

DRILL HOLE LOG

BETHLEHEM COPPER CORPORATION LTD.

SHEET NO. 1

Property ARCTIC RED JOINT VENTURE	Hole No.	Cab #1	Bearing	N17°E	Elevation	5300 ?	Logged by	J. Bellamy
District Mayo Mining District	Length	548 feet	Dip	-45°	Overburden	22 feet	Date	Sept. 2, 1974
Drilled August 28, 1974	Latitude	64°59'40"	Location	106' on 275°	Recovery	100%		
Completed August 30, 1974	Longitude	132°31'	Bearing from #1 post, CAB 146		Purpose	Test Cab extension showings		

DESCRIPTION	SULPHIDES	OXIDES	OTHERS	FROM	TO	SAMPLE No.	% Pb.	% Zn.	Oz Au	Gz Ag	% Fe
0-22' Overburden				0	22	O.B.					
22'-33') Very fine grained crypto crystalline quartzite - finely laminated at 80° to core axis - fine dist. pyrite and pyrite on bedding planes - 31' 1/2" quartz vein sub-parallel to core axis				22'	25	1451	Tr	.02			100
				25	30	1452	Tr	Tr			100
33'-49') Banded fine grained medium gray dolomite with bands and partings of sandstone and siltstone - finely laminated silty partings weathered light brown				30	35	1453	Tr	Tr			100
38'-39' - laminated fine-medium grained sandstone				35	40	1454	Tr	Tr			100
39'-49' - Gray detrital dolomite with silty laminae at 40', 42' and from 48'-49' - fine silica disseminated in the dolomite		FeO		40	45	1455	.01	.01			100
49'-52') Gray Dolomite - fairly massive - fine grained dolomite and silica with dark pyro-bitumen and clays on stylitic structures coincident with bedding planes				45	50	1456	Tr	Tr			100
				50	55	1457	.01	Tr			100
52'-57') Dark gray argill. detrital dolomite with colon shaped detrites replaced by silica - grades down section into massive gray dolomite				55	60	1458	Tr	Tr			100
57'-66') light gray dolomite with weak intraformational sedimentary brecciation visible - pyrite blebs at 60' - blebs of silica at 61'		FeO at 64'		60	65	1459	Tr	.02			100
64'-66' - sand grains - frosted				65	70	1460	.01	.01			100
66'-72') Limestone nodules in a dirty black dolomite matrix Upsection nodules become finer grained and larger calcitic collets thin & laminated				70	75	1461	Tr	Tr			100
70'-93') Limestone nodules in a dirty black dolomite matrix				75	80	1462	Tr	Tr			100

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SHEET No. 2

Hole No. Cab #1

Logged by J. Ballany

Date Sept. 2, 1974

DESCRIPTION	SULPHIDES	OXIDES	OTHERS	FROM	TO	SAMPLE No.	% Pb.	% Zn.	Oz Au.	Oz Ag.		% RECO
Very finely laminated dolomite dark muddy dolomite beds of silica and pyrite in weakly flow dolomite	78' blebs of py.			75	80	1462	.01	Tr				100
gray calc-arenites with light brown bedding planes				80	85	1463	.01	Tr				100
late dolomite with heavy disseminated silica stringers on bedding planes				85	90	1464	.01	Tr				100
				90	95	1465	Tr	.02				100
fine-grained gray dolomite with occasional silica throughout	Heavy FeS ₂			95	100	1466	.01	.01				100
fine quartz veins running parallel to core dolomite veins at 107 contain of reddish green sphalerite	ZnS			100	105	1467	.01	.01				100
grading increases as does dolo				105	110	1468	Tr	.55				100
at 110 light gray dolomite heavily fractured	ZnS			110	115	1469	Tr	.69				100
barite. Moderately heavy (8%) coarsely sphalerite along barite-dolomite contact disseminated outwards from the barite	FeS ₂			115	120	1470	Tr	.12				100
olive dark gray wavy banded dolomite - blebs along black wavy flow bands -				120	125	1471	Tr	.05				100
normal fragment rounding and some pebble				125	130	1472	Tr	.01				100
				130	135	1473	Tr	.01				100
beds along a plane 40° to core axis C.A. - pyrite along slickensides				135	140	1474	Tr	.01				100

