

STATE OF ALASKA Department of Natural Resources

Division of Geological Survey

MINES BULLETIN



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College, Alaska 99701

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Published to Accelerate the Development of the Mining Industry in Alaska William A. Egan - Governor Charles F. Herbert - Commissioner William C. Fackler - Assistant Commissioner for Minerals

CONGRESS PASSES CLAIM

WASHINGTON (Special) -- Congress passed and sent to President Nixon a bill which he signed on Dec. 14, 1971 granting Alaska's 55,000 Native people 40 million acres of land and \$962.5 million. Culminating more than four years of active legislative consideration, final congressional passage came as the Senate shouted its approval of the conference committee compromise bill. House passage came earlier on a roll call vote of 307 to 60. Congressional passage of a claims settlement comes 104 years after the United States purchased Alaska from Russia and 87 years after Congress stipulated that Alaska's Native people are entitled to a legislative settlement of their claim to land.

AEROMAGNETIC MAP SALE

Twenty-three Aeromagnetic Survey Maps of the Nabesna quadrangle are now on sale by the Division of Geological Survey. Copies of the maps can be obtained at our Division offices at College, Juneau, Anchorage, and Ketchikan.

Additional sales are planned for the remaining 65 maps. The East Alaska Range Survey should be available during the latter part of January and maps on the Seward and Goodnews Surveys should be available in February.

ALASKA MINERS ASSOCIATION

The Alaska Miners Association held its annual directors meeting in Fairbanks on December 9, 1971. The Association at present has eight branches, with headquarters at Fairbanks. The other seven branches are in Anchorage, Nome, Ketchikan, Juneau, Sitka, Kenai, and Kuskokwim. Approximately 35 members attended the meeting to discuss with State and Federal representatives problems facing miners and prospectors.

Ernest N. Wolff, president of the association reviewed some of the bills before Congress proposing changes in laws regulating mining and exploration on Federal Lands and pointed out that almost all of Alaska falls in that category. Wolff also brought out that there is a need for much closer contact and cooperation between the eight branches of the Alaska Miners Association. This is especially important because the Miners Association is the only organization that is actively trying to present the views of the residents of the state to the U.S. Congress and all other outsiders who are attempting to determine the use of Alaska's land and resources. The magnitude of the job was illustrated by the fact that there are only 608 members in the Alaska Miners Association, while one national conservation group which is exerting its influence in this area alone has over 200,000 members.

ALASKA MINERS ASSOCIATION (Continued)

Phil Holdsworth, vice president of the Association, former Commissioner of the State Department of Natural Resources, and long-time Alaskan in various mining activities, discussed the native lands claims bills. Holdsworth is presently a member of the Joint State Federal Natural Resources and Land Use Planning Commission. He mentioned that the Alaska Miners Association should have a much larger membership and expressed hope that something will be done to strengthen the voice of the mining industry.

Mr. W. E. Eckard, chief of the U.S. Bureau of Mines Alaskan activities, reviewed the recent changes in the Bureau and summarized its varied duties. Eckard revealed that the Bureau with its 6,000 employees can no longer be thought of as simply an agency which drills mineral deposits and estimates ore tonnages, but one that (1) makes studies of wilderness areas, power potential of river basins, waste disposal, petroleum conservation, and mineral resource inventories, (2) regulates health and safety standards in the mineral industry, and (3) works with the National Park Service and other agencies on problems involving mineral resources. Programs in Alaska in which the Bureau has recently been involved include commodity studies of mercury, copper, lead, and coal. A program to drill the coal deposits in the Cape Lisburne area is planned. Studies of the iron ore deposits in southeastern and southwestern Alaska are proposed to determine if they can be marketed in Japan. Cooperative Bureau of Mines-University of Alaska projects underway are the study of Alaska mercury ore beneficiation and the transportation on water resources.

