesite tuff 10% fine grained green andesite 5% black argillite 5% grey chert -Clasts are rounded, fairly distinct, slightly elongated parallel t.c.a. Average size is 2cm diameter, up to 10cm. -Quartz carbonate veining 342.4-342.9, 344.3-345.6. Vein composition is 40% quartz, 30% carbonate (mostly calcite, but with minor Fe carbonate, likely siderite) 30% chloritic andesite (wallrock) fragments. -Lower contact 50°t.c.a.					88DDH1 -022	342.4 to 342.9	0.5			
							88DDH1 -023	343.7 to 345.0	1.3			
							88DDH1 -024	345.0 to 346.3	1.3			

Rub. -RUBBLE
Gou. -GOUGE

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
350.8	353.7	FINE GRAINED PORPHYRITIC ANDESITE. -Top of section has 0.5 of banded fine grained sediments and argillite at 47°t.c.a. -Andesite is sandstone appearing at a distance. Grey-green to slightly brownish. Grains to 2mm -40% plagioclase,20% mafics (altered hornblende and biotite) and 40% green matrix. -Minor amount of lithic fragments towards bottom of section. -Lower contact is irregular.										
353.7	357.8	LITHIC ANDESITE TUFF -Same as 338.9 to 350.8 except less quartz carbonate veining. (1 1.5cm vein roughly parallel t.c.a.) -Lithic components become flattened towards lower contact. Contact is quite warpy 75°t.c.a.				Minor pyrite and pyrrhotite blebs <1%.						
357.8	361.3	BEDDED SEDIMENTS -1mm to 1cm beds of grey, grey brown and black, mudstone 40%, greywacke 10%, and argillite 50%. -Lower contact 60°t.c.a. same as bedding.				Pyrrhotite on bedding planes and cross cutting <1% overall. Pyrite disseminated throughout and on fractures.						

Rub. -RUBBLE
Gou. -GOUGE

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
361.3	365.5	ANDESITE TUFF -Grades from medium grained wquigranular to coarse lithic tuff naer lower contact for last 1.5. -The equigranular tuff is the same as 350.8-353.7 grading to 90% lithic clast tuff with dasts to 5cm diameter. Clasts are rounded and poorly distinguishable. Clasts are predominantly porphyritic andesite and minor argillite. -Lower contact 62°t.c.a.				Little or no pyrite minor pyrrhotite. <<<1%						
365.5	377.6	BEDDED SEDIMENTS -Bedded sandstone,mudstone,argillite,graphitic argillite. -Last 5.2 is all argillite, with graphitic shears. -Above argillite is 60% sandstone/mudstone, 40% argillite. -Beddieng @ 60°t.c.a. -Lower contact is broken approx. 65°t.c.a.				Pyrite-mostly in argillite,along fractures as blebs and disseminate more pyrrhotite than pyrite. Pyrrhotite-mostly in argillite as blebs to 3cm and with pyrite on fractures Combined sulfides to 2% in argillites and < 1% in other rock.						

Rub. -RUBBLE
Gou. -GOUGE

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBE
77.6	386.2	LITHIC ANDESITE TUFF -Grades from coarse lithic tuff to finer grained crystal tuff at 382.2 and back to lithic tuff at 384.0. -For first 0.9 is elongation of lithic clasts at 60°t.c.a. Lithic clasts are rounded to 6cm diameter. Clasts 90%, matrix 10%. -Finer grained green-brown crystal tuff is 40% subhedral ro auhedral plagioclase grains, 30% hornblende, 30% ruff matrix. All components are 1-3mm. Some clasts are rhyolite with mineralization. -Lower contact at 60°t.c.a.				Pyrite and pyrrhotite as irregular small blebs < 1%						
386.2	402.9	BEDDED ARGILLITE AND TUFFACEOUS GREYWACKE -Beds grade from top ro bottom from fine grained black argillite 1cm bands to medium to coarse grained greywacke tuff (crystal tuff) with minor lithic clasts, Tuff beds are massive from 0.6-5.2. 392.0-397.8 No fine grained argillite, entire section is all crystal tuff wacke with upto 10% lithic components. -From 397.8-402.9 is mostly argillite and fine grained mudstone. -Beddings 55° to 60°t.c.a. -Minor soft, sediment deformation. -Lower contact 50° t.c.a. sharp.				Pyrite, along fractures in argillite < 1%						

Rub. -RUBBLE
Gou. -GOUGE

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
102.9	408.4	LITHIC ANDESITE TUFF -Core broken for first 1.2. -Mottled light and dark green, rounded, poorly destinguished clasts in a medium green, fine grained matrix. -95% lithic clasts upto 8cm, average 1cm. -Clasts vary from very fine grained to porphyritic andesite. -Minor cross cutting quartz stringers to 2mm . -Broken at lower contact (may be gradational?)				Pyrrhotite-interstitial, unequally disseminated <1%. Pyrite along fractures<1%						
408.4	410.3	CRYSTAL TUFF -Medium green, to grey, getting coarser grained toward bottom of section. -30% plagioclase, subhedral, average 1mm, individual crystals evenly distributed. -70% fine grained matrix (andesite). (slightly sandy appearance) -Lower contact gradational into next unit.				Pyrite-very minor ie: 1 bleb along a fracture.						
410.3	411.9	LITHIC ANDESITE TUFF -Crystal tuff with lithic clasts (50% clasts). -Near top of section , is upto 30% plagioclase as crystals and crystal agglomerates. Agglomerates to 5mm diameter. -Lithic clasts to 5cm diameter, average is 1cm. -Clasts are porphyritic to fine grained andesite. -Toward bottom clasts become mottled and indistinct. -Argillite band at 411.8 -Lower contact is sharp at 75°t.c.a. -No veins.				Pyrite-minor <1% disseminated.						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-1 | PAGE 26 OF 30

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
411.9	440.4	INTERBEDDED SEDIMENTS AND TUFFACEOUS GREYWACKES. -Top of section is 0.3 of argillite. -Section is comprised of bedded, repeating fine to coarse grained beds of: argillite 10%-black mudstone 15%-greenish siltstone 20%-grey green tuff 55%-brown / green / grey -Cross bedding visible in mudstone, siltstone indicating a waterlaid sediment. -Bedding 65°t.c.a. at top of section, 60° near middle and 70°t.c.a. near bottom of section. -Quartz stringers, mildly folded, subparallel and perpendicular t.c.a -Lower contact appears to be a chill margin for about 0.3 ie: more siliceous and finer grained, broken and hazy, appears parallel to bedding at 70°t.c.a.				Pyrrhotite blebs along bedding. Pyrite along fractures.						
440.4	516.0	ANDESITE -Fine grained, medium green to grey, massive containing 0- 10% rounded feldspar and/or quartz to 1cm diameter, average 3mm. -Fracturing occurs at 10° and 35°t.c.a. -No feldspar zenoliths from 493.8 to end of section. -Lower contact is sheared with quartz veining along it. 10.2cm quartz vein then 12.7cm of shear. Shear and vein 45°t.c.a. -Cross cutting quartz stringers 30°t.c.a. to 1cm enechelon. -Quartz vein at 458.6 with chlorite agglomerates and 10% feldspar inclusions (no visible sulfides) -Minor epidote at 498.7.				Pyrite-minor blebs < 1%	88DDH1 -025	458.4 to 459.0	0.6			

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-1 | PAGE 27 OF 30

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	ASSAYS INTERVAL	ASSAYS WIDTH	ASSAYS Au OZ/T	ASSAYS Ag P.P.M.	ASSAYS TAG NUMBER
516.0	517.6	MEDIUM GRAINED ANDESITE TUFF -Medium grey-green, medium grained massive. -Lower contact is 45°t.c.a. -At 516.9 quartz vein (calcite) mottled texture with 30% wallrock				Pyrite-very minor,disseminated						
517.6	518.5	SILICIFIED ANDESITE -Medium to light green-grey. -Very fine grainedm massive. -Lower contact 85°t.c.a. -Slightly offset quartz vein at 518.2.				Pyrite,finely disseminated						
518.5	526.7	ANDESITE TUFF -Light grey-green to dark grey, weakly banded to mottled texture, weak layering of fine grained tuff and coarser tuff. -Banding orientation is 62°t.c.a. -Becomes finer grained with feldspar phenocrysts towards lower contact. Grains aligned along bedding -Lower contact is broken at 50°t.c.a. (rhyolite?) -Minor 5mm quartz veining.				Pyrite,minor sphalerite and chalcopyrite in last 1.2. Upto 2% sulfides-disseminated along fractures.	88DDH1 -026	525.5 to 526.7	1.2			
526.7	528.8	SILICEOUS ANDESITE -Mottled to weakly banded,cherty (siliceous) fine grained andesite. Light grey-green and light brown. -Weak banding at 55-65°t.c.a. -Lower contact 45°t.c.a.				<1% medium sized pyrite blebs to 1mm<1%						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-1 | PAGE 28 OF 30

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
528.8	577.2	ANDESITE TUFF -Green,mostly fine to medium grained, massive with minor lithic clasts and minor fine grained banding at 60°t.c.a. -Lithic (mottled) from 537.4-539.5, grades in and out. -Minor quartz,quartz carbonate and epidote.				Pyrite-along bandings as disseminate and cubes to 3mm<< 1% overall						
577.2	590.1	ANDESITE FLOW -Medium grey-green,fine grained andesite matrix, with dark green andesite brecciated clasts-like features. Flow breccia fragments are slightly elongated along flow direction due to alteration. -Fragments make up 40-50% of rock. Size average 2mm up to 8mm. -Flow banding is poorly visible at 75°t.c.a. -Quartz,calcite and epidote stringers (with minor pyrite on fractures)				Pyrite-disseminated and as small cubes along fracture <<1%						
590.1	599.7	ANDESITE -Medium grey-green, fine grained andesite. -Often mottled texture. -Faint feldspar phenocrysts are present up to 10% -Quartz,calcite and epidote stringers.. -597.7 Quartz vein;with calcite and epidote stringers on contacts; pyrite blebs to 2% on contacts				Pyrite;disseminated; <<1% Siliceous zone;with epidote bands						
596.3	596.5	Andesite is medium grained.										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-1 | PAGE 29 OF 30

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBE
599.7	604.7	PORPHYRITIC ANDESITE -Medium grey,fine grained andesite matrix with white subhedral phenocrysts of feldspar. -Quartz and calcite stringers. -Phenocrysts average 3mm;account for 25% of core. -Gradational contacts.				Pyrite;disseminated $<<$1%						
604.7	632.9	ANDESITE -Fine grained,grey-green, mottled texture. -Texture may vary to medium grained. -May be porphyritic;feldspar phenocrysts are faint and indistinct, may be up to 10% of core locally. -Quartz and calcite stringers.				Pyrite;disseminated $<<$ 1% Epidote rich zone;with quartz bands and stringers						
630.9	631.2	Lower contact is at 50°t.c.a.;porphyritic for 10cm near contact; xenolith in lower unit, 5cm. -Andesite is medium grained.										
632.9	636.0	MEDIUM GRAINED ANDESITE -Medium to fine grained, grey-green andesite. -Visible crystals are 1mm long, mostly plagioclase and pyroxene or hornblende;occassional plagioclase phenocrysts. -Lower contact is at 40°t.c.a.;sharp,linear. -634.4-634.6 quartz vein;country rock fragments within;pyrite stringers in country rock. -Quartz and calcite stringers.				Pyrite;stringers and blebs $<<$ 1%						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-1 | PAGE 30 OF 30

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
636.0	637.2	ANDESITE BRECCIA -Medium grey-green,fine grained andesite matrix. -Dark green andesite clasts;avg. 3mm; accounts for 30% of core. -Lower contact is gradational. -3 calcite stringers;pyrite blebs and stringers within.				Pyrite;as blebs and very common along fracture surfaces; 2%	2x0.6 Samples	636.0 to 636.6				
								636.6 to 637.2				
637.2	639.9	PORPHYRITIC ANDESITE -Dark purple,fine grained matrix. -Phenocrysts of plagioclase;subhedral; avg. 3mm -Quartz and calcite stringers.				Pyrite;disseminated <<1%						
639.9	645.0 E.O.H.	CRYSTALLINE TUFF -Lighly variable. -Mostly a fine grained andesitic matrix with faint subhedral plagioclase phenocrysts. -Interbedded mudstone;up to 5cm thick;angle t.c.a. 40°, very irregular. -More massive towards bottom of section. -Gradational upper contact. -Quartz and calcite stringers. -643.3-643.7 irregular quartz veinlets and stringer swarm;minor epidote.				Pyrite;disseminated and blebs<<1%. E.O.H.						

Rub. -RUBBLE
Gou. -GOUGE

PROPERTY Cream Silver / Buttle Lake

DIAMOND DRILL RECORD

HOLE NO. DDH-2-88 PAGE 1 OF 16

LATITUDE	49°30' N	DIPS—COLLAR -74°	AZIMUTH	240°	STARTED Feb. 19, 1988
LONGITUDE	125°33' W		CORE SIZE	HQ to 30.5m ; NQ to end	COMPLETED Feb. 26, 1988.
ELEVATION	370m		CONTRACTOR	D.W. Coates Enterprises	LENGTH 404.2m
SHEET NO.	NTS 92F/12E, 5E				LOGGED BY Perry Grunenberg
TARGET					DATE

SECTION FROM	SECTION TO	ROCK DESCRIPTION.	% REC	INTV.	RQD	MINERALIZATION SUMMARY	ASSAYS: SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
0	9.4	Casing - No Core (overburden)				No visible sulfides.						
9.4	44.8	LITHIC ANDESITE TUFF -Mottled textured,green colored -30 to 50% lithic clasts consisting of minor chert,moderate andesite porphyry, and much fine grained andesite of dark (to black) color. -Green grey fine grained matrix. -Average clast size 5mm, up to 5cm -Rounded, poorly distinct. Veining- epidote,chalcedonic quartz and carbonate (rhodochrosite) -Irregular stringers, 2mm to 30cm width as clusters -Possibly multiple phases of stringer emplacement (cross cutting orientation) -Total of 10% epidote veining.				FeOx along fracture surface to low %						
44.8	45.9	ANDESITE (PORPHYRY) -Fine grained, dark grey green matrix with 5% rounded (subhedral) feldspar phenocrysts,individual evenly spaced, 2 to 3mm size. Likely a cross cutting dyke. Upper and lower contacts broken, upper possibly 45°;lower possibly 75°t.c.a. -No veining				No sulfides detected						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-02 | PAGE 2 OF 16

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au oz/T	Ag P.P.M.	TAG NUMBER
45.9	87.2	LITHIC ANDESITE TUFF -Same as 9.4-44.8 -Grades to a more fine grained,equigranular andesite tuff towards base of unit. -Large black andesite porphyry and chert clasts within 71.9- 76.2, section, clasts greater than 10cm diameter. -Poorly bedded at roughly 70°t.c.a. near base of unit -Contact to lower unit indistinguishable.				Epidote,carbonate and calcedonic quartz stringers and veins such as 9.4-44.8, ranging from 10% to 30% over some 1.5m sections (towards base of unit) Coarse pyrrhotite minor pyrite bleb, some fracture filling stringer as well. Periodic pyrrhotite blebs and alligned with apparent bedding,only towards last 15.2m of unit. Minor coarse pyrite on fracture surfaces						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-2 | PAGE 3 OF 16

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
87.2	88.8	RED CHERT -Grades from mottled textured 30% red chert, 70% sandy grained (tuff) and veining to 90% red chert at bottom of section with mixing of units at upper contact. -Minor cross cutting epidote stringers of 2-3mm width.				Minor pyrite on fracture surfaces (to 5% of surface)						
88.8	90.4	LITHIC ANDESITE TUFF -Very mottled, poorly distinguishable clasts, green color,80% clasts-andesite porphyry; green chert,fine grained andesite=80% of clasts -Rounded, to 5cm diameter, average 1cm, highly variable. 20% fine grained, grey to grey-green matrix. -Clasts moderately elongated at 40°t.c.a. -Slightly irregular contact to next unit at 55°t.c.a. -Minor 1mm wide, cross cutting epidote stringers.				No visible sulfides noted						
90.4	108.2	BEDDED RED CHERT AND TUFFS (SANDSTONE) -Red,grey brown overall color -30% red chert lamellae of 2mm to 2cm thickness,flame structure common (turbidity) -Bedding orientations range from 60°t.c.a. to 80°t.c.a., average 70°t.c.a. -65% grey, sandy textured equigranular tuff. -Gradional contact at bottom of section with increase in tuff grain size, and decrease in chert component. -2% quartz-epidote stringers of 1 to 2 mm thickness, alligned commonly along red chert lamellae and cross cutting.				Pyrite on fracture surfaces common to 5% of surface as thin coating. Minor coarse pyrite cube disseminate to fraction of a percent. Core more highly fractured near 103.6 and near 106.7						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-2 | PAGE 4 OF 16

SECTION FEET FROM	TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
108.2	115.8	ANDESITE TUFF -Medium grey to grey green, somewhat equigranular with fine grained matrix -Poorly defineable clasts averaging 3mm diameter, roughly 70% andesitic, 30% sediments (argillite and cherts), 2 larger clasts (5cm) of fine grained (chert) near bottom of section. -Some stretching of clasts at 60°t.c.a. -Quartz vein, subparallel t.c.a., true thickness unknown but more than 7cm.				Minor pyrite blebs throughout.						
115.8	118.1	LITHIC TUFF -Medium grey, matrix supported, with 40% clasts averaging 5mm diameter, subrounded to subangular clasts Clasts-60% andesitic 40% fine grained sediments -Very gradational lower contact becoming finer grained with no clasts. -2 1mm stringers of quartz carbonate				Pyrite and spalerite blebs in matrix to total of less than 1%.						
118.1	123.3	BEDDED SEDIMENTS (TUFFS) -Interbedded fine grained sediments (silts) medium grained sediments (sands) and coarser grained (wacke) all apparently of a tuffaceous source. -Bedding of 1mm to 5cm width, with angle of 40°t.c.a. -Finer layers (lamellae) distinct, coarser layering sometimes gradational. -Minor quartz carbonate stringers 1 and 2mm, cross cutting.				No visible sulfides.						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-2 | PAGE 5 OF 16

SECTION FEET FROM	TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
123.3	134.7	LITHIC TUFF -80% lithic clasts , 20% matrix. Lithics-40% fine grained volcanics 30% porphyritic volcanics 20% fine grained sediment 5% cherts 5% white (feldspar) clasts -Medium green overall color -Clasts angular to subangular averaging 1cm diameter, up to 10cm (few) -Sharp change in color and style of tuff 133.2-133.8 with mostly black (argillic) clasts in dark grey matrix. -Very fine grained subsections sharply contacted at 40°t.c.a. at 125.3-126.2;126.8-127.1 and 129.2-129.8. -Veinlets irregular quartz carbonate 2mm to 1cm wide to 1% of core.				-Sphalerite blebs, reddish brown to 3mm length, somewhat evenly distributed to 0.5% -Pyrrhotite blebs (coarse) and finer disseminate to 0.5% -Minor pyrite and chalcopyrite mostly along fracture surfaces. -Total sulfides may reach up to 5% in places over 1 foot sections,minor galena. -Coarse blebs have sphalerite core with thin coatings of galena both enveloped by pyrrhotite. -2% pyrrhotite alligned along a predominant cleavage plane at 10°t.c.a. within fine grained subsections	-01 -02 -03 -04 -05 -06 -07 -08 -09 -10 -11 -12 -13	123.3-124.2 124.2-125.0 125.0-126.2 126.2-126.6 126.6-127.1 127.1-128.2 128.2-129.2 129.2-129.8 129.8-131.1 131.1-132.0 132.0-132.9 132.9-133.8 133.8-134.6			Fine Grained Fine Grained Fine Grained	Lithic Lithic Lithic Lithic Lithic Lithic Lithic Lithic Lithic Lithic Lithic Lithic Lithic