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SHEET No. 1

Property ARCTIC RED

Hole No. Cdb #1

Logged by J. Bellamy

Date Sept. 2, 1974

DESCRIPTION	SULPHIDES	OXIDES	OTHERS	FROM	TO	SAMPLE No.	% Pb.	% Zn.	Oz Au.	Oz Ag.	% RECOVERED
(93' - 182') dark gray dolomite - no stylolites				140	145	1475	.01	Tr			100
				145	150	1476	.01	.01			100
				150	155	1477	.03	.02			100
	157 FeS ₂			155	160	1478	.01	.01			100
				160	165	1479	.03	.02			100
				165	170	1480	.01	.01			100
				170	175	1481	.01	Tr			100
(179' - 182') Finer grained weakly laminated grey dolomite - 6% pyrite along laminae	FeS ₂			175	180	14001A (TAG CHANGE)	.01	Tr			100
80 - 182' rounded intraformational sedimentary breccia grading downsection into wavy banded dolomite	FeS ₂						.03	.60			100
(182' - 186') Medium grained gray dolomite				180	185	14002A					100
182 - 185' Massive gray dolomite that has been brecciated and healed by white dolomite and pyrite - minor sphalerite occurs in the dolomite				185	190	14003A	Tr	1.56			100
- heavy pyrite fills the dolomite veins	ZnS										
185 - 186' A rebbly sedimentary breccia further brecciated and healed with dolomite with rims of pyrite and some pale green crystalline sphalerite. The pyrite is also disseminated throughout matrix of syngenetic agglomerate				190	195	14004A	Tr	.54			100
- rebbly dolomite has a sharp contact with massive light gray fractured dolomite				195	200	14005A	Tr	.14			100
(186' -)				200	205	14006A	Tr	.60			100

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SHEET NO. 4

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Date Sept. 2, 1974.

DESCRIPTION	SULPHIDES	OXIDES	OTHERS	FROM	TO	SAMPLE No.	% Pb.	% Zn.	Oz Au.	Oz Ag.	
(185' - 191') Heavy fracturing of pale gray dolomite - crystalline barite and dolo calcite healing most fractures and weakly brecciated sections. Thin rims of sphalerite on vein margins and fractures - minor diss. sphalerite throughout dolomite	FeS ₂ ZnS			205	210	14007A	Tr	.35			1
- Iron carbonates form along fractures and stain barite crystals	ZnS			210	215	14008A	Tr	2.52			1
(191' - 205') Same as above except there is less brecciation - more stylolitic structures and larger concentration of barite	ZnS			215	220	14009A	Tr	1.96			1
(205' - 210') Less sphalerite-barite replaces portions of the matrix - especially rims rounded fragments and small vugs - weak sphalerite with barite	ZnS			220	225	14010A	Tr	.87			1
- Fracturing - parallel to core axis	ZnS			225	230	14011A	Tr	.38			1
(210' - 226') Heavily brecciated and mineralized section Large coarsely crystalline black sphalerite and finer grained green sphalerite rim and occur as blebs in the barite - Zn rims sed. structures	ZnS minor FeS ₂			230	235	14012A	Tr	.22			1
(215') - 2" massive quartz vein	ZnS			235	240	14013A	Tr	.17			1
(226' - 240') Massive gray dol. The minor barite that heals fractures and follows sedimentary flow banding and penetrates porous slump structures carries minor pale green sphalerite along the barite margins	ZnS			240	245	14014A	Tr	.24			1
227' - minor mountain leather and calcite on slickenside surface											
(240' - 250') Massive light gray dolomite. Only relict sed. structures visible - patchy barite along sedimentary bands contains some zinc - Dol. may be weakly silicified as stylolites are partially obscured.		Hydrozincite		245	250	14015A	Tr	.07			1
246' - minor hydrozincite on one fracture face				250	255	14016A	Tr	.11			1
(250'-266') Massive gray wavy banded dolomite - weak fracturing - moderate stylolitic banding 260' - 263' - heavy stylolitic banding 267' - 270' - section shattered and calcite healed brown stained carbonate disseminated outward from fractures - Iron carbonate on rims of pyro-bitumen healed stylolites minor fracturing cuts sedimentary structures and stylolites - no visible zinc - lens of barite (3-8 cm) cut through sed. structures 270-280' texture obscured by weak silicification				255	260	14017A	Tr	Tr			1
				260	265	14018A	Tr	.04			1
	Minor ZnS			265	270	14019A	Tr	.05			1

