

8-1939

Accounting for Nonferrous Metal Mining Properties and Their Depletion

Henry B. Fernald

Maurice E. Peloubet

Lewis M. Norton

Follow this and additional works at: <https://egrove.olemiss.edu/jofa>



Part of the [Accounting Commons](#)

Recommended Citation

Fernald, Henry B.; Peloubet, Maurice E.; and Norton, Lewis M. (1939) "Accounting for Nonferrous Metal Mining Properties and Their Depletion," *Journal of Accountancy*. Vol. 68: Iss. 2, Article 5.

Available at: <https://egrove.olemiss.edu/jofa/vol68/iss2/5>

This Article is brought to you for free and open access by the Archival Digital Accounting Collection at eGrove. It has been accepted for inclusion in Journal of Accountancy by an authorized editor of eGrove. For more information, please contact egrove@olemiss.edu.

Accounting for Nonferrous Metal Mining Properties and Their Depletion

BY HENRY B. FERNALD, MAURICE E. PELOUBET, AND LEWIS M. NORTON

AMONG the particular accounting problems of the mining industry are the statement of mining property in the accounts, the treatment of depletion, and the meaning and significance of the resulting statements. Because there is not a great deal written on these questions, they seem to constitute appropriate subjects for this round-table discussion.

There are several different methods, each with considerable precedent and authority, by which the mining property is commonly stated in the accounts. Since no accounting basis for the property can be expected to reflect the actual value of the property (except at the particular moment when an appraisal may be spread upon the books), it seems to the authors of this paper more important to examine the accounting methods or bases commonly used for stating the mining property and to understand their meaning than it is to argue for this or that particular method.

Accounting methods which are based on some sort of assumptions or conventions may be misleading if the assumed or conventional basis is not thoroughly understood. It is hoped that this paper will contribute something to a better understanding of certain features of mine accounting peculiar to the industry and in general use by it.

Much of what is here presented is applicable to any mining property, but because there are certain features particularly applicable to nonferrous-metal mines, this paper is presented as appli-

cable to such mines. Also, much that is here said will be applicable to mines which are owned by individuals, partnerships, or estates, but since the corporate form of ownership is the most common, the problems are here discussed from the standpoint of the corporation and its stockholders.

The corporation is a creature of law subject to the laws under which it was created and under which it operates. There is a natural presumption that the accounting will be in harmony with these laws. Therefore, the basis for stating property and the basis for stating profits of the corporation may not, in all respects, be the same as the basis would be for an estate, a partnership, or an individual. A particular feature of corporate accounting is the determination of amounts available for dividends. Since the laws generally permit dividends to be paid by a mining corporation without making a depletion deduction from profits, this has had its material effect upon mine accounting.

With this introduction, we may proceed to the discussion in more detail of certain phases of the accounting.

A. AS TO BASIS FOR STATING NONFERROUS MINING PROPERTY

I. Bases in Common Use

The following bases are in common use:

(a) Cost.

This—in theory, at least—is the basis most generally adopted. In practice it is not always easy to determine the proper cost figure.

Even if a mining property is purchased for cash and this cash cost can be stated, the question of what further

NOTE.—This paper was presented by Mr. Norton on behalf of the authors, at the round-table discussion on mine accounting of the New York State Society of Certified Public Accountants, on May 10, 1939.

expenditures for or in connection with the property are to be included as additional items in its cost almost immediately arises. There is a wide divergence of thought as to the exact items which properly should or may be so included. Often development expenditures are stated in a separate account, particularly where it is intended that they should be written off pro rata to production as part of the cost of operations. In other cases, some, at least, of the development expenditures are likely to be included in cost of the property.

Where a mine, equipped and developed, is purchased for cash, the entire amount may be treated as cost of the mine if the equipment and development expenditures are a small part of the total cost. Usually, however, the original cost or estimated present value of equipment, development, etc., will be set up in segregated accounts and the balance of the purchase price will be applied as representing the cost of the mineral deposit.

