Territory of Alaska
Department of Mines

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T D M BULLETIN

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MINING ACTIVITIES

FIRST DIVISION - With the discovery of more promising uranium prospects in the vicinity of the Ross-Adams prospect, the uranium-prospecting fever is still mounting in Ketchikan. The same fever has lately spread to Juneau where several groups have now formed to raise capital for aerial traversing, following the pattern of Ketchikan It has been very interesting to see the risk capital come out from hiding as the excitement grows.

Climax Uranium Co., subsidiary of Climax Moly, has moved onto the Ross-Adams property with a crew and is doing preparatory work. A helicopter has been engaged and a drill will be flown to the prospect shortly. Some neighboring claims were finally filed, and it is now publicly known that the area is in the vicinity of Moira Sound, Prince of Wales Island.

U. S. Steel Co. is carrying cut an ambitious core drilling and geologizing project at Union Bay, Cleveland Peninsula. Three drills are being used on a two-shift basis. Surveyors and geologists are covering the surrounding area.

Klukwan Iron Ore Corp is diamond drilling the lode at Klukwan in addition to the churn drilling of the placer portion of the iron as reported earlier.

At least two large mining companies are actively in the field at the moment doing reconnaissance work in the search for suitable mineral deposits, and have hired local Alaskans for prospectors and assistants.

SECOND DIVISION - Second Division tin miners, the Alaska Miners' Association, and Territorial officials were solidly backing a bill introduced in Congress by Delegate Bartlett to set up a GSA tin purchasing program and guarantee a base price of $1.25 per pound. However, a late news release advises that the House Interior Committee refused to act on the bill after hearing the Defense-Mobilization Director speak against it.

THIRD DIVISION - Moneta Porcupine Mines, Ltd., of Toronto optioned the Red Top mercury mine on Marsh Mountain, near Dillingham, some time ago. They are driving a shallow adit and propose to do 200 to 400 feet of underground work at that level. If the results warrant, they will drive a lower level adit and do more extensive underground work.

OIL NEWS

Drilling at Goose Bay, started lately by Alaska Gulf Oil and Gas Development Co., was progressing at the rate of 275 feet per day at the last report and has reached a depth of 3800 feet. The company stated they found gas indications at 1705 feet.

Alaska Propane Gas and Oil Co. drilled a relatively shallow well near the site of Seaton's gas discovery on the Alaskan Highway near the Canadian border, and encountered a gas flow of 12,000 cubic feet per day of 94 per cent methane gas. This is not a commercial quantity. To the best of TDM's knowledge, no one has ever decided definitely whether the gas at Seaton's is natural or swamp.

The Havenstrite drill at Iniskin is down to more than 7400 feet. The Anchorage papers were headlining a reported gusher there, but Russell Havenstrite denied the reports. A small showing of oil and gas was encountered when penetrating a fault zone.

Richfield and Shell are both doing marine seismic exploration work this year. Shell has finished a project in the vicinity of Wide Bay, and Richfield is now using the same geophysical crew in Cook Inlet.

The Alaska Oil and Gas Development Co. will resume drilling at Eureka again as soon as a shipment of casing is received. An arrangement was made with the Aledo Oil Co. of Fort Worth, whereby Aledo will actually do the drilling.

Another shallow water-well gas discovery has been made at Big Delta which is similar to that of Seaton's, located on down the Alaska Highway.

It appears that action on releasing the Gubic Gas field will be deferred until next winter by the Department of the Interior and Congress.

NEWS FROM THE AMERICAN MINING CONGRESS BULLETIN

EXPLORATION EXPENDITURES RULING: Internal Revenue Bulletin #27, of July 5, contains the following ruling concerning tax treatment of "small quantities of ore" sold during the exploration period:

"During 1954 the M mining company, while operating a mine which was in the exploration stage, discovered small quantities of ore which it extracted and sold to a smelter. In such year the company incurred exploration expenditures of $105,000 and received income of $5,000 from the sale of the ore. Held, the M company in computing taxable income for 1954 is entitled to deduct, or to treat as deferred expenses, subject to the provisions and limitations of section 615 of the Internal Revenue Code of 1954, the excess of such exploration expenditures over the net receipts derived from the sale of the ore in an amount not to exceed the statutory limitation of $100,000. Held further, the taxable income from the property under the circumstances stated would be zero and since percentage depletion is limited to 50 percent of taxable income from the property (computed without allowance for depletion), no percentage depletion is allowable to the company in 1954."

MICA

The market value of mica is determined by its physical properties. These properties are low heat conductivity, high dielectric strength, inertness to high temperature, perfect cleavage, and flexibility of thin sheets. The first three properties mentioned make mica suitable for insulating material in electrical devices. "Punch mica" is sheet mica of dimensions less than 1-1/2 by 2 inches. From this smaller size, insulating rings, bushings, etc., can be cut. All sheets larger than 1-1/2 by 2 inches are classed as sheet mica. The material trimmed in

producing these two products, and that which fails to meet the above specifications for punch or sheet mica, is scrap mica. Scrap mica is the bulk of the mica in any deposit and is the material which is amenable to grinding. Ground mica is used in roofing, asphalt shingles, lubricants, wall paper, rubber, paint, plastics, and other things.