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-2 | PAGE 6 OF 16

SECTION FEET FROM	TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
134.7	151.5	BEDDED SEDIMENTS : ARGILLITE / MUDSTONE / SILTSTONE 40% black argillite 45% brown to green mudstone and siltstone 15% wacke (tuffaceous) -Soft sediment deformation apparent as gentle warping and mixing of lamellae -Bedding 2mm to 5cm thick at average 60°t.c.a. -Beds generally grade to a coarser material towards base of unit, and finally to next unit (tuff) -Minor cross cutting quartz stringers (1mm)				Minor pyrite blebs and fracture coatings						
151.1	154.5	CRYSTAL TUFF -50% crystals, 30% feldspar and/or quartz , 20% mafic,broken, subrounded 10 to 20% lithic, andésite and mudstone clasts subrounded to 3mm diameter. -30% fine grained green matrix -Lower contact to grey wacke 50°t.c.a. -1mm cross cutting stringers of quartz carbonate -1 1cm veinlet of quartz and feldspar (graphic intergrowth) -Rough layering with changes in grain size				Disseminated fine grained pyrite and fracture coatings to less than 1%						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-02 | PAGE 7 OF 16

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION (NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS: SAMPLE NUMBER	INTERVAL	WIDTH	Au oz/t	Ag P.P.M.	TAG NUMBER
154.5	176.8	BEDDED SEDIMENTS : ARGILLITE / SILTSTONE ; MUDSTONE / GREYWACKE 40% argillite 40% greywacke 20% siltstone/mudstone -Finely laminated siltstone/argillite, bedding 1mm to 10cm width -Bedding at 70°t.c.a. -Gradational contact to next unit, increase grain size addition of clasts clasts. -Quartz carbonate veining and stringers,irregular,cross cutting 5mm to 5cm wide.				Minor pyrite on some fracture surfaces. Pyrite disseminate alligned along bedding in some sections of argillite to 1%						
176.8	194.5	LITHIC / ANDESITE LITHIC TUFFS -Weakly bedded but variable tuffs,grains size and clast type changes. -Lithic component 10 to 40% -Component variable from andesitic to fine grained volcanic and sedimentary clasts 3-5mm diameter over 0.3-0.6m segments and up to 5cm in others. -Cross cutting 1 and 2mm stringers and 1 to 2cm veinlets up to 1% of core total. -Grades to mostly andesitic lithic tuff at bottom of section -Sharp contact to next unit at 35°t.c.a.				Coarse pyrite bleb (clast) at 142.3. Minor disseminated pyrite elsewhere, much less than 1% Fracture filling pyrite to 1% over bottom foot of core						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-02 | PAGE 8 OF 16

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	ASSAYS INTERVAL	ASSAYS WIDTH	ASSAYS Au OZ/T	ASSAYS Ag P.P.M.	ASSAYS TAG NUMBER
194.5	198.4	FELSIC VOLCANIC -White to cream color with grey-blue hue. -Composed of fine grained white matrix containing mafic (biotite?) phenocrysts to 2% -Toward bottom of section core becomes less mottled in texture, more lineated massive and siliceous -Lower contact sharp but irregular, average 50°t.c.a. -Pervasive siliceous stockwork of fine stringers to 40% of core, somewhat chalcedonic.				Rock may be altered andesite as product of stockwork veining Coarse pyrrhotite blebs and stringers alligned subparallel t.c.a. 2 to 3% of core Minor pyrite on fracture surfaces to 1%	DDH88-2 -014	194.5 to 195.4				
							DDH88-2 -015	195.4 to 196.3				
							DDH88-2 -016	196.3 to 197.2				
							DDH88-2 -017	197.2 to 198.4				
198.4	206.0	CHERTY ANDESITE -Light green to grey green color -Cherty by texture,very fine grained,similar to above unit except by color and apparent siliceousness -Slightly fine grained tuffaceous near 204.5 and near end of section -Lower contact sharp at 55°t.c.a. -Cross cutting quartz carbonate stringers and veinlets of 1mm to 1cm width to 2% of core total				Pyrrhitite and pyrite blebs and stringers to 1% combined through central 3.0m of core, and disseminated sulfide brings total to 3%	DDH88-2 -018	201.2 to 202.1				
							DDH88-2 -019	202.1 to 203.0				
							DDH88-2 -20	203.0 to 204.2				

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-2 | PAGE 9 OF 16

SECTION FEET FROM	TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
206.0	231.6	ARGILLACEOUS BEDDED SEDIMENTS -Graded bedding from massive finely laminated argillite (in places graphitic) to fairly coarse tuffaceous wacke. 50% argillite 30% tuffaceous greywacke 20% siltstone (± mudstone) -Bedding averages 70°t.c.a. -Lamellae and beds from 1mm to 40cm width, with apparent repeated grading of fine material at top to coarser at bottom, with sharp breaks to next sequence -Gradational to next unit with increase in % of tuff/wacke -Assorted quartz carbonate stringers throughout but more dense from 224.3-228.6, with up to 50% of core near 227.7, but 2% throughout section.				Coarse pyrite/ pyrrhotite blebs to 3cm length and in fracture fillings as stringer to total less than 1% mostly in argillaceous beds.					
231.6	232.3	AGGLOMERATE Fine grained,black (argillaceous) matrix enclosing large rounded clasts of tuffs and porphyritic andesite tuff, clasts to 10cm diameter -Gradational to next unit with decrease in clasts -Total of 80% clasts, 20% matrix -One 1cm quartz carbonate veinlet				No visible sulfides						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-2 | PAGE 10 OF 16

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
232.3	261.2	ARGILLACEOUS SEDIMENTS: BEDDED -Banded argillite and tuffaceous greywacke, grades to massive argillite after 245.1 70% argillite 30% greywacke (and minor siltstone) -Slightly agglomeritic textured (soft sediment, swirls) near 240.2 -Slickensides (graphitic) commonly 70°t.c.a. -Broken core (shear?) over short segments near 247.5,250.9 and 254.5 -Contact to next unit uneven at 40°t.c.a. -Quartz carbonate stringers to 1cm width,cross cutting bedding at 60°t.c.a. and at 5°t.c.a.				Pyrite common on fracture surfaces, coarse pyrrhotite blebs alligned along bedding in a few places. Bedding 60° to 70°t.c.a.						
261.2	267.2	FELDSPAR PORPHYRY (ANDESITE) -Grey brown with slight green hue 45% rounded anhedral feldspar phenocrysts 45% somewhat siliceous matrix 10% mafics (biotite?) -Clay alteration of feldspar common near fractures and to a low % throughout -Same looking rock as DDH-1 from 161.8-174.3 -May actually be Diorite,likely cross cutting intrusive dyke. -Lower contact broken, roughly 20°t.c.a. -Fracture filling stringers of quartz carbonate on echelon at 20°t.c.a				Minor pyrite on fracture surfaces -Clay alteration of feldspars						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-2 | PAGE 11 OF 16

SECTION FEET FROM	TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBE
267.2	273.4	ARGILLACEOUS SEDIMENTS -Roughly banded argillaceous mudstone and tuffaceous greywacke 70% tuffaceous wacke 30% argillaceous mudstone -Rounded clasts of argillite to 2cm diameter in some of the tuff bands. -Very broken argillite core near upper and lower contacts with graphitic coatings -Lower contact 65°t.c.a. -Minor fine cross cutting quartz carbonate stringers				Minor pyrite as coatings on fracture surfaces.						
273.4	274.0	MASSIVE ARGILLITE -Very weakly bedded 60°t.c.a. -Lower contact 70°t.c.a. Minor cross cutting stringers of quartz carbonate				Minor pyrite on fracture surfaces						
274.0	276.1	PORPHYRITIC LITHIC TUFF -Dark grey green color 20% feldspar phenocrysts 50% lithic clasts 30% fine grained matrix -Evenly distributed 1 and 2mm anhedral feldspar phenocrysts -Lithic clasts to 1cm diameter, subrounded -Gradational lower contact with increase in lithic component, decrease in feldspar				Minor sphalerite, pyrite and pyrrhotite blebs to less than 1%						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-2 | PAGE 12 OF 16

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au oz/T	Ag P.P.M.	TAG NUMBER
276.1	280.4	ANDESITE LITHIC TUFF -Fine grained grey green matrix enclosing andesite and andesite porphyry clasts to 7cm diameter,more commonly 1cm 70% rounded poorly distinguishable clasts 30% finer, tuffaceous matrix -Bottom contact 40°t.c.a., quite distinct -Quartz carbonate stringers subparallel t.c.a.				Coarse pyrrhotite and pyrite blebs, and minor sphalerite to 1% over some sections, especially near top of section.						
280.4	283.5	GRAPHITIC ARGILLACEOUS SEDIMENTS 70% graphitic argillite 30% siltstone and wacke -Poorly bedded 60°t.c.a. -Quite broken and sheared looking (RQD 4) 281.0-281.6 -Lower contact broken -Stockwork quartz, coarse calcite veining from 280.7-281.0, making 50% of core over 0.3m				Pyrite in cross cutting stringers and on cleavage planes parallel to bedding and as coarse unoriented blebs,minor pyrrhotite with above,mostly restricted to argill-aceous segments up to 1 or 2%						
283.5	300.4	FELDSPAR PORPHYRY (ANDESITE/DIORITE) -Mottled textured with 30% very rounded (anhedral) feldspar and/or quartz phenocrysts in green matrix somewhat siliceous -Most likely related to porphyry deeper down hole -Lower contact broken -Inclusion (zenolith) of argillite from 287.7-288.0 -Brown colored near upper contact and near argillite zenolith -Reduction of phenocrysts near lower contact (chilled)				No visible sulfides						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-2 | PAGE 13 OF 16

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
300.4	307.8	MOTTLED LITHIC TUFF -May actually be a large zenolith within porphyry (dykes) -Weakly banded, clasts to 2cm diameter of andesite porphyry, cherts, argillite to 50% of rock,50% fine, somewhat crystalline green to grey green matrix -Lower contact sharp with argillite 15°t.c.a.				Pyrite disseminate and coatings on fracture surfaces to 2%						
307.8	329.2	FELDSPAR PORPHYRY (ANDESITE-DIORITE) -30% to 50% feldspar phenocrysts anhedral to subhedral (rounded) to 3 and 4mm diameter. -Green to grey matrix somewhat siliceous matrix with ? skeletal mafics. -Light colored,mottled textured in places (alteration?) -Lower contact uncertain -Cross cutting, on echelon stringers of 1mm to 2cm width 30°t.c.a.				Minor pyrite-pyrrhotite along cross cutting stringers Possible carbonate-clay alteration over some 0.3 to 1m sections						
329.2	337.0	ARGILLITE / SILTSTONE -Black and brown interbeds of 1mm to 10cm width. -70% argillite at top of section grading to 40% at bottom. -Bedding 70°t.c.a. -Lower contact unclear may be gradational, somewhat broken -Minor quartz carbonate stringers along cleavages.				Coarse pyrite stringers and blebs in argillite along cleavages parallel to bedding to 1% of argillite						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-2 | PAGE 14 OF 16

SECTION FEET FROM	TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au oz/t	Ag P.P.M.	TAG NUMBER
337.0	339.7	CRYSTAL TUFF -Fine grained light grey brown at top, to coarser grey green at bottom of section -Up to 50% crystal component with few lithic clasts -Majority of crystals appear to be feldspar and quartz -Lower contact gradational with increase in lithic clasts -Few stringers both subparallel t.c.a. and at 30°				No sulfides noted						
339.7	344.7	LITHIC TUFF -80% clasts of fine grained andesite,porphyries and cherty sediments -Clasts to 15cm diameter,commonly 3 to 5cm -Fine medium green matrix -Sharp contact at 75°t.c.a. -Minor carbonate on fracture surfaces				Commonly fracturing subparallel to core axis RQD=3 No sulfides noted						
344.7	345.0	ARGILLITE -Massive, black -Narrow 1mm stringers roughly oriented 70°t.c.a. (cleavage)				Thin pyrite stringers along cleavages to 0.5%						
345.0	351.0	ANDESITE TUFF -Fairliy equigranular, grey to grey brown with 80% granular clasts of 2 to 5mm at top, and coarser to 3cm at bottom (gradational) -Wacke appearance at top grading to lithic at bottom -Lower contact fairly sharp at 35°t.c.a. -Very minor carbonate on fracture surfaces				No visible sulfides						
351.0	353.6	BEDDED ARGILLITE / SILTSTONE -50% argillite of 1mm to 3cm lamellae width -50% brown siltstone (to wacke) of up to 10cm width -Bedding 85°t.c.a. -Lower contact broken ~~2 cross cutting quartz stringers.~~				Fine pyrite and coarser blebs along argillaceous lamellae to much less than 1% overall						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-2 | PAGE 15 OF 16

SECTION FEET FROM	TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
353.6	358.4	ANDESITE TUFF -Grading from fine grained equigranular to somewhat coarser and lithic at bottom. -Grey to grey green color. -80% clastic with somewhat siliceous, competent matrix -50% lithic component over bottom 0.6m of section -Contact at bottom sharp at 82°t.c.a. -Minor quartz stringers				No visible sulfides						
358.4	370.0	BEDDED TUFF (WACKE) , SILTSTONE AND ARGILLITE -Coarsely bedded grey to grey brown tuffaceous wacke,black argillite and brown siltstone 70% tuffaceous wacke,equigranular mostly massive 20% argillite, warpy lamellae 10% siltstone (fine tuff?) -Bedding 75°t.c.a. -Lower contact gradational tuff to lithic tuff -Minor quartz carbonate stringers				Less than 1% pyrite associated with argillite						
370.0	373.1	LITHIC TUFF -60% mottled,rounded,poorly distinct clasts of fitne grained volcanic and sediment (Arg) from 1mm to 3 or 4cm diameter -Fien grained, sandy, green matrix -Lower contact sharp 65°t.c.a. -Very minor stringers.				Minor fracture filling pyrite and pyrrhotite to less than 1% Core very broken 370.6 to 371.2 (RQD 5) possible shear fracture surfaces. Minor clay and carbonate						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-2 | PAGE 16 OF 16

SECTION FEET FROM	TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
373.1	376.0	BEDDED TUFFACEOUS WACKE,SILTSTONE AND ARGILLITE -Warpy bedding possibly plastic deformation 75% tuffaceous wacke,massive grey green,low % lithic 15% siltstone, brown 10% argillite -Bedding or foliation 20°t.c.a. -Lower contact ? 30°t.c.a. -Minor quartz carbonate veining mostly associated with argillite bands				No sulfides noted						
376.0	397.8	BANDED CRYSTAL / LITHIC TUFF -Style of tuff gradational from 50% crystal to 60% lithic over 1.5 to 3.0m sections -Apparently all andesite and andesite porphyry clasts to 5cm diamete -Crytal fragments within a granular ground mass -Rough bedding 75°t.c.a. -Lower contact broken -Minor quartz carbonate stringers to 1cm width possibly an echelon at 45°t.c.a.				Pyrite and pyrrhotite blebs and narrow fracture filling veinlets to 1% core						
397.8	398.1	ARGILLITE / SILTSTONE -Roughly 70°t.c.a. -Bedding mostly argillite with minor siltstone				Pyrite stringers oriented parallel to bedding along cleavages to <1%						
398.1	404.2 E.O.H.	BROWN TUFF -Brown colored matrix with sandy texture, contains 30% recognizable tuff fragments of 1mm to 5mm diameter, appears somewhat crystalline -Upper contact appears to be a chilled glassy contact with alteration of argillite, at 90°t.c.a. May be an intrusive tuff -Poorly distinct bedding at 80°t.c.a., Mostly massive equigranular and evenly textured throughout. Very minor quartz stringers				Pyrite along fracture surfaces to 50% of surface, but less than 1% overall						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

PROPERTY Cream Silver / Buttle Lake

HOLE NO. DDH-88-3 PAGE 1 OF 18

LATITUDE	L2N ; 1+34W	DIPS--COLLAR 71°	AZIMUTH 240°	STARTED	Feb. 27,1988
LONGITUDE			CORE SIZE HQ to 29.3;nQ	COMPLETED	March 7, 1988
ELEVATION	295m		CONTRACTOR D.W. Coates Drilling	LENGTH	467.3m
SHEET NO.				LOGGED BY	P. Grunenberg, S. Tomlinson
TARGET				DATE	March 1; 1988

SECTION FROM	SECTION TO	ROCK DESCRIPTION.	% REC	INTV.	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
0	6.1	CASING - NO CORE										
6.1	83.8	ANDESITE TUFF -Very mottled texture due to amount of epidote alteration. Distinction of any intermediate intervals difficult (if any exist). Stretching of materials (clasts) and weak banding (bedding?) at 55°t.c.a. Gradational change to next unit with increase in fragment size and distinction, decrease in alterations. -Epidote,quartz and carbonate (Rholochrosite) veining to 10 or 20% of core; 2mm to 20cm width, average 1 to 2cm. -Coarser veining oriented commonly at 40°t.c.a., other orientations are roughly subparallel or perpendicular t.c.a.				Pervasive carbonate and epidote alteration throughout, makes distinction of individual components within the andesite difficult. Very minor pyrite as coatings on some fracture surfaces.						
83.8	98.9	LITHIC ANDESITE TUFF -Green to grey and black colors 70% clasts greater than 5mm diameter, up to 5cm diameter, average 1 to 2cm diameter. Of clasts: 50% andesite porphyry 45% fine grained sediment and volcanics 5% black matrix porphyry Matrix 30% - fine grained granular. -No distinct contact to next unit. -Very minor 1mm wide quartz-carbonate-epidote stringers.				Weak pervasive epidote alteration through areas of matrix, bur not apparent in clasts, mostly through top 12.2m of section Minor pyrite on fractures and as fine grained disseminate in places.						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-3 | PAGE 2 OF 18

