

Management And Financial Accounting In Oil and Gas Upstream Industry.

Acquisition, Exploratory, development and decommissioning Costs under GAAP, IFRS and Production Sharing Contracts

Hamdy Rashed, CMA; CAPM

Bsc of Accounting, E-mail: rashed.hamdy@gmail.com,

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Abstract

We discussed in this paper how the accountant and management can differentiate the exploratory and development oil/gas wells depending on U.S GAAP or IFRS and Production Sharing Contracts and management's decisions. We include the Production Sharing Contract to identify the criteria of separating exploratory wells from development well in accounting records. Many Oil and Gas Companies depend on technical management studies and decisions, it is correct but PSC should be considered too. Also, we browse the criteria of capitalizing and expending the petroleum costs.

Keywords: Exploratory wells, Development wells, Appraisal wells, difference between exploratory and development wells

The petroleum accountant knows what the costs that should be capitalized or expensed are but non-petroleum accountant does not know them. We like to brief the criteria of capitalizing and expending the petroleum costs by US GAAP (including US Taxation), IFRS and Production Sharing Contract (PSC). A lot of us know that in US GAAP capitalize the following costs.

- 1- Acquisition Costs is recognized as intangible costs
- 2- Development Costs should be split into tangible and intangible
 - a. Development Well Costs
 - b. Facility Costs
- 3- Decommissioning Costs

And the following costs are expensed when they are incurred

- 1- Geological and Geophysical (G&G) cost is recognized as intangible expense
- 2- Exploratory dry well costs is recognized as intangible expensed
- 3- Operating Costs

However, the G&G costs is expensed based on FAS 69 except for specific well, but U.S taxation allow Oil and Gas Companies to capitalize the G&G costs that are incurred for acquiring the license. Therefore,

Oil and Gas Companies that are listed in Stock market in U.S can capitalize the G&G costs that are incurred before signing PSC and for acquiring the license for tax purpose. In UK GAAP, SORP, Oil and Gas Companies allow to capitalize G&G costs before signing PSC or legally acquiring the license if the G&G activities are directed to specific identified geological structure. If not, it should be expensed. IFRS 6 does not cover such issue

The preliminary Schedule of petroleum Costs

	Office Cost	Exploration Costs	Legal/Broker's costs	PSC Signature Bonus	Date of sign PSC	After Date of Sign PSC	Exploration Activities	Date of Commercial Discoveries	Development Activities	Long-term Production Test	Date of first Production	Production Activities	When the period of time start to compute rehabilitation per PSC, or	When the well start being uneconomically, whichever is earlier
Acquisition Cost														
Exploration Costs														
Development Costs														
Operating Costs														
Decommissioning Costs														

There is no argument or different practices for signature bonuses that is paid based on PSC, the signature bonus is part of acquisition costs but for the annual bonuses that are stated in many international PSCs, there are different practices of how to be presented. Some companies may record it as acquisition costs because it is related to entitlements to host government for maintaining Company's right to continue acquiring the license, and it is neither related to exploration activities, development activities or even production activities, additionally, the UK GAAP include the lease bonuses in the definition of "License Acquisition Costs" but does not identify either signature bonus only or annual bonus payments. And some other companies may prefer to expense them along with exploration costs for exploration license and capitalize them as development costs for development license.

Regard to production bonus that is paid by International Oil Companies to host government within specific period of date announcement of production, this production bonus is more appropriate to be expensed in operating costs.

