







IADC/SPE Asia Pacific **Drilling Technology Conference and Exhibition**

Well Technologies to Deliver Energy Transition and Sustainable Development

9-10 August 2022 Conrad Bangkok, Thailand

go.spe.org/22APDTC

Conference Programme





PTTEP Commits to Net Zero Greenhouse Gas Emissions by 2050

PTT Exploration and Production Public Company Limited (PTTEP) operates with consideration to create the right balance of business, social and environmental aspects. We take part in solving global warming issues and therefore set forth to achieve Net Zero Greenhouse Gas (GHG) Emissions by 2050 through our "EP Net Zero 2050" concept.

Exploring for Lower Carbon E&P Portfolio

Our exploration and production portfolio will be managed to transform PTTEP into a lower-carbon organization. New projects with an emphasis on natural gas and greenhouse gas intensity will be factored into the investment decision-making process.



Production and Planet in Balance

We will pursue the development of technology to reduce GHG emissions, energy and production efficiency improvement, application of renewable energy in operations, as well as emissions offsetting through the planting of trees in forests and mangroves to increase the natural carbon sink.

NET ZERO 2050 Greenhouse Gas Emissions



Welcome Message

On behalf of the Society of Petroleum Engineers (SPE), the International Association of Drilling Contractors (IADC), and the Conference Organising Committees, thank you for attending the IADC/SPE Asia Pacific Drilling Technology Conference and Exhibition (APDT).

We are pleased to welcome you to Thailand for the region's leading drilling event, where PTT Exploration and Production Public Company Limited (PTTEP) is honoured to be the Host Organisation.

With the theme "Well Technologies to Deliver Energy Transition and Sustainable Development", the conference will discuss how emerging well technologies can facilitate sustainable practices in drilling and close the gap towards net zero.

This year, the conference Technical Programme Committee has built a diverse and comprehensive technical programme, featuring presentations of more than 70 papers in technical and knowledge sharing ePoster sessions. Industry leaders will also provide their insights on vital issues facing the drilling sector of the oil and gas industry in the Opening, Executive Plenary and Panel Sessions.

Together with the conference, the exhibition will showcase the latest industry advancements, as well as provide a vibrant platform for knowledge transfer and networking for industry professionals to share experiences, make new connections, and conduct business.

We would like to thank all of the committee members, speakers, exhibitors, sponsors and participants for their strong continued support of the event.

We encourage you to take advantage of the opportunities for both professional and personal enrichment through active participation in the conference and exhibition. We hope that your experience here will be a highly fruitful and rewarding one.



Montri Rawanchaikul
APDT 2022 Conference Chair
Chief Executive Officer
PTT Exploration and Production
Public Company Limited



Suksant Ongvises
APDT 2022 Technical Programme
Committee Advisor
Executive Vice President
Operations Support Group
PTT Exploration and Production
Public Company Limited



Benjamin Choo APDT 2022 Technical Programme Committee Chair Senior Vice President Well Engineering and Operations PTT Exploration and Production Public Company Limited



Arthur Russi
APDT 2022 Technical Programme
Committee Vice-Chair
Senior Manager, Marketing
Asia and Australia
Transocean

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*This Conference Programme is updated as at 4 August 2022



The GHG emissions from the event have been offset by PTT Exploration and Production Public Company Limited (PTTEP).

Committees

Committees

Conference Chair



Montri Rawanchaikul Chief Executive Officer PTT Exploration and Production Public Company Ltd.

Technical Programme Committee

Advisor



Suksant Ongvises
Executive Vice President
Operations Support Group
PTT Exploration and Production
Public Company Ltd.

Chair



Benjamin Choo Senior Vice President, Well Engineering and Operations PTT Exploration and Production Public Company Ltd.

Vice-Chair



Arthur Russi Senior Manager, Marketing Asia and Australia **Transocean**

Committees

Committees

Members

Anupong Chailert **Baker Hughes**

Nick Wasuthalainunt **Baker Hughes**

Phil Rusden
Borr Drilling

Thanawee Kreethapon

CARIGALI-PTTEPI Operating Company Sdn. Bhd. (CPOC)

Duantem (Moon) Voradejviseskrai **Chevron**

Alex Maroske **Energy Drilling**

Robello Samuel **Halliburton**

Anne Otten

International Association of Drilling Contractors

Chit Hlaing

International Association of Drilling Contractors

Mike DuBose

International Association of Drilling Contractors

Keith Kotval

Japan Drilling Company

Steve McBride

Lunana Energy Advisory

Tomaso Ceccarelli Mulk Oil & Gas Synergy

Laurent Bordet
NOV Grant Prideco

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PETRONAS Carigali Sdn. Bhd.

