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GEOLOGICAL SURVEY**

Territory of Alaska  
Department of Mines

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T D M BULLETIN

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MINING ACTIVITIES

FIRST DIVISION - Union Carbide Nuclear, having signed a contract for the I & L uranium property some time ago, is now endeavoring to clear the title to the claims. If successful, they plan a drilling program there. The I & L adjoins the original Ross-Adams discovery on southern Prince of Wales Island. A tractor road is planned from the beach to the properties, and at last report, Climax Molybdenum Co. was planning to ship from the Ross-Adams property this summer.

Columbia Iron Mining Co., a subsidiary of U.S. Steel will be active in the Ketchikan area again this year. In addition to other activities, they are staking limestone claims.

Klukwan Iron Ore Co. has started further development work on their iron deposit near Haines. Newspaper releases indicate an interest in this deposit by U. S. Steel.

FOURTH DIVISION - Mercury production at the Red Devil Mine on the Kuskokwim appears to have levelled off to an average of about 1250 pounds per day from the reported 2000 pounds at the start three months ago.

OIL NEWS

Drilling has been resumed at Houston, 30 miles north of Anchorage. Crews are working on a 24-hour basis and are reportedly past the 2,600-foot mark on what is expected to be a 10,000-foot well. The Anchorage Gas and Oil Development controls an 86,000-acre block of leases in the Houston area.

TITLE TROUBLES

TDM has many times urged prospectors to do everything possible to keep the titles to their claims in the clear. In addition to the annual assessment work and recording of proper affidavits, this includes making certain that all agreements entered into with other parties concerning the claims are clear, understandable, and in proper legal form. One of the first things an examining engineer or company looks into is status of title. Without clear title, nothing will proceed. A case in point is mentioned in the first paragraph of this bulletin. Once the option on a prospect has been dropped due to title difficulties, other prospective investors are reluctant to make any kind of a deal.

ARIZONA MINERS PROTEST

A news story from the Phoenix Gazette entitled "New Mining Law Applied in State" has disturbed the mine operators of Arizona. The law referred to is Public Law 167 which applies to Alaska as well as Arizona. In the article, the regional forester at Albuquerque was quoted as saying that examination of thousands of old mining claims is underway and "urged claim owners to place their holdings under voluntary provisions of the law to save themselves time and the government and taxpayers the costs of long-drawn-out examinations and hearings in Arizona and New Mexico."

Under P L 167, on which we reported in our October 1955 issue, claims located after July 23, 1955, and prior to patent, shall not be used for any purpose other than those incident to prospecting or mining. Also, the U.S. is given the right to manage and sell the surface resources including the timber (prior to patent) so long as it does not interfere with the prospecting or mining operations of the claim holder. The article referred to implied that the Forest Service intended to launch a wholesale investigation of mining claims on forest lands, and that those with claims located prior to P L 167 had better be prepared to spend the time and money necessary to justify their locations.

The Secretary of the Arizona Small Mine Operators Association asked the Forest Service for a statement of clarification, writing as follows: "We hold no brief for those who located and have been holding mining claims for other than mining purposes and we feel as you do that these claims should be invalidated. However, it is a subject which should be approached carefully and cautiously if good faith is to be kept with those who wrote and helped to enact the new law,...If there is to be a hardboiled and tough interpretation of the powers given under Public Law 167, and a wholesale attempt at cancellation of existing mining claims, we are going to have to go to bat and oppose your efforts most violently."

To date, the TDM has not learned of an answer to this letter. When and if it comes to our attention, we will publish it, for it may have some bearing on the pending actions of the Forest Service on claims in Tongass National Forest in SE Alaska. It should be remembered, too, that P L 167 applies to claims on all public domain, not just forest lands. Other government agencies may get into the act later.

#### STRATEGIC MINERALS BILLS

As reported last month, a large number of bills have been introduced in Congress to extend the purchasing programs of strategic minerals. They are Senate bills, and the Senate policy or strategy appears to be to have bills covering the many phases of the strategic minerals situation separately and collectively, and then have the Administration and the mining industry decide which they want and will approve. All minerals covered previously have been included again plus a new one for antimony (very limited) and also a bill to create a floor price for mercury. The bills are sponsored by Senators from the States in which the particular minerals are of greatest importance. Congressional experts say that no separate bill could get sufficient support, but that a bill covering all the minerals would have a much better chance.

#### GEOPHYSICAL LOCATIONS PROPOSED

S. 3484 is a bill introduced by Senator Murray of Montana which would allow claims to be staked as a result of geophysical, geochemical, or geological work or anomalies in addition to the conventional discovery of mineral in place. Similar bills have been introduced regularly since 1947, but never with much support. Now, with the enormous increase in geophysical prospecting caused mostly by the expansion of the uranium industry, the bill might get sufficient favorable attention to pass. It would permit the location of large areas for the types of prospecting indicated and would also permit the validation of claims without the time-honored "discovery" of mineral in place. At the same time it would not disturb the present mining laws, and the prospector would still end up with the traditional unpatented claims. Annual assessment work would still be required.

