NELSON

FAME REPORT (MI)

15700

Province of British Columbia

Ministry of Energy, Mines and Petroleum Resources

TYPE OF REPORT [SURVEY(S)]: DRILLING; PHYSICAL; GEOCHEMICAL 463,475.00

AUTHOR(S): B. Dewonck, J. McClintock, W.J. Roberts SIGNATURE(S):

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED: Jan. 12/87 YEAR OF WORK: 1986

PROPERTY NAME(S): Tillicum Gold

COMMODITIES PRESENT: Ag, Au

B.C. MINERAL INVENTORY NUMBER(S) IF KNOWN: 82F/NW - 234

MINING DIVISION: Slocan 82F/13E

LATITUDE: 49°59' LONGITUDE: 117°42'48"

NAMES and NUMBERS of all mineral tenures in good standing upon which work was performed:

WOLF

OWNER(S):

1. Esperanza Explorations Ltd.

MAILING ADDRESS

OPERATOR(S) [that is, Company paying for the work]:

1. as above

MAILING ADDRESS

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size and attitude):

The property is underlain by four principal rock assemblages. From oldest to youngest; Milford Group calc-silicate schists and hornfels, Jurassic-Triassic Slocan Group shale and tuffaceous shale, Jurassic Rossland Group amphibolite and meta-andesite, and quartz diorite-quartz monzonite of the Goat Canyon and Halifax Creek intrusive complex. Gold and silver mineralization occurs in calc-silicate, and quartz and carbonate skarn deposits developed within metasedimentary and metavolcanic units.

REFERENCES TO PREVIOUS WORK:

A.R. 12269, 11161, 9455, 7909, 7692

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	COST APPORTIONED
GEOLOGICAL (scale, area)			
Ground			
Photo			
GEOPHYSICAL (line kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for ...)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core	DIAD 835.5 m; 25 holes; NQ	WOLF	
Non-core	UNDD 176.8 m; 9 holes; NQ		
RELATED TECHNICAL			
Sampling/assaying	SAMP 250; Au		
Petrographic			
Mineralogic			
Metallurgic	META 100 Bulk Samples		
PROSPECTING (scale, area)			
PREPARATORY/PHYSICAL			
Legal surveys (scale, area)			
Topographic (scale, area)			
Photogrammetric (scale, area)			
Line/grid (kilometres)			
Road, local access (kilometres)			
Trench (metres)			
Underground (metres)	UNDV 333.8 m		
		TOTAL COST	463,475.00

FOR MINISTRY USE ONLY	NAME OF PAC ACCOUNT	DEBIT	CREDIT	REMARKS
Value work done (from report) 463,475.00				
Value of work approved				
Value claimed (from statement)				
Value credited to PAC account				
Value debited to PAC account				
Accepted Date March 2/88	Rept. No. 15700			for commodity class (2)

SUMMARY OF THE

EXPLORATION AND PILOT MINING PROGRAM

ESPERANZA GOLD PROPERTY

ARROW LAKES AREA, SOUTHEAST BRITISH COLUMBIA
SLOCAN MINING DIVISION

LATITUDE 49°59'N LONGITUDE 117°43'W
N.T.S. 82-F/13 &
82-K/4

BY

BERNARD DEWONCK

JOHN McCLINTOCK

WAYNE J. ROBERTS

FOR

ESPERANZA EXPLORATIONS LTD.

DECEMBER, 1986

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF FIGURES

SUMMARY.

Diamond drilling and underground drifting programs conducted on the ESPERANZA GOLD PROPERTY at Tillicum Mountain successfully outlined continuity of high grade gold reserves in the HEINO-MONEY GOLD ZONE.

The 1986 evaluation program with expenditures totalling $662,000 included 2003 feet of surface diamond drilling; 580 feet of underground diamond drilling; 510 feet of drifting; 155 feet of raising; 430 feet of slashing and 738 feet of test hole drilling.

The underground drifting and bulk sampling program defined continuous gold bearing skarn with values to 1.63 oz/T gold along 120 feet of drift length in several levels where earlier drill holes indicated lower grade. All further reserve definition programs should include drill holes for skarn location and drifting programs for continuity and grade of gold content.

The 1986 programs delineated a probable reserve of 6756 Tons grading 0.99 oz/T gold as well as a detailed drill defined reserve of 1300 Tons grading 3.00 oz/T gold in the HEINO-MONEY ZONE. This zone contains an overall drill indicated reserve of 40,000 Tons grading 0.60 oz/T gold and an additional reserve potential to the 2000 Level of 150,000 Tons grading 0.60 oz/T gold. Muck rounds from this year's drifting program was stockpiled on site for subsequent direct shipment to a custom mill.

The 1986 underground exploration program provided the reserve base and encouragement required to establish a test mining and "on-site" test milling program in 1987.

INTRODUCTION

Exploration programs conducted during the period 1981-1984 targeted and drill tested three major gold-silver zones, as well as outlining numerous other showings on the property. High-grade reserves containing over 24,000 ounces of gold were indicated with the HEINO-MONEY ZONE; in addition, a drill-indicated reserve of over 5 million Tons, grading 0.05 oz/Ton gold was indicated within the EAST RIDGE ZONE; and over 3 million Tons grading 3 oz/Ton silver was outlined in the SILVER QUEEN ZONE.

The 1985 program focused on preparing the HEINO-MONEY GOLD ZONE for production. Limited underground drifting was conducted to define continuity of gold mineralization as well as prepare the overall development scenario. Test mining of approximately 2,700 Tons from both surface and underground, and direct shipping to a custom mill and the Cominco smelter was undertaken to determine feasibility of small scale production.

Prompted by the success of the 1985 program, a more comprehensive program of surface and underground diamond drilling, drifting, raising and test holing was undertaken on the HEINO-MONEY ZONE in 1986. The purpose of the 1986 program was to develop sufficient reserves to justify the construction of a mill and to provide a bulk sample of "run of the mine" ore material for a milling test.

The 1986 exploration program included surface diamond drilling to:

(a) confirm the continuity of the ore zone between previously drilled holes and to identify targets for the extension of the Money Adit (2130 level) initiated in 1985;

and (b) test the downdip extension of a mineralized structure trending traversely to the HEINO-MONEY ZONE.

A limited amount of underground diamond drilling, in short, closely spaced holes, tested the down-dip potential for a high-grade shoot extending below the 2160 level (Heino Adit).

The underground work included extension of the 2130 Level, driving of a 2136 Sub-level with raises and ore passes constructed between these levels and to the 2148 Level (Screamer Sub-level). These drifts and raises confirmed the continuity of the ore zone from surface to the 2130 Level.

The 2112 Level was driven to intersect the down-dip extension of the"transverse"(Money-Pit) zone which had been exposed in the portal area of the 2130 Level and intersected by diamond drilling in 1986.

All assays were initially determined by atomic absorbtion methods in the 'on-site' field laboratory operated by Esperanza during the course of the program with the exception of back sample assays in the 2136 Level (numbers 38001-38050) and in the 2112 Level south of 5+14N (numbers 38051 to 31084 inclusive). These samples were analyzed by fire assay at Min-En Laboratories in North Vancouver, B. C.

The survey control grid appearing on all mine plans and sections is metric, however tonnage, grade and sample intervals are quoted in short tons, ounces per short ton and feet respectively. All elevations and level designations are in metres above sea level.

The geological legend appearing in Figure 4 should be referred to when viewing all geological maps.

LOCATION AND ACCESS.

The Esperanza Gold Property is situated in the Arrow Lakes Region of southeastern British Columbia, 10km (6 miles) to the east of the village of Burton (Figure 1). The property overlies Tillicum Mountain, on the western limits of the Valhalla Ranges, within the Slocan Mining Division. The approximate coordinates for the claim group are latitude 49°59'N and longitude 117°43'W; NTS: 82F/13 and 82K/4. Elevations on the property range from 884m (2,900 ft.) to 2,317m (7,600 ft.). The peak of Tillicum Mountain stands at 2,231m (7,326 ft.).

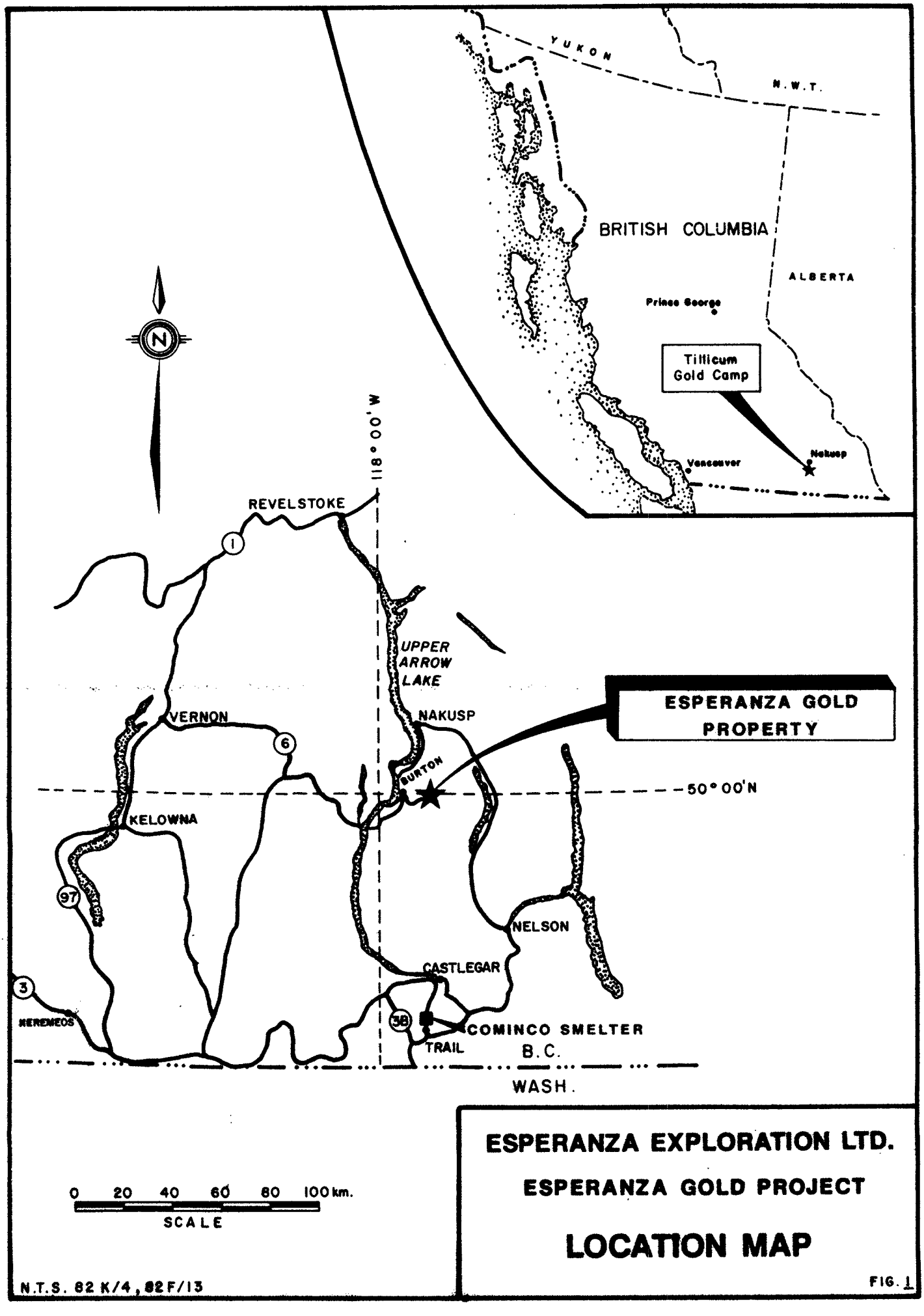
Most of the known gold showings on the property occur on the slopes of Tillicum Mountain and in the adjacent cirque valleys at elevations from 1,940m (6,360 ft.) to 2,220m (72,280 ft.). The HEINO-MONEY GOLD ZONE occurs along the crest of a north trending spur of Tillicum Mountain and between elevations of 2,100m (6,800 ft.) and 2,200m (7,200 ft.).

Evergreen forests extend to near the peaks, with the tree line being approximately 2,200m (7,200 ft.) Rock exposure, for the most part, is confined to the ridge crests, and covers approximately 5% of the surface area. The terrain is rugged, with steep to precipitous slopes that are covered by a thin veneer of overburden.

On the HEINO-MONEY and EAST RIDGE areas, water sufficient for diamond drilling, underground development and camp purposes is available below 1,900m in elevation from either Elaine or Sue Creeks, which drain the east and west of Tillicum Ridge respectively.

Snow conditions in the area generally limit surface exploration to the period June through October. Snow clearing programs have been used in the past to extend the field season by several months for the purpose of completion of physical work.

Access to the property is from Burton via a network of logging and mine access roads up Caribou and Londonderry Creeks. Total distance from Burton to the stockpile area on Tillicum Ridge is 27km (17 miles). During the summer months, the road is usually passable by 2-wheel drive truck to the stockpile.


YUKON
N.W.T.
BRITISH COLUMBIA
ALBERTA
Prince George
Tillicum
Gold Camp
Vancouver
Nakusp
N
118° 00' W
REVELSTOKE
1
UPPER
ARROW
LAKE
VERNON
6
NAKUSP
ESPERANZA GOLD
PROPERTY
BURTON
50° 00'N
KELOWNA
97
NELSON
CASTLEGAR
3
KEREMEOS
3B
COMINCO SMELTER
TRAIL
B.C.
WASH.
0 20 40 60 80 100 km.
SCALE
ESPERANZA EXPLORATION LTD.
ESPERANZA GOLD PROJECT
LOCATION MAP
N.T.S. 82 K/4, 82 F/13
FIG. 1

then by 4-wheel drive to various mineralized zones throughout the Property.

Due to the rugged terrain, the present access road to the HEINO-MONEY GOLD ZONE contains several tight switchbacks which limit size and length of vehicles that can operate safely and efficiently.

CLAIM STATUS:

The Esperanza Gold Property consists of 178 metric grid claim units, 20 two post claims and 6 crown granted mineral claims (Figure 2). A complete description of the individual claims, including record numbers and due dates, comprising the Esperanza Gold Property follow:

CLAIM SUMMARY

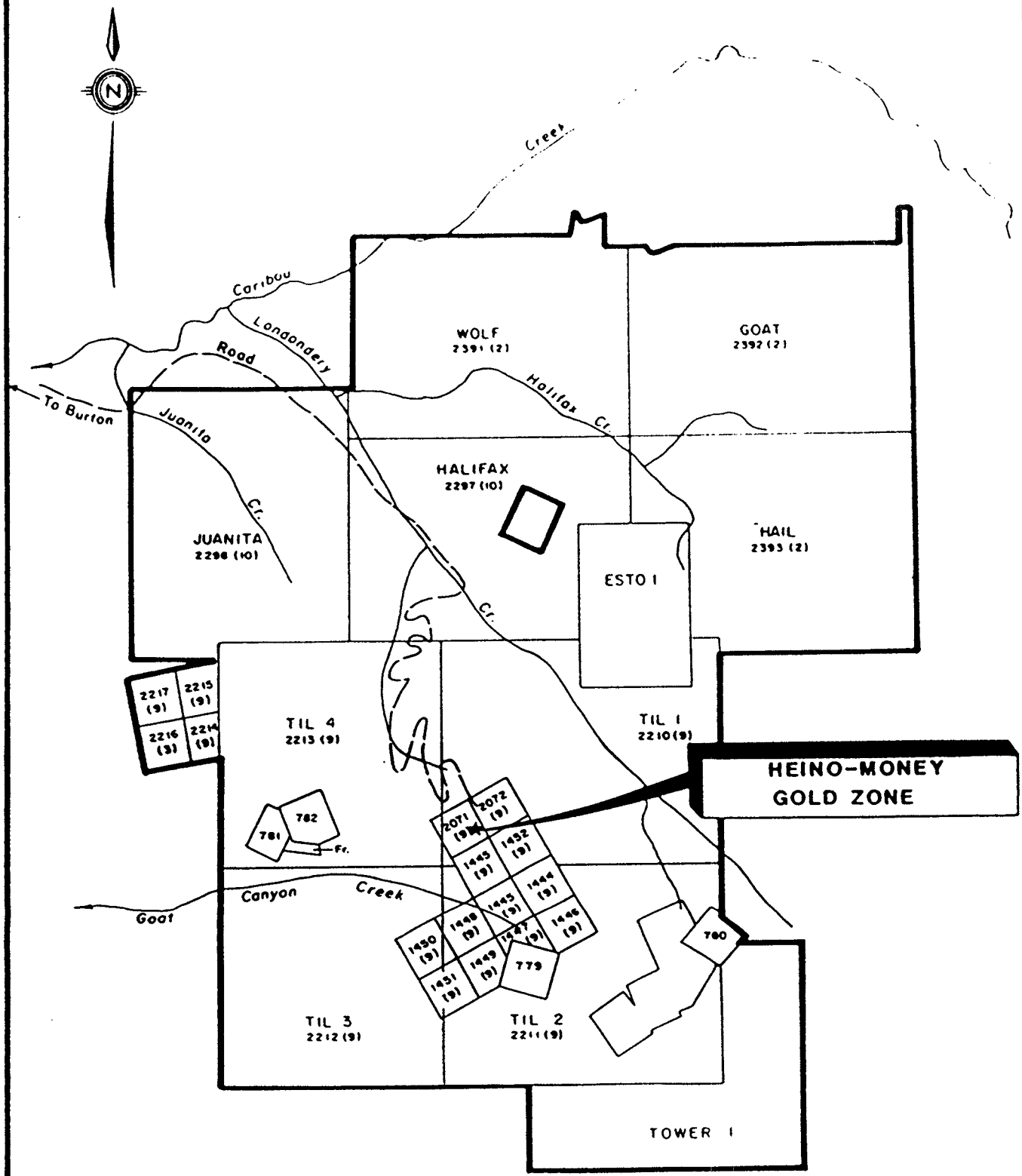
	No. Claims	No. Units
- Metric grid unit staked claims	10	178
- 2 post claims	20	20
- Crown grants	6	6
Total:	35	204

1. TILLICUM

The following claims were acquired under an agreement dated September 20, 1980, with Arnold A. Gustafson and Elaine E. Gustafson, of Burton, B.C.

Name of Claim	No. of Claim Units	Record Number	Assessment Work Due Date
AGE 1-4 incl.	4	2214-2217	Sep. 29, 1994
BLACK BEAR	1	780	Aug. 08, 1994
GOLDEN HOPE	1	779	Aug. 08, 1994
HUGH	1	2072	Jul. 29, 1994
LITTLE JOE/MOLLY FR.	1	781	Aug. 08, 1994
MOLLY	1	782	Aug. 08, 1994
NEAR 1-7 incl.	7	1446-1452	Sep. 20, 1994
SANDY TOO 1-3 incl.	3	1443-1445	Sep. 20, 1994
TIL 1-4 incl.	72	2210-2213	Sep. 29, 1994
WOLF	1	2071	Jul. 29, 1995
Sub Total Claim Units:	92		

Esperanza owns 100% right, title and interest in the above claims subject to the right of the Gustafson's to receive minimum advance royalty payments of $60,000 annually on Net Smelter Returns as follows:



ESPERANZA EXPLORATION LTD.

TILLICUM GOLD PROJECT

CLAIM MAP

NTS 82K/4, 82F/13

FIG 2

3% of Net Smelter Returns until the first $3,000,000 has been so paid;
2% of Net Smelter Returns until a further $2,000,000 has been so paid;
1% of Net Smelter Returns until a further $1,000,000 has been so paid.

Total Maximum Payments: $6,000,000

Provided that if the average grade of ore in respect of which Net Smelter Returns are payable for a given calendar quarter exceeds 2 troy ounces per short ton, prior to any concentration thereof, the above percentage of Net Smelter Returns payable to the Owners during that calendar quarter shall be doubled.

2. JUANITA/HALIFAX/ESTO:

The Juanita and Halifax claims were acquired by staking in 1980, while the Esto claim was staked in 1983.

Name of Claim	No. of Claim Units	Record Number	Assessment Work Due Date
HALIFAX	20	2297	Oct. 28, 1994
JUANITA	20	2298	Oct. 28, 1994
ESTO	6	4031	Jul. 29, 1994
Sub Total Claim Units:	46		

The Juanita, Halifax and Esto claims adjoin the north boundary of the TIL claims and form part of the overall Tillicum Property.

In accordance with the agreement dated September 20, 1980, with the Gustafson's, and production from mineral zones on the Juanita/Halifax/Esto which fall within one-half mile of the boundary of the TIL claims, is subject to the provisions of the above mentioned Gustafson agreement.

3. CARIBOU CREEK:

The Caribou Creek Property claims were acquired during 1981 under letter of agreement with Leslie Kiss, Prospector, of Vancouver, B.C.

Name of Claim	Claim Units	Record Number	Assessment Work Due Date
GOAT	20	2392	Feb. 12, 1990
HAIL	20	2393	Feb. 12, 1990
WOLF	20	2391	Feb. 12, 1990
Sub Total Claim Units:	60		

Under letters of agreement dated May 21, 1981 and July 27, 1981, with Leslie Kiss, Prospector, the Company acquired 100% right, title and interest in the above noted claims in consideration for a cash payment.

4. SILVER QUEEN:

The Silver Queen group of crown granted mineral claims, listed below, were acquired by Esperanza from the Penticton Hospital Society:

Name of Claim	No. of Claim Units	Grant Number
GREY WOLF	1	D.L. #2204 Cr. Gr.
GREY WOLF FRACTION	1	D.L. #2209 Cr. Gr.
RED FOX	1	D.L. #2205 Cr. Gr.
BLACK FOX	1	D.L. #2206 Cr. Gr.
BLACK FOX FR.	1	D.L. #2207 Cr. Gr.
BLACK BEAR FR.	1	D.L. #2582 Cr. Gr.
Sub Total Crown Grants:	6	

Esperanza, by fulfilling the terms of the purchase agreement, acquired a 100% interest in the Crown Grants.

REGIONAL SETTING:

The Esperanza Property is underlain by four principal rock assemblages. From oldest to youngest; Milford Group calc-silicate schists and hornfels, Slocan Group shale and tuffaceous shale, Rossland Group amphibolite and meta andesite, and quartz diorite to quartz monzonite of the Goat Canyon and Halifax Creek intrusive complex.

The meta volcanic-metasedimentary succession has suffered through both regional and contact metamorphism. Unit boundaries are discontinous and irregular due to faulting and folding. Two stages of intrusions are apparent with an earlier phase of diorite porphyry followed by quartz monzonite.

Gold and silver mineralization occurs in calc-silicate, quartz and carbonate skarn deposits developed within both metasedimentary and metavolcanic units.

PROPERTY GEOLOGY:

Exploration activity in 1986 focused on detailed evaluation of the HEINO-MONEY GOLD ZONE. The reader is referred to reports by Roberts/McClintock (1983), and McClintock (1984) for detailed lithological descriptions and structural settings of the various rock assemblages underlying the Property.

The following brief descriptions capsulize lithologic descriptions, structural setting and distribution of unit assemblages throughout the Property (See also Figures 3 to 6).

The Milford Group succession is described as fine to medium-grained clastic and volcanoclastic rocks that have been both regionally and thermally metamorphosed to pelitic and calc-silicate schists and hornfelses. The Slocan Group assemblage consists of dark grey shale variable tuffaceous components. The Rossland Group units are predominantly mafic volcanic flows, tuffs and breccias that have been metamorphosed to amphibolite and hornblende-plagioclase schists and gneisses.

Structure in the metamorphosed rocks is complex, with conflicting interpretations by Hyndman (1968) and Parrish (C.J.E.S. p 944, vol. 18, 1981).

The Goat Canyon and Halifax Creek stocks post-date regional metamorphism and intrude the older rocks in the north and west portion of the property. Both stocks are predominantly quartz monzonite with contaminated border phases of diorite, quartz-diorite and granodiorite.

The Mississippian to Permian Milford Group forms the base of the stratigraphic succession on the Property and consists of siltstones, quartzites and limey sediments which have been regionally metamorphosed to hornfels, schists and gneisses. The Milford succession underlies much of the south and eastern portion of the claims and is host for the stratabound silver mineralization at the Silver Queen Zone.

The Slocan Group consists of intercalated tuffaceous siltstone, shale and greywacke that is transitional to massive meta-andesite. The sequence of tuffaceous sediments varies to 100m in thickness and is exposed on the north

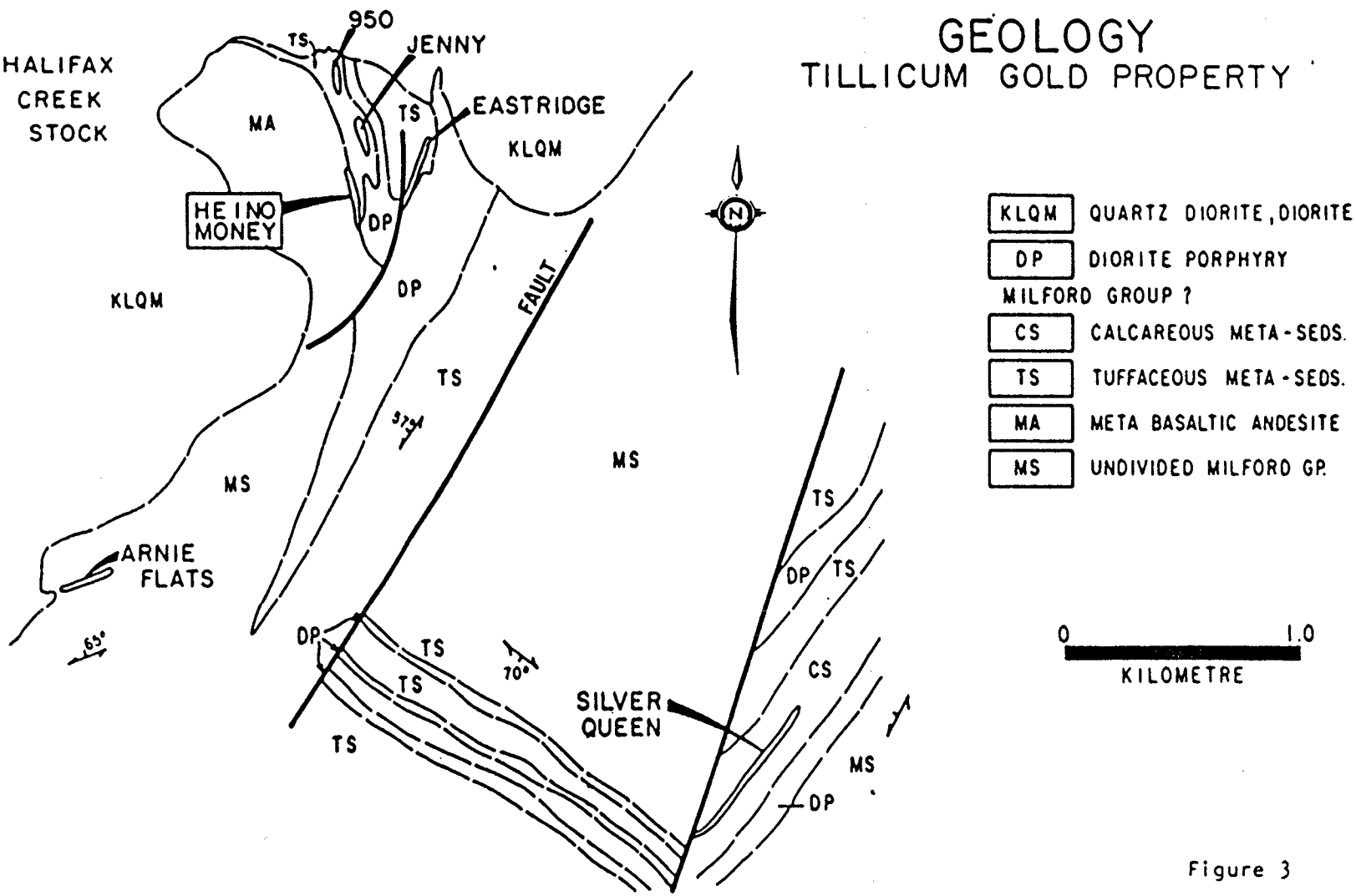

GEOLOGY
TILLICUM GOLD PROPERTY
950
JENNY
EASTRIDGE
HALIFAX CREEK STOCK
HEINO MONEY
ARNIE FLATS
SILVER QUEEN
FAULT
KLQM
MA
TS
DP
CS
MS
KLQM QUARTZ DIORITE, DIORITE
DP DIORITE PORPHYRY
MILFORD GROUP ?
CS CALCAREOUS META-SEDS.
TS TUFFACEOUS META-SEDS.
MA META BASALTIC ANDESITE
MS UNDIVIDED MILFORD GP.
0
1.0
KILOMETRE

