



MORAGA Resources Ltd.

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MORAGA Resources Ltd.

Corporate

- Experienced Management
- Senior Partner — BHP-Utah Mines Ltd., operator of Island Copper Mine.
- Existing operating infrastructure, including 55,000 tpd concentrator on tidewater.

1990 Highlights

- Confirmed second major copper-gold-molybdenum porphyry deposit on Northern Vancouver Island.
- Initiated independent engineer's studies to determine mineable resource potential.
- Potential mineable resources in excess of 450 million tons.
- Dramatic reduction in strip ratios for initial and expanded pits.

Objectives

- Complete Toronto Stock Exchange Listing.
- Arrange further Exploration-Development Funding with minimum dilution.
- Finalize ultimate transportation and milling plans.
- Complete in-depth feasibility study.

Expo Property Copper-Gold Joint Venture

Moraga Resources Ltd. is outlining one of North America's largest undeveloped copper-gold deposits at Hushamu Lake, Northern Vancouver Island, British Columbia. Recent engineering studies report a mineral resource of 456 million tons containing 4.6 million ounces of gold, 2.4 billion pounds of copper and 76.5 million pounds of molybdenum. This provides a world class, open-pit mine development currently in the definition drilling and engineering stage. Milling at a proposed rate of 55,000 tons per day would process over 20 million tons of ore annually containing 59,622 tons copper, 200,750 ounces gold, and 4,617 tons molybdenum. Moraga is earning a 45% interest in this world class deposit with BHP-Utah Mines Ltd. retaining the remaining 55%.

Location

The Hushamu deposit is located 30 miles west of Port Hardy at an elevation of 1,100 feet in a logged area of moderate relief. Climate is mild and the deposit lies within 2.7 miles of tidewater. The region hosts extensive logging operations, bases for fishing fleets and the 55,000 tons per day Island Copper Mine (copper, gold, molybdenum).

History, Geology and Exploration

The Expo property was staked by BHP-Utah in the mid-1960s at the time of the Island Copper discovery. Extensive surface surveys and diamond drilling led to discovery and partial outlining of the Hushamu copper-gold-molybdenum deposit within this claims area. In 1987 Moraga Resources was

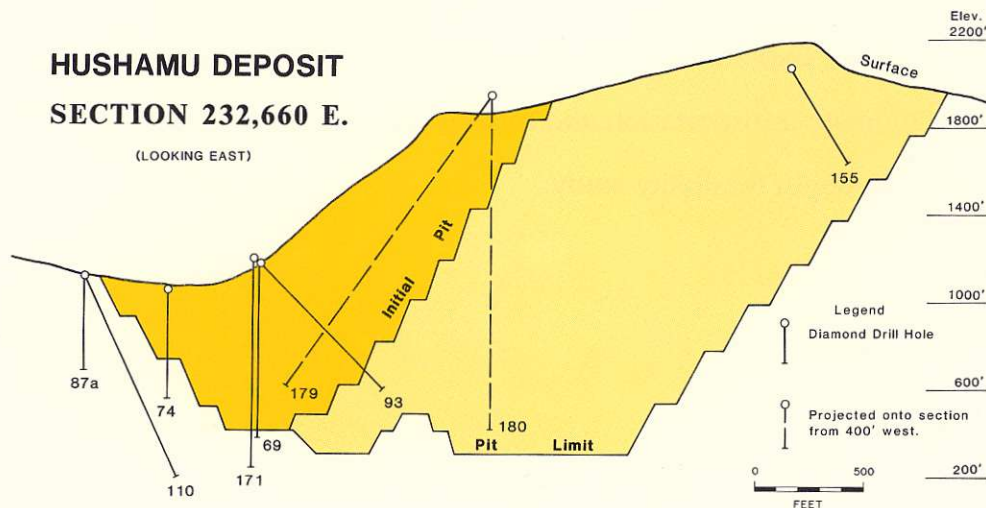
formed to obtain an option whereby they could earn a 45% interest in the Hushamu deposit and the surrounding 528 claim Expo Group.

A large 7,000 by 3,000 foot copper-gold rich sulphide system exists around alkalic monzo-diorite stocks which intrude volcanic strata. Drilling of 50,000 feet in 87 holes within the northwest portion of this system has confirmed a major tonnage of copper-gold mineralization adjacent to and underlying a zoned gold bearing cap rock. The balance of this sulphide system and several other targets on the 47 square mile property remain to be drill tested.

