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ARCTIC RED PROJECT

PART V

GEOLOGICAL REPORT
ON THE
BB-DAB PROJECT AREA

(BB, DAB MINERAL CLAIMS)

Latitude 65° 00'N

Longitude 132° 13'W

MACKENZIE MINING DISTRICT
N.T.S. 106-F-1 & 106-C-16
NORTHWEST TERRITORIES
CANADA

Work Conducted during the Period May 18 - Dec. 31, 1974.

by

J.S. Brock
and
J.D. Guild, P.Eng.
February, 1975

BB-DAB PROJECT AREA

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BB-DAB PROJECT AREA

INTRODUCTION

The BB-DAB Project Area was staked by Welcome North Mines Ltd. on behalf of the Arctic Red Joint Venture in the summer of 1974.

The area is underlain by carbonate rocks containing anomalous quantities of zinc and in which zinc-lead concentrations have been discovered. Small Blocks of claims were initially staked over the individual mineral concentrations, but the number of claims was eventually increased to cover a larger, adjacent section of the favourable stratigraphy.

The area has received, to date, only a very broad and somewhat cursory examination, mainly in the form of prospecting. This work has thus far failed to reveal the presence of economic mineral deposits. The potentially mineral productive geological environment however, evident from the wide distribution of zinc and the known zinc concentrations, indicates that an on-going program of investigation is fully warranted.

SUMMARY AND CONCLUSIONS

The BB-DAB Project Area consists of 178 mineral claims in the Mackenzie District of the Northwest Territories. The area is, in part, underlain by Mount Kindle Formation of Ordovician age within which widespread occurrences of zinc have been noted and local concentrations observed.

Two distinctive but related types of mineralization have been found on the large claim block but none, to date, can be considered of economic significance. The character of the known pervasive zinc mineralization together with the topographic setting of zinc-rich beds leads to the tentative implication of relatively accessible, large, potentially economic tonnages. The project area, in its current state of development, is considered, however, to present only a proven favourable geological environment which is worthy of further exploratory attention.

A program of detailed silt sampling and systematic grid soil sampling is recommended. It is hoped by this method to delimit areas of "higher grade" within the favourable formation. In addition, a limited program of surface trenching or short hole drilling of anomalous areas should be considered to test mineral content below areas of active surface erosion.

LOCATION AND ACCESS

The BB-DAB Project Area is located in the Mackenzie District of the Northwest Territories at Latitude 65° 00'N and longitude 132° 13'W.

Access to the property can best be gained by helicopter from Mayo, Yukon Territory, some 146 miles to the southeast (Figure No. 1). There are helicopter landing sites within a few hundred feet of each of the principal known mineral occurrences.

The property lies above timberline; however willows and buckbrush grow in the valley bottoms. Ample water for drill purposes is available from the many upper tributaries of the Arctic Red River which drain the area.

MINERAL CLAIMS

The BB-DAB Project Area consists of the following 100 contiguous located mineral claims in the Mackenzie Mining District of the Northwest Territories (Plate No. 1):

<u>Claims</u>	<u>Grant Numbers</u>	<u>Recording Date</u>
BB 1-12	A56759-A56770	July 8, 1974
BB 13-50	A56797-A56834	Aug. 19, 1974
BB 51-80	A86101-A86130	Aug. 19, 1974
DAB 1-20	A56777-A56796	July 31, 1974

REGIONAL GEOLOGY

The BB-DAB Project Area, which includes the BB, DAB and a portion of the AB claims, mainly overlies thick bedded, flat-lying sequences of undivided Ordovician-Devonian carbonate strata (Ref. ODC, Blusson 1974, NTS Map Sheet 106-B). X?

Over the southern portion of the property are found over-thrust sections of older (lower Cambrian) carbonates of the Sekwi and Backbone ranges formations.

Of particular significance within the region of the BB-DAB Project Area are well defined "build-ups" (bioherms?) of silicious, locally vuggy and brecciated reefal formation which has been assigned to the Mount Kindle Formation.

Within the BB-DAB Project Area and immediate surrounding region, the presence of Cambrian to Devonian carbonates and their clastic equivalents, represent the furthest northwest trending section of Cambro-Devonian sedimentation within the Mackenzie Arch. Original reef fronts in this area are thought to be related to post-Racklan basement highs and are significant by virtue of their isolated nature. In most cases the Mount Kindle Formation can be described as fore-reef or "off-bank" breccia and in all cases is overlain by chert. The Mount Kindle and overlying chert are generally flat-lying.

PROPERTY GEOLOGY AND MINERAL OCCURRENCES

The principal known mineral occurrences in the BB-DAB Project Area consist of smithsonite and sphalerite filling of fracture and breccia zones. The zones occur within a series of flat-lying, but locally undulating, carbonate rocks which are believed to range in age from Ordovician to Devonian.

The mineralization, which appears to be bound to particular series of strata, can be divided into two main types, each with specific characteristics and each occupying distinctive lithologic units. The distribution of the type occurrences, i.e. the BB (type I) and the DAB (type II) both within the project area and on the adjoining ground, is illustrated on Plate No. 2, "BB-DAB Project Area; Geology and Mineral Occurrences".