To the extent that bonds are used in the purchase of a property, they are generally considered as the equivalent of cash.

Many methods have been used in treating property acquired for capital stock, the most common of which are listed below:

1. If acquired for stock with a par value, either (a) the amount of the par value of the stock thus issued will be charged to mining-property account, with credit to the capital-stock account; or (b) the property account will be charged with an amount representing a valuation placed on the property, with credit to capital-stock account for the amount of the par value of the stock and with credit to paid-in surplus, capital surplus or other appropriately designated account, for the balance, or, possibly, (c) the property account will be charged with an amount representing a valua-

tion placed on the property, which amount being less than the par value of the stock issued therefor will necessitate a debit to discount on capital stock for the difference between the valuation placed on the property and the credit to capital-stock account for the amount of the par value of the stock.

2. If acquired for stock without par value but with an amount per share fixed by state law, by the charter, or by appropriate corporate action as the amount to be accounted for as capital of the corporation, the method of accounting may be similar to that followed for par-value stock—viz., (a) charging property account with the stated value of the stock issued, or (b) charging property account with an amount otherwise determined, with the stated value of the capital stock issued therefor credited to capital and the excess credited to an appropriately designated surplus account.
3. If acquired for stock without par value and without any fixed or required amount to be taken up as capital, then either (a) property account may be charged with a purely nominal amount, with credit either to capital or to capital and to a surplus account; or (b) property account may be charged with some valuation amount which may be credited either in whole to capital account or in part to capital and in part to surplus account.

It is not the intention in this paper to go into the many legal and regulatory questions, or questions of fact, involved in determining under what circumstances it is proper or advisable to use any of the accounting methods outlined above. An interesting article on this subject, by Frank G. Short, appeared in the May, 1939, issue of *THE JOURNAL OF ACCOUNTANCY* entitled "Accounting for the Issuance of Shares for Assets under the Decisions of the Securities and Exchange Commission."

Accounting for Nonferrous Metal Mining Properties

(b) Valuation of Property.

While the generally accepted basis for stating the balance-sheet is an accounting for property and other items on a basis of their cost, this is not conclusive and there are many valid decisions which approve or warrant the presentation of a statement which shows a valuation of the property (rather than its cost). Such valuations apparently may be as of date of acquisition or as of any other date. There are the rules and decisions which hold that an unrealized appreciation of property is not to be made a basis for dividend declarations (although this seems a question of state law, with some distinction between dividends paid in stock and dividends paid in cash). Such decisions, however, do not seem an obstruction to entry on the balance-sheet of a valuation for the property, which may be more or less than cost, so long as there is no misrepresentation of what the amount thus used represents and so long as there is no misrepresentation of resulting surplus of the corporation. Many cases in which corporate balance-sheets have stated an appraised value for property as of a certain date form a precedent which seems to lead to the conclusion that this is an accepted accounting method.

This would warrant the inclusion in the balance-sheet of the property on the basis of its March 1, 1913, valuation or on the basis of a proper valuation at any other date and would warrant using a valuation which might have been determined by the United States Treasury Department, by independent appraisers, or in any other manner which would give a reasonable basis for its inclusion, properly designated, in the balance-sheet. As a matter of fact, a large majority of mining corporations which were in existence at March 1, 1913, have such valuations reflected on their books.

It should be clearly recognized that statement of the property on the basis

of cost or statement on the basis of a valuation at some date in the past is not to be considered as any indication of its present or future value. There is no requirement that the balance-sheet of a corporation should present a statement of the actual present or prospective value of the property of the corporation. This must necessarily be a matter of judgment and opinion. Accordingly, a fundamental feature to be recognized is that the amount shown on the balance-sheet for the mining property is not to be considered as any indication of its actual present or probable future value unless definite statement is made that the balance-sheet figure does represent a present valuation of the property.

(c) A Predecessor Corporation's Basis for the Property.