Figure 3

LEGEND: TILLICUM DISTRICT

AGE	UNIT	DESCRIPTION	METAMORPHIC OVERPRINT: CALC-SILICATE SKARN	METAMORPHIC OVERPRINT: HORNFELS
		LAMPROPHYRE DYKES		
UNKNOWN	LMP	DARK GREEN CARBONATE ALTERED, AUGITE-EPIDOTE BEARING LAMPROPHYRE		
-	LGR	LEUCOGRANITE DYKES		
		GOAT CANYON - HALIFAX CREEK STOCKS		
CRET-JURASSIC	Kgmb	HORNBLENDE-BIOTITE QUARTZ MONZONITE, minor QUARTZ DIORITE, GRANODIORITE		
		SKARN IMPREGNATIONS — GOLD MINERALIZATION	DIOPSIDE-TREMOLITE QUARTZ SKARN + GOLD QUARTZ SKARN + GOLD + PYRITE TREMOLITE-GROSSULARITE K-FELD QUARTZ SKARN + PYRITE + GALENA + SPHALERITE + GOLD DIOPSIDE-TREMOLITE-CLINOZOISITE QUARTZ SKARN + PYRITE + GOLD TREMOLITE-EPIDOTE-CARBONATE-CHLORITE GARNET-K-FELDSPAR SKARN CLINOZOISITE-GARNET-DIOPSIDE-K-FELDSPAR QUARTZ SKARN + PYRITE + GOLD	
UNKNOWN	DP	MASSIVE TO FOLIATED, GREY DIORITE PORPHYRY WITH SUBROUNDED PLAGIOCLASE PHENOCRYSTS IN MOTTLED APHANITIC GROUNDMASS WITH SPARSE ANHEDRAL GARNETS		
	DH	HYBRID DIORITE-HIGHLY DIORITIZED METASEDIMENTS		
SLOCAN GP.	SH	DARK-GREY-BLACK MOISTINTLY LAMINATED SHALE, LOCAL DEVELOPMENT OF SILTSTONE LAMINATIONS	CALC-SILICATED-HORNFELSED SHALE	BIOTITE-ACTINOLITE-CHLORITE SCHIST
	TS	BEIGE-TAN-DARK GREY, LAMINATED TUFFACEOUS SHALE	LAMINATED CALC-SILICATE BIOTITE-PLAGIOCLASE-CHLORITE-GARNET SCHIST	BIOTITE-CHLORITE-HORNBLENDE SCHIST
	TV	BEIGE, PALE GREEN TUFFACEOUS ANDESITE	QUARTZ-TREMOLITE-CLINOZOISITE IMPREGNATED TUFFACEOUS ANDESITE	BIOTITE-ACTINOLITE-CHLORITE SCHIST
ROSSLAND GP.	MA	DARK GREEN, FINE GRAINED META ANDESITE TO META-BASALTIC ANDESITE (BRECCIA, TUFFS, FLOWS)	ZEBRA ANDESITE, DIOPSIDE-TREMOLITE-ACTINOLITE-BIOTITE GARNETIFEROUS HORNFELS	PLAGIOCLASE-HORNBLENDE-AUGITE EPIDOTE AMPHIBOLITE BIOTITE-HORNBLENDE-PLAGIOCLASE-CARBONATE HORNFELS
MILFORD GP.	MC	PINK-BEIGE, FINE GRAINED, SUGARY TEXTURED, ALTERED CLASTICS INCLUDING QUARTZITE, ARKOSE AND SILTSTONE.	BIOTITE-MUSCOVITE-GARNETIFEROUS SKARN	QUARTZ-K-FELDSPAR-BIOTITE-CHLORITE SCHIST
	MQ	YELLOW-BROWN, SUGARY TEXTURED, FINE GRAINED, ALTERED QUARTZITE	QUARTZ-TREMOLITE-SULPHIDE IMPREGNATED META QUARTZITE	MUSCOVITE-ORTHOCLASE-QUARTZ SCHIST
	SS	WHITE TO YELLOW, QUARTZ-SERICITE SCHIST (POSSIBLY CAUSED BY SHEARING AND ALTERATION OF DH)		

MODIFERS

- f - FAULTED, SHEARED
- t - TUFFACEOUS
- py - PYRITIC
- l - LAMINATED
- m - MASSIVE
- q - QUARTZ VEINING
- vg - VISIBLE GOLD
- Po - PYRRHOTITE
- ms - MASSIVE SULPHIDE
- Pb - GALENA
- Zn - SPHALERITE
- i - INTERMITTANT
- w - WEAK

ALTERATION TYPES

- A - ALTERED, NOT DEFINED
- H - HORNFELS
- K - CALC-SILICATE
- C - CARBONITIZATION
- S - SILICIFICATION
- N - SKARN
- R - ARGILLIC ALTERATION (KAOLINITE, MONTMORILLONITE, PYROPHYLLITE)

Fig:4

TILLICUM GOLD PROPERTY
LITHOSTRATIGRAPHIC COLUMN

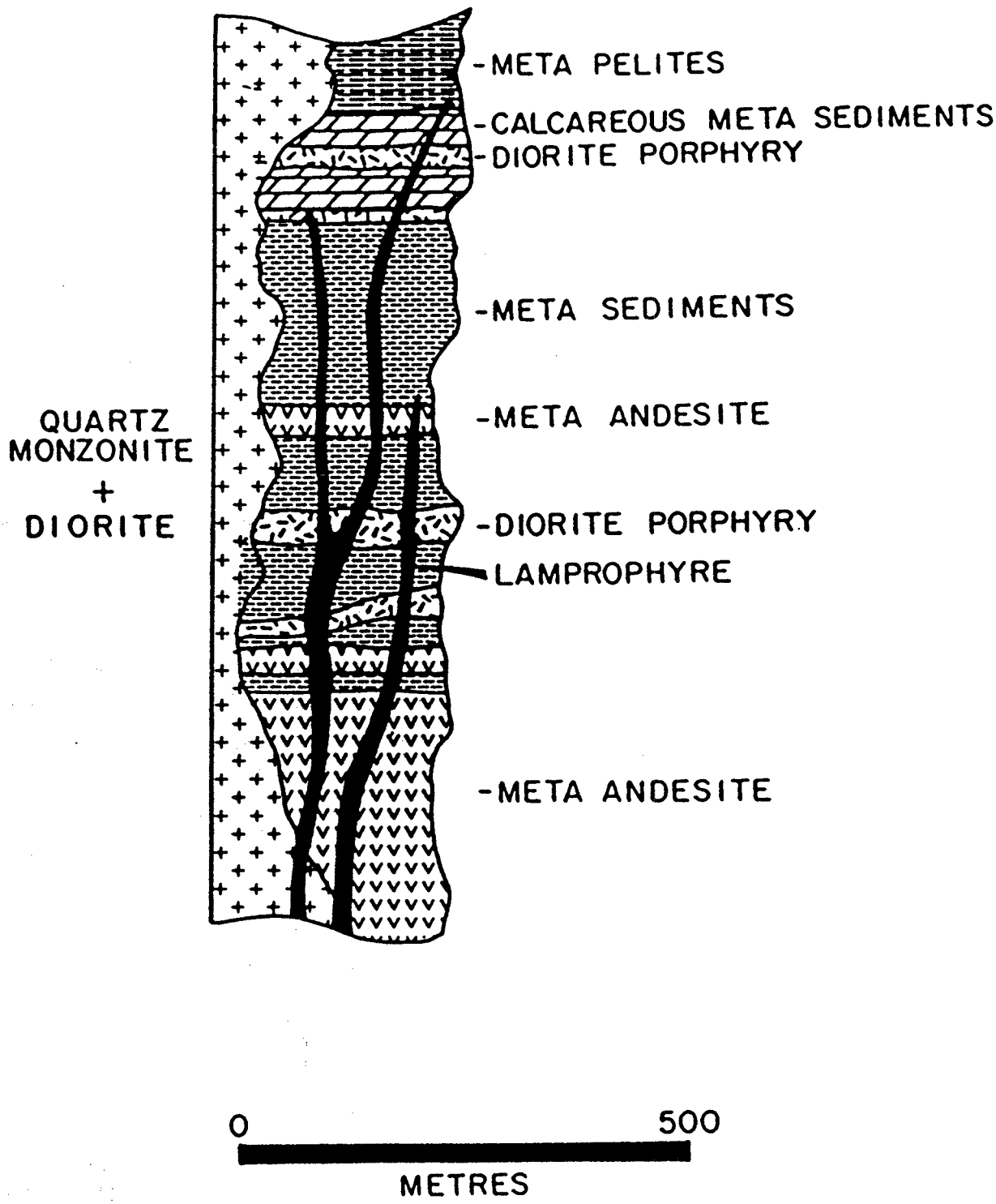


FIGURE 5

slopes of Tillicum Mountain. Slocan Group assemblages are host for both the HEINO-MONEY and EAST RIDGE gold zones.

Massive flows, breccia and tuffs have recently been assigned to the Rossland Group (Ray, G.E., 1985). These metavolcanics are composed of pillow flows, agglomerates and breccias on the west and north slopes of Tillicum Mountain with estimated thicknesses varying to 200m. Although only a few top determinations were recognized, it appears that the largest exposure of meta-andesite is overlain by a sequence of tuffaceous sediments interbedded with 5-20m thick flows of andesite. The metavolcanics are also host for structurally controlled gold-skarn mineralization at the Money Pit.

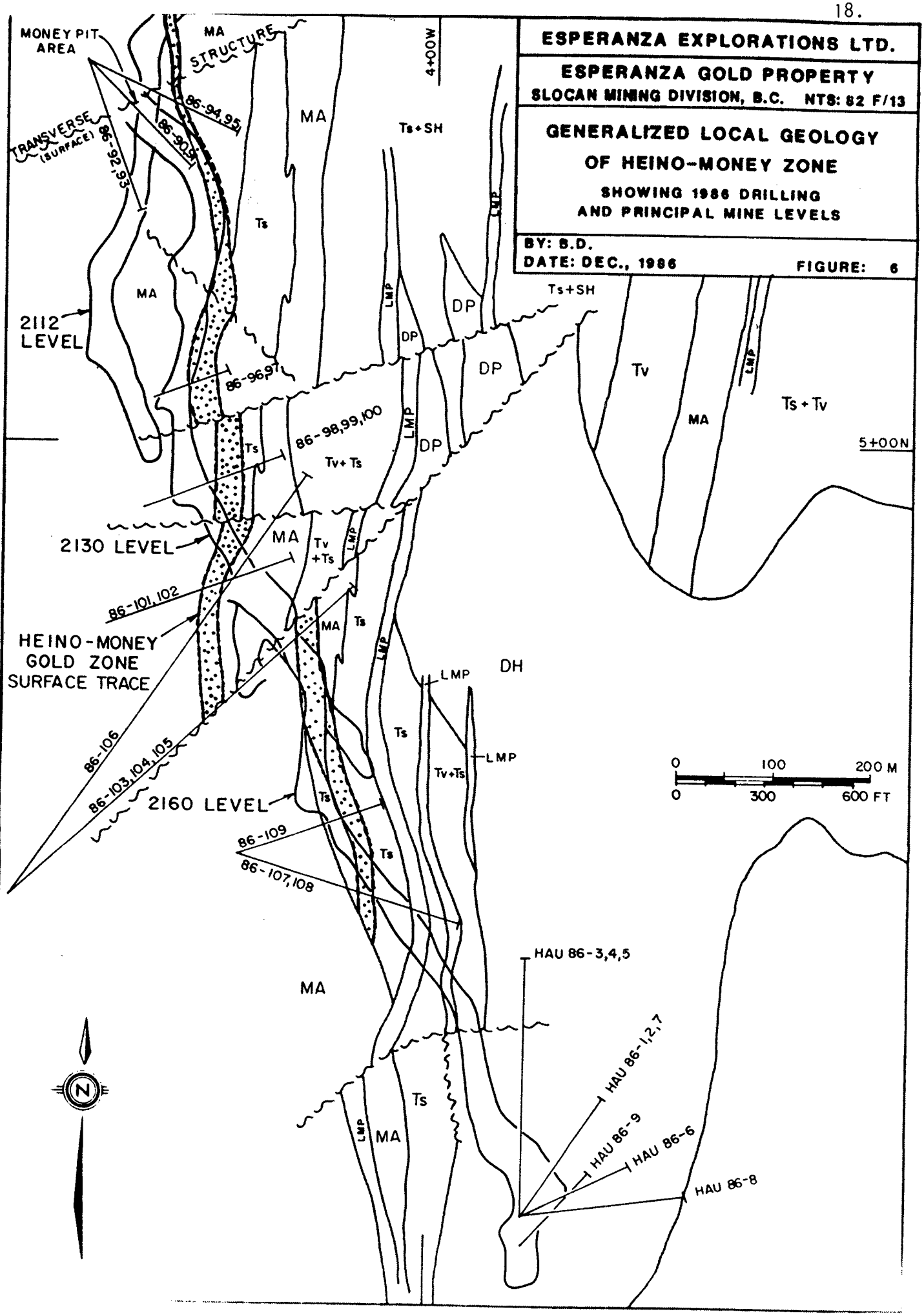
Diorite Porphyry is intrusive into the Milford-Slocan succession forming dykes and sills to 200m in thickness. These intrusives pre-date the Cretaceous Stocks and occur in swarms in the Tillicum Peak, Golden Hope and Silver Queen areas. The intrusive bodies have cores with medium-grained crowded porphyritic texture gradational into margins that are fine-grained and granular. Intense recrystallization and partial assimilation of the sedimentary units adjacent to the thicker porphyry sills has made contacts vague.

The Cretaceous age Goat Canyon and Halifax Creek stocks are intrusive into all the above mentioned units. The stocks are compositionally similar and are fine to medium-grained, hypidiomorphic granular quartz monzonite, granodiorite and quartz diorites with contaminated border phases of monzonite and diorite.

The youngest rocks on the property are narrow (less than 4 metres), northerly-trending, steeply-dipping lamprophyre dykes that are continuous along strike for hundreds of metres. Although present throughout the property, these dykes are concentrated in two swarms that cross through the EAST RIDGE and HEINO-MONEY gold zones.

Structure is complex and is dominated by steep angle normal and reverse faults. Most faults have little offsets, however, several faults with major displacements divide the property into fault-bounded blocks. Within fault-bound blocks, little evidence of folding exists. The metamorphic fabric of the rock closely parallels the bedding planes with minor or parasitic folding only very rarely observed.

Figure 6 is a simplified surface geological map of the HEINO-MONEY ZONE area, to which locations of both the 1986 drill holes and principal mine levels have been added. Also identified are the site of the original Money Pit showing (now the 2130 Level portal) and the "transverse" structure, as mapped on surface. The 1986 Exploration programs outlined two auriferous skarns at or near the contact between the Rossland Group metavolcanics and the tuffaceous volcanics/sediments of the Slocan Group. Gold bearing sulphide skarn mineralization, exposed in the Money Pit, occurs in the "transverse" fault which trends in an arcuate pattern through meta-andesite. The two zones appear to merge south and beyond the 2112 Level drift. The arcuate "transverse" also appears to terminate the north-south trending HEINO-MONEY skarn and possibly displace the gold bearing HEINO structure 100 metres to the east.


ESPERANZA EXPLORATIONS LTD.
ESPERANZA GOLD PROPERTY
SLOCAN MINING DIVISION, B.C. NTS: 82 F/13
GENERALIZED LOCAL GEOLOGY
OF HEINO-MONEY ZONE
SHOWING 1986 DRILLING
AND PRINCIPAL MINE LEVELS
BY: B.D.
DATE: DEC., 1986
FIGURE: 6
MONEY PIT AREA
MA STRUCTURE
TRANSVERSE (SURFACE)
86-94,95
86-90,91
86-92,93
4+00W
MA
Ts+SH
Ts
LMP
DP
2112 LEVEL
86-96,97
86-98,99,100
Tv+Ts
Tv
Ts+Tv
MA
5+00N
2130 LEVEL
Tv +Ts
86-101,102
HEINO-MONEY GOLD ZONE SURFACE TRACE
DH
86-106
86-103,104,105
2160 LEVEL
Tv+Ts
86-109
86-107,108
0 100 200 M
0 300 600 FT
HAU 86-3,4,5
HAU 86-1,2,7
HAU 86-9
HAU 86-6
HAU 86-8
N

GOLD-SILVER MINERALIZATION:

Gold occurs in calc-silicate, quartz skarns developed in metasedimentary and metavolcanics adjacent to or in close proximity to diorite porphyry sills. Skarn assemblages consist of quartz, plagioclase, tremolite-actinolite, clinozoisite, garnet, biotite and microcline. Skarns contain quartz-calc-silicate segregations, injections and veins that vary from less than 1cm to 3m thick. These segregations are generally conformable to the metamorphic fabric, although locally they display cross-cutting features.

Native gold occurs within the skarn assemblages as 25 micron disseminations to 1cm coarse flakes within and along the margins of the quartz-calc-silicate segregations. Skarns also contain variable amounts of pyrrhotite, pyrite, sphalerite, galena, as well as traces of chalcopyrite and tetrahedrite. The sulphides occur as fine disseminations oriented within the plane of the metamorphic foliation and as coarse-grained aggregates within the segregations. A petrographic study of polished thin sections undertaken by Ken Northcote (Tillicum 1982 Report) indicates that the gold is contemporaneous with pyrrhotite, pyrite, sphalerite, galena mineralization and pre-dates arsenopyrite and tetrahedrite crystallization. Colin Godwin (pers. comm.) has obtained a Jurassic lead-isotope age for galena mineralization from the Money Pit.

The silver content of the skarns is highly variable. Gold-rich skarns commonly have very low silver contents with silver-gold ratios of less than 1:1. Silver-rich skarns, such as the Silver Queen Zone, contain very low gold values. It is of significance that silver rich skarns are hosted in highly calcareous sediments which structurally overlie the volcanic sedimentary sequence that hosts the gold bearing skarns.

Exploration programs conducted during the period 1981-1984 targeted and drill tested three major gold-silver zones, as well as outlining numerous other showings on the Esperanza Property. High grade gold reserves in the order of 24,000 ounces were outlined in the HEINO-MONEY ZONE; in addition, a drill indicated reserve of over 5 million tons, grading 0.05 oz/ton gold was indicated within the EAST RIDGE ZONE; and over 3 million tons grading 3 oz/ton silver was outlined in the SILVER QUEEN ZONE. The 1985 and 1986 programs are focused on proving additional reserves within the Heino-Money Zone. For detailed descriptions of all mineralized zones on the Esperanza Property, please refer to Roberts and McClintock (1983), McClintock (1984), and Roberts (1986).

SURFACE DIAMOND DRILLING.

Beaupre Diamond Drilling Ltd. of Princeton, B. C., completed 2,003 feet of NQ drilling, of which 352 feet in six holes (86-90 to 86-95 inclusive) were drilled to intersect the gold-sulphide "transverse" structure which trends southwest across the 2130 Level portal area (site of the original Money Pit). The remaining 1,651 feet in 19 holes (86-96 to 86-109 inclusive) were drilled on the main HEINO-MONEY ZONE to better define the auriferous skarn zone prior to extending the 2130 Level (Money Adit).

True sections on all the drill holes showing assay intervals and values and geology appear as Figures 7(a) to 7(j) inclusive. Figure 9 is a plan view of all drill holes in the HEINO-MONEY ZONE. Values are stated as ounces per Ton for gold over the true width in feet. Also appearing on this map are the locations of the longitudinal section (Figure 15) and composte cross sections A-A' to I'I' + 5mN [Figures 17(a) to 17(e)]. A summary of the ore zone intercepts for the surface drill holes is provided in Table 1.

Drill holes 86-90 to 86-95 tested the "transverse" structure above the 2120 Level. Drilling showed the zone to trend 023° with a subvertical to 70°W making the zone more oblique to the main starn zone than previously thought.

In all six drill holes the skarn zone occurs entirely within meta-andesite. Gold grades of the skarn varied from 0.11 over 3 feet in hole 86-95 to 1.63 over 3.5 feet in hole 86-91. Although all gold mineralization is in skarn no direct correlation exists between skarn intensity and degree of silicification. In drill holes 86-94 and 86-95 low, but anomalous gold values are hosted in less intensely skarned andesite at the footwall contact of the skarn. The high-grade gold values in drill hole 86-92 occur in skarn andesite adjacent to quartz-rich skarn while in drill holes 86-90 and 86-91, best gold grades are in the most intense skarning and sulphide mineralization. In hole 86-90 visible gold occurs over a one foot interval (assay 5.28 oz/Ton) in skarn with minor disseminated sulphide content; the next foot in similar skarn assayed 0.18 oz/Ton) and the last 1.5 feet of the skarn, consisting almost entirely of quartz and massive sulphides, assayed 0.48 oz/Ton gold. The same quartz/massive sulphide sequence in hole 86-91 recorded a much better assay (1.04 oz/Ton gold) with the most intense skarn having the highest gold grades.

TABLE 1

SUMMARY OF SURFACE DRILL HOLE ORE ZONE INTERCEPTS

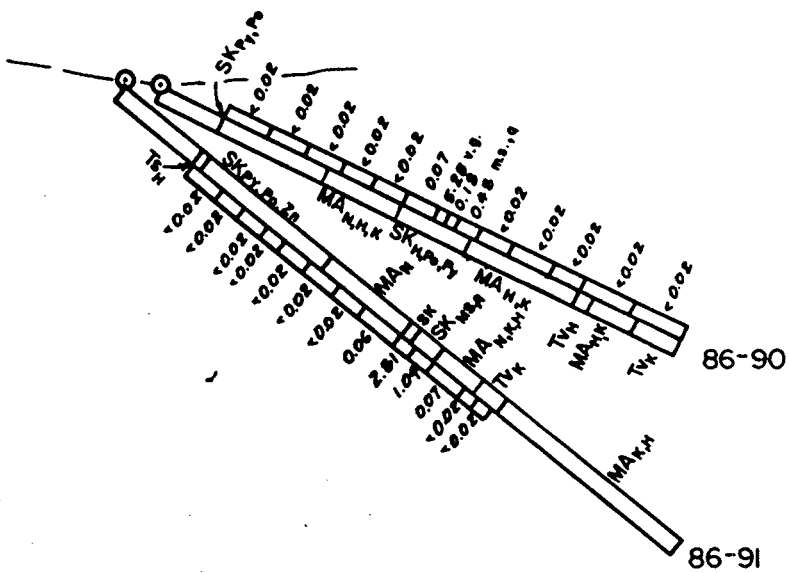
DRILL HOLE NO.	AZIMUTH	DIP	INTERVAL (Feet)	GRADE (WEIGHTED AVERAGE) (ounces/ton/foot)
86- 90	135°	-25°	26.0-30.0	1.60/4.0
86- 91	135°	-38°	32.0-35.5	1.63/3.5
86- 92	160°	-25°	42.0-47.0	1.00/5.0
86- 93	160°	-37°	51.0-53.5	0.16/2.5
86- 94	115°	-25°	22.6-25.0	0.22/2.4
86- 95	115°	-40°	29.0-32.0	0.11/3.0
86- 96	070°	-70°	28.3-30.3	0.26/2.0
86- 97	070°	-87°	-	-
86- 98	070°	-40°	31.6-38.4 (incl. 31.6-35.0	0.14/6.8 0.20/3.4)
86- 99	070°	-55°	49.7-56.5	0.29/6.8
86-100	070°	-75°	77.0-82.0	0.22/5.0
86-101	070°	-45°	67.5-74.0	0.10/6.5
86-102	070°	-55°	-	-
86-103	047°	-28°	120.1-123.6	0.18/3.5
86-104	047°	-35°	147.3-150.5	9.26/3.2
86-105	047°	-42°	158.0-161.0	0.04/3.0
86-106	035°	-33°	154.6-158.5	1.41/3.9
86-107	106°	-48°	-	-
86-108	106°	-54°	-	-
86-109	070°	-57°	72.0-74.0	0.09/2.0

The results described above are derived from relatively closely spaced intercepts within a single structure and emphasize the high variability of gold grades, sulphide content and alteration intensity of the skarn. Therefore, unless holes are closely spaced (<5m) drilling results should only be used to provide an indication of grade and to guide underground development. Definition of ore reserves requires a combination of closely spaced drilling andextensive underground sampling.

To this end, drill holes 86-96 to 86-106 inclusive, drilled on the HEINO-MONEY ZONE, were directed at filling in gaps between earlier drill holes and providing intercepts where subsequent drifting would be carried out. It was originally planned that all drill holes through the HEINO-MONEY ZONE would be drilled in fans parallel to previously established cross section lines A-A' to H-H', however, topography combined with extremely heavy rain made many of the proposed sites unsafe and forced drilling from sites off section lines. These new sites dictated hole orientation for holes 86-103 to 86-109 inclusive. Hole 86-102 was terminated prematurely because drill site fill slumped away; hole 86-106 provided the planned intercept. Additional drilling along strike beyond and at similar elevations as holes 86-103 to 86-105 inclusive was planned, but had to be eliminated when drill sites became unstable.

All holes except 86-97 and 86-102 (mentioned above) intersected the skarn zone at the meta-andesite/tuffaceous volcanics contact, as anticipated and documented by previous drilling. Grades varied from 0.04 oz/Ton gold over 3.0 feet (hole 86-105) to 9.26 oz/Ton gold over 3.2 feet (hole 86-104), the two extremes being only 18 feet apart. It was fortuitous, however, that the two best drill intercepts (holes 86-104 and 86-106) occurred at the 2130 Level. See Table 1 for a summary of drill hole assays.

Holes 86-107, 108 and 109 were drilled at the south end of the main skarn to define depth continuity of high grade gold mineralization outlined in hole 82-2. Holes 86-107 and 86-108 stopped short of the target area beyond lamprophyre dykes.



GOLD ASSAYS IN OUNCE/TON

ESPERANZA EXPLORATIONS LTD.

ESPERANZA GOLD PROPERTY

SLOCAN MINING DIVISION, B.C. N.T.S.: 82 F/13

DDH 86-90, 91

VIEW ON AZIMUTH 045°

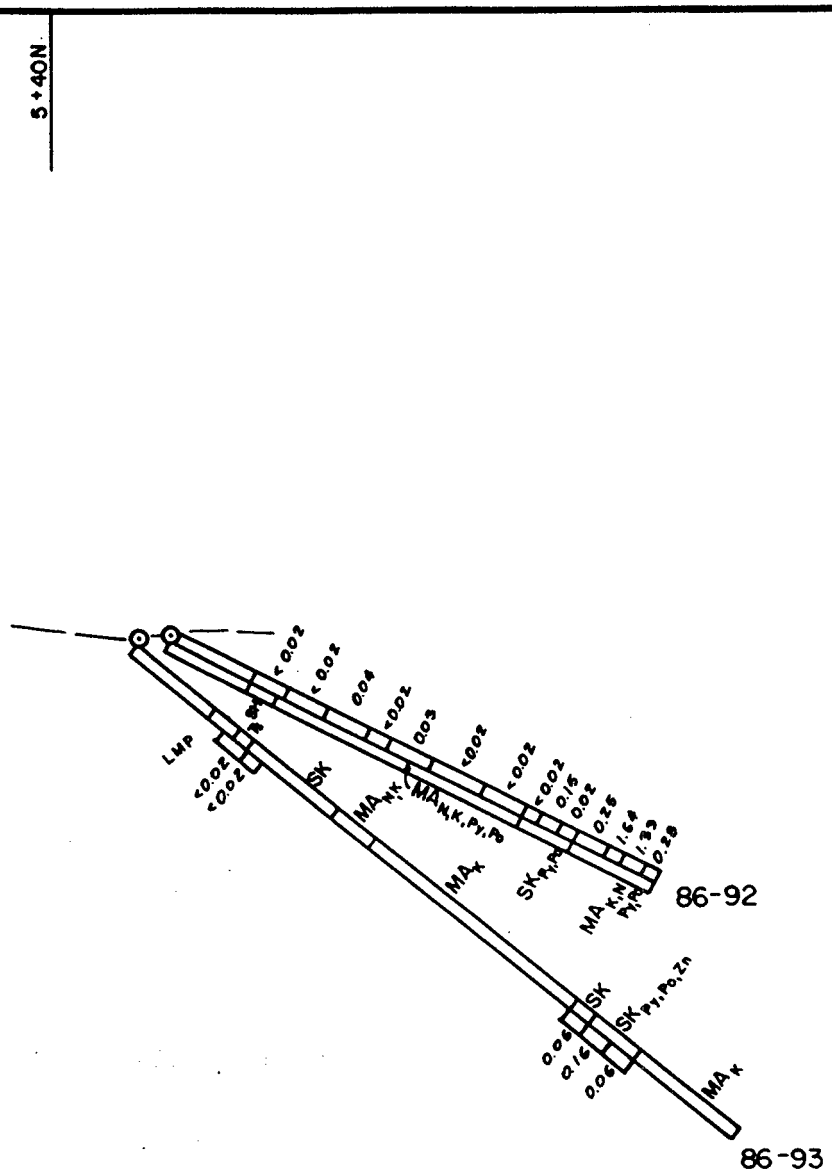
0 5 10m

1:200

BY: B.D.

DATE: DEC., 1986

FIGURE: 7 (a)



GOLD ASSAYS IN OUNCE/TON

ESPERANZA EXPLORATIONS LTD.

ESPERANZA GOLD PROPERTY

SLOCAN MINING DIVISION, B.C. N.T.S.: 82 F/13

DDH 86-92, 93

VIEW ON AZIMUTH 070°

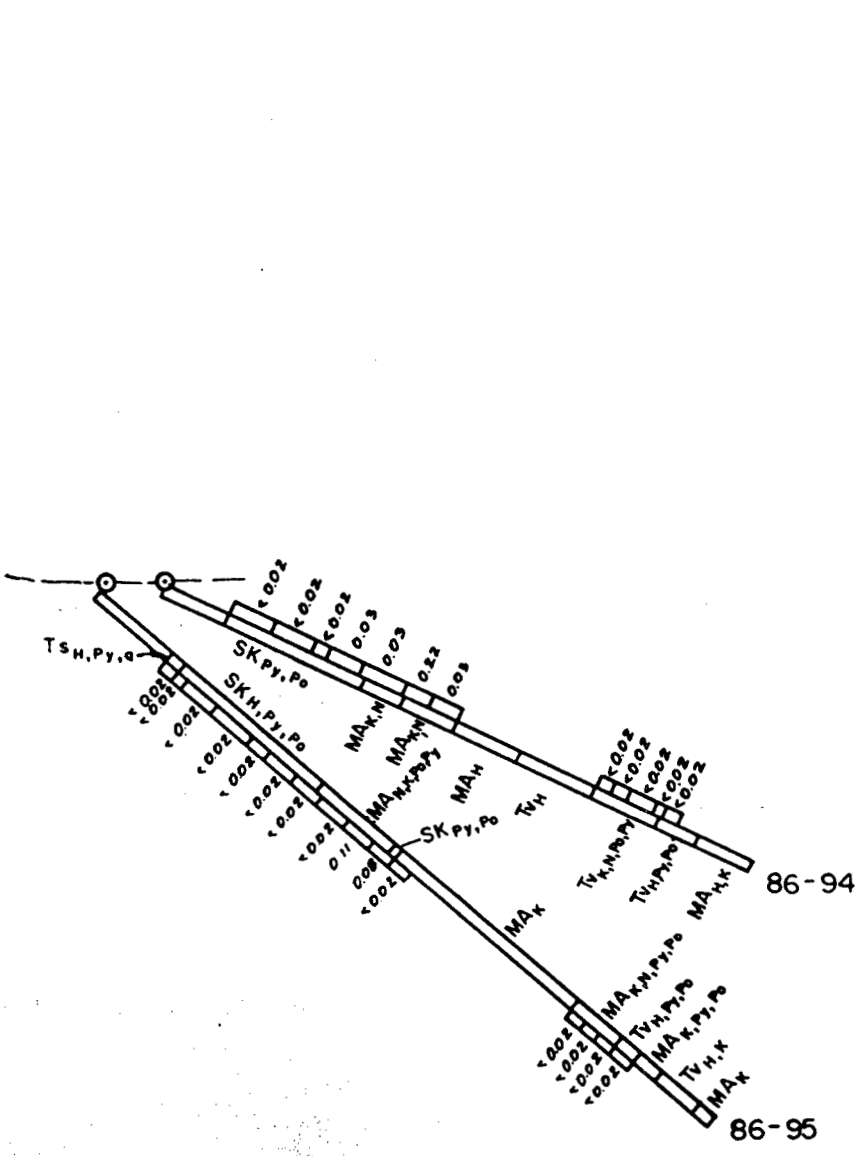
0 5 10m

1:200

BY: B.D.