Type I mineralization is confined to a thick silicified and locally brecciated reefal section of the Mount Kindle Formation (Upper Ordovician and Silurian). Zinc, mainly in the form of smithsonite but with lesser sphalerite, forms a pervasive part of this section which has been variously exposed by erosion and recognized over an area of several tens of square miles. Lead in the same area appears to form only a minor constituent. The mineralized section is characteristically a light grey weathering fine grained dolomite which has suffered varying degrees of silicification; from selective silicification of the fossil beds only to the almost complete silicification of the rock mass. In the latter case, fossil remains can be only vaguely recognized. The silicified section, which contains varying amounts of accompanying zinc, is up to 500 feet in thickness.

Extensive breccia zones occur locally within the silicified section. These zones which contain above average concentrations of zinc and act as centres for silicification have maximum thicknesses of 150 feet and known lateral extent up to 3,000 feet. Locally separate breccia zones were noted to occur at different stratigraphic horizons within the section. The intensity of brecciation tends to lessen gradationally along both the lateral and vertical margins of the zones. The angular to sub-angular breccia fragments, within the zone, are composed of white to light grey fine grained, locally cherty textured silica. The fragments vary in size from less than an inch to several feet. The dark grey to black matrix appears to be composed of very fine grained dolomite. Zinc mineralization occurs in the matrix, preferentially along margins which rim the silica fragments. In the majority of known occurrences, cellular earthy brown smithsonite is the predominate zinc mineral. Zinc "dope" is useful in defining areas of strongest mineralization within these occurrences. In less weathered areas very fine grained sphalerite can locally be seen to occur in much the same manner as the smithsonite. In places the two zinc minerals are intermixed. The sphalerite, which is most commonly a resinous brown to yellow colour, locally takes on a green or reddish caste.

A suggestion of possible surface leaching of the zinc leads to the tentative conclusion that deeper rocks may provide higher zinc grades. The whole rock assemblage is cut by later irregular and random quartz and calcite veinlets.

The origin of the Type I host rock and mineralization is, at this time, open to question. Any genetic theory, however, should satisfy the following observations:

- The reefal facies of Mount Kindle Formation are intermittent but extensive throughout the project area.
- Silicification appears centred in the reefal facies.
- Silica has preferentially replaced fossils and fossiliferous beds within the sequence.
- The silica is probably the result of a sedimentary process rather than a hydrothermal alteration.
- Breccia zones are probably caused by the accumulation of fore-reef slump and talus material rather than by post depositional shattering.
- Dolomitization and zinc mineralization occurred late in the formulatory process.

The locations of the following samples, which were taken from Type I occurrences, are shown on Plate No. 2:

