

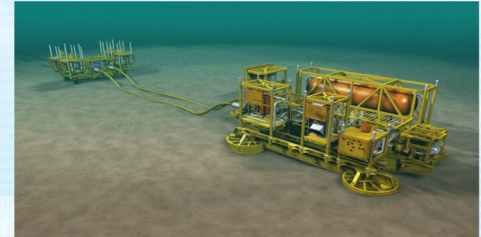
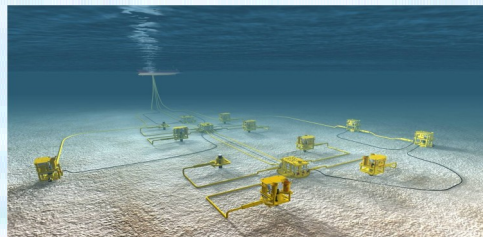
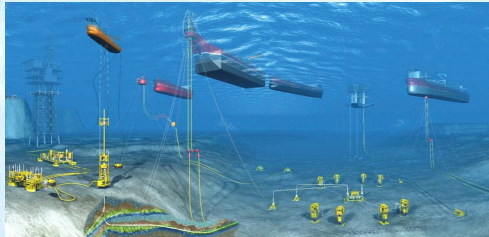
# Operating Subsea Oil & Gas Production Systems

9th September 2014

Parmelia Hilton Hotel (Karri Room)  
Mill Street, Perth



Subsea production is not a new concept; however, advances in subsea technologies continue to enhance the economic development of offshore exploration discoveries in all water depths. Crucial to the economic success of such developments is the need to understand the consequences of one's actions. This one-day course is aimed at creating an awareness of the applications of subsea equipment and plant, how subsea equipment is operated, the vulnerabilities to which it is susceptible, the requirements to continuously inspect,



Pictures courtesy of FMC Technologies Australia

## PROGRAMME

### 08.30 Registration

### 08.40 General Introduction to Subsea Production systems

*Mike Theobald, Woodside Energy Ltd.*

Components of subsea systems, the "building blocks"  
The purpose of each element and how they fit into the overall system.

### 09.30 Managing Subsea Assets

*Roland Fricke, Woodside Energy Ltd.*

Examples of existing subsea infrastructure.  
The extent of production from subsea wells  
Indicative subsea maintenance costs  
Examples of engineering, operations and maintenance roles & team structure.

### 10.30 Coffee/Tea

### 10.45 Operating Strategies/practices

*James Holbeach, Wood Group Kenny*

Operation of subsea tie-backs on typical oil & large gas/condensate developments  
Pressure, Temperature & compositional operating developments  
Flow control and liquid management  
Hydrate & Wax mitigation strategies  
Hydrate remediation strategies  
Planned and Unplanned field start-ups/shut downs  
Pigging operations

### 12.00 Lunch

### 12.30 Operating Subsea Systems

*David Thain, Woodside Energy Ltd.*

A short overview of operating a subsea system, from well start up through the operating phase to well shutdown.  
What information is readily available, how to interpret it, to ensure a safe, smooth and efficient operation.

### 13.15 Vulnerabilities - What could go wrong?

*Euan Taylor, Chevron Australia*

Explanations of the vulnerability of subsea hardware to the following:  
Hydrates, waxes & scale, causes & remedies  
Control Fluid Cleanliness; Incompatible Fluids  
Insulation Resistance; Gas Ingress & condensing water  
Technology Obsolescence  
Reliability, redundancy & flexibility  
Dragged & dropped objects - Fishing activity  
Corrosion/erosion  
Marine environmental influences - temperature, internal water motions, marine growth.

### 14.15 Coffee/Tea

### 14.30 Inspection, Repair and Maintenance

*Norman Mackay, DOF Subsea*

The need for IRM and how it is carried out, exploring:  
Diver intervention; ROV & Survey Capabilities; IRM Vessels;  
Inspection and survey systems; Integrity management: Planning, Timing, Permits & Isolations; Platform liaison; Procedure development; Case study examples

### 15.30 Advanced Systems

*Jian-Paul Nuzzo GE Oil & Gas*

Production modelling & Operator Simulators  
Subsea Separation  
Subsea Compression  
Direct Seawater injection

### 16.30 Certification & Course Conclusion

Presenting Companies Include:

SUT reserves the right to change/amend the programme as it sees fit.



## Registration Information

Operating Subsea Oil & Gas Production Systems Sept. 2014

Should you require further information on this event, please contact Jennifer Maninin on [j.maninin@sut.org](mailto:j.maninin@sut.org)  
To register, either e-mail the information required on the registration form to [perthevents@sut.org](mailto:perthevents@sut.org)  
or fax the completed form to +61 8 9446 9905

### Registration Fees

SUT Members - \$400.00 + GST = \$440.00

Non Members - \$450.00 + GST = \$495.00

**Fee includes** - All refreshments, handout notes of the presentations & CD containing PDF versions of the presentations .

### Preferred Payment Methods:

**Credit Card:** Visa, Mastercard or AMEX\* only. We cannot accept payment by any other card.  
\* Please note if paying by AMEX there will be a 2.75% surcharge.

**Cheque:** Australian Dollar only, made payable to The Society for Underwater Technology  
Send to, SUT, 5/5 Hasler Road, Osborne Park, Perth, WA 6017  
Please make sure you reserve a place by e-mail or fax before sending payment.

**Invoice:** Please tick here to receive an invoice

### Joining Instructions:

Joining instructions will be e-mailed to the registered delegate (as shown on the registration form). All details of presenters and updates to the programme will be included in the joining instructions.

### Transport During the Course:

Delegates are responsible for their own travel arrangements to and from the Parmelia Hilton Hotel.

### Cancellations:

Refunds will be made on written cancellation received up to ten working days in advance of the event, but will be subject to a 15% handling charge. 50% will be deducted up to three working days in advance and 100% thereafter up to the start of the event. No refund will be given for non-attendance. Delegates may wish to nominate a substitute in their place.

Please tick box if you do not wish to receive further SUT information

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## Registration Form

Please e-mail details to [Perthevents@sut.org](mailto:Perthevents@sut.org) or fax the completed form to +61 (0) 8 9446 9905

Please tick to indicate your preferred payment method: \_\_\_\_\_ SUT Member No. \_\_\_\_\_

Credit Card \_\_\_\_\_ (Visa or MasterCard or AMEX\* ) Cheque \_\_\_\_\_ Invoice (PO No.) \_\_\_\_\_

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

E-mail address \_\_\_\_\_ Tel No. \_\_\_\_\_

Credit Card No: Visa, MasterCard or AMEX\* \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Exp. \_\_\_\_\_ / \_\_\_\_\_ Security no \_\_\_\_\_ (last 3 digits on the back of your card)

Name on the card \_\_\_\_\_

Billing Address if not as above \_\_\_\_\_

E-mail address where receipt for credit card payment should be sent \_\_\_\_\_

Amount to be charged \$ \_\_\_\_\_ Signature \_\_\_\_\_