DATE: DEC., 1986

FIGURE: 7(b)



GOLD ASSAYS IN OUNCE/TON

ESPERANZA EXPLORATIONS LTD.

ESPERANZA GOLD PROPERTY

SLOCAN MINING DIVISION, B.C. N.T.S.: 82 F/13

DDH 86-94, 95

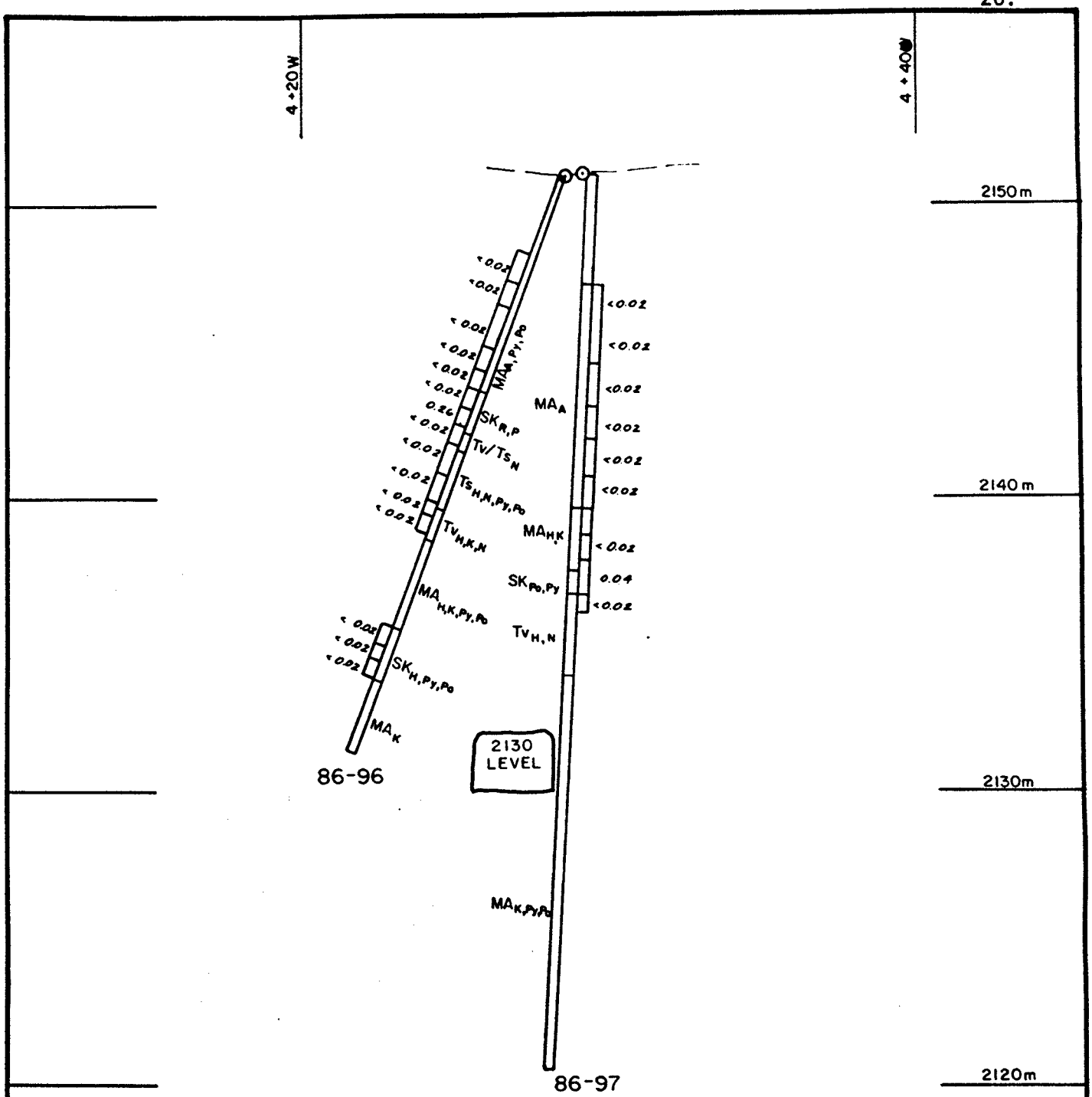
VIEW ON AZIMUTH 025°

0 5 10m

1 200

BY: B.D.

DATE: DEC., 1986 **FIGURE: 7 (c)**



GOLD ASSAYS IN OUNCE/TON

ESPERANZA EXPLORATIONS LTD.

ESPERANZA GOLD PROPERTY

SLOCAN MINING DIVISION, B.C. N.T.S.: 82 F/13

DDH 86-96, 97

VIEW ON AZIMUTH 160°

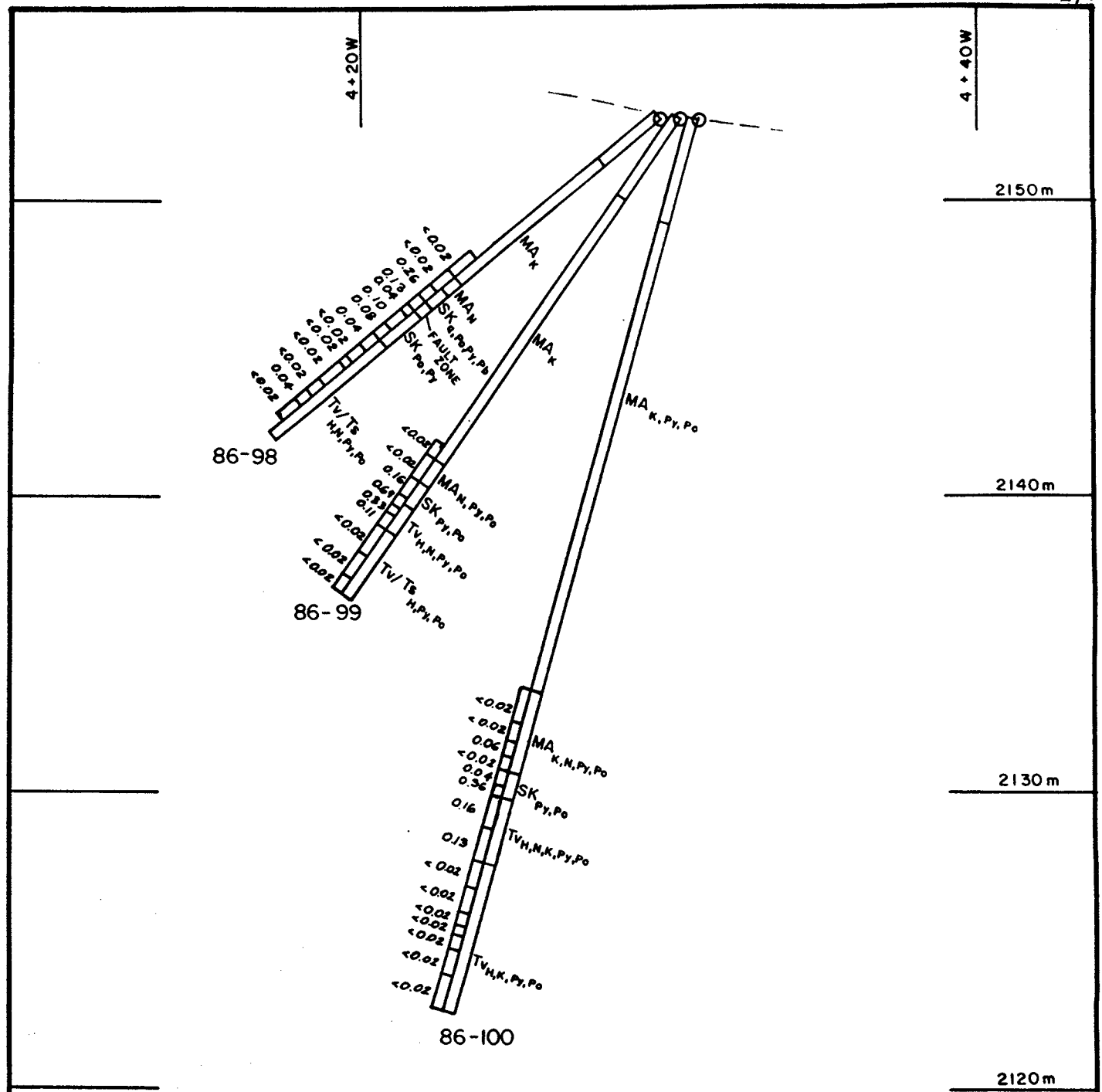
0 5 10m

1:200

BY: B.D.

DATE: DEC., 1986

FIGURE: 7 (d)



GOLD ASSAYS IN OUNCE/TON

ESPERANZA EXPLORATIONS LTD.

ESPERANZA GOLD PROPERTY

SLOCAN MINING DIVISION, B.C. N.T.S.: 82 F/13

DDH 86-98, 99, 100

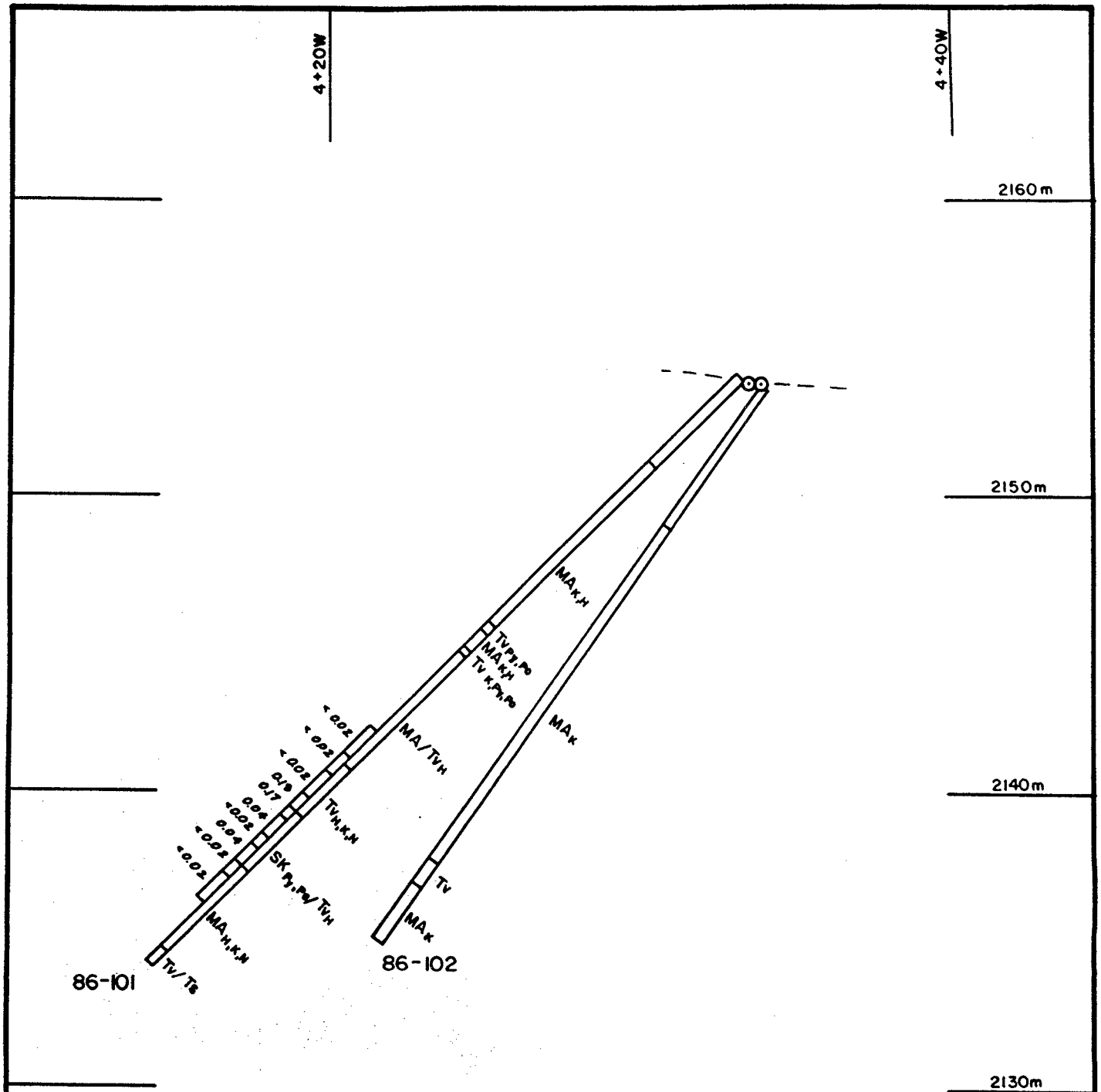
VIEW ON AZIMUTH 160°

0 5 10m

1:200

BY: B.D.

DATE: DEC., 1986 FIGURE: 7(e)



GOLD ASSAYS IN OUNCE/TON

ESPERANZA EXPLORATIONS LTD.

ESPERANZA GOLD PROPERTY

SLOCAN MINING DIVISION, B.C. N.T.S.: 82 F/13

DDH 86-101, 102

VIEW ON AZIMUTH 160°

LOOKING NORTH

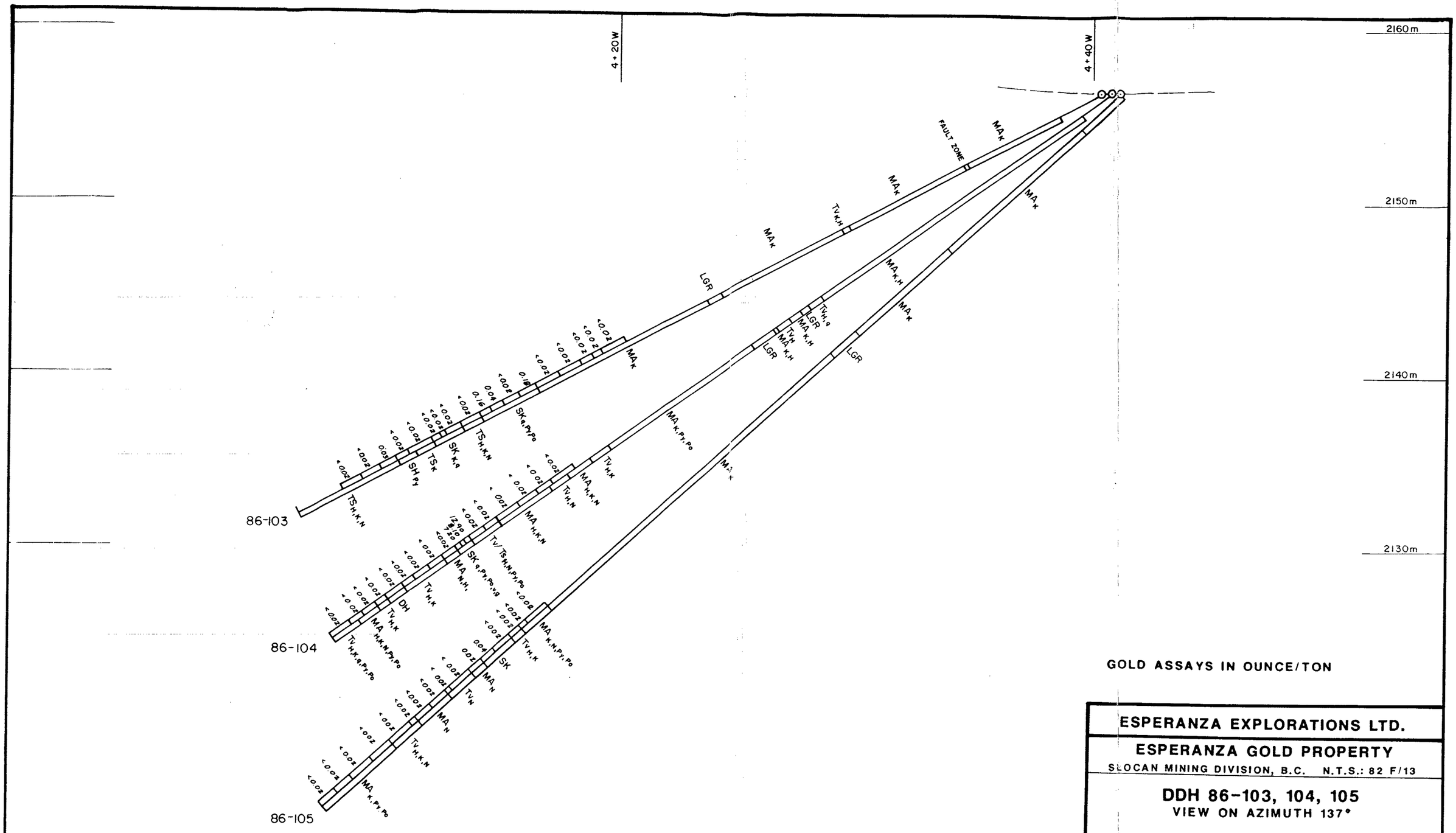
0 5 10m

1:200

BY: B.D.

DATE: DEC., 1986

FIGURE: 7(f)



GOLD ASSAYS IN OUNCE/TON

ESPERANZA EXPLORATIONS LTD.

ESPERANZA GOLD PROPERTY

SLOCAN MINING DIVISION, B.C. N.T.S.: 82 F/13

DDH 86-103, 104, 105

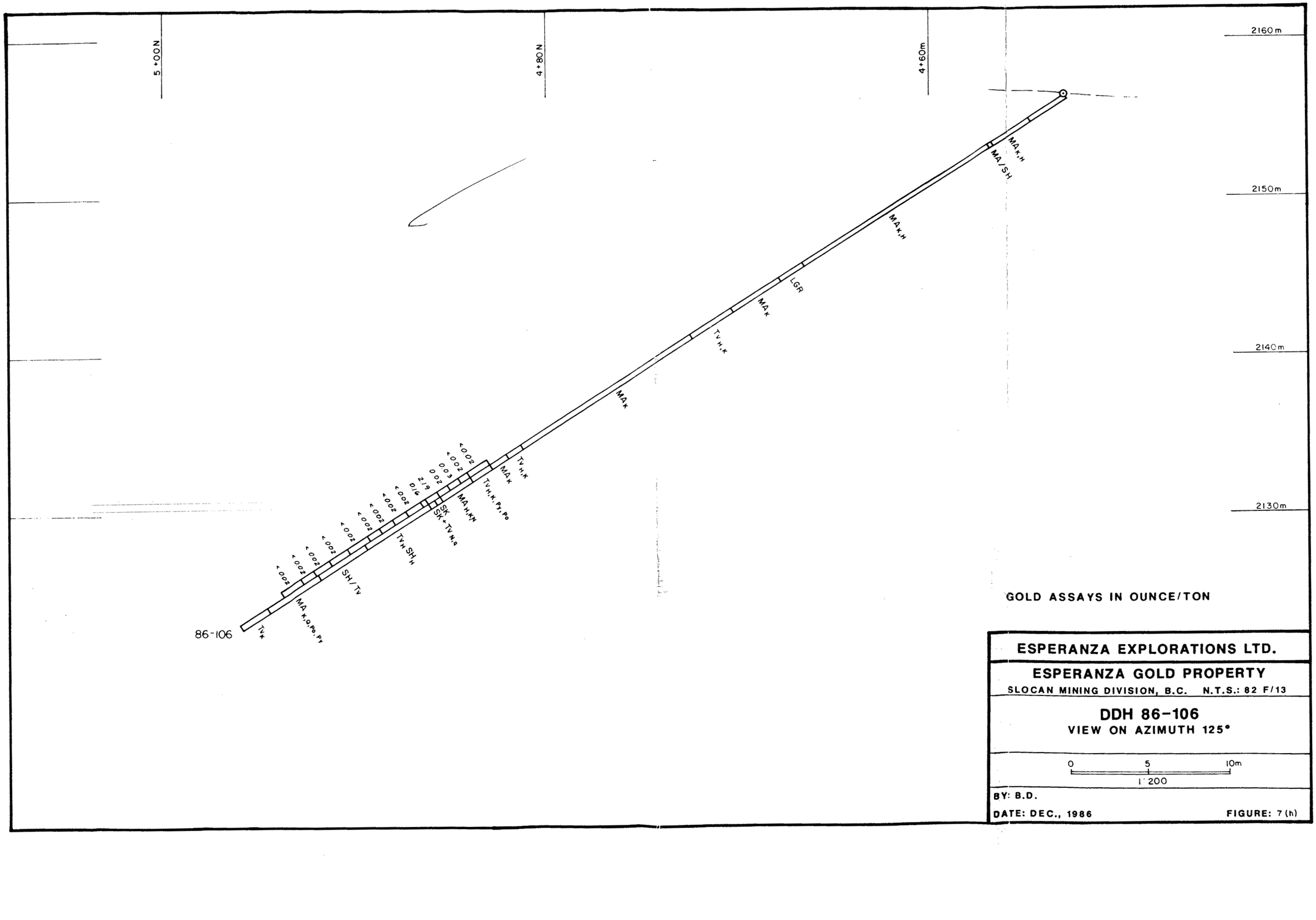
VIEW ON AZIMUTH 137°

0 5 10m

1:200

BY: B.D.

DATE: DEC., 1986 FIGURE: 7(g)



GOLD ASSAYS IN OUNCE/TON

ESPERANZA EXPLORATIONS LTD.

ESPERANZA GOLD PROPERTY

SLOCAN MINING DIVISION, B.C. N.T.S.: 82 F/13

DDH 86-106

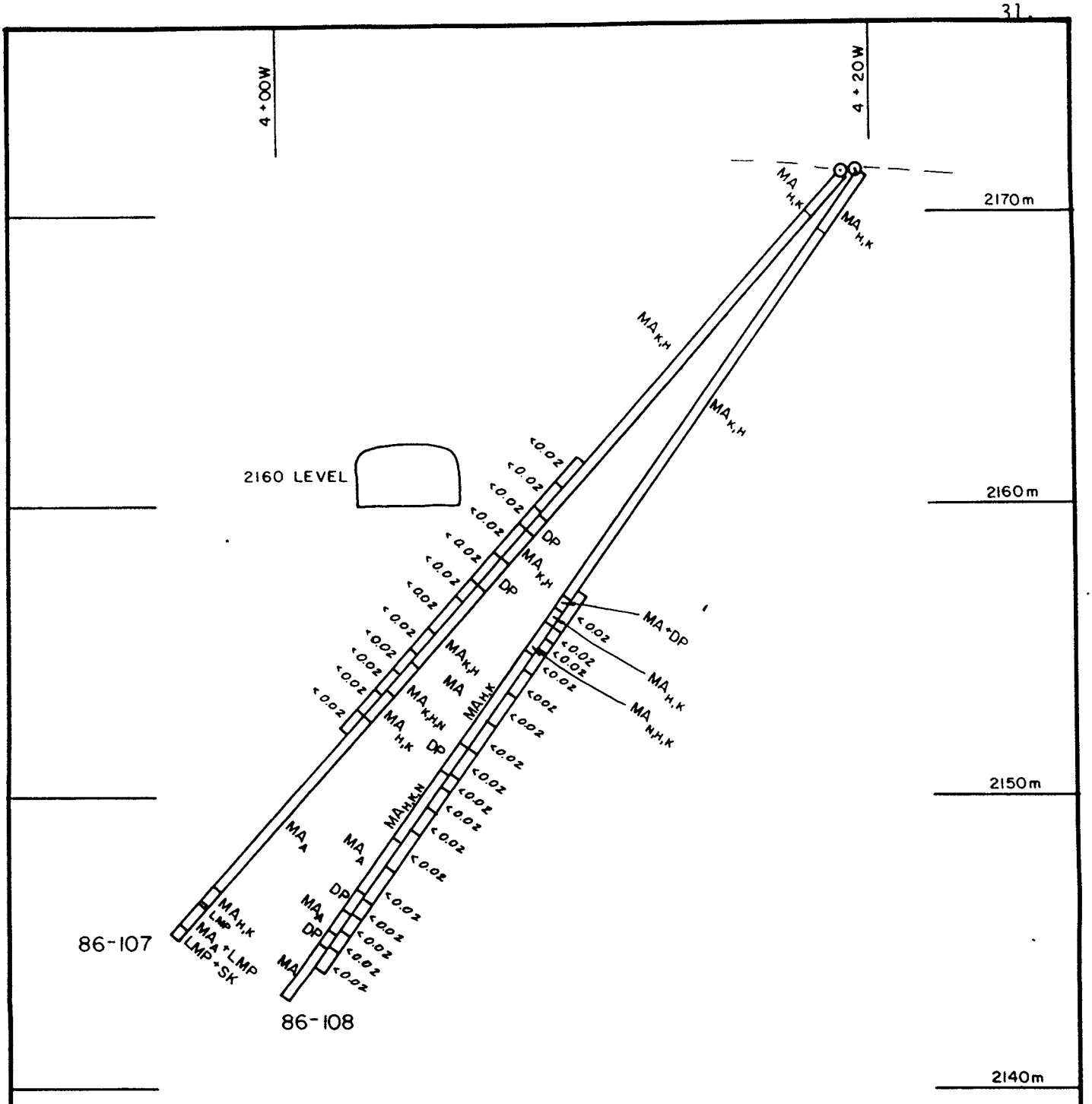
VIEW ON AZIMUTH 125°

0 5 10m

1:200

BY: B.D.

DATE: DEC., 1986 FIGURE: 7 (h)



GOLD ASSAYS IN OUNCE/TON

ESPERANZA EXPLORATIONS LTD.

ESPERANZA GOLD PROPERTY

SLOCAN MINING DIVISION, B.C. N.T.S.: 82 F/13

DDH 86-107, 108

VIEW ON AZIMUTH 196°

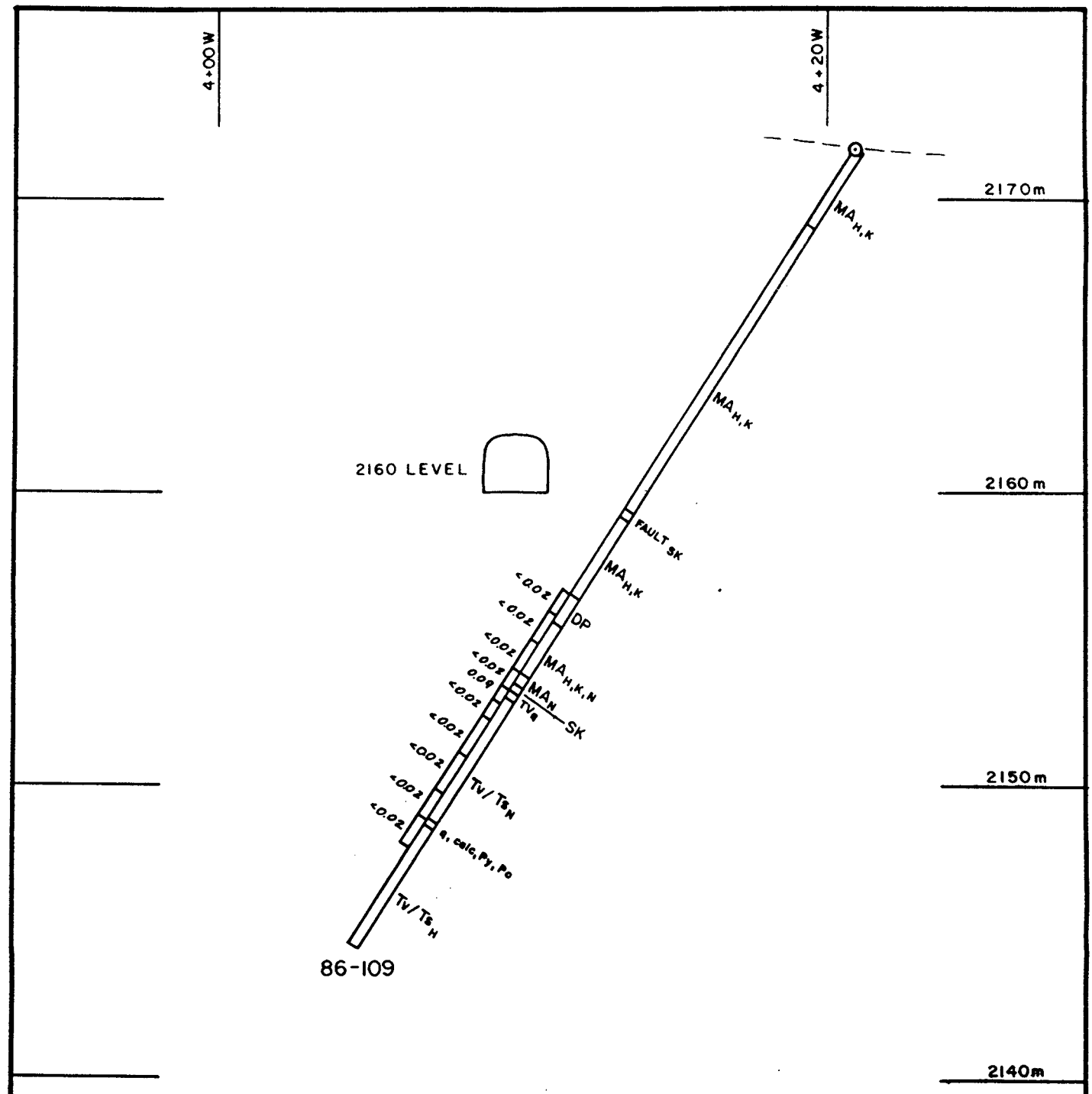
0 5 10m

1:200

BY: B.D.