Nicholas Foo Kwang Hui **PETRONAS Carigali Sdn. Bhd.**

Chee-Phuat Tan

PETRONAS Research Sdn. Bhd.

Ben Gedge

PetroVietnam Drilling & Well Services - Regional Marine & Engineering PTE

Suresh Kumar

Progrowth Energy Pvt. Ltd.

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Suwin Sompopsart

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Suwit Direkmahamongkol

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Meth Follett

PTT Exploration and Production Public Company Ltd.

Elvy Samuel

PTTEP Sarawak Oil Ltd.

Cao Gang RIPED, CNPC

Helio Santos **Safekick**

Guodong (David) Zhan **Saudi Aramco**

Alexey Ruzhnikov **Schlumberger**

Ali Kiaie **Schlumberger**

Edgar Echevarria **Schlumberger**

Paul Silva **Schlumberger**

Sagar Raut **Seadrill**

Basker Stargard Murugappan

TAQA

Salim Taoutaou **TCOFS LLC**

Matt Regan **TDE Group Ltd.**

Gehad Mahmoud Hegazy **The American University in Cairo**

Wayne Bauer **Vantage**

Fikri Irawan **Weatherford**

Henry Pinkstone **WellSpec**

Steve Nas **WellSpec**

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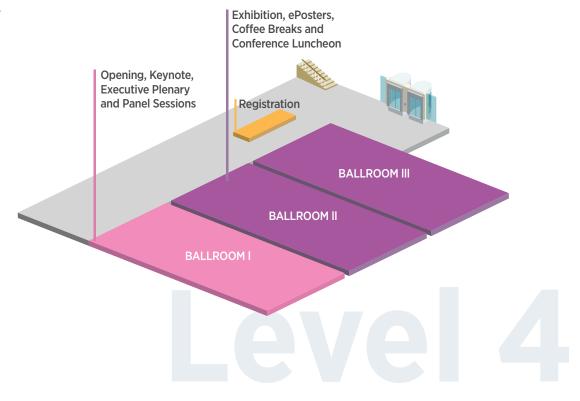
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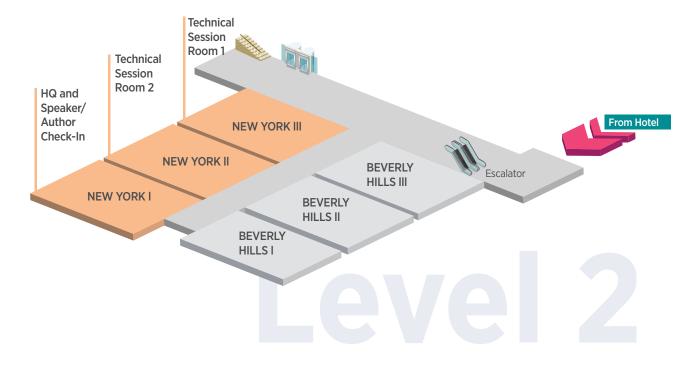
Meeting Room Guide 7

