BRIEFING NOTES ON

HIGHLAND VALLEY MINING DEVELOPMENTS

For Visit of Hon. R.H. McClelland to the
Highland Valley, February 20, 1980

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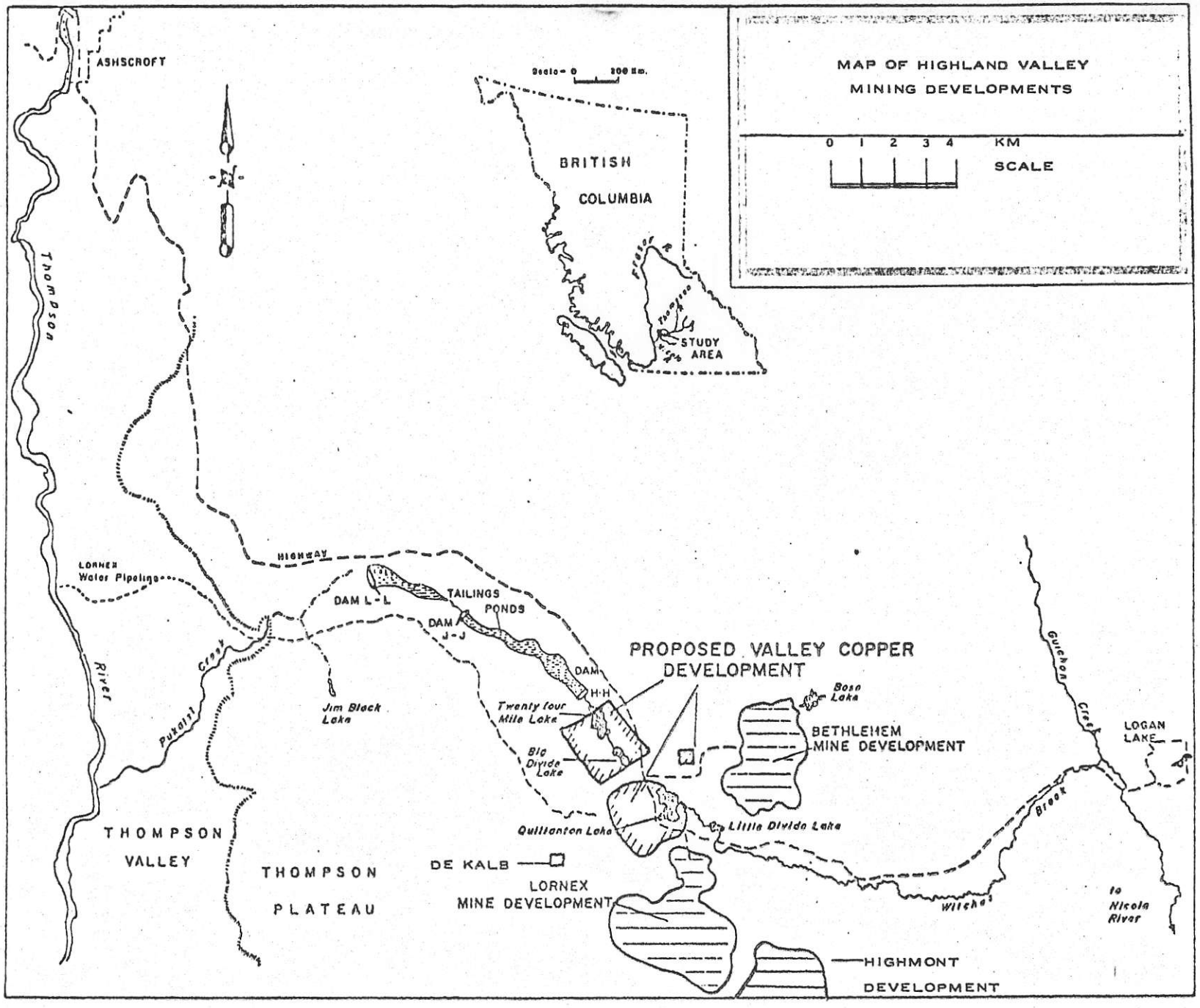
MAP OF HIGHLAND VALLEY
MINING DEVELOPMENTS
0 1 2 3 4 KM
SCALE
ASHCROFT
BRITISH
COLUMBIA
STUDY
AREA
Thompson
River
Nicola
River
HIGHWAY
LORNEX
Water Pipeline
DAM L-L
TAILINGS
PONDS
DAM
J-J
DAM
H-H
PROPOSED VALLEY COPPER
DEVELOPMENT
Jim Black
Lake
Twenty four
Mile Lake
Big
Divide
Lake
Boss
Lake
BETHLEHEM
MINE DEVELOPMENT
Guichon
Creek
LOGAN
LAKE
Pukaist
Creek
Quilliantan Lake
Little Divide Lake
Witches
Brook
to
Nicola
River
THOMPSON
VALLEY
THOMPSON
PLATEAU
DE KALB
LORNEX
MINE DEVELOPMENT
HIGHMONT
DEVELOPMENT

