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Application of the PRMS to Coal Seam Gas

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Abstract

In March 2007, the SPE Board, along with the WPC, AAPG and SPEE approved the new Petroleum Resources Management System (PRMS). The PRMS contains a set of definitions, standards and guidelines for the classification of conventional and unconventional petroleum resources.

This paper discusses the importance of coal seam gas as a global resource and presents an overview of the coal seam gas industry in Australia. The basic principles of the PRMS are presented and the current practices used by the industry to classify and categorise reserves and resources are summarised. Unconventional petroleum resources require different evaluation and development techniques and have their own uncertainty characteristics which can affect reserves booking. The scale of development projects may also be very different for 1P, 2P and 3P reserves categories and consequently each of these may require considerably different capital investment.

Industry practice indicates that there may be some confusion about the application of the PRMS to coal seam gas properties and therefore it is the objective of this paper to assist stakeholders to correctly and consistently apply the PRMS standards. This is of particular importance as the development of coal seam gas is going through an exponential growth phase in the drive to meet record demand.

Introduction

Coal seam gas is a major unconventional petroleum resource. Many companies now are now thriving from the development of CSG and due to the scale of the resource potential; focus is turning to whether these resources could provide feed stock for world scale LNG production and meet the growing needs of energy importers.

In March 2007, The Society of Petroleum Engineers (SPE), along with sponsoring organisations the World Petroleum Council (WPC), the American Association of Petroleum Geologists (AAPG) and the Society of Petroleum Evaluation Engineers (SPEE), approved the new Petroleum Resources Management System (PRMS). The PRMS is designed to provide a common reference for the international petroleum industry, including national reporting and regulatory disclosure agencies to support petroleum project and portfolio management requirements and to improve clarity in global communications regarding all naturally occurring petroleum resources.

To ensure the needs of stakeholders are met, it is of great importance that the application of the PRMS to CSG projects be consistent with its intent.

Overview of the PRMS

The following summarises the basic principles of the PRMS:

1. The PRMS incorporates a resources classification framework that can be applied to all naturally occurring conventional and unconventional petroleum resources whether they are commercial, sub commercial, discovered or undiscovered (**Figure 1**).
2. The PRMS is “Project–Based”. The potential future recovery of resources is defined by the recovery estimated from the application of a project or projects to a petroleum reservoir or reservoirs. A project is an