Our federal income-tax law prescribes that under certain conditions the basis of a transferee for property should be the same as the basis of the transferor. Our income-tax laws may have no necessary relation to the appropriate basis for stating the accounts under state corporate laws. However, cases in which corporations have continued to state the property acquired by them in reorganization on the same basis as the property was stated by its prior owner exist in sufficient numbers to establish a precedent. Ofttimes this method is used as a convenience in handling the income-tax situation. Sometimes it is used because it is felt that the statements will be more informative to stockholders if they involve no change in basis for the property. Having in mind that we seem to have no binding legal requirement that the corporation must state property in its accounts on the basis of cost to the corporation, there seems no reason why a corporation may not properly state mining property in its balance-sheet on the basis used by a predecessor or transferor corporation provided it makes clear what that basis is.

*II. The Meaning and Significance
of the Different Bases*

Whatever basis is used has largely a historical meaning, with little or no significance as to a present investment value. It may be interesting to know whether property was purchased for cash, acquired by issuing bonds or stock, etc., but the price paid or the bonds or stock issued twenty, ten, five, or even one year ago is no reliable indication of present investment value. It may be interesting to know that at some particular date the property was considered by some person or group of persons as having a particular value, but that is no indication of what an investor today should be willing to pay for an interest in the property. The question for the investor is the amount which can be realized from the property in the future and the period of realization. This involves many considerations which do not find expression on the balance-sheet, such as nature and quantity of ore reserves, metallurgical processes and recoveries, costs, markets, competition, ability of management, taxes, tariffs, government regulations, and labor conditions. It is by the proper appraisal of these factors as they may exist over the future life of the property, rather than by any balance-sheet figure, that the wisdom of an investment is to be determined.

The balance-sheet figure for the mining property is principally important as increases or decreases in it may supplement the information given by current operating statements. If the results for any operating period are to be correctly understood, it is important to note not merely what amounts have been charged or credited to income, profit and loss, and surplus, but also the amounts of capitalized expenditures for mining property, for development or for plant and equipment, and to note the decreases in these accounts for amounts charged off, realized from sales, or the like. It is important to note

if there has been a change in basis of stating the mining property by reason of any new valuation or appraisal, and the surplus or other account affected thereby. The changes in the account from year to year have thus a far greater significance than the basis of original entry for the acquisition of the property.

However, even such changes are simply historical facts which may have no bearing whatever on the present or future value of the property. Large amounts may be spent without proving ore reserves of value. Granted that the money was spent in an honest belief or hope that the expenditure would prove worth-while, the investor's question is not what was thought when the expenditure was made, but what can reasonably be expected for the future. Undoubtedly, an ore deposit which has been properly developed is more valuable than the same deposit in an undeveloped condition, but it is the volume and character of the deposit and its present condition which are important from a present investment standpoint, and not what was paid for the deposit or what has been expended upon it.

Accordingly, the balance-sheet figures have their proper historical value as they enter into a balancing of the accounts. They are not intended and should not be considered as indications of present or future values.

**B. DEPLETION OF NONFERROUS METAL
MINES**

*I. Depletion, Depreciation and
Development*

In the nonferrous-metal mining industry three accounting terms are in common use which have to do with the amortization of mining properties and plants or other expenditures which are made to benefit operations over a long period of years. These terms are usually designated as depletion, depreciation, and development. In order to under-

Accounting for Nonferrous Metal Mining Properties

stand the essential similarities and differences between the types of amortization which they cover, it is necessary to examine thoroughly the meaning of each term. In accounting terminology an allowance for depletion may be said to represent the measure of the exhaustion of a natural resource. An allowance for depreciation represents the measure of the exhaustion of the plant and equipment used in the exploitation of such natural resource. Development represents the amortization of funds expended to explore, develop, and make available for extraction the content of the property.

