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www.iadc.org

MINUTES

IADC Geothermal Committee meeting,

26 June 2025

Present at the meeting were:

Alex Heger, ÖMV; Alexis Garcia, NOV; Andreas Karkossa, H&P; Andrew Barry, Wild Well Control; Darren Mourre, Salos Sunesis; David Vavasseur; SMP Drilling; Dennis Breg, HP Wellscreen; Diana Tronco, Inco Drilling; Elliot Howard, Fervo Energy; Floyd Estay, BOP Products; Francisco Porturas, Archer Geo; Gabriel Houng, Beyond MPD; Graciano Rodriguez, Professional member; Gunjan Amarmani, LearnToDrill; Haas Malik, Aramco; Hani Ibrahim, Blade Energy; Idris Ben-Fayed, Blade Energy; Issa Kalil, Altus; Juan Pablo Arias, ?; Kamal Sanjakdar, Valaris; Lars Nydahl Jørgensen, IADC (minutes); Marcus Oesterberg, Ignis Energy; Max Wyndham, 3TGlobal; Michael Strauss, Ensign; Oliver Tausch, RED Drilling; Oumer Tahir, Hunting; Paul Dodd, BetaTec; Peter Kazar, ENOWA; Satya Perumalla, Baker Hughes; Scott Farmer (Committee Chair), Helmerich & Payne; Shaun Toralde, Weatherford; Steve Nas, Wellspec; Toney Deer, Well Control School.

In total 33.

1. New Members

Scott welcomed the new members. Please refer to the member list in the Sharepoint repository for more information.

2. Meetings and Conferences in 2025

Scott went through presentations given / to be given in 2025. Please refer to slide 5 in the presentation appended below.

It was noted that there was some uncertainty relating to the 2026 IADC Geothermal Conference as there was a lack of sponsors. SEE BELOW!

3. Guidelines and API Standards

Gregg gave an introduction to work currently planned to be taking place in the near future within API on geothermal energy. There was agreement that the IADC guideline shall be the central document, setting the stage, and API standards etc. shall preferably be written within this frame, such that the two support each other, in particular that the standards conform with the best practices that will be described in the "Guideline".

There was also agreement that this understanding needs to be put in writing between API and IADC. Scott and Lars are engaged on behalf of IADC to help produce a document for this purpose,

4. Work Group Leader Introductions - Objectives

Scott gave an overview of the staffing of the work groups as well as on the overall planning of the groups' work.

5. Work Group Updates

Subsequently, Alexander Heger, Toney Deer, Andreas Karkossa and Scott gave updates

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on the four work groups on 1) Well Design, 2) Well Control, 3) Rig and equipment, and 4) Classification. Please refer to slides in the presentation below.

Well Design - Alex Heger

There is a lot of engagement by work group members. A first, early document was circulated among members in the past week. Alex emphasized that this was an early document, which was designed to kick off discussions rather than provide answers here and now.

Well Control – Toney Deer

A first draft, which provides the frame of what may become the well control part of the Guideline is ready for work to start in the course of July.

Rig & Equipment – Bruce Gatherer and Andreas Karkossa

Work is in its early stages. There had been some lack of clarity regarding meeting participation, and Andreas called on group members to be clear about which meetings they can participate in.

Classification – Scott Farmer

While main body of the work has been completed, the one aspect which remains outstanding is the "Risk Index Calculator". There was a discussion about terminology, which appeared to be resolved by the suggestion to it the IADC well index.

There was agreement that assessment of individual risk components and presentation of the rating of these would be important. In addition, many felt that having one number representing the aggregate risk would be valuable, as this would enable a relative ranking well drilling candidate.

6. Discussion about geothermal training

Toney Deer explained the status of conversations with IADC's Accreditation group regarding what type of training IADC should offer in the geothermal space. It appears, the most likely outcome is a 1-day addendum to the Wellsharp course.

6. AOB

There being nothing further, the meeting was adjourned.

/ Lars Nydahl Jørgensen

POST MEETING NOTE: 2026 IADC Geothermal Conference

The IADC conference team has found it difficult to identify sponsors, in particular a main sponsor. Absent significant sponsorships, it will be difficult to hold the conference. If you consider it possible that your company would be interested in a sponsorship (in the EUR 5,000 – 25,000 range), please investigate this and revert to our conference team or to Lars ASAP.



Geothermal Committee

Quarterly Meeting – Q3 2025 – 26/06/25



Agenda

- New Members
- Committee Meetings 2025
- Presentations and Abstracts
- Guidelines and API Standards
- Work Group Introductions and Objectives
- Work Group Updates
 - Classification Scott Farmer
 - Well Control Toney Deer
 - Well Design Alex Heger
 - Rig & Equipment Bruce Gatherer & Andreas Karkossa
 - Drilling Technology Alex Vetsak
- Geothermal Training



New Members

- Alex Jermieson Barra Energy
- ...