Meeting Room Guide

Level 4



Level 2



Schedule of Events 8

Schedule of Events

Monday, 8 Augus	st	
0900 – 1800 hours	Exhibition Move-In	Ballroom II and III, Level 4
0900 – 1800 hours	Registration	Ballroom Foyer, Level 4
0900 - 1800 hours	Conference Headquarters / Speaker and Author Check-In	New York I, Level 2
Tuesday, 9 Augu	st	
0800 – 1900 hours	Registration	Ballroom Foyer, Level 4
0800 - 1900 hours	Conference Headquarters / Speaker and Author Check-In	New York I, Level 2
0900 - 1900 hours	Exhibition	Ballroom II and III, Level 4
0900 - 1000 hours	Opening & Keynote Session	Ballroom I, Level 4 / Beverly Hills, Level 2 (Live Feed)
1000 - 1100 hours	Coffee Break	Ballroom II and III, Level 4
1015 - 1045 hours	Knowledge Sharing ePoster Session 1	Ballroom II and III, Level 4
1100 - 1230 hours	Executive Plenary Session	Ballroom I, Level 4 / Beverly Hills, Level 2 (Live Feed)
1230 – 1400 hours	Networking Luncheon	Ballroom II and III, Level 4
1315 - 1345 hours	Knowledge Sharing ePoster Session 2	Ballroom II and III, Level 4
1400 - 1530 hours	Panel Session 1: Covid-19 Pandemic: HSE, Fatigue Management and Lessons Learned	Ballroom I, Level 4
1400 - 1530 hours	Technical Session 1: Novel Technologies and Digital	New York III, Level 2
1400 - 1530 hours	Technical Session 2: Workover, Well Intervention and Integrity	New York II, Level 2
1530 - 1600 hours	Coffee Break	Ballroom II and III, Level 4
1530 – 1600 hours	Knowledge Sharing ePoster Session 3	Ballroom II and III, Level 4
1600 - 1730 hours	Panel Session 2: Enhancing Environmental, Social and Governance (ESG) Performance in Our Industry	Ballroom I, Level 4
1600 - 1730 hours	Technical Session 3: Data Acquisition and Innovative Technologies	New York III, Level 2
1600 - 1730 hours	Technical Session 4: Well Design	New York II, Level 2
1730 – 1900 hours	Welcome Reception hosted by PTTEP	Ballroom II and III, Level 4
Wednesday, 10 A	August	
0800 - 1730 hours	Registration	Ballroom Foyer, Level 4
0800 - 1730 hours	Conference Headquarters / Speaker and Author Check-In	New York I, Level 2
0900 - 1730 hours	Exhibition	Ballroom II and III, Level 4
0900 – 1030 hours	Technical Session 5: HSE and Sustainability	Ballroom I, Level 4
0900 – 1030 hours	Technical Session 6: Management Systems and Case Studies	New York III, Level 2
0900 - 1030 hours	Technical Session 7: Drilling and Well Services Operations	New York II, Level 2
1030 - 1100 hours	Coffee Break	Ballroom II and III, Level 4
1030 - 1100 hours	Knowledge Sharing ePoster Session 4	Ballroom II and III, Level 4
1100 - 1230 hours	Panel Session 3: Digital Tools and New Technologies for Well Performance Optimisation and Low Carbon Emissions	Ballroom I, Level 4
1100 – 1230 hours	Technical Session 8: Field Development and Case Study	New York III, Level 2
1100 – 1230 hours	Technical Session 9: Hardware on Well Construction	New York II, Level 2
1230 - 1400 hours	Networking Luncheon	Ballroom II and III, Level 4
1315 - 1345 hours	Knowledge Sharing ePoster Session 5	Ballroom II and III, Level 4
1400 - 1530 hours	Technical Session 10: Al and Machine Learning	New York III, Level 2
1400 - 1530 hours	Technical Session 11: Well Completion	New York II, Level 2
1530 - 1600 hours	Coffee Break	Ballroom II and III, Level 4
1530 – 1600 hours	Knowledge Sharing ePoster Session 6	Ballroom II and III, Level 4
1600 - 1730 hours	Panel Session 4: Well Technologies for Energy Transition	Ballroom I, Level 4
1600 - 1730 hours	Technical Session 12: Wellbore Stability	New York III, Level 2

Beverly Hills, Level 2

IADC Southeast Asia Chapter (SEAC) Meeting & Networking Reception

1700 - 1930 hours

Conference Programme Schedule

Time	Ballroom I, Level 4	New York III, Level 2	New York II, Level 2		
		uesday, 9 August 2022	,		
	900 - 1000 hours Opening & Keynote Session				
1000 - 1100 hours	ours Coffee Break				
1015-1045 hours	Knowledge Sharing ePoster Session 1				
1100 - 1230 hours	Executive Plenary Session Well Technologies to Deliver Energy Transition and Sustainable Development				
1230 - 1400 hours	Networking Luncheon				
1315 - 1345 hours		Knowledge Sharing ePoster Session 2			
1400 - 1530 hours	Panel Session 1 Covid-19 Pandemic: HSE, Fatigue Management and Lessons Learned	Technical Session 1 Novel Technologies and Digital	Technical Session 2 Workover, Well Intervention and Integrity		
1530 - 1600 hours	Coffee Break / Knowledge Sharing ePoster Session 3				
1600 - 1730 hours	Panel Session 2 Enhancing Environmental, Social and Governance (ESG) Performance in Our Industry	Technical Session 3 Data Acquisition and Innovative Technologies	Technical Session 4 Well Design		
1730 - 1900 hours	Welcome Reception				
Wednesday, 10 August 2022					
0900-1030 hours	Technical Session 5 HSE and Sustainability	Technical Session 6 Management Systems and Case Studies	Technical Session 7 Drilling and Well Services Operations		
1030-1100 hours	1030-1100 hours Coffee Break / Knowledge Sharing ePoster Session 4				
1100-1230 hours	Panel Session 3 Digital Tools and New Technologies for Well Performance Optimisation and Low Carbon Emissions	Technical Session 8 Field Development and Case Study	Technical Session 9 Hardware on Well Construction		
1230-1400 hours		Networking Luncheon			
1315-1345 hours		Knowledge Sharing ePoster Session 5			
1400-1530 hours		Technical Session 10 Al and Machine Learning	Technical Session 11 Well Completion		
1530-1600 hours	Coffee Break / Knowledge Sharing ePoster Session 6				
1600-1730 hours	Panel Session 4 Well Technologies for Energy Transition	Technical Session 12 Wellbore Stability			