DATE: DEC., 1986

FIGURE: 7(1)



GOLD ASSAYS IN OUNCE/TON

ESPERANZA EXPLORATIONS LTD.
ESPERANZA GOLD PROPERTY SLOCAN MINING DIVISION, B.C. N.T.S.: 82 F/13
DDH 86-109 **VIEW ON AZIMUTH 160°**
0 5 10m 1:200
BY: B.D.
DATE: DEC., 1986 FIGURE: 7(j)

UNDERGROUND DIAMOND DRILLING.

A limited underground drilling program of 580 feet in 9 holes was carried out by Exploration Core Drilling of New Denver, B. C. Slow penetration rates and numerous equipment breakdowns forced termination of a planned 800 foot contract. All drilling was done from two stations in a cross-cut at the south end of the 2160 Level (HEINO Adit). Size of the cross-cut limited orientation of drill holes.

In 1985, two raises were driven on high grade skarn, one on each side of a southerly trending lamprophyre dyke [see Figure 14(b)]. The underground drilling in 1986 evaluated strike and dip potential of high-grade gold mineralization mined above the 2160 Level. High-grade intercepts were recorded in holes HAU86-5, HAU86-8, with low grade values in holes HAU86-1 and HAU86-2. Hole 9 was terminated due to equipment breakdown before encountering any potential gold zones. Drill hole assays are summarized in Table 2.

These closely spaced holes reveal a complex geological and structural environment in which two parallel skarn zones are present. [Fig. 17(k) & (l)]. In addition to the main skarn zone at the contact between the andesite and tuffaceous sediments, a second skarn was identified within the meta-andesite. The meta-andesite hosted skarn was encountered in drill holes HAU 1,2,5,6 and 8 and 83-31. In each of these holes gold occurs in calc-silicate, altered andesite mineralized with pyrhotite, sphalerite, pyrite and lesser galena. Gold grades are spectacular in the zone attaining values to 59.25 oz/Ton over a true width of 3.3 feet. Proper delineation of this andesite hosted zone will require further drilling.

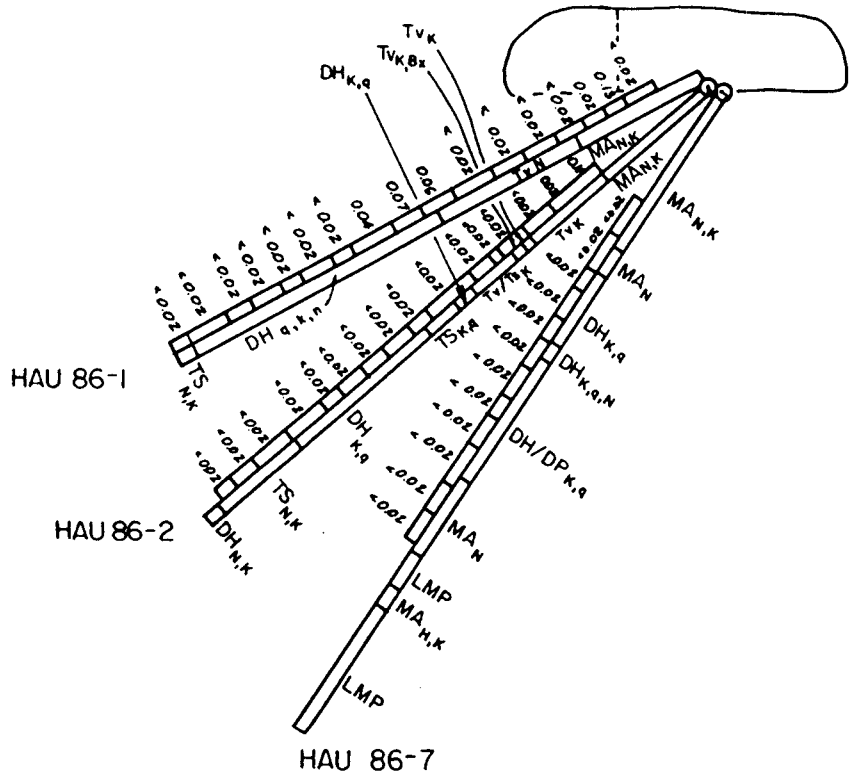
The main skarn zone was intersected in drill holes HAU 3, 4 and 8 and 83-31. Gold grades in the main skarn are generally lower than the andesite hosted skarn. With the exception of drill hole 83-31, all assays were less than 0.10 oz/Ton. Despite the low assays, the main skarn zone is well developed and the low values may only be a local phenomenum.

The limited amount of drilling completed clearly indicates the existence of high-grade gold-bearing zones down-dip from raises mined in 1985. Continued

TABLE 2

SUMMARY OF UNDERGROUND DRILL HOLE ORE ZONE INTERCEPTS

DRILL HOLE NO.	AZIMUTH	DIP	INTERVAL (Feet)	GRADE (WEIGHTED AVERAGE) (Ounces/ton/foot)
HAU86-1	034°	-28°	7.0-9.0	0.13/2.0
HAU86-2	034°	-40°	11.4-14.0	0.11/2.6
HAU86-3	000°	-30°	50.0-52.8	0.05/2.8
HAU86-4	000°	-40°	64.7-69.0	0.10/4.3
HAU86-5	000°	-55°	31.5-35.5	9.46/4.0
HAU86-6	064°	-55°	21.9-27.0 47.3-53.3	18.95/5.1 2.56/6.0
HAU86-7	034°	-55°	-	-
HAU86-8	082°	HORIZ.	1.7-5.0	59.25/3.3
HAU86-9	043°	-60°	-	-



GOLD ASSAYS IN OUNCE/TON

ESPERANZA EXPLORATIONS LTD.

ESPERANZA GOLD PROPERTY

SLOCAN MINING DIVISION, B.C. N.T.S.: 82 F/13

DDH HAU 86-1, 2, 7

VIEW ON AZIMUTH 124°

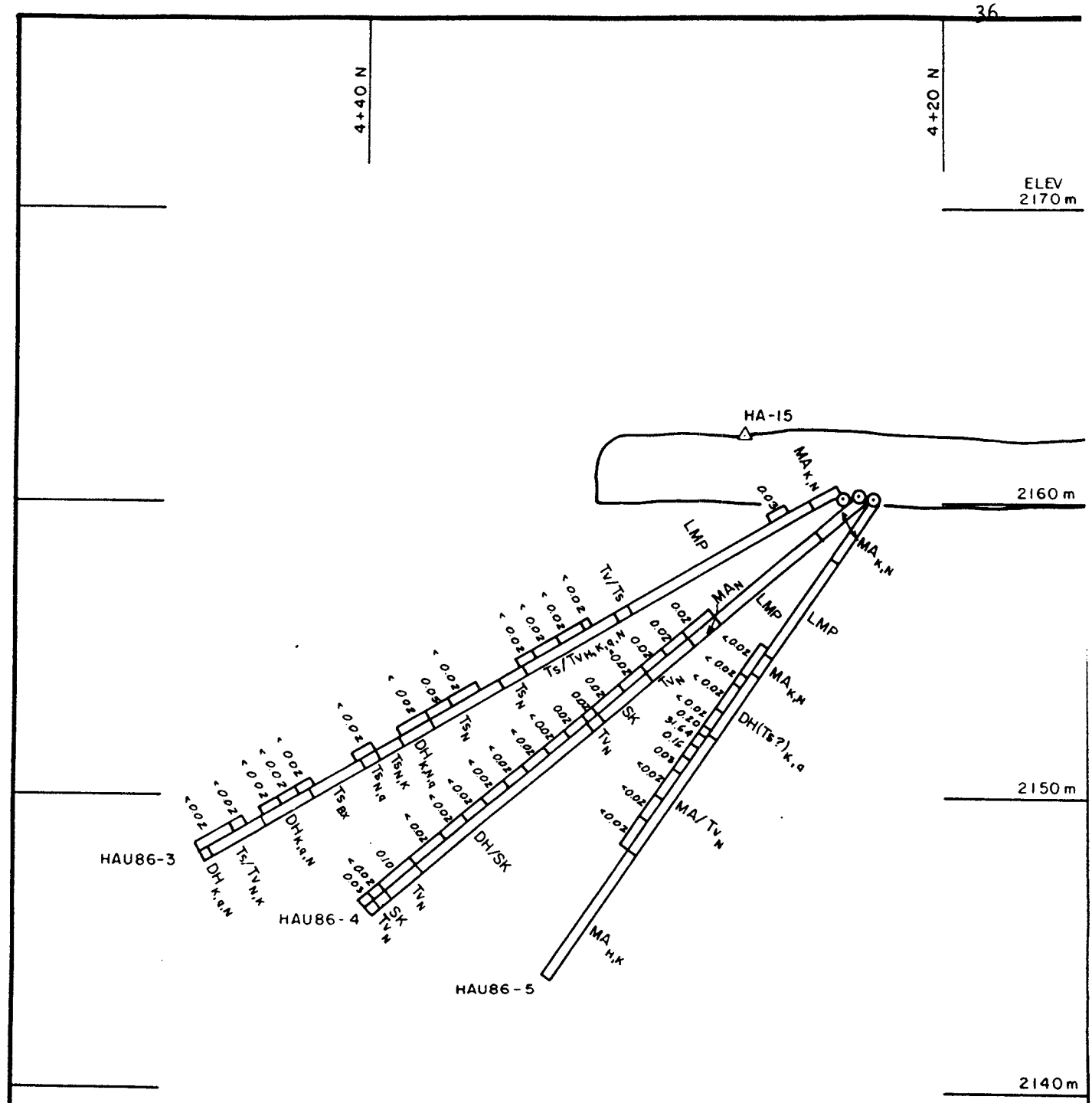
0 5 10m

1:200

BY: B.D.

DATE: DEC., 1986

FIGURE: 8(a)



GOLD ASSAYS IN OUNCE/TON

ESPERANZA EXPLORATIONS LTD.

ESPERANZA GOLD PROPERTY

SLOCAN MINING DIVISION, B.C. N.T.S.: 82 F/13

DDH HAU 86-3, 4, 5

VIEW ON AZIMUTH 090°

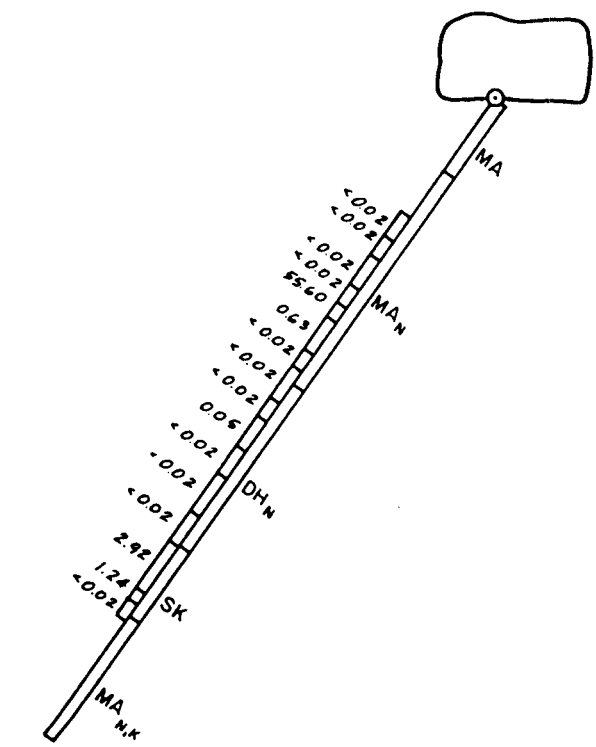
0 5 10m

1:200

BY: B.D.

DATE: DEC., 1986

FIGURE: 8(b)



HAU 86-6

GOLD ASSAYS IN OUNCE/TON

ESPERANZA EXPLORATIONS LTD.

ESPERANZA GOLD PROPERTY

SLOCAN MINING DIVISION, B.C. N.T.S.: 82 F/13

DDH HAU 86-6

VIEW ON AZIMUTH 154°

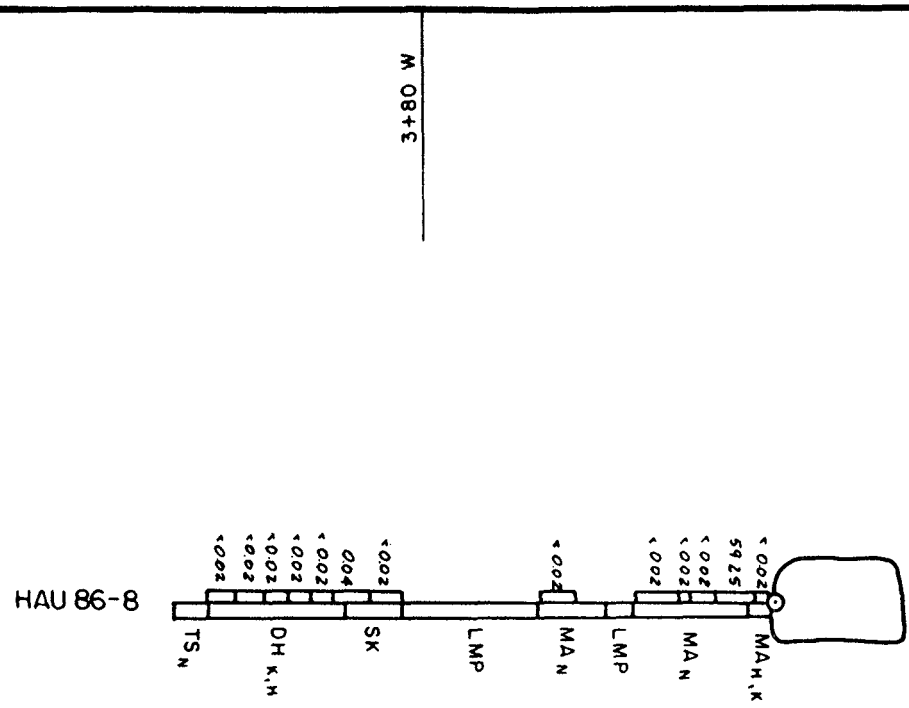
0 5 10m

1 200

BY: B.D.

DATE: DEC., 1986

FIGURE: 8(c)



GOLD ASSAYS IN OUNCE/TON

ESPERANZA EXPLORATIONS LTD.

ESPERANZA GOLD PROPERTY

SLOCAN MINING DIVISION, B.C. N.T.S.: 82 F/13

DDH HAU 86-8

VIEW ON AZIMUTH 172°

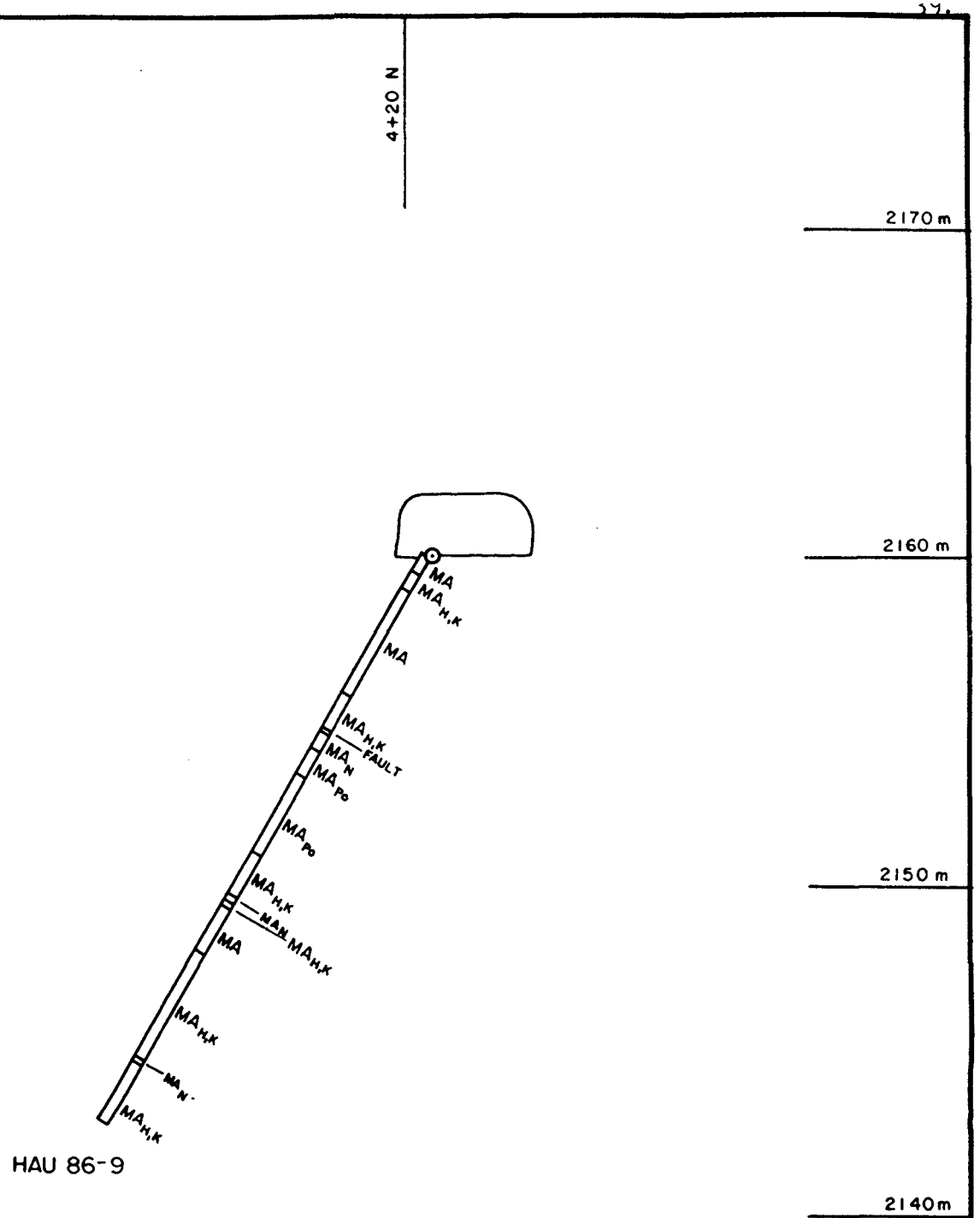
0 5 10m

1 200

BY: B.D.

DATE: DEC., 1986

FIGURE: 8(d)



ESPERANZA EXPLORATIONS LTD.

ESPERANZA GOLD PROPERTY

SLOCAN MINING DIVISION, B.C. N.T.S.: 82 F/13

DDH HAU 86-9

VIEW ON AZIMUTH 133°

0 5 10m

1:200

BY: B.D.

DATE: DEC., 1986

FIGURE: 8(e)

detail drilling from more suitably located stations is required to explore at depth and along strike to locate what are probably offset continuations of this zone. True sections of the underground drill holes appear in Figures 8(a) to 8(e) inclusive.

UNDERGROUND DEVELOPMENT.

Nemo Resources of New Denver, B. C. was contracted by Esperanza to complete a total of 510 feet of drifting, 155 feet of raising and 430 tons of slashing. In addition, 738 feet of test-holes were drilled with cuttings collected from 2 to 40 foot intervals.

The 2130 Level (Money Adit) collared in 1985 was extended, the 2136 Level (Money Adit Sub-level) was established by raising from 2130 Level, and the 2112 Level (Transverse Adit) was collared at surface. As well as the raise accessing 2136 Level to 2148 Level, a short exploration raise was driven above spectacular gold mineralization encountered in the Sub-level. The "Screamer" raise was driven from 2136 Level to 2148 Level to provide both ventilation and an escapeway, and an ore chute links 2130 and 2136 Levels underneath the "Screamer" raise. Several raise rounds plus slashes were taken in areas of high back sample assays in both the 2130 and 2112 Levels. Track-gauge is 24 inches on 2130 Level and 18 inches on 2112 Level.)

Figure 10 is a surface plan indicating location of the principal levels including the inactive 2160 Level (HEINO Adit), with respect to local topography. Geological, sample location and assay plans for the 2112, 2130, 2136 and 2160 Levels appear as a series of level plans [Figures 11(a) to 11(g) inclusive, 12(a) to 12(g) inclusive, 13(a) to 13(g) inclusive, and 14(a) & 14(b)]. A longitudinal section through the HEINO-MONEY ZONE (Figure 15) displays a compilation of drill intercepts, mining levels and assays averaged over pertinent lengths and volumes.

The 2130 Level, of which 75 feet was driven in 1985, was advanced an additional 180 feet [rounds 14 to 43, see Figure 12(a)]. The mineralized fault exposed in the 1985 program [see Figure 12(g)] was followed through round 19

where it becomes very tight and almost disappears. Recognition of an earlier surveying error relocated the drift some 4 metres (13 feet) further south. This prompted re-direction of the drift to the left to intersect the skarn zone defined by drill holes 83-27, 86-100, 86-106 and 86-104. The zone is first encountered in rounds 23 and 24, at which point the drift turns left again to follow the 145-150° trend. At the present face, the zone has been reduced to a narrow band of skarn-altered meta-andesite, however, it is still gold-bearing (0.12 oz/Ton gold over 1.31 feet). The drift successfully encountered all the above mentioned drill holes and passed through a particularly high-grade shoot (rounds 35 to 38 inclusive averaged 6.59 oz/Ton gold). Rounds 23 to 43, plus raise rounds and slash taken in high grade, averaged 1.61 oz/Ton gold in 570 Tons along 120 feet.

The 2136 Level was established to investigate the continuity of high-grades recorded in rounds 35 to 38 of the 2130 Level. The overall average of muck taken out of 2136 Level is lower, (0.38 oz/Ton gold in 421 tons along 119 feet) but certain areas in the drift did produce high grade values (round 11 north assayed 1.51 oz/Ton gold and a slash left in the fifth round of the raise accessing 2136 assayed 4.98 oz/Ton gold). The average is also diluted by the last round south which, to some extent, was taken outside the gold-bearing skarn. The grade variation and unpredictability that occurs within the skarn is evident on these two levels and is even more marked when one considers that spectacular free gold was found in a few quartz-rich segregations in skarn located in the east wall of 2136 Level (round 2 south) but that an "exploration" raise above rounds 2 and 3 south and a slash down the east wall to the face produced low to very low values. Virtually all the visible gold was carefully removed separately before any raising or slashing was done.

Results of development on the 2130 and 2136 Levels indicate that, although a clearly defined high-grade shoot with grade comparable to rounds 35 to 38 (2130 Level) cannot be pinpointed, the skarn zone in general carries significant gold values. Grades in the "exploration" raise averaged 0.05 oz/Ton but muck from the "Screamer" raise and the ore chute averaged 1.45 oz/Ton and 0.79 oz/Ton respectively.

The 2112 Level was driven without a drill-defined target at that level. It was felt, however, that the continuity of structure displayed in drilling and underground development on the HEINO-MONEY ZONE to date made this a worthwhile venture. This year's surface drilling on the "transverse" structure had reached the 2120 Level, indicating a mineralized zone dipping as steeply as sub-vertical, and the drift was directed accordingly to the area almost directly below the best holes (86-90 and 86-91). The skarn zone was successfully encountered and exposed along a drift length of 107 feet. Muck from rounds 15 to 34 averaged 1.63 oz/Ton gold in 570 tons over a drift length of 110 feet. Tables 3 to 6 summarize much tonnages used in grade calculations.

The skarn zone on this level occurs entirely within meta-andesite and has a distinctly overall higher sulphide content than on the other levels. A band ranging in width from two to fourteen inches, consisting of almost solid pyrrhotite, pyrite, galena, sphalerite and minor arsenopyrite and chalcopyrite, can be followed continuously from round 14 to round 30. Beyond round 30 the sulphides and skarn thin and at round 33 are abruptly cut off by a cross-cutting fault [see Figure 11(g)].

Outside the massive sulphide band there are occasional patches and lenses of massive sulphide that appear to be tangential off shoots of the main structure. During the course of development work it was sometimes unclear which trend was the principal one and slashes were taken both to the left and right to expose them. It now seems apparent that the once "transverse" trend turns and aligns itself with the HEINO-MONEY ZONE in rounds 22 and 23; as one approaches the face it bears to the east. In plan view the 2112 Level face is about 3 metres (10 feet) west of both the north face of 2137 Level and the point where 2130 Level intersects the skarn zone; strong concentrations of massive sulphides, which are not characteristic of the upper levels, are evident at these points also.

Future development on 2112 Level should explore the area immediately east of the present face to locate the skarn zone which, based on the evidence in higher levels, will be found at or near the meta-andesite/tuffaceous

TABLE 3

SUMMARY OF MUCK ROUND TONNAGES AND ASSAYS USED IN GRADE CALCULATIONS (2112 LEVEL)

ROUND NO.	TONS	SAMPLE NO.	ASSAY (oz/ton)
15	20.60	31963	0.72
16	18.00	31968	0.52
17	16.90	31973	0.02
18	19.40	31977	0.19
19	20.00	31981	0.17
20	17.50	31986	0.21
21	20.00	31990	0.46
22	20.60	31994	12.10
22 Slash	8.75	31999	0.83
23	21.25	32000	9.20
23 Slash	6.90	21751	6.30
24	18.75	21754	0.42
25	16.90	21759	3.17
26	18.00	21763	0.74
27	16.25	21767	0.21
28	10.00	21770	0.24
25-28 Slash	12.50) 13.75) 26.25	21771 21772	1.03) 0.29) 0.64
28 Slash	7.50	21778	0.28
29 + Slash	21.90) 11.25) 33.15	21807 21810	0.18) 0.51) 0.29
25 Raise	10.00	21811	0.23
30 + Slash	23.75	21812	0.61
31	19.40	21820	0.68
32 + 31 Slash	24.00	21825	0.46
33	22.50	21831	0.06
34	28.75	21837	0.02
High grade raise rounds & slashes	12.25	21651	1.48
	12.25	21652	9.10
	12.25	21653	0.32
	3.75	21654	0.29

TABLE 4

SUMMARY OF MUCK ROUND TONNAGES AND ASSAYS USED IN GRADE CALCULATIONS (2130 LEVEL)

ROUND NO.	TONS	SAMPLE NO.	ASSAY (oz/ton)
23	21.25	31555	0.15
24	21.90	31562	0.32
24 Slash	20.00 (est.)	31563	0.106
25	15.00 (est.)	31569	0.18
26	20.00 (est.)	31583	0.185
27	20.00 (est.)	31584	0.30
28	20.00 (est.)	31591	0.21
29	20.00 (est.)	31599	0.79
30	20.00 (est.)	31607	0.32
31	24.00 (est.)	31617	0.26
32	20.00	31624 31625	0.13) 0.07) 0.10
33	20.00	31632	0.44
34	20.00	21639	0.82
35	20.00	31640	12.97
36	23.25	31665	10.13
37 + 36 Slash	26.25	31672	2.58
38	20.00	31690	1.36
39	19.40	31695	0.53
40	23.40	31699	0.44
41 + 41 Slash	26.90	31717	0.06
42	21.25	31722	0.03
43	20.00 (est.)	-	0.02 (est.)
Drift Clean-up	6.25	31824	1.07
High grade raise rounds & slashes	10.6	31836 21840	1.44) 1.47) 1.46
	12.25	21655	0.94
	12.25	21656	2.45
	6.25	21657	2.09
	12.25	21658	7.26
	21.25	21059	0.98
	3.75	21660	0.23
	12.50	21664	1.29
	13.75	21665	0.73
	[illegible]	21666	1.31

TABLE 5

SUMMARY OF MUCK ROUND TONNAGES AND ASSAYS USED IN GRADE CALCULATIONS (2136 LEVEL)

ROUND NO.	TONS	SAMPLE NO.	ASSAY (oz/ton)
Access Raise 4	15.90	31757	0.17
Access Raise 5	8.75	31758	0.12
Access Raise 5 Slash	10.00	31759	4.98
1N + Slash	21.90	31769	0.14
1S + Slash	16.25	31770	0.21
2S	16.25	31791 31799	0.24) 0.88) 0.56
3S	17.50	31792	0.18
4S	16.25	31800	0.15
5S	17.50	31853	0.02
2-5S Slash	33.75	31855	0.07
1 & 2N Slash	17.50	31880	0.22
2N Slash	15.00	31884	0.35
3N	13.75	31885	0.46
4N	17.50	31902	0.33
5N	11.25	31905	0.14
6N	15.00	31916	0.13
7N	18.75	31924	0.18
8N + 7 Slash	24.00	31937	0.18
9N	16.25	31938	0.20
10N	17.00	31942	0.31
11N	12.50	31946	1.51
12N	16.25	31950	0.65
13N	13.75	31957	0.36
14N	13.75	31959	0.41

TABLE 6

SUMMARY OF MUCK TONNAGES AND ASSAYS USED IN GRADE CALCULATIONS
("EXPLORATION" RAISE, SCREAMER RAISE, ORE PASS)

"EXPLORATION" RAISE:

ROUND NO.	TONS	SAMPLE NO.	ASSAY (oz/ton)
1	12.50	31859	0.06
2	5.00	31863	0.03
3	6.25	31864	0.04

SCREAMER RAISE:

ROUND NO.	TONS	SAMPLE NO.	ASSAY (oz/ton)
-	12.50	31995	5.25
-	12.50	21758	0.42
-	12.50	21762	0.08
-	20.00	21814	0.58

ORE PASS:

ROUND NO.	TONS	SAMPLE NO.	ASSAY (oz/ton)
-	13.75	21808	0.80
-	13.75	21813	0.78

volcanics contact. Extrapolation of the sub-vertical structure from 2130 Level and the zone's gentle bearing to the east side of 2112 Level supports the likelihood that the main skarn zone lies to the east.

