Keeping the Skies Blue

What do we do when the sky is no longer blue, the water no longer clear and the trees no longer there? What do we tell our children?

Climate change is the biggest challenge of our time with the most devastating and irreversible impact. Through the PETRONAS Carbon Commitments, we are driving operational excellence and investing in new energy, low carbon solutions, as well as environmental protection, in line with the UN Sustainability Development Goal 13.

We are committed to keeping the skies blue, so that we can tell our children a better story.

Find out more about PETRONAS Climate Actions in our Sustainability Report at:

www.petronas.com
Welcome Message from the Symposium Chair

On behalf of the Programme Committee, it is my pleasure to welcome you to the second edition of the SPE Symposium: Decommissioning and Abandonment.

Decommissioning and abandonment (D&A) in the fields of Asia presents a challenge of scale; with the confluence of physical, regulatory, economic and logistic difficulties making D&A both technically and financially challenging. This symposium will feature sharing and learnings from regional and global practices that the industry can adopt and adapt to suit Asia’s own set of challenges and opportunities.

Themed “Strategic Partnerships for a Sustainable Future”, this industry event serves as a platform for energy professionals to take away insights and ideas in charting their D&A journey. The comprehensive programme will feature case studies including those from mature markets and focus on what can be done in the region to keep both the integrity of the environment and the decommissioning journey safe, efficient and effective. It will also feature a technical showcase promoting the latest technologies and solutions, and networking opportunities providing an avenue for partnerships and collaboration between operators, service and technology providers as well as regulatory bodies in facing the upcoming challenges in D&A.

I would like to thank committee members, speakers, sponsors, exhibitors and participants for your continued support. I hope you will enjoy the opportunity to network, learn and share your experiences with industry colleagues during this exciting event.

Sincerely,

Noor Ilias Mohd Idris
Symposium Chair and
Vice President
Group Project Delivery
Project Deliver & Technology
PETRONAS

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* This Symposium Programme is updated as at 15 November 2019
Committees

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Senior Vice President, Project Delivery & Technology
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Vice President, Group Project Delivery, Project Delivery & Technology
PETRONAS

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Head Construction, Hook-Up, Commissioning & Decommissioning, Group Project Delivery, PD&T
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Manasvee Ruangdet
Senior Vice President, Engineering & Construction Division
PTTEP

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Ian Crapper, Claxton Engineering
Damir Horvat, Department of Energy and Mining, South Australia
Kayleigh Hughes, ERM
Megan Lawson, ERM
Zain Azlan, Independent
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Azhar Abdul Aziz, Oceaneering International
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REPSOL
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Meeting Room Guide

Pullman Kuala Lumpur City Centre, Level 3
## Schedule of Events

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<td>1045 – 1115  hours</td>
<td>Knowledge Sharing ePoster Session 1</td>
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<tr>
<td>1115 – 1245  hours</td>
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<td>1115 – 1245  hours</td>
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**Tuesday, 3 December 2019**

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<td>1830 -</td>
<td>Technical Session 8 Case Studies: Facilities</td>
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**Wednesday, 4 December 2019**
General Information

Venue
Pullman Kuala Lumpur City Centre
Jalan Conlay, 50450 Kuala Lumpur, Malaysia
Tel: +603 2170 888

Event Headquarters
Headquarter, Level 3
Pullman Kuala Lumpur City Centre
Jalan Conlay, 50450 Kuala Lumpur, Malaysia
Tel: +603 2170 888

Speaker/Author Check-In Room
Speakers, moderators, presenting authors and session chairs are required to report to the Author Check-In Room at HQ and Speaker/Author Check-In Room to load/review their PowerPoint slides. Changes to presentation slides will not be accepted less than four hours prior to the session.

