




**IADC UBO & MPD  
Committee Meeting  
Copenhagen, Denmark**

**4<sup>th</sup> Quarter Meeting  
December 3-5 2012**

**Attendance:**

<b>Name</b>		<b>Company Name</b>
Kristin	Falk	<b>AGR EDS-ORS</b>
Martin	Culen	<b>Blade Energy Partners</b>
Stuart	Butler	<b>Canrig Drilling Technology Ltd.</b>
Lars Tore	Haug	<b>Det Norske Veritas</b>
Kelly	Williamson	<b>Guidevue, Inc.</b>
Anton	Arnt	<b>Halliburton</b>
Ray	Bullock	<b>Halliburton</b>
Clayton	Mykytiw	<b>Hess Corporation</b>
Mike	Vander Staak	<b>Hess Corporation</b>
Joe	Hurt	<b>IADC</b>
Scott	Maddox	<b>IADC</b>
David	Seymour	<b>Maersk</b>
George	Michaud	<b>Managed Pressure Operations (MPO)</b>
Shantur	Tapar	<b>National Oilwell Varco</b>
Neil	Ross	<b>National Oilwell Varco</b>
Alan	Clarke	<b>National Oilwell Varco</b>
Frederic	Jacquemin	<b>Pacific Drilling</b>
Johnny	Gundersen	<b>Petroleum Safety Authority Norway</b>
Roar	Sognnes	<b>Petroleum Safety Authority Norway</b>
Svein	Horn	<b>Petroleum Safety Authority Norway</b>
Kenneth	Downs	<b>Pruitt Tool &amp; Supply Co., Inc.</b>
Roberto	Castillo Duran	<b>Saudi Aramco</b>
Don	Reitsma	<b>Schlumberger</b>
Tom	Askeland	<b>Siem WIS AS</b>
Harry	Bolle	<b>Siem WIS AS</b>
Dag Ove	Molde	<b>Statoil</b>
Gavin	Humphreys	<b>Stena Drilling</b>
Stewart	Wilson	<b>Strata Energy Services Inc.</b>
Iain	Sneddon	<b>Transocean</b>

	<b>IADC UBO &amp; MPD Committee Meeting Copenhagen, Denmark</b>	<b>4<sup>th</sup> Quarter Meeting December 3-5 2012</b>

Brian	Grayson	<b>Weatherford</b>
David	Pavel	<b>Weatherford</b>
Andrew	Barry	<b>Weatherford</b>
Todd	Cooper	<b>Weatherford</b>
Guy	Feasey	<b>Weatherford</b>

**Welcome, Announcements & Safety Moment.**

Dag Ove welcomed group, thanked Hess for sponsoring the meeting. and gave the group a safety orientation exits.

Scott reviewed the IADC Anti-Trust Guidelines and expressed that the guidelines could be retrieved in their entirety from the IADC web site at <http://www.iadc.org/committees/IADC-Antitrust-Guidelines-Rev-6.pdf>.

**Introduction of New Committee Members and Guests.**

Each attendee introduced themselves including their company name and location.

**Review & Approval of 3Q12 Meeting Minutes.**

The meeting minutes were reviewed and approved.

**Review and Confirm Subcommittee and Task Groups**


- MPD Recommended Practice- David Pavel
- UBO Committee – Martin Culen
- HSE Guidelines – Scott Maddox
- Training – Martin Culen
- Outreach – Mike Vander Staak
- DGD – Kristien Falk
- RCD Task Group – Martin Culen

**Discussion of status of MPD “recommended practice” document.**

David Pavel informed the committee on the status of MPD RP document. A suggestion was made to take the RP as is to the technical writer for edit. The plan is to vote on this document prior to the adjournment of the meeting.

**Discussion of Addendum to API RP92U – Underbalanced Drilling Operations, 1st Edition.**

The work done on API RP 92U has been looking at the well control matrix in terms of fixing the pressure reference. The committee has forwarded their work to API, and there will be a task group within the API working with this. There will be formal “kick-off” meeting with API. We intend to kick this off prior to next IADC UBO/MPD Committee meeting.