ORE RESERVES.

The probable geological ore reserves of the HEINO-MONEY ZONE are estimated to be 8,056 tons grading 1.320 ounces gold per ton using a 0.102 per ton cut-off and a minimum thickness of 4 feet. These reserves can be subdivided into three separate zones or shoots known as: MONEY or "transverse", SCREAMER and HEINO Shoots.

MONEY	3,432	tons grading	1.022	oz. gold/ton (probable)
SCREAMER	3,324	tons grading	0.969	oz. gold/ton (probable)
HEINO	1,300	tons grading	3.00	oz. gold/ton (drill indicated)
	8,056	tons grading	1.32	oz. gold/ton

Ore reserves were calculated by projecting the ore zones on to a longitudinal section and subdividing the zones into 16 separate blocks based on location of underground sampling and drill holes (Figure 16).

Grades of individual blocks were assigned using the weighted average values obtained from muck, back and floor sampling of the underground or surface workings bounding the blocks. Drill hole assays in blocks defined by underground sampling were used to confirm continuity of the zone, but were not included in the calculation of the grades of blocks. This procedure is believed justified because back sampling is more detailed and therefore representative of the average grade of the skarn.

Tonnage of individual blocks were calculated by determining the area of each block using a planimeter then determining volume by multiplying by thickness. The volume of blocks was converted to contained tonnes using a factor of 3 tonnes per cubic metre. Conversion of tonnes to tons was achieved by multiplying tonnes by a factor of 1.1023. Tonnages and grades of the blocks used in the calculations are summarized in Table 7.

ESPERANZA EXPLORATIONS LTD.

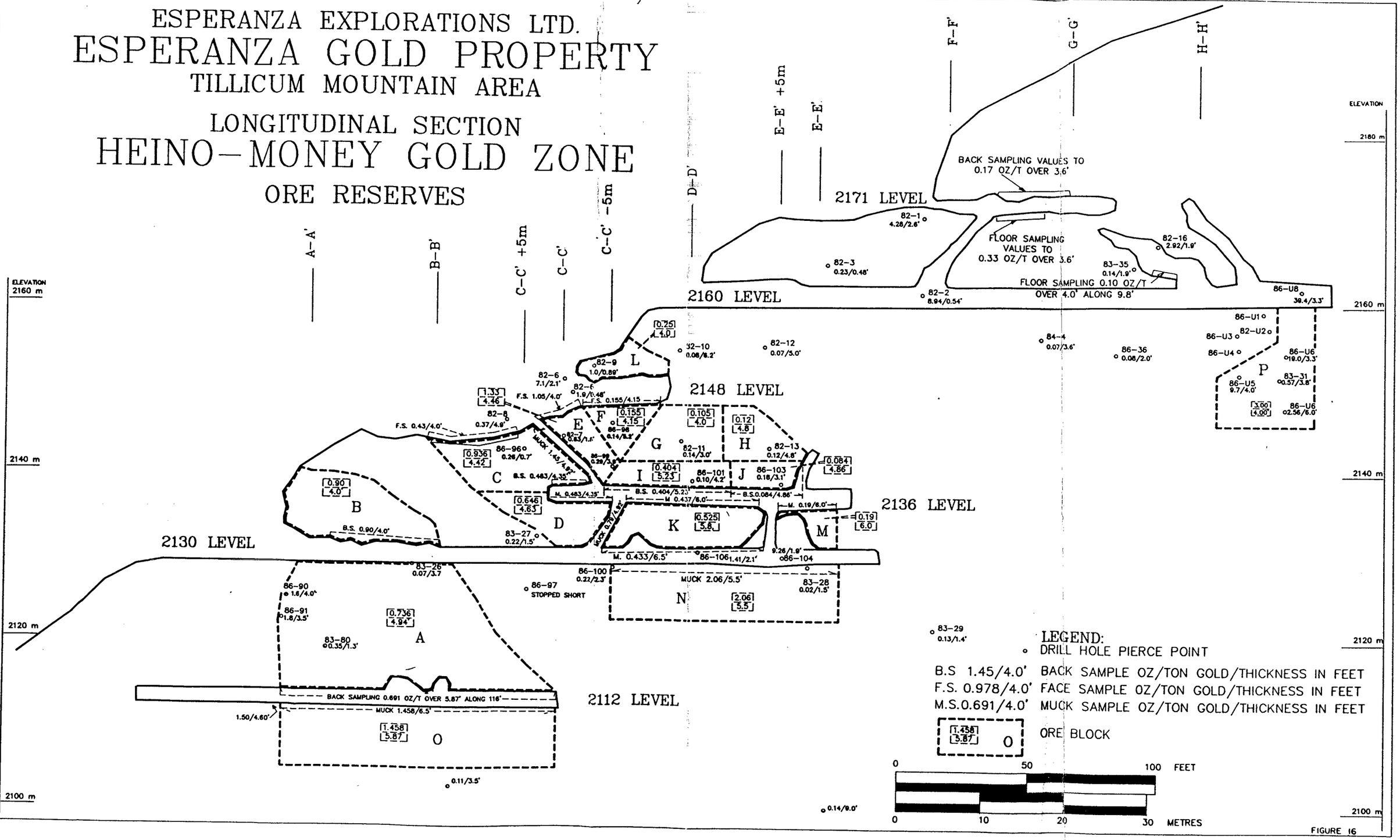
ESPERANZA GOLD PROPERTY

TILLICUM MOUNTAIN AREA

LONGITUDINAL SECTION

HEINO–MONEY GOLD ZONE

ORE RESERVES



LEGEND:

- ∘ DRILL HOLE PIERCE POINT
- B.S 1.45/4.0' BACK SAMPLE OZ/TON GOLD/THICKNESS IN FEET
- F.S. 0.978/4.0' FACE SAMPLE OZ/TON GOLD/THICKNESS IN FEET
- M.S.0.691/4.0' MUCK SAMPLE OZ/TON GOLD/THICKNESS IN FEET
- 1.458 / 5.87 O ORE BLOCK

0 50 100 FEET

0 10 20 30 METRES

FIGURE 16

TABLE 7

SUMMARY OF TONNAGES AND GRADES OF BLOCKS USED IN ORE RESERVE CALCULATION

BLOCK	ZONE	AREA *(m^2)	THICKNESS	TONNES+	TONS[a]	GRADE	CONTAINED OUNCES GOLD
A	MONEY	378	1.5	1,701	1,875	0.736	1,380.0
B	MONEY	63	1.4	231	255	0.900	229.5
C	SCREAMER	82	1.35	111	122	0.936	114.2
D	SCREAMER	40	1.41	186	205	0.646	132.4
E	SCREAMER	40	1.36	163	180	1.335	240.3
F	SCREAMER	42	1.26	159	175	0.155	27.1
G	SCREAMER	58	1.22	212	234	0.105	24.6
H	SCREAMER	46	1.46	201	222	0.120	26.6
I	SCREAMER	49	1.59	235	259	0.404	104.6
J	SCREAMER	85	1.48	126	139	0.084	11.7
K	SCREAMER	80	1.77	424	467	0.535	249.8
L	SCREAMER	30	1.22	109	120	0.250	30.0
M	SCREAMER	19	1.82	103	114	0.190	21.7
N	SCREAMER	196	1.68	986	1,087	2.06	2,239.2
O	MONEY	220	1.79	1,181.4	1,302	1.458	1,898.3
P	HEINO	967	1.22	1,179	1,300	3,000	3,900.0
					8,056		10,630.0

$$\text{Average grade} = \frac{10630}{8056} = 1.320$$

* Determined With Planimeter

\+ Tonnage Factor 3

[a] Conversion: tonne x 1.1023 = ton

CONCLUSIONS AND RECOMMENDATIONS.

The programs of surface and underground drilling, drifting and raising carried out in 1986 on the HEINO-MONEY ZONE outlined probable reserves of 6,756 tons grading 0.996 oz/Ton gold and drill-indicated reserves of 1,300 tons grading 3.00 oz/Ton gold within the area of drill-indicated reserves of 40,000 tons grading 0.60 oz/T gold (calculated by Roberts in 1984). Underground development outlined continuity of high-grade gold values and provided encouragement for development and exploration to achieve our goal of production.

Surface drilling provided fill-in intercepts between previous holes as well as targets for extension of 2130 Level. Drilling of the MONEY or "transverse" zone provided sufficient encouragement to establish the 2112 Level drift. An underground drilling program was partially completed with several intercepts of high-grade gold recorded in a structurally and geologically complex area down-dip from high-grade raises mined in 1985 on 2160 Level. The scope of drilling was limited by drill station size and the program was terminated prematurely due to slow penetration rates and numerous equipment breakdowns.

All future drilling on the HEINO-MONEY ZONE should be completed from underground. The unpredictable and highly variable nature of gold grades necessitates numerous,closely spaced drill holes that can no longer be drilled in a cost-effective manner from available surface sites.

Underground development successfully established strike and dip continuity of the HEINO-MONEY ZONE. The muck rounds with assays exceeding 0.15 oz/T gold were stockpiled. The 2130 Level was extended and outlined a 90 foot interval of the skarn from which muck samples average 2.06 oz/Ton.

It had been previously postulated that high-grade shoots may plunge southerly at moderate angles within the sub-vertical, southerly striking skarn zone. Development of the 2136 Level did not define a continuous high grade shoot extending from 2130 Level but did encounter isolated sections

of the skarn having grades 1.0 oz/Ton. However, sample of muck from the 2130, 2136 and from raises and mill holes between these levels and surface, demonstrated that the skarn as a whole does contain gold values in excess of 0.8 oz/Ton gold. This implies that rather than selective mining of higher grade pockets of ore, all skarn should be considered for mining. Mining of lower grade ore will require on site milling.

Work to date outlined depth continuity of the HEINO-MONEY ZONE below the 2112 Level and along strike beyond the south end of 2160 Level. Advance of both 2130 and 2112 Levels is required to permit establishment of drill stations from which closely spaced diamond drill holes can locate the skarn zone. Excavation of drill stations on the 2112, 2130 and 2160 Levels as far south as the 2160 Level could potentially add a further 17,000 tons of ore in excess of 0.8 oz/Ton to the existing probable reserve.

The level of financing available, together with the kind of mine development plan adopted will dictate the extent of reserve definition. The existing workings are in the skarn zone, which although allowing ready access to ore for milling, excludes use of these workings for exploration and development of additional reserves. In order for these workings to be used for both functions careful scheduling of work will be required. Future development will require mine engineering and planning that includes production mining to proceed in conjunction with advancement of gold reserves.

Respectfully submitted,

B. DEWONCK

J. McCLINTOCK

W. J. ROBERTS

December, 1986.

ESPERANZA EXPLORATIONS LTD.
ESPERANZA GOLD PROPERTY
1986 EXPLORATION COSTS
(AS AT NOVEMBER 30, 1986)

DESCRIPTION	EXPENDITURES	
UNDERGROUND		191,058.63
PROPERTY TRANSPORTATION		41,791.94
GENERAL OPERATING:		
Analyses-Assays	41,722.52	
Camp Maintenance	32,495.80	
Consulting-Geological	1,087.21	
Expediting	4,884.18	
Drilling	44,909.35	
Field Supplies	15,721.02	
Maps, Prints & Drafting	6,319.59	
Property Maintenance	2,499.76	
Salaries	177,823.72	
Surveys-Control	3,345.46	
Transportation-Airlines	2,100.22	
Transportation-Freight	3,140.91	
Transportation-Helicopter	1,020.95	
Transportation-Vehicle	18,739.08	
Trenching & Roads	30,070.50	
Miscellaneous	2,286.50	
Total Operating Costs		388,166.77
VENDOR'S ROYALTY		41,002.25
Total:		$662,009.59

BIBLIOGRAPHY

Addie, C.G. (1981): Tillicum Mountain Gold Prospect - A Self Potential (SP) Test. Private Report

Brock, J.S., J.D. Guild and W.J. Crawford (1981): 1981 Exploration Report - Tillicum Property, Assessment Report.

Cairnes, C.E. (1934): Slocan Mining Camp, British Columbia. Geol. Surv., Canada, Mem. 173.

Drown, T.J. (1985): Money Adit Drifting Program, Tillicum. Unpublished, Private Report.

Dewonck, B. (1986): Proposed 1986 Exploration and Development Program - Tillicum. Unpublished, Private Report.

Guild, J.D., and Vincent, J.S. (1982): Exploration Report - Tillicum Property. Assessment Report.

Hyndman, D.W. (1968): Petrology and Structure of Nakusp Map-area, British Columbia, Geol. Surv., Canada, Bull. 161, pp. 95.

Kwong, Y.T.J. (1985): The Tillicum Mountain Gold Property - A Petrologic Update, B.C. Ministry of Energy, Mines & Pet. Res., Geological Fieldwork, 1984, Paper 1985-1, pp. 22-34.

Kwong, Y.T.J., and Addie, G.G. (1982): Tillicum Mountain Gold Prospect, B.C. Ministry of Energy, Mines & Pet. Res., Geological Fieldwork, 1981, Paper 1982-1, pp. 38-45.

Little, H.W. (1960): Nelson Map-area, West Half, British Columbia, Geol. Surv., Canada, Mem. 308.

McClintock, J. and Roberts, W. (1984): Tillicum Gold-Silver Property, C.I.M., Ninth District 6 Meeting, Paper 7-1, Kamloops, Oct. 24-27, 1984.

McClintock, J.A. (1984): Exploration Report, Tillicum Gold Property Assessment Report.

Northcote, K.E. (1983): Petrography and Mineralogy of the Tillicum Mountain Gold Property, Vancouver Petrographics Ltd., unpublished report, January 1983, pp. 19.

Parrish, R.R. (1981): Geology of the Nemo Lakes Belt, Northern Valhalla Range, S.E. British Columbia, Cdn. Jour. Earth Sci., Vol. 18, pp. 944-958.

Ray, G.E., McClintock, J., and Roberts, W. (1985): Tillicum Mountain Gold-Silver Project, B.C. Ministry of Energy, Mines & Pet. Res., Geological Fieldwork, 1984, Paper 1985-1, pp. 35-47.

Ray, G.E., McClintock, J., and Roberts, W. (1986): A Comparison Between the Geochemistry of the Gold Rich and Silver Rich Skarns in the Tillicum Mountain Area, B.C., Ministry of Energy, Mines & Pet. Res., Geological Field Work 1985, Paper 1986-1, pp. 37-44.

Read, P.B. (1982): Petrography of Sample - Tillicum Gold Property. Private Report.

Roberts, W.J., and McClintock, J. (1983): Exploration Report - Tillicum Property - Assessment Report.

Roberts, W.J. (1986): Summary of the 1985 Exploration and Pilot Mining Program of the Heino-Money Zone, Tillicum Gold Property.

1986

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
NORTH	422.13	Footage	Azimuth	Dip
EAST	-389.16			
ELEVATION	2161.12			
AZIMUTH	082°			
DIP	0°			
MAP REFERENCE		METHOD:		

PROJECT: ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME: TILLICUM
DRILLING CONTRACTOR:
ASSAYER: MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE:

HOLE No. [illegible]
CLAIM NAME:
COMMENCED:
FINISHED:
LOGGED BY: [illegible]
DATE LOGGED: [illegible]

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUC.	DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	WIDTH	No.	Au oz/t.	Au ppb		VISUAL LOG
0	2	MAhk	Meta andesite - weakly skarned	Calc-silicate impreg	5										
	(.61)		[illegible]	[illegible]				0.0	17	1.7 (.52)	21629	<0.02			
								17 (0.52)	5.0	2.3 (.70)	30	59.35			
								5.0 (1.52)	7.0	2.0 (.61)	31	<0.02			
		MAskn	Skarned meta andesite	Calc-sil & qtz	[illegible]			7.0 (2.13)	8.0	1.0 (.31)	32	"			
	(3.66)		Light green to pinkish grey. Mottled	impreg. Bands				8.0 (2.44)	12.0 (3.66)	4.0 (1.22)	33	"			
			texture	and fissure fillings											
				of Po Py Sph.				17.0 (5.18)	20.0 (6.10)	3.0 (.91)	34	"			
				Sph [illegible] total											
				[illegible]				32.0 (9.76)	35.0 (10.67)	3.0 (.91)	35	"			
								35.0 (10.67)	38.2 (11.65)	3.2 (.98)	36	0.04			
								38.2 (11.65)	40.0 (12.20)	1.8 (.55)	37	<0.02			
12	14.5	Lamp	Lamp dyke		12	Contact	45°	40.0 (12.20)	42.0 (12.80)	2.0 (.61)	38	"			
	(4.42)							42.0 (12.80)	44.0 (13.41)	2.0 (.61)	39	"			
								44.0 (13.41)	46.5 (14.18)	2.5 (.76)	40	"			
14.5	20.5	MAskn	Pinkish grey to pale green	Qtz impreg	14.5			46.5 (14.18)	49.2 (15.00)	2.7 (.82)	2164	"			
	(6.25)		Skarned meta andesite	Calc-sil impreg											
				Sulphides 10%											
				Py+Po 8%											
				1% Sph											
20.5	32.0	Lamp	Dyke		20.5	Contact	45°								
	(9.76)														

1986

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
NORTH		Footage	Azimuth	Dip
EAST				
ELEVATION				
AZIMUTH				
DIP				
MAP REFERENCE		METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. [illegible]
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUC.	DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	WIDTH	Nº.	Au oz/t.	Au ppb		VISUAL LOG	
32	37	Skarn	pinkish grey skarn - probably	qtz & calc-sil	32/37											
	(11.28)		was TV.	impreg												
				5% Sulphides												
				trace - 0.5% Sphal												
				trace Spy - Sp												
				& cpy mainly in												
				and adjacent to	37	[illegible]	45°									
				qtz & calc-sil impreg.												
37	49	Dike	pale grey to grey green													
	(14.94)		faint porphyritic texture. 3%	Widely spaced	37/49											
			garnet porphyroblasts	20cm qtz impreg												
				thin calc-sil impregs												
				< 1cm. 4% S"												
				mainly Py & Po												
				trace Sp	49	Contact	~~75°~~									
49		TS Skrn	Po tuffaceous siltstone. ~~sediment~~	qtz + calc. silicate												
			charned - with ~~well~~ prominent	impreg to 2cm	49/EOH 49	lam	75°									
			lamination ~~to banding~~	6" in and adjacent												
				to impreg. Also dis												
				and in veiny bands //												
				to lamination												

1986

DIAMOND DRILL LOG

Collar:	HOLE SURVEY		
	Footage	Azimuth	Dip
NORTH			
EAST			
ELEVATION			
AZIMUTH			
DIP			
MAP REFERENCE	METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº.	86-8
CLAIM NAME	
COMMENCED	
FINISHED	
LOGGED BY	
DATE LOGGED	

INTERVAL		LITHOLOGY		ALT'N-MIN.	DEPTH	STRUCTURE		SAMPLE				ASSAYS			VISUAL LOG	MIN
FROM (m)	TO (m)	ROCKTYPE	DESCRIPTION		FROM TO	STRUC.	DIP-DIR	FROM (m)	TO (m)	WIDTH	Nº.	Au oz/t.	Au ppb			
				Total S" ~ 6-8%												
				Sphalerite ~ 1%												
				water lost to												
				drill Sept.												
	32	? OH														
	(15.85)															

1986

DIAMOND DRILL LOG

Collar:	
NORTH	419.45 } est.
EAST	-390.32 } est.
ELEVATION	2160.12 }
AZIMUTH	043°
DIP	-60°
MAP REFERENCE	

HOLE SURVEY		
Footage	Azimuth	Dip

METHOD: AQ CORE

PROJECT: ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME: TILLICUM
DRILLING CONTRACTOR:
ASSAYER: MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE: TEST HEINO SHOOT BELOW 2160 LEVEL

HOLE No.	HAu 86-9
CLAIM NAME	
COMMENCED	
FINISHED	
LOGGED BY	
DATE LOGGED	

INTERVAL FROM (ft)	INTERVAL TO (ft)	ROCKTYPE	DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUC.	DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	WIDTH	No.	Au oz/t	Au ppb		VISUAL LOG
0	2' (.61)	MA	Rubble												
2'	4' (1.22)	MA H,K.	dark green / pale green laminated calcsilicated meta andesite	- calc-silicate-high		S_1	15°/c.A.								
4'	16' (4.89)	MA	- Dk green meta andesite, low calc-sil altern several calcite filled veinlets		12'-15'	Shears	15°/c.A.								
16'	20' (6.10)	MA H.K	- laminated zebra andesite, alternating light green - white & dark green meta andesite	- high calc-silicate alteration along .2 - .5 cm thick wavy, irreg laminae		S_1 lamina + calc-sil	30°/cA								
20	20.5 (6.25)	Fault.	- Minor shear fracture zone with qtz/calcite filling + pyrite	- SiO_2 + carbonate - minor diss sulp. pyrite in and adj. to fracture, minor pyrr.		Fault	10°/cA to 30°/CA								
	22.5 (6.86)	MA SK	- light green skarn (czo=) altered meta andesite - alteration low	- low skarn alteration											
	25.5 (7.77)	MA (po)	- light - dark meta andesite	low alteration Po vein ~ [illegible] @ 05°/c.A.		Po vein	5°/cA.								

1986

DIAMOND DRILL LOG

Collar:	
NORTH	
EAST	
ELEVATION	
AZIMUTH	
DIP	
MAP REFERENCE	

HOLE SURVEY		
Footage	Azimuth	Dip
METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE No.	HAu 86-9
CLAIM NAME	
COMMENCED	
FINISHED	
LOGGED BY	
DATE LOGGED	Sept 26/86

INTERVAL FROM (m)/FT	INTERVAL TO (m)/FT	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUC.	DIP-DIR
25.5	34.5 (10.52)	MA	- Meta Andesite, several white-pale green pods/lenses < .5cm thick of calcite. diss Po. <2%	low calc-silicate alter'n		Si/calc sil	35°/cA.
	39 (11.89)	MA, HK,	- Strong ~~intense~~ calc-silicate altered meta andesite, late white qtz/$CO_3^=$ garnet infilling fractures < .5cm - to 5mm	- high calc-sil most hornfels minor diss Py.		Cal/sil	35°/cA.
	40 (12.20)	MA SK	Minor skarn altered meta andesite, some later fracturing, probably.	high $CO_3^=$, low Py. <Po,		Zone	40°/cA.
	40.5 (12.34)	MA HK	same as interval 34.5-39'	high calc-silicate		calc sil	30°/cA
	46' (14.02)	MA	- Massive green M.A. with < 1cm calc-sil - Po banding every 10-20cm	- low alter'n overall		calc sil	45°/cA
	58' (17.68)	MA HK	- Zelova Andesite	intense calc-sil		wavy calc-sil	15°/cA
				46-48 - Po/Py <2% minor $Zn^{?}$			
	58.5' (17.84)	MA SK	- Pale green $CO_3^=$ altered M.A. < 2% Po/Py			Sk + calcite veinlets	50°/cA
	66.0' (20.12)	MA HK	- Zelova Andesite two late white qtz/calcite veinlets cut calc-sil altered M.A.	- high calc-sil alter'n - mod. hornfels - minor blebs of diss Po + minor Py	60'	Si	50°/cA.

E.O.H. Terminated due to breakdown. - Target not reached

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
		Footage	Azimuth	Dip
NORTH	537.50			
EAST	-435.55			
ELEVATION	2129.82			
AZIMUTH	135°			
DIP	-25°			
MAP REFERENCE		METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE Test Transverse zone across Main Adit portal

HOLE Nº. DDH TMT 86-90
CLAIM NAME
COMMENCED July 8 / 86
FINISHED " "
LOGGED BY WR, BD
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N - MIN.	DEPTH FROM / TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE # FROM (m)	SAMPLE # TO (m)	SAMPLE WIDTH	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb	VISUAL LOG	MIN
0	6		CASING												
6 (1.83)	16 (4.88)	Sk	- qtz nil skarn zone with diss py, po					6.0 (1.83)	10.0 (3.05)	4.0 (1.22)	20701	<0.02			
			- foliated in places, defined by purplish brown biotite which also occurs in irreg. patches.					10.0 (3.05)	13.5 (4.12)	3.5 (1.07)	2	"			
								13.5 (4.12)	17.0 (5.18)	3.5 (1.07)	3	"			
								17.0 (5.18)	20.0 (6.10)	3.0 (.91)	4	"			
								20.0 (6.10)	23.0 (7.01)	3.0 (0.91)	5	"			
16 (4.88)	23 (7.01)	MA (Sk)	- meta andesite, strongly skarn altered, weakly hornfelsed sparsely scattered calc silicate injections, weak diss py, po.					23.0 (7.01)	26.0 (7.93)	3.0 (0.91)	6	0.07			
								26.0 (7.93)	27.0 (8.23)	1.0 (.30)	7	5.28	V.G.		
								27.0 (8.23)	28.0 (8.54)	1.0 (.30)	8	0.18			
								28.0 (8.54)	30.0 (9.15)	2.0 (.61)	9	0.48			
23 (7.01)	29.9 (9.12)	Sk	- skarn (after MA) occasionally fine banded ~ 45° wrt core axis					30.0 (9.15)	33.0 (10.06)	3.0 (.91)	10	<0.02			
								33.0 (10.06)	37.0 (11.28)	4.0 (1.22)	11	"			
			- diss py, po, also banded segregations and coarse aggregates					37.0 (11.28)	40.0 (12.20)	3.0 (.91)	12	"			
								40.0 (12.20)	45.0 (13.72)	5.0 (1.5)	13	"			
			- some hornfelsing.					45.0 (13.72)	50.0 (15.24)	5.0 (1.5)	20714	"			
			- 28.5 - 29.9 - massive sulph nil gangue with high proportion of qtz py, po, cpy (minor)												
29.9 (9.12)	40.5 (12.35)	MA	- meta andesite, weak to moderately hornfelsed, some calc silicate injections mostly 29.9 - 35'												

DIAMOND DRILL LOG

Collar:	HOLE SURVEY		
	Footage	Azimuth	Dip
NORTH			
EAST			
ELEVATION			
AZIMUTH			
DIP			
MAP REFERENCE	METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. DDH TMT 86-90
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL		LITHOLOGY		ALT'N-MIN.	DEPTH	STRUCTURE		SAMPLE				ASSAYS			VISUAL LOG	MIN
FROM (m)	TO (m)	ROCKTYPE	DESCRIPTION		FROM TO	STRUC.	DIP-DIR	FROM (m)	TO (m)	WIDTH	Nº.	Au oz/t.	Au ppb			
40.5 (133)	41.5 (136.5)	TV(AFR)	- Tuffaceous band finely laminated - 55° wrt core axis - hbl felsed													
41.5 (136.5)	46.0 (147)	N/A	- mafic andesite, weakly hbl felsed scattered calc silicate injections with assoc. py, po.													
46.0 (147)	50.0 (152)	TV	- Tuff, volcanics with incl bands of MA - fine laminations 20-25° wrt core axis - scattered small calc silicate injections													
			END OF HOLE													

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
		Footage	Azimuth	Dip
NORTH	538.1			
EAST	-436.1 est.			
ELEVATION	2129.82			
AZIMUTH	135°			
DIP	-38°			
MAP REFERENCE		METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE test transverse zone & across Many Adit portal.

HOLE Nº. DDH TMT 86-91
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY WP, BD
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N - MIN.	DEPTH FROM TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	ft SAMPLE FROM (m)	ft SAMPLE TO (m)	ft (m) WIDTH	Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb	VISUAL LOG	MIN
0	9 (2.74)		CASING												
9 (2.74)	95 (2.90)	TS	- banded, dark grey, tuff sediments					9.0 (2.74)	12.0 (3.66)	3.0 (91)	20715	<0.02			
								12.0 (3.66)	14.5 (4.42)	2.5 (76)	16	"			
95 (2.90)	40.0 (12.19)	Skn	- extensive skarn zone:					14.5 (4.42)	17.0 (5.18)	2.5 (76)	17	"			
			- to 23' (7.01) siliceous, fine and coarse dissem py, po, some sphal (?)					17.0 (5.18)	19.0 (5.79)	2.0 (61)	18	"			
								19.0 (5.79)	22.0 (6.71)	3.0 (91)	19	"			
			- 23-32' (9.76) low sulphide skarn after MA					22.0 (6.71)	25.0 (7.62)	3.0 (91)	20	"			
								25.0 (7.62)	28.0 (8.54)	3.0 (91)	21	"			
			- 32-33' (10.06) qtz skarn sulphides more evident					28.0 (8.54)	32.0 (9.76)	4.0 (122)	22	0.06			
								32.0 (9.76)	33.5 (10.21)	1.5 (46)	23	2.81			
			- 33-35.5' massive sulphides to 50% (10.82) interval - po, py, minor galena cpy sphal - with qtz					33.5 (10.21)	35.5 (10.82)	2.0 (61)	24	1.04			
								35.5 (10.82)	39.0 (11.89)	3.5 (107)	25	0.07			
								39.0 (11.89)	40.5 (12.35)	1.5 (46)	26	<0.02			
			- 35.5-40' skarn altered banded MA with calc silicate and biotite hornfels bands					40.5 (12.35)	42.0 (12.80)	1.5 (46)	21727	"			
40.0 (12.19)	42.8 (13.05)	TV (TFS)	- finely laminated tuff, unit lam. 40-45° ant core axis												
			- sparse thin calc silicate injections												
			- limonite stained calcite healed fracture zone at end of interval												
42.8 (13.05)	62 (18.90)	MA	- meta andesite with scattered calc silicate bands, injections, thin calcite veinlets weakly horn-felsed intermittently												

E.O.H.