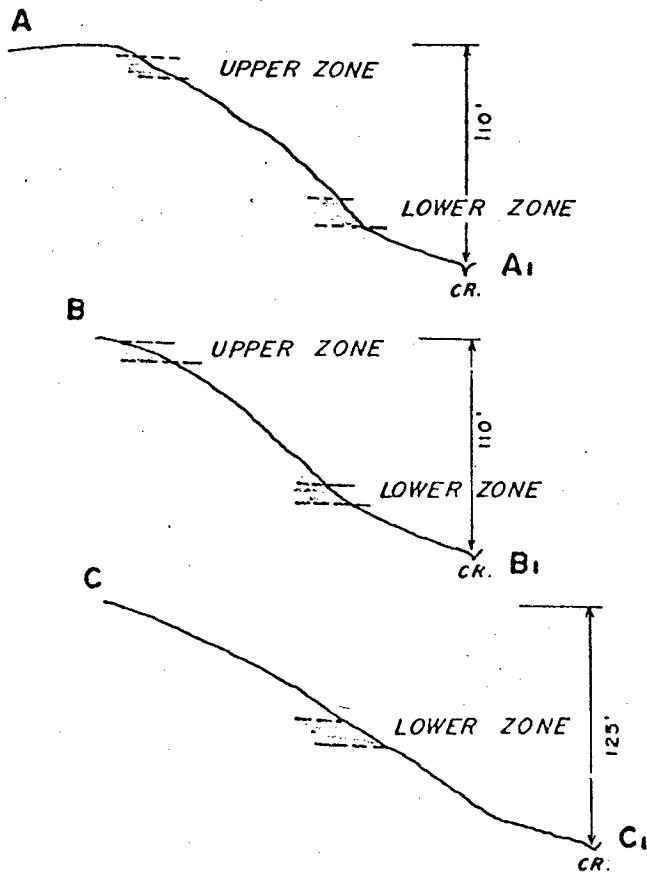
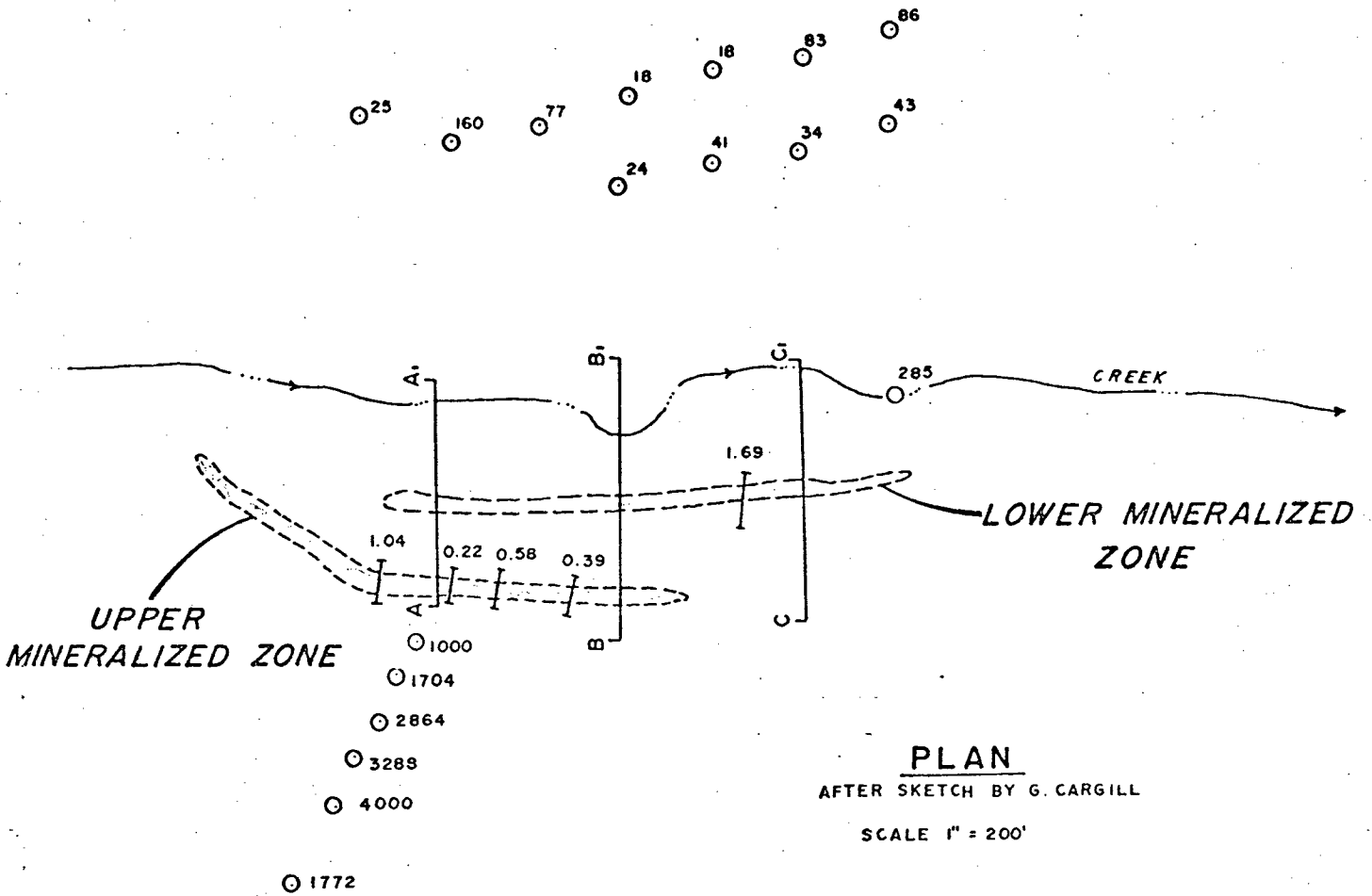
<u>Sample Number</u>	<u>True Thickness</u>	<u>Lead %</u>	<u>Zinc %</u>	<u>Comments</u>
WN 25	Specimen	0.01	0.34) Specimens) from initial) prospecting.
WN 26	" "	Tr	0.48	
WN 27	" "	0.01	0.62	
WN 28	" "	Tr	0.36	
WN 29	" "	Tr	1.10	
WN 30	" "	0.05	4.90	
WN 31	" "	Tr	0.46	
0016A	50'	Tr	0.10) Chip samples.
0017A	50'	Tr	0.56	
0018A	30'	Tr	0.08	
0019A	50'	Tr	0.03	
0020A	30'	Tr	0.09	
0021A	Grab	Tr	0.36	
0022A	40'	Tr	1.36	
1251	Specimen	Tr	7.56) Specimens of) Type I) mineralization.
1252	" "	0.03	0.52	
1253	" "	0.03	1.88	
1254	" "	0.19	6.60	

Type II mineralization was first discovered on the DAB claim group but in the course of continued prospecting was also noted in other locations within the project area. These locations are outlined on the accompanying geological plan (Plate No. 2).

The host rock to Type II mineralization is a thick but subtly bedded, dense, light grey weathering dolomite which appears to lie stratigraphically above the Type I mineralization. Sphalerite, which is the principal zinc mineral present, occurs as veinlets, vug fillings and large coarse grained blebs, up to six inches square, at the juncture of fine fractures. The sphalerite is a dull waxy green colour on the DAB showing, but varies to bright green and orangey red on other similar occurrences. Vuggy vitreous quartz, calcite, barite and locally smithsonite are associated with the sphalerite. The present rock which contains this mineral is remarkably dense, solid and undisturbed looking despite the obvious degree of void-creating fracturing and shattering to which it has been subjected.

