

LEAD PRODUCTION - NORTHWESTERN STATES

BY

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1951 production of lead in the Northwest states, that is Idaho, Montana, and Washington, of approximately 105,000 tons was 20% less than the total 1950 production. However, in my opinion this decline in production should not be interpreted as necessarily indicating a decline in future production. 1950 was a year in which an unusually large quantity of lead was produced in these states. In fact, 1951 production of lead in the Northwest states exceeded the average production for the five years prior to 1950 by approximately 10%.

LEAD PRODUCTION IN IDAHO

Lead production in Idaho, which amounts to almost 72% of the total Northwest production, was decreased as a result of a shortage of miners in the Coeur d'Alene District during the summer months and a strike shutdown which extended from August twenty-seventh to September seventh.

EXPLORATION AND DEVELOPMENT EMPHASIZED

It is also quite evident that operators emphasized exploration and development during 1951 which had the effect of decreasing the number of men available for actual production of metals. During the war years an all-out effort was made by the industry at the request of government to produce metals in maximum quantities as vitally needed for the war effort. A shortage of labor during that period which continued through the years following the war, together with a depressed metal market beginning in March of 1949 and extending to June of 1950 made it impossible for many operators to catch up on development and exploration work required to replace the tonnage previously mined at an accelerated rate. A number of mine operators in the Northwest area recognized that development and exploration could not be postponed much longer. Consequently 1951 showed a marked increase in expenditures made for that purpose.

A strong demand for base metals during 1951, together with increased prices, encouraged old and new mines to expand activities. A number of properties that have been idle for years resumed operations. The Defense Minerals Administration and its successor, the Defense Minerals Exploration Administration, approved a

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total of twenty-seven mineral exploration projects in Idaho alone, and nearly 550 minerals locations were filed in Shoshone County during the past year.

For purposes of this discussion the larger lead production areas of the Northwest are divided into sections comprising northern Idaho, south Idaho, Washington and Montana, and I will comment briefly on the principal producers within each section.

NORTHERN IDAHO

Bunker Hill and Sullivan Mining and Concentrating Company

The annual report of Bunker Hill and Sullivan Mining and Concentrating Company reveals that 1951 lead production at the lead smelter from mine production and custom ores purchased and from slag processed in the fuming plant, totalling 54,315 tons, was approximately 28% less than in 1950, although 18% greater than in 1949.

1951 lead production from the Bunker Hill mine of 23,174 tons was approximately 30% under 1950, yet 29% greater than for the five-year period preceding 1950. Lead-mine ore reserves, excluding cave mine operation, are 400,000 tons in excess of what they were ten years ago, in spite of the fact that nearly 3,000,000 tons of ore have been mined by Bunker Hill during that period.

Drifts and crosscuts continue to give satisfactory results, and it is quite obvious that Bunker Hill is developing ore from year to year to compensate for tonnages mined.

The experiment in block caving of low grade ore in quartzite is giving satisfactory results with indications of substantial additional tonnage of low grade ore from this source.

Federal Mining and Smelting Company

The annual report of Federal Mining and Smelting Company emphasizes that production at the Page and Frisco mines during the past year was lower as a result of a shortage of miners and the strike shutdown. 8,069 tons of lead were produced from the Page mine, and 1,645 tons were produced from the Frisco mine. Ore reserves of these properties were approximately the same as the estimate at the end of 1950.

Production in the Morning mine of 4,674 tons of lead was somewhat less than in 1950. However, new ore is being added to the reserves as a result of finding that the width of the Morning vein on lower levels was greater than had been previously expected.

It was also reported that Federal and Day Mines, Inc. have made an agreement

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to explore the West Independence ground lying east of the Morning mine through underground workings of the latter.

An agreement was also made for development and exploration of Wallace Mining Company properties which adjoin the Frisco holdings.

Sullivan Mining Company

The Sullivan Mining Company, owned jointly by Hecla and Bunker Hill, while primarily a zinc operation, nevertheless produced 7,750 tons of lead in 1951. Ore reserves at the end of the year reflected a favorable increase over the prior year. We are at present driving an 8500-ft. tunnel from the Hecla plant at Burke to intersect the Star shaft on the 2000-ft. level. When completed, operating costs will be decreased, thereby having the effect of adding a considerable tonnage of presently marginal ore to our reserves. We are also extending our shaft to lower levels of the mine, the present lowest level being the 5100-ft. level.