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
		Footage	Azimuth	Dip
NORTH	53707			
EAST	-437.08			
ELEVATION	2130.20			
AZIMUTH	160°			
DIP	-25°			
MAP REFERENCE		METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. TMT 86-92
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY WR, BD
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	# SAMPLE FROM (m)	# SAMPLE TO (m)	# (m) WIDTH	# SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb		VISUAL LOG	MIN
0	8 (2.44)		CASING													
8	10.5 (3.20)	Sh	- black pyritic shale, broken with limonite stained fractures					8.0 (2.44)	11.0 (3.35)	3.0 (.91)	20728	<0.02				
								11.0 (3.35)	15.0 (4.57)	4.0 (1.22)	20838	"				
10.5	34.0 (10.37)	MA(sk)	- meta andesite, strongly skarn altered intermittently quite siliceous					15.0 (4.57)	19.0 (5.79)	4.0 (1.22)	20839	0.04				
								19.0 (5.79)	21.0 (6.40)	2.0 (.61)	20729	<0.02				
								21.0 (6.40)	25.0 (7.62)	4.0 (1.22)	20840	0.03				
								25.0 (7.62)	30.0 (9.15)	5.0 (1.52)	20841	<0.02				
			- scattered calc silicate injections					30.0 (9.15)	34.0 (10.37)	4.0 (1.22)	20842	<0.02				
			- disseminated py, po (low)													
34.0	39.0 (11.90)	Sk	- quartz, tourmaline skarn with coarse py, po blebs but sulphide content overall quite low					34.0 (10.37)	35.5 (10.82)	1.5 (.46)	20730	<0.02				
								35.5 (10.82)	37.5 (11.43)	2.0 (.61)	31	0.15				
								37.5 (11.43)	39.0 (11.90)	1.5 (.46)	32	0.02				
								39.0 (11.90)	42.0 (12.80)	3.0 (.91)	20733	0.25				
39.0	47.0 (14.33)	MA	- meta andesite with weak to mod. skarn alteration, disseminated py, po, calc silicate injections					42.0 (12.80)	43.5 (13.26)	1.5 (.46)	20764	1.64	1.72	field lab rechecks		
								43.5 (13.26)	45.5 (13.87)	2.0 (.61)	65	1.33	1.35			
								45.5 (13.87)	47.0 (14.33)	1.5 (.46)	20766	0.28				
			E.O.H.													

1986

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
		Footage	Azimuth	Dip
NORTH	537.8 (est.			
EAST	-437.3 (est.			
ELEVATION	2130.2			
AZIMUTH	160°			
DIP	-37°			
MAP REFERENCE		METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE Test transverse zone across Money Adit Portal

HOLE No.	DDH TMT 86-93
CLAIM NAME	
COMMENCED	July 9, 1986
FINISHED	" "
LOGGED BY	WR, BD
DATE LOGGED	

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM-TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR
0	9.0		CASING				
9.0	11.5	LMP	- lamprophyre dyke				
11.5	13.2	Ts	- dark grey tuff, sediments, iron stained on fracture planes, some clayey, gougeke material - very broken - disseminated py, po				
13.2	22.5	Skn	- skarn zone				
22.5	26.7	MA	- meta andesite, minor sparse calc silicate injections				
26.7	49.0	MA_K	- as above, calc silicate more prominent, py, po disseminations & concentrations in injections				
49.0	51.0	Skn	- skarn zone with calc-silicate injections				
51.0	56.0	Skn	- quartz-sil skarn with py, po, ZnS				
56.0	67.0	MA_K	- meta andesite, calc silicate injections				

E.O.H.

SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE No.	ASSAYS Au oz/t.	ASSAYS Au ppb		VISUAL LOG	MIN
10.5	13.2	1.8	20734	< .02				
13.2	14.7	1.5	20735	"				
49.0	51.0	2.0	20736	0.04				
51.0	53.5	2.5	20737	0.16				
53.5	56.0	2.5	20738	0.04				

1986

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
		Footage	Azimuth	Dip
NORTH	538.12			
EAST	-434.36			
ELEVATION	2129.77			
AZIMUTH	115°			
DIP	-25°			
MAP REFERENCE		METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE Test transverse zone across Money Adit Portal

HOLE Nº. DDH TMT 86-94
CLAIM NAME
COMMENCED July 9, 1986
FINISHED " 10, 1986
LOGGED BY WR, BD
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM-TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb		VISUAL LOG	MIN
0	6.0		CASING													
6.0	19.0	Skn	- skarn zone; finely dissem py, po throughout, large aggregates in more intense skarn					6.0	10.0	4.0	20739	<.02				
								10.0	14.0	4.0	40	"				
								14.0	15.5	1.5	20741	"				
19.0	22.5	MA_K	- meta andesite, calc silicate injections					15.5	18.5	3.0	20845	0.03				
								18.5	22.6	4.1	20846	0.03				
22.5	28.0	MA_{KH}	- as above some skarn alt					22.6	25.0	2.4	20742	0.22				
								25.0	28.0	3.0	20743	0.03				
28.0	34.0	MA_H	- as above, hornfelsing evident													
34.0	41.0	TV_H	- tuff. volcanics, hornfelsed													
41.0	47.3	TV_{KH}	- tuff volcanics with calc silicate injections, some skarn alteration, particularly 46.5-47.5					41.0	42.5	1.5	20744	~~<.02~~				
								42.5	44.0	1.5	45	"				
								44.0	46.5	2.5	46	"				
								46.5	47.5	1.0	47	"				
			- dissem py, po.					47.5	48.8	1.3	20748	"				
47.3	51.0	TV_H	- hornfelsed tuff. volcanics dissem py, po													
51.0	56.0	MA/TV_{HR}	- intercalated meta-andesite/tuff volcanics hornfelsed, some calc silicate injections													

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
		Footage	Azimuth	Dip
NORTH	5388 } est.			
EAST	-435.6 }			
ELEVATION	2129.8			
AZIMUTH	~~190°~~ 115°			
DIP	-40°			
MAP REFERENCE		METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE test traverse zone across Money Adit portal

HOLE No. DDH TMT 86-95
CLAIM NAME
COMMENCED July 10, 1986
FINISHED " " "
LOGGED BY WR, BD
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM-TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE ft FROM (m)	SAMPLE ft TO (m)	SAMPLE ft (m) WIDTH	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb	VISUAL LOG	MIN
0	8		CASING												
8	9.6	TS	- hornfelsed very finely laminated					8.0 (2.44)	9.6 (2.93)	1.6 (.49)	20749	<.02			
			- pyrite, both as fine disseminated and coarser segregations // laminae					9.6 (2.93)	10.6 (3.23)	1.0 (.30)	50	"			
			- hairline qtz stringers					10.6 (3.23)	14.0 (4.27)	4.0 (1.22)	51	"			
								14.0 (4.27)	18.0 (5.49)	4.0 (1.22)	52	"			
9.6	25	Skn	- siliceous tremolite-actinolite skn					18.0 (5.49)	20.0 (6.10)	2.0 (.61)	53	"			
			with patches of fg pyrite (pyrrhotite known) qtz injections, thin calcite veinlets					20.0 (6.10)	23.0 (7.01)	3.0 (.91)	54	"			
								23.0 (7.01)	26.0 (7.93)	3.0 (.91)	55	"			
								26.0 (7.93)	29.0 (8.84)	3.0 (.91)	56	"			
			- disseminated py, po throughout, coarser					29.0 (8.84)	32.0 (9.76)	3.0 (.91)	57	0.11			
			aggregates in some qtz rich zones					32.0 (9.76)	34.0 (10.37)	2.0 (.61)	58	0.08			
			- weakly chloritized					34.0 (10.37)	36.0 (10.98)	2.0 (.61)	20759	<.02			
			- skarning weakens in last 4-5 feet												
25	31.3	MA	- meta andesite, skarn altered with calc silicate injections												
			- foliated 45° wrt core axis												
			- disseminated py, po												
31.3	32	Skn	- trem act. qtz skn with coarse aggregates of py, po					54.0 (16.46)	56.0 (17.07)	2.0 (.61)	20760	<.02			
								56.0 (17.07)	57.5 (17.53)	1.5 (.46)	61	"			
32	36	MA	- meta andesite, foliated as above with // calc silicate injections					57.5 (17.53)	59.0 (17.99)	1.5 (.46)	62	"			
								59.0 (17.99)	61.0 (18.60)	2.0 (.61)	20763	"			
			- variably hornfelsed, weakly skarned												
36	54	mA	- meta andesite, foliated, with calc silicate injections.												

(1646)

DIAMOND DRILL LOG

Collar:	HOLE SURVEY		
	Footage	Azimuth	Dip
NORTH			
EAST			
ELEVATION			
AZIMUTH			
DIP			
MAP REFERENCE	METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. DDH TMT 86-95
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N - MIN.	DEPTH FROM / TO	STRUCTURE STRUC.	STRUCTURE DIP - DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb		VISUAL LOG	MIN
54	59	MA	- as above, with fine, contorted													
	(17.99)		phase bands containing coarse													
			aggregated po, py													
59	61	TV	- Tuffaceous volcanics, banded													
	(18.60)		- disem py, po and along													
			bedding, tight fractures													
61	63.7	MA	- meta andesite with calc silicate													
	(19.42)		injections // foliation; py, po													
63.7	68.4	TV	- Tuffaceous horizon banded													
	(20.85)		calc silicate cont.													
68.4	70.0	MA	- as above, calc silicate													
	(21.34)		alteration now diffuse													
			END OF HOLE													

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
		Footage	Azimuth	Dip
NORTH	504.28			
EAST	-428.74			
ELEVATION	2151.22			
AZIMUTH	020°			
DIP	-70°			
MAP REFERENCE		METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE fill-in drilling ; Heino Money Zone

HOLE Nº. DDH THM 86-96
CLAIM NAME
COMMENCED July 11, 1986
FINISHED " " "
LOGGED BY BD
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N – MIN.	DEPTH FROM – TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH (m)	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb	VISUAL LOG
0	10		CASING											
10 (3.0)	263 (8.0)	MA	- meta. andesite ; broken, weathered with Fe stain on fractures - disem py po - includes silty layer ~ 24-25'					10.0 (3.05)	13.0 (3.96)	3.0 (.91)	20767	<.02		
								13.0 (3.96)	16.0 (4.88)	3.0 (.91)	68	"		
								16.0 (4.88)	21.0 (6.40)	5.0 (1.52)	69	"		
								21.0 (6.40)	23.7 (7.23)	2.7 (.82)	70	"		
								23.7 (7.23)	26.3 (8.02)	2.6 (.79)	71	"		
26.3 (8.0)	31 (9.5)	Skarn	- qtz actinolite skarn with both disem and coarse aggregates of py, po, aphal. - very weakly developed biotite hornfelsing					26.3 (8.02)	28.3 (8.63)	2.0 (.61)	72	"		
								28.3 (8.63)	30.3 (9.24)	2.0 (.61)	73	0.26		
								30.3 (9.24)	32.5 (9.9)	2.2 (.67)	74	<.02		
								32.5 (9.91)	36.0 (10.98)	3.5 (1.07)	75	"		
								36.0 (10.98)	39.5 (12.04)	3.5 (1.07)	76	"		
31 (9.5)	33 (10.1)	Tv/Ts	- intercalated tuffaceous volcanics and sediments with narrow irregular skarn bands - laminations 40-45° wrt core axis					39.5 (12.04)	41.0 (12.5)	1.5 (.46)	77	"		
								41.0 (12.50)	43.0 (13.11)	2.0 (.61)	78	"		
								43.0 (13.11)	44.0 (13.41)	1.0 (.30)	20779	"		
33 (10.1)	40 (12.2)	Tv/Ts	- interval dominated by sediments - py po both disem and as hairline aggregations along laminations - hornfelsed, sparsely scattered thin skarn bands, occasional calcite veinlet											
								54.4 (16.6)	56.4 (17.20)	2.0 (.61)	20780	<.02		
								56.4 (17.20)	58.1 (17.71)	1.7 (.52)	81	"		
								58.1 (17.71)	60.3 (18.39)	2.2 (.67)	20782	"		
40.0 (12.2)	44.0 (13.4)	Tv	- tuffaceous volcanics with prominent skarn injections 40-40.5' and 43-44'											

DIAMOND DRILL LOG

Collar:	HOLE SURVEY		
	Footage	Azimuth	Dip
NORTH			
EAST			
ELEVATION			
AZIMUTH			
DIP			
MAP REFERENCE	METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. DDH THM 86-96
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N - MIN.	DEPTH FROM / TO	STRUCTURE STRUC.	STRUCTURE DIP - DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb		VISUAL LOG	NTR
			- hornfelsed, with calc-silicate injections													
440 (134)	544 (166)	MA	- meta andesite, generally moderately hornfelsed, with calc silicate injections containing segregations of py, po - pale, whitish pink garnets scattered throughout.													
544 (166)	603 (184)	Skarn	- weakly chloritized, hornfelsed skarn, garnets scattered throughout (TV hosted) - dissem py, po - low qtz content.													
603 (184)	619 (210)	MA	- meta andesite, with scattered garnets, calc silicate injections, hairline calcite veinlets													
			END OF HOLE													

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
NORTH	504.19	Footage	Azimuth	Dip
EAST	-429.19			
ELEVATION	2151.02			
AZIMUTH	070°			
DIP	-87°			
MAP REFERENCE		METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE fill in drilling : Heino Money Zone

HOLE Nº. DDH THM 86-97
CLAIM NAME
COMMENCED July 11, 1986
FINISHED July 12, 1986
LOGGED BY BD
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N - MIN.	DEPTH FROM TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	# SAMPLE FROM (m)	# SAMPLE TO (m)	# (m) WIDTH	# SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb	VISUAL LOG
0	12		CASING					12.0 (3.66)	16.0 (4.88)	4.0 (1.2)	20783	<.02		
12 (3.66)	37 (11.28)	MA	- meta andesite, very broken, weathered with Fe stain in fractures and on broken surfaces					16.0 (4.88)	21.0 (6.40)	5.0 (1.52)	84	"		
			- intermittently foliated, subparallel to core axis					21.0 (6.40)	26.0 (7.93)	5.0 (1.53)	85	"		
			- thin calc silicate injections // foliation					26.0 (7.93)	29.5 (8.99)	3.5 (1.07)	86	"		
								29.5 (8.99)	33.7 (10.27)	4.2 (1.28)	87	"		
								33.7 (10.27)	37.0 (11.28)	3.3 (1.0)	20788	"		
37 (11.3)	44 (13.4)	MA	- meta andesite, weakly hornfelsed, with scattered calc silicate injections.					40.0 (12.19)	43.0 (13.11)	3.0 (.91)	20843	<.02		
								43.0 (13.11)	47.0 (14.33)	4.0 (1.22)	20844	0.04		
44 (13.4)	47 (14.3)	Skarn	- MA hosted quartz skarn with both disseminated and large, coarse aggregates of py, po					47.0 (14.33)	49.0 (14.94)	2.0 (.61)	20789	<.02		
47 (14.3)	56 (17.07)	TV	- Tuffaceous volcanics, laminations subparallel to 70° to core axis, weakly hornfelsed.											
			- includes some intercalated MA											
			- skarn 47-49'											
56 (17)	100 (30.5)	MA	- meta andesite with calc silicate injections - coarse aggregates of py, po assoc.											
			- thin intercalations of TV near contact and band at 66.5-67.5											

END OF HOLE

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
		Footage	Azimuth	Dip
NORTH	493.11			
EAST	-429.59			
ELEVATION	2152.39			
AZIMUTH	070°			
DIP	-40°			
MAP REFERENCE		METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE fill in drilling ; Heino Money Zone

HOLE NR. DDH THM 86-98
CLAIM NAME
COMMENCED July 12, 1986
FINISHED " "
LOGGED BY BD
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM-TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	WIDTH (m)	Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb	VISUAL LOG
0	8 (0.41)		CASING					26.0 (7.93)	29.0	3.0 (91)	20790	<.02		
8 (0.4)	29 (8.84)	MA	- mafic andesite, weakly altered - rare calc silicate injections, calcite veinlets					29.0 (8.84)	31.6	2.6 (79)	91	"		
								31.6 (9.63)	33.5	1.9 (58)	92	0.26	.203 3.4	
								33.5 (10.21)	35.0	1.5 (46)	93	0.13		
29 (8.8)	31 (9.45)	mA	- weak skarn alt.					35.0 (10.67)	36.0	1.0 (30)	94	0.04	.14 6.8	
31 (9.5)	33.5 (10.2)	Skarn	- intense skarning - qtz, po, py, minor galena					36.0 (10.98)	38.4	2.4 (73)	95	0.10		
								38.4 (11.71)	40.0	1.6 (49)	96	0.08		
33.5 (10.2)	35 (10.67)		- clay altered, cream colored breccia - fault zone?					40.0 (12.20)	42.0	2.0 (61)	97	0.04		
								42.0 (12.80)	44.0	2.0 (61)	98	<.02		
35 (10.7)	40 (12.19)	Skarn	- trem-act. skarn with coarse aggregates of po, py - low in qtz.					44.0 (13.41)	45.0	1.0 (30)	99	"		
								45.0 (13.72)	48.0	3.0 (91)	800	"		
								48.0 (14.63)	50.0	2.0 (61)	1	"		
40 (12.2)	56 (17.07)	TU/TS	- tuffaceous volcanics and sediments, generally hornfelsed					50.0 (15.24)	51.5	1.5 (46)	2	0.14		
			- skarn alt: 42-45 fairly strong, evident to varying degrees in rest of interval					51.5 (15.70)	54.0 (16.46)	2.5 (76)	20803	<.02		
			- py, po dissem. segregations in skarns and along hairline fractures											
			END OF HOLE											

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
NORTH	492.87	Footage	Azimuth	Dip
EAST	-430.31			
ELEVATION	2152.17			
AZIMUTH	070°			
DIP	-55°			
MAP REFERENCE		METHOD:		

PROJECT: ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME: TILLICUM
DRILLING CONTRACTOR:
ASSAYER: MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE: fill in drilling : Heino Money Zone

HOLE No.: DDH THM 86-99
CLAIM NAME:
COMMENCED: July 12, 1986
FINISHED: July 13, 1986
LOGGED BY: BD
DATE LOGGED:

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE No.	ASSAYS Au oz/t	ASSAYS Au ppb		VISUAL LOG
0	11 (3.35)		CASING												
11 (3.4)	46.7 (14.24)	MA	meta andesite with low												
			proportion of calc silicate												
			injections, scattered												
			calcite veinlets												
46.7	49.7	MA	- strongly skarn altered,												
(14.2)	(15.15)		dissem py, po.												
49.7	52.5	Skn	- qtz skarn, coarse												
(15.2)	(16.00)		aggregates of po, py												
52.5	65.0	TV/TS	- Tuffaceous volc. and seds					45.0 (13.72)	46.7 (14.24)	1.7 (.52)	20804	<.02			
(16.0)	(19.82)		hornfelsed throughout,					46.7 (14.24)	49.7 (15.15)	2.0 (.61)	5	"			
			with dissem py, po,					49.7 (15.15)	52.0 (15.85)	2.3 (.70)	6	0.16			
			- skarn alt. to 56.5'					52.0 (15.85)	53.5 (16.31)	1.5 (.46)	7	0.69			
								53.5 (16.31)	54.5 (16.62)	1.0 (.30)	8	0.33			
			END OF HOLE					54.5 (16.62)	56.5 (17.23)	2.0 (.61)	9	0.11			
								56.5 (17.23)	60.0 (18.29)	3.5 (1.07)	10	<.02			
								60.0 (18.29)	63.0 (19.21)	3.0 (.91)	11	<.02			
								63.0 (19.21)	65.0 (19.82)	2.0 (.61)	20812	<.02			

.35 / LE

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
		Footage	Azimuth	Dip
NORTH	492.55			
EAST	-431.07			
ELEVATION	2152.32			
AZIMUTH	070°			
DIP	-75°			
MAP REFERENCE		METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE fill in drilling : Heim Money Zone

HOLE Nº. DDH THM-900
CLAIM NAME
COMMENCED July 13, 1986
FINISHED July 15, 1986
LOGGED BY BD
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM-TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH (m)	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb	VISUAL LOG	MIN
0	12.0 (3.96)		CASING												
12.0 (3.7)	75.5 (23.07)	MA	- meta andesite with scattered calc-silicate injections and assoc. py, po - weak grey skarn alteration starting at 66, gradually intensifying to end of interval												
75.5 (23.0)	78.5 (23.98)	Skarn	- qtz-act skarn with coarse aggregates of py, po.												
78.5 (23.9)	103 (31.40)	TV	- tuffaceous volcanics weakly to moderately hornfelsed - strong skarn alteration 78.5 - 82', scattered injections to 86'. - dissem py, po throughout also as aggregations along hairline fractures - calcite veinlets sub // to core - laminations 88-89' 20° rel core axis												
								66.0 (20.12)	70.0 (21.34)	4.0 (13)	20813	<.02			
								70.0 (21.34)	72.0 (21.95)	2.0 (6)	14	"			
								72.0 (21.95)	74.0 (22.56)	2.0 (6)	15	0.06			
								74.0 (22.56)	75.5 (23.02)	1.5 (4.5)	16	<.02			
								75.5 (23.02)	77.0 (23.48)	1.5 (4.5)	17	0.04			
								77.0 (23.48)	78.5 (23.93)	1.5 (4.5)	18	0.36			
								78.5 (23.93)	82.0 (25.00)	3.5 (10.7)	19	0.16			
								82.0 (25.00)	86.0 (26.22)	4.0 (12.2)	20	0.13			
								86.0 (26.22)	89.0 (27.13)	3.0 (9.1)	21	<.02			
								89.0 (27.13)	92.0 (28.05)	3.0 (9.1)	22	"			
								92.0 (28.05)	93.3 (28.45)	1.3 (4.0)	23	"			
								93.3 (28.45)	94.3 (28.75)	1.0 (3.0)	24	"			
								94.3 (28.75)	96.0 (29.27)	1.7 (5.2)	25	4			
								96.0 (29.27)	99.0 (30.18)	3.0 (9.1)	26	"			
								99.0 (30.18)	103.0 (31.40)	4.0 (12.2)	20827	"			

22/50

END OF HOLE

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
		Footage	Azimuth	Dip
NORTH	480.84			
EAST	-433.37			
ELEVATION	2153.55			
AZIMUTH	070°			
DIP	-45°			
MAP REFERENCE		METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE fill in drilling Heina Money Zone

HOLE Nº. DDH THM 86-101
CLAIM NAME
COMMENCED July 14, 1986
FINISHED " "
LOGGED BY BD
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM-TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	# SAMPLE FROM (m)	# SAMPLE TO (m)	# (m) WIDTH	# SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb		VISUAL LOG	NTR
0	14 (4.26)		CASING													
14 (4.26)	39.2 (11.95)	MA	- meta andesite, weakly and erratically hornfelsed, v.ft calc-silicate injections throughout - dissem py, po, some concentrations in injections													
39.2 (12.9)	40.5 (12.35)	TV	- tuffaceous volcanics dark grey green, laminations ~45° w.r.t core axis - dissem. py, po					57.0 (17.38)	61.0 (18.60)	4 (1.22)	20828	<.02				
								61.0 (18.60)	64.0 (19.51)	3.0 (.91)	29	4				
								64.0 (19.51)	67.5 (20.58)	3.5 (1.07)	30	"				
								67.5 (20.58)	69.5 (21.19)	2.0 (.61)	31	0.13				
40.5 (12.35)	43.2 (13.17)	MA	- as above					69.5 (21.19)	71.0 (21.65)	1.5 (.46)	32	0.17	10/6.5			
43.2	44.0 (13.41)	TV	- as above, more prominent calc-silicate injections with assoc. py, po					71.0 (21.65)	74.0 (22.56)	3.0 (.91)	33	0.04				
								74.0 (22.56)	75.5 (23.02)	1.5 (.46)	34	<.02				
44.0 (13.41)	61.0 (18.59)	MA	- meta andesite, may have some hornfelsed tuffaceous components					75.5 (23.02)	78.0 (23.78)	2.5 (.76)	35	0.04				
								78.0 (23.78)	80.0 (24.39)	2.0 (.61)	36	<.02				
								80.0 (24.39)	84.0 (25.61)	4.0 (1.22)	20837	<.02				
61.0 (18.59)	69.5 (21.19)	TV	- tuffaceous volcanics, hornfelsed to 64' strong skarn alt to 67.5, weaker to end of interval													
69.5 (21.19)	78 (23.78)	skarn	- quartz calc-silicate skarn with assoc. aggregates of													

DIAMOND DRILL LOG

Collar:	HOLE SURVEY		
NORTH	Footage	Azimuth	Dip
EAST			
ELEVATION			
AZIMUTH			
DIP			
MAP REFERENCE	METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. DDH THM 86-101
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM-TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb		VISUAL LOG	MIN
			Pegm - hosted by tuffaceous volcanics (hornfelsed)													
78 (23.8)	91 (27.74)	MA	- meta andesite - hornfelsed with some veins, calc silicate injections to 84', calc silicate only to 91'													
91 (27.7)	93 (28.35)	TUFFS	- intercalated tuffaceous volcs and beds, contact ~50° wrt core axis - calcite veins													
			END OF HOLE													

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
		Footage	Azimuth	Dip
NORTH	480.65			
EAST	-433.72			
ELEVATION	2153.43			
AZIMUTH	070°			
DIP	-55°			
MAP REFERENCE		METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE fill in drilling Heino Money Zone

HOLE Nº. DDH THM 86-102
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N - MIN.	DEPTH FROM / TO	STRUCTURE STRUC.	STRUCTURE DIP - DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb		VISUAL LOG	
0	19.0 (5.79)		CASING													
19.0 (5.8)	64.2 (19.57)	MA	- meta andesite with minor calc silicate injections to 24'													
			- 24-26' virtually no recovery (mixed?)													
			- 26-28' intense calc-silicate injection zone													
			- 28-64.2 widespread irregular calc silicate bands, hairline calcite veinlets													
64.2 (19.6)	67.5 (20.58)	TV	- tuffaceous volcanics with very little calc silicate injections													
			- some Po, Py segregations													
			- laminae ~30° int core axis													
67.5 (20.6)	75 (22.86)	MA	- meta andesite with calc-silicate injections, calcite veining more prominent.													
			END OF HOLE													
			N.B. This hole terminated prematurely due to collapse of drillsite.													

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
		Footage	Azimuth	Dip
NORTH	+453.59			
EAST	- 440.24			
ELEVATION	2156.82			
AZIMUTH	047°			
DIP	-28°			
MAP REFERENCE		METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. DDH THM 86-103
CLAIM NAME
COMMENCED July 16/86
FINISHED July 17/86
LOGGED BY BD
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N - MIN.	DEPTH FROM TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb		VISUAL LOG	
0	9 (27)		CASING													
9 (27)	28.5 (87)	MA	- meta andesite with weakly developed calc silicate injections scattered throughout - calcite stringers and veinlets various orientations.													
28.5 (87)	29.0 (88)	fault gouge	- clay-altered calcite-mottled fault breccia and clay gouge (after MA)													
29.0 (88)	54.0 (165)	MA	- as above													
54.0 (165)	55.0 (168)	TV	- interbed of tuffaceous volcanics, weakly banded with calc silicate injections sub parallel to laminations - laminations 45° wrt core axis													
55.0 (168)	81.0 (247)	MA	- as above, with calc silicate injections more prominent - aplaktic "vein", contorted and narrow, at ~72°													
81.0 (247)	94.0 (284)	aplaktic	- bleached clay-altered aplaktic dyke, porous and friable - MA at contact at 81 is thermally altered.													

