May 1949

Portland, Oregon

# STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES Head Office: 702 Woodlark Building, Portland 5, Oregon

State Governing Board	•	Staff	
Niel R. Allen, Chairman, Grants Pass		Hollis M. Dole	Geologist
H. E. Hendryx	Baker	L. L. Hoagland	Assayer & Chemist
Mason L. Bingham	Portland	C. W. F. Jacobs	Ceramist
F. W. Libbey, Director		Ralph S. Mason	Mining Engineer
		T. C. Matthews	Spectroscopist
		M. L. Steere	Geologist
		R. E. Stewart	Geologist
		D. J. White	Geologist

## Field Offices

2033 First Street, Baker

N. S. Wagner, Field Geologist

714 East "H" Street, Grants Pass
Harold D. Wolfe, Field Geologist

TREASURY PROFITS ON SILVER

The following article by Edward L. Weikert, Jr., appeared in the Numismatic Scrapbook Magazine, Chicago, December 20, 1948, under the heading "Numismatic News from Washington." The editor of The Ore.-Bin was interested in the article for two reasons: first, it states facts, seemingly without bias, of the kind which the western mining industry finds it necessary to present continually to our lawmakers; and second, the article prompted the thought that our mining industry is probably missing a bet in not actively enlisting the support of numismatists in advocating to Congress a strong metallic backing for our currency, and in opposing legislation such as that sponsored by silverware manufacturers. A mailing list of numismatists should be a valuable addition to the active files of the American Mining Congress.

\* \* \* \* \* \* \*

There is more misinformation about silver than any other subject in the United States. Much of it is deliberate and mischievously propagandized by selfish interests who profit by this misinformation. Probably the worst canard is that there is somewhere an unlimited amount of silver ready to flow into the United States Treasury once the price of silver is advanced, despite the fact that the annual reports printed by the United States Bureau of the Mint show that the total world production of silver since the discovery of America in 1492 up to the present time has been less than 18,000,000,000 ounces. Deducting losses and industrial uses, the amount available in the entire world for monetary purposes is probably less than 12,000,000,000 ounces.

Yet, when the Silver Purchase Act of 1934 was under discussion, opponents of silver gloomily prophesied that the unlimited purchase of silver at 45 cents per ounce would bank-rupt the Treasury. The United States Treasury purchased all the silver offered at that price, but was able to buy only 3,000,000,000 ounces, because most of the silver in the world is already coined into money. This is particularly true in the Orient and the Middle East where silver is, and probably always will be, their money.

Incidentally, on the 3,000,000,000 ounces we were able to purchase, the United States Treasury made a net profit of  $1\frac{1}{2}$  billion dollars and would have made considerably more but for the fact that several hundred million ounces were lend-leased to foreign countries for monetary purposes, and other millions of ounces sold to jewelry manufacturers and industrial users at much below the monetized price.

Even on the relatively small amount of silver that will go into the minting of 5,000,000 fifty cent pieces commemorating the Booker T. Washington Birthplace Memorial, the net profit to the Treasury will be \$1,619,394.00.

A saving of several million dollars to the taxpayers was also made on the silver money in circulation since it is only part of the \$29,000,000,000 of money in circulation on which the American taxpayers pay no interest.

Neither silver nor gold are used extensively in industry; gold almost not at all, while the industrial use of silver does not exceed 15 percent of the production. Until recently, it was limited almost exclusively to jewelry, silverware, and plate silver. In hearings conducted by the Senate Appropriations Committee in 1946, it was proven that the retail prices of such articles bore little or no relation to the silver content; that the prices were from 5 to 25 times the value of the silver in them.

During the war, rather substantial quantities of silver were loaned by the Treasury to industrial plants, such as aluminum plants, to serve as bus bars in the transmission of high-voltage electricity. This was to release the copper bus bars for the making of shells and amunition, but since the end of the war, this silver has been returned to the Treasury. It is interesting to note that, during the war, this loaned silver served a dual purpose - as a part of the monetary reserves back of silver currency in circulation, and as a conductor of electricity in war plants. Since silver is imperishable, indestructible, and noncorrosive, the industrial use of it in no way impaired its value; and should the necessity arise, silver used as monetary reserves can be loaned again for such purposes.