Safety and Security
The safety and security of our event attendees are of utmost importance. Please be aware of and observe the following:

- Symposium badges must be worn at all times while at the event venue. Use of a badge by a person not named on the badge is grounds for confiscation.
- If you lose your badge, please return to the registration counter to obtain a replacement.
- No one under the age of 15 is permitted in the exhibition area.
- Be aware of your surroundings, remain alert and be vigilant.
- Should you observe any suspicious packages or behaviour, please report to event/venue staff immediately.
- Due to the popularity of some session topics, it is possible for overcrowding to occur in a session or meeting room. Should this occur, we must comply with policies regarding room capacity and limit admittance to a room that is at capacity. Please make plans to arrive early for sessions that you have a strong interest in attending.
- Please stay hydrated throughout the event.
- In the event of an emergency, please follow direction of emergency personnel and authorities.

Badge Collection
Symposium badges are required for admission into the event and must be worn at all times. Badges are non-transferable. Use of a badge by a person not named on the badge is grounds for confiscation.

Badges can be collected at Registration Counter, Level 3 during the following times:
- Tuesday, 3 December 2019: 0730-1830 hours
- Wednesday, 4 December 2019: 0800-1730 hours

Photography and Videography
All symposium sessions and the exhibition/technical showcase are protected by international copyright laws. Photography and video/audio recording of any kind in symposium sessions and the exhibition/technical showcase are prohibited without prior written permission by SPE.
General Information

Digital Proceedings
Digital proceedings are available for collection at the Registration Counter, Level 3.

To purchase the proceedings, please go to the Registration Counter located at Level 3.

Technical Showcase Hours
The exhibition / technical showcase is open to all attendees at the following times:
• Tuesday, 3 December: 0900-1830 hours
• Wednesday, 4 December: 0900-1730 hours

Lost and Found
Lost and found items will be placed at HQ and Speaker/Author Check-In Room, Level 3.

First Aid
In case of an emergency situation, please alert the nearest SPE staff immediately.

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Jalan Conlay, 50450 Kuala Lumpur, Malaysia
Tel: +603 2170 888

Mobile Phone
As a courtesy to the speakers and your fellow attendees, please turn off all mobile phones during meetings and sessions.

Alcohol
We recognise that legitimate serving of alcohol beverages in the process of conducting business and social activities is acceptable. However, we also recognise that the use and consumption of alcohol carries the requirement for all attendees to consume these beverages responsibly and in keeping with our professional code of ethics and conduct. We strongly oppose the abuse and misuse of alcohol.

Consent to Use of Multimedia
Attendance or participation in SPE events and other activities constitutes an agreement by the registrant to SPE’s use and distribution of the registrant’s image or voice in promoting future SPE events in any way SPE deems appropriate.
Opening, Keynote and Executive Plenary Session

Strategic Partnerships for a Sustainable Future

Tuesday, 3 December | 0900 - 1030 hours

Welcome Remarks

Noor Ilias Mohd Idris
Vice President
Group Project Delivery
Project Delivery and Technology
PETRONAS

Keynote Address

Sahawit Vorasaph
Senior Vice President
Well Engineering and Operations Division
PTTEP

Moderators

M Zamri B Jaidi
Head Construction, Hook-Up
Commissioning & Decommissioning
Group Project Delivery, PD&T
PETRONAS

Manasvee Ruangdet
Senior Vice President
Engineering & Construction Division
PTTEP

Executive Plenary Speakers

YBhg. Dato’ Hj Munir Hj Mohd Nawi
Director General
Department of Fisheries, Malaysia

Handan Ramli
Senior General Manager
Production and Operations Management
Malaysia Petroleum Management
PETRONAS

Lawan Pornsakulsakdi
Vice President, Environment Management Department
PTTEP

Asia is set to increase its decommissioning activities as more fields are reaching the end of their economic life in the years to come. With limited experience, increased complexity and the involvement of multiple stakeholders, the implementation of an effective decommissioning and abandonment plan requires thorough verification, extensive collaboration and detailed planning. As the region advances its decommissioning activities, it is critical for industry to progress discussions and harness collective efficiencies to develop a roadmap to ensure the right technologies, capabilities and knowledge are deployed whilst maintaining a healthy balance sheet.