Al Service, the U.S. Bureau of Mines liaison officer in Alaska, was introduced at the meeting as one of 35 such officers in the United States and the "best man to get you inside bureaucracy quicker than anyone". His office is in the Federal Building in Anchorage.

William C. Fackler, Assistant Commissioner for Minerals, Alaska Department of Natural Resources, briefly outlined the functions of the Division of Geological Survey and recent changes in the organization. James A. Williams, former Director of the Division, has been appointed to the state's Land Use Planning Unit which will work jointly with the Federal Natural Resources and Land Use Planning Commission in determining the best ways to manage the lands in Alaska. Because of his many years experience in the minerals field in Alaska, Williams will be very important as the man to represent the views of mining people to the Commission. Of the 15 members on the Commission, 6 will be furnished by the State. Fackler stated that the present State Division of Geological Survey has broader duties than its preceding agencies. These duties include complete geologic mapping of the state, natural resources surveys, the study of geologic bazards and water resources, stratigraphic studies, and geophysical surveys. It has been proposed that a joint State-U.S. Geological Survey project be undertaken to publish a summary of the geology of Alaska. Fackler showed the group attending the meeting a map of Alaska prepared by the Bureau of Land Management. The map presents in color the various land classifications and proposed classifications. The location of native villages, which will be important in the native land claims settlement, are also shown on the map. The members showed a great deal of interest in the map, which had no title but was published in October 1971, and presumably is available from the Bureau of Land Management.

The Division will continue participating in aerial magnetometer surveys next summer. At present the Talkeetna Mountains and Eagle quadrangles are being considered as possible areas to be flown, but the state will welcome discussion.

ALASKA MINERS ASSOCIATION (Continued)

The Association discussed the proposed land withdrawals for wilderness areas. Bill Huff of Ketchikan told the group how the Ketchikan branch of AMA has presented the U.S. Forest Service with alternate plans to the proposed Granite Fiord Wilderness area. The AMA proposal would exclude known mineralized areas and yet include all the accessible recreation sites. Huff believes they have significantly influenced the thinking of to take the control of the control of the Forest Service.

After a break for lunch the Association listened to E. O. Bracken, mining and minerals specialist with the State Industrial Development Division who discussed the importance of attracting money to Alaska and reminded everyone that his Division is: available to assist in any way it can the development and marketing of the state's minerals. The state of the stat

The remainder of the day was spent in discussing resolutions and recommendations to be supported by the Association.

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Approximately 40 professional geologists from the Fairbanks-College area met at the the Fairbanks Petroleum Club on Wednesday evening, December 23, 1971, to discuss organization of a local chapter of the Alaska Geological Society, the principal chapter of which now is in Anchorage. The meeting was led by Carl Benson, Chairman of the Department of Geology, University of Alaska, but much of the initial planning was done by a bar Donald Triplehorn and others of the same department. Geologists attending this meeting included independent consultants and representatives of at least five major geological and geophysical organizations in the Fairbanks-College area.

A steering committee was formed to facilitate further planning and formal organization of the chapter. The committee includes one member from each of the main organizations or interests represented at the first meeting. Committee members are as follows: Grand and Control of the co

C. E. Fritts, Alaska Geological Survey Marvin Andresen, Consultant

Carl Benson, University of Alaska Harold Livingston, Alaska Dept. of Highways Donald Turner, Geophysical Institute Ralph Migliaccio, R & M Consultants

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The next meeting is scheduled for 8:00 p.m., Wednesday, January 26, 1972, at the Fairbanks Petroleum Club. All professional geologists in the vicinity are invited to attend. Ralph Migliaccio will discuss the need for registration of professional geologists living and (or) working in Alaska.

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(U.S. Dept. of the Interior 11/30/71)

Coordination of Federal-State earth science programs and activities in Alaska was stressed at a recent meeting at the U.S. Geological Survey's western field center, Menlo Park, California.