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DESCRIPTION	SULPHIDES	OXIDES	OTHERS	FROM	TO	SAMPLE No.	% Pb.	% Zn.	Oz Au.	Oz Ag.	% RECOVER.
255' - 293') Heavy silicified dolomite with crystalline quartz healing of sedimentary breccia fragments - segments of banding and stylolitic structures still visible in core				270	275	14020A	Tr	.32			100
233' - 1 foot massive quartz with vugs lined with silicified calcite crystals				275	280	14021A	Tr	.04			100
- fine brown iron staining along fractures											
293' - 299.5') - weakly silicified grey dolomite. Fractures barite and quartz healed - both				280	285	14022A	Tr	.10			100
- occur together and are crypto crystalline											
- 297' - blebs of pyrite occur with the barite. - stylolites occur around rounded sedimentary slump fractures				285	290	14023A	Tr	Tr			100
299' - 4" dolomite heavily cut by stylolitic structures which are healed by pyrobitumen	ZnS FeS ₂			290	295	14024A	Tr	Tr			100
- pyrite blebs and heavy fine grained disseminated gray green sphalerite occur around the stylolites	ZnS FeS ₂			295	300	14025A	Tr	.01			100
299.5' - 303') Heavily brecciated dolomite healed by quartz and a hard silicified dolomite - quartz predominates in the vein filling				300	305	14026A	Tr	Tr			100
303' - 326') Gray silicified dolomite which has wavy banding, sedimentary brecciation and a later brecciation which has been quartz healed				305	310	14027A	.01	.02			100
308.5 - 309' Strong shattering and quartz healing - quartz veins 20' to CA	FeS ₂			310	315	14028A	.01	.01			100
309' - 326' The weak fractures healed by calcite Brown stained calcite often accompanied by pyrite and some manganite				315	320	14029A	.01	.01			100
326' - 348') Dark gray limestone											
326' - 328' A coarse grained oolitic limestone with some larger oolites replaced by fine grained brown sphalerite. Collateral banding of the brown sphalerite occurs in bands along sedimentary flow bands	strong ZnS FeS ₂			320	325	14030A	.01	Tr			100
323' - 333' Oolitic structures get compressed with depth. Oolites are coarse grained calcite and dark limestone in a fine grained gray matrix - pyrite is disseminated in patchy fine grained	FeS ₂			325	330	14031A	.01	.01			100
				330	335	14032A	Tr	Tr			100

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SHEET No. 5

Property ARCTIC RED

Hole No. Cab #1

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Date Sept. 2, 1974

DESCRIPTION	SULPHIDES	OXIDES	OTHERS	FROM	TO	SAMPLE No.	% Pb.	% Zn.	Oz Au.	Oz Ag.	% RECO
ESTONE											
(333' - 343') Dark grey limestone - wavy banded with coarse bands of calcite-limestone along sedimentary flow bands	ZnS FeS ₂			335	340	14033A	Tr	Tr			100
- patchy pyrite in blebs throughout											
- patchy bands of fine grained brown sphalerite along wavy bedding laminae and in thicker bands (<1")	ZnS FeS ₂			340	345	14034A	.01	Tr			100
in the more massive limestones											
- Sphalerite band - 438', 439', 440', 443' (1") 448'	FeS ₂										
(343' - 350') Massive fine grained gray				345	350	14035A	.01	Tr			100
dolomite - fine brown stained calcite coats the 5° to core axis fractures in this section											
353' rounded dolomite breccia fragments, calcite cemented				350	355	14036A	Tr	.01			100
- fractures calcite healed											
355' - 358' - Fine grained brown band adjoining				355	360	14037A	.01	.11			100
brown calcite healed fractures - sphalerite ?											
(359' - 377') Fine gray limestone - partially dolomitized in sections				360	365	14038A	Tr	.01			100
360' - 373' - weakly banded wavy nodular limestone - some crystalline limestone fragments				365	370	14039A	Tr	Tr			100
		FeO		370	375	14040A	.01	Tr			100
373' - 376' - Large slightly compressed calcitic limestone				375	380	14041A	.01	.01			100
- fine detrital material cementing oolites											
- brown weathering adjacent some of the few fractures				380	385	14042A	Tr	Tr			100
				385	390	14043A	Tr	.01			100
(391' - 405') Fine dark gray dolomite											
394' - 407' weak interlaminating of limestone and dolomite				390	395	14044A	Tr	Tr			100
				395	400	14045A	Tr	Tr			100