Relatively small amounts of silver are used in electric appliances and in the making of moving-picture films. That is, the amount is very small compared to the cost of the commodities in which it is used. For example, thermostat controls for regrigerators and automobile heaters use about three cents worth of silver each unit, so the effect on the cost of a \$200 refrigerator or a \$2000.00 automobile is practically nil. Some silver is also used in medicine, but the amount is so small that the price is a matter of little consequence.

The largest manufacturer of the thermostats referred to above stated that he was not concerned whether the price of silver was \$1.00 or \$5.00 per ounce, since so little silver was required for each unit. He simply wanted to know that he could be sure to get it. This was during the temporary shortage of silver in this country in 1946. It may surprise many to learn that the Treasury sold 200,000 silver dollars to industrial users during that period to be melted down for their silver content. This is not illegal since the law against defacing money applies only when there is an intent to defraud the Government and, of course, there was no intent to defraud in this instance.

Since the price of the finished products bears little relation to the value of the silver in these products, the monetization of silver should help rather than hurt industrial users, as it would stabilize the price and insure a constant supply.

The necessity for monetized silver is just as great as the necessity for monetized gold, and no one would advocate a reduction in the price of gold for the benefit of manufacturers or fabricators of gold jewelry.

# \*\*\*\*\*\*\*\*

# EASTERN PERLITE FURNACE SUSPENDS

A perlite furnace at Grand Rapids, Michigan, which had operated for a year on perlite shipped from the Dant and Russell Lady Frances Mine, located at Frieda, on the Deschutes River, has shut down. The existing freight rate structure became too burdensome and the Grand Rapids Company will seek a supply elsewhere. This is a striking example of the importance of freight rates in the mineral industry, and more particularly in the nonmetallics field.

\*\*\*\*\*\*\*\*\*

#### THE JOHNSON ELEVATION WETER

Automatic neters or measuring instruments are an integral part of our industrial machine. They furnish us with the means of central over speeded-up operations. It is difficult to integral the laboriousness of operating without one when it has once proved its usefulness. When a proved new one appears it is welcomed as a saver of time and a means of substituting robot accuracy for the human equation. The Johnson Elevation Meter is such an instrument. It has been tested thoroughly. The U.S. Geological Survey has used it successfully to provide vertical central for topographic surveys. It has also been used to establish elevations for geophysical and geological surveys. The Sperry-Sun Well Surveying Company, Houston, Texas, operates this equipment on a service hasis furnishing the instrument and operator.



A description of the operational technique follows:

The Johnson Elevation Meter equipment consists of a special three-wheeled trailer towed by an automobile. Continuous measurements of the change in elevation are made as the trailer moves along the road. Mnerever it is required to establish an elevation at a given point on the road, the automobile is stopped, and the elevation is read from a counter similar to the ordinary mileage odometer. Elevations are easily transferred to nearby points off the road by means of a level rod and hand level provided for this purpose.

The Elevation Neter determines difference in elevation by integrating the instantaneous values of the path length (or velocity) and the sine of the inclination angle. The measurement of velocity is made by a device directly geared to the rear trailer wheel and which provides an electrical signal proportional to the velocity. A second device which furnishes an electrical signal proportional to the inclination angle is mounted mid-way between the front and rear wheels of the trailer. A special electronic integrator, which is carried in the towing vehicle, accomplishes the integration of velocity muitiplied by the time of the angle of inclination. The measured change in elevation is exhibited on a Vector Root counter which reads directly in feet. Tenths of feet are read from an auxiliary electrical meter. The total distance traveled is also recovered from the integrator and compared with the reading of an address a means of checking instrument performance since they must agree to established limits. The speed at which the integrator operates will be realized when it is noted that the roadway is, in effect, divided into 500 parts par foot of travel.

Advantages of the Elevation Meter over standard methods are found in its greater speed of operation and also in a reduction in costs per mile traversed. The automobils may be driven at speeds as great as 25 miles per hour, and it is often possible to survey as much as 60 to 80 miles of traverse per day, depending on the accuracy required and the number of stations occupied.

\*

#### ASSESSMENT WORK

The House of Representatives has passed H.R. 1754, which extends the time for finishing annual assessment work for the current assessment year to October 1, 1949. The House has also passed H.R. 3754, which provides a temporary deferment for claimants by the Secretary of the Interior upon application by the claimant, where evidence is satisfactory that a mining claim or group of claims is surrounded by lands over which a right-of-way has been denied or is in litigation. Deferment may also be granted by the Secretary if other legal impediments exist which affect the right of the claimant to enter upon the surface of such claim or group, or to gain access to the boundaries thereof.