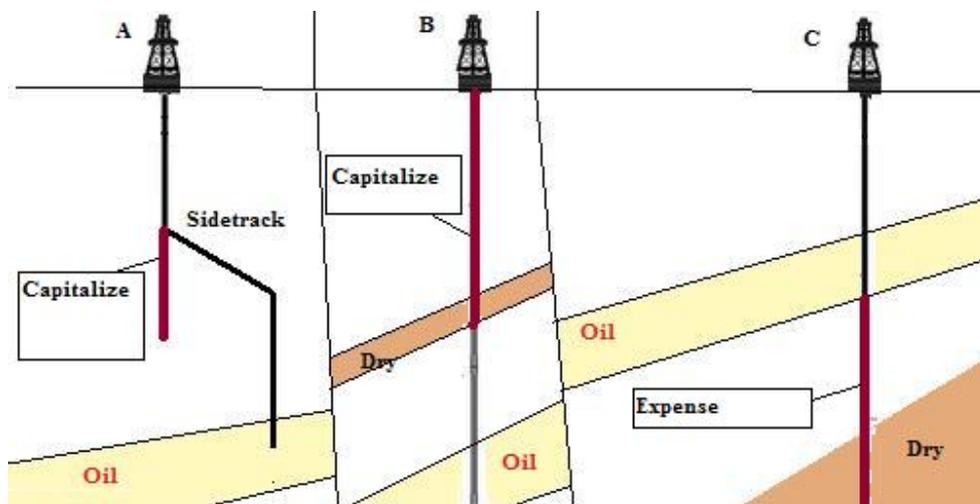
The net profit of long-term production test might be required by PSC or host government regulations to be offset with cumulative petroleum costs that need to be offset with temporary capitalized exploration costs or with development costs. If the PSC or host government regulations do not cover such treatments, the Company should deduct the net profit from capitalized costs based on paragraph of 17.e of IAS 16 if it is directly attributed to bringing the well to completion, in other word, to the condition for making it capable of production. Otherwise, it should be recognized as revenue in the income statements.

Decommission or abandonment is required by many international PSC, Some PSCs may require the company to establish fund before specific period of time of PSC to end for paying future decommission costs, other PSCs don't determine the period and it refers it to the Company's to determine the time of obligation raised. FAS 143 in US GAAP and IAS 37 indicate that the future decommission expenditures needs to be recognized as liability after identifying legal or constructive obligation arising from past events (IAS 37.14). and measured at discounted base (IAS 37.59) The future decommission costs is estimated by considering the cost drivers that cause the costs such as labor costs, equipment charges, allocated overhead, contractor's costs, and inflation effect. The decommission fund should be recognized separately from the decommission costs recognized as liability (IFRIC 5)

Capitalizing or expensing well drilling costs may need to consider technical information and PSC requirements. Incremental drilling depth is one of the main argued issues, the geological dimensions of reservoir underground and PSC requirements can solve few of those issues.

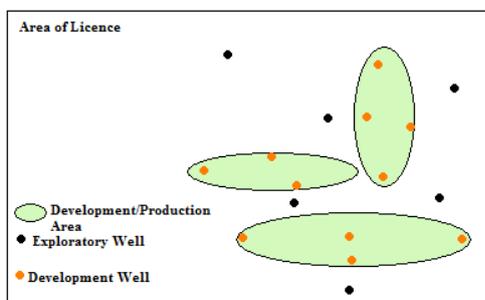
Neither IFRS, US GAAP nor UK GAAP covers the accounting treatments of incremental drilling depth. But in generally accepted accounting practices in oil and gas upstream industry, the initial dry hole well is expensed and the sidetracking costs that it is shown in figure 1.A below is capitalized in most oil and gas companies, the incremental drilling costs after determining the first geological formation horizon as dry hole and drilling to successful horizon as it is shown in figure 1.B should be capitalized, in other word, the total costs of the well up to reaching the successful horizon should be capitalized under successful method. In case of figure 1.C that show the Company drilling deeper or to different dry geological formation horizon should be expensed.

Figure 1



The well cost that should be expenses is considered as cost of exploratory dry well because it explores in new horizon. In addition to exploratory well, the appraisal wells that is drilled to explore the horizon of reservoir and find no hydrocarbon should be expensed. But any well drilled within the development or production area should be capitalized even if the well is dry. Figure 2 below can show the exploratory and development well in such case

Figure 2



How the accountant or auditor does know the production horizon of development or production area, and does all the area of license (PSC area) become development and production area if the company find hydrocarbon in specific points of PSC area or not.

The International PSC requires the company to determine and agree with host government the production areas and the development area that could potentially produce hydrocarbons from prospects (unproved horizon) in the future based on geological and geophysical studies. Figure 3 below shows the proved development or production area and unproved area, any well drilled in the unproved horizon will be exploratory well in corporate accounts even if the PSC convert the non-relinquished area to development area. Accountant and auditor should verify the location of wells drilled by having the map of proved and unproved horizon and the necessary technical information. If the internal or external auditor is feeling doubt of the technical information provided by management, the external auditor can consider using the work of an expert (ISA 620) and even internal auditor can obtain competent external service to ensure the horizon of proved and unproved reserves (PA 1210.A1-1).

Figure 3

