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GOLD!

Gold, which has driven men for centuries, is in the news again as the ban on its private ownership in the United States is slated to be lifted at the end of this year. Alaska, with its heritage firmly planted in this precious metal, should play an important part in this renewed interest.

Alaska's mineral production in 1973 was valued at \$294 million of which gold accounted for only \$695,000. This can be compared to the \$26 million which was mined when gold hit its peak production in Alaska in 1941. Production of gold died a slow death after 1941 as increasing mining costs and the government price ceiling made it economically unfeasible to mine this metal. By 1973 the output of gold in Alaska dropped to a low of 7,107 troy ounces.

Even though gold production in the State has been of insignificant value in total mineral production, the renewed interest in gold may awaken this sleeping giant. The reasons for interest in gold ownership can be interpreted in economic and historical connotations. Economic uncertainties throughout the world have caused Americans to become increasingly pessimistic and insecure. Spiraling inflation has seriously eroded the buying power of the U. S. dollar. On top of that is a recession, energy shortages, and a depressed stock market at home, while internationally there is a declining faith in the U. S. dollar and other major currencies as transactional currencies and stores of wealth. The two factors that give paper money validity are general confidence in the economy and its acceptance in international trade. Confidence in the future is shaky in today's unsteady world, while fear to protect one's buying power from inflation, or as a few believe, total loss, is becoming more common. The human reaction over the past 6,000 years has been to own gold as the asset of last resort in uncertain times. Over the centuries, kings and states from the time of Darius of Persia down to the United States government today have been among the largest gold hoarders. Currently the United States government is the largest

hoarder of gold in the world with \$11.6 billion in gold reserves, valued at the official price of \$42.22 per ounce. Now that American citizens are legally able to own gold, it can be expected that they too will hoard gold to some extent generating increased demands against the available gold supply.

An increased demand should keep the price of gold above the official U. S. price which caused the contraction of the gold mining industry in Alaska. Since 1971 the official U. S. price of gold has been little more than a bookkeeping figure. The price has been pushing near \$200 per ounce on the market lately and no one is sure how high or how low it may go. But it does appear reasonable to assume that gold will not drop to the former official price level set by the U. S. government. With the rapid rise in gold prices, it is to the advantage of the U. S. government, as the world's largest hoarder of gold (about 25% of the available supply), and other governments with large gold hoards, to keep the value of their holdings high by limiting the supply of gold put on the market. Now that Americans can own gold for the first time in 41 years, a new demand will be created which will tend to keep prices above the former official level. It is, therefore, uncertain as to how high the price of gold will go. If gold had followed the general level of price increases from 1934 to 1973, a 364 percent increase, it would have sold for \$141 an ounce in 1974. But who can be certain that gold would have followed the general price level. It may have been much lower or much higher. Other estimates of gold prices in the near future are uncertain, for the powers of emotionalism and speculation among buyers and sellers remain largely unmeasured. If indeed gold prices remain at high levels, gold production in Alaska will increase.

Alaska's past gold production may reveal its prospects for the future as a vast gold supply. Five states have yielded more than 75% of all U. S. gold production from 1799-1965. Alaska was the fourth largest producer among states, yielding a total of 29,872,981 ounces from the first discovery in 1848 through

1965. More than half of the gold production was from placer mines in the Yukon River region and the Seward Peninsula. The chief lode mining areas were in Southeastern Alaska where mines in the Juneau and Chichagof districts produced 7 million ounces of gold through 1959. The Fairbanks and Juneau areas were particularly strong producers when compared to other U. S. mining areas. Fairbanks was 7th in rank with 7,464,000 ounces produced through 1959, and Juneau was 8th with 6,884,000 ounces produced.

Recently there has been an increase in gold exploration and development in Alaska. U. V. Industries at Nome was busy during 1974 rehabilitating its equipment and using improved thawing techniques on the overburden which covers the gold bearing gravel. U. V. is rebuilding dredge No. 5, a very large dredge, 122 feet high and 535 feet overall length, weighing 3,600 tons when operating. Number 5 can move 10,000 cubic feet of gravel in 24 hours. This dredge alone has the potential to significantly increase the output of gold in Alaska. In the Koyukuk District in the Bear - Ida Creeks area near the Hogatza River, U. V. Industries has continued to operate a dredge during these past lean years. At the Little Squaw mine in the Chandalar gold district, work was carried out this summer to verify earlier ore estimates and potential for the district; the airport was upgraded, and a new office and bunkhouse installed. During 1973 Stanford Mines, Ltd. of Ontario, Canada put in a dam on their property, and plans to spend \$4 million in the next four years to develop a placer operation on the 2,000 acre site near Livengood. In South Central Alaska, Ranchers Development during 1973 completed exploration for copper and gold along Slate Creek, a tributary of the Chistochina River. Exploration continued during the year in the Fairbanks, Circle, and 40-Mile areas to mention a few.