DIAMOND DRILL LOG

Collar:	HOLE SURVEY		
NORTH [redacted]	Footage	Azimuth	Dip
EAST [redacted]			
ELEVATION			
AZIMUTH			
DIP			
MAP REFERENCE	METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE No. DDH THM 86-103
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH (m)	SAMPLE No.	ASSAYS Au oz/t.	ASSAYS Au ppb	VISUAL LOG
			- contact at 84' is at 85° wrt core axis					101.0 (30.79)	106.0 (32.32)	5.0 (1.53)	20851	<.02		
								106.0 (32.32)	108.5 (32.93)	2.5 (.76)	52	"		
84.0 (25.6)	120.1 (36.6)	MA	- as above, calcite veins to 1 cm across, larger more diffuse calc silicate injections					108.5 (32.93)	110.5 (33.69)	2.0 (.61)	53	"		
								110.5 (33.69)	115.0 (35.06)	4.5 (1.37)	54	"		
								115.0 (35.06)	120.1 (36.62)	5.1 (1.55)	55	"		
								120.1 (36.62)	123.6 (37.68)	3.5 (1.07)	56	0.18	←	
			- includes possible TS 106-110.5 with weak skarn alteration					123.6 (37.68)	127.0 (38.72)	4.4 (1.34)	57	<.02		
								127.0 (38.72)	129.5 (39.48)	2.5 (.76)	58	0.04		
								129.5 (39.48)	132.0 (40.24)	2.5 (.76)	59	0.16		
120.1 (36.6)	132.0 (40.2)	skarn	- qtz-rich calcsilicate garnet skarn after MA	Py, Po, Asp.				132.0 (40.24)	135.9 (41.43)	3.9 (1.19)	60	<.02		
								135.9 (41.43)	139.0 (42.38)	3.1 (.95)	61	"		
			- patchy to 123.6 becoming more pervasive through rest of interval.					139.0 (42.38)	140.0 (42.68)	1.0 (.30)	62	"		
								140.0 (42.68)	142.0 (43.29)	2.0 (.61)	63	"		
								142.0 (43.29)	147.0 (44.82)	5.0 (1.53)	64	"		
			- diss. Po, Py, some coarser segregations usually assoc. w/ FL qtz					147.0 (44.82)	149.5 (45.58)	2.5 (.76)	65	"		
								149.5 (45.58)	153.0 (46.65)	3.5 (1.07)	66	0.03		
								153.0 (46.65)	157.0 (47.87)	4.0 (1.22)	67	<.02		
132 (40.2)	135.9 (41.4)	TS	- tuffaceous siltstone / mudstone moderately hornfelsed, with calc silicate injections and small areas of skarning					157.0 (47.87)	161.0 (49.09)	4.0 (1.22)	20868	"		

Py
Garnet Lamb Skarn

DIAMOND DRILL LOG

Collar:	
NORTH	
EAST	
ELEVATION	
AZIMUTH	
DIP	
MAP REFERENCE	

HOLE SURVEY		
Footage	Azimuth	Dip
METHOD:		

PROJECT: ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME: TILLICUM
DRILLING CONTRACTOR:
ASSAYER: MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE:

HOLE No. DDH THM 86-103
CLAIM NAME:
COMMENCED:
FINISHED:
LOGGED BY:
DATE LOGGED:

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE No.	ASSAYS Au oz/t	ASSAYS Au ppb		VISUAL LOG
135.9 (41.4)	142.0 (43.3)	Skarn	- qtz rich skarn calc silicate injections; probably after TV, TS - remnants of host rock hornfelsed	Py, Po low											
142.0 (43.3)	146.0 (44.5)	TS	- tuffaceous sediments with weak calc silicate injections except in last 5" where quite prominent - calcite veinlets												
146.0 (44.5)	149.5 (45.6)	Sh	- carbonaceous shale, brecciated with calcite matrix - dissem py ~~some~~ coarse xtals in last 6" of interval												
149.5 (45.6)	171.0 (52.1)	TS	- Tuffaceous Sediments hornfelsed with patches and contorted bands of calc-silicate, weak intermittent skarning to 165'												
			END OF HOLE												

DIAMOND DRILL LOG

Collar:	
NORTH	452.9 } est.
EAST	-441.0 } est.
ELEVATION	2156.8 } est.
AZIMUTH	047°
DIP	-35°
MAP REFERENCE	

HOLE SURVEY		
Footage	Azimuth	Dip
METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº.	DDH THM 86-104
CLAIM NAME	
COMMENCED	July 17/86
FINISHED	July 18/86
LOGGED BY	BD
DATE LOGGED	

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb		VISUAL LOG
0	7 (2.1)		CASING												
7 (2.1)	67 (20.4)	MA	- meta andesite, calc silicate bands and patches scattered throughout, calcite veins and veinlets at various angles to core - some sections are porphyritic but foliated - foliation varys from sub parallel to 45° wrt core axis, augite (?) porphyroblasts elongated ∥ to foliation in anhedral feldspar/qtz matrix: true comp. ? this texture intermittent 16.5 - 21, prominent 21 - 34' - dissem py - patches of weak hornfelsing												
67 (20.4)	70 (21.3)	TV	- Tuffaceous volcanics, weakly hornfelsed, qtz injections, narrow skarn band sub parallel to core 68-69' with assoc. coarse py												
70 (21.3)	72 (21.9)	alaskite	- extremely siliceous dyke with aggregates of py, po along fractures												
72 (21.9)	74 (22.6)	MA	- meta andesite, calc silicate												

DIAMOND DRILL LOG

Collar:	HOLE SURVEY		
	Footage	Azimuth	Dip
NORTH			
EAST			
ELEVATION			
AZIMUTH			
DIP			
MAP REFERENCE	METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. Dit THM 80-104
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb		VISUAL LOG	MIN
			injections, weak hornfelsing					123.5 (37.68)	128.5 (39.18)	5.0 (1.52)	20869	<.02				
74 (22.6)	77 (23.5)	TV	- tuffaceous volcanics, hmn felsed strong calcite veining - vein brecciated rock 74-75'					128.5 (39.18)	132.0 (40.24)	3.5 (1.07)	70	"				
								132.0 (40.24)	136.0 (41.46)	4.0 (1.22)	71	"				
								136.0 (41.46)	141.0 (42.99)	5.0 (1.52)	72	"				
77 (23.5)	78 (23.8)	MA	- as above					141.0 (42.99)	144.0 (43.90)	3.0 (.91)	73	"				
78 (23.8)	83 (25.3)	alaskite	- alaskite dyke, very siliceous on both margins; porous and friable 78.5 - 80.5, also poor recovery					144.0 (43.90)	147.3 (44.91)	3.3 (1.01)	74	"				
								147.3 (44.91)	148.3 (45.21)	1.0 (.30)	75	12.90	9.2b 3.7	V.G.		
								148.3 (45.21)	149.3 (45.52)	1.0 (.30)	76	8.10				
								149.3 (45.52)	150.5 (45.88)	1.2 (.37)	77	7.20				
			- where siliceous, aggregates of py, po along fractures					150.5 (45.88)	153.5 (46.84)	3.0 (.91)	78	0.05				
								153.5 (46.80)	157.0 (47.84)	3.5 (1.07)	79	<.02				
83 (25.3)	116 (35.4)	MA	- meta andesite, calc silicate injections, abundant calcite veining					157.0 (47.84)	160.0 (48.78)	3.0 (.91)	80	"				
			- coarse aggregates of py, po associated with both injections and some calcite veins					160.0 (48.78)	162.7 (49.60)	2.7 (.82)	81	"				
								162.7 (49.60)	166.5 (50.76)	3.8 (1.16)	82	"				
								166.5 (50.76)	169.0 (51.52)	2.5 (.76)	83	"				
								169.0 (51.52)	172.0 (52.44)	3.0 (.91)	84	"				
116 (35.4)	120.5 (36.7)	TV	- Tuffaceous volcanics, minor calc silicate injections, weakly hornfelsed					172.0 (52.44)	175.0 (53.35)	3.0 (.91)	85	"				
								175.0 (53.35)	179.5 (54.73)	4.5 (1.37)	A0086	"				
			- narrow (≤ 1cm) skarn band, fractured and offset, 116 - 116.5, outlined by poppy band													

DIAMOND DRILL LOG

Collar:	
NORTH	
EAST	
ELEVATION	
AZIMUTH	
DIP	
MAP REFERENCE	

HOLE SURVEY		
Footage	Azimuth	Dip
METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. DDH THM 86-104
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	ROCKTYPE	DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUC.	DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	WIDTH	Nº.	Au oz/t.	Au ppb		VISUAL LOG	
120.5 (36.7)	125.5 (38.3)	MA(HFK)	- meta andesite, patchy skarn alteration, weak to moderately hornfelsed, po py aggregates assoc. with skarn													
125.5 (38.3)	129.5 (39.5)	TV	- tuffaceous volcanics, patchy skarn alteration, moderately hornfelsed													
129.5 (39.5)	141.0 (43.0)	mA	- as above, more strongly hornfelsed													
141.0 (43.0)	147.3 (44.9)	TV/TS	- intercalated tuffaceous volcanics & sediments, hornfelsed some skarn alteration - py, po segregated along laminations (35-40° w.r.t. core axis)													
147.3 (44.9)	150.5 (45.9)	Skarn	- qtz rich skarn, laminations from previous interval still evident with segregations of py po along them V.G.: several grains noted, assoc with sulphides along laminations	VISIBLE GOLD												
150.5 (45.9)	153.5 (46.8)	MA(SK)	- meta andesite, strongly skarn altered, moderately hornfelsed diss garnets, sil'd													

DIAMOND DRILL LOG

Collar:	HOLE SURVEY		
NORTH	Footage	Azimuth	Dip
EAST			
ELEVATION			
AZIMUTH			
DIP			
MAP REFERENCE	METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. DDH TAm 80-104
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb		VISUAL LOG	MIN
153.5 (46.8)	162.7 (49.6)	TV	- Tuffaceous volcanics, moderately hornfelsed, sparse calc-silicate injections.													
			- skarn alteration 160-162.7													
162.7 (49.6)	166.5 (50.8)	~~Skarn~~ DH.	- Hybrid biotite porphyry dike qtz rich skarn cut by coarse qtz segregations; py, po disem. only													
166.5 (50.8)	169.0 (51.5)	TV	- Tuff. volcanics hornfelsed some calc silicate injections; skarn alt. in last 6"													
169.0 (51.5)	173.5 (52.9)	MA(H,K,Sk)	- meta andesite, calc silicate injections, some skarning													
			- coarse po, py assoc with calc-silicates													
173.5 (52.9)	179.5 (54.7)	TV	- as above, also some qtz injections													
			- porphy as thin segregations along laminations and fractures, occasional coarse blebs		175'	50	23/CA									
			END OF HOLE													

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
		Footage	Azimuth	Dip
NORTH	452.4			
EAST	-441.5 est.			
ELEVATION	2156.8			
AZIMUTH	047°			
DIP	-42°			
MAP REFERENCE		METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. DDH THM 86-105
CLAIM NAME
COMMENCED July 18/86
FINISHED July 19/86
LOGGED BY BD
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb		VISUAL LOG
0	10 (30)		CASING												
10 (30)	44.0 (134)	MH	- moderate andesite, weakly skarn altered to 14.5', weak calc silicate injections throughout, calcite veinlets subparallel to 45° with core axis sporadically scattered 14.5'-44'.												
44.0 (134)	67.2 (205)	MH	- as above but with much greater proportion of qtz and calc-silicate injections - most at 40-45° with core axis, also some in random, contorted orientations - more calcite veins also												
67.2 (205)	73.4 (22.4)	Aplastite	- aplastite dyke with siliceous margins, remainder variably porous but not friable - both contacts ⊥ core axis												
73.4 (22.4)	145.0 (44.2)	MH	- as above, calc silicate injections relatively sparse and weak; random calcite veining - 82'-88': calcite healed fracture/breccia zone sub parallel to core axis, probably quite narrow												

DIAMOND DRILL LOG

Collar:	
NORTH	
EAST	
ELEVATION	
AZIMUTH	
DIP	
MAP REFERENCE	

HOLE SURVEY		
Footage	Azimuth	Dip
METHOD:		

PROJECT: ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME: TILLICUM
DRILLING CONTRACTOR:
ASSAYER: MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE:

HOLE No. DDH THm 86-105
CLAIM NAME:
COMMENCED:
FINISHED:
LOGGED BY:
DATE LOGGED:

INTERVAL FROM (m)	INTERVAL TO (m)	ROCKTYPE	DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUC.	DIP-DIR	SAMPLE ft (m) FROM (m)	TO (m)	WIDTH	No.	Au oz/t	Au ppb		VISUAL LOG
145.0	151.6	MA	- as above, more distinct calc.					145.0 (44.21)	150.0 (45.73)	5.0 (1.52)	20887	<.02			
(44.2)	(46.2)		silicate injections with assoc.					150.0 (45.73)	151.6 (46.22)	1.6 (.49)	88	"			
			py, po blebs, minor skarn					151.6 (46.22)	154.0 (46.95)	2.4 (.73)	89	"			
			alteration.					154.0 (46.95)	158.0 (48.17)	4.0 (1.22)	90	"			
151.6	154.0	TV	- band of tuffaceous volc., weakly					158.0 (48.17)	161.0 (49.09)	3.0 (.91)	91	0.04			
(46.2)	(47.0)		hornfelsed, with calc silicate					161.0 (49.09)	164.0 (50.00)	3.0 (.91)	92	0.02			
			injections					164.0 (50.00)	169.0 (51.52)	5.0 (1.52)	93	<.02			
154.0	161.0	Skarn	- quartz-rich gangue/ferrous	154-157 (MA sk)				169.0 (51.52)	170.0 (51.83)	1.0 (.30)	94	"			
(47.0)	(49.1)		skarn, only a few small dist-	157-161 lam'd sk.				170.0 (51.83)	174.0 (53.05)	4.0 (1.22)	95	"			
			qtz segregations with coarse	Fault @161° 5°/cA.				174.0 (53.05)	177.5 (54.11)	3.5 (1.07)	96	"			
			po, py					177.5 (54.11)	179.0 (54.57)	1.5 (.46)	97	"			
			- grading into:					179.0 (54.57)	184.0 (56.10)	5.0 (1.52)	98	"			
161.0 (49.1)	164.0 (50.0)	MA (sk)	- skarn altered meta andesite					184.0 (56.10)	189.0 (57.62)	5.0 (1.52)	99	"			
164.0 (50.0)	170.0 (51.8)	TV	- tuffaceous unit, both skarn	(poss. qtz/carb = altered				189.0 (57.62)	194.0 (59.15)	5.0 (1.52)	20900	"			
			altered and intermittently broken	MA.				194.0 (59.15)	198.0 (60.37)	4.0 (1.22)	1	"			
			in calcite-healed breccia zones					198.0 (60.37)	202.0 (61.59)	4.0 (1.22)	20902	"			
			- low sulphide content								~~20903~~				
170.0 (51.8)	177.5 (54.1)	MA	- as above (low SK. alter^n)												
177.5 (54.1)	184 (56.1)	TV	- tuffaceous volcanics; hornfelsed,												
			some calc-silicate injections,												
			weak skarn alteration												
184 (56.1)	202 (61.6)	MA	- meta andesite, calc silicate												
			injections throughout												

- dissem py, po

END OF HOLE

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
		Footage	Azimuth	Dip
NORTH	453.0 } est.			
EAST	-441.4 }			
ELEVATION	256.6 }			
AZIMUTH	035°			
DIP	-33°			
MAP REFERENCE		METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. DDH THM 86-106
CLAIM NAME
COMMENCED July 19, 1986
FINISHED July 20, 1986
LOGGED BY
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM-TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb		VISUAL LOG	MIN
0	9.0 (2.74)		CASING													
9.0	18.0 (5.49)	MA	- meta andesite minor calc-silicate injections, calcite veinlets - increasingly hornfelsed to end of interval.													
18.0	19.0 (5.79)	Sh	- pyritic black shale bands(?) included with MA - zone very broken, some Fe oxide													
19.0	64.7 (19.73)	MA	- meta andesite, diffuse bands and irregular patches of calc silicate particularly from ~ 40' on - calcite veins to 1cm random orientation incl // to foliation - defined by banded calc silicate and hornfelsed MA @ at 45' (20-30° wrt core) - hornfelsing evident 19.0-21, 24.5-30.5, 32-60 (intermittent) - bands of foliated quartz(?) porphyry 35.5-54, individual bands to 15cm wide 20-45° wrt core axis													

DIAMOND DRILL LOG

Collar:	HOLE SURVEY		
	Footage	Azimuth	Dip
NORTH			
EAST			
ELEVATION			
AZIMUTH			
DIP			
MAP REFERENCE	METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. DDH THM 86-106
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N - MIN.	DEPTH FROM/TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	ft SAMPLE ft (m) FROM (m)	TO (m)	WIDTH	Nº.	ASSAYS Au oz/t.	Au ppb		VISUAL LOG	MIN
64.7	70.5 (21.49)	Alaskite	- alaskite dyke													
			- upper contact 60° wrt core axis													
			lower " 50° " " "													
			- limonite as isolated clots and					142.0 (42.29)	147.0 (44.82)	5.0 (1.52)	10903	<.02				
			along fractures (often pyrite)					147.0 (44.82)	149.3 (45.52)	2.3 (.70)	4	"				
70.5	82.4 (25.12)	MA	- meta andesite, minor calc-					149.3 (45.52)	152.0 (46.34)	2.7 (.82)	5	0.03				
			silicate injections					152.0 (46.34)	154.6 (47.13)	2.6 (.79)	6	0.02				
			- calcite veins & veinlets, most					154.6 (47.13)	157.0 (47.87)	2.4 (.73)	7	2.19	1.41			
			at shallow angles to core axis (≤20°)					157.0 (47.87)	158.5 (48.33)	1.5 (.46)	8	0.16	3.9			
			- 5cm thick alaskite band					158.5 (48.33)	162.0 (49.39)	3.5 (1.07)	9	<.02				
			at 75°, 45° wrt core axis					162.0 (49.39)	165.2 (50.37)	3.2 (.98)	10	"				
			- 80-81' calcite-healed					165.2 (50.37)	168.5 (51.37)	3.3 (1.01)	11	"				
			fault breccia, weak olive					168.5 (51.37)	171.5 (52.29)	3.0 (.91)	12	"				
			green stain, gone 35° wrt core					171.5 (52.29)	176.5 (53.81)	5.0 (1.52)	13	"				
			axis					176.5 (53.81)	181.0 (55.18)	4.5 (1.37)	14	"				
82.4	99.4 (28.17)	TV	- tuffaceous volcanics, bowfelsed,					181.0 (55.18)	184.8 (56.34)	3.8 (1.16)	15	"				
		Poss. MA(H)	calcite veinlets, scattered	Fault zone @ 88-90' + CA/Cx ± 5°				184.8 (56.34)	188.0 (57.31)	3.2 (.98)	16	"				
			throughout mina calc silicate					188.0 (57.31)	193.0 (58.84)	5.0 (1.52)	20917	"				
			injections													
			- fault breccia zone 87-91													
			but sub parallel to core; probably													
			quite narrow.													

DIAMOND DRILL LOG

Collar:	HOLE SURVEY		
NORTH	Footage	Azimuth	Dip
EAST			
ELEVATION			
AZIMUTH			
DIP			
MAP REFERENCE	METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. 86-106
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N - MIN.	DEPTH FROM / TO	STRUCTURE STRUC.	STRUCTURE DIP - DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb		VISUAL LOG	MIN
92.4	134.5 (41.00)	MA	- meta andesite, calc silicate bands and patches, calcite veining prominent to 113', - calcite filled fractures subparallel to 20° w.r.t core axis 128-130 (broken core) - 130-131' wavy skarn? band ~ 15° w.r.t core axis - 5cm wide fault breccia at 131' 45° w.r.t core, across above fractures - weak hornfelsing 131-134.5	128-131' Qtz/Cgs altered zone assoc'd with fault.											
134.5	138.0 (42.07)	TV	- laminated tuffaceous volcanics (30° w.r.t core axis) - hornfelsed calc-silicate injections (weak) calcite veining both ∥ to laminations and crosscutting at steep angle												
138.0	142 (43.29)	MA	- meta andesite, calc-silicate injections												
142.0	147 (44.82)	TV	- tuff volcanics, hornfelsed calc silicate injections - some disseminated py, po	covered by MA(H)											

DIAMOND DRILL LOG

Collar:	HOLE SURVEY		
	Footage	Azimuth	Dip
NORTH			
EAST			
ELEVATION			
AZIMUTH			
DIP			
MAP REFERENCE	METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. 86-106
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb		VISUAL LOG	
140	154.6 (47.13)	TV (MA, HK.)	- as above but skarn alteration developing,	147-148- MA SK.												
			- scattered pink garnets	148-												
154.6	157.0	skarn	- quartz rich skarn (TV hosted)													
	154.6-155.6 (47.44)	MA (SK)														
	155.6-157.0 (47.87)	banded skarn.	- very siliceous band ~6"													
	157-157.3 (47.96)	TV + Qtz + Sk.	wide in middle of interval with dissem py po small segregation of galena, sphalerite, tetrahedrite													
157.0	173.0 (52.74)	TV/MS	- Tuffaceous volcanics hornfelsed, intercalated with dark grey unit - looks sedimentary, is quite broken up with calcite coated fractures, calcite matrixed breccia at 169'													
173.0	184.3 (56.19)	MS (SH)	- interval dominated by mudstone/shale unit very broken up with calcite coated fractures													
			- some tuff. volc included													
184.3	197 (60.05)	MA	- meta andesite with scattered small qtz and calc-silicate injections with dissem. po, py													
197	204 (62.20)	TV	- isolated unit primarily tuffaceous volcanics with banded calc-silicate injections, calcite veinlets 40° to core axis													

END OF HOLE

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
NORTH	458.31	Footage	Azimuth	Dip
EAST	- 419.07			
ELEVATION	2171.38			
AZIMUTH	106°			
DIP	-48°			
MAP REFERENCE		METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE No. DDH THM 86-107
CLAIM NAME
COMMENCED July 21, 1986
FINISHED " " "
LOGGED BY WR
DATE LOGGED

INTERVAL FROM (m)	TO (m)	LITHOLOGY ROCKTYPE	DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUCTURE STRUC.	DIP-DIR	ft SAMPLE FROM (m)	ft TO (m)	ft (m) WIDTH	No.	ASSAYS Au oz/t	Au ppb		VISUAL LOG
0	6.0 ft	casing	Meta Andesite, calc silicate altered.												
	(1.83)		, hornfelsed.												
6.0	51.8	MA K,H.			14.5' / 15'	fault @ / S1	20°/CA / 020/CA								
	(15.79)		- Meta Andesite pervasively altered	calc-silicate		S2 (fr.)	070/c.A.								
			with wispy undulating pale green-white	hornfels.	22'	S1-S0?	030°/CA								
			calc-silicate injections accompanied		19'	fault @	20°/c.A.	44.0 (13.41)	48.0 (14.63)	4.0 (1.22)	20918	<.02			
			by purplish brown zones of hornfels.		36'	S1/S1 ~	40°c.A	48.0 (14.63)	51.5 (15.70)	3.5 (1.07)	19	"			
					45'	fault ~	30°/c.A.	51.5 (15.70)	54.0 (16.46)	2.5 (.76)	20	"			
								54.0 (16.46)	58.5 (17.83)	4.5 (1.37)	21	"			
51.8	54	Dp	- light grey, mottled felspar	- little to no				58.5 (17.83)	62.5 (19.05)	4.0 (1.22)	22	"			
	(16.46)		porphyry dyke. subhedral	alteration.	51.8	contact ~	15°/c.A.	62.5 (19.05)	65.0 (19.82)	2.5 (.76)	23	"			
			white < 3mm phenocrysts of					65.0 (19.82)	70.0 (21.34)	5.0 (1.52)	24	"			
			plagioclase in pale green matrix					70.0 (21.34)	73.0 (22.25)	3.0 (.91)	25	"			
								73.0 (22.26)	76.0 (23.17)	3.0 (.91)	26	"			
								76.0 (23.17)	79.0 (24.08)	3.0 (.91)	27	"			
	58.4	MA K,H	- see interval 6.0 – 51.8 ft.	- same as above				79.0 (24.08)	82.0 (25.00)	3.0 (.91)	28	"			
	(17.80)			interval 6.0 – 51.8 ft.	57.0	S/S0?	30°/c.A.	82.0 (25.0)	85.0 (25.91)	3.0 (.91)	20929	"			
	62.5	Dp	- white to pale grey to pinkish	- minor wispy	58.4	- contact	~ 15°/c.A.								
	(19.05)		diorite porphyry. < 5mm	Py + Po < 1%											
			white subhedral plagioclase in f.g.												
			matrix ± euhedral garnets												

DIAMOND DRILL LOG

Collar:	HOLE SURVEY		
	Footage	Azimuth	Dip
NORTH			
EAST			
ELEVATION			
AZIMUTH			
DIP			
MAP REFERENCE	METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. DDH THM 86-107
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N - MIN.	DEPTH FROM / TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb		VISUAL LOG
62.5	74.0 (22.54)	MA K,H.	- massive fol. altd meta andesite with intense irregular calc-silicate and hornfels alteration	- Intense calc-silicate + hornfels, later white mes. qtz/cpy= with low Po, Py.											
	78.0 (23.78)	MA K,H,SK	- pale green meta andesite with augmint of calc-silicate, hornfels and skarn alteration.	- high K, high H low skarn minor garnet, low qtz, low Po, Py.	TO 75.0	S0/S1	15-20°/c.A.								
	82.0 (25.00)	MA H,K	- green - pale green - purplish brown meta andesite, Minor zone of 1.0 fol. of skarn altered meta and.	- high K, low H. - short interval of sil. altered MA.											
	108 (32.93)	MA A.	Dark to med - light green C.gr meta andesite Cut Fault + Qtz fillings of white Qtz/cpy= $< \frac{1}{2}$"	- Low SiO_2/cpy= altered.	102, 103', 105'	Qtz/cpy= Fault	25°/c.A.								
	110 (33.54)	MA H,K	Meta andesite - purplish green	- strong H. strong K.											
	110.4 (33.66)	LAMP	- Brown lamp dyke		Contact		030°/cd.								

DIAMOND DRILL LOG

Collar:	HOLE SURVEY		
	Footage	Azimuth	Dip
NORTH			
EAST			
ELEVATION			
AZIMUTH			
DIP			
MAP REFERENCE	METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. 86-107
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL		LITHOLOGY		ALT'N-MIN.	DEPTH	STRUCTURE		SAMPLE				ASSAYS			VISUAL LOG	MIN
FROM (m)	TO (m)	ROCKTYPE	DESCRIPTION		FROM TO	STRUC.	DIP-DIR	FROM (m)	TO (m)	WIDTH	Nº.	Au oz/t.	Au ppb			
110.4	113.5	MA A + LAMP	60% - light green altered	- high SiO_2/CO_3	110 113	~ Bo/S1	35°/c.A									
	(3.40)		meta andesite, 40% brown													
			lamp dyke.													
	115.0	LAMP + SKARN	- 70% brown lamp dyke	- good skarn												
	(35.0)		30% qtz - calc-sil - hornfel	with 5-6% Po, Py												
			skarn.	Tr. Zn S.												
			Hole stopped short													
			E.O.H													

Assx

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
NORTH	458.4 } est.	Footage	Azimuth	Dip
EAST	-419.5 } est.			
ELEVATION	2171.4 } est.			
AZIMUTH	106°			
DIP	-54°			
MAP REFERENCE		METHOD:		

PROJECT: ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME: TILLICUM
DRILLING CONTRACTOR:
ASSAYER: MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE:

HOLE No.: 86-108
CLAIM NAME:
COMMENCED:
FINISHED:
LOGGED BY: WR
DATE LOGGED:

INTERVAL FROM (m/ft)	INTERVAL TO (m/ft)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m) ft	SAMPLE TO (m) ft	SAMPLE WIDTH ft (m)	SAMPLE No.	ASSAYS Au oz/t.	ASSAYS Au ppb		VISUAL LOG
0	8.0 (2.44)	Casing	- MA H,K												
	58.3	MA K,H.	- Meta andesite with calc-silicate	high K											
	(17.77)		+ hornblende alteration irreg	high K	36'	So/S1, S2 (foc.	25°/c.A 55°/c.A	57.0 (17.38)	62.0 (18.90)	5.0 (1.52)	20951	<0.02			
			pods + frac. controlled altered					62.0 (18.90)	63.5 (19.36)	1.5 (.46)	52	"			
			zones.		50'	bioth	-25°/c.A	63.5 (19.36)	65.0 (19.82)	1.5 (.46)	53	"			
58.3	60	MA + anhedral Dp. injection						65.0 (19.82)	68.0 (20.73)	3.0 (.91)	54	"			
	(18.29)		- Altered Meta Andesite with	- high Dp + skarn.				68.0 (20.73)	71.0 (21.65)	3.0 (.91)	55	"			
			injected anhedral green-white	- low K, low H.				71.0 (21.65)	75.0 (22.87)	4.0 (1.22)	56	"			
			Dp. ± garnets ± late qtz/CO3-	- moderate qtz/CO3=				75.0 (22.87)	79.0 (24.09)	4.0 (1.22)	57	"			
								79.0 (24.09)	82.2 (25.04)	3.2 (.98)	58	"			
	61	Fault.	- oxidized + fractured MA.					82.2 (25.06)	84.0 (25.61)	1.8 (.55)	59	"			
	(18.60)		- poss. related to adj. zone of					84.0 (25.61)	87.0 (26.52)	3.0 (.91)	60	"			
			alteration, slickensides @					87.0 (26.52)	90.0 (27.44)	3.0 (.91)	61	"			
			20°/c.A.					90.0 (27.44)	95.0 (28.96)	5.0 (1.52)	62	"			
	62	MA H.K.	- same as interval 8 - 58.3					95.0 (28.96)	99.4 (30.30)	4.4 (1.34)	63	"			
	(18.90)							99.4 (30.30)	101.7 (31.01)	2.3 (.70)	64	"			
	66	MA SK,H,K	pale green-brownish altered	- low-mod. SiO2/CO3=				101.7 (31.01)	104.2 (31.77)	2.5 (.76)	65	"			
	(20.12)	(Fault)	Meta andesite - Appears to	- low H				104.2 (31.77)	106.2 (32.38)	2.0 (.61)	66	"			
			be sil'd + CO3= altered. minor	- low K.				106.2 (32.38)	109.0 (33.23)	2.8 (.85)	20967	"			
			diss Po, Py. Oxidized + altered												
			Fault 64-65'												

DIAMOND DRILL LOG

Collar:	HOLE SURVEY		
	Footage	Azimuth	Dip
NORTH			
EAST			
ELEVATION			
AZIMUTH			
DIP			
MAP REFERENCE	METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. 86-108
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL		LITHOLOGY		ALT'N-MIN.	DEPTH	STRUCTURE		SAMPLE				ASSAYS			VISUAL LOG	MK
FROM (m)	TO (m)	ROCKTYPE	DESCRIPTION		FROM TO	STRUC.	DIP-DIR	FROM (m)	TO (m)	WIDTH	Nº.	Au oz/t.	Au ppb			
66.0	79	MA H,K.	- Meta Andesite overall	- high K												
	(24.08)		highly calc-silicate + hornfels	- high H												
			altered. Short zones of	- overall low Sk.												
			pale green silicification + $CO_3^=$													
	82.5	Dp	- white - beige - pink													
	(25.15)		Diorite porphyry, minor entrained		79.0	?	?									
			garnets, low Po, Py.		87.5	contact	60°/c.A.									
			- tube did not total @ 80'													
	92.0	MA HK	' zones 66.0 - 79.0													
	(28.05)	low Sk.	- minor inter garnet bearing zone													
			of calc-silicate skarn.													
	99.2	MA A.	- pale green altered meta andesite	low Sk												
	(30.24)	(Sk, Qtz, $CO_3^=$)	-	low Qtz / $CO_3^=$												
				low H low K.												
	102.0	Dp	- white diorite porphyry, minor													
	(31.10)		Sulf Po, Py.		102	contact	~30°/c.A.									
	104.5	MA A	- light green, meta andesite	Tr Po, Py.												
	(31.86)		- low Sulf + $CO_3^=$ altered													

DIAMOND DRILL LOG

Collar:	HOLE SURVEY		
	Footage	Azimuth	Dip
NORTH			
EAST			
ELEVATION			
AZIMUTH			
DIP			
MAP REFERENCE	METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. 86-108
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL		LITHOLOGY		ALT'N-MIN.	DEPTH	STRUCTURE		SAMPLE				ASSAYS			VISUAL LOG	MAG SUS
FROM (m)	TO (m)	ROCKTYPE	DESCRIPTION		FROM TO	STRUC.	DIP-DIR	FROM (m)	TO (m)	WIDTH	Nº.	Au oz/t.	Au ppb			
104.5	106' (32.32)	Dp	- white Diorite porphyry. - enhedral plag. in pale grey to white matrix	- low - fracs & or. lysal												
	106.5 (32.47)	Fault.			3m	~	15°/cA.									
	114.0 (34.76)	MA.	- Massive light to med. greens meta andesite, colour becoming paler with depth. Hole stopped short!													
			E.o.H.													