The meeting, involving geologists and geophysicists of the USGS and representatives of the U.S. Bureau of Mines, State of Alaska Division of Geological Survey, and the University of Alaska, was hosted by the USGS's Alaskan Mineral Resources Branch. (1988) Mr. George Gryc, Chief of the branch, said that "Our discussions revealed areas of mutual interest, and pointed up possible coordination in field activities, providing the basis for further formal cooperation."

ALASKA EARTH SCIENCE PROGRAMS (Continued)

Among the topics of discussion:

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Review of formal Federal-State cooperative programs in aeromagnetic and gravity surveys and the subsurface geology of the Cook-Inlet areas, and plans for forthcomming field season. Further coordination and cooperation was indicated in field. studies in the Brooks Range, Alaska Range, and southeastern Alaska.

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Cooperation on studies of natural oil and gas seepages in the Gulf of Alaska, and plans for a joint MSGS-USBM field study next season in the Granite Fiords Wilder-time ness Study area in southeastern Alaska. J. . . . of a transfer of the transfer of the

The University of Alaska outlined a highly diversified program including volcanology, seismology, glaciology, offshore sedimentation, environmental geology, geochronology, and almeral resource studies.

Officials attending the meeting included William C. Fackler, Assistant Commissioner for Minerals, State of Alaska, William E. Eckard, Chief, Alaska Field Operations Center. Bureau of Mines, Professor Carl S. Benson, Head, Dept. of Geology, University of Alaska. Professor Robert B. Forbes presented a summary of the University's programs mixorgain Historia Reposto of INCL et i theonis Petrolos, and the etc.

"With programs of such diversity," Gryc said, "it is quite important that the scientists, tethnicians and administrators involved have the opportunity to coordinate and plan the programs with best effectiveness. The meeting was quite fruitful; followup conferences and exchanges have been arranged, and another summary conference is in the scheduled for next year at the University of Alaska." the market of the second of th

NEW OPEN FILE RELEASE

The U.S. Geological Survey has released on open file the following reports: 19614 7 30° (2)

- 1. Barly Paleozoic fossils in the Neruokpuk Formation, northeast Alaska, by J. T. Dutro, Jr., H. N. Reiser, R. L. Detterman, and W. P. Brosge. 5 p.
- Analyses of samples and preliminary geologic summary of barite-silver-base metal deposits near Glacier Creek, Skagway B-4 quadrangle, southeastern Alaska, by E. M. MacKevett, Jr. 8 p., 2 figs., 1 table.
- 3. Existing environment of natural corridors from Prudhoe Bay, Alaska, to Edworton, Canada, by D. B. Krinsley, W. E. Davies, J. Rachlin, and E. G. Newton. 104 p., 1 pl.
- 4. Generalized geologic map of the Eagle River-Birchwood area, greater Anchorage area, Borough, Alaska, by H. R. Schmoll, Ernest Dobrovolny, and Chester Zenone. 1 sheet, scale 1:63,360.

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5. Generalized slope map of the Eagle River-Birchwood area, greater Anchorage area, Borough, Alaska, by H. R. Schmoll and Ernest Dobrovolny. I sheet, scale 1:63,360. September 1985

is the Alexander These reports can be seen in the following listed Alaskan offices of the USGS and ADGS and certain USGS offices in the other states.

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NEW OPEN FILE RELEASE (Continued)

U.S. Geological Survey:

402 Brooks Building, College 108 Skyline Building, Anchorage 441 Federal Building, Juneau

Division of Geological Survey:

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College Road and University Ave., College 323 East 4th Ave., Anchorage 509 Goldstein Building, Juneau 500 Goldstein Building, Juneau 509 Goldstein Building, Juneau with the National Bank of Alaska Building, Ketchikan Ψ '

Same was a date of a Material from which copy can be made at private expense is available at the Alaskan Mineral Resources Branch, USGS, 345 Middlefield Rd., Menlo Park, California 94025.