This session will engage leaders in the region to discuss opportunities and challenges, share experiences and lessons learnt, and deliberate how stakeholders can work together and focus on what can be done to keep the integrity of the environment and the decommissioning journey safe, efficient and effective.
The scientific support for using offshore oil and gas structures to enhance the local marine environment as artificial reefs (Rigs to Reef) is building up in many countries. Experts in the field continue to conduct reef studies and publish their work in the Gulf of Mexico, California and North Sea whilst such studies are scattered in the Asia Pacific and Australia. Coordinated research partnerships in the North Sea and Australia (NDRI) are advancing scientific inquiry in this area, as is industry. A strong connection between the academic science community and industry scientists is essential to ensure that artificial reefs created by offshore structures provide clear benefits to the marine environment.

This panel session will bring together key stakeholders from the academic science community and industry to share knowledge, scientific studies and global, regional and local developments across Asia Pacific, North Sea and the Gulf of Mexico. The panel of distinguished speakers will discuss and share insights on key questions related to artificial reefing with the objective that the retention of artificial habitat can be positive where there is a strong environmental case and stakeholder support. These questions include:

- What are the knowledge gaps that might hinder acceptance of habitat retention as decommissioning alternatives by stakeholders in your region?
- What is being done to address these knowledge gaps?
- Are there any coordinated efforts within the industry and research groups?
- What are the research themes and timing of outputs?
- Is this research currently being coordinated at an international level?
Panel Sessions

Panel Session 2: Enhancing Capability and Building Strategic Partnerships to Minimise Environmental and Social Impact

**Tuesday, 3 December | 1400 - 1530 hours**

*Pullman One, Level 3*

**Session Chairs**

- **Kevin O’ Flaherty**
  Chief Operating Officer
  Offshore Decommissioning Services

- **Hafizuddin Saidi**
  Lead HSE Engineer
  Decommissioning & Abandonment
  PETRONAS

**Speakers**

- **Kayleigh Hughes**
  Senior Environmental Consultant
  ERM

- **Jens Kilt Thomsen**
  Chief Commercial Officer
  Maersk Decom

- **Noor Amila Wan Abdullah Zawawi**
  Director Institute of Sustainable Building
  Universiti Teknologi PETRONAS

As decommissioning projects in Asia move forward, careful thought and planning need to be put in place. Strategic partnerships with proper structures need to be developed, and the elements of safety, environmental and economic impact need to be carefully considered. As a relatively new industry, stakeholders in the Asian market are putting efforts to learn from more experienced regions such as the North Sea and Gulf of Mexico.

This panel will focus on:

- Project planning: Conducting comparative assessments, identifying existing resources and development of non-existing resources
- Strategic partnerships: By looking at examples of successful alliances created in other regions
- Environmental and social impact
- Economic impact: Recognising decommissioning as a sustainable industry subsector and not a necessary evil
The technical challenges for well and platform decommissioning revolve around the physical and mechanical barriers. Beginning with final plug and abandonment (P&A) standards, including alternative and innovative technologies in P&A, the challenges of P&A are followed by efficient topside and jacket removal, repurposing and/or disposal in environmentally sound manner.

For wells abandonment, the goal is to provide the equivalent of a ‘rock-to-rock’ seal across the wellbore system as an eternal barrier. Improper abandonment execution may lead to serious HSE consequences down the line. Thus, the primary objectives of well decommissioning are to ensure compliance with relevant international, regional and local legislation and regulation, while finding the best practicable environmental option that minimises future risks for others users of the sea. The interpretation and application of decommissioning law and regulations and well plug and abandonment (P&A) standards will determine the final work scope.

For topside and jacket removal/repurposing and disposal, the goal is to provide environmentally and economically sound alternatives that meet or exceed regulatory standards. Improper removal and mercury abatement can lead to significant environmental impact.

The goal of this session is to provide an avenue for presentations and engaged discussions in pursuit of innovative and cost-effective methods in the current economic environment. The focus should be on both methods currently available, and the exploration of emerging technologies and practices.

