3D well planning in a collaborative environment: SF30 Field development drilling

Huw A. Davies, Klaas van Luik, Zaal Anuar Alias, Phan Fah Kiong and Richard Ngu

Sabah Shell Petroleum Co. Ltd. 98100 Lutong, Sarawak, Malaysia

In December 2000, a Virtual Reality "jump-start project" was undertaken at a VR facility in Perth by the SF30 Subsurface team supported by SM-EP IT staff, Halliburton directional drilling consultant and Landmark Graphics consultants.

The integrated subsurface team was set the objective of conducting well planning for SF30 Field Phase I development (5 oil producing and 1 gas injection wells). On a broader scale SM-EP organizational objectives were to better understand the value of the immersive technology, as well as 'fast-track' the learning experience needed to support the SM-EP VR facility, which was planned to be opened in 2001.

In January 2001, SM-EP established a Virtual Reality facility formally known as Advanced Collaborative Environment (ACE) centre in Miri to support it's exploration and development efforts in Malaysia. The facility is equipped with a high-resolution projection system and stereoscopic image generator. The ACE centre enables multidisciplinary collaboration in an immersive environment promoting cohesive team decision-making towards a higher level of Operational Integration.

The ACE centre is now an integral part of SM-EP's workflow process and is routinely used to review exploration and production earth models, well objectives and designs, surface facility designs as well as hosting management reviews.

This paper will present the SF30 team learnings of working in a Virtual Reality facility including the need for data preparation, optimising workflows and establishing collaborative work practices to achieve optimal results.