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
98.9	101.5	ANDESITE (CRYSTAL TUFF) -Medium green, fine grained, slightly granular (tuffaceous) texture with 10% white feldspar crystals (anhedral) somewhat rounded (clast or crystal?) 1 to 2mm diameter, -Weak banding near lower contact at 60°t.c.a. -Lower contact fairly sharp at 65°t.c.a. -On echelon 1mm quartz carbonate stringers at 30°t.c.a. somewhat warpy.				Minor pyrite on fracture surfaces						
101.5	119.8	LITHIC TUFF -80% tuff clasts consisting of andesite porphyries (olivine? and feldspar),(50%), fine grained volcanics (30%) and fine grained sediments (cherts and argillite) (20%) -Slight gradation of lithic size smaller at top ro larger at bottom, to 5cm diameter, more commonly 1cm -Laminations (allignment of stretched fragments) near top at 50°t.c.a. -Lower contact fairly sharp at 70°t.c.a. -Very minor quartz carbonate stringers of 1mm width.				Minor bands (stringers perpendicular t.c.a., combined with fracture coatings and minor disseminate total up to 1% pyrite)						
119.8	129.8	BEDDED CHERTY ANDESITE -Very finely banded (bedded) light and dark green color. Bands 1mm to 5cm wide. Mostly equigranular,siliceous to cherty. -Two 1cm cherty argillite bands at 122.2 -Bedding 80°t.c.a. somewhat tuffaceous near lower contact. -Lower contact fairly sharp at 80°t.c.a. -Quartz carbonate veining of 1mm to 1cm width, warpy, sometimes approaching stockwork, to 10% of core total.				Little or no sulfides Minor epidote alteration of matrix.						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-3 | PAGE 3 OF 18

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBE
129.8	131.4	CHERTY ARGILLITE -80% bedded and massive argillite, black and grey siliceous to cherty -20% tuffaceous wacke and minor siltstone -Bedding 80°t.c.a. -1mm to 10cm width -Lower contact broken -Fine stockwork veining near 131.4 to 5% of core, otherwise very minor veins or veinlets				Siliceousness may be alteration product. Coarse pyrite/pyrrhotite blebs in some of the argillite total to less than 1%						
131.4	133.2	ANDESITE TUFF -Green, mostly fine grained equigranular with very minor 3mm clasts of fine grained sediment and volcanic (including argillite) minor beddieng at 85°t.c.a. -Lower contact warpy 70°t.c.a. -Very minor stringers				Minor pyrite on fractures and along bedding cleavages						
133.2	134.1	CHERTY ARGILLITE -50% mottled textured, siliceous black to grey argillite mostly over two 0.3m sections -50% green tuffs -Warpy banding 75° to 85°t.c.a. -Quartz carbonate stringers to 15% of core as fine stockwork				Altered (silicified) looking may be due to somewhat intense veining						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-3 | PAGE 4 OF 18

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBE
134.1	146.3	ANDESITE TUFF -Medium green, sandy textured, equigranular andesite tuff with minor bands of siliceous argillite at 70°t.c.a. -Andesite quite cherty within intervals over the top 6.1m -Lower contact gradational with increase in lithic clasts -Minor stockwork veining from 138.7-140.2				Minor pyrite on fractures and as fine disseminate						
146.3	154.8	LITHIC ANDESITE TUFF -Mottled textured,plastic deformed?, indistinct rounded clasts 50% andesite, fine grained and porphyry,clasts 50% fine grained tuffaceous matrix -Clasts to 3cm diameter but more commonly less than 1cm -Lower contact fairly sharp at ? 20°t.c.a. -Moderate quartz carbonate veining, no preferential orientation up to 5% of core				Pervasive carbonate throughout (from veining) Coarse pyrite blebs and minor disseminated fine grained up to 1% of core.						
154.8	170.2	ANDESITE TUFF -Sandy grained, equigranular, mostly massive, green-grey colored, individual fragments up to 3mm diameter, mostly 1 or less than 1mm -Lower contact fairly sharp at 85°t.c.a. -Carbonate and quartz carbonate stringers and veinlets with coexisting pyrite to 2%; no preferred orientation, to 1% of core overall				Mottled,plastic deformed looking in area of higher vein concentration (5%) Coarse pyrrhotite blebs,minor finer disseminate,and pyrite on fracture surfaces, combine to 2% over some 1foot sections,but less than 1% overall						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-3 | PAGE 5 OF 18

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
170.2	171.9	BEDDED ANDESITE TUFF -Weakly banded or bedded, light green, very fine grained, glassy andesite and fine grained sandy textured medium green andesite tuff. -Beds 2mm to 5cm width, poorly defined, warpy with minor offsets along quartz stringers -Bedding 70° to 80°t.c.a. -Coarse, mottled quartz carbonate viening, minor, only in a few places.				Minor pyrite blebs to lesss than 1%						
171.9	173.4	LITHIC TUFF -Fine grained matrix with small (1mm-3mm) fragments of mostly andesite; elongate at 50°t.c.a.,matrix is 30% of rock -Fragments of andesite may be porphyritic; 5mm to 10cm; 50% of rock -Fragments of mudstone and greywacke; up to 15cm, average 1cm; 20% of rock -Lower contact irregular but approximately 30°t.c.a. -Quartz and carbonate stingers very minor.				Sphalerite;fragments up to 5mm;2% of core Pyrite;irregular blebs;1% of core						
173.4	175.1	MUDSTONE -Cherty mudstone; fine grained may occassionally grade to medium grained; faintly bedded or massive -Bedding 60°t.c.a. -Lower contact at 70°t.c.a., sharp -Quartz and carbonate stringers. One veinlet 2-5mm wide subparallel t.c.a., irregular, fracturing and displacement along it.				Pyrite;stringers and blebs along fractures< 1%						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-3 | PAGE 6 OF 18

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
175.1	176.9	ANDESITE TUFF -Medium grained,equigranular, white plagioclase crystals -Argillaceous mudstone at 20°t.c.a.,finely laminated at 50°t.c.a. -Lower contact gradational at 60°t.c.a. pervassive silicification around lower contact -Quartz and carbonate stringers,irregular -Quartz veinlet 1cm wide has caused brecciation				Pyrite;blebs and stringers <1% Pyrite blebs and stringers within veinlet;to 5% of vein material						
176.9	183.9	LITHIC TUFF -Fine grained white matrix with small clasts 20% of core -Andesite tuff fragments up to 10cm, fine to medium grained with small clasts or plagioclase phenocrysts; 70% of core -Mudstone fragments fine to medium grained, massive to laminated may be argillaceous, 10% of core -Lower contact at 60°t.c.a. -Quartz and carbonate stringers				Sphalerite fragments; up to 1cm;3% of core Pyrite blebs and masses surrounding sphalerite <1% of core Chalcopyrite blebs <<1% of core 3cm x 3cm fragment of sphalerite;pyrite on edges						
183.9	241.6	BEDDED SEDIMENTS -Interbedded mudstones, argillites, and greywackes -Mudstones and argillites form lamellae and grade from unit to next; lamellae are from 1mm to 1cm; occassionally thicker argillaceous units u to 30cm that show only faint lamination; occassionally graphitic along fractures -Greywacke forms layers up to 30cm thick; medium grained and equigranular; occassionally has mudstone or argillaceous layers within ;contacts may be sharp or gradational -All sediments show soft sediment deformation features (warping flame structure)				Pyrite; mostly stringers < 1% also occassionally cubes to 3mm						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-3 | PAGE 7 OF 18

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
183.9	241.6	BEDDED SEDIMENT (CON'T) -Grading indicates that units are top sides up -Lamellae and layers are at 60°t.c.a. ± 10° -Argrllite increases towards bottom of section -Rock quality is poor in argillite-rich sections -Lower contact is irregular 50°t.c.a. -Quartz and cabonate stringers irregular -Quartz also occassionally forms irregular bands										
241.6	242.2	ANDESITE TUFF -Mostly fine grained, slightly mottled, tuff -Up to 10% faint plagioclase phenocrysts -Lower contact at 50°t.c.a. -Sharp but irregular -Quartz and carbonate stringers and blebs; very irregular				Pyrite stringers and blebs; up to 2% of core;pyrite is especially common along carbonate stringers.						
242.2	245.1	BEDDED SEDIMENTS -Interbedded mudstones,argillites and greywackes -As from 183.9-241.6 -Lower contact is sharp but irregular 90°t.c.a.										
245.1	249.5	PORPHYRITIC ANDESITE -Fine grained,grey,massive andesite matrix -25% of core is plagioclase phenocrysts;avg, 2-3mm;subhedral -3% fine mafic phenocrysts -Upper and lower contacts for 40cm is discolored brown -Lower contact is at 30°t.c.a.;sharp -Very minor quartz stringers				No visible sulfides						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
249.5	263.8	BEDDED SEDIMENTS -Mostly argillite, some mudstone, minor greywacke -As from 242.2-245.1 -Lower contact is irregular;90°t.c.a.				Pyrite stringers and elongate blebs up to 2%						
263.8	265.9	INTERBEDDED ARGILLITE / BANDED TUFF -Argillite is finely laminated to massive;forms layers up to 30cm; 25% of core -Banded tuff is fine to medium grained; has clasts that average 3mm, possibly andesite; faint layering is at 40°t.c.a. -Argillite / tuff contacts at 40°-60°; some grading in tuff;argillite clasts near contacts -Lower contact is gradational and irregular -Quartz and carbonate stringers ; mostly in argillite				Pyrite;stringers in argillite; < 1%						
265.9	270.5	RHYOLITE -Fine grained, massive, light colored rhyolite -3% of core as dark mafic phenocrysts; 1mm in size -Lower contact is gradational -Quartz and carbonate veinlets; very few				Pyrite; fine grained disseminations 3% of core						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-3 | PAGE 9 OF 18

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
270.5	280.7	LITHIC TUFF -Texture varies from matrix supported at top of section to clast supported at bottom of section -Matrix is fine to medium grained with at least 30% plagioclase phenocrysts 1-3mm;also many fine rock fragments;matrix is 20% of core. -Tuffaceous clasts have a fine grained matrix with platgioclase phenocrysts and small fragments; vary from 2cm to 50cm;70% of core. -Andesite clasts are fine grained,massive,green;5% of core -Sedimentary clasts are mudstone and argillite 5% of core. -Lower contact is gradational -Quartz and carbonate stringers;few				Pyrite,disseminated blebs<1% of core Sphalerite;mass 1cm x 3cm x 5cm; with galena especially on edges; as separate fragment.						
280.7	283.8	INTERBEDDED ARGILLITE / GREYWACKE / BANDED TUFF -Argillite is finely laminated to massive;layering is at 80°t.c.a. -Greywacke is fine to medium grained;very gradational and interlaminated with argillite -Banded tuff is fine to medium grained,occassionally grading to coarser at bottom;plagioclase phenocrysts and argillite and other rock fragments, 1-3mm size; faintly banded -Apparently an interbedded sedimentary sequence as interlayering and soft sediment deformation at unit contacts -Lower contact sharp at 60°t.c.a. -Quartz and carbonate veinlets				Pyrite disseminations and stringers; mostly in argillite <1%						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-3 | PAGE 10 OF 18

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
283.8	285.8	FLOWER PORPHYRY ANDESITE -Fine grained,massive,andesite matrix -Plagioclase phenocrysts,usually irregular in shape and 2-3mm in size but occassionally up to 1cm and flower shaped -Lower contact sharp at 50°t.c.a. -Quartz and carbonate stringers, few				No visible sulphides						
285.5	289.9	INTERBEDDED ARGILLITE / MUDSTONE / BANDED TUFF -Argillite is massive to finely laminated -Mudstone is fine grained,gradational and interlaminated with argillite -Banded tuff is fine to medium grained with plagioclase phenocrysts and small rock fragments 1-3mm; weakly banded;may contain argillite fragments up to 4cm -All units show soft sediment deformation at contacts and within unit -All layering is at 60°-80°t.c.a. except for deformed lamallae -Lower contact is gradational 70°t.c.a. -Quartz and carbonate stringers;mostly in argillite				Pyrite stringers and disseminations; mostly in argillite < 1%						
289.9	292.9	GREYWACKE -Fine to medium grained, equigranular,massive -No phenocrysts;very few clasts, mostly of argillite; few mudstone lamallae -Gradational lower contact 70°t.c.a. -Quartz and carbonate veinlets;very few				No visible sulphides						

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-3 | PAGE 11 OF 18

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
292.9	297.3	FLOWER PORPHYRY TUFF -Fine to medium grained matrix -Plagioclase phenocrysts range from subhedral < 1mm crystals to flower-shaped 5mm crystals; 30% phenocrysts -Occassional argillaceous layers, 2-3mm thick; 5% of core -Similar to 283.8-285.8 except medium grained and argillaceous -Lower contact is gradational 50°t.c.a -Quartz and carbonate veinlets; very few				No visible sulfides						
297.3	304.2	PORPHYRITIC LITHIC TUFF -Section has variable textures and grades from top to bottom										
297.3	299.6	-Matrix supported tuff;finegrained matrix with plagioclase phenocrysts avg 1mm; clasts are up to 4cm and are of tuff andesite, and argillite/mudstone; matrix/clasts = 60%/40%										
299.6	302.1	-Matrix supported tuff; fine to medium grained matrix with large plagioclase phenocrysts to 5mm; argillite,mudstone and some tuff clasts avg, 1cm;matrix/clasts = 70%/30% -Some similarities to 292.9-297.3										
302.1	304.2	-Clast supported tuff; medium grained matrix with small clasts and plagioclase phenocrysts mostly tuff clasts up to 5cm Matrix/clasts = 30%/70% -Lower contact is sharp 70°t.c.a.; soft sediment deformation										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-3 | PAGE 12 OF 18

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	ASSAYS INTERVAL	ASSAYS WIDTH	ASSAYS Au OZ/T	ASSAYS Ag P.P.M.	ASSAYS TAG NUMBER
304.2	309.2	BEDDED SEDIMENTS AND TUFFS -Sediments are finely laminated argillites and mudstones and medium grained greywackes;layering is at 80°t.c.a. -Tuffs are mostly a lithic porphyry tuff with plagioclase phenocrysts and 5mm rock fragments in a medium grained matrix; matrix supported -Contacts between layers may be gradational;all show soft sediment deformation -Lower contact very gradational -Pyrite disseminations and stringers mostly in argillite < 1% -Quartz and carbonate stringers										
309.2	315.9	ANDESITE TUFF -Fine to medium grained matrix; plagioclase phenocrysts up to 10% of core. -Clasts account for 20% of core; mostly tuff or andesite -Lower contact is irreular, gradational -Pyrrhotite and pyrite, blebs to 5mm; < 1% -Quartz and carbonate stringers -Occassionally siliceous matrix -Quartz/carbonate veinlet										
315.9	316.8	BEDDED SEDIMENTS -Interbedded argillite,mudstone and grey wacke -Bedding at 90°t.c.a.; argillite slightly graphitic on fractures -Lower contact sharp; perpendicular t.c.a. -Pyrite; stringers and blebs, especially in argillite; 2% -Quartz and carbonate stringers										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-3 | PAGE 13 OF 18

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
316.8	327.5	PORPYRY TUFF -Mostly fine to medium grained with 10-20% plagioclase phenocrysts 1-3mm, subhedral -Pyrite; blebs ; <<1% -Quartz and carbonate stringers -Quartz/carbonate stringer 2cm wide; subparallel t.c.a.; minor pyrite blebs -Tuffaceous clasts; up to 4cm; 20% of core -Variable texture -Lower contact os gradational										
327.5	334.5	LAYERED LITHIC TUFF -Texture varies through section -Some sections are porphyritic as in previous unit -Also layered, as in flow banding, with a fine grained matrix and occassional clasts; layers at 40°t.c.a. -Mostly lithic, with a fine grained, occassionally porphyritic matrix; supported by large clasts up to 5cm of tuff -Lower contact is gradational at 40°t.c.a. -Pyrite;blebs; <1% -Quartz and carbonate stringers and veinlets; few until last 50cm, where one every 5cm										
334.5	336.7	ARGILLITE / MUDSTONE -Interbedded and interlaminated argillite and mudstone -Bedding perpendicular t.c.a. -Sequences of grading; tops fine to bottom coarse -Lower contact at 40°t.c.a. -Pyrite;stringers and blebs in argillite <1% quartz and carbonate stringers										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-3 | PAGE 14 OF 18

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
336.7	345.2	LITHIC TUFF -Fine to medium grained matrix; occassional plagioclase; 30% of core -Clasts are up to 6cm; mostly tuffaceous ,fine grained with plagioclase phenocrysts; also many chyolitic clasts, fine grained with quartz phenocrysts; a few mudstone/argillite clasts; clasts are 70% of core -No visible sulphides -Quartz and carbonate stringers -Very gradational lower contact										
345.2	365.8	ANDESITE -Core has a highly variable texture -Most of core is a very siliceous, fine grained andesite; frequently has faint plagioclase phenocrysts -Colour is mostly purple, but varies from green to brown; often mottled, almost tuffaceous in appearance -Lower contact is gradational and highly fractured -Pyrite;as blebs and stringers< 1% -Quartz and carbonate stringers; few -Quartz/carbonate/epidote zone subparallels t.c.a. -Other quartz/epidote zones up to 15cm occur occassionally										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-3 | PAGE 15 OF 18

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
365.8	378.3	LITHIC TUFF -Variable in texture; becomes more porphyritic towards bottom of section -Matrix is fine to medium grained; layering elongated 60°t.c.a.; plagioclase phenocrysts 1-5mm; matrix is 50% of core -Clasts are rhyolite,andesite,and tuff; avg 5mm; subangular;clasts are 50% of core -Lower contact is sharp at 50°t.c.a. -Pyrite;blebs and stringers,especially along fractures < 1% -Quartz and carbonate stringers										
378.3	388.5	GREYWACKE / BEDDED SEDIMENTS -Mostly greywacke; fine to medium grained; 20% plagioclase crystals (therefore tuff?); average 1mm, up to 5mm; faint layering perpendicular t.c.a. -Up to 30cm layers of interbedded mudstone and argillite; finely laminated; may show grading fine to coarse; layering 50°t.c.a. -All contacts between units show soft sediment deformation -Lower contact is sharp at 30°t.c.a. -Pyrite; stringers and blebs < 1% -Quartz and carbonate stringers										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-3 | PAGE 16 OF 18

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	ASSAYS INTERVAL	ASSAYS WIDTH	ASSAYS AU OZ/T	ASSAYS AG P.P.M.	ASSAYS TAG NUMBER
388.5	390.3	TUFF/BEDDED SEDIMENTS -Mostly tuff;medium grained,angular fragments in matrix,minor clasts up to 1cm,tuff or bedded sediment -Interbedded finely laminated argillite/mudstone;60° bedding t.c.a., deformed; sediments form lenses and interfingering in tuff -Tuff resembles a coarse greywacke -Lower contact is irregular -Pyrite; disseminations $\angle\angle$ 1% -Quartz and carbonate stringers										
390.3	392.7	LITHIC TUFF -Fine grained matrix; occassional plagioclase phenocrysts -Clasts are mostly tuffaceous; some andesite and sediments; avg 3cm -Section varies from matrix supported at top to clast supported at bottom. -Lower contact irregular 70°t.c.a. -No visible sulphides -Quartz and carbonate stringers										
392.7	396.2	GREYWACKE -Mostly fine to medium grained; some sections have up to 10% plagioclase crystals avg 1mm -Some sections have clasts up to 5mm and are coarser grained; almost tuffaceous appearance -Occassional faint argillaceous layers are interbedded -Lower contact is very gradational;becomes tuffaceous -No visible sulphides;Quartz and carbonate stringers; very few										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-3 | PAGE 17 OF 18

