



GEOTEC CONSULTANTS LTD., Suite 327, 470 Granville Street, Vancouver 2, British Columbia — (604) 685-0038

SUMMARY REPORT
SHEBA PROJECT 1972
A REPORT ON PHASE I
DIAMOND DRILLING

FOR
THE DOWA MINING COMPANY LTD.
Vancouver, B.C.

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SUMMARY

The Sheba [1972] Phase I Project conducted by Dowa Mining Company Ltd. on Sheba's Highland Valley property consisted of drilling six BQWL diamond drill holes for a total footage of 4,800 feet. No economic mineralization was encountered.

Of the six holes drilled, S-72-4 was the most encouraging. The hole which drilled a weak I.P. anomaly [Sumitomo 1968] intersected mineralized Guichon quartz diorite and strongly altered porphyries containing disseminated bornite. The best assay returned 1.34% Cu and 0.116% Mo over ten feet. Assay results of the other five holes were negligible but geologically important.

Further drilling and geological mapping is recommended especially along the eastern part of the property. Exploration should concentrate on evaluating geological targets such as the Tower Zone, Jay 101 Structure, dyke swarms and the Guichon contact. A minimum ten hole exploration program is proposed for Phase II [1972].

INTRODUCTION

The Sheba [1972] Phase I Project was conducted between April 17 and June 10, 1972. Six BQWL diamond drill holes were drilled for a total aggregate footage of 4,800 feet. Field supervision of the project was carried out by L. W. Saleken, consulting geologist, Geotec Consultants Ltd. and Dowa personnel. Diamond drilling was contracted to D. W. Coates Enterprises, Vancouver, B. C. Core samples were assayed by Warnock-Hersey International Ltd., Vancouver, B. C.

All the drill core was split, sampled and logged. Samples were taken every ten feet and bagged. Select samples from each hole were analyzed for copper and total molybdenum. All the split drill core along with the unassayed samples were stored on the property.

A base camp consisting of full facilities for twelve men was established on the property. The camp was located on Lynn No. 3 claim near DDH-S-72-1. The Highmont road was used as an access to the campsite.

DIAMOND DRILLING

The location of the six diamond drill holes appear on the Drill Hole Location Map [Pocket]. The particulars on the holes are given below:

<u>D.D.H.</u>	<u>Claim</u>	<u>Location</u>	<u>Bearing</u>	<u>Angle</u>	<u>Depth</u>	<u>Drilling Interval</u>
S-72-1	Lynn 3	L72N 58W	Vert.	Vert.	802'	April 30-May 4, 1972
S-72-2	J 1	L36N 40W	Vert.	Vert.	810'	May 5-May 10, 1972
S-72-3	J33 Fr.	L20N 24W	Due E.	- 50°	799'	May 11-May 15, 1972
S-72-4	Jay 20	L30N 12E	Due E.	- 60°	801'	May 18-May 25, 1972
S-72-5	J40 Fr.	L52N 17W	Due E.	- 65°	790'	May 29-June 2, 1972
S-72-6	J32	L36N 24W	Due E.	- 80°	798'	June 3-June 5, 1972
Total					<u>4,800'</u>	

GEOLOGICAL SUMMARY OF DRILL HOLES

Detailed logs and assay results of the drill holes are in the accompanying folder. Six, east-west cross sections showing important geology and assays accompany this report. A summary of each drill hole is given below:

S-72-1

The host rock is a fresh, medium grained, generally unaltered granodiorite of the Bethlehem phase. Alteration is propylitic and is best developed in shattered and sheared areas. Green sericite and chlorite with varying amounts of clay and epidote are the predominant alteration minerals. Sulphide mineralization is very weak and erratic. Chalcopyrite, pyrite and bornite occur as fracture fillings and mafic replacements.

S-72-1 [Cont'd]

The best assay is from 190 - 200 feet: 0.12% Cu, 0.001% Mo.

S-72-2

The host rock is a medium grained granodiorite of the medium-coarse grained Contact Phase variety cut by aplitic and granodioritic dykes of the Bethsaida phase. Alteration throughout is generally weak with propylitization best developed in shattered areas. Secondary K-spar alteration is associated with the aplite dykes. Mineralization is very weak but consistent along fractures. Minor disseminated sulphides occur with the aplite dykes.

Chalcopyrite and molybdenite are the primary sulphides occurring. The oxide zone which occurs to a depth of 288 feet contains limonite, malachite, molybdenum oxide, native copper and cuprite. The best assay: 0.21% Cu, 0.002% Mo was from a section [600 - 610 feet] containing disseminated chalcopyrite.