BETHLEHEM COPPER CORPORATION

MAJOR SHAREHOLDERS:

COMINCO LTD.	39.25%
GULF RESOURCES & CHEMICAL CORP.	25.77%
NEWMONT MINING CORP.	22.84%

Mr. P.M. Reynolds - Chairman

Mr. B.J. Reynolds - President and Chief Executive Officer

Mr. J.P. Liss - Mine Manager

OPERATIONS: The company produces ore from a group of 486 claims; the main product is copper with gold and silver values, a molybdenum recovery circuit was installed in 1978. Current reserves are sufficient to maintain current production levels through to 1988.

1979 operations were: ore mined - 21 000 tonnes per calendar day

ore milled - 19 870 tonnes per calendar day

product shipments : copper - 21 million kg($47.4Mn) to Japan and Spain

silver - 0.6 million g($1.8Mn)

gold - 0.09 g.($0.9Mn)

molybdenum - 0.03 kg($10Mn) to Europe.

employment : 357 Payroll: $6.9 million

REMARKS : Production started in December, 1962 with mill capacity of 3 000 tons per day which has increased progressively to the current 18 600 tons per day.

In 1968 Valley Copper discovered the Lake Zone ore body, 20% of which is on Bethlehem property. Estimates of ore reserves attributable to the company are 180 million tons averaging 0.44% copper.

In 1971 the J-A orebody was discovered 2 miles south of the mill. Exploration has proven in excess of 286 Mn. tons of ore averaging 0.43% copper, however depth of overburden has ruled out development to date.

LORNEX MINING CORPORATION LTD.

MAJOR SHAREHOLDERS:	RIO ALGOM LTD.	68.1%
	TECK CORPORATION	20.8%

Mr. R.D. Armstrong	-	Chairman and Chief Executive Officer
Mr. G.R. Albino	-	President and Chief Operating Officer
Mr. L.H. Hunter	-	Mine Manager

OPERATIONS: Company began production in October 1972 from a group of 204 claims; main products are copper and molybdenum with minor silver values. Current reserves are sufficient to maintain 1979 production levels for 17 years.

1979 operations were: ore mined - 48 600 metric tonnes / calendar day

ore milled - 48 700 metric tonnes / calendar day

product shipments : copper - 63 million kg.($139Mn) Japan, U.S.S.R.

silver - 16.6 million g($4.8Mn)

molybdenum - 2.1 million($64Mn) U.S.A.

employment (1978) : 747 Payroll: $14.7 million

REMARKS : This mine is Canada's largest single base metal operation; company's recently announced expansion will result in a daily mill capacity of between 74 000 and 80 000 short tons. Capital cost is estimated at $160 million. This expansion will add a third semi-autogenous mill, a new crusher, 18 new 170-ton trucks and three new shovels.

Production from the open pit will increase from around 160 000 tons a day to 240 000 tons a day.

DeKALB MINING CORPORATION

WHOLLY OWNED SUBSIDIARY OF DeKALBE Ag RESEARCH INC.

Mr. J. Leteta - Vice-President and General Manager

This company plans to begin production by mid-1980 from an existing underground mine located to the north-west of existing Lornex operations.

The mine, O.K. Alwin was a small producer for one year, 1972. Production was

Ore Mined and Milled	75 852 metric tonnes
Copper	1 151 858 kg
silver	618 545 g
gold	5 692 g

AFTON MINES LTD.

MAJOR SHAREHOLDERS:

TECK CORPORATION	50.32%
ISO ML	23.00%

Mr. N.B. Keevil - Chairman
Mr. R.E. Hallbauer - President
Mr. M.P. Lipkewich - Mine Manager

OPERATIONS: The company began production in May 1978 after expenditures of $85 million. The property is comprised of 52 claims and 5 leases.
Ore reserves are 24.5 million tons at an average grade of 0.94% copper with appreciable gold values and minor silver values.

1979 operations were: 11 967 tons/day mined
(fiscal year) 8 406 tons/day milled

product shipments : copper 28.7 million Kg($62.8Mn)
gold 1.6 million g ($18.3Mn)

silver 7.5 million g ($2.8Mn)
employees: 359 payroll: app. $7.1 million

REMARKS: The Afton smelter achieved full production rate in March 1979. Product blister copper is sold under the company's long-term contract with B I C C and Delta Metals of the U.K.