This session will focus on:
- Keeping up with the latest trend on current best practices, technology and emerging innovation in decommissioning
- Gaining strategic insights through recent case studies of regional and international projects that implemented innovative processes and technologies
- Review of opportunities, risk mitigation and techniques in the field of well decommissioning and topside removal, planning and management
- Promoting greater synergy between operators and service companies to drive innovative solutions to efficiently decommission their assets

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- Promoting greater synergy between operators and service companies to drive innovative solutions to efficiently decommission their assets
Panel Sessions

Panel Session 4: D&A Policy and Regulations

Wednesday, 4 December | 0900 - 1030 hours

In most countries, there is no specific law that deals with decommissioning and abandonment (D&A) of oil and gas facilities. Neither are there standards applicable to abandonment and the handling of residual liability post decommissioning and abandonment activities. Decommissioning is not a straightforward job as each job is unique, and safety and environment regulations have to be taken into consideration. Companies are facing difficult decisions when planning for their D&A strategy after production has ceased.

This session will focus on some of the common regulatory challenges associated with the decommissioning of petroleum facilities and the approach taken by different countries, with specific focus on the approach adopted by countries in Asia Pacific. While specific decommissioning solutions may vary between regions, this session will highlight issues and lessons learnt in decommissioning activities amongst regulators and industry players. This panel will focus on:

- What are the pragmatic approach in adopting decommissioning regulations without compromising HSE and minimising exposure
- Discussing what decommissioning regulations should include, scope of decommissioning, legal framework and reliefs of certain taxes
- Sharing on decommissioning regulations in the region
In the next couple of years, the Asia Pacific region will witness large-scale decommissioning and abandonment (D&A) activities as these assets are reaching their end of field life with ageing production facilities and the nearing of the end of concession periods. Some of these fields have already started well plugging and abandonment (P&A), and pipeline and wellhead platform removals.

When these fields approach the end of their concession periods, D&A activities will also need to be carried out for usable facilities including wellhead platforms, pipelines and wells before they are being transferred. These facilities are critical in maintaining the production capability as per required during the transition period as these facilities will be utilised for further field development. Assets that are being transferred have to be continuously monitored to ensure that there is no negative impact to the environment.

It is a big challenge when selecting assets for “late life transfer” as there is very limited information and technical details available, coupled with limitations from contractual terms and conditions, and time constraint. This session will focus on:

- Understanding the practices on how to manage late life brownfields, asset integrity monitoring and trouble shooting
- Gaining insights and experiences in late life asset transfer of offshore operations
- Grasping the key challenges of transfer of late life assets and the technical focus areas
- Post D&A monitoring and best practices
Panel Sessions

Panel Session 6: Case Studies and Lessons Learnt

Wednesday, 4 December | 1400 - 1530 hours
Pullman One, Level 3

Session Chairs

Megan Lawson
Country Managing Partner
ERM

Mashitah Md. Jais
Custodian Cost Estimation
PETRONAS

Speakers

Ajj Tularak
Manager Asset Retirement
Chevron

Juzer Noman
Managing Director
IEV Malaysia Sdn. Bhd.

Izrie Ghazali
Country Manager, Mauritania
PETRONAS

Michael Murray
Head of Engineering & Projects
PSE Kinsale Energy

Case studies have always been one of the most compelling ways to hear about and learn from the direct experiences of leading industry experts and practitioners in the industry. In this panel session, we will gain insights into successes and challenges associated with case studies drawn from the region.

The need for the decommissioning phase to be planned and executed in collaboration with key stakeholders, like shareholders, employees, community, and regulators, has never been greater than now. Notably, the perceptions of what constitutes success and what aligns with the concept of creating a sustainable future can vary depending on what role or responsibility you have in regards to facility decommissioning.

In this panel session, we will hear from several case studies that will help demystify what constitutes success in decommissioning, and what strategic decisions were made regarding the requisite collaborations to achieve that success. These case studies will put a spotlight on the level of collaboration and planning that is required, and emphasise that even the most elegant technical solutions for decommissioning are unlikely to be successfully implemented, if insufficient partnering and collaboration has taken place.
## Technical Programme

