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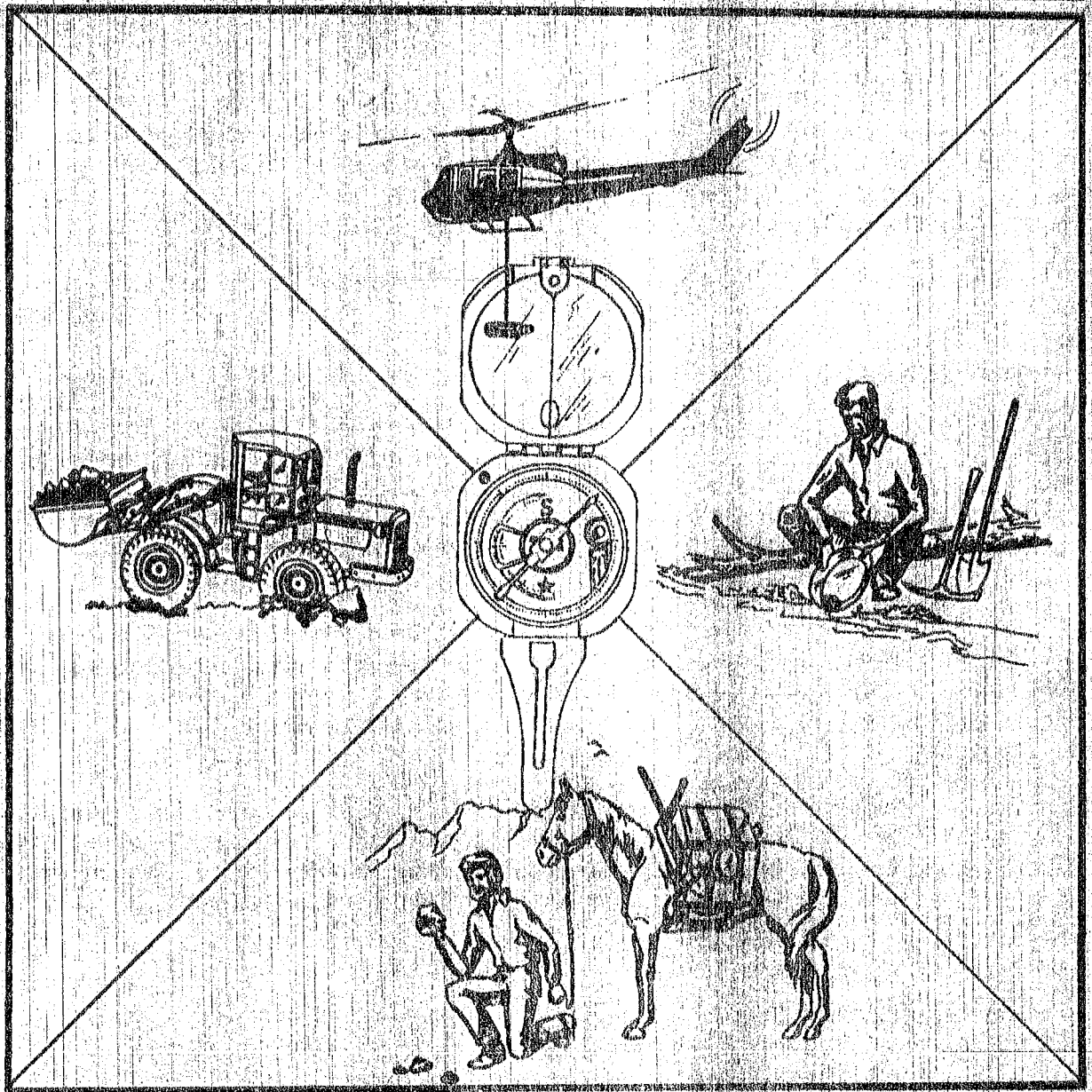

Published to Accelerate the Development of the Mining Industry in Alaska

Keith H. Miller - Governor

Thomas E. Kelly - Commissioner James A. Williams - Director

ALASKA SURVEYING AND MAPPING CONVENTION

Two members of the Division of Mines and Geology staff attended the Alaska Surveying and Mapping Convention held in Anchorage on February 4-6, 1970. Throughout the convention there was recognition of the vital role of surveys and maps in resource development in Alaska and a stressed need for accelerating programs. Some general topics of interest to the mining industry are discussed below.

Mr. R. B. Southard, Assistant Chief Topographic Engineer for the U. S. Geological Survey, presented an overall summary of Alaska's topographic mapping program of the past, present, and future. Topographic maps at a scale of 1:63,360 (one inch to one mile) are available for about 78 per cent of Alaska. This mapping has been done by several public agencies. The largest areas not covered by 1:63,360 scale mapping are the Brooks Range (108,000 square miles), Bering Glacier area (8,600 square miles), the Bethel area (5,400 square miles), and the Aleutians (1,200 square miles).

