



OIL AND TERMINOLOGIES

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Course : Oil and Gas
Accounting

Course Code: ACC 404

Learning Objective

In this section, students are expected to learn basic terminologies in oil and gas accounting. This is because oil and gas sector is different and distinct from other sectors like manufacturing, services and financial sector.

These terminologies will aid student's understanding the peculiarities of oil and gas sector and its accounting treatment.

Week 2: Oil and Gas Terminologies

1. Royalty Interest:

This is a share of production or revenue that is paid to the mineral owner or government. In KRG, all oil and gas companies paid 10% of the total oil produced.

2. Cost Oil: The share of production allocated to the operator according to a production-sharing contract to pay for certain exploration costs. In Kurdistan, the operators are entitled to a maximum of 40% of the oil produced.

Week 2: Oil and Gas Terminologies

3. **Reserves:** The estimated amount of oil and gas that can be recovered from a property.
4. **Commercial Well:** Is a term for a well that has production in paying quantities or production in commercial quantities.
5. **Dry Hole:** a Well drilled to produce Hydrocarbons that does not yield Production in Paying Quantities.

Week 2: Oil and Gas Terminologies

6. **Asset Retirement Obligation (ARO):** The estimated cost of dismantling, removing, and restoring an oil and gas asset at the end of its useful life.

7. **Net Revenue Interest (NRI):** The percentage of revenue received from the sale of oil and gas after royalty payments and other expenses.

Week 2: Oil and Gas Terminologies

8. Joint Operating Agreement (JOA): An agreement between two or more parties that outlines the terms and responsibilities for the exploration, development, and operation of an oil and gas property.

Oil and Gas Terminologies Cont

10. Production Sharing Agreement (PSA): An agreement between a company and a government that specifies the terms of sharing profits from oil and gas production.

11. Lease Operating Expense (LOE): The expenses incurred in operating a well, such as labor, equipment, maintenance, and repairs.

Week 2: Oil and Gas Terminologies

12. **Depreciation** is associated to a decrease in the values of physical or tangible assets.
13. **Depletion**: The reduction in the value of natural assets over time due to extraction or use.
14. **Amortization** is associated with the expiration of the cost of intangible assets. The most commonly used method of computing amortization of oil and gas properties is the “unit of production” method

Calculation of Amortization

- The formula for the unit of amortization method is:
- $(C - AD - S) P/ R$
- Where: C= Capital cost of equipment
- AD= Accumulated DD&A
- S= Salvage Value
- P= Production during the year (in barrels)
- R= Reserves remaining at the beginning of the year

An alternative form of the above formula is:

$$\frac{\text{Production for the period}}{\text{Reserves at beginning of period}} \times \text{Unamortized cost at the end of period}$$

Question One

Tishk Petroleum Company had the following data at the end of its financial year, ending 31st December 2023. You are required to calculate the DD&A for that year.

- Capitalized cost at the end of year \$1,700,000
- Accumulated amortization \$100,000
- Reserves estimate at the beginning of the year 5,000,000 bbls
- Production during the year 250,000 bbls

Solution to Question One

Amortization would be calculated as follows:

$$\frac{250,000 \text{ bbls}}{5,000,000 \text{ bbls}} \times (1,700,000 - 100,000) = \$80,000$$

Question 2

Kabuga Petroleum Company PLC had the following data at end of its financial year ended 31st December, 2021. You are required to calculate the DD&A for that year.

- Capitalized cost at end of the year \$1,700,000
- Accumulated amortization in prior years \$100,000
- Reserves estimate at the beginning of the year 5,000,000 bbls
- Production during the year 250,000 bbls
- Reserves estimate at the end of the year 4,000,000 bbls

Question 3

Grade 4 Oil and Gas Company had the following data at end of its financial year ended 31st December, 2023. You are required to calculate the DD&A for that year.

- Capitalized cost at end of the year \$3,400,000
- Accumulated amortization in prior years \$200,000
- Production during the year 500,000 bbls
- Reserves estimate at the end of the year 8,000,000 bbls

Solution to Question 2

DD&A = Production during the year X Unamortized cost (year end)

- [Reserves estimate (year end) + Production during the year]
- $DD\&A = \frac{500,000}{8,500,000} (3,400,000 - 200,000)$
- $8,000,000 + 500,000$

$$\frac{500,000}{8,500,000} \times 3,200,000 = \$ 188,235$$