(1) Description of the NEW DIVISION PUBLICATION 200. LOUDIONITON

10.1 - 150. 100 The Alaska Division of Geological Survey, Department of Natural Resources, has 🖰 🤚 released Geochemical Report No. 24 as follows:

> Analyses of rock and stream-sediment samples Hetta Inlet area, Prince of Wales Island, Craig quadrangle, Alaska by Gordon Herreid.

partition and the second The report costs \$1.00 and may be obtained from the Division of Geological Survey offices located at College Road and University Ave., College; 323 East 4th Ave., Anchorage; 509 Goldstein Building, Juneau; and National Bank of Alaska Building. Ketchikan.

PROPOSAL EXTENDS PROSPECTORS ROLE (Western Mining News 12/3/71)

The Nixon administration's proposed revision of the 1872 mining law would set up a new location-and-patent system for "hardrock" minerals such as gold and copper to insure a continuing role for individual prospectors. This clarification of the proposed legislation was given by Interior Secretary Rogers C. B. Morton, according to news dispatches from Washington, D.C. First accounts indicated a leasing system was proposed in place of the claim location system. Only "bedded" minerals such as coal and phosphates would be brought under leasing regulations, Morton explained. However, persons who searched for hardrock minerals on the public domain would have to obtain a federal prospecting license in each state where prospecting was done. Persons granted patents on publicly-owned mineral land would have to make royalty payments to the government, Morton indicated. Unpatented mining claims would have to be recorded with the federal government within a year from the measure's passage or they would be presumed abandoned and the affected land would be open for new claim locations. Valid existing rights under present mining laws would be preserved, Morton said. There would be more emphasis on environmental protection, he said, with greater management controls by the federal agency administering the surface.

MORE MINE FEES SOUGHT (Western Mining News 11/26/71)

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MORE MINE FEES SOUGHT! (Continued)

also provide for sharing of 37.5 per cent of the mineral proceeds with each state. The present leasing law already provides for royalty payments, but it would be expanded to include leasing of federal land for the production of construction minerals including stone, sand, gravel, pumice, cinders, clay and others. Each proposed law would require the consent of the federal agency managing the land in question before the interior secretary could issue mining permits or leases, and each agency could decide which lands should be removed from mining or lessing "for a higher use or to protect or enhance the environment," the announcement said. Each bill would provide for issuance of a 2-year prospecting license; the mining bill would require also a 5-year permit for exploration, development and production including the rental and foyalty provisions. Both bills would permit the administrative cancellation of permits or leases if their terms are violated; under present law, cancellation requires a court decision. The proposed mining bill would also require a mandatory performance bond to back up landreclamation plans and would impose penalties for noncompliance -- \$1,000 per day for each infraction or \$10,000 per day for each deliberate violation. Y. 1 186.1 17th

BRIGHT FUTURE SEEN FOR SILVER & GOLD Western Mining News 12/10/71)

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Speakers assured the Northwest Mining Association in Spokane, Washington, that afforts to phase out gold from world markets are doomed. And even the "Silver Tosers Association," which includes most of the North Idaho mining industry, will see a return to higher prices, the 77th annual convention was told. Rising gold prices while finance ministers are trying to fade it off the monetary scene were pointed out by Adolph von Thadden, a West German politician and monetary expert, and Russell E. Wallace of San Francisco Marketing manager for Homestake Mining Co. "Gold as payment mechanism is irreplaceable," von Thadden said. "If the U.S. dollars we hold in Germany can't be converted, they are just so many pieces of paper." He urged the delegates to avoid "ritual thinking" in looking at the world honetary crisis created by President Nixon's action Aug. 15. "Something must be done," he said. "We in West Germany have enough loose U.S. dollars to buy out both the Ford and General Motors operations in our country." Wallace described the new marketing studies completed by his company. "Gold: consumption for jewelry and industrial uses is fising fast," he explained. "Gold production is in a steady decline." With these two factors tugging at each other, he said, his company forecasts "a resurgence of gold buying." "I'm a gold peddler, and I have a commodity that reflects light beautifully, is malleable, shiny, wears well and for industrial uses is only a small fraction of the total product cost. Yes, I think we have a good product that will continue in heavy demand," Wallace said. ı. .'ı -70 mm J. 11/03/15/90