The USGS is currently planning a mapping program to begin this summer in the central part of the Brooks Range that does not have large-scale map coverage. Mapping will begin on a 26,700 square mile area that encompasses the proposed Trans-Alaska pipeline route north of the Yukon and much of the proposed transportation corridor. Mapping is planned at a scale of 1:63,360 with provisions for large scale mapping and/or orthophotomapping for specific areas as required. Useable map copy should be available in about one year. In succeeding years, the remaining areas that lack 1:63,360-scale coverage will be mapped as priorities develop and funding permits. It is now expected that complete coverage of Alaska can be attained by the late 1970's. The basic map scale will be 1:63,360; 1:24,000-scale maps will be provided as needed in cities or other developing areas.

Mr. Southard also pointed out that: "The existence of good topographic maps is essential for the effective planned development of the resources of an area." In speaking of the North Slope, but applicable to the State as a whole, Mr. Southard stated: "...many disciplines will be affected as will many agencies and interests. The necessary mapping support must be forthcoming. It behooves all agencies, Federal, State, and private, to coordinate and systematize our efforts for effective expenditure of mapping. The application of State resources should also be considered and coordinated for best correlation of National and State needs for mapping."

A talk was prepared by Dr. Joseph Fitzgerald, Director, Community Relations, Atlantic-Richfield Company and presented by Mr. Barcus, ARCO. Dr. Fitzgerald felt that the land and its resources are the main public issues of the State and that Alaska should strive to improve management and development of its resources. This management involves changing things we do today so that we will live in harmony with nature. He also pointed out that the major cost of environment management is by private industry not Government, and it will be equal to that of the military budget. He stressed that Alaska needs comprehensive land use planning and that this, to his way of thinking, is a government responsibility.

ALASKA MINERS ASSOCIATION

The directors of the Alaska Miners Association have passed resolutions endorsing the Federal Mining Law of 1872 in principal. Other resolutions endorsed by the Association include:

1. Funding a Mineral and Marine Resource Facility at the University of Alaska
2. Funding for mining access roads
3. Calling for relief from copper exporting restrictions
4. Asking for increased funding for mineral research
5. Requesting tax incentives for mineral production in Alaska
6. Calling for an all-weather super-freight highway to the North Slope
7. Requesting a mining information office in Ketchikan
8. Supporting H.B. 216 - gold marketing legislation passed by the House but stalled in the Senate
9. Requesting a central recording office at the principle office of the Division of Mines and Geology, with copies of the documents to be furnished to district recording offices
10. Supporting increased geologic mapping by both the state and federal governments

Leo M. Anthony, President of the Alaska Miners Association, reports he has almost 3,000 signatures supporting the current mining laws and opposing undue interference in prospecting.

ANNUAL WORK RECORDING FEES

The fees for recording and indexing Affidavits of Annual Labor have been changed by order of the Alaska State Supreme Court. The new fees are $3.00 for the first page and $2.00 for each additional page or fraction. Previously, the annual labor filing charge had been $1.50 per claim regardless of the number of claims on any one page of the affidavit. The fee for filing Location Notices remains $1.50 per claim.

MINING INDUSTRY - PROSPECTS AND CHALLENGES

The following item is taken from the article, "Prospects and Challenges for the Canadian Mining Industry", by George Mowbray which appeared in the July, 1969 Western Miner. Mr. Mowbray is a Director and principal of Stevenson and Kellogg, Ltd., with broad responsibilities for work in economics and public administration. He is an honors graduate in political economy from McMaster University. He also holds graduate degrees in economics and sociology from the University of Toronto and Princeton University. This article was originally given as an address at the annual meeting of the Ontario Mining Association, on June 24, 1969. It was aimed primarily at the Canadian mining industry but it is also applicable to the United States and in particular, Alaska.

> My opportunity to reflect on the long-term future of mining implies the need for prophetic vision more akin to the mysticism of theology than the science of man. This suggests the desirability of my having a text for this sermon. To find a text I turned to the bible of mining, Georgius Agricola's famous De Re Metallica. Published in the 1550's, this work stood for nearly two hundred years as the basic reference book. Let me quote from the first lines in the first chapter -- the genesis as it were, of the mining scripture. Agricola began with these words: "Many persons hold the opinion that the metal industries are fortuitous and that the occupation is one of sordid toil, and altogether a business requiring not so much skill as labour. But as for myself, when I reflect on its special points one by one, it appears to be far otherwise."

Far otherwise indeed. The major problems challenging the industry seem to me to be no longer financial, geophysical or technological but social -- problems of the human environment to which the industry must adapt or perish as a free enterprise system. On the resource side, and in technology, prospects are bright indeed. But the ability of the mining industry to capitalize on these prospects can be summed up, I think, in very basic human, social terms.

