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Rediscovery of the Reed River Hot Spring by Garnett H. Pessel, DGGS Mining Geologist

The only known hot spring in the Brooks Range was first visited by a scientific expedition in 1886. Ensign Reed of the U.S. Navy went to the spring by dog team in March of that year, and the visit was reported in *Naval Explorations in Alaska*, written by Lieutenant George M. Stoney and published by the U.S. Naval Institute in 1900. The location of the hot spring was obscure and, to the best of my knowledge, has not been mentioned in geological literature since then, except as a reference to the report by Stoney, which is quoted below.

Expedition to the Hot Springs

On March 10, 1886, Ensign Reed, with the sailmaker's mate and two natives, left Fort Cosmos with two weeks' outfit, two sleds, and nine dogs, to visit some reported hot springs. The route lay up the Putnam River (*now the Kobuk River - ed.*) for ninety miles, then to the An-ne-lag-ag-ge-rack River (*now the Reed River - ed.*), and up it to the springs in the mountains at the head of the valley. There was but one hot spring there, a pool twenty feet in circumference and two feet deep, full of water, of blood-warm temperature that wells up quietly from the bottom without bubbles or

disturbances of any kind and fills the pool with a clear, tasteless, odorless water; the overflow runs into and fills smaller pools lying lower down the mountain side. The bottoms of all the pools are covered with green moss, on which is a lime-like deposit, and the ground and rocks about the pools are similarly coated. About the edges of the main spring were thousands of small snails. The atmosphere is not affected in temperature, nor are the rocks and ground about. The natives say the temperature of the spring varies; that sometimes it is so hot they can cook meat in it. Mr. Reed was seven days reaching the spring and five days returning. During his entire journey the weather was excessively severe, and the traveling particularly difficult. The highest temperature noted was 12°F., the lowest -42°F. Gales of wind and snow-storms were continually encountered, and much of the road through snow had to be tramped out to make it passable. On March 21, the party returned to Fort Cosmos. The distance traveled was one hundred and fifty miles, which was made in fifty-seven and one-half hours (the time actually under way); the speed was 21.4 miles per day of 8.2 hours, or 2.6 miles an hour.

In 1971, a DGGS geological field party was operating in this part of the Brooks Range under the direction of the late C.E. 'Jim' Fritts, from a base camp at Walker

Lake. The field party was aware of the report about the hot spring and was on the lookout for it, but failed to locate it because the description and location given by Stoney was not entirely accurate. Stoney's map shows the spring at a latitude of $67^{\circ} 23' N.$, and notes that it is 'in the mountains at the head of the valley.' The spring is actually at a latitude of about $67^{\circ} 16' N.$ and is about 10 miles or so from the head of the valley. In 1973, another geologic field party, a joint project of the DGGS and the U.S. Geological Survey, was working in same area and 'rediscovered' the hot spring in June of that year. Credit for the find belongs to John McCamish, a helicopter pilot for Merric Inc., of Fairbanks, who noticed some anomalously green and luxuriant vegetation and brown patches of ground while flying in the Reed River valley in the course of work on the project, and pointed it out to the geologists. Investigation quickly showed that the vegetation and brown patches of ground were the result of hot-spring activity.

The hot spring is located on the east bank of the Reed River, across the valley from a major tributary. The surrounding bedrock is the granite of the Igikpak pluton, and the spring is a few miles from the contact of the pluton with the country rock. The hot spring is today very much as described in Stoney's report, except that there are at least two major spring vents and possibly a third, all within several hundred feet of each other. The spring comes out from a talus of granite boulders, and forms several pools and spring deposits. As noted by Stoney, the water is odorless and colorless. The hottest part of the spring tested had a temperature of over $120^{\circ} F.$ However, this was in amongst rocks of the granite talus, and possibly the spring water could be coming from farther up the hill and be much hotter at its origin. Besides the spring deposits, the most pronounced effect of the spring is on the vegetation in the area, which is much bigger, thicker, and greener, at least in the month of June, than anything else in the Reed River valley at this latitude. The spring is within 3 or 4 miles of the Arctic timberline in this part of the Brooks Range, and most of the nearby trees are small spruce and birch. The hot spring, however, supports a large grove of tall cottonwoods as well as large and healthy spruce. Grasses and broad-leaf plants are very thick and tall along the drainage of the spring. The snails reported by Stoney were not evident, but a multitude of tracks showed that the hot spring is popular with the local moose.