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
396.2	398.7	LITHIC TUFF -Matrix is fine grained; few plagioclase phenocrysts -Clasts are irregular in size and shape;vary from 1cm to 10cm, and may be distinct or faint; clasts are mostly tuff, with some rhyolite and minor andesite and sediments; mostly clast supported -Lower contact is very irregular; shows signs of soft sediment deformation -No visible sulphides;quartz and carbonate stringers										
398.7	416.1	BEDDED SEDIMENTS -Interbedded argillite, mudstone and greywacke . -Argillite and mudstone form fine lamallae; layers at 60°t.c.a. -Greywacke is medium grained, occassional plagioclase crystals, may show faint layering -Soft sediment deformation, cross bedding and graded bedding -Lower contact is irregular -Pyrite; stringers and blebs in argillaceous layers; < 1% -Quartz and carbonate srringers; one quartz bleb to·3cm										
416.1	428.9	ALTERED ANDESITE -Andesite is fine to medium grained with 20% plagioclase phenocrysts up to 3mm ;grey-green in colour -Occassionally,especially near bottom of section, may show flow-banding texture -Entire section is moderately fractured;occassionally sheared -Two 15cm sections of argillaceous material										
416.1	417.0	-Core is siliceous,competent,massive with argillaceous clasts and brown;contact alteration										
424.0	424.3	-Shear zone;core is fine mud,soft, with occassional competent clasts; at 20°t.c.a. -Very gradational lower contact										
		-Pyrite;stringers and blebs << 1% ; Quartz and carbonate stringers										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-3 | PAGE 18 OF 18

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY
						SAMPLES

ASSAYS					
SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
88DDH3-01	171.9 to 172.7				
88DDH3-02	172.7 to 173.4				
88DDH3-03	176.9 to 177.9				
88DDH3-04	177.9 to 178.6				
88DDH3-05	178.6 to 179.5				
88DDH3-06	179.5 to 180.4				
88DDH3-07	180.4 to 181.4				
88DDH3-08	181.4 to 182.3				
88DDH3-09	182.3 to 183.2				
88DDH3-10	183.2 to 183.9				
88DDH3-11	265.9 to 267.5				
88DDH3-12	267.5 to 269.0				
88DDH3-13	269.0 to 270.5				

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

PROPERTY Cream Silver / Buttle Lake

HOLE NO. DDH-88-4 PAGE 1 OF 32

LATITUDE	L2N;0+60W	DIPS—COLLAR -82°	AZIMUTH 240°	STARTED	March 8, 1988
LONGITUDE			CORE SIZE HQ to 30.5;nQ +	COMPLETED	March 24, 1988
ELEVATION	290m		CONTRACTOR D.W. Coates	LENGTH	647m
SHEET NO.				LOGGED BY	S.Tomlinson, L. Dandy
TARGET				DATE	

SECTION FROM	SECTION TO	ROCK DESCRIPTION.	% REC	INTV.	RQD	MINERALIZATION SUMMARY	ASSAYS: SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
0	7.6	OVERBURDEN - NO CORE										
7.6	11.6	LAYERED TUFF -Fine to medium grained, tuff;occassional plagioclase phenocrysts -Faint layering at 50°t.c.a. -Occassional clasts up to 3cm, of mudstone, andesite and tuff -Lower contact gradational -No visible sulfides -Quartz and carbonate stringers,epidotization along quartz										
11.6	26.8	LITHIC TUFF -Matrix is fine to medium grained; may have plagioclase phenocrysts -Clasts are mostly fine grained,massive andesite; up to 6cm avg. 2-3cm;also tuff and mudstone clasts; clasts average from rounded to angular -Clasts: matrix averages 50%:50% through 1m sections of mostly matrix -Lower contact very gradational -Pyrite; disseminated; <<1% -Quartz and carbonate stringers -Epidotization; stringers and pervassive over 2cm widths										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-4 | PAGE 2 OF 32

SECTION FEET FROM	TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
26.8	34.6	MUDSTONE / GREYWACKE??? BANDED TUFFS??? -Fine grained mudstone, occassionally cherty,occassionally finely laminated -Greywacke is medium grained -Graded bedding between units; bedding at 60°t.c.a. -Different beds show soft sediment deformation -Lower contact is moderately fractured, so not distinguishable -No visible sulphides -Quartz amd carbonate stringers -Occassionally rusty along fractures,especially in last 2m										
34.6	42.5	ANDESITE TUFF -Matrix is fine to medium grained,many <1mm fragments; up to 5% plagioclase phenocrysts to 3mm -Clasts are small, avg 1cm; mostly fine grained andesite; less than 1% mudstone clasts -Clasts represent at most 40% of core; most of section is very matrix rich. -Lower contact is gradational (next unit is porphyritic) -Pyrite, disseminations <1% -Quartz and carbonate stringers minor epidotization										
42.5	52.6	PORPHYRY TUFF -Matrix is fine to medium grained , 10% andesite clasts -Plagioclase phenocrysts avg, 3-4mm; subhedral -Phenocrysts avg, 30% of core, last 2m of section has very few phenocrysts. -Lower contact is moderately fractured -No visible sulphides;quartz and carbonate stringers; epidotization minor										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-4 | PAGE 3 OF 32

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
52.6	64.8	LITHIC TUFF -Upper 2m is moderately fractured -Matrix is fine to medium grained; has many 1mm clasts within; matrix averages 30% of core -Clasts are up to 10cm; comprised of mostly fine grained massive andesite, with some tuff, porphyritic andesite and mudstone -Lower contact is gradational -No visible sulphides -Quartz and carbonate stringers ; epidotization minor										
64.8	82.1	ANDESITE FLOW -Matrix is fine grained; many 1mm fragments -Clasts are mostly andesitic; difficult to distinguish from matrix; possibly 30% of core -Lower contact at 50°t.c.a.; irregular -No visible sulphides -Quartz and carbonate stringers; epidotization to 5%										
82.1	85.6	ASH TUFF? -Sandy,fine grained,medium green, andesitic tuff. No distinct lithic clasts are present -Numerous small quartz carbonate fillied tension-gashes and warpy veinlets to 1cm -Minor calcite on fracture surfaces -Lower contact is broken but is at 50°t.c.a. -Minor disseminated pyrite										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-4 | PAGE 4 OF 32

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
85.6	86.6	LITHIC ANDESITE TUFF -Clasts to .5cm, usually 2-3mm -Clasts are 50% dark andesite + 50% cherty rhyolite;minor sulfide clast -Matrix is medium grey-green andesite -Clasts appear lineated at 65°t.c.a. -Numerous warpy discontinous 1mm calcite stringers -Lower contact is gradational but is marked by an increase in calcite veining. -Pyrite as small 2mm clasts<< 1%										
86.6	99.4	ANDESITE TO DACITE FLOW -Differentiated throughout section -Generally massive,medium green with some areas being more siliceous (ie dacite) than others -Numerous calcite stringers (1mm) warpy and discontinuous throughout section										
86.6	90.2	-Fairly massive,fine grained,medium to dark green andesite										
90.2	91.4	-Blotchy light and dark green (almost brecciated appearing)andesite										
91.4	92.7	-Massive dark green, fine to medium grained andesite										
92.7	94.2	-Mottled light to medium green, slightly brecciated appearing dacite. Some slightly rhyolitic appearing splotches.At 93.4 is a rusty 8cm orange/grey clast cross cutting core. Likely a fragment of a different unit that has been picked up.										
94.2	94.9	-Banded dacites or cherty beds in rhyolite. Banding is at 50°t.c.a. but is quite warpy-variable (ie possible soft sediment deformation)										
94.9	99.4	-Similar to 86.6-90.2 but with very occassional lithic clast of andesite. -Lower contact at 30°t.c.a. -Quartz blob 10cm at 88.1;quartz stringer,warpy, 1cm at 89.3; -Small blobs of pyrite throughout core<<1%										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-4 | PAGE 5 OF 32

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBE
99.4	106.4	ANDESITE TO DACITE FOLIATED LITHIC TUFF -Mottled,grey green, usually fine to medium grained dacite and andesite -First 3' is intensely foliated @ 30°t.c.a. -Core gets more clastic and less foliated to end of section -Beginning of section andesite clasts are completely indistinguishable due to intense foliation. Clasts get more apparent and get more rhyolitic down section -Foliation steepens to 50°t.c.a. down section -Lower contact is very gradational -Minor calcite stringers -No visible sulfides but some of the fractures are quite rusty										
106.4	116.0	LITHIC ANDESITE TO DACITE TUFF -Core alternates from foliated at 50°t.c.a. to non-foliated -Lithic fragments >50% of core,generally .5cm but some large rhyolite fragments to 20cm -Quartz flooding around 110.0 for about 0.6m -Minor quartz and calcite stringers throughout core -Lower contact is gradational -Blebs of pyrrhotite in the finer clasts,most blebs 2mm up to 2cm, non foliated lithic tuff from 110.6-112.5 $\angle\angle$ 1% -Minor pyrite and pyrrhotite blebs along quartz stringers										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-4 | PAGE 6 OF 32

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
116.0	120.5	TRANSITION FROM ANDESITE TO RHYOLITE -Deformed lithic tuff with poorly visible clasts -Quartz veining to 1cm near beginning of section -Foliated slightly at 40°t.c.a. -Some shearing with 2cm gouge at 119.9-warpy 40°t.c.a. -Core getting more rhyolitic but foliated and brecciated appearing for last 0.6m -The above mentioned shear may be the actual contact -Several quartz and calcite stringers,warpy and of various orientations -Minor disseminated pyrite $<<$ 1%										
120.5	131.4	RHYOLITE? FLOW (DACITE OR ANDESITE) -Hard,competent,quartz-rich (eyes or fragments 20%), not htat hard of a rock as a whole, medium to light grey green flow. Almost appears like a fine clastic tuff in places but these may be flow fragments as rest of section looks like flow -Slightly foliated at 65°-70°t.c.a. -Some of the lighter green areas have minor chlorite alteration -Minor quartz/calcite veining Quartz 20% Plagioclase 60% Mafics 1% Undistinguishable 19% -Minor small 1-2mm pyrrhotite blebs. Minor pyrite,disseminated and along fractures $<<<$ 1% total sulfides -At 128.3, 5.1cm quartz epidote vein at 50°t.c.a. -Lower contact appears faulted (unconformable) at 60°t.c.a.										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-4 | PAGE 7 OF 32

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION (NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS: SAMPLE NUMBER	INTERVAL	WIDTH	Au oz/t	Ag p.p.m.	TAG NUMBER
131.4	139.9	BANDED TUFF -Rhyolite/cherty bands and fine to coarse grained andesite bands -No argillites -Banding varies from 60° to 90° t.c.a. -Bands increase in cherty rhyolite content towards end of section -Core has elongated lighter colored oval shaped blebs of cherty rhyolite within less cherty rhyolite -Blobs average 5-8mm										
132.3	134.1	-Bed of greywacke appearing tuff (ash tuff) with small<1mm poorly formed feldspar crystals -Calcite as minor blebs and veinlets throughout -Lower contact is warpy but is 80°t.c.a. with 3.8cm quartz vein along it. -Pyrrhotite along some of the more cherty rhyolite bands. From 137.2-137.6 up to 2% pyrrhotite. Also pyrite coating some fracture surfaces in same section -Rusty fracture surfaces throughout section										
139.9	146.5	LITHIC DACITE TUFF -Lithic clasts 1mm to 2cm, average 3mm -60% clasts, 40% fine grained,medium, green matrix -Clasts: 60% rhyolite 35% andesite 5% biotite -Some clasts have been altered to chlorite -Rock gets more silicified and contains less clasts towards bottom of section. -Lower contact is warpy but fairly distinct at 15°t.c.a.,small quartz filled tension gashes on either side of the contact for about 15.2cm ;epidote and calcite stringers,minor,variable; No visible sulfides										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	ASSAYS INTERVAL	ASSAYS WIDTH	ASSAYS AU OZ/T	ASSAYS AG P.P.M.	ASSAYS TAG NUMBER
146.5	150.7	RHYOLITE FLOW -Light grey green,hard,competent fine grained rhyolite -1mm quartz eyes and quartz veining to .5cm										
148.0	149.0	-Lithic fragments,mostly darker andesite to 3cm but some large rhyolite fragments as well, it is not apparent why this lithic melange is occuring within the rhyolite. -Lower contact is hard to distinguish										
150.7	160.8	LITHIC DACITE TO RHYOLITE TUFF -Warpy and hard to define what is clasts and what is matrix - >50% clasts,matrix is likely dacite,medium green,fine grained, quite hard. -Clasts size varies from 1mm to 30cm with rhyolite-average 2-3cm clasts tending to be larger. Clasts: 75% rhyolite 10% fine grained andesite 15% medium grained andesite porphyry -Lower contact 45°t.c.a.; quartz with pyrite along contact -Minor pyrite throughout section-disseminated -Also more quartz veins with coarse blobs of pyrite to 2cm from 158.8 to end of section. Core is 5% pyrite from 160.0 to end. -One bleb 2mm of chalcopyrite					88DDH4 -001	160.0 to 160.8	0.8			

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	ASSAYS INTERVAL	ASSAYS WIDTH	ASSAYS Au oz/t	ASSAYS Ag P.P.M.	ASSAYS TAG NUMBER
160.8	164.1	ALTERED,FOLIATED,LITHIC ANDESITE TUFF -Medium green,mottled,foliated,chloritized andesite. Lithic fragments elongated and altered (ie poorly visible) Foliation varies from 20°-90°t.c.a. 10cm quartz bleb at 163.4. 15cm rhyolitic band-light grey at 163.1 -Clasts elongated || to foliations. Most clasts are epidotized or chloritized. -Lower contact is at 80°t.c.a. -Pyrite and pyrrhotite follows foliations. Upto 10% in some areas. Also some chalcopyrite is visible within the pyrrhotite.					88DDH4-002	160.8 to 162.0	1.2			
164.1	165.2	ANDESITE / RHYOLITE -Mottled,light and dark green,hard,foliated,deformed interlayers of andesite (dark green) and rhyolite (light green,cherty looking) -Several quartz blebs to 2cm -The andesite is slightly chloritized and almost talcy on fracture surfaces. -Lower contact is gradational with next unit. -Minor pyrite as small blebs and along quartz zones $<<$ 1%										
165.2	167.3	ANDESITE FLOW -Fine to medium grained,medium green, massive andesite -Slightly foliated at 75°t.c.a. -Few small poorly distinguishable clasts elongated parallel to foliation direction. These clasts tend to be light green rhyolite. -Warpy,discontinuous calcite stringers throughout -Rock becoming more broken and slightly sheared towards end. -Lower contact sheared with quartz along it at 40°t.c.a. -Pyrite,disseminated,blebs and on fractures. Upto 1% overall.										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	ASSAYS INTERVAL	ASSAYS WIDTH	ASSAYS Au OZ/T	ASSAYS Ag P.P.M.	ASSAYS TAG NUMBE
167.3	170.1	SHEARED SCHISTOSE ANDESITE / RHYOLITE . -Mottled,green and white,sheared volcanics with abundant quartz (to 30% of section) along shear surfaces -Shearing foliation is at < 40°t.c.a. -Gougy,white talc is along shear surfaces -Volcanics are hard to distinguish as they are also chloritized -Pyrite with quartz as blebs along shear surfaces upto 1% locally. -Lower contact is sharp-quartz vein along it at 40°t.c.a. -Pyrite as blebs to 1cm in quartz rich areas and also along smalls fractures. 1% pyrite throughout with a bit more near beginning of section for first 30cm					88DDH4 -003	170.4 to 171.6	1.2			
170.1	172.8	RHYOLITE / ANDESITE -Dark green chloritized andesite and light green cherty rhyolite -Intensely deformed and intermeshed -Abundant quartz and epidote throughout -These may be some sort of a margin between the shear and the next unit. -Lower contact gradational over a few cm. with quartz and epidote 45°t.c.a										
172.8	181.7	LITHIC ANDESITE TUFF -Light to dark green mottled,slightly foliated lithic tuff -Quite foliated for first 2m at 30°-40°t.c.a. ie lithic fragments appear smaller and quite elongate along foliation direction. -Minor quartz veinlets parallel to foliation -Interbeds of fine grained, light green cherty tuff at 174.3 a 20cm band at 30°t.c.a.					88DDH4 -004	172.8 to 173.9	1.1			
							88DDH4 -005	173.9 to 175.3	1.4			
							88DDH4 -006	175.3 to 176.8	1.5			

Rub. -RUBBLE
Gou. -GOUGE

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
172.8	181.7	LITHIC ANDESITE TUFF (con't) -At 178.0 a 13cm band at 60°t.c.a. -At 180.1 a 7cm band at 65°t.c.a. -A 15cm quartz bleb at 178.9 -Lithic clasts are more distinct at 2nd half of section Clasts 75% Matrix 25% medium green andesite to dacite -Clasts are 3mm to 3cm, average 1cm -About ½% of sulfides consists of sphalerite as clasts, plus minor pyrrhotite and chalcopyrite -All sulfides (pyrite,pyrrhotite,chalcopyrite and sphalerite) also occur along fractures and with quartz stringers Total sulfides 1-2% -Clasts : 40% rhyholite 10% andesite porphyry 48% andesite (massive) 2% sulfides -Lower contact is sharp at 10°t.c.a.					88DDH4-007	176.8 to 178.2	1.4			
							88DDH4-008	178.2 to 179.5	1.3			
							88DDH4-009	179.5 to 181.1	1.6			
							88DDH4-010	181.1 to 181.7	0.6			
181.7	189.6	CHERTY BANDED TUFF -First 0.8m is an ash tuff unit. Rest is interbeds of light green finely laminated cherty tuff and coarser grained (greywacke appearing) ash tuff bands. -Banding is very warpy offset and deformed but is generally at about 45°t.c.a. -A couple of 10cm rhyolite blebs near 187.1 -Last metre of core section looks like lithic andesite fragments are ligned up parallel to banding.										