Mica is a complex mineral composed principally of the silicates of potassium, aluminum, and magnesium. A few species contain lithium, vanadium and chromium. Iron is usually present, either as an essential component or as an impurity. The mica group includes about nine species, five of which are used in industry and are the following: muscovite, phlogopite, vermiculite, lepidolite, and biotite. Muscovite is "white mica", though it runs from red to green where in "books" and is known as "ruby" or "green". When split into thin films, all micas except biotite and phlogopite are colorless and transparent. Muscovite is frequently stained red or black by iron oxide. Phlogopite is known as "amber mica", and its color ranges from a pale yellow to dark brown, with a pearly luster. Vermiculite is a hydrated biotite, and upon heating expands into a good insulating material for buildings. Biotite is "black mica" which runs from black to brown, and with decreasing amounts of iron, grades into phlogopite. Lepidolite is lithium mica, which usually occurs in fine flakes in colors from pale lilac to deep purple.

Mica is a common constituent of most granitic rocks and of many schists. Sheet mica is obtained entirely from pegmatites, and is usually found as segregations in zones around masses of quartz or of quartz and feldspar in the pegmatite. Book mica can be split and trimmed into sheet mica. The total quantity of mica in schists, gneisses, granites, and other rocks is enormous, but, occurring as it does in small crystals or flakes, it has no value in industry except in rocks containing 5% or more, which are sometimes used as a source of scrap mica.

Three mica deposits in Alaska on which reports have been written are at Sitklan Island and Redfish Bay in Southeast Alaska and Pargon Mountain on the Seward Peninsula. A recently-released USGS report entitled "Geology of two areas of Pegmatite deposits in Southeastern Alaska" by C. L. Sainsbury is on open file at USGS offices in the Territory and covers the first two deposits mentioned. A TDM report on the Pargon Mountain occurrence is available. Other mica deposits exist in Alaska, but there is very little information on them.

The E&MJ Metal and Mineral Markets for July 7, 1955 quotes as follows:

"MICA - prices prevailing in the North Carolina district for clear sheet mica, per pound, follow:

Size	Per Pound
1-1/2 x 2 inch	.70 to $1.60
2 x 2 "	$1.10 to $1.60
2 x 3 "	$1.60 to $2.00
3 x 3 "	$1.80 to $2.30
3 x 4 "	$2.00 to $2.60
3 x 5 "	$2.60 to $3.00
4 x 6 "	$2.75 to $4.00
6 x 8 "	$4.00 to $8.00

Punch Mica, 10@16¢ per pound, according to size and quality.

Stained or electric sheet mica is being sold at approximately 10 to 15% lower than for clear."

The above prices can only be used as a general guide, however. As with most nonmetallics, true representative samples of a deposit should be sent to prospective purchasers, and they will quote their own prices for that particular mica. Generally, purchasers will not quote a price without first seeing samples.

MISCELLANEOUS

We can promise almost definitely that we will have an authoritative geological description of the Ross-Adams uranium property in our next issue. The optioners still did not want any information released at this time.

The TDM has come across a reported announcement that the government is now ready to purchase thorium concentrates. We are not certain as to the reliability of this report and are endeavoring to learn the truth on the matter. The AEC is being contacted.

The late Judge Folta's gravel decision in which he held that sand and gravel are not open to mineral location on school lands has been upheld by the Appellate Court in San Francisco. Next step, if there is one, would be to the Supreme Court.

We are still awaiting the decision from the Appellate Court on the Flynn vs. Vevelstad case over the Yakobi Island nickel claims. The case was argued some time ago. Flynn won the first round in the First Division District Court in early 1954.

E. AND M. J. METAL MARKET PRICES

	July 28, 1955	Month Ago	Year Ago
Copper, per lb.	35.7¢	35.7¢	29.7¢
Lead, per lb.	15¢	15¢	14¢
Zinc, per lb.	12-1/2¢	12-1/2¢	11¢
Tin, per lb.	98¢	94-1/2¢	96-1/8¢
Quicksilver, per flask	$259-261	$281-283	$290-293
Silver, foreign, New York	90-3/4¢	89-1/4¢	85-1/4¢
Silver, domestic, per oz.	90-1/2¢	90-1/2¢	90-1/2¢
Platinum per oz.	$80-87	$78-80	$84-87
Nickel, per lb.	64-1/2¢	64-1/2¢	60¢
Molybdenum, per lb.	$3	$3	$3
Tungsten ore, per unit	$63	$63	$63
Titanium ore (ilmenite) per ton	$20	$18-20	$18-20