Chapter 6
Oil Depletion Allowance

ABSTRACT

The Oil Depletion Allowance projects the income for an oil company that made a $10 million investment in land that is estimated to have approximately 625,000 barrels of oil. The drilling will be done over the next 5 years. The model is the oil depletion allowance, which can be deducted from net income for tax purposes. In each year, the depletion allowance is the larger of two quantities: (1) $16 per barrel of oil recovered, where this $16 is calculated as the unit investment cost per barrel ($10 million divided by the estimated 625,000 Barrel reserve), and (2) 22% of gross revenue up to a maximum of 35% of net income. The tornado chart shown on the last sheet indicates that the mean NPV is most sensitive to the number of barrels recovered in year 1, but all the uncertain inputs have a fairly large effect on mean NPV.

INTRODUCTION

Oil Depletion

Depletion is an accrual accounting technique used to allocate the cost of extracting natural resources such as timber, minerals, and oil from the earth.

Like depreciation and amortisation, depletion is a non-cash expense that lowers the cost value of an asset incrementally through scheduled charges to income. Where depletion differs is that it refers to the gradual

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exhaustion of natural resource reserves, as opposed to the wearing out of depreciable assets or the aging life of intangibles.

Depletion for accounting and financial reporting purposes is meant to assist in accurately identifying the value of the assets on the balance sheet and recording expenses in the appropriate period on the income statement.

When the costs associated with natural resource extraction have been capitalised, the expenses are systematically allocated across different periods based on the resources extracted. The costs are held on the balance sheet until expense recognition occurs.

- Depletion is an accrual accounting method used to allocate the cost of extracting natural resources such as timber, minerals, and oil from the earth.
- When the costs associated with natural resource extraction have been capitalized, the expenses are systematically allocated across different periods based on the resources extracted.
- There are two basic forms of depletion allowance: percentage depletion and cost depletion.

To calculate what expenses, need to be spread out for the use of natural resources, each different phase of production must be taken into consideration. The depletion base is the capitalized costs depleted across multiple accounting periods. Four main factors affect the depletion base:

- *Acquisition*: Costs associated with purchasing or leasing the property rights to land that the company believes has natural resources.
- *Exploration*: Expenses linked to digging under the land that was leased or bought.
- *Development*: The costs necessary to prepare the land for natural resource extraction, such as tunnelling or developing wells.
- *Restoration*: Expenses associated with restoring the land to its original condition after completion.

One method of calculating depletion expense is the percentage depletion method. It assigns a fixed percentage to gross revenue—sales minus costs—to allocate expenses. For example, if $10 million of oil is extracted

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