HIGHMONT MINING CORPORATION

MAJOR SHAREHOLDERS: TECK CORPORATION 52.85%

Mr. R.W. Falkins - President
Mr. R.E. Hallbauer - Vice-President
Mr. J.M. Anderson - Mine Manager

Company has 74 claims on the south-east boundary of the Lornex property. A $150 million capital expenditure program has been underway since mid-1970 to bring the copper/molybdenum property into production in late 1980 at a rate of 25 000 tons of ore per day.

Annual output is anticipated to be some 22.7 million kg. of copper and 2 million kg. of molybdenum. Over 400 people will be employed at the mine, resulting in an annual payroll of about $8 million.

Highmont has ore reserves of 130 million tons which will be sufficient for a mine life of 14 years, in all likelihood further reserves will be added and the mine life extended.

VALLEY COPPER LTD.

MAJOR SHAREHOLDERS:	COMINCO LTD.	80%
	BETHLEHEM COPPER CORP.	5%

Mr. R. Taylor - President
Mr. J.H. Salter - Vice-President

The company plans to develop a copper deposit of almost 1 billion tons with an average grade of 0.418% copper. The proposed $400 - $500 million operation would mine this deposit at a rate of 40 million tons per year and would employ 900 people. Project start-up is anticipated for mid-1982.

The company plans to use some existing Lornex facilities e.g. the existing water pipeline from the Thompson River and the Lornex settling ponds. The labour force will be settled in existing communities.

COMMUNITY DEVELOPMENT ISSUES

The Highland Valley is at the geographic centre of a triangle formed by Ashcroft, Merrit and Kamloops. These three communities provide the road access and, along with the village of Logan Lake, the services required by the mining community. Kamloops is the regional centre by virtue of its size and significance.

Ashcroft served as the initial access route and is the residential area serving most of the Bethlehem Copper employees, the original Highland Valley mine.

The construction of the Lornex mine caused the development of Logan Lake, 10 miles from the mining area on the road to Kamloops. The following population split has developed since then:

Ashcroft	6%
Merrit	10%
Kamloops	20%
Logan Lake	60%
Other	4%

Lornex and Bethlehem currently employ a total of 1 100 employees; it is anticipated that the Lornex expansion and the new mines, Highmont and Valley Copper, will employ a further 1 525. BC Research estimates that the distribution of new employees will be as follows:

Logan Lake	925
Kamloops	305
Merrit	150
Ashcroft	85
Other	60
	1 525

It can be seen that the impact on Logan Lake, a community of 1 500 people, will be especially significant. The population will triple as a direct result of the mining expansion and, with the anticipated service and commercial growth, will result in a population of over 6 000 by 1985.

This population growth will create demands for more housing, with attendant sewer and water improvements. Negotiations are currently underway with officials of the Provincial Government to ensure an adequate supply of land which would be developed as building lots by the Village. Expansion of educational, commercial and health facilities can be expected to keep pace with the population increase.

Senior government participation, in the provision of off-site services e.g. sewer, water, roads etc., will be substantial - the net result will be the transition of Logan Lake from a company (Lornex) financed town to an open town.

It is anticipated that the shutdown of the Craigmont mine later this year will result in a transfer of the labour force to new job opportunities in the Highland Valley - however, it is also anticipated that this will occur without relocation of homes from Merrit to Logan Lake.

INDUSTRIAL DEVELOPMENT ISSUES

COPPER SMELTER: The establishment of a copper smelter in BC has been considered by Bethlehem in association with Noranda, Placer and Newmont Manufacturing.

In 1974 a BC Government Copper Task Force studied the feasibility of copper smelters in the province, and further work has been done in 1979 on the suject.

Currently, at least one proponent (United Technologies/General Dynamics) is seriously investigating the establishment of a copper smelter in BC drawing on ores from the Highland Valley and other BC locations. The consortium has established an office in Vancouver and is currently soliciting BC mining company, U.S. and Pacific Rim consumer, and technology process participants. (Cominco, Marubeni, BCRIC, BKM, BICC, Mitsuibishi).

Some of the major issues are:

1. profitability of a copper smelter
2. marketability of the product
3. availability of concentrate feed
4. disposal of sulphuric acid by-product
5. environmental concerns.

MOLYBDENUM ROASTER: The possibility of a molybdenum roasting facility using concentrates from existing and proposed mines in the Highland Valley has been examined. Annual volumes of concentrate will be sufficient, but there is some doubt as to whether the financial benefits outweigh the costs of such a project.

A major benefit to be derived from roasting molybdenum is market stability and flexibility. Major molybdenum producing companies have direct producer-consumer ties linked to the oxide

form rather than to concentrate. Value added is a minor benefit in that a roasting facility would only employ approximately 30 people.

Pollution is a major cost factor connected with a molybdenum roasting facility. Endako currently has a fairly elaborate cleaning system in use, however a similar level of emissions may not be acceptable in a Highland Valley site.