> Silver " . (5540 ent grand of the Western Mining News 12/10/71)

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\$41.00 Charles R. Stahly a Princeton, N.J., economist specializing in the precious metals market, told the conventioneers that silver is a victim of poor commodity trading practices and misinformation. "Supervision is needed to prevent the flagrant contradictions in silver supply figures by various commodity exchanges and silver users," he said. He noted that millions of dollars were lost in the last few years by people who were buying silver bullion, coins and silver company stocks based on misinformations He assailed the "scare talk" of the Silver Users Association trying to keep silver prices low. "There is no reason to despair about the future of silver," Stahl certimed." "It is as bright and glamorous today as it was two to five years ago." But persistent "bear" raids, he suggested, prevented the price from reflecting the true fundamentals. Witimately the law of supply and demand will prevail?" The U.S. Bureau of Mines, he said, estimated that only 14 years from now world industrial consumption of silver will amount to nearly 800 million ounces annually, double present consumption.

UNIQUE QUALITY OF SILVER TOLD (Western Mining News 11/5/71)

Pure silver has a unique capacity to absorb and release oxygen, thus providing an efficient and selective way by which oxygen atoms can be added to certain compounds or hydrogen atoms removed from them. This is why needles of pure metallic silver are employed as catalysts for producing millions of pounds of formaldehyde and ethylene oxide from methanol and ethylene, the Silver Institute, Inc., says. Formaldehyde is an essential component of melamine resin, of which more than a half of billion pounds yearly are used to make dishes, buttons, bottle caps, table tops and toher products, it adds. Ethylene oxide is the source of ethylene glycol, used in an antifreeze and as the raw material for the expanding volume of polyester textiles, carpets and permanent press garments, as well as for more than half a billion pounds annually of fiber glass polyester plastics for boats, furniture, auto bodies and construction materials. 418 3 1 4 4

SILVER PRICE LOW, VALUE HIGHEST (Western Mining News 11/26/71) :: : 1977 - 171

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Of all the so-called precious or platinum group of metals, silver has the lowest dollar value yet, in many respects, it is the most valuable and precious of them all. So said Jack Kaplan, president of Spiral Metal Co., New York, in a recent article. Gold's utilitarian value has, since antiquity, played a secondary role in its position as a measure of wealth, he said. If gold were priced for its utilitarian worth alone, it would command considerably less. Silver, however, is valued primarily because it is essential to industry. It is critical in the production of film. The electronics industry uses it for contacts and a variety of other purposes. It is a vital part of many chemicals. And more silver is used each year than is mined. 'We are told that with the hundreds of millions of ounces of silver overhanging the market there is no immediate shortage of the metal in sight," Raplan said. "I dispute this point in several regards." First, no one is absolutely sure just how much silver has been hoarded away and truly can be regarded as speculative. Second, I suspect that a considerable portion of whatever speculative silver does exist is in extremely strong hands. Third, industry's need for silver is on the rise, yet the price isn't anywhere near the levels necessary to accelerate silver mining." Despite all the rhetoric to the contrary, Kaplan said, in the final stages of the present terminal dollar crisis, the U.S. dollar will be officially devalued substantially in relation to gold. The free market gold price rise has already begun to signal this coming event. "Historically," he said, "silver benefits proportionately from a gold price hike. From its presently depressed level we believe silver will rise more than gold. Silver is also coming into a period of industrial short supply. We believe silver is the outstanding choice for capital gains in the coming months and beyond."

ANTARCTICA'S "DRY" VALLEYS TO BE MAPPED (U.S. Dept. of the Interior 10/31/71)

A team of Federal surveyors will undertake control surveys in the snow-free, "dry" valleys of Antarctica during November and December 1971 in preparation for a series of eight new, highly-detailed orthophotomaps of the region to be compiled by the U.S. Geological Survey, Department of the Interior.