	<p style="text-align: center;"><b>IADC UBO &amp; MPD Committee Meeting Copenhagen, Denmark</b></p>	<p style="text-align: center;"><b>4<sup>th</sup> Quarter Meeting December 3-5 2012</b></p>
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**Discussion of Dual Gradient activities**

Kristin Falk informed the committee about the work being performed by the dual gradient sub-committee. At the time of this meeting, BSEE has not responded to the NTL. It was stated that the Chevron License followed similar steps as the NTL without referring to it.

During the breakout sessions, the DGD subcommittee will discuss the agenda for the upcoming dual gradient workshop scheduled for May 9<sup>th</sup>. During the breakout session, the group will also discuss what to focus on in the future and training needs.

Scott read a greeting and thanks to the committee from the subcommittee leader John Cohen. .

**Discussion of Draft HSE Planning Guidelines.**

Scott informed the committee that HSE document is complete and that the document will remain a reference only. A motion was made to vote on the document and the vote was affirmed.

**Discussion of UBO/MPD Training Initiative.**

As discussed by Martin Cullin the scope of the training subcommittee has been an underbalanced training curriculum accredited by IADC. This is now split into introductory and an advanced (supervisory) level. The curriculum is now sitting with IADC Accreditation. IADC will present the curriculum to the well control committee for review and comment. After the review and comment period, the curriculum will be ratified by IADC and reviewed by training providers.

Probably need to have dedicated work on training for surface backpressure MPD. Focus on what MPD means to well control. It is suggested that the subcommittee actively works on developing an accredited curriculum for Backpressure MPD well control as an add on.

There is potentially an option to develop a curriculum for training of dual gradient drilling. Every technology is different with different training requirements. This will be further discussed in DGD subcommittee. The suggestion is to provide a training guideline.


Examples from Chevron and Statoil were discussed. Chevron has developed a 8 day IADC accredited DGD training for everybody, and a 5 days advanced well control course building on a standard well control course. Statoil also have extensive MPD course including classroom, simulator and on-the-site training.

It is stated by Jonny Gundersen (PSAN) that training, specifically well control, is considered important and will be required by authorities.

Martin Cullen reviewed the new UBO curriculum.

**Report on Outreach activities.**

Mike Vander Staak informed the committee the outreach group has some good ideas. It was expressed that there was a desire to get more operators involved in the committee, but we need to reenergize this initiative.

	<p style="text-align: center;"><b>IADC UBO &amp; MPD Committee Meeting Copenhagen, Denmark</b></p>	<p style="text-align: center;"><b>4<sup>th</sup> Quarter Meeting December 3-5 2012</b></p>
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Anybody can sign up. If someone is not an IADC member, we allow them to attend one meeting. Government agencies and regulatory bodies are usually allowed to join without being a regular member. Please contact Holly or Scott if someone gets a kickback. Mike Vander Staak will take this forward to try to involve regulatory bodies invited to the meetings.

Mike will write a letter and send out from IADC to senior management in oil companies and drilling contractors to invite them to join our meeting.

**Status of proposal to reaffirm API Spec 16RCD.**

The API Spec 16 RCD document has been reaffirmed by the group and transferred to API. API has not yet updated this. Martin will follow up with Roland.

**Discussion on new API Spec 16RCD**

Work was performed on the API at the last meeting held in Houston, Texas by the task group. The “manufacturing standard” (part of the standard) was completed almost in full. Propose that outstanding comments are discussed by the group and a motion is made to vote and approve the document as is.

Additional work needs to be completed on the “operational testing” section of the document for equipment. This section will be started after the manufacturing standard has been finalized.

**API Recommended Practice for MPD operations**

Scott reviewed the committees approved balloting process.

David Pavel discussed the API RP and the time and commitment put forth in developing this document. This work has now come to an end and the intention is to vote for it at this meeting.

Scott Maddox informed the committee that Shell provided some additional comments for the document.

Dag Ove Molde proposes to vote for the RP.

The committee decided to have Shell’s last minute comments reviewed and acted on prior to the vote. The whole group participated in this review lead by Scott and David Pavel. All the comments were gone through in detail.


David will review the definitions alone or in a small group. This will then be presented for the whole committee prior to voting on it.

**HSE Guidelines Document**

The document was briefly presented by Scott based on info from Derrick. This is a guideline to go on the IADC website under the UBO/MPD Committee.

It was noted that there should be both UBO and MPD referred in the document. This was changed prior to the vote.

