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www.iadc.org

MINUTES

IADC Geothermal Committee Meeting,

3 December 2024

Present at the meeting were:

Haas Malik, Aramco; Francisco Porturas, Archer Geo; Gregory Walz, Clear Round Technology, LLC; Anthony Pink, GEODE, Peter Kazar, ENOWA; Scott Farmer (Committee Chair), Helmerich & Payne; teve Nas, Wellspec; Andrew Barry, Wild Well Control; Diana Tronco, Inco Drilling; Shruti Raghwaram, Rystad Energy; Shaun Toralde, Weatherford; John Beswick, Marriott Drilling; Andreas Karkossa, KCA-Deutag; Toney Deear, Well Control School; Krystina Amos, Infinite Energy; Izwan Megat, Parker Wellbore; Marcus Oesterberg, Ignis Energy; Siya Rostami, Satya Perumalla, Baker Hughes; Alex Vetsak, Eavor; Joshua Gossanyi, Ormat; Kamal Sanjakdar, Valaris; Brett Dalgety, BP; Dennis Breg, HP Well Screen; Lars Nydahl Jørgensen, IADC (minutes).

In total 25.

Please also refer to the slides appended below.

1. New Members

Satya Perumalla – Baker Hughes Kamal Sanjakdar – Valaris Krystina Amos – Professional Membership Vignir Demusson – Iceland Drilling (not present)

2. Presentations, Abstracts and Meetings

The presentation of the IADC Geothermal Committee's work had been given at more than 8 conferences with one more due this week and an abstract submitted for the European Geothermal Congress.

It was clear that in conferences out with the IADC, our classification terminology has already been adopted.

There was some discussion about the benefit of producing a flyer that could be handed out at conferences: Marcus Oesterberg generously offered that he would be happy to accommodate space for this in Ignis' stand at the Geotherm 2025 conference in Offenburg, Germany.

3. IADC Geothermal Drilling Conference 25-26 March 2025

The program is now available on the website (see here: https://iadc.org/event/iadc-geothermal-drilling-2025/.)

IADC has made an agreement for mutual promotion of conferences between this conference and EGEC's European Geothermal Congress in September.

A f2f Geothermal Committee meeting will be held in conjunction with the conference.

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4. GEODE Update

Tony Pink explained how the project had moved from "pain-point identification" to formulating problems that needed to be solved and identifying technologies that could solve them. The topics thus discussed included: Insulated Drill Pipes, High temperature Systems for Drilling, Improved Mud Cooling, High temperature cement.

5. Workgroup Update – Well Control

Toney Deer explained the status of the well control for drilling document. The document is well under way, and Toney has called for a meeting in the work group in the near future.

6. Workgroup Update - Classification

A working session held on 26th of November for Complexity Calculator Weighting of categories and attributes to be agreed upon.

The draft document is 60% complete. The aim is to share with the technical writer in December with expected publication in January 2025.

Publish in January 2025

7. Proposed Planning for 2025

Scott presented a proposal for a new structure of meetings, such that Committee meetings would be held quarterly and have a duration of two hours, and workgroup meetings would then be held at various frequencies. The emphasis would be that the workgroups is where work takes place, as follows:

Quarterly Committee Meetings but more frequent work group meetings

- 2 x in-person and 2 x virtual with longer format (TBC)
- Work Group leaders can dictate the frequency of meetings

The following meetings were proposed for 2025:

- 7th of January 2025 (Tues) Q1 Virtual Work Group Kick-Off Meeting (short format)
- 27th of March 2025 (Thurs) Q2 (almost) In-person (hybrid) Vienna
- 8th of July 2025 (Tues) Q3 Virtual
- 30th of October 2025 Q4 In-person (hybrid) Reno?

In addition, there would likely be a possibly be an option to hold a meeting in conjunction with the IADC Advanced Rig Technology conference in Iceland at the end of September (see here: https://iadc.org/event/iadc-advanced-rig-technology-2025/). Members were encouraged to indicate whether they preferred this to the end October option in Reno.

8. AOB



Geothermal Committee General Meeting – 03/12/24



Agenda

- New Members
- Presentations, Abstracts and Meetings
- IADC Geothermal Drilling Conference
- GEODE Update
- Workgroup Update Well Control
- Workgroup Update Classification
- Proposed Planning for 2025
- AOB



New Members

- Satya Perumalla Baker Hughes
- Kamal Sanjakdar Valaris
- Krystina Amos Professional Membership

• ...