### Technical Session 1: The Journey: Blueprint to D-Day

**Session Chairs:** M Redzuan A Rahman, PETRONAS Carigali Sdn. Bhd.

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<tbody>
<tr>
<td>1115</td>
<td>199202</td>
<td>Abandonment Roadmap from Operator’s Perspective</td>
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<tr>
<td></td>
<td></td>
<td>L. Rusman, B. Foong, K. Abdussalam, M. Hamid, K. Wong, L. Maluan, and A. Ahmat</td>
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<td></td>
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<td>Kamis, PETRONAS Carigali Sdn. Bhd.</td>
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<tr>
<td>1135</td>
<td>199218</td>
<td>Digitally Transforming Front End Decommissioning Planning</td>
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<td>F.D. Marfatia, Ajero Pty. Ltd.</td>
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<tr>
<td>1155</td>
<td>199214</td>
<td>Managing Offshore Deepwater Decommissioning: Subsea and FPSO</td>
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<td>Decommissioning and Abandonment in West Africa</td>
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<td>Z. Suzaini and M. Suhaimi, PETRONAS</td>
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<tr>
<td>1215</td>
<td>199195</td>
<td>Decommissioning Cost Reduction by Effective Planning of Decommissioning</td>
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<td>Projects Using ‘Facility Removal Date’ as a Reference Point</td>
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<td>A. Tung, Aberdeen-Curtin Alliance (U. of Aberdeen &amp; Curtin U.); C. Otto, Curtin</td>
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<td>U. Oil &amp; Gas Innovation Centre</td>
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### Technical Session 2: Regulatory Framework

**Session Chairs:** Ryan Guillory, PETRONAS; Afriandi Eka Prasetya, SKK Migas

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<tr>
<td>1400</td>
<td>199179</td>
<td>Decommissioning: Turning Challenges into Opportunities, through the Eyes of</td>
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<td>the Regulators</td>
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<td>M.B. Akbar Ali, M.A. Karim, and H. Rusli, PETRONAS</td>
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<td>1420</td>
<td>199207</td>
<td>Lessons Learnt from Ospar and The North Sea. The Importance of Establishing a</td>
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<td>Regional Decommissioning Agreement in the South China Sea Region</td>
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<td>A. Tung, Aberdeen-Curtin Alliance (U. of Aberdeen &amp; Curtin U.) and C. Otto,</td>
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<td>Curtin U. Oil &amp; Gas Innovation Centre</td>
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## Technical Programme

### 1440 199209

**Determining Environmentally Superior Decommissioning Options for Hard and Flexible Pipelines**  
P. Krause and J. Baquiran, Environmental Resources Management

### 1500 199215

**Alternative Method for Mercury Detection Using Square-Wave Anodic Stripping Voltammetry**  
P. Silakorn and C. Chanvanichskul, PTT Exploration and Production; W. Siangproh and Srinakharinwirot U.; O. Chailapakul and Y. Boonyongmaneerat, Chulalongkorn U.

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### Technical Session 3: Holistic Repurposing  

**Session Chairs:** Mohd Zhafran Sulaiman, PETRONAS; Shahida Abdullah, PETRONAS Carigali Sdn. Bhd.

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<tr>
<th>Time</th>
<th>Paper #</th>
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</table>
| 1600   | 199226  | **Must Haves for a Credible Comparative Assessment**  
K. Hughes and S. Jagerroos, Environmental Resources Management |
| 1620   | Invited Speaker | **The Influence of Subsea Pipelines on Fish and Fisheries: Current Knowledge and Future Research Directions**  
D. McLean and K. Miller, Australian Inst. of Marine Science; J. Partridge and T. Bond, The U. of Western Australia |
| 1640   | 199190  | **Potential of Offshore Structure as Artificial Reefs in Shallow Tropical Water**  
| 1700   | Invited Speaker | **Assessing the Ecological and Socioeconomic Value of Offshore Oil and Gas Platforms**  
E. Harvey and J. Alexander, Curtin U.; M. Marnane, Chevron Energy Technology Co.; S. Watts, B. Saunders, M. Bunce, T. Simpson, and R. Lines, Curtin U.; T. Elsdon, Chevron Energy Technology Co. |
## Technical Programme