Our investigations of the spring showed that we were not the only modern visitors. A piece of plastic surveyors' tape was wrapped around a tree nearby, and certainly could be no older than a decade or so. The Eskimos in the Kobuk River valley are aware of the hot-spring location, and Tommy Douglas of Ambler Village later told me that he had visited the spring. Evidence of older activity consisted of old boards and a few pieces of rusted out iron pipe that may have been

part of an attempt to make a bathing pool, although these artifacts were so disintegrated by time as to make that pure supposition. The flow of water is certainly sufficient to allow for the use of the spring for mineral baths. The water of the spring was sampled and analyzed by the U.S. Geological Survey, and the results will be available in some future geologic report.

The hot spring is located in the proposed Gates of the Arctic National Park, and will therefore be exempt from any development in the foreseeable future. The spring is unique in that it is the only known hot spring in the Brooks Range, and it has the distinction of being the northernmost hot spring in the U.S., so it should be an important point of interest in the new park.

Juneau Gold Mines May Reopen

The famous Juneau gold belt, site of the first important lode gold discovery in Alaska, was mined continuously from 1882 until forced closure during World War II.

Presently, ownership of the former producing mines is about equally divided between the City and Borough of Juneau and the Alaska Electric Light and Power Company, a Juneau-based public utility.

In response to numerous inquiries, the two owners have decided, jointly, to solicit evidence of interest in operating the mines from responsible mining companies with financial resources adequate to fund a major development, rehabilitation, and construction program.

Agent for the joint owners is Juneau City Manager Mar B. Winegar, 155 South Seward Street, Juneau, Alaska 99801.

New DGGS AOF Released

Open file report 72, "Geochronology and generalized geology of the central Alaska Range, Clearwater Mountains," is now available to the public. Coauthored by D.L. Turner and T.E. Smith, this report provides 53 K-Ar mineral ages and analytical data for intrusive rocks and metamorphites in a 5000-square-mile area of south-central Alaska. The report includes a generalized geologic map with age notations at 1:250,000 scale and 10 pages of text.

It may be purchased at Petroleum Publications, Inc., 409 West Northern Lights Blvd., Anchorage, Alaska 99503. \$3.65 without postage, \$4.05 with postage.

Offshore Oil...in Utah?

(from NEWSWEEK, Dec. 2, 1974)

The next U.S. "offshore" oil strike could be 600 miles from the nearest ocean. Utah has okayed plans for exploratory drilling in the Great Salt Lake. The rigs will be spotted at two locations in the lake and will drill to 10,000 feet below the water, searching for oil and gas some geologists have long believed to lie under the lake.

USGS Machine Offers Alaskan Claim Data (from Western Mining News, Dec. 6, 1974)

Do you have a hankering to prospect for gold or other minerals in Alaska but don't know where to start?

It might be at an electronic machine in the Spokane Public Inquiries Office of the U.S. Geological Survey on the sixth floor of the federal building.

There at your fingertips are the locations of 4,000 reported economic mineral occurrences in Alaska.

You could type a request like "find all known gold occurrences in the Seward Quadrangle." Almost immediately there would flash across a TV-like screen the location of each occurrence and an extensive bibliography where more information could be found. You could ask for printouts of information desired.

You would be participating in a public testing of a computerized Alaska economic mineral occurrence file near the Geological Survey's western headquarters at Menlo Park, California.

Gerald L. Askevold, Menlo Park geologist who supervised installation of the computer communications terminal in Spokane, said the hookup with the California computer center will continue for about 3 months.

"The USGS is seeking answers to demands for information disseminated in this manner," he said. "Interested persons are invited to test the system with questions of interest on Alaskan mineral deposits."

BLM Multimodal Transportation and Utility Corridor System Proposal Review by Patrick L. Dobey, Chief Petroleum Geologist

Members of the DGGGS Energy Resource section recently met with the BLM Corridor Task Force to discuss the new proposed access corridor system for Alaska. This system is the result of a comprehensive study and we consider it one of the best attempts yet to provide long-range planning for the development of our resources. The corridor system should allow access to all of Alaska's potential oil, gas, and sedimentary uranium areas.