The four-man USGS team will concentrate their work in the Taylor, Wright, and Victoria Dry Valleys, as well as in the snow-free topography of the St. Johns, Olympus, and Asgard Ranges, and the Kukri Hills in southern Victoria Land - some 75 miles west of McMurdo Station. The project area totals about 2,300 square miles.

ANTARCTICA'S "DRY" VALLEYS TO BE MAPPED (Continued)

These ice and snow-free regions have long been of great interest and curiosity to Antarctic explorers. Located leeward of moisture-laden winds, they are virtual deserts; hostile and forbidding to the simple forms of life found on the great continent which is still locked in the grip of the Ice Age.

The Geological Survey's topographic team plans to establish precise points of geographic latitude and longitude, and to fix points of elevation above sea level—information needed for the production of large-scale maps of the region. These dry valleys and mountains were previously explored and mapped at a 1:250,000-scale by the USGS in 1962.

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When completed in late 1972 or early 1973, the eight orthophotomaps at 1:50,000-scale (about 1 inch representing 1 mile) will provide a unique record of the area's rocky crags and peaks, ice-covered lakes, glaciers, the strange patterned ground of polygonal wedges, and a geologic feature called a "Labyrinth." Orthophotomaps combine aerial photographic imagery with conventional line mapping to provide realistic portraits of parts of the earth's surface. Photography for the large-scale mapping was flown to Survey specifications in 1970-71 by the U.S. Navy.

USGS surveyors who are scheduled to arrive at McMurdo in late October will begin the dry-valley operations about November 1. They will establish about 80 control stations in the following six weeks. A campaite providing helicopter support will be established at Marble Point, about 45 miles northwest of McMurdo Station, on an ice and snow-free point of land extending into McMurdo Sound.

The mapping team will carry out a second Antarctic assignment from mid-December until mid-February, making an operational field test and evaluation of a Doppler Navigation Satellite System (DNSS), in cooperation with Johns Hopkins University. This work will require that they occupy existing mapping control stations at the South Pole, Byrd, Hallett, and McMurdo Stations. Several new points will also be occupied in an attempt to establish control for positioning of return beam vidicon imagery which will be obtained by NASA's Earth Resources Technology Satellite (ERTS) beginning in 1972.

Leading the expedition is Elias E. McClelland, 45, of the Survey's Denver, Colorado, field center. Assistant Party Chief, Charles E. Morrison, Jr., 43, USGS, Washington, D.C., had previously worked in Antarctica during the 1964-65, 1966-67, 1968-69 field seasons. Other team members are Leroy L. Sanford, 37, Denver, Colorado, and George W. Nottage, 29, of the Survey's Arlington, Virginia, office. The mappers are scheduled to return in February 1972.

This marks the 17th consecutive season of participation by the U. S. Geological Survey in the U. S. Antarctic Research Project, funded by the National Science Foundation.

Section 18 and 18

CLARIFICATION: The "Lost River Mineral Development" article in our December issue was taken from "What's Developing In Alaska, Cooperative Extension Service Newsletter, University of Alaska". The article on "Ninilchik Coal Fire" was taken from Division of Lands Bulletin.

\$500 MILLION MARK PASSED BY B. C. MINES (Western Mining News 12/17/71)

For the first time in British Columbia's history, the value of mineral production in a single year has topped the \$500 million mark. Total production for this year was \$521.1 million, a 7.4 per cent increase over 1970, the B.C. Department of Mines and Petroleum Resources has estimated. Metals accounted for \$305 million of the total, compared to \$306.5 million in 1970, the government agency said. Increases in output of copper and zinc failed to offset decreased production of molybdenum, iron, nickel, gold and other metals. Copper continued as the most important metal, with production valued at \$132.9 million. Output increased by \$11.6 million despite lower copper prices, mainly because of new production from Granduc Mines. Zinc output was valued at \$50.3 million; molybdenum at \$39.6 million; fuels at \$141.3 million.