Rub. -RUBBLE
Gou. -GOUGE

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	ASSAYS INTERVAL	ASSAYS WIDTH	ASSAYS Au OZ/T	ASSAYS AG P.P.M.	ASSAYS TAG NUMBER
181.7	189.6	CHERTY BANDED TUFF (con't) -Lower contact is distinct at 50°t.c.a. -Pyrrhotite as blebs in cherty tuff. -Pyrite and pyrrhotite in tuff along laminations -Sphalerite fragments in lithic clasts for last 1 metre -Total sulfides < 1%.										
189.6	190.7	RHYOLITE -Grey,siliceous,hard,fine grained rhyolite -Slight lineation of sulfides at 40°t.c.a. -Many small fractures at various orientations filled with sulfides -Lower contact is at 70°t.c.a. -Sulfides on fractures and as blebs 40% Pyrrhotite 10% Pyrite 20% Chalcopyrite 30% Sphalerite -Total sulfides to 5-10%					88DDH4 -011	189.6 to 190.7	1.1			
190.7	207.4	CHERTY BANDED TUFF -Similar to 181.7-189.6 -Banding is 70°-80°t.c.a. and somewhat warpy. -The coarser grained tuff units show graded bedding indicating the layers are right side up. -Pyrite<<1% along quartz stringers -From 192.9-193.9 is some pyrrhotite with chalcopyrite along fractures< 1%										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBE
198.1	199.3	DYKE -Medium grained andesite feldspar porphyry,dark grey green, Feldspar phenocrysts are poorly formed and are 1mm in size. Upper contact at 50°t,c,a,,lower at 10°t.c.a. -Most of the bands are quite siliceous,likely rhyolitic in composition. -Several narrow quartz stringers present both parallel and cross cutting the layering. -Lower contact parallel banding at 75°t.c.a.										
207.4	212.1	RHYOLITE FLOW -Light grey green, foliated (is aligned fractures and small fragments) at 50°t.c.a. -Last 0.5m of section foliation is 65°t.c.a. -Quartz and calcite (minor) veining parallel to foliation also some cross cutting quartz stringers										
210.0	210.6	-Rock is deformed but not foliated and core is slightly more greenish. -Lower contact is gradational with next section. -Pyrite and pyrrhotite along fractures and with quartz stringers $\ll$ 1%										
212.1	214.6	RHYOLITE TO DACITE TUFF -Medium grained, light grey green, tuffaceous,unfoliated -Slight,undistinct (shadow like) bands of lighter coloured rock at 70°t.c.a. -Deformed clasts or phenocrysts of feldspar and mafics (hornblende and minor biotite) Size average 2mm, to 5% total										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	ROD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBER
212.1 213.5	214.6	RHYOLITE TO DACITE TUFF (con't) -10cm band of dark grey argillite,wedge shaped. -Last 15cm of section is fine grained,cherty,banded tuff with banding at 50°t.c.a. -Lower contact is along cherty banded tuff at 50°t.c.a. -Pyrite along tiny fractures -Pyrrhotite as small blebs to 5mm -At 701' is chalcopyrite,pyrrhotite and sphalerite along a 1cm quartz stringer oriented at 10°t.c.a. -Total sulfides <1%										
214.6	216.7	LITHIC DACITE TUFF -Coarse to fine lithic fragments (1cm to 2mm) -Fragments 30%, dacite,light green,fine to medium grained matrix makes up 70% -First metre of core has more abundant and larger clasts than rest of section, except the last 10cm. -Clasts consist of 50% cherty fine grained tuff and 50% chloritized andesite. -Lower contact is sharp at 15°t.c.a. -Pyrite disseminated and on fractures -Pyrrhotite as clasts and within clasts in coarser lithic area -Total sulfides <1%										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-4 | PAGE 15 OF 32

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBE
216.7	218.1	ANDESITE TO DACITE FLOW -Grades from dark green andesite to light grey green dacite down section. -Fine to medium grained, fairly massive -Minor warpy quartz stringers -Lower contact warpy at 45°t.c.a. -Pyrite and pyrrhotite disseminated and with quartz stringers (1%										
218.1	220.1	LITHIC DACITE TUFF -Fine fragments (ie clasts average 2-3mm) to coarse (clast to 2cm) at end of section -Clasts slightly elongated at 80°t.c.a. -Clast composition is 30% cherty tuff, 30% dacite, 30% andesite and 10% rhyolite (plus 1-2% sulfides) -Lower contact is at 75°t.c.a. -1-2% of section is clasts of sphalerite and pyrrhotite to 5mm. More clasts in last 1m of core.					88DDH4-012	218.1 to 218.8	0.7			
							88DDH4-013	218.8 to 220.1	1.3			
220.1	223.6	BANDED CHERTY TUFF -Soft sediment layering and deformation with lithic layers to 0.5m within cherty fine grained layers -Layering is deformed but generally at 80°t.c.a. -Few poorly formed anhedral feldspar phenocrysts					88DDH4-014	221.9 to 222.7	0.8			
221.9	222.7	-Lithic band with sulfides and large blebs of cherty tuff -Lower contact is gradational with next section becoming all lithic over about 20cm -Pyrite and pyrrhotite with chalcopyrite and minor sphalerite ~~blebs to 2% sulfides in lithic section from 221.9-222.7 Also~~ 1% minor sulfide blebs elsewhere in section										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	ROD	MINERALIZATION SUMMARY
223.6	231.6	LITHIC DACITE TUFF -Clasts 80%, dacite matrix 20% -Clasts compositions: 15% rhyolite 20% cherty tuff 60-63% andesite 2-5% sulfides -Few cross cutting quartz stringers to 1cm -Clasts size: range 1mm to 6cm; average 2cm -Clasts elongated slightly at 60°t.c.a. -Lower contact is silcified and poorly distinguishable at 15°t.c.a. -Sulfides 2-5% as blebs in lithic unit and along quartz stringers. Size: largest 1cm x 2cm; average 4-5mm. -Of total: 15% pyrite 55% pyrrhotite 15% sphalerite 5% chalcopyrite -Usually within pyrrhotite				
231.6	233.9	RHYOLITE -Light green to light grey,hard,siliceous cherty areas of a few cm diameter with less cherty material surrounding them. -Slightly foliated at 45°t.c.a. -Lower contact is warpy at 15°t.c.a. -Pyrite and pyrrhotite as small blebs and along fractures~1%				

ASSAYS

SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBE
88DDH4-015	223.6 to 224.3	0.7			
88DDH4-016	224.3 to 225.2	0.9			
88DDH4-017	225.2 to 226.8	1.6			
88DDH4-018	226.8 to 227.7	0.9			
88DDH4-019	228.1 to 229.5	1.4			
88DDH4-020	229.5 to 231.0	1.5			
88DDH4-021	231.0 to 231.6	0.6			

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-4 | PAGE 17 OF 32

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY
233.9	239.6	LITHIC DACITE TO RHYOLITE TUFF -Similar to 223.4-231.6 for clast size and composition -Lithic fragments become altered and less easily distinguishable for last 2m -Deformed area with some cherty layers and quartz stringers roughly parallel t.c.a. -Lower contact is warpy and poorly defined at 15°t.c.a. -Sulfide blebs as in 223.4-231.6. Upto 10% sulfides from 235.3-235.9 -Total sulfides 5% (galena 2%) 15% pyrite 35% pyrrhotite 10% chalcopyrite 40% sphalerite				
239.6	243.2	LITHIC RHYOLITE TUFF -Light green to light grey lithic tuff with cherty sections -Top of section is very light coloured and grades to medium green down section. -Amount and composition of fragments is extremely variable -Several quartz veinlets to 1cm -Clasts are elongated and rock is slightly foliated at 40°t.c.a. -Clasts are chlorite altered with minor epidote -Lower contact is 8cm of grey chert at 70°t.c.a. -Abundant pyrite and pyrrhotite along quartz veins from 240.5-241.1				

ASSAYS

SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBE
88DDH4-022	233.9 to 235.0	1.1			
88DDH4-023	235.0 to 236.4	1.4			
88DDH4-024	236.4 to 237.9	1.5			
88DDH4-025	237.9 to 239.4	1.5			
88DDH4-026	240.5 to 241.1	0.6			

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-4 | PAGE 18 OF 32

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	ASSAYS INTERVAL	ASSAYS WIDTH	ASSAYS Au oz/T	ASSAYS Ag P.P.M.	ASSAYS TAG NUMBER
243.2	247.7	CHERTY RHYOLITE -Light grey,fine to coarse grained,foliated to almost schistose for last 0.5m -Foliation is at 30°t.c.a. -Some indistinct,stretched,lithic fragments around 245.7 -Lower contact is at 45°t.c.a. -Pyrrhotite,pyrite and minor sphalerite along foliations (=1%) -Also some pyrite blebs to 1cm, especially around 244.4					88DDH4-027	243.2 to 244.4	1.2			
							88DDH4-028	244.4 to 246.3	1.9			
247.7	251.9	LITHIC DACITE TO RHYOLITE TUFF -Large (to 4cm) poorly distinguishable,slightly altered (chloritized) tuff, similar to 239.6-243.2 -20cm band of grey chert oriented at 90°t.c.a. -Lowet contact has sphalerite blebs to 4mm along it-orientation 70°t.c.a. -Total sulfides <1% -Minor pyrite and pyrrhotite as blebs and sphalerite along lower contact. -From 247.8-248.7 is 2% chalcopyrite, pyrite, pyrrhotite and sphalerite blebs					88DDH4-029	247.8 to 248.7	0.9			
251.2												
251.9	256.5	RHYIOLITE TO DACITE -Core is generally fine to medium grained, green dacite with quartz stringers.										
251.9	252.5	-Light green,fine grained rhyolite,massive,with few cross cutting hairline quartz and sulfide stringers										
253.6		-30cm of interbedded fine grained cherty tuff and minor argillite interlaminated.										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	ASSAYS INTERVAL	ASSAYS WIDTH	ASSAYS Au OZ/T	ASSAYS Ag P.P.M.	ASSAYS TAG NUMBER
251.9	256.5	RHYOLITE TO DACITE (con't)										
254.7	256.5	-Feldspar (plagioclase) porphyry with up to 5% feldspar phenocrysts (2mm) and some poorly formed flowers -Lower contact follows bedding of the next unit at 80°t.c.a. -Pyrite and pyrrhotite along fractures and quartz stringers <1%										
256.5	273.7	INTERLAYERED ARGILLITE AND CHERTY TUFF BANDS 60% argillite 20% lithic dacite tuff 20% cherty tuff -Most of cherty tuff is near top of section -Bedding at top is 80°t.c.a. at bottom is 70°t.c.a. -Most bedding is warpy with both soft sediment and brittle deformation taking place, also minor folding. -Quartz stringers to 1cm are present in the argillite units as well as tiny calcite veinlets										
260.9	262.1	-Light green, chloritized, lithic bed, showing good graded bedding indicating that units are right side up.										
267.2	268.8	-Black, fine grained like argillite unit with 1-2% feldspar (Plagioclase) phenocrysts -1mm, and some chloritized lithic fragments to 1cm. -Lower contact is sharp at 75°t.c.a. -In first metre is 4 pyrite and pyrrhotite bands to 3mm parallel to bedding in argillite -Pyrite along fractures in argillite - <1% sulfides overall.										

Rub. -RUBBLE
Gou. -GOUGE

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG MULDE
273.7	292.2	FELDSPAR PORPHYRY DYKE -Light grey to medium green brown feldspar (plagioclase) porphyry -Plagioclase phenocrysts make up 20% of rock in a dacite matrix -Phenocrysts are 2-3mm average and generally have poorly defined edges, although some poorly formed flowers are visible -Chlorite alteration from 283.3-284.4 -First and last metre of section is brownish coloured and only contains about 5% feldspars phenocryts. This likely represents a chill margin to the dyke -Cross cutting quartz stringers and also minor epidote stringers. -Core is more broken in this section RQD=4 -Lower contact is warpy at 75°t.c.a. -No visible mineralization										
292.2	308.8	INTERLAYERED ARGILLITE AND CHERTY TUFF BANDS -GRAPHITIC -Same as before dyke from 256.5-273.7. Same percentages and bedding orientations -Very little argillite in the first 5m -Lower contact with other dyke is warpy at 70°t.c.a. -Pyrite and pyrrhotite to 2% in argillite along fractures										
308.8	310.7	FELDSPAR PORPHYRY DYKE -Same as 273.7 - 292.2 but greenish coloured with brown margins and 15% plagioclase phenocrysts -Lower contact sharp at 85°t.c.a. -No visible mineralization										

Rub. -RUBBLE
Gou. -GOUGE

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SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	ROD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBE
310.7	320.6	INTERLAYERED ARGILLITES AND CHERTY TUFF BANDS - GRAPHITIC -As before dyke -Up to 314.2 is mostly all black, fairly massive argillite, laminated at 60°t.c.a. -Quartz veining along fractures and cross cutting to 1cm -Massive,cherty tuff bed with slightly coarser grained toward bottom (rest of section is argillite) -Lower contact is slightly sheared for 4cm at 35°t.c.a. -Pyrite along fractures in argillite up to 1%										
314.6	315.8											
320.6	369.4	DACITE TUFF -Light to medium grey green, fine to coarse grained, massive to lithic, chloritized dacite tuff (also minor porphyritic zones) -Argillite is present at 321.3 as a 30cm band, 323.1 as a 4cm band, as blebs to 2cm (clasts) throughout section especially around 328.3, 341.4, 353.9, 368.8 -Feldspar (plagioclase) phenocrysts are poorly formed and somewhat altered. Average size 2mm. Phenocrysts are more abundant at 322.5-323.7, 324.6-328.0, 331.3-331.6 and 366.1-369.4 -Quartz and quartz carbonate veins are quite abundant usually at low angles t.c.a. Some larger veins are: 321.3 in argillite band,1.5cm quartz vein at 50°t.c.a. 329.5 2cm quartz vein at 40°t.c.a. 338.0 2cm quartz vein at 20°t.c.a. 340.3 1cm quartz vein at 15°t.c.a. 347.5 3cm warpy quartz vein 350.8 3-4cm warpy quartz carbonate vein at 10°t.c.a. 352.5 2cm quartz carbonate vein at 20°t.c.a.										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-4 | PAGE 22 OF 32

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	ROD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	ASSAYS INTERVAL	ASSAYS WIDTH	ASSAYS Au OZ/T	ASSAYS Ag P.P.M.	ASSAYS TAG NUMBER
320.6	369.4	DACITE TUFF (con't) 353.0 1cm quartz carbonate vein at 20°t.c.a. 356.9 2cm quartz carbonate vein at 10°t.c.a. 357.1 2cm quartz vein at 20°t.c.a 363.0 2cm quartz carbonate vein at 30°t.c.a. 367.6 1cm warpy quartz vein										
343.2	344.1	-More silicous (ie quartz rich) segment. -Over segments of core are indistinct lithic clasts, poorly visible and somewhat altered. Core is lithic at 322.5-323.1, 328.6-332.5, 341.7-343.2, 344.1-399.5,352.7-353.9 and 358.1-353.9 -Clasts are large, averaging 2cm upto > 5cm. Clasts are poorly visible but composition appears to be 50% dark green, massive andesite to dacite, 25% porphyritic (feldspar porphyry) andesite to dacite, and 25% light grey green rhyolite -Lower contact is not distinct just grades to the next unit which is less lithic and contains more feldspar crystals, -Pyrrhotite as small blebs within the lithic segments <1%										
369.4	380.2	PORPHYRITIC DACITE (CRYSTAL TUFF) -Phenocrysts of plagioclase in a dacite matrix, light to medium grey green -Feldspar crystals are anhedral 15-20% of total section, 1-5mm diameter, average 2mm. Crystals slightly altered mostly individual but a few poorly formed agglomerates (flowers) especially at 372.2 and 376.7 -Faint,hard to distinguish lithic fragments are present for first 2m. -Few narrow (2-3mm) quartz carbonate stringers. -No visible mineralization										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-4 | PAGE 23 OF 32

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au oz/t	Ag p.p.m.	TAG NUMBER
		PORPHYRITIC DACITE (CRYSTAL TUFF)(con't)										
371.6	376.3	-Laminated,fine grained crystal tuff with argillite as narrow bands. Bedding is at 20°-30°t.c.a. -Last metre of section is getting finer grained dacite with some inclusions of coarser crystal tuff. Lower contact is warpy at 25°t.c.a. No visible mineralization										
380.2	381.8	INTERLAYERED ARGILLITE AND DACITE TUFF -75% argillite, black, hard and 25% cherty, grey, fine grained tuff. -Laminations are 1mm to 2cm at 30°t.c.a. -Minor cross cutting quartz stringers -Lower contact is warpy at 30°t.c.a. -Pyrite and minor pyrrhotite along fractures and layering 1%										
381.8	383.9	PORPHYRITIC DACITE TO ANDESITE TUFF -Dark grey, 40% feldspar (plagioclase) phenocrysts anhedral, averaging 2mm diameter. -Minor, poorly visible, small (1cm), lithic fragments of argillite and cherty tuff. -Phenocrysts get smaller (1mm) less abundant and aligned at 35°t.c.a. for last 0.5m of section -Lower contact is at 35°t.c.a. -Pyrrhotite blebs (2mm) between plagioclase crystals $<$ 1%										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-4 | PAGE 24 OF 32

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TAG NUMBE
383.9	400.8	ARGILLITE -Black,hard,fairly competent, with some graphite along fractures -Minor grey, cherty interbands make up 5% of section. -At top orientation of bands is 35°t.c.a., at bottom is 60°t.c.a. -Numerous cross cutting quartz stringers-some appear chalcedonic. Average width 1-2mm Abundant quartz stringers from 393.5-395.0 -10cm quartz vein at 70°t.c.a.Vein has abundant sulfides -Lower contact is at 45°t.c.a. -Pyrite and pyrrhotite as blebs along fractures and in quartz vein at 385.6 Also minor sphalerite in quartz vein. -Total sulfides 2% (quartz vein is 50% sulphides)					88DDH4 -030	385.1 to 385.9	0.8			
385.6												
400.8	402.6	PORPHYRITIC LITHIC DACITE TUFF -Mottled, black grey green white, coarse grained lithic tuff with feldspar (plagioclase) phenocrysts anhedral to 0.5m also some poorly formed crystal agglomerates -Lithic fragments of argillite, cherty tuff and chloritized porphyritic tuff, fragments are to 3cm and indistinct -Section gets coarser toward bottom -Lower contact is at 65°t.c.a. -Blebs to 1cm of pyrite and pyrrhotite (<1%)										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-4 | PAGE 25 OF 32

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR; TEXTURE; SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE; GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	ASSAYS INTERVAL	ASSAYS WIDTH	ASSAYS Au OZ/T	ASSAYS Ag P.P.M.	ASSAYS TAG NUMBER
402.6	407.7	ARGILLITE AND BEDDED CRYSTAL TUFFS										
402.6	402.9	-Black argillite, slightly graphitic, broken										
402.9	403.3	-Coarse grey brown crystal (plagioclase phenocrysts) tuff showing graded bedding.										
403.3	404.2	-Argillite, black, slightly graphitic on fractures.										
404.2	405.7	-Crystal tuff with argillite clasts, shows graded bedding at 55°t.c.a.										
405.7	406.3	-Brecciated argillite and crystal tuff										
406.3	407.1	-Porphyritic feldspar (plagioclase) crystal tuff										
407.1	407.7	-Argillite with bedding at 45°t.c.a. -Lower contact is warpy along bedding at 45°t.c.a. -Pyrite and pyrrhotite in argillite-locally to 1%										
407.7	411.3	CHLORITIZED LITHIC TUFF -Grey green, coarse grained with 80% chloritized lithic fragments to 10cm -Fragments are 75% rhyolite and 25% porphyritic dacite -Cross cutting quartz stringers to 1cm at low angles t.c.a. -Lower contact is brecciated -No visible mineralization										
411.3	416.4	INTERBEDDED ASH AND CRYSTAL RHYOLITE TUFFS -Light grey green, with ash beds having no distinct grains visible and crystal beds having feldspar (plagioclase) phenocrysts to 3mm -Bedding is at 75°-80°t.c.a. -Graded bedding is visible with beds being 1m thick -Few cross cutting quartz stringers to 1cm										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-4 | PAGE 26 OF 32

