13.3 **Timahdit Oil Shale Deposit Evaluation – Morocco**

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The oil price drop in the 1980's caused the interruption of oil shale projects in advanced stages of development. An open question is whether the former feasibility analyses are still valid, under the current economic and environmental conditions. Timahdit is a good example of that situation. Morocco has large oil shale deposits and the Government conducted numerous actions to develop these resources. Timahdit has been studied since the 1970's, and the Government even developed an oil production pilot plant at the site, during the early 1980's.

Looking to develop Timahdit, the Office National des Hydrocarbures et des Mines (ONHYM) of Morocco signed an agreement with Petrobras and Total to evaluate an oil producing facility in Timahdit, using the Petrosix® Technology. Petrobras and Total are conducting a comprehensive evaluation of the project, assessing all relevant aspects, such as resources and reserves availability, mining conditions, ore processing cost and efficiency, oil upgrading requirements, infrastructure conditions, market, joint energy generation, looking to support an updated economic analysis. Environmental and socio-economic aspects are objects of special attention.

The preliminary results indicate that most technical work conducted in the 1980's is valid and consistent with current practices. The environmental aspects, and the need of strict evaluation of all possible environmental impacts, crude shale oil market, and minimum scale of production for economic feasibility show up as the main hurdles for the project development.