

strike at the mine in 1976. Tanco conducted a \$250,000 underground drilling and exploration program in 1976. An additional 160 000 tonnes of reserves were discovered, an amount only sufficient to maintain Tanco's estimated mine life at six to seven years. However, some 300 000 tonnes of material were found and if prices continue the strong upward trend of recent years, this material could be worth mining. Tanco is the world's single largest mine source of tantalum.

Tungsten

12.3.11

There is only one producer of tungsten concentrates in Canada, Canada Tungsten Mining Corp. Ltd. from its mine in the Northwest Territories. In 1976, Canada Tungsten produced some 2.2 million kilograms of tungsten trioxide in concentrate, an increase of almost 60% over 1975. The large increase was the result of two factors: a resolution of metallurgical problems which plagued Canada Tungsten in 1975 (tungsten recovery rates in the mill rose from 71.1% in 1975 to 81.6% in 1976); and an improved market, which allowed Canada Tungsten to operate at 97.8% of rated capacity in 1976 as opposed to 92.7% in 1975. Canada Tungsten announced that it will double its mining and milling capacity by 1979. The expansion program will cost some \$10 million.

Brunswick Tin Mines Ltd. completed metallurgical testing on ores from its tungsten-molybdenum-bismuth orebody near St. Andrews, NB, in 1976. Test results were satisfactory and Brunswick Tin was looking for a partner to participate in development of the orebody. Amax Exploration, Inc., wholly owned subsidiary of Amax Inc., reported that it had identified a scheelite deposit in the MacMillan Ross area of the Northwest Territories. With possible reserves of 30 million tonnes averaging 0.9% tungsten, this could be the largest known single deposit in the world. While Amax Exploration completed several studies on the feasibility of developing the deposit, there was no indication when development could begin. One discovery was announced during the year by Cordilleran Engineering Ltd. Cordilleran delineated an area of extensive tungsten mineralization on the Yukon Territory-British Columbia border. Cordilleran and several other companies planned more detailed exploration work in 1977.

Cadmium

12.3.12

Cadmium production in 1976 was 1 292.0 tonnes valued at \$7.5 million compared to 1 191.7 tonnes valued at \$9.0 million in 1975. Most zinc ores in Canada contain recoverable cadmium in quantities varying from 0.001% to 0.067% and zinc concentrates contain up to 0.7% cadmium. The largest mine production comes from Kidd Creek mine of Texasgulf Canada near Timmins, Ont., followed by the Geco mine of Noranda Mines at Manitouwadge, Ont. Other important producers are Cominco Ltd. in British Columbia, Hudson Bay Mining and Smelting in Saskatchewan and Manitoba, the Noranda group of companies in Ontario, Quebec and New Brunswick, Pine Point Mines Ltd. in the Northwest Territories and Anvil Mining Corp. in the Yukon Territory.

Cadmium is recovered as a byproduct from the smelting and refining of zinc ores and concentrates. Metallic cadmium is recovered as a byproduct at the electrolytic zinc plants of Cominco at Trail, BC, Hudson Bay Mining and Smelting at Flin Flon, Man., Canadian Electrolytic Zinc Limited at Valleyfield, Que., and Texasgulf Canada near Timmins, Ont. In 1976 metallic cadmium produced in Canada totalled 1 342.3 tonnes compared to 1 142.5 tonnes in 1975.

Selenium and tellurium

12.3.13

Production of selenium in 1976 increased to 260 000 kilograms valued at \$9.1 million from 182 385 kilograms valued at \$7.4 million in 1975. Production of tellurium increased to 24 000 kilograms valued at \$529,000 from 19 854 kilograms valued at \$414,074 in 1975. Selenium and tellurium are recovered from anode muds resulting from the electrolytic refining of copper at the plants of Canadian Copper Refiners at Montreal East, Que., and INCO at Copper Cliff, Ont.

Magnesium

12.3.14

Canadian production of magnesium was 5 858 tonnes valued at \$12.2 million. Production was up from 3 826 tonnes in 1975, but well below the 9 650 tonnes reached in 1969. World production of primary magnesium in 1976 is estimated at 244 200 tonnes