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
411.3	416.4	INTERBEDDED ASH AND CRYSTAL RHYOLITE TUFFS (con't) -Argillite bands for first 0.5m at 50°t.c.a. -Lower contact is warpy at 90°t.c.a. -Pyrite-disseminated -Pyrrhotite along fractures -Total sulfides < 1%										
416.4	420.3	ARGILLITE -Black,fine grained,massive to laminated (2mm laminations) -Minor cherty,grey interbeds -20cm of brown,altered,fine to medium grained??? -Several cross cutting, hairline quartz stringers -Lower contact at 65°t.c.a.,minor pyrite and pyrrhotite on fracture <1%										
419.6												
420.3	433.3	DACITE FLOW -Fine grained, light to medium green,massive dacite. -Black stretched hornblende crystals 2mm total 2% -White subhedral feldspar (plagioclase) crystals-1mm-total 1% -Minor argillite clasts in first 0.3m -Cross cutting quartz and quartz carbonate veinlets to 1cm -Lower contact is sharp at 60°t.c.a. -Very minor disseminated pyrite <1%										
433.4	438.2	INTERBEDDED ARGILLITES AND TUFF (BASALTIC?) -Argillite is black,slightly graphitic, broken. Tuff is brown with layers of coarser and finer grained feldspar (plagioclase) crystals. -1st 20cm of section is argillite										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-4 | PAGE 27 OF 32

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	AU OZ/T	AG P.P.M.	TAG NUMBER
433.4	438.2	INTERBEDDED ARGILLITES AND TUFF (BASALTIC?) (con't) -Next 2m of section is layered brown tuff -Rest of section os interlaminated argillite and fine to medium grained, brown cherty tuff. Laminations average 1-2cm and bedding averages 70°t.c.a. -Minor cross cutting quartz stringers -Lower contact is in greyer tuff with argillite bands at 85°t.c.a. -Minor pyrite and pyrrhotite in argillite										
438.2	452.3	LITHIC PORPHYRITIC TUFF (BASALTIC MATRIX WITH RHYOLITE CLASTS?) -Dark brown to light green volcanic (basaltic?) matrix 30% -Feldspar phenocrysts (plagioclase) within matrix, size 1-2mm total 5% -Light green to white rhyolite clasts 40% -Light green feldspar (plagioclase) porphyry clasts 20% -Black fine grained argillite clasts 5% -Clast size average 3cm to 10cm, altered (chloritized,slightly epidotized and slightly clay-altered) -Tiny fracture-filling chalcedonic veinlets to 2mm										
447.8		-3cm quartz vein at 30°t.c.a. -First 2m and last 0.5m no clasts present,just brown feldspar porphyry -Porphyry is greyer at lower contact at 75°t.c.a -Minor disseminated pyrite. -Minor pyrrhotite and chalcopyrite in chalcedonic fracture fillings -Total sulfides <1%										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-4 | PAGE 28 OF 32

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au OZ/T	Ag P.P.M.	TA NUM
452.3	453.1	ARGILLITE -Black,fine grained,broken, RQD=4,argillite -Lower contact is broken at 70°t.c.a. -Pyrite along fractures up to 1%										
453.1	474.1	DACITE -Numerous facies changes,but all are gradational (ie no distinct can be identified) -Grey brown to grey green, fine to coarse grained,massive dacite flows to porphyrys to lithic dacite tuffs. -Cross cutting quartz, carbonate and quartz carbonate stringers to 1cm width. -Entire section has undergone various degrees of chloritization										
453.1	456.3	Feldspar (plagioclase) porphyry with crystals to 3mm and minor 5mm argillite fragments. Medium to coarse grained, grey brown.										
456.3	459.3	-Same as above but with some reddish altered areas and some pink to light green rhyolite clasts to 15cm										
459.3	460.4	-Brown,massive,fine grained,competent dacite										
460.4	461.8	-Green,massive,fine grained,competent dacite with more quartz veining										
461.8	464.2	-Green to brown,massive,fine grained,badly broken (RQD=4) dacite with minor feldspar (plagioclase) crystals and pyrite to 2%. More quartz veining.										
464.2	456.6	-Green,slightly brecciated-looking,dacite with abundant calcite stringers and a few very altered indistinct rhyolite clasts.										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-4 | PAGE 29 OF 32

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	ASSAYS INTERVAL	ASSAYS WIDTH	ASSAYS Au oz/t	ASSAYS Ag p.p.m.	ASSAYS TA NUMB
453.1	474.1	DACITE (con't)										
465.6	471.8	-Grey green and pink brown, mottled lithic tuff. Clasts comprise 75% and are poorly distinguishable. Average size 1cm, range ½cm-8cm -Clasts compositions: 50% pink rhyolite 10% fine grained, light green cherty tuff 40% white and green feldspar porphyry -Clasts are slightly elongated at 75°t.c.a.					88DDH4-031	461.8 to 463.0	1.2			
471.8	474.1	-Grey green, fine to medium grained, massive dacite with minor feldspar crystals to 1mm. Few 0.5m argillite bands oriented at 85°t.c.a. -Lower contact has offsets but is 90°t.c.a. -Minor disseminated pyrite throughout also some along fractures $<<$ 1%, except for 461.8-464.2 where there is upto 2% pyrite.										
474.1	479.9	INTERBEDDED ARGILLITE AND CHERTY TUFFS -50% of section is black, slightly graphitic argillite with numerous small quartz stringers and abundant sulfides RQD 2.5 -50% is light to medium grey, fine to medium grained cherty tuff bands -Bedding is at 65°t.c.a.										
474.6	475.5	-Grey, medium grained tuff with argillite clasts elongated at 45°t.c.a. -Lower contact is parallel to bedding at 65°t.c.a. -Upto 5% pyrite and pyrrhotite locally in argillite										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-4 | PAGE 30 OF 32

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au oz/T	Ag P.P.M.	TAG NUMB
479.9	500.2	DACITE -Numerous facies changes as from 453.1-474.1 -Porphyry, flow and lithic tuff -Grey green to brown fine to medium grained.										
479.9	484.6	-Green,massive,fine to medium grained, competent dacite flow. Numerous quartz stringers of varying orientations and a large 30cm grey chert bleb towards end.										
484.6	485.1	-Warpy bedded black argillite with minor pyrite										
485.1	485.5	-Brown, altered (carbonatized!?) massive,medium grained dacite										
485.5	491.6	-Grey green, medium grained feldspar (plagioclase) porphyry. More crystals toward bottom of section - to 20% feldspar upto 5mm diameter, anhedral. Begining of section, core is slightly foliated at 60°t.c.a. A few quartz stringers parallel to foliation. Very few, 3mm clasts of argillite and up to 2% stretched mafic minerals (likely hornblende)										
491.6	496.4	-Foliated,altered,lithic tuff with clasts stretched along foliation at 60°t.c.a. Clasts make up 50% but are hard to define except for the white to light green rhyolite clasts to 2cm. Several quartz and carbonate veinlets at varying orientations.										
469.4	499.6	-Green brown,feldspar (plagioclase) porphyry, fine to coarser grained down seciton with 10% crystals, subhedral. Few quartz stringers.										
499.6	500.2	-Brownish lithic tuff with stretched,indistinct clasts. Similar to 491.6-495.5 but brown. -Lower contact is a fine grained brown chill at 90°t.c.a. -Minor pyrite and pyrrhotite blebs<1%										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-4 | PAGE 31 OF 32

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	ASSAYS INTERVAL	ASSAYS WIDTH	ASSAYS Au oz/T	ASSAYS Ag P.P.M.	ASSAYS TA NUMB
500.2	508.3	ARGILLITE -Interlaminated,fine grained,black and brown argillite. Beds average 2cm thick, orientation 70°t.c.a. Same looking as 433.4-438.2, non-graphitic. -Several cross cutting quartz stringers and minor quartz rich breccia zone at 506.9 -Some of the brown beds show slight graded bedding -10cm quartz vein at 60°t.c.a.										
	500.6	-Lower contact has fine grained, brown,cherty argillite at 85°t.c.a. -No visible mineralization.										
508.3	524.9	DACITE FLOW -Brown to dark green,hard,competent,fine to medium grained, massive dacite -Few cross cutting quartz and quartz carbonate stringers to 8mm. -Some chlorite alteration in greener areas especially around 520.0 -Lower contact at 90°t.c.a. -Minor pyrite and pyrrhotite on fractures $<1\%$										
524.9	534.8	INTERBEDDED BROWN AND BLACK ARGILLITES -Same as 500.2-508.3 -50% brown, 50% black -Bedding top 75°t.c.a., bottom 85°t.c.a. -Lower contact along bedding at 85°t.c.a. -Minor pyrite on fracture $<<<1\%$										

Rub. -RUBBLE
Gou. -GOUGE

DIAMOND DRILL RECORD

HOLE NO. DDH-88-4 | PAGE 32 OF 32

SECTION FEET FROM	SECTION FEET TO	ROCK DESCRIPTION NAME COLOUR: TEXTURE: SIZE & % MINERALS OR FRAGMENTS. REMARKS (VEIN SEQUENCE: GOUGE ZONES ETC.)	% REC.	INTERVAL	RQD	MINERALIZATION SUMMARY	ASSAYS SAMPLE NUMBER	INTERVAL	WIDTH	Au oz/t	Ag P.P.M.	TAG NUMBER
534.8	551.8	DACITE TO ANDESITE FLOW -Few facies changes and minor red bands -Brown/orange to dark grey green, mostly fine,massive grained, but less where brown -Quartz carbonate veins to 1cm nearly __| t.c.a. -Lower contact warpy at 90°t.c.a. -Some rusty zones especially 1787' but no fresh mineralization										
551.8	552.7	GREY CHERT -Light grey, massive chert -Lower contact warpy at 90°t.c.a. -No mineralization										
552.7	647.1 E.O.H.	HORNFELS ANDESITE TO DACITE -Black to dark green, very hard, numerous tiny veinlets mostly massive and fine grained, no phenocrysts visible. -Very minor disseminated pyrite and pyrrhotite ≪1% 1870' 1 foot quartz at 45°t.c.a. 1920-1922' quartz stockwork 1941' a 2cm quartz vein at 50°t.c.a. 2002' a 2cm quartz vein at 45°t.c.a. 2012' a 3cm quartz vein at 75°t.c.a. 2034' a 7cm warpy quartz vein 2052.5' q 6cm quartz vein at 80°t.c.a.										

Rub. -RUBBLE
Gou. -GOUGE

APPENDIX B

CHEMEX LABS LTD. CERTIFICATES OF ANALYSIS

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

A8812286

Comments: ATTN: ART TROUP CC: LINDA DANDY

CERTIFICATE A8812286

MARK MANAGEMENT LIMITED
PROJECT : CEM/BTL
P O.# : NONE

Samples submitted to our lab in Vancouver, BC.
This report was printed on 4-MAR-88.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
299	26	Sample split from other certif
238	26	ICP: Aqua regia digestion

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
921	26	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
922	26	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
923	26	As ppm: 32 element, soil & rock	ICP-AES	5	10000
924	26	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
925	26	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
926	26	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
927	26	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
928	26	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
929	26	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
930	26	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
931	26	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
932	26	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
933	26	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
951	26	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
934	26	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
935	26	La ppm: 32 element, soil & rock	ICP-AES	10	10000
936	26	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
937	26	Mn ppm: 32 element, soil & rock	ICP-AES	1	10000
938	26	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
939	26	Na %: 32 element, soil & rock	ICP-AES	0.01	5.00
940	26	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
941	26	P ppm: 32 element, soil & rock	ICP-AES	10	10000
942	26	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
943	26	Sb ppm: 32 element, soil & rock	ICP-AES	5	10000
952	26	Se ppm: 32 element, soil & rock	ICP-AES	10	10000
944	26	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
945	26	Ti %: 32 element, soil & rock	ICP-AES	0.01	5.00
946	26	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
947	26	U ppm: 32 element, soil & rock	ICP-AES	10	10000
948	26	V ppm: 32 element, soil & rock	ICP-AES	1	10000
949	26	W ppm: 32 element, soil & rock	ICP-AES	5	10000
950	26	Zn ppm: 32 element, soil & rock	ICP-AES	1	10000

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 BROOKSBANK AVE . NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

Project : CEM/BTL
Comments: ATTN: ART TROUP CC: LINDA DANDY

Page No. : 1-A
Tot. Pages: 1
Date : 4-MAR-88
Invoice # : I-8812286
P.O. # : NONE

CERTIFICATE OF ANALYSIS A8812286

SAMPLE DESCRIPTION	PREP CODE		Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
88DDH1-001	299	238	2.56	< 0.2	5	30	< 0.5	< 2	1.67	< 0.5	13	2	60	7.34	10	< 1	0.02	10	1.30	1270	< 1
88DDH1-002	299	238	2.42	< 0.2	15	30	1.0	< 2	1.36	< 0.5	13	1	45	5.60	10	< 1	0.09	10	1.42	1235	< 1
88DDH1-003	299	238	2.78	< 0.2	15	80	0.5	< 2	1.35	< 0.5	15	3	34	5.24	10	1	0.23	10	1.69	1340	< 1
88DDH1-004	299	238	2.35	< 0.2	< 5	180	0.5	< 2	0.97	< 0.5	15	< 1	16	4.75	10	1	0.61	10	0.97	760	< 1
88DDH1-005	299	238	2.05	< 0.2	5	50	< 0.5	< 2	0.52	< 0.5	6	13	74	3.09	< 10	< 1	0.24	10	1.30	1480	2
88DDH1-006	299	238	2.29	< 0.2	10	150	1.0	2	0.93	< 0.5	10	1	18	5.72	10	3	0.66	10	0.71	794	< 1
88DDH1-007	299	238	2.13	< 0.2	< 5	190	1.0	< 2	0.72	< 0.5	13	1	3	4.79	10	2	0.68	10	0.90	720	< 1
88DDH1-008	299	238	2.74	< 0.2	< 5	220	0.5	2	0.77	< 0.5	16	3	1	4.30	10	4	0.78	10	1.35	968	< 1
88DDH1-009	299	238	2.92	< 0.2	< 5	190	< 0.5	< 2	1.43	< 0.5	17	2	4	3.39	< 10	2	0.69	10	1.16	954	< 1
88DDH1-010	299	238	2.90	< 0.2	5	220	1.0	< 2	1.01	< 0.5	16	1	3	4.48	10	< 1	0.78	10	1.22	923	< 1
88DDH1-011	299	238	2.55	< 0.2	5	180	< 0.5	< 2	1.28	< 0.5	16	1	4	3.91	10	4	0.65	10	0.91	763	< 1
88DDH1-012	299	238	2.62	< 0.2	5	190	1.0	< 2	2.02	< 0.5	13	5	18	3.98	10	3	0.63	10	0.89	1050	< 1
88DDH1-013	299	238	2.88	1.4	< 5	120	0.5	2	1.79	6.5	16	11	175	4.89	10	2	0.07	10	1.87	1360	< 1
88DDH1-014	299	238	2.71	1.6	< 5	30	0.5	< 2	1.65	6.5	16	11	212	4.87	10	4	0.03	10	1.70	1185	< 1
88DDH1-015	299	238	2.41	1.6	5	110	< 0.5	2	1.74	5.0	13	12	159	4.22	10	2	0.03	10	1.35	1005	< 1
88DDH1-016	299	238	2.65	1.2	5	180	0.5	2	1.70	5.5	13	12	116	4.95	10	2	0.04	10	1.58	1045	< 1
88DDH1-017	299	238	2.43	0.2	5	900	0.5	< 2	1.54	< 0.5	5	4	19	2.11	< 10	1	0.73	10	1.33	319	< 1
88DDH1-018	299	238	3.17	2.0	25	370	0.5	< 2	1.69	4.0	8	28	244	3.00	< 10	1	0.62	10	1.43	405	< 1
88DDH1-019	299	238	1.26	0.6	190	340	0.5	< 2	1.73	2.5	5	15	47	2.71	< 10	1	0.61	10	0.41	198	2
88DDH1-020	299	238	1.35	< 0.2	5	80	0.5	< 2	0.82	< 0.5	4	8	22	2.60	10	2	0.32	10	0.37	347	< 1
88DDH1-021	299	238	3.96	< 0.2	< 5	150	1.5	< 2	2.50	< 0.5	8	8	53	4.26	10	2	1.28	< 10	1.35	347	< 1
88DDH1-022	299	238	1.38	< 0.2	< 5	20	0.5	< 2	2.03	< 0.5	7	20	13	2.09	< 10	< 1	0.04	< 10	0.95	384	1
88DDH1-023	299	238	1.54	< 0.2	< 5	10	0.5	< 2	1.53	< 0.5	6	17	8	2.03	10	< 1	0.03	10	0.90	393	< 1
88DDH1-024	299	238	1.96	< 0.2	< 5	10	0.5	2	1.93	< 0.5	7	26	8	2.92	10	< 1	0.03	10	1.46	602	< 1
88DDH1-025	299	238	0.77	< 0.2	< 5	70	< 0.5	< 2	0.15	< 0.5	< 1	7	63	1.24	< 10	1	0.36	< 10	0.15	133	< 1
88DDH1-026	299	238	2.51	< 0.2	10	160	0.5	< 2	2.66	< 0.5	14	31	77	4.03	10	2	0.78	< 10	1.33	811	< 1

CERTIFICATION : B C

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 BROOKSBANK AVE , NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To : MARK MANAGEMENT LIMITED

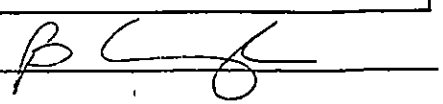
1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

Project : CEM/BTL
Comments: ATTN: ART TROUP CC: LINDA DANDY

Date : 4-MAR-88
Invoice # : I-8812286
P.O. # : NONE

CERTIFICATE OF ANALYSIS A8812286

SAMPLE DESCRIPTION	PREP CODE		Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Se ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
88DDH1-001	299	238	0.13	6	760	2	< 5	< 10	156	0.36	< 10	< 10	74	< 5	75
88DDH1-002	299	238	0.11	4	820	< 2	5	< 10	116	0.35	< 10	< 10	54	< 5	78
88DDH1-003	299	238	0.09	3	940	< 2	< 5	< 10	76	0.38	< 10	< 10	49	< 5	95
88DDH1-004	299	238	0.03	10	1000	4	< 5	< 10	33	0.33	< 10	< 10	26	< 5	75
88DDH1-005	299	238	0.06	10	480	< 2	< 5	< 10	18	0.19	< 10	< 10	51	< 5	68
88DDH1-006	299	238	0.03	7	1420	4	< 5	20	24	0.33	< 10	< 10	26	< 5	66
88DDH1-007	299	238	0.05	9	650	< 2	< 5	< 10	26	0.34	< 10	< 10	29	< 5	96
88DDH1-008	299	238	0.05	9	490	< 2	< 5	< 10	32	0.37	< 10	< 10	27	< 5	111
88DDH1-009	299	238	0.05	12	1090	< 2	< 5	< 10	98	0.28	< 10	< 10	18	< 5	99
88DDH1-010	299	238	0.04	13	990	< 2	< 5	< 10	45	0.36	< 10	< 10	22	< 5	122
88DDH1-011	299	238	0.04	13	1340	6	< 5	< 10	83	0.30	< 10	< 10	24	< 5	99
88DDH1-012	299	238	0.11	9	830	< 2	< 5	< 10	123	0.29	< 10	< 10	56	< 5	71
88DDH1-013	299	238	0.13	4	840	112	< 5	< 10	41	0.34	< 10	< 10	108	< 5	1450
88DDH1-014	299	238	0.12	6	730	182	5	10	50	0.33	< 10	< 10	90	< 5	1545
88DDH1-015	299	238	0.15	7	620	148	5	20	49	0.29	< 10	< 10	78	< 5	1245
88DDH1-016	299	238	0.13	8	700	40	< 5	10	51	0.32	< 10	< 10	98	< 5	1285
88DDH1-017	299	238	0.03	4	1250	12	< 5	< 10	24	0.08	< 10	< 10	10	< 5	94
88DDH1-018	299	238	0.06	11	460	122	< 5	< 10	66	0.15	< 10	< 10	39	< 5	1060
88DDH1-019	299	238	0.02	22	810	10	< 5	10	41	< 0.01	< 10	< 10	56	< 5	236
88DDH1-020	299	238	0.18	3	300	< 2	< 5	10	21	0.15	< 10	< 10	4	< 5	37
88DDH1-021	299	238	0.13	7	400	8	< 5	10	48	0.17	< 10	< 10	36	< 5	68
88DDH1-022	299	238	0.08	10	290	< 2	< 5	10	55	0.13	< 10	< 10	38	< 5	35
88DDH1-023	299	238	0.09	8	240	< 2	< 5	< 10	93	0.14	< 10	< 10	28	< 5	32
88DDH1-024	299	238	0.09	12	260	< 2	< 5	10	76	0.17	< 10	< 10	41	< 5	49
88DDH1-025	299	238	0.05	2	140	4	< 5	10	8	0.04	< 10	< 10	2	< 5	26
88DDH1-026	299	238	0.06	15	1080	< 2	5	< 10	64	0.22	< 10	< 10	74	< 5	62

CERTIFICATION : 

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA CANADA V7J-2C1
PHONE (604) 984-0221

To: MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

A8812673

Comments: ATTN: ART TROUP CC: PERRY GRUNENBERG.