IADC Southeast Asia Chapter (SEAC) Meeting & Networking Reception



with optimism and opportunities slowly returning, it is an opportune time to meet with industry colleagues and the drilling leadership in the region at the IADC Southeast Asia Chapter Meeting and Networking Reception on Wednesday evening, the 10th of August at the Conrad Bangkok Hotel's Beverly Hills Room from 5pm onwards.

The agenda will consist of general chapter updates including a timely report on progress with the Chapter's vision and plans to initiate the SEAC HSE Awards scheme/program; a special Keynote Address from PTTEP by Benjamin Choo, Senior VP - Well Engineering & Operations Division; and an IADC Global Update from IADC HQ by Mike DuBose, Senior VP - International Development.

Kindly please RSVP via email to chit.hlaing@iadc.org if you plan to attend

General Information 10

General Information

REMINDER: CONFERENCE AND EXHIBITION BADGES MUST BE WORN AT ALL TIMES

Venue

Conrad Bangkok

All Seasons Place, 87 Wireless Road, Pathumwan, Bangkok 10330 Thailand. +66 2 690 9999

Event HQ and Speaker/Author Check-In

Speakers, moderators, presenting authors and session chairs are required to report to the Author Check-In Room at New York I, Level 2 to load/review their PowerPoint slides. Changes to presentation slides will not be accepted less than four hours prior to the session.

Speakers, moderators, presenting authors and session chairs must report to their assigned session rooms 30 minutes before the session begins.

Please collect your delegate badge before reporting to the Author Check-In Room

Badge Collection

Conference and exhibition 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 the Ballroom Foyer, Level 4 during the following times:

Monday, 8 August: 0900-1800 hours
Tuesday, 9 August: 0800-1900 hours
Wednesday, 10 August: 0800-1730 hours

Digital Proceedings

Digital proceedings are available for collection upon badge pick-up at the Registration Counter.

To purchase the proceedings, please go to the Registration Counter located at the Ballroom Foyer, Level 4.

Safety and Security

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

- Safety measures to continue to mitigate COVID-19 include:
 - Mandatory mask wearing at the event
 - · Practice social distancing
- Conference and exhibition 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 18 is permitted in the exhibition halls.
- There will be bag checks at all entrances, therefore we recommend that you do not bring bags or luggage into the venue to avoid delays.
- 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 remember to stay hydrated throughout the event.
- In the event of an emergency, SPE and/or Conrad Bangkok staff will provide attendees with the necessary information and instructions.

General Information 11

General Information

REMINDER: CONFERENCE AND EXHIBITION BADGES MUST BE WORN AT ALL TIMES

Exhibition/Technical Showcase Hours

The exhibition/technical showcase is open to all attendees at the following times:

- Tuesday, 9 August: 0900-1900 hours
- · Wednesday, 10 August: 0900-1730 hours

Lost and Found

Lost and found items will be placed at Conference Headquarters located at New York I. Level 2.

First Aid

In case of an emergency situation, please alert the nearest SPE or Conrad Bangkok staff.

Business Centre

Business Centre, Level 2

Photography and Videography

All conference sessions and the exhibition/technical showcase are protected by international copyright laws.

Photography and video/audio recording of any kind in conference sessions and the exhibition are prohibited without prior written permission by SPE.

Mobile Devices

As a courtesy to the speakers and your fellow attendees, please put your mobile devices on silent 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.

Sustainability Statement

SPE is committed to ensuring that the environmental impact of our events is kept to a minimum. We aim to make progress in the field of sustainability through digitalisation, reducing energy usage, promoting eco-friendly mobility, reducing water consumption, and limiting waste, all core values in keeping with those of the oil and gas industry.