Accounting charges made in connection with depletion, depreciation, and development are alike in that they all represent the amortization of assets which will have little or no value when the ore is exhausted, so that the theoretically ideal method of making such charges is to apportion to each unit of metal contained in the ore body its proportionate part of the book value of the asset, such apportionment being made on as equitable a basis as possible, giving due weight to all the circumstances such as the varying grades of ore, varying costs of extraction, and other similar factors.

However, there are several fundamental differences between depletion, depreciation, and development which should be recognized. It should always be remembered that on whatever basis calculated, depletion measures the exhaustion of the ore itself. It is in no way a cost of extraction. Both depreciation and development represent the amortization of expenditures made for the extraction and treatment of such ore. They are almost universally (and should be) included in the cost of the product, which cost includes the entire cost of extraction and treatment of the metals.

The book value of mines may be stated on many different bases, but even if this book value represents cash

cost (which is somewhat infrequent) this cash cost is a speculative cost. For a large proportion of mines there is no method of knowing, when they are purchased or change hands, what the true value of the ore may be. This speculative cost seldom has any relation to general price levels, which are based on the cost of labor, supplies, etc. The natural resource itself is not the work of man and no element of labor enters into its value. On the other hand, the cost of plant and equipment purchased for a mine has a value relative to that of equipment purchased for any other mine and has a very definite relationship to the cost of producing equipment, including such items as labor and supplies. The book value of the mine may have been based on the cost of acquiring the property many years ago when only a fractional part of the ore actually in the mine had yet been discovered, and it may represent only a small part of its true present-day value. This is one of the fundamental reasons why depreciation rates for nonferrous-metal mines, while varying to a considerable extent, can usually be found to be within a reasonably close range, while depletion rates vary from almost nothing to substantial amounts.

Another difference is that depletion can take place only when and if ore is extracted, while depreciation may take place whether or not the mine is operated. Many mines which are in operation today have been idle for decades. Some of these mines are centuries old and have been operated off and on by numerous different groups of people, but with many years intervening between the various operations. Each time operations have been started again, new plants have usually had to be built.

A further distinction between depletion and depreciation, which is practical rather than theoretical, is that in a mine with a long life the plant and equipment are constantly being re-

placed and any errors in depreciation rates tend to be corrected when such replacements take place. The mine itself is never replaced, however, and there is no automatic way of correcting faulty depletion rates.

Still another difference between depletion and depreciation lies in the fact that the original valuation of a mine applies to all the ore contained in the property whether or not such ore is known to exist, whereas the value placed on plant and equipment is applicable to specific known plant actually existing. If large discoveries of additional ore are made in a property, which were not known to exist when the plant was built, it is in many cases necessary either to build new plants or to replace and add to the present plants in order to extract such ore. This emphasizes again that, while depreciation rates usually cannot be accurately computed for a mine property, the margin of possible error is comparable in no way with the error which may exist in the original depletion rates.

II. Purposes Served by Reflection of Depletion in the Accounts

There is and must be general recognition that mining properties are subject to eventual exhaustion even though additional ores may be discovered or developed. Each unit of mineral which is sold does carry with it some element of the cost of the mining deposit. The difficulty is in determining the amount of such cost which should properly be considered as the return of capital in determining the true income realized from sales of product.

When depletion is reflected in the financial accounts, an attempt is being made to record this using up of the mineral deposits. If the actual depletion sustained could be measured, the reflection of this depletion in the accounts would result, from a balance-sheet point of view, in showing what portion of the book value of mining properties