It is possible that Type II mineralization contains remobilized zinc from a Type I occurrence.

The DAB Showing (106-F-1 #12) is exposed on the south wall near the head of a small creek. Mineralization is concentrated into two fairly well defined, flat-lying bands each 10 to 20 feet thick; one near the creek bottom, and the other on the upper creek bank (Figure 3). The two bands are separated by relatively barren dolomite which contains only spotty zinc. The upper band, which can be traced for approximately 600 feet along the creek wall, appears to be in part eroded. Mineralized float has been consistently



SECTIONS

SCALE 1" = 100'

LEGEND

- 1704 SOIL SAMPLE (ZINC ppm)
- 285 SILT SAMPLE (ZINC ppm)
- 1.04 | CHIP SAMPLE (% Zn)

WELCOME NORTH MINES LTD.
ARCTIC RED PROJECT
NTS 106 F/1
BB - DAB PROJECT AREA
**MAIN DAB SHOWING -
- SAMPLE LOCATIONS**

NOV. 1974

FIG. 3

found in the overburden covered, level plateau above the creek for approximately 1,000 feet to the south. The lower band has been traced for 600 feet along the creek edge.

Additional similar showings in the immediate DAB area have been reported by prospectors and are indicated in the accompanying Plate No. 1. These, however, have not been examined by the authors.

Available samples of the DAB showing are as follows:

<u>Sample Number</u>	<u>True Thickness</u>	<u>Lead %</u>	<u>Zinc %</u>	<u>Comments</u>
0040A	Specimen	Tr	19.6	Average mineralized specimen.
WN 51	Specimen	-	23.15	Selected specimen.
WN 52	Specimen	-	58.3	Selected specimen.
16116	15'	-	0.22	Chip - see Fig. 3.
16117	7'	-	0.58	Chip - see Fig. 3.
16118	4'	-	0.39	Chip - see Fig. 3.
16119	3.5'	-	1.04	Chip - see Fig. 3.
16120	6'	-	1.65	Chip - see Fig. 3.

Soil samples taken by G. Cargill (Utah) from an area overlying the Upper Mineralized Zone (Fig. 3) assay from 1,000 to 4,000 ppm zinc, thus indicating an underlying extension of the zone. Reconnaissance sampling across the creek failed to indicate possible extension in that direction.

The Little DAB (106-C-16 #6) Showing (Plate 2) has a similar mode of occurrence to the DAB; the sphalerite, however, varies in colour to bright reddish orange. Mineralization is exposed in small outcrop isolated within

a locally mineralized talus slope. Bedding in the area appears essentially flat-lying and mineralization can be followed for approximately 1,000 feet along the creek side. At one point along the slope, mineralized float occurs 75 feet above a small mineralized outcrop indicating a possible thickness in excess of 100 feet.

The following samples were taken on the Little DAB showing:

<u>Sample Number</u>	<u>True Thickness</u>	<u>Lead %</u>	<u>Zinc %</u>	<u>Comments</u>
0050	15'	0.01	3.36	Upper and lower limits masked by talus.
0068	Specimen	0.01	8.16	Typical mineralized specimen.

Showings 106-F-1 #17 and 106-F-1 #18 are again typical of Type II mineralization. Bright green, coarsely crystalline sphalerite occurs as irregular veinlets in a fine grained grey weathering dolomite. Samples from these two showings, which appear to be very limited in extent, are as follows:

<u>Sample Number</u>	<u>True Thickness</u>	<u>Lead %</u>	<u>Zinc %</u>	<u>Comments</u>
WN 49	Specimen	0.19	6.00	Typical mineralized specimen, Showing 106-F-1 #17.
WN 50	Specimen	0.01	6.12	Typical mineralized specimen, Showing 106-F-1 #18.

RECOMMENDED EXPLORATION - 1975

Grid soil sampling (100 x 400 feet) of the BB and DAB areas is recommended as the best method for following up possible extensions of these showings.

Such exploration could well be carried out in conjunction with work planned for the adjoining AB mineral claims.

Further work, which would possibly consist of trenching, would be dependent on geochemical results.

PROPOSED BUDGET - BB-DAB MINERAL CLAIMS

(See overall Arctic Red '75 Budget for details)

Period: 2 weeks - July 16 to July 31, 1975

Geology

Property Geologist - Wages	\$ 648	
Field Supplies	50	
Maps/Prints/Drafting	100	
Assays	<u>100</u>	\$ 898.00

Geochemistry

Field Assistant - Wages	540	
Maps/Prints/Drafting	100	
Assays/Analysis - say, 2,000 samples	<u>1,600</u>	2,240.00

Trenching

1 month	<u>\$ 2,660</u>	2,260.00
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Drilling (Contingent on Results)

Say, 5 short holes, or 250 feet	<u>\$ 4,400</u>	4,400.00
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Freight and Transportation

Assume 20% of overall budget	<u>\$ 2,500</u>	2,500.00
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Camp Operation

5 men x 15 days @ \$27/day	<u>\$2,025</u>	<u>2,025.00</u>
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Sub-total		\$14,723.00
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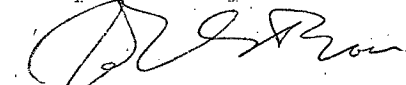
Administration

@ 5%		<u>736.50</u>
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Total		\$15,459.50
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Say,		<u>\$15,500.00</u>
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Respectfully submitted,



John S. Brock



J.D. Guild, P.Eng.