The BLM task force used DGGGS Open File Report 50, "Oil and Gas Resources of Alaska," for their energy input and U.S. Bureau of Mines data for the mining potential base. The study is published by BLM as a report entitled "Multimodal Transportation and Utility Corridor Systems in Alaska."

New University of Alaska Courses

The following new courses are open next semester to all interested parties on the U. of A.--Fairbanks campus.

Geology 494—Geoscience applications of remote sensing (3 credits)

An introduction to remote sensing and its applications to geologic and related investigations. Emphasis will be on the use of Earth Resources Tech-

nology Satellite (ERTS) radar imagery, and multi-spectral photography.

ME 194—Energy: Sources and conversion by man—(2 credits)

Open to anyone who wishes to learn about energy, power, the "energy crisis" and the probable future changes in the worldwide energy picture.

MIL 102—Map reading and orienteering course—(2 credits)

Practical field use (including river navigation) will be stressed and emphasis will be put on techniques used in Alaska.

Registration for the courses is January 13 and 14; classes begin Wednesday, Jan. 15.

The Miner's Creed

by Arden Larson

(reprinted from The Mining Record, Oct. 10, 1973)

Ed. note—Several months ago, the Mines Bulletin ran an Arden Larson article entitled "The Miner's Creed." Unfortunately, we neglected to put in the Creed itself. With apologies to Arden and our readers, we are proud to belatedly print The Miner's Creed. Here it is:

I do not choose to be a common man, it is my right to be uncommon if I can.

I seek opportunity, not security.

I do not wish to be a citizen humbled and dulled by having the state look after me.

I want to take the calculated risk, to dream and to build, to fail and to succeed.

I refuse to barter incentive for a dole.

I prefer the challenge of life to the guaranteed existence; the thrill of fulfillment to the stale calm of utopia.

I will not trade my freedom for charity, nor my dignity for a handout.

It is my heritage to think and act for myself, enjoy the benefits of my creation, and to face the world boldly and say "This I have done!"

DGGGS Energy Investigations

by V. Daryl Tomberlin, Geological Assistant

The Energy Resources section of DGGGS is currently inventorying existing and potential energy sources in Alaska. Using available data, their estimate of potential for the most widely used energy sources, oil and gas, are 86.6 billion barrels of oil and 469.3 trillion cubic feet of gas for offshore and onshore areas. Total cumulative production as of 1973 was 500 million barrels of oil and 0.6 trillion cubic feet of gas, small figures compared to Alaska's total potential. However, power requirements of the state have grown at an average rate of 12 percent yearly since 1960 and are expected to double every 6 years. At these consumption rates, most of our vast oil and gas resources will be consumed in the next five decades by the insatiable appetites of both us and our cousins in the South 48.

—cont. on p. 4—

By the year 2000, Alaska's generating capacity needs will be in the range of 10-15 billion kilowatt-hours, compared to the 2.6 billion kilowatt-hours generated in 1973. Today 60 percent of electrical power turbines are run by oil and gas, and 12 percent by hydroelectric facilities. With increasing industrial, commercial, and private power consumption, nonpolluting renewable energy sources assume paramount importance. If Alaska and the U.S. are to enjoy long-range economic and social benefits, hydroelectric, geothermal, tidal, and other power sources must be seriously studied with hopes of developing them while oil- and gas-related revenues are available to finance the costs. Hydroelectric and geothermal power are in initial stages of investigation by the DGGs energy team. Members of the Energy Resources staff may be contacted at the Anchorage office (3001 Porcupine Dr., zip 99501) concerning these studies.

Stanford Mines Raises Funds for Production (from The Northern Miner, Oct. 3, 1974)

Subject to approval of regulatory authorities Stanford Mines has arranged a convertible debenture issue that will see the company's placer gold property in Alaska through to production next year, President J.A. Hamilton informed the company's annual meeting. Objective is to handle about 500,000 cu. yd. of gold-bearing gravel in next season's operations, it was said.

The financial arrangements include a Series A debenture for \$600,000 and to be convertible into shares at \$1.50 per share, and a Series B for another \$1,000,000 and to be convertible into stock at \$2.50 per share.