CERTIFICATE A8812673

MARK MANAGEMENT LIMITED
PROJECT : BUTTLE LAKE
P.O # : CEM/BTL

Samples submitted to our lab in Vancouver, BC.
This report was printed on 17-MAR-88.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
299	22	Sample split from other certif
238	22	ICP: Aqua regia digestion

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
921	22	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
922	22	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
923	22	As ppm: 32 element, soil & rock	ICP-AES	5	10000
924	22	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
925	22	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
926	22	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
927	22	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
928	22	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
929	22	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
930	22	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
931	22	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
932	22	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
933	22	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
951	22	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
934	22	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
935	22	La ppm: 32 element, soil & rock	ICP-AES	10	10000
936	22	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
937	22	Mn ppm: 32 element, soil & rock	ICP-AES	1	10000
938	22	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
939	22	Na %: 32 element, soil & rock	ICP-AES	0.01	5.00
940	22	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
941	22	P ppm: 32 element, soil & rock	ICP-AES	10	10000
942	22	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
943	22	Sb ppm: 32 element, soil & rock	ICP-AES	5	10000
952	22	Se ppm: 32 element, soil & rock	ICP-AES	10	10000
944	22	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
945	22	Ti %: 32 element, soil & rock	ICP-AES	0.01	5.00
946	22	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
947	22	U ppm: 32 element, soil & rock	ICP-AES	10	10000
948	22	V ppm: 32 element, soil & rock	ICP-AES	1	10000
949	22	W ppm: 32 element, soil & rock	ICP-AES	5	10000
950	22	Zn ppm: 32 element, soil & rock	ICP-AES	1	10000

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

Project : BUTTLE LAKE
Comments: ATTN: ART TROUP CC: PERRY GRUNENBERG

Page No. : 1-A
Tot. Pages: 1
Date : 17-MAR-88
Invoice # : I-8812673
P.O. # : CEM/BTL

CERTIFICATE OF ANALYSIS A8812673

SAMPLE DESCRIPTION	PREP CODE	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
88DDH-1-27	299 238	2.46	< 0.2	15	20	0.5	< 2	2.96	< 0.5	22	18	155	4.92	< 10	2	0.06	< 10	1.19	764	< 1
88DDH-1-28	299 238	2.19	< 0.2	15	< 10	< 0.5	< 2	2.97	< 0.5	20	15	114	4.42	10	3	0.03	< 10	0.94	724	< 1
88DDH-2-01	299 238	2.17	1.0	20	40	0.5	< 2	2.47	3.0	14	9	139	4.26	< 10	1	0.04	< 10	1.32	1035	< 1
88DDH-2-02	299 238	2.73	1.2	15	150	< 0.5	< 2	2.14	5.0	12	9	168	4.88	10	< 1	0.14	< 10	1 61	1185	< 1
88DDH-2-03	299 238	2.27	< 0.2	15	110	0.5	< 2	1.29	< 0.5	17	27	40	4.56	10	< 1	0.11	< 10	1.51	903	< 1
88DDH-2-04	299 238	2.17	0.8	10	50	0.5	< 2	3.44	4.0	14	12	162	4.16	10	< 1	0.03	< 10	1.31	833	< 1
88DDH-2-05	299 238	2.19	< 0.2	20	100	0.5	< 2	0.98	< 0.5	14	14	45	4.78	10	< 1	0.07	10	1.33	910	< 1
88DDH-2-06	299 238	2.67	0 8	25	70	0.5	< 2	1.85	3.5	15	9	153	5.02	10	2	0.05	< 10	1.71	1215	< 1
88DDH-2-07	299 238	2.21	1.2	15	20	0.5	< 2	3.57	6.0	13	9	157	4.21	< 10	< 1	0.03	< 10	1.47	1020	< 1
88DDH-2-08	299 238	2 55	0.4	20	20	0.5	< 2	1.25	0.5	16	8	81	4.92	10	< 1	0.03	10	1.56	1025	< 1
88DDH-2-09	299 238	2 29	1 2	20	30	0.5	< 2	1.76	4.5	14	10	189	4.55	10	< 1	0.04	< 10	1.42	936	< 1
88DDH-2-10	299 238	2.31	1.6	15	30	0.5	< 2	2 08	5.0	14	10	148	4.32	10	< 1	0.05	< 10	1.32	942	< 1
88DDH-2-11	299 238	2.22	1 8	15	30	0.5	< 2	2.70	5.5	14	12	191	3 98	10	1	0.04	< 10	1.16	858	1
88DDH-2-12	299 238	3.23	0.2	35	140	0.5	< 2	2.55	1.0	28	42	106	4.82	10	< 1	0.46	< 10	2.07	1270	< 1
88DDH-2-13	299 238	2.50	1 0	15	60	0.5	< 2	1.83	7.0	20	30	158	4.58	< 10	1	0.21	< 10	1.70	1045	< 1
88DDH-2-14	299 238	2.11	0.6	< 5	70	0.5	< 2	2.60	1.0	12	10	201	3.76	< 10	< 1	0.19	< 10	1.50	920	< 1
88DDH-2-15	299 238	1.93	< 0.2	15	100	0.5	< 2	3.91	1.0	13	6	85	3.87	< 10	< 1	0.30	< 10	1.49	864	< 1
88DDH-2-16	299 238	1.84	< 0.2	10	60	1.5	< 2	4.04	< 0.5	20	15	74	4.51	< 10	< 1	0.23	< 10	1.60	922	< 1
88DDH-2-17	299 238	1.97	< 0.2	< 5	70	1.0	< 2	3.76	0.5	17	14	75	4.56	< 10	< 1	0.28	< 10	1.70	939	< 1
88DDH-2-18	299 238	2.83	< 0.2	20	70	1.0	< 2	1.71	< 0.5	14	9	68	4.41	< 10	< 1	0.19	< 10	1.92	912	< 1
88DDH-2-19	299 238	2.41	< 0.2	20	30	1.0	< 2	2.13	< 0.5	15	17	61	4.14	< 10	1	0.09	< 10	1 75	807	< 1
88DDH-2-20	299 238	1.98	< 0.2	< 5	70	1.0	< 2	1.93	< 0.5	11	11	29	3.81	< 10	< 1	0.14	< 10	1.29	659	3

CERTIFICATION : B. Caiglin

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To MARK MANAGEMENT LIMITED
1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C
V6C 2W2
Project BUTTLE LAKE
Comments, ATTN: ART TROUP CC: PERRY GRUNENBERG

Date :17-MAR-88
Invoice # :I-8812673
P.O. # :CEM/BTL

CERTIFICATE OF ANALYSIS A8812673

SAMPLE DESCRIPTION	PREP CODE		Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Se ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
88DDH-1-27	299	238	0.10	16	1020	< 2	5	< 10	201	0.29	< 10	< 10	129	< 5	72
88DDH-1-28	299	238	0.11	15	1000	< 2	5	< 10	203	0.32	< 10	< 10	129	< 5	89
88DDH-2-01	299	238	0.11	7	660	122	< 5	10	39	0.28	< 10	< 10	77	< 5	887
88DDH-2-02	299	238	0.12	5	790	174	< 5	10	55	0.34	< 10	< 10	94	< 5	1310
88DDH-2-03	299	238	0.16	13	1000	6	< 5	10	38	0.27	< 10	< 10	86	< 5	155
88DDH-2-04	299	238	0.09	6	780	176	< 5	10	61	0.28	< 10	< 10	79	< 5	1120
88DDH-2-05	299	238	0.16	8	1080	14	< 5	< 10	43	0.27	< 10	< 10	70	< 5	158
88DDH-2-06	299	238	0.12	5	940	126	< 5	< 10	46	0 33	< 10	< 10	91	< 5	1005
88DDH-2-07	299	238	0.06	7	630	304	5	10	40	0.25	< 10	< 10	68	< 5	1635
88DDH-2-08	299	238	0.18	7	1310	34	< 5	< 10	43	0.30	< 10	< 10	72	< 5	311
88DDH-2-09	299	238	0.10	8	720	244	< 5	10	41	0.28	< 10	< 10	78	< 5	1240
88DDH-2-10	299	238	0.12	8	810	190	< 5	10	49	0.30	< 10	< 10	78	< 5	1305
88DDH-2-11	299	238	0.14	8	800	182	< 5	< 10	57	0.30	< 10	< 10	70	< 5	1465
88DDH-2-12	299	238	0.09	17	470	58	5	10	70	0.33	< 10	< 10	122	< 5	436
88DDH-2-13	299	238	0.07	12	570	162	< 5	10	47	0.29	< 10	< 10	88	< 5	1815
88DDH-2-14	299	238	0.05	5	600	30	< 5	< 10	36	0.20	< 10	< 10	44	< 5	337
88DDH-2-15	299	238	0.06	6	670	50	5	10	36	0.23	< 10	< 10	51	< 5	372
88DDH-2-16	299	238	0.05	11	520	4	5	10	41	0.23	< 10	< 10	65	< 5	114
88DDH-2-17	299	238	0.06	11	540	6	< 5	< 10	39	0.24	< 10	< 10	69	< 5	123
88DDH-2-18	299	238	0.06	8	650	< 2	< 5	< 10	41	0.28	< 10	< 10	67	< 5	78
88DDH-2-19	299	238	0.08	10	610	< 2	< 5	< 10	44	0.25	< 10	< 10	67	< 5	81
88DDH-2-20	299	238	0.12	9	690	< 2	< 5	10	35	0.19	< 10	< 10	45	< 5	83

CERTIFICATION :

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE NORTH VANCOUVER
BRITISH COLUMBIA CANADA V7J-2C1
PHONE (604) 984-0221

To: MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

A8813946

Comments: ATTN: ART TROUP CC: LINDA DANDY

CERTIFICATE A8813946

MARK MANAGEMENT LIMITED
PROJECT : CEM/BTL
P O # : NONE

Samples submitted to our lab in Vancouver, BC.
This report was printed on 13-APR-88

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
299	44	Sample split from other certif
238	44	ICP: Aqua regia digestion

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
921	44	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
922	44	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
923	44	As ppm: 32 element, soil & rock	ICP-AES	5	10000
924	44	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
925	44	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
926	44	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
927	44	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
928	44	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
929	44	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
930	44	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
931	44	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
932	44	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
933	44	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
951	44	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
934	44	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
935	44	La ppm: 32 element, soil & rock	ICP-AES	10	10000
936	44	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
937	44	Mn ppm: 32 element, soil & rock	ICP-AES	1	10000
938	44	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
939	44	Na %: 32 element, soil & rock	ICP-AES	0.01	5.00
940	44	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
941	44	P ppm: 32 element, soil & rock	ICP-AES	10	10000
942	44	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
943	44	Sb ppm: 32 element, soil & rock	ICP-AES	5	10000
958	44	Sc ppm: 32 elements, soil & rock	ICP-AES	1	100000
944	44	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
945	44	Ti %: 32 element, soil & rock	ICP-AES	0.01	5.00
946	44	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
947	44	U ppm: 32 element, soil & rock	ICP-AES	10	10000
948	44	V ppm: 32 element, soil & rock	ICP-AES	1	10000
949	44	W ppm: 32 element, soil & rock	ICP-AES	5	10000
950	44	Zn ppm: 32 element, soil & rock	ICP-AES	1	10000

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE. NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To MARK MANAGEMENT LIMITED

1900 - 999 W HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

Project : CEM/BTL
Comments ATTN: ART TROUP CC LINDA DANDY

Date :13-APR-88
Invoice # :I-8813946
P.O. # :NONE

CERTIFICATE OF ANALYSIS A8813946

SAMPLE DESCRIPTION	PREP CODE	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
88DDH3-001	299 238	1.84	1.0	15	150	< 0.5	2	0.57	1.5	9	9	115	3.93	< 10	< 1	0.13	< 10	1.26	633	< 1
88DDH3-002	299 238	2.42	1.0	< 5	140	< 0.5	< 2	0.91	2.5	14	9	195	4.63	< 10	< 1	0.19	< 10	1.59	794	< 1
88DDH3-003	299 238	2.59	1.0	< 5	20	0.5	< 2	3.93	1.0	14	15	215	3.97	< 10	< 1	0.02	< 10	1.19	692	< 1
88DDH3-004	299 238	2.24	0.2	< 5	30	< 0.5	< 2	2.56	0.5	12	6	111	3.97	< 10	< 1	0.02	< 10	1.40	892	< 1
88DDH3-005	299 238	1.97	0.4	10	60	< 0.5	< 2	0.82	3.5	13	13	79	4.20	< 10	< 1	0.04	< 10	1.33	854	< 1
88DDH3-006	299 238	2.14	0.8	5	30	< 0.5	< 2	1.20	2.0	15	12	133	4.28	< 10	< 1	0.02	< 10	1.32	868	< 1
88DDH3-007	299 238	2.25	1.6	15	20	< 0.5	< 2	1.38	4.0	14	16	437	4.52	< 10	< 1	0.02	< 10	1.35	871	< 1
88DDH3-008	299 238	2.11	0.6	10	30	< 0.5	< 2	0.95	1.5	15	9	146	4.21	< 10	< 1	0.03	< 10	1.33	858	< 1
88DDH3-009	299 238	2.39	0.6	10	50	< 0.5	< 2	0.95	2.0	14	7	123	4.72	< 10	< 1	0.03	< 10	1.59	1000	< 1
88DDH3-010	299 238	2.64	0.8	5	40	< 0.5	< 2	1.29	1.0	14	8	234	5.08	< 10	1	0.03	< 10	1.79	1100	< 1
88DDH3-011	299 238	1.42	< 0.2	< 5	190	< 0.5	< 2	1.39	< 0.5	7	9	24	2.02	< 10	< 1	0.30	< 10	0.66	313	< 1
88DDH3-012	299 238	1.10	< 0.2	< 5	50	< 0.5	< 2	0.77	< 0.5	7	20	28	2.39	< 10	< 1	0.11	< 10	0.76	343	< 1
88DDH3-013	299 238	1.59	< 0.2	< 5	80	< 0.5	< 2	1.11	< 0.5	11	29	50	2.81	< 10	< 1	0.13	< 10	1.08	398	< 1
88DDH4-001	299 238	2.12	0.2	< 5	90	< 0.5	< 2	1.94	< 0.5	15	6	38	4.01	< 10	< 1	0.09	< 10	1.47	794	< 1
88DDH4-002	299 238	1.73	< 0.2	< 5	400	< 0.5	< 2	1.90	< 0.5	6	3	24	2.22	< 10	< 1	0.34	< 10	1.00	508	< 1
88DDH4-003	299 238	2.25	< 0.2	5	190	< 0.5	< 2	2.10	< 0.5	16	7	54	3.40	< 10	2	0.08	< 10	1.63	660	< 1
88DDH4-004	299 238	3.18	0.2	< 5	120	< 0.5	< 2	2.06	2.0	21	6	125	5.22	< 10	< 1	0.10	< 10	2.32	924	< 1
88DDH4-005	299 238	2.72	0.6	< 5	160	< 0.5	< 2	2.23	2.5	15	5	103	4.48	< 10	< 1	0.14	< 10	1.83	839	< 1
88DDH4-006	299 238	2.33	0.8	< 5	100	< 0.5	< 2	2.08	2.0	14	6	94	4.14	< 10	< 1	0.11	< 10	1.50	803	< 1
88DDH4-007	299 238	2.32	0.4	25	120	0.5	< 2	2.10	2.5	12	5	136	4.30	< 10	1	0.18	< 10	1.42	794	< 1
88DDH4-008	299 238	1.92	1.2	15	150	< 0.5	< 2	2.59	0.5	11	5	240	3.52	< 10	< 1	0.15	< 10	1.20	775	< 1
88DDH4-009	299 238	2.06	2.4	10	120	< 0.5	< 2	1.24	4.0	13	12	105	4.02	< 10	< 1	0.13	< 10	1.41	783	< 1
88DDH4-010	299 238	2.34	0.4	< 5	170	< 0.5	< 2	0.71	2.5	22	7	97	3.99	< 10	< 1	0.19	< 10	1.78	643	< 1
88DDH4-011	299 238	0.92	15.2	15	210	< 0.5	< 2	0.70	11.5	11	5	3600	4.53	< 10	< 1	0.33	< 10	0.43	221	< 1
88DDH4-012	299 238	2.87	0.8	< 5	40	< 0.5	< 2	1.18	4.0	14	12	220	4.74	< 10	< 1	0.05	< 10	2.12	755	< 1
88DDH4-013	299 238	3.16	1.4	< 5	30	< 0.5	< 2	1.44	4.5	19	22	416	4.79	< 10	< 1	0.04	< 10	2.19	791	< 1
88DDH4-014	299 238	3.42	0.2	55	1980	< 0.5	< 2	1.10	< 0.5	32	14	296	4.98	< 10	< 1	0.15	< 10	2.35	602	< 1
88DDH4-015	299 238	3.67	0.2	< 5	880	< 0.5	< 2	1.11	< 0.5	13	23	271	5.17	< 10	< 1	0.14	< 10	2.66	696	< 1
88DDH4-016	299 238	3.18	0.8	5	770	0.5	< 2	1.04	3.0	14	22	395	4.91	< 10	< 1	0.28	< 10	2.13	672	< 1
88DDH4-017	299 238	3.05	1.0	10	160	< 0.5	< 2	1.20	6.5	14	25	377	4.78	< 10	< 1	0.13	< 10	2.38	681	1
88DDH4-018	299 238	2.33	1.4	10	500	< 0.5	< 2	0.89	3.5	13	27	362	3.77	< 10	< 1	0.08	< 10	1.92	542	< 1
88DDH4-019	299 238	2.70	< 0.2	< 5	570	< 0.5	< 2	1.25	1.0	15	24	300	4.07	< 10	< 1	0.09	< 10	2.17	626	< 1
88DDH4-020	299 238	2.94	0.8	10	320	< 0.5	< 2	1.04	2.5	15	24	413	4.74	< 10	< 1	0.10	< 10	2.37	712	< 1
88DDH4-021	299 238	2.42	0.8	10	340	< 0.5	< 2	0.80	2.5	16	19	411	3.92	< 10	< 1	0.17	< 10	1.88	605	< 1
88DDH4-022	299 238	2.39	4.2	15	380	0.5	< 2	1.07	3.0	13	15	661	3.98	< 10	< 1	0.20	< 10	1.72	757	< 1
88DDH4-023	299 238	2.54	11.4	40	480	< 0.5	< 2	0.84	5.5	14	17	838	5.03	< 10	< 1	0.26	< 10	2.05	858	1
88DDH4-024	299 238	2.71	1.2	20	350	< 0.5	< 2	1.01	6.5	14	15	301	4.63	< 10	1	0.17	< 10	2.07	876	< 1
88DDH4-025	299 238	2.52	1.0	15	160	< 0.5	< 2	0.80	3.5	15	10	235	4.27	< 10	< 1	0.15	< 10	1.95	658	< 1
88DDH4-026	299 238	2.45	1.0	5	140	< 0.5	< 2	0.75	1.0	14	25	313	4.58	< 10	< 1	0.19	< 10	1.94	671	< 1
88DDH4-027	299 238	0.53	1.0	75	170	< 0.5	< 2	0.59	1.5	7	7	57	2.58	< 10	< 1	0.25	< 10	0.06	81	1