The Senate Committee on Interior and Insular Affairs is considering two bills, as follows: S.J. RES. 57, extending time for finishing the assessment work for the current assessment year to September 1, 1949; and S. 1141, suspending entirely the assessment work for the current assessment year.

\*\*\*\*\*\*\*\*\*

# INDUSTRIAL MINERALS CONFERENCE

The third annual Northwest Industrial Minerals Conference, sponsored by the Columbia Section American Institute of Mining and Metallurgical Engineers in cooperation with the Oregon and North Pacific Sections, was held at the Davenport Hotel, Spokane, May 14, 1949. Oregon men who attended were: Frank McCaslin, David Charlton, James Jensen, Jack MacWilliams, George McBride, W. R. Reynolds, Willard Colegrove, Albert Lewis, A. O. Bartell, Leslie C. Richards, Hollis Dole, Ivan Bloch, and F. W. Libbey.

The papers, covering a broad industrial minerals field, were as follows:

Production of Manganese Oxides and Ammonium Sulphate, by Normas Ketzlatch, Chief Chemist, Manganese Products, Inc., Seattle, Washington.

Garnet and Kyanite Production at Fernwood, Idaho, by John Crandall, Manager, Idaho Garnet Abrasive Company, Fernwood, Idaho.

Corrosion Resistant Materials and Coatings in the Trail Chemical Operations, by E. A. G. Colls, Manager, Chemicals and Fertilizer Division, Consolidated Mining and Smelting Company of Canada, Limited, Trail, British Columbia.

Recent Improvements and Mechanization in Mining Practice of Washington Magnesite, by Howard A. Ziebell, Manager, Chewelah Plant, Northwest Magnesite Company, Chewelah, Washington.

Washington's Assets in the Field of Industrial Minerals, by Sheldon L. Glover, Supervisor, Division of Mines and Geology, Olympia, Washington.

Studies of the Effect of Freight Rates on Marketing of Northwest Industrial Minerals, by Leslie C. Richards, Mining Engineer, Baker, Oregon.

Ceramics, by Dr. Peter D. Johnson, Assistant Professor in Ceramic Engineering, University of Washington, Seattle, Washington.

Lehigh Portland Cement Company, Metaline Operations and Expansion, by Alfred W. Schaeffer, Manager, Metaline Plant, Lehigh Portland Cement Company, Metaline Falls, Washington.

Calcium Carbide for Pacific Northwest Industries, by James Jensen, Plant Engineer, Pacific Carbide and Alloys Company, Portland, Oregon.

Nonmetallic Minerals and Rocks in Montana of Value for Industrial Use, by Dr. Eugene S. Perry, Head, Department of Geology, Montana School of Mines, Butte, Montana.

\*\*\*\*\*\*\*\*\*\*

#### MOUNTAIN CITY COPPER COMPANY TAX CASE

The <u>Wall Street Journal</u> of May 11, 1949, reports a recent ruling of the tenth U. S. Circuit Court of Appeals that total receipts from sale of ore during a development period are subtracted from total expenditures and are taxable income only if they exceed total development costs. If the total expenditures exceed total receipts the balance is charged to capital account.

The decision resulted from a case involving the Mountain City Copper Company which started developing a mine in 1932 and completed development February 16, 1936. During the last of 1935 and early in 1936 the company received \$288,525 from sales of ore. This amount was applied against the total development costs of \$376,236 reducing that amount to \$87,711.

The Commissioner of Internal Revenue had contended that receipts and expenditures should be computed on a monthly basis, and expenditures charged to capital account in those months when they exceeded receipts from ore sales. He maintained that for months in which receipts exceeded expenditures the excess represented taxable income.

However, the court ruled that the company could subtract the amount of sales from the total development costs to obtain the capital costs.

\*\*\*\*\*\*\*\*\*

## SUPERIOR SETS NEW RECORD FOR DEEPEST WELL

Company holding the distinction of having drilled the world's two deepest wells has again set a drilling record. Superior 011 Co. of California has successfully carried its 1 Unit, SW NE SW 27-27n-103W, a Pacific Creek wildest in Sublette county, Wyoming, to a depth of over 19,000 feet.