"These funds will give us well over \$1,000,000 working capital on hand when work gets started next year," the meeting was told.

During the past field season, better progress than originally anticipated was made, it was gathered, and the property is now ready to be brought into production next spring. The major job of repairing the dam has been completed, with the lake starting to fill, and a new flume has been built. Penstocks have also been renovated or replaced completely. Substantial stripping of overburden has also been completed to cover mining requirements for 1975 as well as some for 1976. This year, too, new camp facilities were constructed at a cost of about \$75,000 to house the production and construction crews.

Currently, further drilling is in progress to outline the bed of gold-bearing placer.

Other routine business of the meeting received approval and directors were re-elected.

The Prospector's Wife

Fighting inflation in the President Ford manner is nothing new to Dick and Bee Huff, long-time Alaskan prospectors, who now make their home in the Mohave Desert at Cima, California, near their copper and silver prospects. Bee Huff recently took a look at herself.

I never bought silk stockings,
I own no pantyhose.
I buy stout boots and blankets,
And sweat socks for my toes.

I never bought a girdle,
I've never worn a bra.
My silver hair's in braids
Beauticians never saw.

I've worn rough shirts and jackets
Thru this life of ease.
I get them at the thrift shop
Along with dungarees.

I've never bought a cola,
And aspirin, too, I skip.
The goodies on T.V.
Have yet to make me flip.

I never go to parties,
I'm never at a ball.
You'll find us in a cabin
If we're about at all.

My cocktail is pure water,
I breathe clear desert air.
I climb the highest mountain
And hunt the dry-wash hare.

Our friends are real nice people,
Full of mining lore,
Whose talk is always prospects,
And never what I wore.

We haven't any neighbors,
There isn't any fuss.
We live a sweet uncluttered life
With just the two of us.

My husband wouldn't change a hair,
He always calls me Honey.
He loves me, just the way I am
'Cause I don't spend no money.

Mineral Deposits along Pipeline Route Described in New Mines Bureau Publications (from Alaska Industry, November 1974)

Recorded deposits of minerals along the route of the trans-Alaska pipeline, and current and possible production from 16 fields with the potential for producing natural gas in Alaska's Cook Inlet Basin, are reported in two new reports by the Interior Department's Bureau of Mines. The pipeline corridor minerals report is sold by the Superintendent of Documents; the Cook Inlet gas report is on open file.

Deposits of minerals and fuels in a corridor approximately 10 miles wide along the proposed pipeline route, from Prudhoe Bay to Valdez, are listed in the sales report. All the deposits listed had been previously discovered and claimed; the Bureau report is the only single source of data on them all.

The proposed corridor contains no producing lode deposits, says the Bureau, nor any of known economic significance. Placer deposits are of slight value except for some deeply buried gold placers in the Fairbanks and Livengood quadrangles. These deposits have not been mined for economic reasons.

The known mineral deposits are plotted on nine geologic maps covering all 14 quadrangles traversed by the proposed route.

The new open file report on Cook Inlet gas resources summarizes and consolidates material from several other reports, and includes some previously unpublished gas analyses. It identifies 16 potential gas producing fields, five of which currently are active. Reserves for the whole Basin are estimated at 6.7 trillion cubic feet, most of it, apparently low-sulfur, high-Btu, dry natural gas.

Mineral Resources of the Trans-Alaska Pipeline Corridor, Bureau of Mines Information Circular 8626, can be purchased for \$3.10 per copy from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (Catalog No. I28.27: 8626, Stock No. 2404-01558). The report is not sold by the Bureau of Mines.

Natural Gasfields—Cook Inlet Basin has been placed on open file and can be consulted during regular working hours at the following Bureau of Mines Alaska Field Operation Center offices: Douglas Island, Juneau; and Room G-51, Federal Building, Anchorage.