The GHG emissions from the event have been offset by PTT Exploration and Production Public Company Limited (PTTEP).

Opening & Keynote Session

Tuesday, 9 August | 0900 - 1000 hours

Speakers



Dr. Sarawut Kaewtathip **Director General Department of Mineral Fuels**



Montri Rawanchaikul Chief Executive Officer **PTT Exploration and Production Public Company Limited**



Henricus Herwin Asia Pacific Regional Director Senior Vice President -**Society of Petroleum Engineers** Vice President Upstream **Business Development** PT Pertamina Hulu Energi



Mike DuBose International Development International Association of **Drilling Contractors (IADC)**

Executive Plenary Session

Executive Plenary Session: Well Technologies to Deliver Energy Transition and Sustainable Development

Tuesday, 9 August | 1100 - 1230 hours

Speakers



Kanita Sartwattayu Executive Vice President, Engineering and **Development Group PTT Exploration and Production Public Company Limited**



Chen Kah Seong Vice President, Centre of Excellence, Upstream

PETRONAS



Ivan Tan Country Chairman and Senior Vice President Malaysia Upstream Shell



Colby Fuser Region Vice President, Asia Pacific Halliburton



Harvey Snowling Chief Operating Officer **Borr Drilling**

Moderator



Thom Payne Director - Head of Offshore **Energy Services Westwood Global Energy**

Emerging well technologies have brought much enthusiasm in closing the gap towards net zero. The industry must continuously embrace new technologies to overcome challenges and address sustainable practices in drilling. This session will discuss up-and-coming innovations and the challenges that come with transformation during this unprecedented time.

Panel Sessions

Panel Session 1: Covid-19 Pandemic - HSE, Fatigue Management and Lessons Learned

Tuesday, 9 August | 1400 – 1530 hours

Speakers



Sunchai Pongorapin
Vice President,
Myanmar Well Operations
PTT Exploration and Production
Public Company Limited



Khairul Amir Khazali Head Wells Peninsular Malaysia Development **PETRONAS**



David Mok SEA Country Manager **Halliburton**



Derek Massie Vice President, Human Resources Vantage Drilling

Session Chairs



Rachit Cheerajin
Manager
Non-Operating Project
Support Section
PTT Exploration and Production
Public Company Limited



Mike Dubose Senior Vice President International Development International Association of Drilling Contractors

Amidst the COVID-19 pandemic, the oil and gas industry; including operators, drilling contractors and service providers, inevitably faced tremendous challenges in order to maintain production, manage their operations safely, and keep up with the rapid regulatory changes across the globe. This tough pandemic situation has been with us for some time, but have we done enough to keep everyone safe and run our operations efficiently? What are the challenges and most efficient means to succeed? Through the sharing of best practices, lessons learnt and meaningful discussion, this session will openly address collaborative efforts regarding HSE and fatigue management, during this ever-shifting time.

Panel Sessions

Panel Session 2: Enhancing Environmental, Social and Governance (ESG) Performance in Our Industry

Tuesday, 9 August | 1600 – 1730 hours

Speakers



Susama Pitakuldilog Vice President, Sustainable Development and Knowledge Management Department PTT Exploration and Production Public Company Limited



Wong Kim Mun General Manager Well Operations Malaysia Shell



Panos Koutsourakis Director Sustainability Strategy **ABS**



David Gerrard Vice President, Group QHSE **Sapura Energy Berhad**



Guan Xing Vice President PT COSL INDO

Session Chairs



Wayne Bauer Director of QHSE **Vantage Drilling**



Alex Maroske Head of QHSSE **Energy Drilling**

Environmental, social and governance (ESG) is a term that has gained prominence over recent years, and investors, operators and local governments are placing increasing expectations on industry in this area. ESG can be considered to describe how an organisation ensures a sustainable, responsible and ethical approach to business. However, what does ESG mean for the oil and gas industry? This panel discussion will explore how our industry is managing its approach to ESG, and some of the strategies being implemented across the industry.