85 (+1) members 54 companies



Proposed Planning – 2025

- Quarterly Committee Meetings, but more frequent work group meetings
 - 2 x in-person and 2 x virtual with longer format
 - Work Group leaders can dictate the frequency of WG meetings

- Committee Meetings for 2025:
 - Q1 23rd of January 2025 Virtual
 - Q2 27th of March 2025 In-person (hybrid) Vienna
 - Q3 26th of June 2025 Virtual
 - Q4 2nd of October In-person (hybrid) Reykjavk following IADC ART Conference



Presentations & Abstracts

Presentations:

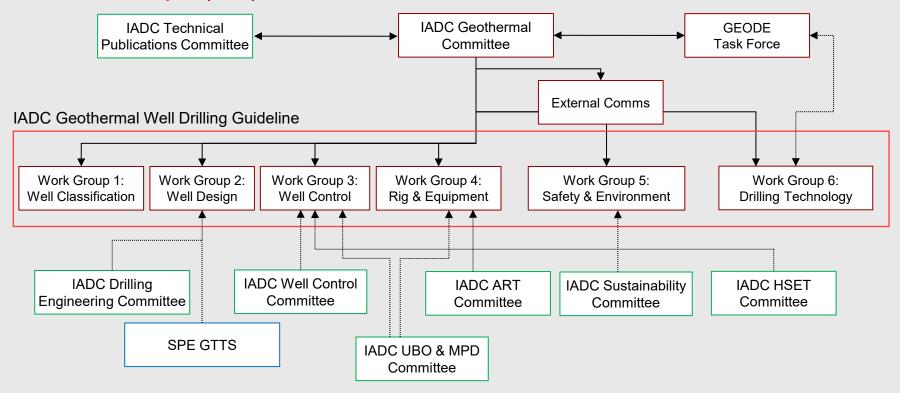
- 20th of February 2025, Offenburg GeoTHERM 2025 DONE
- 28th of February 2025, Webinar <u>Thinkgeoenergy</u> <u>DONE</u>
- 10 11th of June 2025, Amsterdam <u>IADC World Drilling 2025</u> <u>DONE</u>
- 30th of September 1st of October 2025, Reykjavik <u>IADC Advanced Rig Technology 2025</u> <u>CONFIRMED</u>
- 6 10th of October 2025, Zurich <u>European Geothermal Congress 2025</u> <u>CONFIRMED</u>
- GRC??
- 19th of March 2026, Houston <u>AADE</u>, <u>Innovative and Emerging Technology Study Group</u> <u>INVITE ACCEPTED</u>

Session Proposal:

- 8 12th of June 2026, Calgary WGC 2026 CONFIRMED
- Have Your Say: The IADC Geothermal Well Drilling Guideline



Work Groups (1/2)





Work Groups (2/2)

Classification	Well Design	Well Control	Rig & Equipment		Safety & Environment	Drilling Technology
Scott FARMER	Scott FARMER	Toney DEER	Bruce GATHERER		Bill KRULL	Alex VETSAK
Alexander HEGER	Alexander HEGER	Alexa GONZALEZ	Andreas KARKOSSA		Bruce GATHERER	Tony PINK (GEODE)
Bruce GATHERER	Dennis BREG	Bruce GATHERER	Alexa GONZALEZ		Paul NIEMANN	Diana TRONCO
Daria IVAKHNENKO	Diana TRONCO	Elliot HOWARD	Idris BEN-FAYED		others?	Gregory WALZ
Elliot HOWARD	Elliot HOWARD	Gregory WALZ	Scott FARMER			Marcus OESTERBERG
Kevin GRAY	Eric GONZALEZ	Haas MALIK	Tamas CSREFKO			Mitch DZIEKONSKI
Lars NYDAHL	Erwin BOERING	Idris BEN-FAYED	others?			Tamas CREFKO
Rafael WAGNER	François PENVEN	Izwan MEGAT	Externa		Comms	others?
Régis STUDER	Haas MALIK	Joshua GOSSANYI	_	Lars NY	DALII	
Shaun TORALDE	Issa KALIL	Péter KAZAR				
Steve NAS	Joshua GOSSANYI	Steve NAS		Scott FA	RMER	
	Oumer TAHIR			Shaun T	ORALDE	
	Péter KAZAR		:	Steve NAS Bill KRULL Kevin GRAY		
	Robert RITSCHEL					
	Steve NAS					
	Suri SURYANARAYANA		,	Alexande	er HEGER	



Work Group Planning

- First deliverable: Section Planning by Q3 meeting
 - What areas of the classification are concerned by the section?
 - Section headings and rough contents
 - What it is and what it is not
 - Other related standards or documents to consider

Aim to have sections and guidelines in draft format for WGC 2026 (June 2026)



Work Group Update – Classification

- Part 1 Definitions was published in mid-February
 - · Available on the website

Part 2 – Complexity Calculator → Risk Index (BETA release)

Part 3 – Worked Examples

· Questionaire to gather wells information to refine weightings and logic

Dedicated online application and database



Work Group Update – Well Control

Tony Deer



Work Group Update - Well Design

Alex Heger



Work Group Update - Rig and Equipment



- 2 Meetings conducted between Bruce and Andreas to kick off
 - What areas of the classification are concerned by the section?
 - Section headings and rough contents
 - What it is and what it is not
 - Other related standards or documents to consider
- Collection of related guidelines (New Zealand, Africa, Germany)
- Next meeting scheduled begin of July to follow up



Work Group Update – Drilling Technology

Alex Vetsak



Geothermal Training

- Open discussion
- Well Control
- Wider content?



AOB

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