USGS Budget up \$74 Million (from Mining Activity Digest, Nov. 8, 1974)

The U.S. Geological Survey has budgeted \$246.7 million for fiscal 1975, an increase of \$74.3 million. The additional funds are aimed at strengthening the USGS' ability to provide information and analyses on the land and its fuel, mineral, and water resources, along with the supervision of mineral leasing operations on all Federal lands. The 1975 program includes a \$75.5 million

allocation for geological and mineral surveys and mapping, emphasizing the location of proper sites for nuclear power plants, coal mines, and oil wells. Exploration for uranium and thorium will be intensified as will oil shale investigation and the appraisal of Alaskan mineral resources. An expenditure of \$952,000 has been set aside for the preparation of environmental guidebooks and technical manuals to facilitate evaluation of alternative land use strategies and to assist in assessing the environmental impact of chosen plans.

A World Silver Shortage? (from The Mining Record, Oct. 9, 1974)

A world silver shortage—probably well before the end of this century—is forecast by Ivor (Tommy) Thompson, managing director of Rudolf Wolff & Co., a New York Metal Commodities broker.

“Unless the drain on the supply of the metal is curtailed and major new sources are discovered, the situation could become serious,” he concurred.

Noting that silver is of major industrial importance for electrical and electronic equipment, photography and other uses, Thompson said only a major discovery of the metal can avert a shortage and the accompanying price spiral. However, since no source is known to be available anywhere, Thompson feels that “the chances of solving the problem by finding a silver mine are virtually zero around the world.”

Thus, even more silver will have to be mined in conjunction with other metals, primarily copper, lead and zinc, he said. One problem in this area, he pointed out, is that some of the silver mined with other metals is of too small a content to warrant the expense of recovery. He urged producers of basic metals to do more research, both to help maintain adequate supplies “and keep silver prices within reasonable limits.”

Processes will have to be developed to extract more silver from what is being mined, Thompson said. “Still, there isn't any question that the price of silver will go way up—from the current range in excess of \$4 an ounce to double or triple this price in the foreseeable future.”

Looking at demand, he said the shortage of silver was prefigured by most of the metal being removed from coins. “Accordingly,” he said, “there must be a drastic change in one of the major uses of silver—photography, so the shortage situation can at least be alleviated.” He noted that though some strides have been made with substitutions in this field, silver supply will have to increase substantially or consumption be reduced sharply to avoid a shortage.

Rudolf Wolff handles about 60 percent of the London Metal Exchange brokerage business in copper, silver, tin, lead and zinc in this country. The New York firm is the America Headquarters of Rudolf Wolff & Co., Ltd., London, the large broker member of the LME.

'Mining' in the Oceans

(from Fairbanks Daily News-Miner, Oct. 3, 1974)

While the United States continues to lag badly in the development of a surface maritime fleet, it ranks second to none in what promises to be one of the more exciting scientific projects in the remaining years of this century—ocean exploration.

Man already knows more about the moon than he does of his own oceans. But no one has spent billions of dollars in plumbing ocean depths.

Ocean treasure has nothing to do with sunken Spanish galleons, although the upsurge in recent years in salvaging valuable cargoes from those wrecks indicates plenty of that remains in the bottom, also. Minerals, ores and precious metals abound on the ocean floor, a total wealth greatly in excess of anything taken from the surface of the earth.

Two factors have hampered the extraction of these resources from the ocean: abundant land resources and lack of know-how in dealing with the pressures of water at depths of several miles. Both factors are rapidly disappearing.

Metals such as gold, silver and lead and nickel are in short supply in many parts of the world. More and more the mineral deposits of the ocean are attracting engineers who find the business of underwater mining not nearly so difficult with the aid of space-age technology.

Underwater craft of all types have undergone tremendous changes in recent years. Oil and sulphur deposits have already been tapped. The aircraft-aerospace industry complex is working on a deep submersible capable of prospecting and mining operations at great depths.

An undercurrent of scientific curiosity and technological advancement is working to uncover much of the mystery of the three-fourths of the planet which is covered by water. The relatively meager investment committed in this direction could prove more rewarding in the long run than the billions spent in exploring the moon.

Hughes Undersea Mining Ship Reported 'Fishing for Gold'

(from The Mining Record, Oct. 16, 1974)

Howard Hughes' mystery undersea mining ship is berthed at Long Beach, Calif., right near Hughes' giant "Spruce Goose" cargo seaplane.

Some members of the two crews of the "Hughes Glomar Explorer" and some officials of Hughes' Summa Corp. were attending the American Mining Congress sessions at Convention Center in Las Vegas.

