

## It's all about oil fields

By A Retired Oil Expert

**F**REQUENTLY, we come across articles and news related to the oil industry in dailies and weeklies. This article, however, is merely written as an educational piece for those who are interested in the oil industry.

Oil and gas are two types of natural resources that lie thousands of feet under the ground. When studying reservoirs where oil and gas deposits are trapped, reservoir pressure and reservoir temperature are two important components to be aware of. This is because oil that is trapped in the reservoir is, when in the original reservoir condition, under high pressure and experiencing high temperatures. Underground forces resulting from these types of pressure work to move the trapped water, oil and gas from the reservoir to the wells, and reservoir pressure is what enables the trapped oil to flow from the reservoir to the wells or to our oil collection tanks.

The pressures decline when oil and gas are produced or as long as they are being produced and this is a naturally occurring process, and as more oil is produced, the pressure decline increases and oil production decreases, depending on the nature of wells, reservoirs, and oil fields. This occurrence is actually called a natural decline. Every oil field in the world faces a natural decline as oil is produced and thus, the decline in the daily production of mature oil fields in Myanmar such as Yenanchaung, Chauk, Mann and Htaukshabin are expected.

Myanmar's oil fields have their own fascinating facts. Yenanchaung field is well-known as being one of the oldest oil fields in the world and has been producing oil since the year 1970. In addition, Yenanchaung and Chauk fields also put Myanmar on the list of pre-war oil-producing countries. Mann and Htaukshabin fields also played a major role in producing a record breaking daily



Aerial View of Mann Field Project located in Minbu, Magwe Region, Central Myanmar

production rate of more than 30,000 barrels of oil at one point and shortly after discovery of the field in 1970. Among these fields, Mann Field specifically, has made an all-out effort to fulfill the country's oil demands.

Mann Field, which has produced oil for the country since 1970, is now entering its golden anniversary in 2020. As a long-serving oil field in the country, the field now produces just more than 1,100 barrels a day. However, there has been criticism about the field as there are now no more wells to be drilled and enhanced oil recovery efforts are difficult to carry out. In this regard, in my opinion, if the field was alive and could speak, it would cry and say "humans asked it to produce more than it could over the years and are now blaming it for being old and unproductive". When the country was listed as a Least-Developing Country (LDC) and was facing difficulties to import oil to fulfill domestic fuel demand, Mann Field deserves credit for its crude

oil production, which sustained the country for more than ten years while fulfilling domestic demand and removing import requirements.

Mann Field used to be a major oil producing field that fulfill domestic fuel demands over a certain period of time. I travelled to Mann Field multiple times in order to carry out production boost-up operations when the country's remaining fuel stocks were dwindling. Therefore, I would say the current situation of Mann Field is evident in itself of the production burden it had to endure inappropriately based on its area, size and field life.

A foreign expert once commented that the oil field development operations in Mann Field were not in line with normal oil industry norm. However, in the view of national experts, these operations were actually commanded to reach a production target according to the needs of the country at the time. At the end of the day, it was successful and we are

proud of it.

Now Mann Field has made it—it has received, as the first ever producing field in the upstream sector of Myanmar, an Environmental Compliance Certificate (ECC) which supports its Redevelopment and Enhanced Oil Recovery Program from the Environmental Conservation Department of the Ministry of Natural Resources and Environmental Conservation in March 2019 in line with the Environmental Conservation Law, By-laws, Environmental Impact Assessment (EIA) Procedures and Regulations. In light of this, it will continue implementation of the environmental management plans approved in the ECC. Thus, I would like to admirably pay homage to it as follows:

"You, Mann field..,

Although old and in decline of production,

Now endowed with an ECC as an exemplary field,

Makes me proud of you. Congratulations!"