Panel Sessions

Panel Session 3: Digital Tools and New Technologies for Well Performance Optimisation and Low Carbon **Emissions**

Wednesday, 10 August | 1100 – 1230 hours

Speakers



Kittipat Wejwittayaklung Well Engineering and DT Commercialisation Team Lead **PTT Exploration and**



George Wong Drilling and **Completions Manager Hibiscus Petroleum**



Carlos Diaz Global Account Director **Baker Hughes**



Vasilis Vasou Senior Project Manager, Well Construction Digital Ecosystem **Maersk Drilling**



Waldemar E. Szemat Vielma Principal Digital Drilling Digital Solutions Business Development Weatherford Manager Schlumberger



Manoj Nimbalkar Global Vice President -

Session Chairs

Production Public Company Limited



Anupong Chailert Business Development Drilling Manager Manager **Baker Hughes**



Thanawee Kreethapon **Carigali-PTTEPI Operating** Company Sdn. Bhd.

The energy industry is on the cusp of a major transformation. Digital transformation of every aspect of energy operations is a top priority for most companies. While there are many technology solutions in the market, digital transformation programmes require partners with the right people, the right skills, and the right ecosystems. Moving the energy industry to the next level of operational excellence, it is time to take a more proactive approach with collaboration in areas of digital tools that impact well performance optimisation. Technology can revolutionise how we utilise digital tools to optimise well operations, and how we identify and respond to low carbon opportunities. This session explores examples and ways of digital innovation the industry needs in order to run assets more efficiently - aiming towards low carbon operations for today and tomorrow.

Panel Sessions

Panel Session 4: Well Technologies for Energy Transition

Wednesday, 10 August | 1600 – 1730 hours

Speakers



Ahmad Yuniarto
President Director
PT Pertamina Geothermal
Energy



Robert Rohlfing Executive Chairman and Chief Executive Officer **Desert Mountain Energy Corps.**



Juhaidi Jaafar Senior Manager, Resource Development and Management, Malaysia Petroleum Management PETRONAS



Qiu Guoliang Vice President **PT COSL INDO**



Mousa Namavar Market Intelligence and Strategy Manager - Asia **Schlumberger**

Session Chairs



Suresh Kumar Ali Kiaie
Chief Executive Officer Global Comme
Progrowth Energy Pvt. Ltd. Digital Drilling



Ali Kiaie Global Commercial Lead, Digital Drilling Schlumberger

Oil and gas production will persist, into the near future, but with the energy transition from a carbon-based economy to a minerals-based economy, it is certain that wells and well technologies to access subsurface formations will still be required.

Both conventional geothermal and enhanced geothermal resources require cost effective but complex wells. The use of carbon capture, and underground storage (CCUS) requires not only wells but also completion and metallurgical advances. Underground storage wells for hydrogen, gas storage, compressed air energy systems encounter both geological and well challenges when a gas such as hydrogen is introduced.

With the change of fluids and gasses being used, well technologies such as casing and completion metallurgy, and cementing techniques to ensure well integrity will continue to advance. Underground storage and enhanced geothermal wells will require new understandings in reservoirs and subsurface formations.

Petroleum engineering techniques can aid deeper mineral extraction, as near-surface resources become hard to recover. Oil and gas drilling took over a century to evolve from salt mining methods, but the energy transition may require exploration and extraction of mineral rich fluids to succeed in a much shorter period.

Operators have already encountered challenges in the development of carbon capture and underground storage projects, and enhanced geothermal projects considered around the world, but cost-effective development of deep geothermal resources remains a challenge. In this session, we present some of these technology challenges and possible solutions that are being considered today in the energy transition.

Technical and Knowledge Sharing ePoster Sessions

More than 70 technical presentations will be presented across a vast variety of technical topics at the Technical and ePoster Sessions.

Technical Sessions include:

- · Al and Machine Learning
- Data Acquisition and Innovative Technologies
- Drilling and Well Services Operations
- · Field Development and Case Study
- Hardware on Well Construction
- · HSE and Sustainability
- · Management Systems and Case Studies
- · Novel Technologies and Digital
- Well Completion
- · Well Design
- · Wellbore Stability
- · Workover, Well Intervention and Integrity

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Last year we combined two of the best known drilling equipment manufacturers, MHWirth and Baker Hughes' Subsea Drilling Systems, to form HMH, a company that manufactures and services the key equipment required to operate any type of drilling rig.

Through our legacy brands, Pyramid, Hydril Pressure Control, Wirth, and MH among others, we have manufactured industry-leading drilling equipment for over 125 years. Our Masts, BOPs, Top Drives, Iron Roughnecks, Rotary Tables, Drawworks and many other types of equipment are installed in hundreds of drilling rigs globally, and we continue working hard to develop new products and services that enable, safer, more efficient and more sustainable drilling operations for our customers.