S-72-3

The host rock is a Contact Phase granodiorite that is cut by the Sheba Porphyry and a series of porphyritic biotite-hornblende granodioritic dykes. The dykes and the Sheba porphyry are not mineralized although generally sericitized. Mineralization is post dykes and very weakly distributed along fractures. Bornite

S-72-3 [Cont'd]

is the principal copper sulphide with associated chalcopyrite and molybdenite. Assay values in the hole did not exceed 0.02% Cu.

S-72-4

A fine to medium grained, slightly foliated quartz diorite of the Guichon variety is the host rock. The Guichon rock is cut by several dykes, the latest being a fine grained diabase of Tertiary Age. A weakly mineralized, strongly propylitized crowded quartz-feldspar porphyry containing disseminated bornite was intersected at depth. All rock types except the Tertiary dyke have undergone extensive shattering and faulting. Mineralization occurs along fractures and faults and as disseminations but is generally weak. Bornite is the most common copper sulphide and occurs usually with chlorite and sericite. Molybdenite most frequently accompanies K-spar fractures or veinlets. Chalcopyrite, pyrite and possibly chalcocite also occur. Several assay sections returned greater than 0.10% Cu with the best 10 foot section from 380 to 390 feet assaying 1.34% Cu and 0.116% Mo.

S-72-5

Hole No. 5 was drilled entirely in Contact Phase granodiorite containing minor occurrences of aplite and aplite porphyry. Mineralization is very weak and generally confined to fractures and some quartz veins. Chalcopyrite, bornite and molybdenite frequently occur. All assays returned values of less than 0.10% Cu.

S-72-6

The host rock is a Contact Phase granodiorite, generally unaltered and weakly propylitized. Dykes of Bethsaida and the Sheba Porphyry intrude the host. Mineralization is very weak and confined to fracture fillings. Chalcopyrite with associated molybdenite and bornite is the principal occurring sulphide. Assayed sections were less than 0.10% Cu.

CONCLUSIONS

Phase I drilling encountered no economic copper mineralization. Assay results were negligible in all six holes except S-72-4. However, the drilling was useful in adding to the overall geology of the property and limiting areas of further exploration. The possibility of finding a southern extension of Bethlehem's JA orebody in the northwestern portion of the claims was reduced. Also, the main body of the northeast trending Sheba Porphyry was eliminated by holes S-72-3, S-72-5, and S-72-6 as being a major mineralizing axis on the property. Aplitic dykes that were intersected in hole S-72-2 contain disseminated sulphides and were believed to be related to Bethsaida rocks. So far their importance is not clearly understood.

Of the six holes drilled, S-72-4 was the most significant. The hole which drilled a weak IP anomaly [Sumitomo 1968] intersected highly fractured and weakly mineralized Guichon quartz diorite and strongly altered porphyries containing disseminated bornite. The possibility of a southeastern extension of this geology is favorable and is exemplified by the southeasterly broadening

of the I.P. zone. Past geological mapping in the area of the I.P. anomaly located porphyry dykes similar to the crowded porphyries of hole S-72-4. Mineralized surface showings to the west [Tower Zone] and to the east [Gaza Showing] of hole S-72-4 enhance the exploration potential of this area.

In conclusion, Phase I drilling was unsuccessful in locating economic mineralization. However, the results of hole S-72-4 are geologically encouraging thus giving new impetus to the exploration potential of the eastern part of the property.

RECOMMENDATIONS

A Phase II [1972] exploration program, consisting of diamond drilling and geological mapping is advised. Exploration should concentrate on evaluating geological targets such as the Tower Zone, Jay 101 Structure, dyke swarms and the Guichon contact. A thorough investigation of the northwesterly trending I.P. anomaly [Sumitomo 1968] should be conducted. A drill program as indicated on the Drill Hole Location Map is recommended.

Respectfully submitted,



L. W. Saleken, B.Sc.
Consulting Geologist

Vancouver, B. C.
June 28, 1972

A P P E N D I X

LIST OF TERMS, ABBREVIATIONS & SYMBOLS

GENERAL

Leucocratic	Leu (leu)
Mesocratic	Mes (mes)
Breccia	Bx (bx)
Fault	ft.
Fracture	fr.
Shear	sh.
vein	vn.
Veinlet	vnt.
Replacement	R
Disseminated	D
Shattered	St
Mafic	M
Strike-slip ft	SS
Dip-slip ft	DS
Oblique-slip ft	OS
very fine	vf
fine	f
medium	m
coarse	c
very coarse	vc
Porphyritic	Por. (por)
Porphyry	Por (por)
black	blk
Grey	gry
green	grn
pink	pk
buff	buf.
drab	db
deep	dp
associated	assoc.
silicified	sil
Altered	Alt. (alt.)
blocky	by.