Section 232,660 E

DRILL HOLE NUMBER	INTERVAL (FT)	LENGTH (FT)	Cu%	Mo%	AU OPT
EC-87a	200-370	170	0.17	n/a	n/a
EC-110	220-420	210	0.22	0.006	0.006
EC-74	70-370	300	0.311	0.009	0.011
	180-360	180	0.387	0.010	0.013
EC-171	61-794	733	0.387	0.008	0.019
	60-410	350	0.447	0.008	0.022
EC-69	40-740	700	0.363	0.010	0.010
	130-510	380	0.393	0.009	0.013
EC-93	460-805	345	0.295	0.005	0.013
	510-660	150	0.361	0.006	0.017
EC-155	445-470	25	0.362	0.015	0.004

DRILL HOLE NUMBER	INTERVAL (FT)	WIDTH (FT)	Cu%	Mo%	AU OPT
EC-179	807-1627	820	0.33	0.009	0.013
EC-180	955-1004	49	0.19	0.006	0.005
	1028-1476	394	0.20	0.008	0.007
	1082-1318	236	0.24	0.009	0.009



The Hushamu copper-gold-molybdenum deposit measures 5,400 feet long by 1,000 feet wide and is up to 800 feet thick. The deposit is overlain by overburden and siliceous cap rock. Mineralization consists of stockworks and disseminations of chalcopyrite, pyrite, bornite, and magnetite similar to the nearby Island Copper Mine. Native gold occurs both as free grains and with sulphides.

Reserves and Mining

The Hushamu deposit ranks with many of the world's largest copper-gold deposits. Further drilling currently under way is expected to further confirm and increase these reserves. A current mineral resource calculated by third parties within two defined open pits is:

These consist of drill indicated reserves that would be mined first within an initial pit plus potential reserves within an expanded open pit. Engineering studies relating to transportation, costs, etc. of mineable reserves are in progress.

The massive size, blanket-shaped configuration and uniform distribution of gold and copper make the deposit ideally suited for high volume, low cost, open pit mine development. Stripping ratio for an initial open pit containing 87 million tons is a very low 0.8:1 while that for larger potential 369 million tons will be a moderate 1.5:1 for an overall stripping ratio of only 1.34:1. Mining will commence with the relatively higher grade, low strip ratio initial pit.

Hushamu Deposit

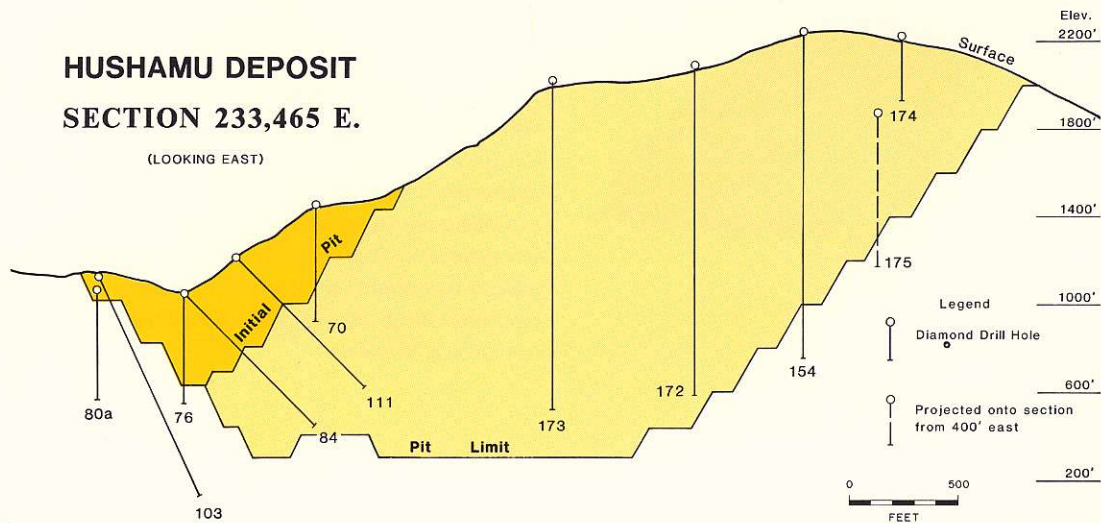
	TONS	Cu%	GRADE		CONTAINED METAL		
			AU OPT	MO%	Cu (POUNDS)	AU (OUNCES)	Mo (POUNDS)
Initial Pit	87,483,000	0.297	0.01	0.010	0.52 billion	0.88 million	17.5 million
Expanded Pit	369,437,000	0.250	0.01	0.008	1.85 billion	3.70 million	59.0 million
TOTAL	456,920,000	0.259	0.01	0.011	2.37 billion	4.58 million	76.5 million

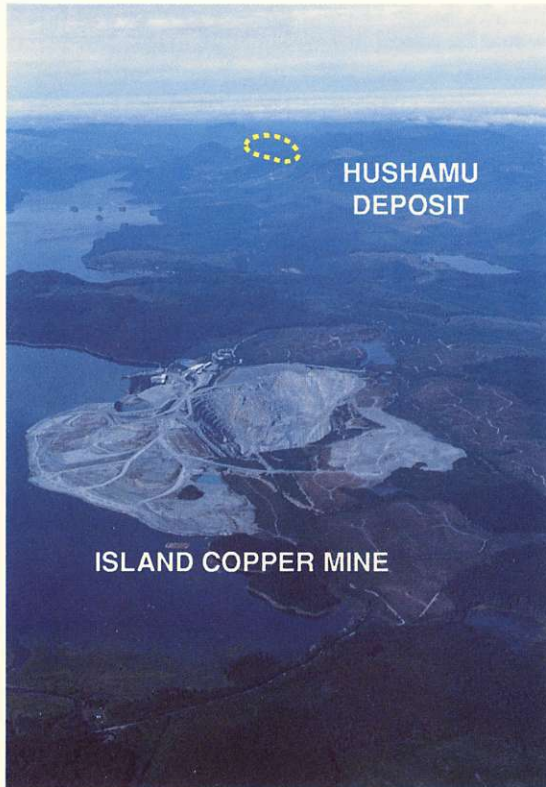
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Section 233,465 E

