

*The Minerals Depletion Allowance*

*It was a western truism that more money was made from selling mines than from buying them, just as it was accepted that many a good mine had been spoiled by working it*  
from R. E. White, "The Mining Town,"  
*Alta California* August 18. 1873

INTRODUCTION

One of the most important aspects of mineral enterprises of US corporations is the influence of the depletion allowance on cash flow. This allowance permits mineral producers to claim sizable federal income tax deductions not available to other industries, and these deductions significantly increase cash flows in mining. In the past several years the minerals depletion allowance has come under increasingly heavy fire from many sectors as a tax loophole that deprives the federal government of large amounts of revenue. One estimate of the loss of tax dollars in 1968 was 52.25 billion due to depletion deductions and intangible expenses in the oil industry. Largely on the basis of such arguments, the Tax Reform Act of 1969 reduced percentage depletion rates for a number of minerals, and the Tax Reduction Act of 1975 totally eliminated statutory depletion for most oil and gas. In regard to percentage depletion for hard minerals, the federal government has estimated its resulting loss of revenue at \$1.75 billion for 1980. The TEFRA legislation of 1982 further reduced the statutory depletion allowance available to iron ore, coal and lignite beginning in 1984. Thus, it is clear that minerals engineers and managers should have a thorough knowledge of the origin, evolution, justification, and computational procedures relating to the depletion allowance.

ORIGIN AND EVOLUTION OF THE DEPLETION ALLOWANCE

While two temporary federal income tax acts were passed prior to 1900, the Corporate Franchise Act of 1909 marks the beginning of continuous corporate income taxation in this country. This act levied a corporation franchise tax of 1% on net income. Definitions of gross income, net income, allowable deductions and other critical items were not clear, however, which resulted in considerable confusion.

A group of metal miners were among the first to challenge the Act, contending that they were entitled, on constitutional grounds, to a tax deduction to recover their investments in mining properties (i.e., a depletion allowance). The Corporate Franchise Act of 1909 carried no such provision. The miners argued that if they were unable to recover their investments solely due to federal taxation, this would amount to unconstitutional confiscation. Although the Supreme Court ruled against the miners at that time, the first general Revenue Act of 1913, and each of the over 25 federal income tax acts since then, have contained provisions for depletion of wasting assets.

The Revenue Act of 1913 limited annual depletion deductions to 5% of the gross value of the minerals produced at the mine site. This was modified by the Revenue Act of 1916 to permit depletion charges up to the larger of (1) the capital invested in the property or (2) its fair market value on Mar. 1, 1913, the date of the first income tax act.

A major change was included in the Revenue Act of 1918 by permitting discovery *value*, rather than discovery *cost*, as the limit to depletion deductions. This act established the fair market price of new discoveries as the upper limit on total depletion deductions. While many arguments were offered in support of this change, the most defensible is that past discovery costs are frequently poor indicators of what future discovery costs will be when the original deposit is exhausted and a replacement is needed. This cost escalation is due to the disappearance of high grade and/or easily located deposits, and is entirely separate from the inflationary cost increases that prevent any indus-

try from recovering replacement costs through depreciation. In this 1918 act, then, the right of (and justification for) permitting depletion recoveries in excess of capital costs first appears.

To eliminate alleged tax loopholes, the Revenue Act of 1922 limited discovery value depletion to the net income from the property, and a similar act in 1924 further restricted deductions to 50% of net income from the property.

As might be suspected, discovery value proved to be a very elusive quantity as anyone who works in the area of mineral property valuation can testify. Therefore, bearing the standard of computational simplicity, percentage depletion first made its appearance in the Revenue Act of 1926. At that time, the 27.5% depletion allowance was accorded to oil and gas producers, whereby annual depletion charges to oil and gas producers were limited to 27.5% of gross income or 50% of pretax net income calculated without depletion, whichever is smaller. Discovery value depletion remained applicable to mines until 1932. In determining the percentage depletion rate for oil and gas, a comprehensive study was made of depletion charges granted to these producers in the years immediately preceding 1926. It was concluded that depletion deductions had been averaging 32% of gross income from a barrel of crude. With this guideline, the Senate recommended a 30% depletion rate, but subsequently compromised with the House, which had recommended a 25% rate.