APPENDIX I

ARCTIC RED PROJECT

CLAIMS SUMMARY AS AT DECEMBER, 1974
NORTHWEST TERRITORIES

<u>N.T.S. AREA</u>	<u>CLAIMS</u>	<u>GRANT NUMBERS</u>	<u>RECORDING DATE</u>	<u>NO. OF CLAIMS</u>
106-C-16 (& F-1)	DAB 1-20	A56777-A56796	July 31/1974	20
	BB 1-12	A56759-A56770	July 8/1974	
	BB 13-50	A56797-A56834	Aug. 19/1974	
	BB 51-80	A86101-A86130	" " "	80
	TOTAL CLAIMS			100

APPLICATION FOR CERTIFICATES OF WORK - MACKENZIE MINING DISTRICT

In accordance with the provisions of the CANADA MINING REGULATIONS, we the recorded owners of mineral claims listed below, hereby apply for the following certificates of work, as per Appendix III of this report, "Statement of Costs", attached hereto:

TOTAL REPRESENTATION WORK - As per Appendix III \$17,639.46

DISTRIBUTION OF REPRESENTATION WORK

BB-DAB CLAIM GROUP

BB 1-12	A56759-A56770		
BB 13-26	A56797-A56810		
BB 51-80	A86101-A86130		
DAB 1-20	A56777-A56796		
	76 claims - 2 years each	\$15,200	
BB 27-50	A56811-A56834		
	24 claims - 1 year each	2,400	
	TOTAL BB-DAB - 100 claims	\$17,600	\$17,600.00
	Balance Unapplied		\$ 39.46

APPENDIX II

PERSONNEL AND DATES WORKED

The following pages tabulate the personnel and dates worked on the BB-DAB Mineral Claims.

Please note that "Camp Operations" and "Expediting" wages have been pro-rated and are included in the costs for individual claim groups under "camp costs" (see Appendix III - Statement of Costs).

Also the OEX (Outside Exploration) costs have been pro-rated to individual claim groups as shown in Appendix III.

BB GROUP

PERSONNEL AND DATES WORKED

1974 FIELD SEASON

Esau Dick,
c/o General Delivery,
Ross River, Y.T.

June 12.

Prospector
\$800/month

Harold Barker,
c/o General Delivery,
Whitehorse, Y.T.

July 5, 7, 14.

Field Assistant,
\$800/month

Richard F. McLoughlin,
c/o # 1010,
2055 St. Matthew St.,
Montreal, PQ.

June 11-12.
July 6-7, 13-14.
Aug. 19.

Geologist,
\$1200/month

John D. Guild,
13291 Woodcrest Drive,
White Rock, B.C.

June 12.
July 13, 16.
Nov. 25, 26.
Dec. 2.

Party Chief,
\$65/day

Joan Stickney,
c/o General Delivery,
Whitehorse, Y.T.

Duration of Program.
Wages pro-rated to
all projects - under
camp costs.

Cook,
\$900/month

DAB GROUP

PERSONNEL AND DATES WORKED

1974 FIELD SEASON

Harold Barker,
c/o General Delivery,
Whitehorse, Y.T.

July 3, 6.

Field Assistant,
\$800/month

Richard F. McLoughlin,
c/o #1010,
2055 St. Matthew St.,
Montreal, PQ.

July 3, 5.
Aug. 12.

Geologist,
\$1200/month

John D. Guild,
13291 Woodcrest Drive,
White Rock, B.C.

July 6, 9.
Nov. 27, 28.
Dec. 3.

Party Chief,
\$65/day

John S. Brock,
3029 Procter Avenue,
West Vancouver, B.C.

July 81, 19.

Field Supervisor,
\$71/day

Joan Stickney,
c/o General Delivery,
Whitehorse, Y.T.

Duration of Program.
Wages pro-rated over
all projects - under
camp costs.

Cook,
\$900/month

OEX

PERSONNEL AND DATES WORKED

1974 FIELD SEASON

C.L. (Pete) Risby,
Ross River, Y.T.
Chief Prospector,
\$1200/month

May 1-8, 20-28, 30-31.
June 1, 3-12, 25-30,
July 1-19, 21-26, 28-31.
Aug. 1-4, 12-19, 25, 27, 30.
Sept. 3-6, 9-13.

Arthur John,
Ross River, Y.T.
Prospector,
\$1100/month

May 16-31.
June 1-16, 25-30.
July 1-25, 31.
Aug. 1-29,
Sept. 3-8.

Robert Etzel,
Ross River, Y.T.
Prospector,
\$1100/month

May 16-31.
June 1-3, 5-12, 14-25, 30.
July 2-25, 31.
Aug. 1-11, 13-31.
Sept. 1.

Esau Dick,
Ross River, Y.T.
Prospector
\$800/month

May 16-31.
June 1-11, 13-16, 30.
July 2-21, 24, 25.
Aug. 1-11, 13-22.
Sept. 1.