...The society is calling for new forms of leadership in mining. My belief is that if these are not forthcoming from within the industry, they will be imposed from without. And the greater the outside injection of directives on resource allocation, the smaller will be the opportunities and rewards to the industry as a private business operation. The trend, in short, now appears to be towards the gradual extinction of mining as a private sector of the provincial and national economy of this country.

...We have witnessed the growing worldwide pressure for industrial development to fulfill the long-frustrated aspirations of the poor nations. The more mature economies have great and expanding resource needs, too. This will ensure a steadily rising long-term demand for all minerals, whether for energy or direct industrial use. The earth's crust will have increasing difficulty meeting these needs. As a result, real prices for most minerals will rise. Marginal producers will make marginal or standard profits, but the rewards for the occasional rich strike will become even greater. This is a heady vision. It is one worth pursuing far more skilfully and more subtly than the way the mining industry's leaders are now going about it.

...Because of growth in the oil industry and in building materials -- which are unfortunately included in our present statistical definitions of the mining industry - Canadian mineral production has been rising in relation to overall national output since the war. It is still not as large, relatively, as it was in 1937. However, if we take matallics and non-metallics only, these core sectors of the industry are even now barely holding their own in relation to expansion in other industrial sectors. The 1968 value of mineral production in these two major categories was about $2.7 billion, or equivalent to about 4% of Canada's Gross National Product. This figure has not changed since 1950, and in 1937 it was 7%, almost twice as great.

...Even now, close to a million and a half people are employed in manufacturing. If we exclude coal mining, employment in the metallics and non-metallics is only about a hundred thousand. The voices and votes of the urban centres, the city people as distinct from the mining people, are clearly stronger. They will tend to become even more so in the future. The ways in which mining supports the other sectors such as transportation and manufacturing are not well known. Indeed, a substantial portion of Canadians profess to know very little about the mining industry -- even the people who live in mining communities.

What I am trying to say without going into a long disquisition on the economic history of the western world is rather simple: mining in Canada is likely to become less important economically, socially and politically

in the next generation than it is now -- despite a huge absolute growth. This is an extremely important point. If we couple it with the changing climate for business in general, then I believe we can see some real challenges for the industry to overcome. Let's begin by touching briefly on some of the sources of actual or potential public hostility to the industry as it now appears to operate.

Since most mining operations are a long way from the major centres of population and influence, it's a case of "out of sight, out of mind". The industry also seems to be made up of several quite distinct groups of people -- the prospectors, the miners, and mine managers, scientists of various kinds who operate in the field, and shadowy figures at head offices in Toronto or New York who watch over things and make the important decisions. The public could be forgiven for thinking that the industry has many faces, not all of them scrubbed and wholesome. This set of conditions poses an enormous communications challenge.

To many people, mining may well appear to be a not particularly creative business -- risky mainly in the early stages of exploration and development, and when established requiring little real entrepreneurial skill. The fact that some mining companies make very handsome profits does not do anything to dilute such impressions. Then too, the resources are in the ground; it's not for nothing that the Mexican government calls its department of mines the "department of the national patrimony". There is always a latent pressure, because of these and other factors, for greater social control, more taxation, and so on -- so the people will get back something of "their" resources via the coffers of their governments. When the mining company is American, British, Japanese, etc., the rationalization becomes even easier. Of course, the resources are useless if they are not discovered, mined, processed and sold, but this point is easy to overlook. Development of mining investment may well be inhibited by future emotionalists of a nationalistic type. You are thus challenged to explain and rationalize the structure of the industry or lose control over the way it operates.

...the moral and ethical issue remains to haunt the senior leaders of the mining community. You cannot just ignore the situation and take your own little fliers now and then. The challenge is to get behind stock exchange reform and effective disclosure rules -- despite the fact that it means supporting further government intervention in business. There is also the question of the professionals who turn out geological reports for penny stock promoters. Should we not be controlling such people through social pressures, through professional engineering and other associations?

In recent years, the mining industry has paid much attention to pollution. I do not wish to say whether or not it has paid enough attention. My point is that I believe that public will more and more demand that businessmen return nature to the people, unspoiled. Socially and politically, more than in terms of health or economics, the challenge is to go the extra half-mile on this issue, and to tell the public that you are doing so. In this connection, we might also note that the concept of "health" is becoming narrower every day. Scientific research is always finding new ills and new causes of illness. We need not expect to escape these tentacles of science -- pollution will become defined as being more and more dangerous to health every year regardless of the level of pollutants.