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MINERALS

Anhydrite	ah
Apatite	ap
biotite	bi
bornite	bo
calcite	ca
chalcopyrite	cp
chalcocite	cc
chlorite	ch
Epitode	ep
feldspar	fel
gypsum	gyp
hornblende	hn
kaolinite	kl
limonite	lm
magnetite	mag
molybdenite	mo
montmorillinite	mm
orthoclase	or
plagioclase	pg
quartz	qt
sericite	sc
silica	sil
sulphides	s
talc	tk
tourmaline	tl
zeolite	ze
malachite	mal
azurite	az

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ROCK TYPES

Quartz diorite	QD
Quartz monzonite	QM
Granodiorite	GD
Porphyry	Por
Dyke	Dy
Diorite	Dio
Aplite	Ap

ROCK PHASES

Bethsaida	Ba
Bethlehem	Bm
Contact Phase	CP
Guichon	Gu
Chataway	Chy

ALTERATION

Propylitic	Prop.
Argillic	Arg.
K-spar	K-spar
Quartz-sericite	Q.S.

INTENSITIES OF ALTERATION & MINERALIZATION

Very weak	1
weak	2
moderate	3
strong	4
Intense	5

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SYMBOLS

Shatter Zone - - - - -	
Breccia - - - - -	
Overburden - - - - -	
Shear Zone - - - - -	
Fault Zone - - - - -	
Geological boundary - - - - -	
Alteration boundary - - - - -	
Major division - - - - -	
Minor division - - - - -	
Graduation boundary - - - - -	
Fault - - - - -	
Mineralization zone - - - - -	
Break (or elimination) - - - - -	
Mafic or diss. Mineralization - - - - -	
Fracture or vein Mineralization - - - - -	
Dyke - - - - -	
Porphyry - - - - -	
Bethelehm rock type - - - - -	
Contact Phase rock type - - - - -	
Bethsaida rock type - - - - -	
Guichon rock type - - - - -	
Chataway rock type - - - - -	

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DRILL CROSS-SECTIONS

S-72-1 to S-72-6

W

E

4130 ASL

Cu	Mo
J2	.001

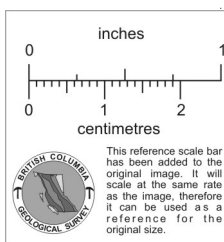
159'

Bethlehem

Granodiorite



802'



Assayed 10' Sections ▨

DDH - S-72-1

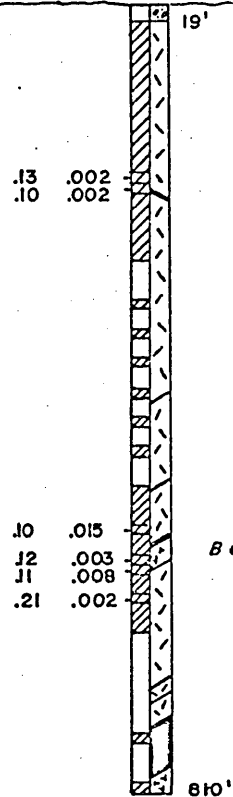
Section: North

Scale: 1" = 200'