The highly secret ship made her test run, standing off the Hawaiian island of Maui for nearly two months, before sailing for her Long Beach berth.

Crewmen spent their leisure time gazing at the lush island in the distance. They weren't allowed ashore.

(Supplies were brought by boat to the Glomar.)

Hughes' representatives said nodules of manganese up to a couple of inches in diameter had been recovered by the "vacuum cleaner" type hydraulic ore recovery machinery during the tests. Some nodules contained as high as 16 percent copper, they said.

They noted that present copper mining operations in the Southwestern United States are mining copper ore containing one-third of one percent copper, extremely low grade deposits compared with the mineral-laden nodules that are strewn about the Pacific Ocean floor the Glomar has been scouting.

Hughes' representatives said the Glomar "vacuum cleaner" were being perfected while docked at Long Beach. It has been tested at ocean depths of 17,000 feet (nearly 3,000 fathoms), they said. They were vague on results of the tests at those depths.

The ship is believed to be the only vessel in the world able to scoop up ocean minerals on a commercial scale. It is jammed with equipment, including a derrick, to scoop mineral off the seabed.

Hawaii State Sen. Percy Mirikitani, learning the Glomar had just anchored off Maui, announced that Hawaii should stake its own claim to the mineral deposits before "mining ships from throughout the world stop offshore and suck up" the treasure.

Gov. John Burns' Task Force on Oceanography reported this year that besides the manganese, vast amounts of gold, silver, platinum, iridium, osmium, palladium, nickel, iron and copper also occupied the ocean plateau off Hawaii at depths of 3,000 to 6,000 feet. The report claims one mining ship could harvest a million tons of the nodules a year worth \$785 million.

The task force, fearing exploitation and damage to the island environment, urged the federal government to assert jurisdiction and control over the sea floor.

Geology a la Carte

Then there's the story of a wildcatter known as "Old Man" Killiam, who decided to hire some geologists because everybody else was hiring them. As drilling progressed, one of these young geologists came to him and said "Mr. Killiam, we have just passed the Miocene strata." A little later he came back and said, "We've just gone through the Oligocene." The next day, it was something like Eocene. The old man said, "Look, son, I'm interested in what you're doing, but you stay out there and keep working and when you get to the kerosene, then you come see me."

More than a Lifetime

Mr. Joachim Gretz, of the European Communities' Joint Research Centre, points out that the reserves of fissile and fusible materials in seawater and in the Earth's crust are sufficient to satisfy the world's energy needs for some millions of years.—London Times

USGS Names Mountain after Late DGGGS Geologist Jim Fritts

The USGS Board on Geographic Names has designated a mountain in the Angayucham Mountains after Crawford E. ("Jim") Fritts, former DGGGS geologist. The current Decisions on Geographic Names in the United States (Decision List 7403) says about the new entry:

Fritts Mountain: mountain, elevation, 453 m. (4,765 ft.), at the W. end of the Angayucham Mountains 83 km. (52 mi.) NNE of Hogatza; named for Dr. Crawford E. Fritts (deceased 1972), who spent four seasons mapping the geology of the southern Brooks Range, including two seasons in the Angayucham Mountains; Alaska; 66°55'30 N, 155°30'00 W.

Born in New York in 1927, Dr. Fritts received his undergraduate degrees at Union College in Schenectady, N.Y. and at Michigan Tech, and his Ph.D. from the University of Michigan. He was employed by DGGGS from 1968 until 1972, when he died as a result of a canoe accident while he and other Division personnel were mapping along the Kogoluktuk River in the Brooks Range. His four seasons spent mapping in that area and his compilation and publication of a six-volume Bibliography of Alaskan Geology were welcomed by those concerned with the geology and mineral industry of Alaska.

The mountain was proposed for naming at the suggestion of R.E. Garland and J.T. Larson, who assisted Fritts in the Brooks Range project, and G.H. Pessel of the DGGGS and I.L. Tailleux of the USGS, who filled in on the field party after Fritts's death.

State Geologist Don Hartman Leaves

State Geologist Donald C. Hartman left DGGGS December 27 to return to private industry. Hartman, who was employed as a petroleum geologist with DGGGS for 2 years before being appointed State Geologist in April 1973, has degrees from UCLA. A resident of Alaska since 1962, Hartman will remain in the Anchorage area, where he is active in the Anchorage Symphony and the U. of A.'s Lyric Opera Theater.