has been exhausted to date. The charge to income or surplus would measure the portion of the net proceeds received which represents the return of the capital expended by the corporation for the mining property, and the balance remaining in the surplus account after such charges would be useful in measuring the portion of distributions made to stockholders which, from the corporation's point of view, are in the nature of the return of the original capital invested by the stockholders. In this respect, however, it is of the utmost importance to recognize that no basis which is used in the corporate accounts, either for the determination of net income after depletion or for the allocation of distributions, would, in all probability have any real relation to the position of an individual stockholder. The stockholder who happened to purchase his stock at par when the corporation was organized (assuming that the corporation had not changed its method of valuing its mining properties from the time of its organization) might consider the entries on the corporation's books to be an indication of the depletion which would be ratably applicable to his own investment in the stock, and he might consider that the allocation of distributions made on the basis of these entries was applicable in determining what portion of any distributions received by him represented a return of his original investment and what portion represented earnings. Rarely, however, would a stockholder be in this position. In general, the stockholders of a mining company will have their various bases for the investments which they have made in the stock of the corporation, which bases will not usually be the same as that of other stockholders or the corporation itself. Obviously, the basis for depletion with respect to the capital invested in a share of stock which had cost \$10 would not be the same as in the case of a share of stock in the same company

which had cost \$100. For example, a corporation may be carrying the mining property in its accounts at an amount equivalent to \$10 a share. If the corporation also had the equivalent of \$10 a share net in other assets the stockholder who had paid \$10 a share for his stock would have no occasion to consider that his investment represented any cost to him for his equity in the mining property, and consequently he would not have occasion to be concerned with a depletion allowance so far as his investment is concerned. The man who paid \$100 a share for his stock could figure that \$10 a share of that represented other assets and that \$90 a share represented what he had paid for his interest in the mining property. The amount of depletion that the corporation was deducting on the basis of its book figure for the property of \$10 a share would have no relation to the \$90 a share of that stockholder.

As previously noted, the value of a mining property depends not merely on the volume of its ore reserves, but also on future prices for its products, future costs, and future scale of operations. A large volume of ore reserves might have no value at a seven-cent price for copper, but might be immensely valuable at a fourteen-cent price for copper. The man who believes the prospects for the future are for a low price for products, a high cost or low volume of production, so that no real present value should be attached to the mining property, should consider that every dollar of the present yield on the mine, regardless of how it may be designated on the books, represents to him individually simply a return of his investment unless his investment is so low that it reflects no value for the mine. At the same time, the stockholder who believes in high prices for the future, low operating costs, high volume of production, etc., may consider that but little of the present return represents a capital item and

that he can consider the yield as representing entirely a gain or profit to himself. Neither the accountants who certify the statements of the corporation nor the corporation officials can properly take the responsibility of attempting to foretell these future trends, thus advising the stockholders of what they should consider to be the value of the mining property and the consequent depletion, if any, which they should deduct. Intelligent mining investors generally recognize this situation and expect to make their own computations and do not accept some purely nominal amount or an amount determined as of some long preceding date as constituting a measure of actual depletion. In fact, many investors, if the company does include a deduction for depletion in its statement, will proceed forthwith to add this back so as to have a statement of the income from operation without deduction for depletion. Neither the stockholder nor the prospective investor is particularly interested in historical information, and they are not interested in the amount of depletion accumulated to date or the quantities of ore which may have been removed during the life of the enterprise. They are vitally interested in the amount of ore remaining and the possibilities of mining such ore profitably. This is information which cannot ordinarily be reflected in the accounts of a corporation and for such knowledge the stockholder or investor must rely on information which may be published outside of the financial accounts.

Nor has a depletion figure any significance from an operating point of view. The operator who must decide whether or not his costs will warrant him in operating a property considers only what he must pay out, and if it is less than the price he receives for his ores or metals, the mine will be operated. If the margin is sufficient also to cover the return of the investment in the mine as measured by depletion, well and good,

but if not, the mine will nevertheless be operated. The mine operator knows with a reasonable degree of accuracy what his cost of extraction is, and this cost in relation to the selling price of the product will determine his operating policy. This is also true when the operator of several ore bodies is deciding the question of which ore body can most advantageously be mined. All other conditions being equal, a property having eight-cent costs a pound of copper will be operated in preference to one having nine-cent costs. The fact that the depletion rate might be four cents a pound on the first property and only one cent a pound on the second property would in no way change this decision. On an eleven-cent copper market the net income before depletion will be at the rate of three cents a pound in the first case and two cents a pound in the second case. It makes no difference to the operator that a net loss after depletion might be shown in the first case compared with a profit of one cent a pound in the second case.