### Technical Session 4: Planning for Success

**Session Chairs:** Adeeb Aisamuddin, Oceaneering International; Sulaiman Sidek, PETRONAS Carigali Sdn. Bhd.

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<th>Time</th>
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<tbody>
<tr>
<td>0920</td>
<td>199198</td>
<td><strong>Implementation of a New Methodology for Efficient Well Abandonment Operations</strong>&lt;br&gt;J.M. Shine Jr, Saudi Aramco</td>
</tr>
<tr>
<td>0940</td>
<td>199205</td>
<td><strong>Standardisation of Inactive Wells Audit Process for Well Abandonment and Production Enhancement Candidate Screening</strong>&lt;br&gt;E. Haryanto, S. Yersaiyn, A.H. Akram, F. Bouchet, H. Galal, and M.A. Basarudin, Schlumberger</td>
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### Technical Session 5: Applied P&A Technology

**Session Chairs:** M. Hatta M.Yusof, PETRONAS; Robin Kueh Jing Zhi, PETRONAS Carigali Sdn. Bhd.

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<th>Time</th>
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<tbody>
<tr>
<td>1100</td>
<td>Invited Speaker</td>
<td><strong>Low Melting Point Alloy (BiSn) for Wellbore Plugs</strong>&lt;br&gt;H. Zhang, T.S. Ramakrishnan, and Q. Elias, Schlumberger-Doll Research</td>
</tr>
<tr>
<td>1120</td>
<td>199184</td>
<td><strong>Evaluation of an Ultra-High Performance Epoxy Resin Sealant for Wellbore Integrity Applications</strong>&lt;br&gt;M. Alkhams and A.H. Imqam, Missouri U. of Science and Technology; M. Milad, U. Teknologi Malaysia</td>
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### Technical Programme

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<th>Time</th>
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<tr>
<td>1140</td>
<td>Invited Speaker</td>
<td><strong>Technology and Innovative Driven Well Abandonment Campaigns at Block PM9, Peninsular Malaysia (27 + 10 + 7 Wells)</strong>&lt;br&gt;M. Mhd Yusof, I. Aslam, and M. Ros, PETRONAS Carigali Sdn. Bhd.; A. Tumiran, PETRONAS</td>
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<tr>
<td>1200</td>
<td>199182</td>
<td><strong>High Clearance Dissolvable Plug Overcoming Downhole Restriction Doing Squeeze Cementing in North Sea</strong>&lt;br&gt;N. Jin, Vertechs Oil &amp; Gas Technology Co., Ltd.</td>
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**Wednesday, 4 December**

#### Technical Session 6: Technology Development
**Session Chairs:** Mohd Izzat Mohd Thiyahuddin, PETRONAS Research Sdn. Bhd.; Devi Putra, PERTAMINA

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<tr>
<th>Time</th>
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<tr>
<td>1400</td>
<td>199228</td>
<td><strong>Bismuth Abandonment Plugs: The Possibilities are Endless</strong>&lt;br&gt;J. Fulks, P.J. Carragher, and H. Prapoo, BiSN Oil Tools</td>
</tr>
<tr>
<td>1420</td>
<td>199230</td>
<td><strong>Successful Application of an Engineered Fluid Cement Setting Base for Rigless Abandonment</strong>&lt;br&gt;C. Webber and A. Mackay, Halliburton</td>
</tr>
<tr>
<td>1440</td>
<td>199185</td>
<td><strong>Removing Uncertainty from Cutting of Piles and Structures</strong>&lt;br&gt;F. Spence, J. Stoddard, D.M. MacWilliam, and D.J. Anderson, Claxton Engineering Services Ltd.</td>
</tr>
<tr>
<td>1500</td>
<td>199186</td>
<td><strong>Permanent Distributed Fiber Optic Sensors (DFOS) for Pro-Active Abandonment Subsurface Monitoring</strong>&lt;br&gt;M.H. Mad Zahir, K. Abdul Aziz, A. Ghazali, M. Abd Rahim, and M. Muhammed, PETRONAS Research Sdn. Bhd.</td>
</tr>
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**Wednesday, 4 December**

#### Technical Session 7: Celebrating Success: Well P&A
**Session Chairs:** Zawawi Ahmad, PETRONAS; Afriandi Eka Prasetya, SKK Migas