414 510 830
rest of
0.34 g Au/t

DRILL HOLE NUMBER	INTERVAL (FT)	LENGTH (FT)	Cu%	Mo%	AU OPT	DRILL HOLE NUMBER	INTERVAL (FT)	LENGTH (FT)	Cu%	Mo%	AU OPT
EC-80a	240-500	260	0.169	0.004	n/a	EC-70	280-330	50	0.366	0.030	0.003
EC-103	232-910	678	0.161	0.005	n/a	EC-173	332-440	108	0.080	0.005	0.014
EC-76	66-420	354	0.316	0.005	0.012		1069-1497	428	0.220	0.012	0.010
	70-220	150	0.418	0.008	0.015	EC-172	861-900	39	0.200	0.013	0.007
EC-84	45-842	797	0.268	0.008	0.011	EC-154	541-840	299	0.267	0.015	0.009
	45-250	205	0.369	0.006	0.016	EC-175	413-531	118	0.220	0.210	0.008
EC-111	310-630	320	0.109	0.014	0.004	EC-174	hole abandoned in fault at 287 feet				
	220-270	50	0.340	0.008	0.005						





Metallurgy and Milling

At a milling rate of 55,000 tons per day reserves within the initial pit provide for a mine life in excess of 5 years while those in the expanded pit would provide for an additional 21 years of production.

The similarity of the Hushamu ore to that at the Island Copper Mine where in excess of 280 million tons have been processed provides full scale production testing for the milling process.

For ore of the Hushamu type recoveries in excess of 85% for copper, 70% for gold and 70% for molybdenum can be expected. Metallurgical testing will be ongoing during the drilling and engineering phases.

Infrastructure

The Hushamu deposit is located only 15 miles from the Island Copper 55,000 tons per day mill. Alternative transport systems — truck haulage, conveyor belt or slurry pipeline — from mine to mill are currently being evaluated. After two decades of production the Island Copper deposit is nearing exhaustion, freeing the mill capacity, skilled personnel and equipment for Hushamu's development. The nearby community of Port Hardy and the major supply and service centre of Vancouver provide project support. A completely developed infrastructure — roads, mill, tailing facilities, and deep sea loading facilities — is available for development of the Hushamu deposit.

Environment

Environmental permitting for milling and tailings disposal is in place with the Island Copper operation. Mining of the Hushamu deposit should not present any environmental problems in the region that have not already been addressed.

Development Schedule

Exploration expenditures to October 1990 totalled over \$5 million by BHP-Utah and \$1 million by Moraga.

A two stage definition drilling program totalling approximately \$2 million is under way, together with engineering studies relating to mining, transportation and permitting. Start-up costs are expected to be in the \$50-\$75 million range providing an exceptional opportunity for early development. This compares to costs of \$300-\$400 million that could be expected for a similar scale operation if the existing mill and infrastructure were not already in place.



Corporate Information

November 15, 1990

Corporate Office

Suite 1030
609 Granville Street
The Stock Exchange Tower
PO Box 10339, Pacific Centre
Vancouver, BC
Canada V7Y 1G5
Tel: (604)688-1508
Fax: (604)688-7034

Registered Office

Suite 2800
666 Burrard Street
Vancouver, BC
Canada V6C 2X8

Directors and Officers

Maurice Young, *President*
Costas M. Takkas, *Vice President*
Ruth Ditto, *Secretary*
Ronald H. D. Philp, *Director*
Donald Fraser, *Director*
Bruce Schmidt, *Director*
Donald Moore, *Director*

Solicitors

Davis & Company
Suite 2800
666 Burrard Street
Vancouver, BC
Canada V6C 2X8

Auditors

Chambers Phillips & Co.
Suite 950
409 Granville Street
Vancouver, BC
Canada V6C 1T2

Capitalization

Authorized: 75,000,000
Issued/Outstanding: 8,224,015
Including: 412,500 Escrow

Registrar and Transfer Agent

Royal Trust Co.
Suite 1500
505 Burrard Street
Vancouver, BC
Canada V6B 3R7

Shares Listed

Vancouver Stock Exchange
Trading Symbol: MGR

Investor Contact

Barbara Logan
Tel: (604)688-1508
Fax: (604)688-7034