III. Effect of Valuation on Amount of Depletion Charge

In the great majority of mining companies the principal properties are acquired by the issuance of capital stock. Where depletion is computed on the basis of properties so acquired, the general range in rate will, of necessity, be based on an arbitrary decision at some particular time as to the value to be placed on the property, and in a great many cases such arbitrary decision will have to be made when little or no information is available concerning the property. Thus if a board of directors of a new mining corporation with excellent prospects valued the property at \$200,000, the depletion rate would be only one-fifth as high as if another board of directors, more optimistically inclined, had valued the same property at \$1,000,000. And yet the facts do not differ; the judgment of individuals dif-

fers. Under certain circumstances either valuation may have been proper at the time. A mere difference of opinion concerning any one of the factors entering into such a valuation could account for such divergent views. Assume that after five years' operations the mine had proved to be successful and that based on a valuation made by a competent engineer as of January 1, 1937, it was considered to have a remaining value of about \$2,000,000. Assume also that the company removed one-fifth of the ore remaining at that date during the year 1937. If the usual methods of amortizing fixed assets in general are used in the accounts, the net income for the year 1937, after depletion, will be materially greater if the original directors of the enterprise were conservatively minded and the depletion charge is consequently low. The facts are, however, that one-fifth of the total value remaining on hand at the beginning of 1937 was used up during the year 1937 and that the actual decline in value during the year, due to the extraction of ore, was approximately \$400,000, all other factors being unchanged. If the facts could be determined, information of this character would be useful to a stockholder, but in order to record such information in the company's accounts it would be necessary to continually revalue the properties to reflect such facts as new discoveries of ore, changes in metal prices, costs, etc. The discrepancies between these frequent revaluations would in all probability be large and the introduction of such adjustments into the surplus account of the company, where they would presumably be made, could only result in confusion.

IV. Determination of the Amount of Depletion

We have so far dealt with the usefulness of depletion calculations, assuming that reasonably accurate figures can be arrived at. Let us now examine some of the problems which arise in any attempt

to compute the amount of depletion which actually takes place. Assuming for the moment that it is desirable to deduct depletion in the accounts, it is obvious that the accountant is in no position to determine, on the basis of his own knowledge and experience, the amount which should be deducted. This rests entirely on technical and economic considerations.

The technical considerations are:

1. The recoverable content of the ore body or bodies.
2. The extent of the deposit.
3. Geological formations of the particular mine and of the district.
4. The method of mining.
5. The method of reduction and refining.

The economic considerations are:

1. The selling price of the metal over the period of the mine's life.
2. The corresponding costs of mining, reduction, and refining.

The possibility of determining the extent of an ore body and the recoverable metals contained therein, even with the aid of the most experienced engineers and geologists, varies greatly between different properties. This can sometimes be determined with a fair degree of accuracy. The extent of deposits of alluvial gold suitable for dredging operations can usually be determined fairly accurately, as can deposits of low-grade ore of various kinds which can be mined by stripping or open-cut methods. Properties of this sort, however, while they include several important mines, do not form the majority of the mineral deposits of the country. Nonferrous metals which occur in comparatively small veins running through hard rock or similar material present great difficulties to the geologist or engineer who wishes to estimate accurately the total content and extent of a mining property. The usual mining practice in such properties is to develop only a comparatively

small amount of ore in advance of current operations, a few months' supply or, at most, a year or two. It may be almost as expensive to explore thoroughly ore bodies of this type as it is to mine them, and such advance exploratory work may be of little value in decreasing mining costs when commercial mining is begun. The life of the mine may, of course, be generally indicated by the geological structure of the district, but in properties of this sort it is impossible as a rule to anticipate the results of geological faults or other subsurface disturbances which may cause veins to be lost and may involve the expenditure of much time and money before they are again found and worked. There is also the probability that the ore will vary in quantity or content as the vein is explored. For these reasons responsible geologists and engineers frequently will not give definite estimates of the life of a mine or the extent of an ore body but will confine themselves to stating such facts as are known to them.