Committee Reports Metals Shortage

(from Western Mining News, October 4, 1974)

According to a report of the Permanent Subcommittee on Investigations of the Senate Government Operations Committee, there exists a shortage in many metals "and the production capacity of industry was insufficient to meet demand."

This was generally attributed to (1) physical depletion of many material resources when world demand is rising, (2) high interest rates and low rates of return on investments, which discourage construction and

expansion, (3) price controls, which kept domestic prices low, (4) two devaluations of the dollar, (5) inflexibility of environmental protection laws and regulations, (6) requirements of the Occupational Safety and Health Act, and (7) shortages of energy materials.

A glance at the matrices of tabulating individual responses shows major problem areas to be those of steel, petrochemicals, aluminum, copper, and paper. Accordingly, the Subcommittee has commissioned the Library of Congress to prepare detailed reports on shortages of each of these industries which will form the basis for future hearings.

Sixty-two companies reported shortages of copper. The basic reason, was the sharp increase in world demand, combined with static, or in some cases, declining production.

UV Cites Production

UV Industries, Inc. estimates 1974 production from its small dredge operation in Hogatza at 5,400 ounces of gold. Combined 1975 production from a widened Hogatza operation and a second dredge, in Nome, is expected to total 20,000 ounces of gold. A third dredge at Nome is planned to be in production in 1975—EM:J Activity Digest, Dec. 6, 1974.

Our Gangué.....

by Frank Larson, DGGGS editor

In the beginning, there was the Territorial Department of Mines....Then, the Territorial Department of Mines became the Division of Mines and Minerals under the Department of Natural Resources when Alaska achieved statehood. Then the Division of Mines and Minerals became the Division of Mines and Geology. Then the Division of Mines and Geology became the Division of Geological Survey. Then the Division of Geological Survey became the Division of Geological and Geophysical Surveys—quite a mouthful. DGGGS is simpler....according to the Engineering and Mining Journal's Activity Digest, UV Industries, Inc. estimates 1974 production from its small dredge operation in Hogatza at 5,400 ounces of gold. Combined 1975 production from a widened Hogatza operation and a second dredge, in Nome, is expected to total 20,000 ounces of gold. A third dredge at Nome is planned to be in production in 1975.....in closing, here is a pungent observation: Henry Gannett, U.S. Geological Survey, wrote in 1899 to those planning their first Alaska visit: 'if you are old go by all means, but if you are young stay away until you grow older. The scenery of Alaska is so much grander than anything else of the kind in the world that, once beheld, all other scenery becomes flat and insipid. It is not well to dull one's capacity for such enjoyment by seeing the finest first..... I'll drink to that.....Cheers.

	Metals Market		
	<u>Dec. 16, 1974</u>	<u>Oct. 7, 1974</u>	<u>Dec. 28, 1973</u>
Antimony ore, stu equivalent			
European ore	\$31-32	\$31.3-32.2	\$17.65-18.65
Barite (drilling mud grade per ton)	\$17-21	\$17-21	\$14-18
Beryllium ore stu.	\$30.00	\$30.00	\$30-35
Chrome ore per long ton	\$47.00	\$47.00	\$33.00
Copper per lb. (MW-prod.)	\$0.72985	\$0.7998	\$0.722
Gold per oz.	\$180.00	\$159.30	\$111.38
Lead per lb.	\$0.245	\$0.245	\$0.184
Mercury per 76-lb. flask	\$238.00	\$270-277	\$285.00
Molybdenum conc. per lb.	\$2.30	\$2.30	\$1.72
Nickel per lb.	\$1.85	\$1.85	\$1.43
Platinum per oz.	\$190-200	\$190.00	\$160.00
Silver per oz., New York	\$4.26	\$4.87	\$3.26
Tin per lb., New York	\$3.575	\$3.8775	\$2.796
Titanium ore per ton (Ilmenite)	\$55.00	\$55.00	\$38.00
Tungsten per unit	\$88.265	\$99.41	\$46.93
Zinc per lb.	\$0.39155	\$0.3937	\$0.296

State of Alaska
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