



## An Introduction to Petroleum Drilling

### One-day fundamentals short course



### COURSE HIGHLIGHTS

“ an excellent introduction for newcomers to the industry

“ explains the process of oil & gas drilling in a straightforward and non-technical manner

“ with hands-on demonstrations and videos

“ highlights the multi-disciplinary nature of the business, examines the tools and methods used in drilling, and provides an understanding of the technical terminology and jargon used

“ an ideal follow-up for those who have previously attended the Introduction to Exploration Short Course and would like a more detailed understanding of the drilling process

*“Very good knowledge and kept it interesting”. B. Wigston, Decision Analyst, Chevron*

*“Presenter was very knowledgeable and used props well to explain technical details. Also provided a good level of details” M.Lim, Production Engineer, Santos*

*“Really good – interesting, moved quickly, lots of knowledge but managed to keep it non-technical” A. Aschman, Director, IPA*

Brought to you by:



Adrian Williams is an Explorationist who has over 30 years experience in the upstream oil & gas industry, having worked for a variety of companies, large and small, including Shell Australia, Bond Energy, Delhi Petroleum, Apache Energy, Petroleum GeoServices, various E&P subsidiaries of Mitsubishi Corporation, Kufpec Australia and Woodside Energy. He has extensive experience gained through a variety of career functions including Wellsite Geologist, Offshore Rig Positioning Bird-dog, Wellsite Geophysical Supervisor, Senior Explorationist, Chief Geophysicist and Exploration Supervisor, to cite just a few. He has worked on virtually all of the basins in Australia, as well as parts of New Zealand, Indonesia, Malaysia, India, Cambodia, Philippines, China, Vietnam and the Gulf of Mexico. Prior to that, Adrian spent a number of years in research and teaching at the University of Newcastle (New South Wales, Australia) and in an underground nickel mining operation. He was also an honorary member of staff at the Department of Geology & Geophysics, Curtin University (Western Australia) where he spent a number of years part-time teaching post-graduate students. Over the past 16 years, through his private company PetroSearch, he now presents a range of oil and gas training courses and consulting services throughout Australia and Southeast Asia.

Adrian has an Honours degree in geology (BSc(Hons)), a Masters degree in Business Administration (MBA), and a Diploma of Education (Dip Ed). He has published a number of technical papers in Australian and international journals and is the founding editor of the Petroleum Exploration Society of Australia's (PESA's) national newsletter.

## WHO SHOULD ATTEND?

- “ This course is designed specifically for personnel who work in the oil & gas industry but have little or no drilling-specific technical background.
- “ It is ideal for those who want to understand the terminology and jargon used and would like to gain an appreciation of how the process of petroleum drilling is carried out
- “Managers and employees in areas other than drilling . such as finance, law, OH&S, environment, IT etc
- “ Supply chain and support personnel who want to understand the jargon and terminology in their documentation
- “ Accountants who would like a better appreciation of the cost elements in a drilling program
- “ Secretaries, personal assistants, librarians who would benefit from being able to speak the same language as the people they are supporting
- “ Brokers, analysts, investors who want to better interpret press releases and other public information released by oil companies

## COURSE OUTLINE

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- Rules & regulations** The historical record and current activity levels  
Controls on the drilling process: safety and environmental constraints  
Reporting requirements . how to read a drilling report
- Pre-drill preparations** How companies select a drilling location  
Rig types and selection  
Well planning, procedures and costs
- Drilling the well** Components of a rig . hoisting, circulating, rotating and control systems  
The mechanics of making hole  
Special techniques . deviated and horizontal drilling
- Evaluating the well** Cuttings and core analysis  
Oil and gas shows, sampling, testing  
Basic wireline logs, measurement while drilling  
What it all means . interpreting the results
- What can go wrong** Kicks, blowouts and oil spills  
Loss of hole, loss of equipment and fishing
- Finishing it off** Completion and abandonment  
The %Drilling Game+ - gain an appreciation of some of the risks involved

### BY ATTENDING THIS COURSE, PARTICIPANTS WILL:

- “ Gain a fundamental overview of drilling processes and the technical functions of drilling equipment
- “Learn drilling terminology and jargon by seeing the equipment and how it is used
- “Understand current drilling procedures and practices in both onshore and offshore environments, shallow and deep water
- “Gain an appreciation of the risks and uncertainties involved in drilling, how these can impact the bottom line and how they can be managed
- “Reinforce new-found learnings through analysis of various drilling reports and other drilling related documents
- “Gain insight into the latest technological developments and their impacts on future work programs