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<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
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<tbody>
<tr>
<td>1600</td>
<td>199175</td>
<td><strong>Successful P&amp;A Cement Bullhead Jobs Across the High Temperature and Long Perforation Interval Wells in the Gulf of Thailand</strong>&lt;br&gt;T. Sirirattanachatchawan, W. Pattarachupong, W. Wiwatanapataphee, C. Tankul, A. Choodezh, and S. Direkmahamongkol, PTTEP; T. Charoensil, EMAS Energy</td>
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## Technical Programme

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<th>Time</th>
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<tbody>
<tr>
<td>1620</td>
<td>199196</td>
<td><strong>Subsurface Plug and Abandonment Disconnect Tool: Case History, Angola</strong></td>
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<td>J.A. Urdaneta, A. Neto, and D. Fontoura, Halliburton</td>
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<td>1640</td>
<td>Invited</td>
<td><strong>B and D Annuli Barrier Restoration in Well Decommissioning: Case Study from</strong></td>
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<td>Speaker</td>
<td><strong>Southeast Asia</strong></td>
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<td>S.A. Canny and E. Thomas, Weatherford International Ltd.</td>
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<tr>
<td>1700</td>
<td>199200</td>
<td><strong>Knowledge and Experiences Combined under One Hood: Lessons Learned from</strong></td>
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<td><strong>Peninsular Malaysia Well Abandonment Campaign</strong></td>
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### Wednesday, 4 December

**Technical Session 8: Case Studies: Facilities**

**Session Chairs:** Ian Crapper, *Claxton Engineering*; Sy Hairil Hafiz, *PETRONAS*

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<tr>
<td>1600</td>
<td>199178</td>
<td><strong>Abandonment and Decommission Practice of China Bohai Bay: Working Flow</strong></td>
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<td><strong>Optimised and Cost Reduction</strong></td>
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<td>H. Xu, X. Li, C. Wang, H. Deng, and Z. Liu, CNOOC Energy Technology &amp; Services</td>
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<td>Ltd., Drilling &amp; Production Branch; D. Ji, Northeast Petroleum U.; D. Miao,</td>
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<td>H. Sun, Z. Xu, and J. Zhang, CNOOC Energy Technology &amp; Services Ltd.,</td>
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<td>Drilling &amp; Production Branch</td>
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<td>1620</td>
<td>Invited</td>
<td><strong>Alternative Way of Decommissioning Offshore Facilities to Achieve Lower</strong></td>
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<td>Speaker</td>
<td><strong>Decommissioning Cost</strong></td>
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<td>1640</td>
<td>199177</td>
<td><strong>Crane Suspended Transportation: An Effective Way to Remove Offshore Platforms</strong></td>
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<td>P. Samudero, V. Capurso, and R. Zoontjes, Heerema Marine Contractors</td>
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<tr>
<td>1700</td>
<td>199181</td>
<td><strong>Challengeable Engineering Design of a Deck for Coiled Tubing Well</strong></td>
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<td><strong>Abandonment on a Dynamic Positioning Barge</strong></td>
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<td>E. Bahrami, M. Seyednia, A. Mosallaie Barzoki, A. Zangenehvar, and S. Rabbani,</td>
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<td>Mehran Engineering and Well Services Co.</td>
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Knowledge Sharing ePosters

During the ePoster session, presenters will deliver their presentations in an informal setting and facilitate direct discussions with attendees at designated ePoster stations. Attendees are encouraged to attend the sessions for more knowledge sharing and networking opportunities. ePosters are also available for attendees’ viewing at ePoster stations throughout the symposium.