Percentage depletion was first extended to mining in 1932 at the following rates:

Metal mines	15%
Sulfur	23%
Coal	5%

All deductions were (and still are) limited to 50% of net income before depletion. Note also that the number of mineral commodities named in the 1932 act was quite limited. Since that time, the list of minerals covered by depletion legislation has grown considerably, particularly during and shortly after World War II when the production incentive argument for national-security was particularly strong. Table 1 lists percentage depletion rates for many common minerals for both domestic and foreign production. Since 1954, percentage depletion has been applicable to all minerals except those derived from inexhaustible sources such as air.

Table 1. Percentage Depletion Rates\*

Mineral	Percentage rate	
	Domestic	Foreign
Antimony	22	14
Arsenic	14	14
Asbestos	22	10
Barite	14	14
Bauxite	22	14
Beryllium	22	14
Bismuth	22	14
Boron (borax)	14	14
Bromine (brine wells)	5	5
Cadmium	22	14
Cesium	14	14
Chromium	22	14
Clays:		
Kaolin, ball clay bentonite, fuller's earth, and fire clay	14	14
Clay and shale for sewer pipe or brick, and lightweight aggregates	7.5	7.5
Clay for alumina or aluminum compounds	14	14

Clay for drainage and roofing tile, etc.	5	5
Coal	10	10
Cobalt	22	14
Columbium	22	14
Copper	15	14
Corundum	22	14
Diamond (industrial)	14	14
Diatomite	14	14
Feldspar	14	14
Fluorspar	22	14
Garnet	14	14
Gemstones	14	14
Germanium	14	14
Gold	15	14
Graphite	22	14
Gypsum	14	14
Hafnium	22	14
Ilmenite	14	14
Indium	14	14
Iodine	14	14
Iron ore	15	14
Kyanite	22	14
Lead	22	14
Lignite	10	10
Lithium	22	14
Magnesium and magnesium compounds:		
Brucite	10	10
Dolomite and magnesium carbonate	14	14
Magnesium chloride	5	5
Olivine	2	14
Manganese	22	14
Mercury	22	14
Mica:		
Scrap and flake	22	14
Sheet	22	14
Molybdenum	22	14
Nickel	22	14
Oil Shale	15	15
Peat	5	5
Perlite	10	10
Phosphate rock	14	14
Platinum-group metals	22	14
Potash	14	14
Pumice	5	5
Quartz crystal, electronic grade	22	14
Rare-earth minerals and yttrium:		
Monazite	22	14
Other	14	14
Rhenium	14	14
Rubidium	14	14
Rutile	22	14
Salt (sodium chloride)	10	10
Sand and gravel:		

Common varieties	5	5
Quartz sand or pebbles	14	14
Selenium	14	14
Silicon:		
Quartzite	14	14
Gravel	5	5
Silver	15	14
Sodium carbonate	14	14
Sodium sulfate	14	14
Stone:		
For riprap, ballast, road material, etc.	5	5
Other	14	14
Strontium	22	14
Sulfur	22	22
Talc:		
Block steatite	22	14
Other	14	14
Tantalum	22	14
Tellurium	14	14
Thallium	14	14
Thorium	22	14
Tin	22	14
Tungsten	22	14
Uranium	22	22
Vanadium	22	14
Vermiculite	14	14
Zinc	22	14
Zirconium	22	14

Adapted from Yasnowski and Graham, 1980.

Critics of the depletion allowance mounted a substantial assault with the Tax Reduction Act of 1969 and with the Tax Reduction Act of 1975. The most notable change was the reduction to 22% (in 1969) for oil and gas, and its elimination for major producers altogether in 1975 ironically, at the peak of the OPEC oil embargo. In 1969, sulfur, uranium, domestically produced molybdenum, lead, zinc, and a host of minor metals went from 23% to 22%. Copper, gold, silver, and iron remained at 15% except for foreign production, which dropped to 14%. Coal remained at 10% while many industrial minerals dropped from 15 to 7.5. Among commodities of particular current interest are oil shale (15%) and certain geothermal steam production, which is being gradually reduced from 22 to 15% by 1984. In 1982, TEFRA reduced percentage depletion allowances for coal, iron ore, and lignite by 15% of the excess of percentage depletion over the adjusted basis of the property. This change was to take effect in 1984. All depletion reductions are still limited to 50% of net income.