The future of gold mining in terms of gold resources available looks promising. Alaska has extensive reserves of gold. The Seward Peninsula and offshore have large reserves. Offshore mining near Nome could soon develop if technical and environmental conservation problems do not become too severe. Old mines too are expected to come back into operation; they never ran out of gold, but just stopped mining when costs exceeded returns at the fixed government price. The Chandalar district,

known since 1906, has extensive quartz lodes which have hardly been developed due to transportation problems, but with the air strip at Little Squaw mine, development should be able to take place. The Shungnak district also has potential to develop if copper deposits at Bornite are exploited. Furthermore, gold occurrences are widespread along the Southern Brooks Range with development undertaken at only a few places. A 1973 report by the Mineral Industry Research Laboratory at the University of Alaska stated, "Very little prospecting in new areas has been done since the gold rushes. At the time of widespread activity, many prospects were reported but not followed up". It seems certain new productive areas will be discovered, and old areas will resume mining activity.

There is gold in Alaska, and its market value promises profits, but there are some obstacles. Environmental considerations will have to be carefully considered as under Alaska State Statute, "No person may pollute or add to the pollution of the air, land, subsurface land or water of the state". A 1969 study by the Department of the Interior, "The Effects of Placer Mining on Water Quality in Alaska" claimed that placer mining can degrade downstream water quality by increasing turbidity and decreasing dissolved oxygen causing a significant decrease in fish and fish food organisms. Physical barriers can also prevent the upstream migration of fish. And changes in stream gradients from mining operations cause erosion to exist for many years. The major impact on water quality from placer mining results from the hydraulic stripping operation of overburden to reach gold bearing gravel. The overburden which is the sand or gravel covering the mineral, ranges from zero to over 100 feet. It appears that settling tanks or other treatment facilities will be necessary to keep the fines, muck, and detritus resulting from stripping and sluicing operations from polluting downstream waters. The report concluded that any major revival of placer mining would result in serious water degradation throughout many parts of Alaska.

Also land ownership will affect exploration and development of gold properties. D-2 lands managed by the Bureau of Land Management are presently closed to new mineral entry. A new set of mining regulations which amended the 1872 Basic Mining Law, and became effective September 1, 1974 allows the U. S. Forest Service to monitor all activities

which cause surface disturbance to lands within the National Forest System. All persons are required to file a notice of intent with the district forest ranger and to submit a plan of operation when requested by the ranger. Restrictions on land areas recommended by the Secretary of the Interior for classification or inclusion into National Parks or Monuments are also currently preventing development. Thus valuable mineral lands in Alaska are locked up and some may remain so in the future.

Transportation will also pose problems. There are only about 8,000 miles of roads in Alaska today. Areas south of the North Slope look very promising for small operations, but the transportation of men, equipment, and supplies must be primarily by air and/or tractor train from the road system. Some consolation is found in the fact that gold mines need essentially one-way transportation as gold has high value for its weight on the way to market. Still transportation will pose problems until more roads are built.

Finally, labor shortages for well qualified mechanics and welders may occur because of heavy demands for those occupations for the Trans-Alaska pipeline.

Even though the problems described above are formidable, it is probably safe to assume that the level of gold production and exploration in Alaska will grow. The current world price and demand for gold makes it almost a certainty.

ALASKA'S ECONOMY IN OCTOBER

Employment — Unemployment: There was a normal seasonal slackening of activity in Alaska's economy during October as total estimated civilian labor force fell by 7,100 from September's figures. Major declines were observed in manufacturing and government. Over the year the civilian labor force increased by 10,400. As in previous months this growth was paced by advances in construction, transportation, communication and utilities, trade, and services. The major cause of the increase can be attributed to the growth in the State's economy and population brought on by the trans-Alaska pipeline project. Reflecting the continued departure from the labor force of persons laid off by seasonal economic declines, total unemployment was down by 1,400 from September's figure of 11,200. Over the

year total unemployment was down by 1,700.

Mining: Employment in this industry was stable over the month. There was, however, a growth of 1,300 over the year which is due to increased activity in mineral exploration in Alaska due to world wide shortages of raw materials.

Construction: Seasonal factors were largely responsible for the 500 decline in employment from September to October. The industry showed a healthy growth of 4,400 over the year which can be attributed to construction of the pipeline access road to the North Slope, construction related to pipeline camps, construction of office buildings in Anchorage and Fairbanks and to construction of single- and multi-unit dwellings to accommodate pipeline workers.

Manufacturing: Employment in manufacturing was down sharply over the month. Most of the decrease was in food processing as the fishing season in many areas of the State ended and canneries closed down for the season. Compared with last year, manufacturing employment was ahead by 600.

Transportation, Communication and Public Utilities: Employment in this industry was fairly stable over the month. Over the year there was an increase of 2,400. Again the over-the-year growth can be attributed to the influence of the trans-Alaska pipeline project. This project has substantially increased the demand for the hauling of freight by all modes of transportation and has also placed heavy demands on the communication and the public utilities sectors.

Trade: Employment in trade increased slightly over the month as a gain of 200 in retail employment was offset by a loss of 100 in the wholesale sector. The retail trade sector has evidenced a continuing growth during the year as the industry keeps up with the increase in population brought about by the influx of out-of-state workers coming to Alaska in hopes of finding employment. This growth is also widest in the over-the-year increase of 1,500 in this sector.

Finance, Insurance and Real Estate: Employment in this sector was unchanged over the month but showed an increase of 600 over the year. The