## MISCELLANEOUS

Reminder: The assessment work year ends on July first at noon.

The University of Alaska School of Mines at College has published a booklet entitled Elementary Geochemical Prospecting Methods. The methods explained have been developed by the USGS and the School of Mines. The booklet is available at the school for \$1.

Delegate Bartlett is requesting that a Small Business Administration office be located in Alaska. If successful, it probably still won't benefit Alaskan miners. In the course of its existence, SBA has so far approved only three small loans to metal mining enterprises, and those were later cancelled for various reasons.

It has just been announced that uranium buying by the Government will be extended five years beyond the 1962 expiration date of the present program. We do not yet have the details on this.

## BARITE

The largest use of barite, and one that takes nearly three-fourths of the total output, is as a weighting agent in rotary well-drilling fluids. Such fluids serve several purposes - lubricating and cooling the bit, plastering the walls to prevent caving of the hole; carrying the cuttings up the well to the surface, and the main purpose: restraining abnormally high gas and oil pressures to their formation levels. A number of firms make a large part of their livelihood from preparing drilling mud from barite and selling it to oil-well drilling outfits. A large tonnage of barite is used in lithopone, which is a mixture of zinc sulfide and barium sulfate and is used as a white pigment, mostly in paints. Barite is also used in glass making; as filler in many items such as ink, oilcloth, linoleum, rubber, etc., and as a raw material in the making of various barium chemicals which are widely used in many industries. There is a trend toward the increased use of barite as an aggregate to weight concrete around pipelines in river crossings and swampy areas.

Barite is naturally occurring barium sulfate, and is the principal barium mineral produced commercially. It is also called "barytes" or "heavy spar" in certain localities. Pure barite is white, and opaque to transparent. Impurities cause a wide variation in color, commonly buff, gray and white with irregular reddish iron stains. Less frequently found are shades of yellow, green, blue, brown, and black. The rock is brittle and breaks with an uneven fracture, although specimens often appear to have a cleavage due to separation of layers of deposition. Hardness varies from 2.5 to 3.5. Specific gravity of pure barite is 4.5, and this will vary downward, depending on impurities present. Barite has a white streak and a pearly to vitreous, or sometimes stony, luster. It's classed as a nonmetallic.

Witherite is somewhat similar in appearance and weight to barite. It is a barium carbonate. It is mined in Great Britain and small quantities are imported into the U.S.

Small deposits of barite are widespread in Alaska, but there is only one known deposit of commercial possibilities at the present time. This is a deposit on one of the Castle Islands in Duncan Canal, Southeastern Alaska. It is estimated

to contain 50,000 tons of 90% barite above high tide. It is on patented ground and held by the Alaska Juneau Gold Mining Co. A number of interesting but small occurrences of barite and witherite are on northern Kuiu Island. Because of the low unit price of barite, the only chance of a commercial barite mining venture in Alaska would be one in which a company with its own transportation facilities could take over a deposit. In the case of the Castle Island deposit, the material could be loaded directly into a barge from the pit.

For drilling mud, the barite must have a specific gravity of at least 4.2, with some companies insisting on 4.3. The crude oil well grade of 4.3 sp. g. is quoted at \$11.50 per ton at present. A crude ore of minimum 94% barite and less than 1% iron is quoted at \$16.00 per ton. Canadian prices at the shipping point are \$11 per long ton for crude in bulk, and \$16.50 per short ton for ground ore in bags.

#### E. AND M. J. METAL MARKET PRICES

	<u>May 24</u> <u>1956</u>	<u>Month</u> <u>Ago</u>	<u>Year</u> <u>Ago</u>
Copper, per lb.	45.6¢	45.9¢	35.7¢
Lead, per lb.	16¢	16¢	15¢
Zinc, per lb.	13-1/2¢	13-1/2¢	12¢
Tin, per lb.	97-1/2¢	98.7¢	91-3/4¢
Quicksilver, per flask	\$264-266	\$268-270	\$300-302
Silver, foreign, New York	90.8¢	90.9¢	90.3¢
Silver, domestic, per oz.	90-1/2¢	90-1/2¢	90-1/2¢
Platinum, per oz.	\$103-110	\$97-110	\$76-79
Nickel, per lb.	64-1/2¢	64-1/2¢	64-1/2¢
Molybdenum, per lb. in conc.	\$1.10	\$1.10	\$1.05
Tungsten ore, per unit	\$63.00	\$63.00	\$63.00
Titanium ore (Ilmenite)			
per ton	\$26.25	\$26.25	\$18-20
*Chrome ore (48%, 3 to 1 ratio)			
per ton	\$115	\$115	\$115
*GSA guaranteed stockpile price. Not quoted by E & MJ			