WINE PROCEDURES (U. S. Dept. of the Interior 12/10/71)

Uniform procedures for awarding and administering grants to support authorized Bureau of Mines programs are being published in the Federal Register by the Interior Department.

FIGURE THE rules -- published as a new Part 51, Chapter 1, Subchapter M, Title 30, CECode of Federal Regulations -- are a consolidation of present rules, and become effective on the date of publication in the Federal Register. No additional notice is required.

The new Part 51 is entitled "Grants for Support of Research Related to Authorised Bureau of Mines Programs Including Solid Waste Disposal Projects; Grants to States for Health and Safety Programs In Coal Mines." It supersedes present Part 51 — Grants for Solid Waste Disposal Projects, published May 24, 1966; present Part 52 — Grants for Support of Research to Authorized Bureau of Mines Programs, published April 29, 1967; and present Part 53 — Grants for Advancement of Health and Safety in Coal Mines, published August 26, 1970.

FIRE SEASON PLANS DISCUSSED (011 and Resource Development, Fairbanks Daily News Miner 11/30/71)

Curtis V. McVee, Bureau of Land Management state director, and State Commissioner of Natural Resources Charles F. Herbert, along with members of their staffs huddled recently in Anchorage to determine the best game plan for protecting Alaska's vast reaches of forest from wildfires.

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and private lands in Alaska. The "fire agreement" has been revised each year since its inception in 1960. Most of these revisions have been minor with the major points of the agreement remaining unchanged. The current agreement will expire Dec. 31, 1971.

In future years, however, some major changes are in the offing. One of these is provision for the state to assume direct fire control responsibility on some of its lands.

"In the past it was solely BLM's job to control the fire and bill us later," said Herbert. "It is hoped that in the future the state can, through a scheduled phased takeover, shoulder the burden of wildfire protection on its lands," Herbert continued.

State land areas that would be affected under the proposed new agreement are located in Southeast Alaska. Later, areas in South Central and the Interior would be added.

State of Alaska
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF GEOLOGICAL SURVEY
P.O. BOX 80007
COLLEGE, ALASKA 99701

METAL MARKET

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| <u>Metals</u> | December 20, 1971 | Month Ago | Year Ago |
|---------------------------------|-------------------|------------------------|---------------|
| "Antimony ore, stu equivalent | | | .: |
| European ore | \$8.64-10.00 | \$8.64-10.00 | \$13\39-16\07 |
| Barite (drilling mud grade | - | | 4 . 7 |
| per ton) | \$18-22 | \$18-22 | \$12-16 |
| Beryllium powder, 98%, per 1b. | \$54-66 | \$54-66 | \$54-66 |
| Chrome ore per long ton | \$25-27 | \$25-27 | \$31~35 |
| Copper per 1b. | 50.3¢ | 52.8¢ | 53.1¢ |
| Gold per oz. | \$43.67 | \$43.25 | \$37.70 |
| Lead per 1b. | 14.0c | 14.0¢ | 13.5¢ |
| Mercury per 76# flask | \$228-238 | \$258-2 6 3 | \$350-375 |
| Molybdenum conc. per 1b. | \$1.72 | \$1.72 | \$1.72 |
| Nickel per 1b. | \$1.33 | \$1.33 | \$1.33 |
| Platinum per oz. | \$120-125 | \$120-125 | \$122-125 |
| Silver, New York, per oz. | 141.2c | 132.9¢ | 162.0¢ |
| Tin per 1b. | 173.5¢ | 176.1¢ | 160.5¢ |
| Titanium ore per ton (Ilmenite) | \$30-35 | \$30-35 | \$30-35 |
| Tungsten per unit | \$55.00 | \$55.00 | \$55.00 |
| Zinc per lb. | 17.0¢ | 17.0¢ | 15.0¢ |
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