This depth compares with 51-11 Weller, which was drilled to a depth of 17,823 feet in 1947 in Caddo county, Oklahoma, and 1 Limoneira in Ventura county, California, which was abandoned last month at a depth of 18,743 feet.

The 1 Unit is being drilled with a new \$1,000,000 rig which was displayed at the International Petroleum Exposition last year and which is termed "the world's largest rig, capable of drilling to 20,000 feet."

From Compact Comments, May 1, 1949, published by the Interstate 011 Compact Commission, Oklahoma City.

\*\*\*\*\*\*\*\*\*\*

# UNITED STATES GOLD AND SILVER MOVEMENTS IN MARCH 1949

The monetary gold stock of the United States was increased during March by \$24,181,000 to \$24,313,816,000 at the end of the month as the combined result of ear-marking operations, receipts from foreign countries, exports, domestic production and other factors. Gold held under earmark at the Federal Reserve Banks increased during March by \$16,724,660 to \$3,819,-273,945.

Principal imports of gold were from the Union of South Africa, \$21,341,042 out of a total of \$24,878,731. Other principal imports were, in order of their magnitude, from Colombia, Nicaragua, Canada and Mexico. Imports of silver approximated six and one-half million dollars of which \$3,793,557 was from Mexico and \$974,000 from Canada.

From World Trade News published by U. S. Dept. of Commerce field service.

\*\*\*\*\*\*\*\*\*

## NEW SMELTER USES ANTIMONY ORE

Morris P. Kirk & Sons, Inc., manufacture a variety of lead alloys, including antimonial lead, at the new smelting plant in northwest Portland. The company's main plant is in Los Angeles and there is another branch plant in Salt Lake City. Antimony ore for the plants is bought through the Los Angeles purchasing department at 2717 South Indiana Street. Mr. E. E. Gullette is purchasing agent. Specifications are: approximately 50 percent antimony containing no arsenic or silver. Crude ore ranging in size from about 6 inches to half an inch is required. Mr. James Miller is in charge of the Portland plant.

#### \*\*\*\*\*\*\*\*

# STATE DEPARTMENT ISSUES URANIUM HANDBOOK

To answer the many questions asked about characteristics, occurrences, and geological habits of uranium cres, the State Department of Geology and Mineral Industries has just issued G.M.I. Short Paper No. 18, which is a small handbook titled "Radioactive Ores the Prospector Should Know." The author is David J. White, geologist with the Department.

The handbook describes the principal uranium and thorium minerals, their geological associations, and the equipment and methods used in testing for radioactivity. A page 1st devoted to an outline of the Atomic Energy Commission rules and prices, and a list of manufacturers of Geiger-Müller counters is also included.

The Short Paper may be obtained at the office of the Department in the Woodlark Building, Portland, and the field offices in Baker and Grants Pass. The price is 20 cents postpaid.

### \*\*\*\*\*\*\*\*\*

#### DEPARTMENT ADMINISTRATOR OF NEW LAW REGULATING OIL WELL DRILLING

House Bill 427 passed by the last Legislature and signed by the Governor becomes effective July 16, 1949. This law requires the Department to supervise all oil-well test drilling and to set up regulations governing the various operations in such drilling in order to obtain records of value to the State and to insure against flooding of oil and gas formations by water. An outline of provisions in the bill requires that operators shall observe the following rules:

- (1) An operator shall use such methods as are necessary for controlling and confining natural gas to prevent waste and to avoid danger to persons and property in the vicinity of the operations.
- (2) No inflammable products from a well shall be permitted to run into any water used or usable for watering stock, and waste oil or oil refuse shall be burned at a safe place.
- (3) Wells to be abandoned must be plugged in a manner approved by the State Department of Geology and Mineral Industries.
- (4) Notices of commencement of drilling and completion of a hole must be filed with the Department. All records including drilling history of operations and a drilling log, as well as a casing record, must be filed with the Department.
- (5) The Director of the Department shall appoint an oil and gas inspector who is given power to supervise operations according to regulations which may be prescribed by the Department. Water formations encountered in drilling must be shut off in a manner approved by the Department.
- (6) The law requires operators to file under oath statements concerning production of oil and gas produced and marketed.

The Department is compiling forms to cover the various requirements set up in the law and these forms will be available at the Department offices in Portland, Baker, and Grants Pass prior to the date on which the law goes into effect. In general, these forms are patterned after those in use in California and New Mexico.

\*\*\*\*\*\*\*