Attacks on the mining industry by public figures and journalists are not, I am afraid, just the random thoughts of isolated individuals. Behind these speakers and writers is a rising class of influential intellectuals who are basically hostile to mining. They include economists, sociologists, political scientists, resource development planners -- all educated and inspired to help us find new and better formulas for operating our industrial society. The old slogans about capitalism and socialism are no longer relevant. The new approach is for closer integration of government and business in the achievement of recognized social goals. Planning has become a key word. The French equivalent, planification, often appears in the studies leading to the establishment of Quebec's new instrument of government participation in mineral exploration and development in that province. Behind such concepts are ambitious theorists from the latest generation of crusading university graduates in the social sciences.

Exploitation is being revived as a witch word in the North American economy. Instead of being bandied about by street corner orators it is being brandished by mobs. The student radicals of this country and the United States can be expected to move off campus and start attacking other established institutions. You do not have to think very hard to see that the mining industry is an ideal target because of its isolated manifestations and the conditions of some of its northern communities.

In the past, the mining industry has not hesitated to ask for the support and financial assistance of provincial and federal governments. Often this has been forthcoming. The general economic and legal climate is still quite favourable. But it seems to me that the revolution in the concept of planning for economic development is going to change this situation. We must expect that over the next generation our governments will feel not only morally entitled but intellectually qualified to tell the mining industry what it must do. The end of the road of failure to deal with this changing intellectual climate is some form of nationalization and loss of control over both exploration and investment decisions. The ultimate challenge, therefore, is to survive. The best method now appears to be involvement rather than combat. Perhaps we can stake out some strategies for the industry in this forthcoming adagio dance with our new partners.

The main step required is perhaps the most difficult one for the traditional leaders of an individualistic product-oriented industry. It is just this; we have to decide to recognize the fact that mining is part and parcel of the social structure of the provinces and the nation. A key role of the future mining executive will thus be a social one, fully as important as his business role. In fact, these two roles will be combined, as we shall see.

NEW PUBLICATIONS

The Division of Mines and Geology has recently released a supplement to Geochemical Report No. 17, "A Geochemical Investigation of the Hood River-Tikchik Lakes Area," by Gilbert R. Eakins, Division Mining Geologist. This supplementary report covers the additional sampling done in 1968 near Marsh Mountain and Lake Aleknagik. It is free of charge and is available upon request from the Division office, Box 5-300, College, Alaska 99701.

The Alaska Department of Natural Resources, in cooperation with the U. S. Geological Survey, has released a bibliography entitled, "Geological Literature on the Cook Inlet Basin and Vicinity, Alaska". This comprehensive bibliography was compiled by J. C. Maher and H. M. Trollman of the U. S. Geological Survey, and would normally be issued as a USGS Open File Report. Due to the widespread need for such a report, permission was given for the Alaska Department of Natural Resources to print and release this report. The bibliography sells for $1.50 and is available from the following offices (mailing addresses listed): Alaska Department of Natural Resources, Pouch M, Juneau, Alaska 99801; Division of Lands, 323 E. 4th Avenue, Anchorage, Alaska 99501; Division of Oil and Gas, 3001 Porcupine Drive, Anchorage, Alaska 99504; and Division of Mines and Geology, Box 5-300, College, Alaska 99701.

The following open file report has been released by the U. S. Geological Survey and is available for consultation in the Alaska USGS and State Division of Mines and Geology offices. Material from which copies of this open file report can be made at private expense is available only at the Alaska Geology Branch, U.S.G.S., 345 Middlefield Road, Menlo Park, California 94025.

Fluorite prospects in the northwestern Kigluaik Mountains, Nome D-2 Quadrangle, Alaska, by C. L. Sainsbury, R. Kachadoorian, and T. E. Smith.

METAL MARKET

	February 23	Month Ago	Year Ago
Antimony ore, 60% Sb equivalent	$36.16-37.95	$30.36-32.14	$6.70-6.79
Barite (drilling mud grade from E/MJ January)	$12-16	$12-16	----
Beryllium powder 98%	$54-66	$54-66	$54-66
Chrome ore long ton	$31-35	$31-35	$31-35
Copper per lb.	Suspended	55.9¢	44.2¢
Gold per oz.	$35.19	$35.08	$43.00
Lead per lb.	16.5¢	16.5¢	14.0¢
Mercury per flask	$458-465	$482-487	$537-545
Molybdenum conc. per lb.	$1.72	$1.72	$1.62
Nickel per lb.	$1.28	$1.28	$1.03
Platinum per oz.	$130-135	$130-135	$120-125
Silver, New York, per oz.	187.7¢	189.2¢	181.5¢
Tin per lb.	175.4¢	178.2¢	167.5¢
Titanium ore per ton	$30-35	$30-35	$20-21
Tungsten per unit	$43.00	$43.00	$43.00
Zinc per lb.	16.0¢	16.0¢	14.0¢

NOTE: The address listed in last months bulletin for the Division of Lands was incorrect. The correct address is: Division of Lands, 323 E. 4th Avenue, Anchorage, Alaska 99501.