W

E

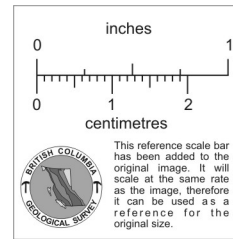
Cu Mo 4640 ASL



Contact Phase GD

Bethsaida GD Dyke

Aplite Dyke

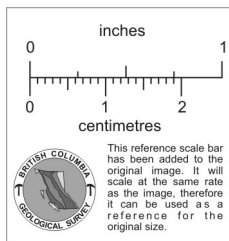
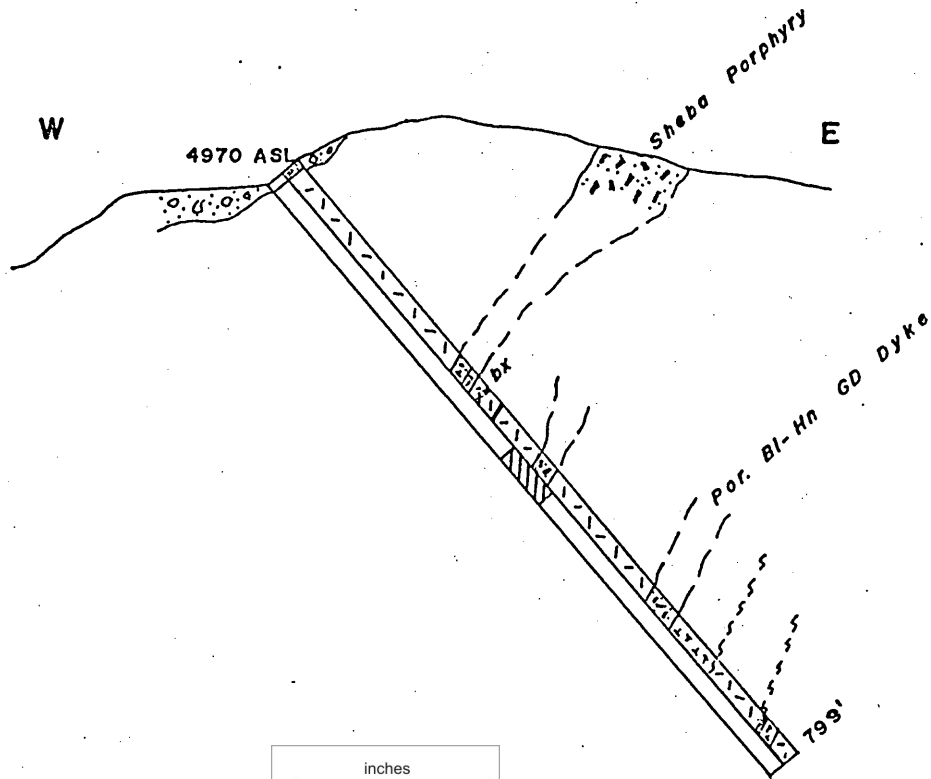


DDH - S - 72 - 2

Section: North

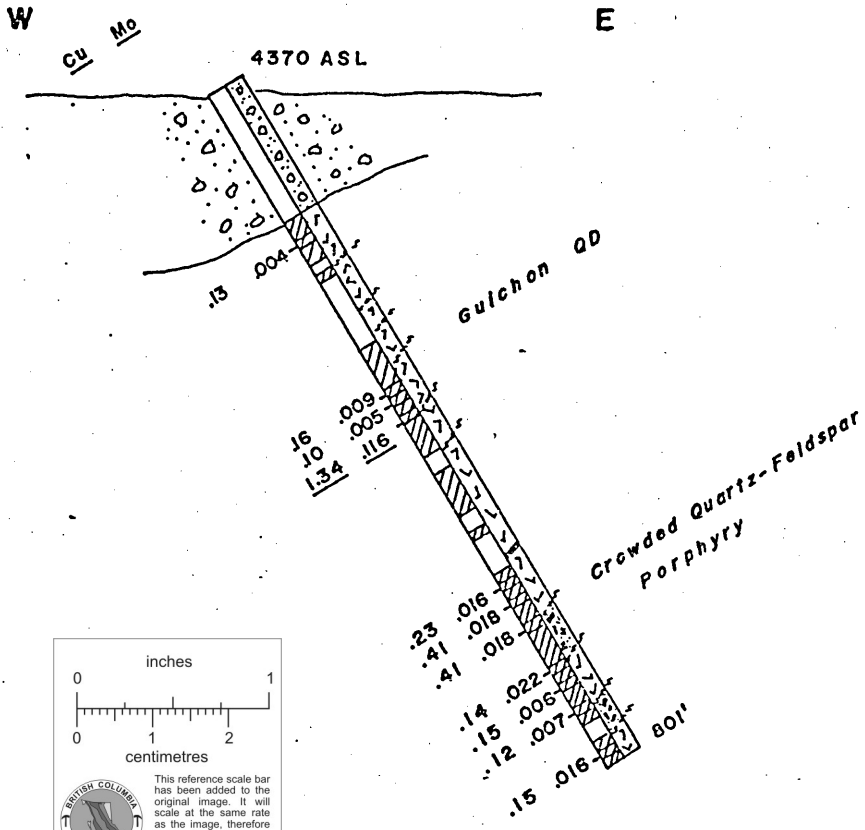
Scale: 1" = 200'

June 1972



DDH - S - 72 - 3
 Drilled at - 50° East
 Section - North
 Scale: 1" = 200'