Walter Etzel,
Ross River, Y.T.
Prospector,
\$800/month

May 15-31.
June 1-25, 30.
July 2-21, 24, 25, 31.
Aug. 1-11, 13-20.

Joan Stickney,
General Delivery,
Whitehorse, Y.T.
Cook
\$900/month

Duration of Program -
salary pro-rated over
all projects.- under
camp costs.

OEX

PERSONNEL AND DATES WORKED

1974 FIELD SEASON

Harold Barker,
c/o General Delivery,
Whitehorse, Y.T.

Field Assistant
\$800/month

May 15-26.
June 25, 30.

Richard F. McLoughlin,
c/o #1010,
2055 St. Matthew St.,
Montreal, PQ.

Geologist
\$1200/month

May 15-26.
June 2-4, 10, 14, 22, 25, 30.
July 1, 19, 20, 24, 31.
Aug. 22, 31.
Sept. 3, 23-27, 30.
Oct. 1-4.

John D. Guild,
13291 Woodcrest Dr.,
White Rock, B.C.

Party Chief,
\$65/day

March 26-29.
April 1-5, 8-12.
May 7-10, 13-17, 20-26.
June 3, 5, 9-11, 19, 20, 22-30.
July 1-4, 8, 10-11, 14-15, 19-21,
23-36, 30, 31.
Aug. 6, 8, 10, 14-15, 18, 20,
23, 30-31.
Sept. 3, 4, 5, 7, 10-17.
Dec. 10, 11, 13.

John S. Brock,
3029 Procter Ave.,
West Vancouver, B.C.

Field Supervisor,
\$71/day

Jan. 3-5, 16-18, 21-22.
Feb. 18, 21, 25-28.
March 14-16, 21-22, 25-26, 29-30.
April 1-5, 22-26.
May 6-10, 13, 29, 31.
June 3-4, 9-12, 25, 31, 22.
Aug. 1-2, 8, 13-14, 17-18, 20-21.
Sept. 3-4, 10, 13, 16, 23, 24-25.
Oct. 1, 3, 4, 13, 16, 23, 27, 28, 29, 31.

CAMP OPERATION

PERSONNEL AND DATES WORKED

1974 FIELD SEASON

Joan Stickney, c/o General Delivery, Whitehorse, Y.T.	May 13-31. June 1-16, 21-30. July 1-19, 25-31. Aug. 1-6, 13-31. Sept. 1.
Cook <u>\$900/month</u>	
C.L. (Pete) Risby, Ross River, Y.T.	May 19, 29. July 27.
<u>\$1200/month</u>	
Arthur John, Ross River, Y.T.	July 26, 27.
<u>\$1100/month</u>	
Robert Etzel, Ross River, Y.T.	July 1, 26, 27.
<u>\$1100/month</u>	
Esau Dick, Ross River, Y.T.	July 1, 26, 27.
<u>\$800/month</u>	
Walter Etzel, Ross River, Y.T.	July 1, 26, 27.
<u>\$800/month</u>	
Harold Barker, c/o General Delivery, Whitehorse, Y.T.	June 2-8, 11-23. July 1, 4, 13, 16, 22-25, 31. Aug. 1, 3, 5-7, 13-20, 22.
<u>\$800/month</u>	
Richard McLoughlin, c/o #1010, 2055 St. Matthew St., Montreal, PQ.	July 26, 27.
<u>\$1200/month</u>	

N.B. Wages pro-rated to all projects worked under
1974 program - under camp costs.

EXPEDITING

PERSONNEL AND DATES WORKED

1974 FIELD SEASON

C.L. (Pete) Risby,
Ross River, Y.T.

Aug. 20-24.
Sept. 7-8.

\$1200/month

N.B. Wages prorated to projects worked.

APPENDIX III

BB-DAB CLAIM GROUP
STATEMENT OF COSTS

The following pages show a distribution of the total costs incurred by Welcome North Mines Ltd. (N.P.L.) on behalf of the Arctic Red Joint Venture in carrying out exploration work on the BB-DAB claims during the 1974 field season. These costs can be invoice supported or in the case of internal costs documented.

The costs can be summarized as follows:

<u>Claim Group</u>	<u>Direct Property Cost</u>	<u>Outside Exploration Cost Related to Property</u>	<u>Total</u>
BB-DAB	\$7,177.46	\$10,462.00	\$17,639.46

NOTE: The allocation of these costs for purposes of representation work is shown in Appendix I.