DIAMOND DRILL LOG

Collar:
- NORTH 457.51
- EAST -420.76
- ELEVATION 2171.68
- AZIMUTH 070°
- DIP -57°
- MAP REFERENCE

HOLE SURVEY		
Footage	Azimuth	Dip

METHOD:

- PROJECT: ESPERANZA EXPLORATIONS LTD.
- PROPERTY NAME: TILLICUM
- DRILLING CONTRACTOR:
- ASSAYER: MIN-EN LABORATORIES LTD.
- PURPOSE OF HOLE:

- HOLE No. 86-109
- CLAIM NAME
- COMMENCED
- FINISHED
- LOGGED BY WR
- DATE LOGGED

INTERVAL FROM (FT)	INTERVAL TO (FT)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE No.	ASSAYS Au oz/t	ASSAYS Au ppb		VISUAL LOG
0	10.0	Casing	MA H,K.												
10.0	(3.05) 48.0	MA H.K.	- Meta Andesite	- high K, high H											
	(14.63)				19.0	So/S1	05°/cA								
				Fault 1' blocked	26.0										
				Fault 1' blocked	35.0 / 43'	So/S1	35°/cA.	59.5 (18.14)	62.5 (19.05)	3.0 (.91)	20930	<0.02			
	49.0	Fault, Sk.	- oxidized brecciated Meta Andesite + late					62.5 (19.05)	66.0 (20.12)	3.5 (1.07)	31	"			
	(14.93)		carbonate, low Qtz. highly oxidized	- poss. fault zone				66.0 (20.12)	70.0 (21.34)	4.0 (1.22)	32	"			
	59.5 (18.14)	MA, H.K.	- intense altered M.A.	High K, high H.		So/S1	45°/cA.	70.0 (21.34)	72.0 (21.95)	2.0 (.61)	33	"			
	63.0 (19.21)	DP.	- grey, white - pink Diorite Porphyry					72.0 (21.95)	74.0 (22.56)	2.0 (.61)	34	0.09			
	70.0	MA H.K.	- pale green meta Andesite, low	mod H, high K.	66.0	So/S1	25-30°/cA	74.0 (22.56)	76.0 (23.17)	2.0 (.61)	35	<0.02			
	(21.34)	low Sk.	Sk. altered,					76.0 (23.17)	81.0 (24.69)	5.0 (1.22)	36	"			
	71.0 (21.64)	MA sk.	- pale green skarn altered MA, diss garnets	- low S=, low Sk.				81.0 (24.69)	86.0 (26.22)	5.0 (1.27)	37	"			
	72.0	SKARN	- banded green, light orange-brown - white	- and < 2% Po, Py.				86.0 (26.22)	89.4 (27.26)	3.4 (1.04)	38	"			
	(21.95)		to black ~~banded~~ skarn minor garnets	- laminae		So/S1	30°/cA.	89.4 (27.26)	90.4 (27.56)	1.0 (.30)	39	"			Au
	73.0	Tu+Qtz	- dk purplish grey - blk. lam'd					90.4 (27.56)	93.0 (28.35)	2.6 (.79)	20940	"			
	(22.24)		Tu+Ts with white qtz veining			So	20°/cA.								
			low Py, Po.												
	89.2	Tu+Ts (sk)	- laminated Tu + creamy Ts												
	(27.20)		with erratic pale-green skarn	- low Sk.		So overall	40°/cA.								
			injections with clots of chlorite												
			pyrite Pyrrhotite.												

DIAMOND DRILL LOG

Collar:	HOLE SURVEY		
	Footage	Azimuth	Dip
NORTH			
EAST			
ELEVATION			
AZIMUTH			
DIP			
MAP REFERENCE	METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. 86-109
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL FROM (METER)	TO (m) Ft	LITHOLOGY ROCKTYPE	DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUCTURE STRUC.	DIP-DIR	SAMPLE FROM (m)	TO (m)	WIDTH	Nº.	ASSAYS Au oz/t.	Au ppb		VISUAL LOG	
89.2	90.0	Qtz/carb vein	- white qtz calcite vein with													
	(27.44)		2-3% Py + Po.													
	106.0	Tv+Ts(H)	- laminated light brown	- low K												
	(32.32)		hornblend tuffaceous sediment	- mod H		undulating										
			with dark purplish grey argillaceous sediment	- low Sk.		laminations										
			or possibly Tv. laminations			average	10-30°/cA									
			average 0.5 to 1.0 cm thick													
			- Injected by erratic injection			injections average	~30°/c.A.									
			of calc-silicate with chlorite													
			clots and Po/Py													
			E.O.H													

1986

DIAMOND DRILL LOG

Collar:
NORTH 422.8
EAST -390.1
ELEVATION 2160.1
AZIMUTH 034°
DIP -28°
MAP REFERENCE

HOLE SURVEY		
Footage	Azimuth	Dip

METHOD:

PROJECT: ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME: TILLICUM
DRILLING CONTRACTOR:
ASSAYER: MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE:

HOLE No. HAV 86-1
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY J.Mc
DATE LOGGED

INTERVAL FROM (m)	TO (m)	LITHOLOGY ROCKTYPE	DESCRIPTION	ALT'N-MIN.	DEPTH FROM / TO	STRUCTURE STRUC.	DIP-DIR	SAMPLE FROM (m)	TO (m)	WIDTH	No.	ASSAYS Au oz/t.	Au ppb		VISUAL LOG
0	4	MFnk	[illegible] andesite - becoming	skarning of	10 / 12.2										
			tuffaceous by 10 feet	rock calc-sil											
				& lesser qtz impreg	E	S_1	30°	4.0 (1.22)	7.0 (2.13)	3.0 (.91)	20968	<0.02			
								7.0 (2.13)	9.0 (2.74)	2.0 (.61)	69	0.13			
								9.0 (2.74)	11.0 (3.35)	2.0 (.61)	70	0.02			
12.2	26	Tvskarn	Variably skarned tuff light	Po Py ~5%	12.2			11.0 (3.35)	13.7 (4.18)	2.7 (.82)	71	<0.02			
(3.72)			green grey to pinkish grey	Trace Sp				13.7 (4.18)	17.0 (5.18)	3.3 (1.01)	72	"			
				calc-sil & qtz impreg				17.0 (5.18)	20.0 (6.10)	3.0 (.91)	73	"			
								20.0 (6.10)	24.0 (7.32)	4.0 (1.22)	74	"			
								24.0 (7.32)	27.0 (8.23)	3.0 (.91)	75	0.06			
26	50	DHgkn	Diorite hybrid - porphyritic	Sp ~1% locally	26			27.0 (8.23)	30.0 (9.15)	3.0 (.91)	76	0.07			
(7.93)			texture becoming apparent by	to 3% associated	26	S_1	25°-30°	30.0 (9.15)	34.0 (10.37)	4.0 (1.22)	77	0.04			
			32 feet. Well developed S_1	with qtz impreg				34.0 (10.37)	36.0 (10.98)	2.0 (.61)	78	<0.02			
			foliation garnet porphyroblasts					36.0 (10.98)	39.0 (11.89)	3.0 (.91)	79	"			
			~3% locally to 3mm in diametre	qtz-calcite vein	46 / 46.5	Vein	30° [illegible]	39.0 (11.89)	41.0 (12.50)	2.0 (.61)	80	"			
								41.0 (12.50)	44.0 (13.41)	3.0 (.91)	81	"			
50		Tsnk	hornfelsed laminated tuffaceous	Py & Po dis along	50 52 EOH	lam	30°	44.0 (13.41)	46.5 (14.12)	2.5 (.76)	82	"			
(15.24)			siltstone med grey	preferentially along				46.5 (14.12)	50.0 (15.24)	3.5 (1.07)	83	"			
				specific lamination				50.0 (15.24)	52.0 (15.85)	2.0 (.61)	20984	"			
	52		EOH	trace Sp											
	(15.85)														

DIAMOND DRILL LOG

HAU

HOLE Nº.	HAU 86-2
CLAIM NAME	
COMMENCED	
FINISHED	
LOGGED BY	JMS
DATE LOGGED	

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

Collar:		HOLE SURVEY		
		Footage	Azimuth	Dip
NORTH	422.8			
EAST	-390.1			
ELEVATION	2160.1			
AZIMUTH	034°			
DIP	-40°			
MAP REFERENCE		METHOD:		

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb	VISUAL LOG	MIN.
0	11.4 (3.48)	MAnk	Andesite - zebra texture	Calc-sil impreg	0 / 11.4	impreg shear	35-45°								
11.4	19.9 (6.07)	TVk	sheared tuff - 5" ~ 2% typical grey - purple grey colour	Py + Pp ~ 2% qtz impreg	11.4			11.4 (3.48)	14.0 (4.27)	2.6 (79)	20985	0.11			
								14.0 (4.27)	17.0 (5.18)	3.0 (91)	86	0.02			
								17.0 (5.18)	20.0 (6.10)	3.0 (91)	94	<0.02			
								20.0 (6.10)	22.9 (6.98)	2.9 (88)	95	"			
				Trace Sphalerite	19.9 / 20.7	Shear	109°	22.9 (6.98)	23.7 (7.23)	0.8 (24)	87	"			
19.9	20.9 (6.37)	TVk	more strongly sheared & qtz impreg 5" - 5% traces Sphalerite					23.7 (7.23)	26.0 (7.93)	2.3 (70)	96	"			
								26.0 (7.93)	31.0 (9.45)	5.0 (152)	97	"			
								31.0 (9.45)	33.0 (10.06)	2.0 (61)	88	"			
								33.0 (10.06)	36.0 (10.98)	3.0 (91)	89	"			
20.9	21.9 (6.68)	TVk Breccia	Calcite cemented breccia					36.0 (10.98)	38.2 (11.64)	2.2 (67)	90	"			
								38.2 (11.64)	41.0 (12.50)	2.8 (85)	91	"			
21.9	26.8 (8.17)	TV/TsK	less intensely sheared, red grey Tuffaceous sediments	Py Pp 3% fracture coatings & dissemation	20.9 / 20.9	graphitic Shear	10°	41.0 (12.50)	43.0 (13.11)	2.0 (61)	92	"			
								43.0 (13.11)	47.2 (14.39)	4.2 (128)	93	"			
								47.2 (14.39)	50.7 (15.44)	3.5 (107)	98	"			
								50.7 (15.44)	53.1 (16.19)	2.4 (73)	99	"			
26.8	28.5 (8.69)	DHKq	Intensely sheared diorite hypmid garnet porphroblasts ~ 5%.	Sp Pp Py qtz impreg total 5" ~ 5%	26.8 / 28.8	Contact	50°	53.1 (16.19)	55.0 (16.77)	2.9 (88)	21000	"			
28.5	32 (9.76)	TsKq	sheared Tuffaceous seds							1					
32	47 (14.33)	DHKq	as at 26.8 to 28.8												

PAGE 2 of 2

1986

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
		Footage	Azimuth	Dip
NORTH				
EAST				
ELEVATION				
AZIMUTH				
DIP				
MAP REFERENCE		METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. 86-[illegible]
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY TMC
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM / TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE Nº	ASSAYS Au oz/t	ASSAYS Au ppb	ASSAYS	VISUAL LOG	MIN
47	55.5	Tsn skn	~~weakly~~ skarned laminated	Pø Py Sp ~3%	47 / 53											
	(16.92)		Tuffaceous sedimentary rock	skarned												
			mottled pink & light to med grey.	weakly skarned	53 / 55.5											
55.5		DHnk	Diorite hybrid strongly	Pø Py diss.	55.5 55.5 / EOH	Schistosity	25°									
			developed schistosity	trace Sp.												
	57	EOH														
	(17.38)															

1986

DIAMOND DRILL LOG

Collar:
NORTH 423.49
EAST -390.51
ELEVATION 2160.25
AZIMUTH 000°
DIP -30°
MAP REFERENCE

HOLE SURVEY		
Footage	Azimuth	Dip

METHOD:

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE No. HAV 86-3
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY [illegible]
DATE LOGGED

INTERVAL FROM (m)	TO (m)	LITHOLOGY ROCKTYPE	DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUCTURE STRUC.	DIP-DIR	SAMPLE FROM (m)	TO (m)	WIDTH	No.	ASSAYS Au oz/t.	Au ppb		VISUAL LOG
0	3.5	MAnk?	greenygrey [illegible] andesite	Py ~1% [illegible]	0/3.5										
	(1.07)		calc silicate [illegible] widespread.	fractures [illegible].				9.5 (2.90)	11.8 (3.60)	2.3 (.70)	21501	0.03			
				Calc-silicate [illegible]											
					35	Fault	rubble								
3.5	[illegible]	lamp	Lamprophyre dyke chilled					31.6 (9.63)	33.0 (10.06)	1.4 (.43)	2	<0.02			
	(8.38)		margin . diabase core.					33.0 (10.06)	36.0 (10.98)	3.0 (.91)	3	"			
								36.0 (10.98)	39.0 (11.89)	3.0 (.91)	4	"			
[illegible]8.0	29	TV/Ts	med grey strongly sheared		27.5/28	Fault	rubble	39.0 (11.89)	41.3 (12.59)	2.3 (.70)	5	"			
	(8.84)		pyrophyllite coating shear planes.		29	Shear	10°								
								46.3 (14.11)	50.0 (15.24)	3.7 (1.13)	6	"			
29	41.2	Ts/Tv skarn (8kg)	mottled pale grey-green and pink	Po Py Sp [illegible].	29/41.2	S1	10°	50.0 (15.24)	52.8 (16.10)	2.8 (.85)	7	0.05			
	(12.56)			total S" 5%				52.8 (16.10)	56.7 (17.29)	3.9 (1.19)	8	<0.02			
								60.0 (18.29)	62.5 (19.05)	2.5 (.76)	9	"			
41.2	44	Tskn	grey laminated Ts, skarning	Po Py, Sp 3%	41.2/44	lami	20°								
	(13.41)		less intense (core not split!)					68.0 (20.73)	70.0 (21.34)	2.0 (.61)	10	"			
			~~[illegible]~~					70.0 (21.34)	72.0 (21.95)	2.0 (.61)	11	"			
								72.0 (21.95)	74.8 (22.80)	2.8 (.85)	12	"			
44	53	Skn (Ts)	intensely skarned, typical	8% Py Po Sp Ga											
	(16.16)		pinkish grey - ~~[illegible]~~ qtz	Aspy? trace	44/53	S1	10°	76.8 (23.41)	78.6 (23.96)	1.8 (.55)	13	"			
			in prey	qtz in prey				78.6 (23.96)	83.0 (25.30)	4.4 (1.34)	21514	"			
				form 5% of rock											
53	57 (17.38)	DHkng	Diorite hybrid pale green grey	3% Po Py +/- Sp	53	Contact	30°								

1986

DIAMOND DRILL LOG

Collar:	HOLE SURVEY		
	Footage	Azimuth	Dip
NORTH			
EAST			
ELEVATION			
AZIMUTH			
DIP			
MAP REFERENCE	METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. 76-3
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM	DEPTH TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb		VISUAL LOG	
			garnet porphyroblast 3% moderately skarned														
57	60 (15.29)	Tsrk	laminated siltstone, variably skarned, well developed laminations.	Sulphides banded conformable to So (bedding) Combined Po Py & Sp 3%	57	60	So	10-0									
60	62.1 (18.93)	Ts sk q	light grey to pinkish grey mottled	Po Py Sp 5% qtz impregs to rem.													
62.1	68.8 (20.97)	Ts breccia	Carbonate cemented brecciated grey tuffaceous siltstone to tuff bedding indistinct	5" Po & Py v 3%	62.1	68.8											
68.8	75 (22.86)	OHkqn	skarned diorite hybrid, indistinct porphyritic TexTure garnet porphroblasts to 5%	5% Po & Py Trace Sp.	68.8		Contact	25-30°									
75	82 (25.00)	Ts/Tuffk	- ~~calc~~ tuffaceous siltstone to tuff ~~pale~~ grey to grey green calcite veinlets locally ~~brecciated~~ cemented breccia	2% Po Py variously hornfelsed and skarned.	75	82											
82		DHkqn	as at 68.8 to 75		77	82											

236 (25.3) EOH

* from quick log - original log lost

1986

DIAMOND DRILL LOG

Collar:		HOLE SURVEY		
		Footage	Azimuth	Dip
NORTH	423.0			
EAST	-390.6 est			
ELEVATION				
AZIMUTH	0020°			
DIP	-40°			
MAP REFERENCE		METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE No. DDH HAU 86-4
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY BD
DATE LOGGED

INTERVAL		LITHOLOGY		ALT'N-MIN.	DEPTH	STRUCTURE		SAMPLE				ASSAYS			VISUAL LOG	MIN
FROM (m)	TO (m)	ROCKTYPE	DESCRIPTION		FROM TO	STRUC.	DIP-DIR	FROM (m)	TO (m)	WIDTH	No.	Au oz/t.	Au ppb			
0	6.0	MA	- meta andesite													
6.0	20.8	LMP	- lamprophyre dyke													
20.8	24.7	MA_N	- skarn-altered meta-andesite													
24.7	30.7	TV_N	- skarn altered tuff volcanics													
30.7	38.0	Sk	- skarn zone													
38.0	39.2	TV_N	- skarn altered tuff volcanics													
39.2	64.7	Sk (DA?)	- skarn zone (hybrid diorite; dioritized TV/Te)													
64.7	69.0	TV_N	- skarn altered tuff volcanics													
69.0	70.5	Sk	- skarn zone													
70.5	72.0	TV_N	- skarn altered tuff volcanics													

1986

DIAMOND DRILL LOG

Collar:
NORTH 422.4
EAST -390.6
ELEVATION 2160.25 (est)
AZIMUTH 000°
DIP -55°
MAP REFERENCE

HOLE SURVEY		
Footage	Azimuth	Dip

METHOD:

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE No. HAu 86-5
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY [illegible]
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE No.	ASSAYS Au oz/t	ASSAYS Au ppb	ASSAYS	VISUAL LOG
0	8'	MAkr	meta andesite grey-green	Py & Po trace	0/8										
	(2.44)		Calc silicate impregnations												
			becoming zebra andesite	5% Py & Po	2.5/8										
			by 6 feet												
8	21	Lamp.	lamprophyre - diabase		21	Contact	60°	20.4 (6.22)	24.3 (7.41)	2.9 (.88)	21532	<0.02			
	(6.40)		medium grained					24.3 (7.41)	25.6 (7.80)	1.3 (.40)	33	"			
								25.6 (7.80)	29.2 (8.90)	3.6 (1.10)	34	"			
								29.2 (8.90)	31.5 (9.60)	2.3 (.70)	35	"			
21	23.5	MAkr						31.5 (9.60)	32.5 (9.91)	1.0 (.30)	36	0.20			
	(7.16)							32.5 (9.91)	33.7 (10.27)	1.2 (.36)	37	31.14			
								33.7 (10.27)	35.5 (10.82)	1.8 (.55)	38	0.16			
								35.5 (10.82)	37.5 (11.43)	2.0 (.61)	39	0.03			
23.5	32	DH?/TS?kg	light grey colour indistinct	qtz impreg to	23.5/32			37.5 (11.43)	41.0 (12.50)	3.5 (1.07)	40	<0.02			
	(9.76)		hybrid porphyry (possibly TS?)	3cm, calc-sil	30	S1	30°	41.0 (12.50)	44.0 (13.41)	3.0 (.91)	41	"			
			3% f.g. garnet porphyroblasts	impreg				44.0 (13.41)	48.0 (14.63)	4.0 (1.22)	21542	"			
			moderately to strongly skarned	Py Po Cpy tr Sp											
				total S" 3%-5%											
32	48	MA/TV ~~TV/TS Kg~~	Well skarned MA ~~TV~~ (possibly TV)												
	(14.63)		tuff - skarning variable	S" 5% mostly	32/42										
				Py & Po Sp, gal											
				Cpy											

1986

DIAMOND DRILL LOG

Collar:	HOLE SURVEY		
	Footage	Azimuth	Dip
NORTH			
EAST			
ELEVATION			
AZIMUTH			
DIP			
MAP REFERENCE	METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. 26
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL		LITHOLOGY		ALT'N-MIN.	DEPTH	STRUCTURE		SAMPLE				ASSAYS			VISUAL LOG	MIN
FROM (m)	TO (m)	ROCKTYPE	DESCRIPTION		FROM TO	STRUC.	DIP-DIR	FROM (m)	TO (m)	WIDTH	Nº.	Au oz/t.	Au ppb			
				5" decrease to 3%	42 45											
				Steaming [illegible]												
41	55	Mafic	basaltic with calcite fracture	Calc-silicate	42 for 45	51	45°									
				Copper [illegible]												
				to core becomes												
				more calcite fracture												
				end of hole												
	65		EOH													
	(19.82)															

1986

PAGE 1 of 2

DIAMOND DRILL LOG

Collar:	
NORTH	422.2
EAST	-390.2
ELEVATION	2160.1
AZIMUTH	064°
DIP	-55°
MAP REFERENCE	

HOLE SURVEY		
Footage	Azimuth	Dip

METHOD:

PROJECT: ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME: TILLICUM
DRILLING CONTRACTOR:
ASSAYER: MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE:

HOLE No. HAV 86-6
CLAIM NAME:
COMMENCED:
FINISHED:
LOGGED BY: [illegible]
DATE LOGGED: [illegible]

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE No.	ASSAYS Au oz/t	ASSAYS Au ppb	VISUAL LOG
						S1	[illegible]							
0	[illegible]	MA	Meta Andesite locally zebra textured	[illegible] Po	2/7.5									
	(2.29)		[illegible]	calc-silicate impreg										
								12.5 (3.81)	15.0 (4.57)	2.5 (.76)	21601	<0.02		
7.5	30	MAck	Skarning increasing down	Calc-sil and	7.5			15.0 (4.57)	17.0 (5.18)	2.0 (.61)	2	"		
	(9.15)		hole. - Colour change to	qtz impreg increase	17	S1	15°	17.0 (5.18)	20.0 (6.10)	3.0 (.91)	3	"		
			pale green-grey and pinkish grey	down hole				20.0 (6.10)	21.9 (6.67)	1.9 (.58)	4	"		
			mottled well developed skarn	Py Po, Sp Cpy	17/30	qtz impreg	5°	21.9 (6.67)	23.6 (7.19)	1.7 (.52)	5	55.60		
			17' to 30	trace galena				23.6 (7.19)	27.0 (8.23)	3.4 (1.03)	6	0.63		
				Total S" 8%				27.0 (8.23)	28.5 (8.69)	1.5 (.46)	7	<0.02		
				V.G. (spectacular!)	22/23			28.5 (8.69)	32.0 (9.75)	3.5 (1.07)	8	"		
				[illegible] calc-sil impreg				32.0 (9.75)	34.0 (10.36)	2.0 (.61)	9	"		
					30			34.0 (10.36)	37.0 (11.28)	3.0 (.91)	10	0.05		
30	~~48~~ 47	DHck	Skarned DH (mottled ~~texture~~ indistinct	Sphalerite to 2%	30/42			37.0 (11.28)	40.0 (12.20)	3.0 (.91)	11	<0.02		
	(14.33)		Porphyritic texture. Pale grey to pinkish grey w f.g. garnet porphyroblasts.	associated w qtz				40.0 (12.20)	44.0 (13.41)	4.0 (1.22)	12	"		
			maybe intensely altered & skarned	impreg				44.0 (13.41)	47.3 (14.42)	3.3 (1.01)	13	"		
			MA.	Total S" 8%				47.3 (14.42)	52.0 (15.85)	4.7 (1.43)	14	2.92		
				mainly Py & Po				52.0 (15.85)	53.3 (16.25)	1.3 (.40)	15	1.24		
47				Cpy tr to 0.5%				53.3 (16.25)	54.9 (16.74)	1.6 (.49)	21616	<0.02		
				S" to 3%	42									
				Sp trace.										

1986

DIAMOND DRILL LOG

Collar:	HOLE SURVEY		
	Footage	Azimuth	Dip
NORTH			
EAST			
ELEVATION			
AZIMUTH			
DIP			
MAP REFERENCE	METHOD:		

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº.	86-6
CLAIM NAME	
COMMENCED	
FINISHED	
LOGGED BY	
DATE LOGGED	

INTERVAL		LITHOLOGY		ALT'N-MIN.	DEPTH	STRUCTURE		SAMPLE				ASSAYS		VISUAL LOG	MIN
FROM (m)	TO (m)	ROCKTYPE	DESCRIPTION		FROM TO	STRUC.	DIP-DIR	FROM (m)	TO (m)	WIDTH	Nº.	Au oz/t.	Au ppb		
0.0	[illegible]	Sheared	intensely sheared Meta-	Calc-silicate &											
	(16.62)		andesite - pinkish grey mottled	quartz impregnations											
			texture lower contact	<1% 2%											
			gradational into schist & basalt	Sphalerite <1%											
				trace Cpy											
				trace galena											
				remainder <1% Py											
[illegible]		Mafic	Zoned andesite grey green	Calc-silicate	[illegible]										
			mottled texture	impreg											
				Sph + Py <2%	[illegible]										
				mainly as fracture											
	67	EOH													
	(20.43)														

1986

DIAMOND DRILL LOG

Collar:	
NORTH	422.4
EAST	-390.4
ELEVATION	2160.25
AZIMUTH	034°
DIP	-55°
MAP REFERENCE	

HOLE SURVEY		
Footage	Azimuth	Dip

METHOD:

PROJECT ESPERANZA EXPLORATIONS LTD.

PROPERTY NAME TILLICUM

DRILLING CONTRACTOR

ASSAYER MIN-EN LABORATORIES LTD.

PURPOSE OF HOLE

HOLE Nº. TAV 86-7

CLAIM NAME

COMMENCED

FINISHED

LOGGED BY [illegible]

DATE LOGGED Sept 29/86

INTERVAL FROM (m)	INTERVAL TO (m)	LITHOLOGY ROCKTYPE	LITHOLOGY DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUCTURE STRUC.	STRUCTURE DIP-DIR	SAMPLE FROM (m)	SAMPLE TO (m)	SAMPLE WIDTH	SAMPLE Nº.	ASSAYS Au oz/t.	ASSAYS Au ppb		VISUAL LOG	MIN
0	16	[illegible]	meta andesite light to dark	trace - 1% Po/Py	0/11											
	(4.88)		green grey variably banded	calc-silicate bands				11.5 (3.51)	15.2 (4.63)	3.7 (1.13)	21617	<0.02				
			to mottled	and impreg				15.2 (4.63)	19.0 (5.79)	3.8 (1.16)	18	"				
								19.0 (5.79)	21.0 (6.40)	2.0 (.61)	19	"				
16	19	MAskrn	Pale green to pinkish grey	5% Po & Py	16			21.0 (6.40)	24.0 (7.32)	3.0 (.91)	20	"				
	(5.79)		mottled. Pink to salmon pink					24.0 (7.32)	26.1 (7.96)	2.1 (.64)	21	"				
			garnets in bands ~~through~~ 1 to 3" in					26.1 (7.96)	29.0 (8.84)	2.9 (.88)	22	"				
								29.0 (8.84)	32.0 (9.76)	3.0 (.91)	23	"				
								32.0 (9.76)	34.1 (10.40)	2.1 (.64)	24	"				
								34.1 (10.40)	37.0 (11.28)	2.9 (.88)	25	"				
19	26	DHkq	Diorite hybrid, texture (porphyritic)	Qtz impreg form	19/26	Qtz impreg	5°	37.0 (11.28)	41.0 (12.50)	4.0 (1.22)	26	"				
	(7.93)		becomes more evident downhole.	10% rock				41.0 (12.50)	44.0 (13.41)	3.0 (.91)	27	"				
			5% pink garnet porphyroblasts	Sp ~ tr - 1%				44.0 (13.41)	47.1 (14.36)	3.1 (.95)	21628	"				
			Colour light grey.	1% Cpy												
				Total S" ~5%												
26	27.5	DHkq skn	Dark grey colour possibly inclusions	S" ~ 10%												
	(8.36)		[illegible] of partially assimilated	mainly Py & Po												
			Meta andesite - skarned	trace Sp & Cpy.												

1986

DIAMOND DRILL LOG

Collar:
NORTH
EAST
ELEVATION
AZIMUTH
DIP
MAP REFERENCE

HOLE SURVEY		
Footage	Azimuth	Dip

METHOD:

PROJECT ESPERANZA EXPLORATIONS LTD.
PROPERTY NAME TILLICUM
DRILLING CONTRACTOR
ASSAYER MIN-EN LABORATORIES LTD.
PURPOSE OF HOLE

HOLE Nº. [illegible]-7
CLAIM NAME
COMMENCED
FINISHED
LOGGED BY
DATE LOGGED

INTERVAL FROM (m)	INTERVAL TO (m)	ROCKTYPE	DESCRIPTION	ALT'N-MIN.	DEPTH FROM/TO	STRUC.	DIP-DIR
[illegible]	[illegible] (12.20)	[illegible]	Diorite porphyry – [illegible] with [illegible] porphyritic texture garnet porphyroblasts.	Py & [illegible] in dis and dry fracture fillings ~5%	25.5/40; 30	[illegible]	30°
40	47.5 (14.48)	MAskn	pinkish grey and pale green-grey mottled skarned andesite	calc-sil and qtz impregs Po & Py w/ Fe [illegible] Sph sulphides in bands and impregs associated with qtz & calc-sil impregnations.	40/47.5		
47.5	51	Lamp					
47.5	51 (15.55)	Lamp	[illegible] Lamprophyre dyke.		47.5	Contact	15°
51	53 (16.16)	MAbk	Zebra Andesite – contact w lamp ‖ to core axis MA / Lamp				
53		Lamp	Lamprophyre Dyke.				
	66 (20.12)	EOH					