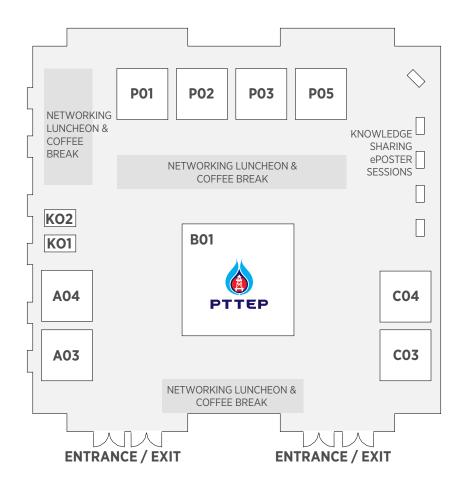
Find out more at www.hmhw.com





Exhibition Floor Plan

Ballroom II-III, Level 4



List of Exhibitors

Company Name	Booth Number
Air Drilling Associate Pte. Ltd.	P02
Baker Hughes	C04
China Oilfield Services Limited	A03
Derrick Corporation	P05
Expro Overseas Inc.	C03
IADC	K01
Oliasoft AS	P01
Pegasus Vertex, Inc	P03
PTT Exploration and Production Public Company Limited (PTTEP)	B01
Sinomine Specialty Fluids	A04
Society of Petroleum Engineers	K02

Exhibitor Profiles 20

Exhibitor Profiles

Air Drilling Associate Pte. Ltd. - Booth P02

31 Cantonment Road, Singapore 089747 Email Address: dsilas@airdrilling.com Website: www.airdrilling.com

Air Drilling Associates (ADA) is a leading provider of Underbalanced Drilling (UBD) and Managed Pressure Drilling (MPD) services. ADA also offers compressed air and membrane nitrogen services for a range of other applications including CTU, Well Cleanout, Gas Lifting, Stimulation, and various Pipeline & Process Services.

Baker Hughes - Booth CO4

No. 1010, Shinawatra Tower III 8th Floor, Unit No. 803-T, Vibhavadi Rangsit Road, Chatuchak Bangkok 10900 Thailand **Tel:** +66 2 637 1900

Email: anupong.chailert@bakerhughes.com

Website: www.bakerhughes.com

Baker Hughes (NASDAQ: BKR) is an energy technology company that provides solutions to energy and industrial customers worldwide. Built on a century of experience and conducting business in over 120 countries, our innovative technologies and services are taking energy forward – making it safer, cleaner and more efficient for people and the planet. Visit us at bakerhughes.com.

Join our Oilfield Services (OFS) team as we present products and services for on and offshore operations across the lifecycle of a well, ranging from drilling, evaluation, completion production and intervention.

China Oilfield Services Limited - Booth A03

P.O. Box 232 Beijing 101149 China

Tel: +86 10 8452 1687 **Fax:** +86 10 8452 1325

Email Address: cosl@cosl.com.cn **Website:** www.cosl.com.cn

China Oilfield Services Limited (COSL) is the leading integrated energy services provider in the Asian market. COSL's four main services divisions - Geophysical Services, Drilling Services, Well Services (Electric Wireline Logging, DD/MWD/LWD, Drilling Fluids and Cementing, Well Completion, Integrated Services), Marine and Transportation Services - cover the exploration, Exploitation, Development, Production, and Abandonment phases of the energy industry.

Derrick Corporation - Booth P05

7500A Beach Road, #16-307 The Plaza, Singapore 199591

Tel: +65 6264 0633 **Fax:** +65 6264 0116

Email Address: drueben@derrick.com

Website: www.Derrick.com

Derrick manufactures innovative technologies for the Oil & Gas Drilling industry. Derrick separation technology offers leading-edge solutions and around-the-clock, award-winning service to maximize rig solids control efficiency and solids removal performance. Using innovative screen technology, customers continuously recycle drilling fluid, while controlling drilled solids and impact on the environment. Further removal of ultra-fine drilled solids is performed by Derrick's decanting centrifuge. Derrick's equipment symbolizes rugged reliability in an industry known for its intensely hazardous environment and ever-changing drilling technologies.