TOTAL REPRESENTATION WORK APPLIED FOR	<u>\$17,600.00</u>
BALANCE UNAPPLIED	\$ 39.46

APPENDIX III

ARCTIC RED PROJECT - 1974

GROUP: DAB & BB

EXPENDITURES - DAB & BB

	<u>GEOLOGY/ GEOCHEM</u>	<u>PROSPECTING</u>	<u>DRILLING</u>	<u>STAKING & ACQ.</u>	<u>PROPERTY MAINT.</u>	<u>CAMP OP.</u>	<u>EXPEDI- TING</u>	<u>ADMIN</u>	<u>SUB- TOTAL</u>	<u>GRAND TOTAL</u>
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
SALARIES										
Wages	740.66	-	-	853.48	-	287.07	10.98	-	1,892.19	} 2,892.19
Finder Fees	-	-	-	1,000.00	-	-	-	-	1,000.00	
CONTRACT PAYMENTS										
	-	-	-	-	-	-	85.11	365.55	-	450.66
FIELD & MISC. EXP.										
	-	-	-	400.00	-	588.90	63.85	26.52	-	1,079.27
MAPS/PRINTS/DRAFTING										
	26.60	-	-	-	-	-	-	-	-	26.60
ASSAYS/ANALYSES										
	120.15	-	-	-	-	-	-	-	-	120.15
FREIGHT/TRANSPORT										
Helicopter	4,940.35	-	-	-	-	-	-	-	4,940.35	} 5,254.14
Fixed Wing	-	-	-	-	-	180.65	-	-	180.65	
Major Transp.	-	-	-	-	-	69.78	-	-	69.78	
Misc. Freight	-	-	-	-	-	63.36	-	-	63.36	
TOTAL	\$ 5,827.76	-	-	2,253.48	-	1,189.76	159.94	392.07	-	9,823.01

LESS: TOTAL COSTS NOT ALLOWED (STAKING/ACQ & ADMIN.) - N.W.T. - 2645.55

BALANCE OF APPLICABLE DIRECT COSTS \$ 7,177.46

BB-DAB CLAIMS N.W.T. - 100 CLAIMS

PLUS: PRO-RATED PORTION OF O&E COSTS (SUMMARY ATTACHED) N.W.T. 10,462.00

TOTAL TO BE APPLIED AS REPRESENTATION WORK \$ 17,639.46

ARCTIC RED PROJECT

COSTS RELATED TO

PROPERTIES - DISTRIBUTED AMONG 459 Northwest Territories Claims, as follows:

RA CLAIM GROUP	-	12	Claims x \$104.62 =	\$1,255.44	
BB-DAB " "	-	100	Claims x \$104.62 =	10,462.00	
CAB " "	-	65	Claims x \$104.62 =	6,800.30	
AB " "	-	250	Claims x \$104.62 =	26,155.00	
EAB " "	-	20	Claims x \$104.62 =	2,092.40	
HAB " "	-	12	Claims x \$104.62 =	1,255.44	TOTAL = \$48,020.58

459

ARCTIC RED PROJECT - 1974

GROUP: OEX

EXPENDITURES - OEX

	GEOLOGY/ GEOCHEM	PROSPECTING	DRILLING	STAKING & ACQ.	PROPERTY MAINT.	CAMP OP.	EXPEDI- TING	ADMIN	SUB- TOTAL	GRAND TOTAL
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
SALARIES										
Wages	14,027.52	19,615.39	-	-	-	6,721.34	257.11	-	40,621.36	}
Finder Fees	-	-	-	-	-	-	-	-	-	
CONTRACT PAYMENTS										
	-	-	-	-	-	-	1,992.81	8,558.80	-	10,551.61
FIELD & MISC. EXP.										
	-	-	-	-	-	13,789.15	1,495.01	621.02	-	15,905.18
MAPS/PRINTS/DRAFTING										
	3,487.29	-	-	-	-	-	-	-	-	3,487.29
ASSAYS/ANALYSES										
	595.81	-	-	-	-	-	-	-	-	595.81
FREIGHT/TRANSPORT										
Helicopter	30,971.30	-	-	-	-	-	-	-	30,971.30	}
Fixed Wing	4,948.59	-	-	-	-	4,229.70	-	-	9,178.29	
Major Transp.	-	-	-	-	-	1,633.86	-	-	1,633.86	
Misc. Freight	-	-	-	-	-	1,483.37	-	-	1,483.37	
TOTAL	\$ 54,030.51	19,615.39	-	-	-	27,857.42	3,744.93	9,179.82	-	114,428.07

LESS: Total Costs not Allowed (Admin Costs) -9,179.82
 BALANCE AS APPLICABLE REPRESENTATION WORK \$105,248.25

NOTE: Costs related to properties distributed on pro-rata basis among
 400 Yukon Claims and 606 N.W.T. Claims = \$105,248.25
 = 1006 Claims = \$104.62052 per claim



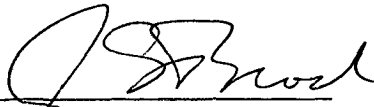
WELCOME NORTH MINES LTD. (N.P.L.)

Suite 8, 1161 Melville St., Vancouver, B.C. V6E 2X7 Telephone (604) 687-1658

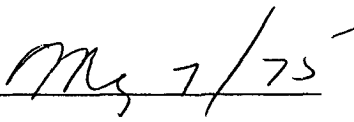
APPENDIX III

AFFIDAVIT SUPPORTING SUMMARY OF COSTS

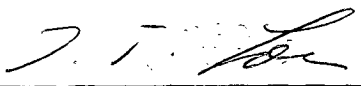
I, John S. Brock, Vice President, Welcome North Mines Ltd. (N.P.L.), of Vancouver, British Columbia, do hereby state that, to the best of my knowledge and belief, the statement of costs presented in this report (Geological Report on the BB-DAB Mineral Claim Groups) is both correct and true.