CERTIFICATION : BC

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE NORTH VANCOUVER,
BRITISH COLUMBIA CANADA V7J-2C1
PHONE (604) 984-0221

To MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

Project . CEM/BTL
Comments ATTN: ART TROUP CC: LINDA DANDY

Date :13-APR-88
Invoice # :I-8813946
P.O. # :NONE

CERTIFICATE OF ANALYSIS A8813946

SAMPLE DESCRIPTION	PREP CODE		Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
88DDH3-001	299	238	0.10	7	530	80	< 5	4	22	0.14	< 10	< 10	37	< 5	461
88DDH3-002	299	238	0.07	4	990	82	< 5	5	22	0.18	< 10	< 10	59	< 5	711
88DDH3-003	299	238	0 05	9	590	46	< 5	5	41	0.21	< 10	< 10	63	15	317
88DDH3-004	299	238	0 08	5	670	18	< 5	5	44	0.21	< 10	< 10	51	< 5	231
88DDH3-005	299	238	0 09	7	650	24	< 5	4	26	0 20	< 10	< 10	61	5	1125
88DDH3-006	299	238	0.07	8	700	44	< 5	5	35	0.23	< 10	< 10	64	< 5	511
88DDH3-007	299	238	0.07	7	720	134	< 5	5	36	0.23	< 10	< 10	57	5	1205
88DDH3-008	299	238	0.10	6	710	54	5	6	31	0.24	< 10	< 10	64	< 5	453
88DDH3-009	299	238	0.07	8	850	26	< 5	5	29	0.21	< 10	< 10	64	5	496
88DDH3-010	299	238	0.07	5	1290	42	< 5	5	26	0.20	< 10	< 10	77	5	296
88DDH3-011	299	238	0 07	9	360	8	< 5	2	24	0.09	< 10	< 10	12	< 5	42
88DDH3-012	299	238	0.06	11	280	8	< 5	2	18	0.09	< 10	< 10	18	< 5	47
88DDH3-013	299	238	0.05	17	260	6	< 5	3	22	0.15	< 10	< 10	43	< 5	53
88DDH4-001	299	238	0 07	4	870	2	< 5	5	85	0.26	< 10	< 10	48	< 5	85
88DDH4-002	299	238	0.05	2	450	2	< 5	3	84	0.15	< 10	< 10	18	5	106
88DDH4-003	299	238	0.03	6	700	6	5	4	65	0.16	< 10	< 10	33	5	95
88DDH4-004	299	238	0.07	8	730	28	< 5	7	42	0.19	< 10	< 10	92	5	524
88DDH4-005	299	238	0.06	6	650	104	< 5	7	39	0.20	< 10	< 10	69	< 5	659
88DDH4-006	299	238	0.07	5	660	66	< 5	5	28	0.17	< 10	< 10	56	5	622
88DDH4-007	299	238	0.06	4	730	30	< 5	6	21	0.15	< 10	< 10	45	< 5	748
88DDH4-008	299	238	0.07	4	610	58	< 5	4	30	0.12	< 10	< 10	33	< 5	339
88DDH4-009	299	238	0.07	8	600	340	5	4	25	0.13	< 10	< 10	37	< 5	1170
88DDH4-010	299	238	0.03	12	580	28	< 5	2	39	0.12	< 10	< 10	42	5	504
88DDH4-011	299	238	0.04	8	710	664	< 5	3	8	0.10	< 10	< 10	11	5	3150
88DDH4-012	299	238	0.06	6	650	98	< 5	5	56	0.22	< 10	< 10	61	< 5	864
88DDH4-013	299	238	0.09	5	720	104	< 5	9	72	0.29	< 10	< 10	79	< 5	1105
88DDH4-014	299	238	0.09	6	580	10	5	8	60	0.22	< 10	< 10	85	< 5	124
88DDH4-015	299	238	0.09	9	590	8	< 5	7	69	0.27	< 10	< 10	89	< 5	206
88DDH4-016	299	238	0.08	8	570	38	5	6	68	0.22	< 10	< 10	58	5	922
88DDH4-017	299	238	0.07	8	680	178	5	6	56	0.23	< 10	< 10	68	5	1845
88DDH4-018	299	238	0.05	11	500	114	< 5	4	35	0.14	< 10	< 10	50	< 5	963
88DDH4-019	299	238	0.06	8	690	20	< 5	4	39	0.16	< 10	< 10	54	< 5	336
88DDH4-020	299	238	0.05	11	620	56	< 5	5	46	0.19	< 10	< 10	60	< 5	779
88DDH4-021	299	238	0.04	9	740	74	< 5	4	34	0.15	< 10	< 10	47	< 5	728
88DDH4-022	299	238	0 04	4	720	56	< 5	4	29	0.16	< 10	< 10	39	< 5	748
88DDH4-023	299	238	0.05	9	570	124	< 5	5	26	0.19	< 10	< 10	52	5	1405
88DDH4-024	299	238	0.05	7	670	84	< 5	4	33	0.18	< 10	< 10	53	< 5	1420
88DDH4-025	299	238	0.04	7	650	44	< 5	3	31	0.16	< 10	< 10	37	< 5	797
88DDH4-026	299	238	0.05	20	810	22	< 5	4	26	0.18	< 10	< 10	53	< 5	415
88DDH4-027	299	238	0.02	7	430	72	< 5	1	9	0.06	< 10	< 10	6	< 5	522

CERTIFICATION : BC

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE NORTH VANCOUVER
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

Project . CEM/BTL
Comments: ATTN: ART TROUP CC: LINDA DANDY

Page No. :2-A
Tot. Pages:2
Date :13-APR-88
Invoice # :I-8813946
P.O. # :NONE

CERTIFICATE OF ANALYSIS A8813946

SAMPLE DESCRIPTION	PREP CODE		Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
88DDH4-028	299	238	0.72	1.6	75	160	< 0.5	< 2	0.30	0.5	8	5	44	3.30	< 10	< 1	0.41	< 10	0.08	80	4
88DDH4-029	299	238	2.27	1 2	15	70	< 0.5	< 2	2.24	5.0	13	10	297	3.93	< 10	< 1	0.10	< 10	1.43	1035	1
88DDH4-030	299	238	0.56	< 0.2	40	270	< 0.5	< 2	2 99	< 0.5	4	26	51	2 63	< 10	< 1	0.10	< 10	0.48	152	< 1
88DDH4-031	299	238	2.54	< 0 2	10	50	< 0.5	< 2	2 37	< 0.5	27	2	49	5 01	10	< 1	0.14	< 10	1 86	965	< 1

CERTIFICATION : BC

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Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE. NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C
V6C 2W2

Project : CEM/BTI
Comments: ATTN: ART TROUP CC: LINDA DANDY

Date : 13-APR-88
Invoice # : I-8813946
P.O. # : NONE

CERTIFICATE OF ANALYSIS A8813946

SAMPLE DESCRIPTION	PREP CODE	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
88DDH4-028	299 238	0.02	6	520	40	< 5	2	6	0.09	< 10	< 10	8	< 5	249
88DDH4-029	299 238	0.05	7	670	278	< 5	4	41	0.19	< 10	< 10	47	< 5	1680
88DDH4-030	299 238	0.03	25	1520	6	< 5	1	120	0.02	< 10	< 10	23	< 5	101
88DDH4-031	299 238	0.06	3	1910	< 2	< 5	3	54	0.18	< 10	< 10	95	< 5	85

CERTIFICATION : BC

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

A8812285

Comments: ATTN: ART TROUP CC: LINDA DANDY

CERTIFICATE A8812285

MARK MANAGEMENT LIMITED
PROJECT : CEM/BTL
P.O.# : NONE

Samples submitted to our lab in Vancouver, BC.
This report was printed on 9-MAR-88.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
207	26	Assay: Crush, split, pulv -140

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
301	26	Cu %: HClO4-HNO3 digestion	AAS	0.01	100.0
312	26	Pb %: HClO4-HNO3 digestion	AAS	0.01	100.0
316	26	Zn %: HClO4-HNO3 digestion	AAS	0.01	100.0
385	26	Ag oz/T: Aqua regia digestion	AAS	0.01	20.0
398	26	Au oz/T: 1/2 assay ton	FA-AAS	0.002	20.00

Chemex Labs Ltd.

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V6C 2W2

Project : CEM/BTL
Comments: ATTN: ART TROUP CC: LINDA DANDY

Page No. :1
Tot. Pages: 1
Date : 9-MAR-88
Invoice # :I-8812285
P.O. # :NONE

CERTIFICATE OF ANALYSIS A8812285

SAMPLE DESCRIPTION	PREP CODE		Cu %	Pb %	Zn %	Ag oz/T	Au oz/T
88DDH1-001	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH1-002	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH1-003	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH1-004	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH1-005	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH1-006	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH1-007	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH1-008	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH1-009	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH1-010	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH1-011	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH1-012	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH1-013	207	---	0.01	< 0.01	0.16	0.04	< 0.002
88DDH1-014	207	---	0.02	0.01	0.16	0.06	< 0.002
88DDH1-015	207	---	0.01	< 0.01	0.14	0.06	< 0.002
88DDH1-016	207	---	0.01	< 0.01	0.14	0.04	< 0.002
88DDH1-017	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH1-018	207	---	0.02	< 0.01	0.11	0.07	0.002
88DDH1-019	207	---	< 0.01	< 0.01	0.03	0.01	< 0.002
88DDH1-020	207	---	< 0.01	< 0.01	< 0.01	< 0.01	< 0.002
88DDH1-021	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH1-022	207	---	< 0.01	< 0.01	< 0.01	< 0.01	< 0.002
88DDH1-023	207	---	< 0.01	< 0.01	< 0.01	< 0.01	< 0.002
88DDH1-024	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH1-025	207	---	< 0.01	< 0.01	< 0.01	< 0.01	< 0.002
88DDH1-026	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002

ALL ASSAY DETERMINATIONS ARE PERFORMED OR SUPERVISED BY B.C. CERTIFIED ASSAYERS

CERTIFICATION : W. Dambrosini

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 BROOKSBANK AVE , NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To : MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

Project : BUTTLE LAKE
Comments: ATTN: ART TROUP CC: PERRY GRUNENBERG

Page No. :1
Tot. Pages: 1
Date :16-MAR-88
Invoice # : I-8812672
P.O. # :CEM/BTL

CERTIFICATE OF ANALYSIS A8812672

SAMPLE DESCRIPTION	PREP CODE		Cu %	Pb %	Zn %	Ag oz/T	Au oz/T
88DDH-1-27	207	---	0.01	< 0.01	0.01	< 0.01	0.002
88DDH-1-28	207	---	0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH-2-01	207	---	0.01	0.01	0.09	0.04	< 0.002
88DDH-2-02	207	---	0.01	0.02	0.14	0.06	0.002
88DDH-2-03	207	---	< 0.01	< 0.01	0.02	< 0.01	< 0.002
88DDH-2-04	207	---	0.01	0.02	0.12	0.04	0.002
88DDH-2-05	207	---	< 0.01	< 0.01	0.02	0.01	< 0.002
88DDH-2-06	207	---	0.01	0.01	0.11	0.04	< 0.002
88DDH-2-07	207	---	0.01	0.04	0.18	0.05	0.002
88DDH-2-08	207	---	< 0.01	< 0.01	0.03	0.02	< 0.002
88DDH-2-09	207	---	0.02	0.03	0.13	0.06	0.002
88DDH-2-10	207	---	0.01	0.02	0.14	0.05	0.002
88DDH-2-11	207	---	0.01	0.02	0.14	0.06	0.004
88DDH-2-12	207	---	< 0.01	< 0.01	0.05	0.03	0.002
88DDH-2-13	207	---	0.01	0.02	0.19	0.04	0.002
88DDH-2-14	207	---	0.02	< 0.01	0.03	0.04	0.002
88DDH-2-15	207	---	< 0.01	< 0.01	0.04	0.01	< 0.002
88DDH-2-16	207	---	< 0.01	< 0.01	0.01	0.01	< 0.002
88DDH-2-17	207	---	< 0.01	< 0.01	0.01	0.02	< 0.002
88DDH-2-18	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH-2-19	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH-2-20	207	---	< 0.01	< 0.01	0.01	0.01	< 0.002

ALL ASSAY DETERMINATIONS ARE PERFORMED OR SUPERVISED BY BC CERTIFIED ASSAYERS

CERTIFICATION : W. Glen Amerine

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

A8813945

Comments: ATTN: ART TROUP CC: LINDA DANDY

CERTIFICATE A8813945

MARK MANAGEMENT LIMITED
PROJECT : CEM/BTL
P.O # : NONE

Samples submitted to our lab in Vancouver, BC.
This report was printed on 17-APR-88.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
207	44	Assay. Crush,split,pulv -140

* NOTE 1:
The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
301	44	Cu %. HClO4-HNO3 digestion	AAS	0.01	100.0
312	44	Pb %: HClO4-HNO3 digestion	AAS	0.01	100.0
316	44	Zn %: HClO4-HNO3 digestion	AAS	0.01	100.0
385	44	Ag oz/T: Aqua regia digestion	AAS	0.01	20.0
398	44	Au oz/T: 1/2 assay ton	FA-AAS	0.002	20.00

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PHONE (604) 984-0221

To MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C
V6C 2W2

Project : CEM/BTL
Comments: ATTN: ART TROUP CC: LINDA DANDY

Date : 17-APR-88
Invoice # : I-8813945
P.O # : NONE

CERTIFICATE OF ANALYSIS A8813945

SAMPLE DESCRIPTION	PREP CODE		Cu %	Pb %	Zn %	Ag oz/T	Au oz/T
88DDH3-001	207	---	0.01	0.01	0.05	0.03	< 0.002
88DDH3-002	207	---	0.02	0.01	0.08	0.04	< 0.002
88DDH3-003	207	---	0.02	0.01	0.04	0.03	< 0.002
88DDH3-004	207	---	0.01	< 0.01	0.03	< 0.01	< 0.002
88DDH3-005	207	---	< 0.01	< 0.01	0.12	< 0.01	< 0.002
88DDH3-006	207	---	0.01	< 0.01	0.05	0.02	< 0.002
88DDH3-007	207	---	0.04	0.02	0.13	0.06	< 0.002
88DDH3-008	207	---	0.01	< 0.01	0.05	0.02	< 0.002
88DDH3-009	207	---	0.01	< 0.01	0.05	0.02	< 0.002
88DDH3-010	207	---	0.02	< 0.01	0.03	0.04	< 0.002
88DDH3-011	207	---	< 0.01	< 0.01	< 0.01	< 0.01	< 0.002
88DDH3-012	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH3-013	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH4-001	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH4-002	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH4-003	207	---	< 0.01	< 0.01	0.01	< 0.01	< 0.002
88DDH4-004	207	---	0.01	< 0.01	0.06	0.01	< 0.002
88DDH4-005	207	---	0.01	0.01	0.07	0.04	< 0.002
88DDH4-006	207	---	< 0.01	0.01	0.07	0.02	< 0.002
88DDH4-007	207	---	0.01	< 0.01	0.08	0.02	< 0.002
88DDH4-008	207	---	0.02	< 0.01	0.04	0.04	< 0.002
88DDH4-009	207	---	0.01	0.04	0.12	0.05	< 0.002
88DDH4-010	207	---	< 0.01	< 0.01	0.05	0.02	< 0.002
88DDH4-011	207	---	0.35	0.07	0.33	0.43	0.004
88DDH4-012	207	---	0.02	0.01	0.10	0.03	< 0.002
88DDH4-013	207	---	0.04	0.01	0.12	0.04	< 0.002
88DDH4-014	207	---	0.03	< 0.01	0.01	< 0.01	< 0.002
88DDH4-015	207	---	0.02	< 0.01	0.02	0.01	< 0.002
88DDH4-016	207	---	0.04	< 0.01	0.10	0.03	< 0.002
88DDH4-017	207	---	0.04	0.02	0.21	0.04	< 0.002
88DDH4-018	207	---	0.03	0.01	0.11	0.07	0.002
88DDH4-019	207	---	0.03	< 0.01	0.04	0.01	< 0.002
88DDH4-020	207	---	0.04	0.01	0.09	0.04	< 0.002
88DDH4-021	207	---	0.04	0.01	0.08	0.03	< 0.002
88DDH4-022	207	---	0.06	0.01	0.08	0.11	0.002
88DDH4-023	207	---	0.08	0.01	0.16	0.33	0.002
88DDH4-024	207	---	0.03	0.01	0.17	0.04	< 0.002
88DDH4-025	207	---	0.02	0.01	0.09	0.03	< 0.002
88DDH4-026	207	---	0.03	< 0.01	0.05	0.03	< 0.002
88DDH4-027	207	---	< 0.01	0.01	0.17	0.04	0.002

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CERTIFICATION : W. Stan Smonnie

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BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To. MARK MANAGEMENT LIMITED

1900 - 999 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 2W2

Project CEM/BTL
Comments. ATTN: ART TROUP CC: LINDA DANDY

Date :17-APR-88
Invoice # :I-8813945
P.O. # .NONE

CERTIFICATE OF ANALYSIS A8813945

SAMPLE DESCRIPTION	PREP CODE		Cu %	Pb %	Zn %	Ag oz/T	Au oz/T
88DDH4-028	207	--	< 0.01	< 0.01	0.03	0.04	0.002
88DDH4-029	207	--	0.03	0.03	0.19	0.04	< 0.002
88DDH4-030	207	--	< 0.01	< 0.01	0.01	< 0.01	0.004
88DDH4-031	207	--	< 0.01	< 0.01	0.01	< 0.01	< 0.002

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CERTIFICATION W. Thomlinson