The mining industry is one in which methods are being constantly studied and improved by skilled engineers. An ore body which a few years ago might have been of little value may now be a desirable property by reason of improved and cheapened mining methods. The same is true of methods of reduction and refining. Many of the largest mines in the world were not and could not have been worked twenty-five or thirty years ago when present methods had not been developed.

The economic factors which affect the value of ore reserves and which to a large extent determine whether a given ore body may or may not be put in operation are the price of metals and the cost of extraction.

If, in an individual property, costs increase for some special reason connected with the property, such as added mining expense at greater depths, added expense for water or similar

causes, it is quite possible that a property containing substantial amounts of ore would have to be abandoned or the available ore reserves would be reduced. On the other hand, unexpected favorable factors might increase the extent of the available ore reserves by bringing into production ore bodies formerly thought to be unworkable.

In the face of all these conditions, the accountant who wishes to persuade his client that depletion should be reflected in the accounts may be confronted by a statement from the client's officials, engineers, and geologists that any figure for depletion which has a reasonable claim to accuracy is impossible of determination. In many cases in which depletion is deducted, the accountant finds himself in quite as uncomfortable a position, because he has definite knowledge that the amount so deducted cannot possibly represent anything more than an arbitrary provision which may be based either on facts or factors now thought to be untrue or on estimates which cannot be properly supported and which the accountant's past experience leads him to regard with considerable skepticism.

V. Legal Requirements

The situation in the mining industry is quite different from that in manufacturing and other industries which do not exploit wasting assets and this has long been recognized under corporation laws. In general our corporation laws have placed mining and other wasting-asset industries in a particular class and have held that the ordinary rules applicable to payment of dividends to stockholders which may result in impairment of capital do not apply to the wasting-asset industries. The basis for the general rule seems to be that stockholders and creditors are entitled to have the capital of the corporation maintained without impairment by reason of distributions of dividends to stockholders although capital may be

reduced by proper formal action. As to mining and other wasting-asset industries, over many years court decisions have reflected the general position that creditors of and investors in mines must recognize that in their nature the disposal of their product involves the wasting of assets and that therefore there is not the same occasion for safeguards as exists in the usual corporation. Decisions have further held that the stockholders are entitled to have the proceeds distributed to them as realized, without retention of amounts necessary for replacement of capital. There may be qualifications and exceptions to these general rules, but there have been enough of these decisions over a long period of years to give warrant for the statement of a mining corporation's accounts without allowance for depletion.

VI. Accounting Practices

Many corporations engaged in the mining of nonferrous metals present their financial accounts without the deduction of any charge for depletion of mining properties. This practice has been followed for a sufficient length of time and by a sufficiently large proportion of those engaged in the mining of nonferrous metals so that it must be considered as an "accepted accounting practice" in the industry. The primary reasons for the adoption of this practice are set forth at some length in the foregoing discussion and may be summarized as follows:

1. Information sufficient for the calculation of a depletion charge with reasonable accuracy does not, in many cases, exist.
2. It is frequently impossible to make a valuation which can be used throughout the life of the property as a reasonable basis for the making of a depletion charge.
3. There is no legal requirement that such a deduction should be made.

On the other hand, there are a suf-

Accounting for Nonferrous Metal Mining Properties

ficient number of companies operating in the industry which make a deduction for depletion in their accounts so that this method must also be considered an "accepted accounting practice." If the depletion so reflected is based on the cost of mining properties and can be reasonably accurately determined and if the so-called cost of the property represents a reasonable valuation as of the date of acquisition, the resulting charge theoretically should be made against income. If the depletion figures represent an amount based on income-tax valuations or based on incomplete knowledge of the facts or on appreciated property values, there is much to be said for making the charge directly to surplus, as such a charge can at best be only a general provision for amortization, the amount properly applicable to the operations of any particular year not being determinable.