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Sheet No. 1

Property ARCTIC RD

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Date Sept. 2, 1974

DESCRIPTION	SULPHIDES	OXIDES	OTHERS	FROM	TO	SAMPLE No.	% Pb.	% Zn.	Oz. Au.	Oz. Ag.		
(405' - 421') Thick (<1") wavy bands of fine grained grey limestone interbanded with layers of dark grey dolomite and small sections of crystalline limestone detritus				400	405	14046A	.01	Tr				10
- minor disseminated pyrite throughout				405	410	14047A	.01	Tr				10
(421' - 426') large limestone oolites cemented by fine grained oolites and detrital limestone. Calcite replacing some detrital fragments.				410	415	14048A	.01	.01				10
- occasional stylolites through oolitic section				415	420	14049A	.01	Tr				10
425' 2" band of platy black limy dolomite				420	425	14050A	Tr	Tr				10
- band 87° to core axis												
(426' - 430') Gray weakly dolomitic limestone - fairly massive with fine laminated sections throughout				425	430	14051A	.01	Tr				10
- heavy FeO on O° - C.A. fracture		FeO		430	435	14052A	Tr	Tr				10
		FeO		435	440	14053A	Tr	Tr				10
				440	445	14054A	Tr	Tr				10
- Interbanded limestones and dolomites - no fracturing												
- core parts on bedding planes at 87° to core axis				445	450	14055A	Tr	Tr				10
- minor blebs of pyrite throughout				450	455	14056A	Tr	.01				10
				455	460	14057A	Tr	Tr				10
				460	465	14058A	Tr	Tr				10

WELL HOLE LOG

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SHEET No. 3

Property ARCTIC RED

Hole No. Cab #21

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Date Sept. 2, 1974

DESCRIPTION	SULPHIDES	OXIDES	OTHERS	FROM	TO	SAMPLE No.	% Pb.	% Zn.	Oz Au.	Oz Ag.	% REE
502' - 505') Gray banded dolomites with limestone bands 80% gray very finely banded dolomites				465	470	14059A	.01	.01			100
				470	475	14060A	Tr	Tr			100
Rust on fractures and bedding planes		FeO on Fractures		475	480	14061A	Tr	Tr			100
				480	485	14062A	Tr	.01			100
		FeO on Fractures		485	490	14063A	Tr	.01			100
				490	495	14064A	Tr	Tr			100
505' - 513') Interbanded dark dolomites and paler dolomitic limestones	FeS ₂			500	505	14065A	Tr	Tr			100
	FeS ₂			505	510	14066A	Tr	Tr			100
513' - 545') Dark interbanded dark and medium gray dolomites	FeS ₂			510	515	14067A	Tr	Tr			100
	FeS ₂			515	520	14068A	Tr	Tr			100
	FeS ₂			520	525	14069A	Tr	Tr			100
	FeS ₂	FeO		525	530	14070A	Tr	Tr			100
	FeS ₂			530	535	14071A	Tr	Tr			100

DRILL HOLE LOG

BETHLEHEM COPPER CORPORATION LTD.

SECRET

Recently ARCTIC RED

Hole No. Cab #1

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Date

Sept. 2, 1974

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