Expro Overseas Inc. - Booth C03

18th Floor (Unit No.1803), Shinawatra Tower III, 1010 Vibhavadi Rangsit Road, Chatuchak Bangkok 10900 Thailand Tel: +66 2 620 1777

Website: www.expro.com

Expro is a leading well expert with a diverse set of global capabilities in well construction, well flow management and production, subsea well access, well intervention and integrity. Given our broad geographic footprint, diversified portfolio of solutions across the well life cycle, and long-tenured, blue chip customer base, Expro has a resilient business model that positions us to succeed and deliver enhanced value to shareholders through market cycles.

IADC - Booth K01

3657 Briarpark Drive, suite 200 Houston, Texas 77042 USA

Tel: +1 713 292 1945 **Fax:** +1 713 292 1946

Email Address: conf.registration@iadc.org

Website: www.iadc.org

IADC is dedicated to promoting innovative technology and safe drilling practices that bring oil and gas to the world's consumers. IADC is focused on core industry issues, like health and safety, training and accreditation, attracting the next generation to work alongside us, and serving as a strong advocate for oil and gas activities. IADC commits to helping the world obtain the reliable and affordable energy in needs in the most environmentally and socially responsible way possible. IADC supports global actions and transparency in delivering solutions to reduce environmental impact and GHG emissions.

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Exhibitor Profiles

Oliasoft AS - Booth P01

Hoffsveien 1C, 0275 Oslo, Norway **Email Address:** contact@oliasoft.com

Website: www.oliasoft.com

Oliasoft was formed in 2015 by energy sector and software professionals dedicated to using the best digital technology to automate the well planning workflow. Oliasoft WellDesign™ includes trajectory, casing and tubing design, blowout & kill simulations and conductor analysis. Our goal is accelerate digitalisation in oil industry and help engineers design cost efficient, safe and more effective including fulfilling regulatory requirement with possibility to achieve autonomous drilling operations and cross discipline integration and optimization thru open API.

Pegasus Vertex. Inc - Booth PO3

6100 Corporate Dr., STE 448, Houston Texas 77036 USA

Tel: +1 713 981 5558 Fax: +1 713 981 5556

Email Address: info@pvisoftware.com **Website:** www.pvisoftware.com

Pegasus Vertex, Inc. (PVI) has developed an extensive suite of drilling software to meet the challenges that operators and service companies face today in the oil and gas industry. PVI drilling software brings you the latest in technical advances in the form of both simplicity and superior usability. These software packages can be used for onshore and offshore operations, including vertical, directional or horizontal wells.

PTT Exploration and Production Public Company Limited - Booth B01

555/1 Energy Complex Building A, 6th Floor & 19th - 36th Floor, Vibhavadi-Rangsit Road, Chatuchak Bangkok 10900 Thailand

Tel: +66 2 537 4000 Fax: +66 2 537 4444 Website: www.pttep.com

PTT Exploration and Production Public Company Limited (PTTEP) is the E&P Flagship of PTT Group, Thailand's national oil company. Currently, PTTEP has more than 40 projects globally. Our business is driven by the vision to become the "Energy Partner of Choice" through competitive performance and innovation for long-term value creation. At PTTEP, we believe that to achieve the ultimate goal in ensuing energy security and sustainable growth for all, collaboration is more vital than competition.

Sinomine Specialty Fluids - Booth A04

Ocean House, Hareness Circle Aberdeen AB12 3LY UK

Tel: +44 1224 897229

Email Address: enquire@sinominecorp.com

Website: www.formatebrines.com

Sinomine Specialty Fluids are committed to creating and providing our unique cesium formate fluids and services at an affordable cost, mitigating operational, health, safety and environmental risks while creating discernible value from simplification, efficiency, productivity, recovery, and asset integrity for all upstream Energy operators globally.

The combination of physical and chemical properties of formate brines provides unique and differentiating features and benefits, enabling us to provide simple solutions for the most complex and challenging development projects.

Society Of Petroleum Engineers (SPE) - Booth KO2

222 Palisades Creek Drive Richardson Texas 75080 USA

Website: www.spe.org

The Society of Petroleum Engineers (SPE) is a not for-profit professional association whose more than 124,800 members in 144 countries are engaged in oil and gas exploration and production. SPE is a key resource for technical knowledge providing opportunities to exchange information at in-person and online events, and training courses, publications, and other resources at www.spe.org.

Contacts

Society of Petroleum Engineers (SPE)

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International Association of Drilling Contractors (IADC)

3657 Briarpark Drive, Suite 200 Houston, TX 77042 USA +1 713 292 1945 +1 713-292-1946

Visit go.spe.org/22APDTC for more information about the IADC/SPE Asia Pacific Drilling Technology Conference and Exhibition





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