Sullivan is carrying on a development project in northeastern Washington in the Metaline Contact Area which was explored through diamond drilling during the war by the U. S. Bureau of Mines. Partial development of this area has opened a substantial quantity of commercial zinc-lead ore, although continuation of this work is necessary before the extent of ore reserves can be determined.

Day Mines, Inc.

Lead output by Day Mines, Inc. of 8,836 tons during 1951 was 31% under 1950 as a result of a decline in production of the Sherman mine, although the company milled about the same total tonnage during 1951 as during the preceding year. Total ore reserves at the end of 1951 declined approximately 10%. However, this company has embarked upon a very ambitious exploration and development program that certainly should lead to new discoveries. More than 2.2 miles of drifts and cross-outs alone were driven last year and shafts at two presently operating properties are being extended to new levels. The company has either acquired or secured leases on a number of attractive properties within the Coeur d'Alene and Metaline districts, and active exploration is now being carried on in several of these properties. A major portion of its earnings is being plowed back either into the development of presently operating properties or is being expended in the search for new deposits.

Callahan Zinc-Lead Company

The development of the Vulcan property of the Callahan Zinc-Lead Company being undertaken by ASAR and Day Mines, Inc., appears to be giving satisfactory results. While the shaft is located in the so-called silver belt, encouraging

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lead showings have been disclosed from limited prospecting thus far. A large hoist has been installed and surface buildings are being constructed with expectations of an intensive development program during the balance of 1952.

Hecla Mining Company

The Hecla Mining Company, through equal participation with Newmont Mining Corporation and The New Jersey Zinc Company, has entered into an agreement to develop the mineral properties of Atlas Mining Company. Construction of the surface plant has been completed. Our development program includes sinking of the present 800-ft. shaft to the 2400 level, and approximately 2000 feet of drifting and crosscutting on that level. We expect to start sinking within the next thirty days. Hecla Mining Company, Newmont Mining Corporation and The New Jersey Zinc Company will participate equally in the financing of this project. However, Atlas will retain a 25% interest in production from the property and the remaining 75% interest will be shared equally by the three financing companies.

Lucky Friday Silver-Lead Mines Company

This company with property near Mallam, Idaho, is developing a very interesting silver-lead vein. An ore shoot 620 feet in length was recently opened on the 2000-ft. level and ore is still present in both faces. The mine is producing about 120 tons of ore per day, assaying 18 oz. of silver, 10% lead and 1% zinc. The shaft will be deepened an additional 200 feet this year.

Sunshine Mining Company

Sunshine Mining Company, generally known for its silver production, produced 4,228 tons of lead in 1951. Much of the lead production is from Rambo and Robert areas from which approximately 50% of Sunshine's 1951 total ore production was derived.

Pine Creek District

Production from the Pine Creek district is primarily zinc, although substantial quantities of lead are also being recovered by several of these companies operating in this district, including the Nabob Silver-Lead Company, Nevada-Stewart Mining Company, Sidney Mining Company, Spokane-Idaho Mining Company, Sunset Minerals, Inc., and Mascot Mines, Inc.

SOUTHERN IDAHO

The Triumph Mine at Hailey, Idaho, with a production of 3,137 tons of lead in 1951, has constructed a new mill to replace the plant burned down a couple of years ago. The Idaho-Oster has taken over the old Livingston Mine near Challis

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and is now treating substantial quantities of tailings and dump ore from this property. An aggressive development program on the property has been outlined for 1952. The Clayton Silver Mines at Challis, in addition to maintaining steady production of lead-silver ore, is at present deepening its shaft. The Paymaster Mines, Inc., a subsidiary of the Spokane-Idaho Mining Company, is actively exploring its property near Arco.

WASHINGTON

Pend Oreille Mines and Metals Company at Metaline Falls, Washington, while primarily a zinc operation, nevertheless produced 2,900 tons of lead in 1951. However, production was seriously hampered by a shortage of underground labor during the summer months and late fall. The situation has improved recently, and in February and March of this year nearly 35,000 tons of zinc-lead ore were treated each month at this property. This company has a present milling capacity of 1,400 tons per day. Construction of an additional 800-ton unit to increase the mill capacity to 2,200 tons per day is expected to be completed and in operation within the next three months.