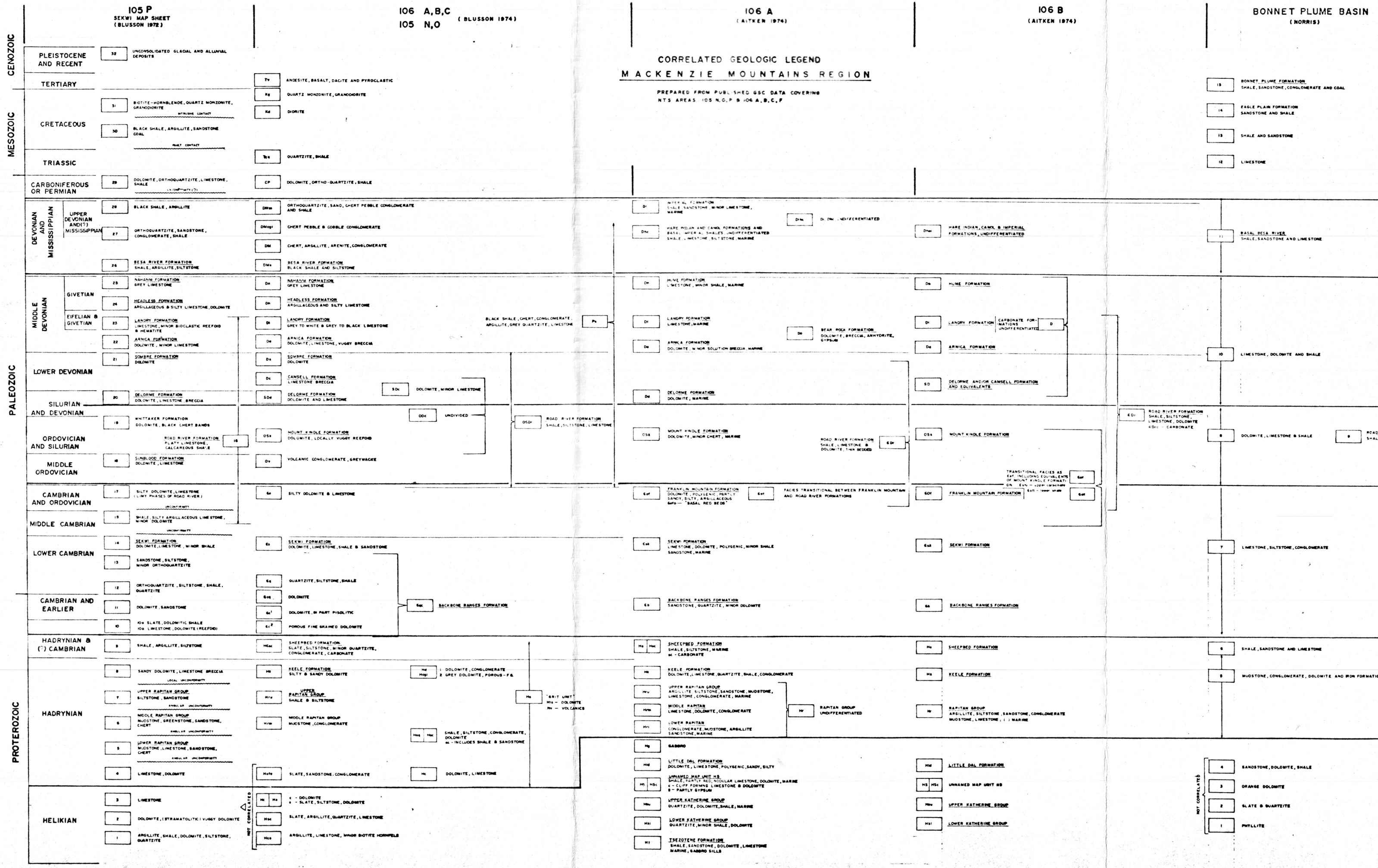
J.S. Brock



Date



Notary Public in and for
the Province of British
Columbia.



**CORRELATED GEOLOGIC LEGEND
MACKENZIE MOUNTAINS REGION**

PREPARED FROM PUBLISHED GSC DATA COVERING
NTS AREAS 105 N.O.P. & 106 A,B,C,F

- 15 BONNET PLUME FORMATION
SHALE, SANDSTONE, CONGLOMERATE AND COAL
- 14 EAGLE PLAIN FORMATION
SANDSTONE AND SHALE
- 13 SHALE AND SANDSTONE
- 12 LIMESTONE

- 11 BASAL BELA RIVER
SHALE, SANDSTONE AND LIMESTONE

- 10 LIMESTONE, DOLOMITE AND SHALE

- 9 ROAD RIVER FORMATION
SHALE AND LIMESTONE
- 8 DOLOMITE, LIMESTONE & SHALE

- 7 LIMESTONE, SILTSTONE, CONGLOMERATE

- 6 SHALE, SANDSTONE AND LIMESTONE

- 5 MUDSTONE, CONGLOMERATE, DOLOMITE AND BROWN FORMATION

- 4 SANDSTONE, DOLOMITE, SHALE
- 3 ORANGE DOLOMITE
- 2 SLATE & QUARTZITE
- 1 PHYLITE

NOT CORRELATED