**Tuesday, 3 December**

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<th>Paper #</th>
<th>Presentation</th>
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<tr>
<td>1045</td>
<td>199213</td>
<td>Rigless Plug and Abandonment: Enhancing Efficiency through Efficient Candidate Wells Selection</td>
<td>R. Mittal and U. Gupta, Independent (Alternate Paper in Technical Session 4)</td>
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<tr>
<td>1330</td>
<td>199174</td>
<td>Improvement of the Upstream Project Valuation in Consideration of Abandonment Expenditure (ABEX) Uncertainties</td>
<td>A.A. Abu Bakar and I. M Jais, PETRONAS (Alternate Paper in Technical Session 2)</td>
</tr>
<tr>
<td>1530</td>
<td>199203</td>
<td>Stakeholder Engagement in the Decommissioning Process</td>
<td>S. Genter, Environmental Resources Management (Alternate Paper in Technical Session 2)</td>
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<th>Time</th>
<th>Paper #</th>
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<tr>
<td>1530</td>
<td>Invited Speaker</td>
<td>Sustained Annular Pressure and Charging: B, C and D Annulus Restoration in the Well Decommissioning Phase</td>
<td>S.A. Canny and E. Thomas, Weatherford International Ltd.</td>
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## Knowledge Sharing ePosters

**Wednesday, 4 December**

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<tr>
<th>Time</th>
<th>Paper #</th>
<th>Presentation</th>
<th>Station 1</th>
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</table>
| 1030  | 199212  | **Automated Marine Biomass Recognition in Uncontrolled Underwater Environment for Marine Biomass Evaluations in Decommissioning Options Assessment**  
M. Mohd Thiyahuddin, G. Ithin, and M. Samsuddin, PETRONAS Research Sdn. Bhd.;  
M. M Sulaiman, M. M Ros, and M. Abdul Rahman, PETRONAS |           |
| 1530  | 199211  | **An Unconventional Study on the Bond Strength of the Casing/Cement Interface and the Benefits of Nanoparticle Additives**  
M. Ritchie, G. Hareland, and V.N. Kjeldal, Oklahoma State U.; R. Nygaard, U. of Oklahoma  
*Alternate Paper in Technical Session 5* |           |
| 1030  | 199188  | **Emerging Decommissioning Trends in South East Asia: Local Interpretation and Implementation of Recently Updated Legislative Framework and Guidelines**  
K. Hughes and S. Jagerroos, Environmental Resources Management  
*Alternate Paper in Technical Session 2* |           |
| 1530  | 199171  | **Well Abandonment and Subsequent Elimination of Sustained B-Annulus Pressure: A Case Study**  
*Alternate Paper in Technical Session 8* |           |
List of Exhibitors

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<td>Archer Well Company (M) Sdn Bhd</td>
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<td>EMAS Energy Services (Thailand) Limited</td>
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<td>IEV (Malaysia) Sdn Bhd</td>
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<td>Inflatable Packers International Pty Ltd (IPI)</td>
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<td>PETRONAS</td>
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<td>Universiti Teknologi PETRONAS</td>
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<tr>
<td>Vantage Energy Group Sdn Bhd</td>
<td>F06</td>
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Technical Showcase Floor Plan

Pullman Kuala Lumpur City Centre, Kuala Lumpur, Malaysia
Level 3

[Diagram of the floor plan]
**Exhibitor Profiles**

**ACTEON – Kiosk F07**  
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**F:** +60 85 322 409  
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Advance Borneo Engineering Sdn. Bhd. was incorporated in Malaysia as an engineering company that actively involved in supply, distribution and providing technical services of EPCIC, inspection, maintenance and decommissioning.

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Exhibitor Profiles

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E: shahrulnizam_shahkob@utp.edu.my
www.utp.edu.my

Universiti Teknologi PETRONAS (UTP) was established on 10 January 1997 and is a leading private university in Malaysia. The campus is built on a 400 hectare (1,000 acres) site strategically located at Bandar Seri Iskandar, Perak Darul Ridzuan, Malaysia. The university is a wholly-owned subsidiary of PETRONAS, the national oil and gas company of Malaysia. UTP offers a wide range of industry-relevant engineering, science and technology programmes at undergraduate and postgraduate levels. It aims to produce well-rounded graduates with excellent leadership qualities and communication abilities.

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2. SPEAKER/AUTHOR CHECK-IN ROOM
@ Author Check-In Room, Level 3

3. KNOWLEDGE SHARING EPOSTER STATIONS
@ Foyer, Level 3
PTTEP selected as a member of the Dow Jones Sustainability Indices (DJSI) for the 6th consecutive year and the second time as the industry leader in the World Oil and Gas Upstream & Integrated Industry.
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