Those responsible for the accounts and published reports of mining companies are faced with the necessity of choosing between the policy of stating the accounts without the deduction of any depletion, or of reflecting figures in the accounts which in many cases may be based on unsupported estimates which may eventually prove to have little or no relation to actual facts. The choice between these two methods would probably depend to a large extent on the circumstances existing in each particular case. In either case, in order to avoid any possible misunderstanding on the part of the reader of the financial statements and because of the importance of the matter, financial statements should carry as an explanation a concise summary of the methods used in computing depletion or, if no depletion is deducted, a statement of that fact. There may be question whether this can be done in a footnote to the statements themselves or whether it should be included in the accountants' certificate.

When depletion is deducted in the

accounts, the amount thereof, if material, should always be shown as a separate figure and should not be combined with depreciation or any other item. Also it is usually preferable to state such depletion as the last deduction in the income account, so that the net income before depletion is readily available to the reader. It is with this net income, before depletion, that both the stockholder and the prospective investor is concerned. Net income, after depletion, will seldom be a figure which can safely be used in making an equitable comparison of the results of a single enterprise in different accounting periods or of the results of different enterprises.

It may be of interest to note several methods of handling depletion which have been used or suggested in addition to the two basic methods of accounting heretofore referred to—that is, the making of a depletion charge based on units extracted or sold or the omission of any depletion charge. Some of these methods are as follows:

1. Mining properties might be carried in the balance-sheet at purely nominal figures so that there is no need for any depletion deduction.
2. In cases where there is no reasonable basis for the determination of depletion, depletion might be written off in arbitrary round amounts as determined by the board of directors, which amounts would not even purport to represent actual facts.
3. Some form of percentage depletion might be used—that is, a proportionate part of the profits of each accounting period or of the gross proceeds might be set aside as a general provision for amortization of mining properties. Here again it would be of the utmost importance that the accounts be worded so that the fact would be made plain that neither in relation to the balance-sheet, income, or surplus account, as the case might be, would the method used purport to represent actual facts.

In general, the omission or reflection of depletion in the accounts of a corporation has no effect on any accounts other than fixed assets and surplus. There is one other account, however, which may be affected by the depletion policy, as depletion sometimes is included in the cost of production used for the purpose of valuing inventories. While it is recognized that each unit of metal extracted does carry with it some element of the cost of the mining deposits, the impracticability of determining the amount of such cost and in many instances the arbitrary nature of the valuation on which such cost is based raises a question as to the desirability of following such practice.

CONCLUSION

The following may be summarized as the major points for consideration with respect to the accounting for mining property:

1. The mining property may be stated in the accounts on varying bases, depending much on manner and time of acquisition, applicable state laws, etc. The outstanding point is that the book basis thus set forth is not to be considered as representing at any subsequent date the then value of mining property. This is true regardless of whether the book figure is stated with or without depletion deductions. The present value of the mining property is not to be determined from the accounting statement.
2. If depletion is reflected in the accounts, it is subject to all the considerations above set forth with respect to a determination of the present value of the property. The amount which in fact exists at any time to be recovered from the future operations of the property is not the amount shown by an accounting statement of an original basis for the property less depletion allowances to date, but is the present value of the property determined by a proper present valuation.
3. Depletion may or may not be reflected in the accounting statements. There is precedent for either method. In either case it is essential that the facts regarding the corporation's depletion policy be clearly set forth in the financial statements because of the material effect which this policy may have on the company's accounts. If depletion is deducted in the accounts under such conditions that the amount sustained is not determinable with reasonable accuracy (which is frequently the case), the arbitrary and uncertain basis of the charge should be clearly pointed out in the statements.