

YCS → GIBRALTAR

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BRIEFING NOTE**ISSUE:** GIBRALTAR MINE TOUR - FEBRUARY 12, 1993**BACKGROUND:**

The Gibraltar Mine area, northeast of Williams Lake, has a long history of mineral exploration, beginning around 1920. Canex Placer Limited and Duval Corporation jointly explored the Pollyanna property in the late 1950s and in 1969 optioned the adjacent Gibraltar property. Canex Placer purchased Duval's interest in 1970, to hold both properties.

Production began at the Gibraltar mine on [redacted] and the official opening was on June 17 of that year. Development [redacted] were approximately \$65 million. The operating company, Gibraltar Mines Limited, is currently owned 68.1 percent by Placer Dome Inc.

At opening in 1972, the mine had 440 [redacted] with an annual payroll of \$4.5 million. Capacity [redacted] 1982 and the current work force is 275. The 1994 [redacted] \$18 million.

The employment fluctuations, in part, reflect peak development/construction periods, technical advancements in equipment, efficiency of operations and an increase in overall productivity. The production shovels and haul trucks [redacted] in use have in the order of two to three times the [redacted] those operating at start-up twenty years ago.

STATISTICS:

In total, four water [redacted] have been brought into [redacted] on the Gibraltar property; the Pollyanna, Gibraltar [redacted] (Gib-East), Gibraltar West (Gib-West) and the [redacted] zone. Most, or all, of current production is from the [redacted].

- Reserves at start-up: 26.5 million tonnes grading [redacted] percent copper and 0.018 percent molybdenum.
- Production since start-up: 240 million tonnes of ore and 262 million tonnes of waste rock.
- Current reserves: 162 million tonnes grading [redacted] copper and 0.023 percent molybdenum.
- Average daily mine production: about 37,000 tonnes of ore and 57,000 tonnes of waste rock.

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- * The mine produces copper and molybdenum in concentrate as well as refined copper by solvent extraction-electrowinning (SX-EW) from heap leaching of waste dumps. This highly efficient secondary process was introduced to the operation in late 1986 and has the capacity to recover 8000 to 5000 tonnes of copper metal per year (currently about 8 tonnes per day).
- * 1992 copper sales were 91,000 tonnes, up 17 percent from 1991 sales. 1992 production included 3,000 tonnes of cathode copper produced by electrowinning.
- * 1992 production revenues were hampered by higher smelter charges, lower molybdenum sales and higher depreciation and depletion expenses. Copper grades in 1992 were higher, but recovery in the milling process is below average due to metallurgical problems with oxidized ore.
- * Production costs (1992) averaged \$0.97 per pound of copper compared with \$1.05 average 1992 copper sales price (LME).
- * Development costs (to September 30/92) on Stage 3 of the Gib-East pit to date are \$13.3 million, with a projected total of \$24 million to complete the development.

CURRENT STATUS:

On-going exploration on the Gibraltar North (Gib-North) zone, discovered in 1990, has been successful. This work has delineated a very preliminary geological resource of about 100 million tonnes, of which only about 40-50 million tonnes may become a mineable reserve under the current market conditions. Early reports indicate that the zone will have potentially higher copper grades, averaging 0.4 percent copper, or higher. Engineering and economic studies, to be completed this spring, will update these figures. Exploration expenditures on the deposit in 1992 were \$772,000.

At 0.301 percent average copper grade, Gibraltar is one of the lowest grade open-pit copper mines in North America (the average grade could increase if Gib-North comes on stream). Its continued profitable operation through difficult economic periods is a credit to its management and employees.

Environmental impact management at Gibraltar has not been free of complications. Acid rock drainage potential from waste dumps was recognized midway through the 21-year production period. Some effects have been overcome with the 1986 introduction of the heap leaching solvent extraction process, which, to some extent, has turned problem into profit.

Discovery method: Geological 'leuthing'!...13
 Potential: Excellent

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On-going sampling and acid-base accounting is carried out to monitor potentially adverse effects of migrating mine drainage solutions. Land reclamation has been moderately successful, with about 15 percent of disturbed land reclaimed to date.

A comprehensive mine closure plan submitted to Energy, Mines and Petroleum Resources in 1991, outlines plans to minimize environmental and social impacts when the operation eventually closes. The current reclamation bond is \$9 million, which will increase by \$1 million annually to \$10 million by 1994.

Gibraltar Mines Limited has been recognized by Williams Lake as a good corporate citizen. At their 20th anniversary, July 20, 1992, the city council emphasized that the company has contributed most valuably to the quality of life enjoyed in the community.

Any specific figures?

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FROM: Rick Meyers
District Geologist
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COMMENTS: GIBRALTAR MINES ANNOUNCED FRIDAY
THAT IT WOULD NOT PROCEED WITH DEVELOPMENT
OF THE GIB-NORTH DEPOSIT.

THE DEPOSIT IS ABOUT 350' BELOW SURFACE

Number of pages 4 including cover sheet.