June 1972

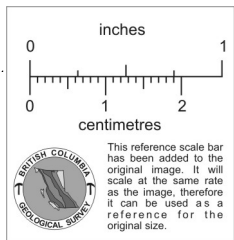
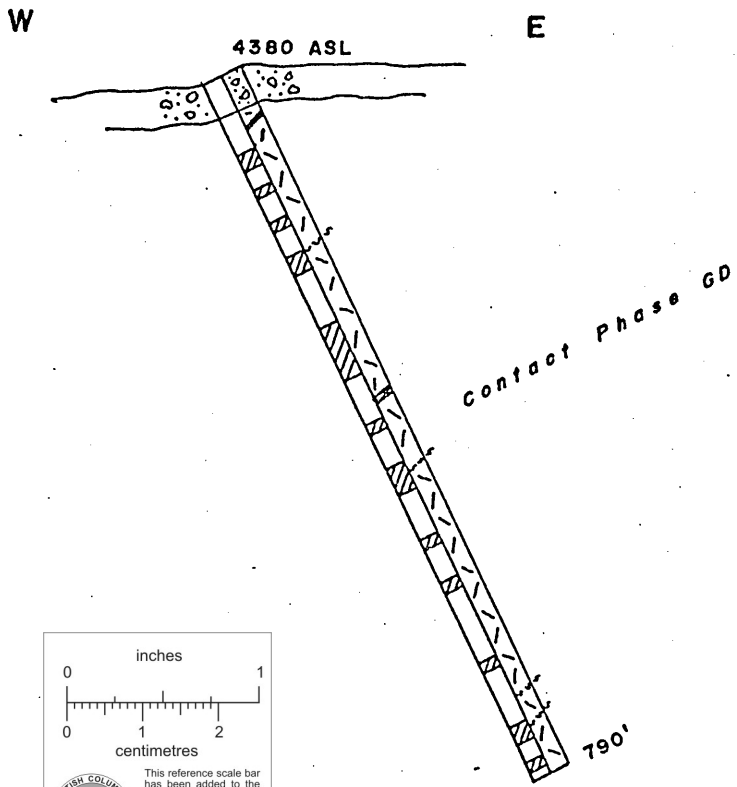


DDH-S-72-4

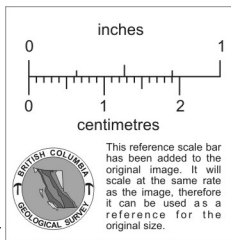
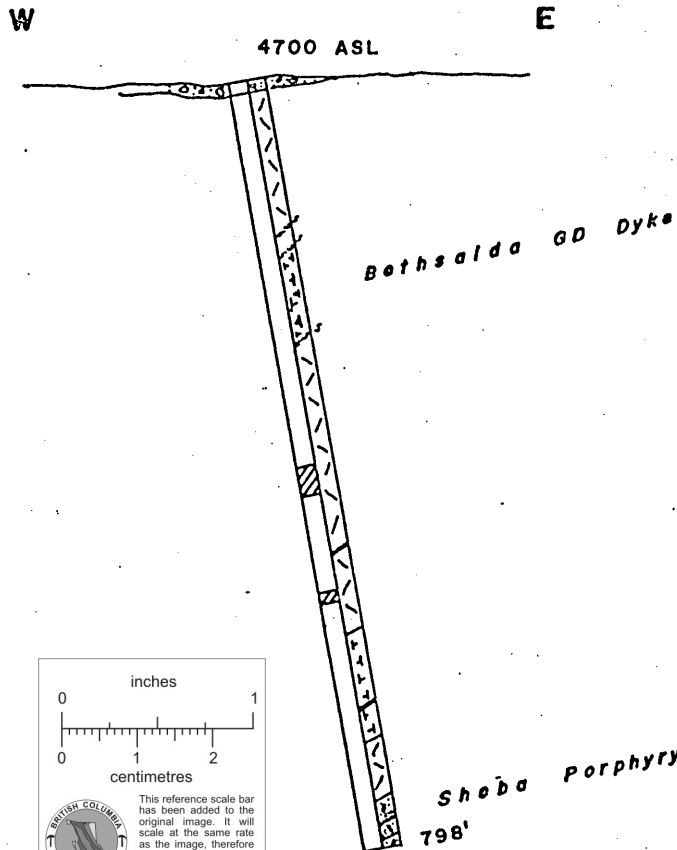
Drilled at - 60° East

Section - North

Scale: 1" = 200'



DDH - S-72-5
 Drilled at -65° East
 Section - North
 Scale: 1" = 200'



DDH - S - 72 - 6
 Drilled at -80° East
 Section - North
 Scale : 1" = 200'