80 members 50 companies



Presentations, Abstracts & Meetings

Presentations:

- 20th September 2024, Budapest Budapest Geothermal Energy Summit (Scott Farmer) DONE
- 9th October, Aberdeen <u>OEUK Wells Conference</u> (Kevin Gray) <u>DONE</u>
- 11th October, Paris <u>IEA Workshop</u> (Scott Farmer Attendance only) <u>DONE</u>
- 27-30th October, Hawaii Geothermal Rising (Shaun Toralde) DONE
- 11th November, London <u>UK Geothermal Symposium</u> (Kevin Gray) <u>DONE</u>
- 14th November, San Antonio <u>IADC AGM</u> (Scott Farmer) <u>DONE</u>

Abstracts Submitted:

- 20-21st February 2025, Offenburg GeoTHERM 2025 ACCEPTED
- 6-10th of October 2025, Zurich <u>European Geothermal Congress 2025</u> <u>PENDING</u>

Meetings:

Special in-person meeting on 8th November in Dubai, coinciding with the local IADC chapter (Oumer Tahir) – DONE



IADC Geothermal Drilling Conference

- 25th and 26th of March 2025
- Program Available on the website
- 27th of March 2025
 - Hydros Project Site Visit
 - Quarterly Geothermal Committee Meeting





GEODE

Tony Pink – Drilling Technology

https://www.geode.energy/





Work Group Update – Well Control

- Toney Deer
- ...

Work Group Update – Classification

- Working Session held on 26th of November for Complexity Calculator
 - Weighting of categories and attributes to be agreed upon Questionnaire

- Draft document is at 60% Aim to share with the technical writer in December
 - Classification Definition
 - Complexity Calculator Explanation
 - Worked Examples suggestions and help (data shared)

Publish in January 2025



Proposed Planning – 2025

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

- Committee Meetings for 2025:
 - 7th of January 2025 (tues) Q1 Virtual Work Group Kick-Off Meeting (short format)
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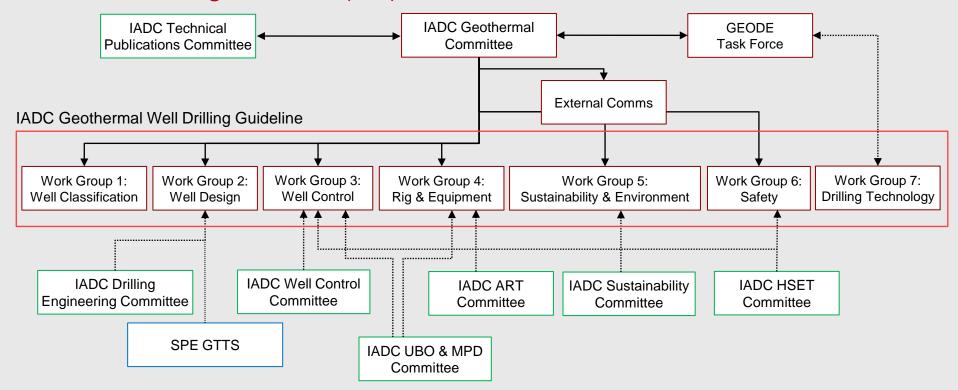




Back-Up Slides



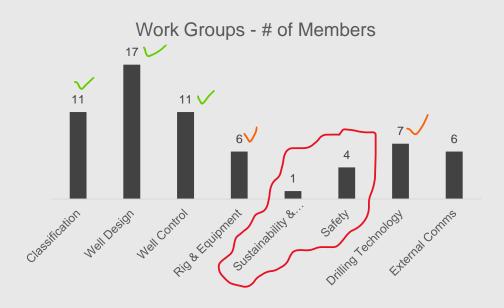
Committee Organization (1/2)





Committee Organization (2/2)

- Some groups need reinforcements
- Leaders needed for:
 - Rig & equipment
 - · Sustainability...
 - Safety
 - Drilling Technology
- Work expected to KO in Nov/Dec
- Initial Tasks:
 - Elaborate on section deliverables
 - Sub-section definition





IADC Geothermal Well Classification