The Reeves-MacDonald Mines, Ltd., with properties located just over the border line in Canada is controlled by Pend Oreille. This company is producing an average of 25,000 tons of zinc-lead ore per month. 3,020 tons of lead were produced in 1951 as compared to 1,910 tons in 1950.

The American Zinc-Lead Company is actively engaged in operations in the Grandview Mine in the Metaline area. ASAR, through participation with Federal Mining and Smelting Company, is constructing a new 1000-ton mill at the recently acquired Van Stone property. Anaconda Copper Mining Company is continuing its exploration in the Bonanza mine and adjacent properties. Goldfield Consolidated is mining on Deep Creek property and in the Anderson mine.

MONTANA

Montana produced approximately 21,700 tons of lead in 1951 as compared to 19,100 tons in 1950. The increase in output was due largely to the increase in tonnage of lead-zinc ore and waste and dump material mined by Anaconda Copper Mining Company from its Butte Hill properties, which comprised approximately 76% of the total output of the state. The remainder of the lead came principally from the Mike Horse mine in Lewis and Clark County and Jack White Mine in Sanders County, both of which are operated by ASAR Company.

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CONCLUSION

In conclusion, I am not at all pessimistic as to the potential future outlook on lead production insofar as the Northwest is concerned. However, increased taxes and cost of production without a compensating price increase would undoubtedly cause a decrease in production and ore reserves. When we speak of cost of production, it is very important that we include Federal income taxes.

EFFECT OF INCOME TAX ON MINE PRODUCTION

Our Sullivan Mining Company, for example, shows a net profit before taxes of approximately \$1,560,000 and a net profit after taxes of only \$2,110,000. The Government took approximately 54% of net earnings, and the company retained only 46%. Under present tax rates the retained earnings after taxes are insufficient to provide the capital needed to pay a reasonable return on investment, and at the same time provide funds required for exploration and development of new deposits to maintain or increase ore reserves. The present combined normal and surtax rate of 52%, together with a tax of 80% on what is termed "excess profits", is absolutely excessive for the mining industry and is especially burdensome to new corporations. In many cases, there is no credit whatsoever for average earnings and the invested capital credit, based on 12% of the first \$5,000,000 of invested capital, is usually an inadequate measure of normal profits.

Fortunately we have a relief provision which excludes from excess profits taxes an amount equal to one-third of the net income for new mining corporations which were not in operation during the base period (1946 to 1949). However, in my opinion, no relief provision can be written into the law that will prevent injustices which often occur to a mining operation as a result of this tax on so-called "excess profits".

Taxing agencies must remember that a mine operator is extracting a wasting asset. When the last ton of ore is mined, there can be no further production from that particular deposit. Therefore, if a mining corporation is to perpetuate its existence, a portion of the profit after taxes from each ton of ore mined from an operating mine must be set aside in a reserve or currently expended in exploration for new mineral deposits to replace the deposit being presently mined.

One other point which should be stressed to tax authorities is that the maximum profit to be realized from a particular mineral deposit cannot exceed the total tons of ore contained within that deposit (whether known or unknown) times the ultimate profit to be realized on each ton mined.

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As stated previously, most mines were operated at an accelerated rate of production during the war years and during the present defense effort. Consequently, during this period abnormal profits were realized. However, these abnormal profits are not necessarily "excess profits", illustrated as follows:

Let us assume that a certain deposit contains 100,000 tons of ore. Under present tax laws, we might escape excess profits taxes entirely if this tonnage is mined over a normal ten-year period, and on the other hand be subjected to a severe tax penalty if we mine the same deposit out in five years.

Congress is beginning to recognize that revision must be made in our Federal tax laws in order to encourage exploration and development. The 1951 Revenue Act provides for the expensing of all development costs after commercially marketable ore is discovered. The act also includes a provision that permits a taxpayer to deduct exploration costs up to but not exceeding \$75,000.00 in any one year. The limitation is applicable to the taxpayer and not to a deposit. Furthermore, after the taxpayer has taken such a deduction for four years (which need not be consecutive years), no further deduction may be taken.

I am certain that the renewed activity in exploration and development in our area during 1951 is at least partially attributable to the above revisions in our tax laws. However, I feel very strongly that the law should be further amended to permit a full write-off for all costs of exploration incurred by the taxpayer. The \$75,000.00 limitation should be removed. If this were done, I am confident that the mining industry would fulfill our domestic and military needs for base metals for many years to come.