Ken Downs made a motion to vote. Tony Askeland seconded.

	<p style="text-align: center;"><b>IADC UBO &amp; MPD Committee Meeting Copenhagen, Denmark</b></p>	<p style="text-align: center;"><b>4<sup>th</sup> Quarter Meeting December 3-5 2012</b></p>
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20 in favor  
0 against  
1 abstaining

**Any Other Business.**

None Noted

**Review 2013 meeting plans (see below for committee meetings).**

Proposal for IADC conference UBO/MPD; 2014, 8-9 April Madrid, Spain  
Committee Meeting 10-11; sponsored tentatively by Repsol?

**Vote for new Vice Chair person**

**Nominees for main committee UBO/MPD:**

Martin Culen  
David Pavel  
Stu Butler  
Allan Park

**We will have Chair and Vice Chair for all subcommittees**

**UBO Subcommittee:**

Chair: Clayton Mykytiw  
Vice Chair: Martin Culen

**MPD**

Chair: David Pavel  
Vice Chair: John Kozicz

**DGD**

Chair Kristin Falk  
Vice Chair: Frederic Jacquemin

**HSE**

Chair: Don Reitsma  
Vice Chair: Lars Tore Haug (to be confirmed)

**Training**


Chair: Martin Culen  
Vice Chair: David Pavel

**Outreach:**

Chair Brian Grayson  
Vice Chair: Dag Ove Molde

**Regulatory Liaison**

USA: George Medley  
IADC/Q1/2009

	<p style="text-align: center;"><b>IADC UBO &amp; MPD Committee Meeting Copenhagen, Denmark</b></p>	<p style="text-align: center;"><b>4<sup>th</sup> Quarter Meeting December 3-5 2012</b></p>
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Norway: Per Cato Berg  
Canada: Sheldon (TBC by Mike Vander Staak)

**Tuesday, 4 December 2012**

**The meeting was called to order by Dag Ove Molde.**

The election was held for Vice Chairman for 2013  
The Committee elected Martin Cullen as Vice Chairman for 2013

**Future Meetings**

1Q13 – 15-16 April San Antonio TX Weatherford will host  
2Q13 – 24-26 June in Kristiansand. NOV will host (BP has requested to sponsor this meeting in London)  
3Q13 – 16-18 September in Houston, IADC will host. Blade will host lunch.  
4Q13 – 3-5 December in Copenhagen. Maersk will be the host (tentatively)

Outstanding  
Maersk will check  
David Pavel to ask Total  
BP, London?  
Shell Assen?

**Committee focus for 2013 discussion.**

**MPO best practices document.**

The question was raised should floating operations for category 2 surface backpressure control be included in the current document being worked? The previous decision had been to not do this in order to get the current document finished. Additional work was recommended to add further content, i.e. tripping recommendations.

Decision was made to work on PMCD during the next meeting since there are several wells being drilled in this manner and the number is increasing worldwide.

Floating operations scope could be investigated as an enhancement to the category 2 document.

Delta energy (pump driven) in 2014?


Increase and focus Outreach work.

**UBO/MPD Guidelines Document.**

Addition of categories. Very quick cut and paste exercise expected.

**Breakout into Task Groups & Subcommittees**

The Committee divided into breakout sessions. DGD committee – Kristin Falk lead. MPD Best Practices document definitions ready for vote tomorrow – David Pavel lead. API 16RCD document review - Martin Cullen lead.

	<p style="text-align: center;"><b>IADC UBO &amp; MPD Committee Meeting Copenhagen, Denmark</b></p>	<p style="text-align: center;"><b>4<sup>th</sup> Quarter Meeting December 3-5 2012</b></p>
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**API 16RCD TASK GROUP:**

Changes to clarify RCD body pressure rating, maximum operating pressure, stripping pressure.

Develop a separate RP document to address issues with respect to testing for extreme temperature, Oil base Mud (OBM), Marine Riser Use and combined testing, testing non monogram equipment to a test criteria as defined by end user. Issues are selection, operation, maintenance/refurbishment. Decided to start work on operational testing first for non-API monogrammed device that may be new or used. One of the tests to work on would be “Functional Testing of Non-API Monogrammed RCD’s”. Validation testing from 16RCD would be used as a minimum standard, i.e. stripping, dynamic and static testing. The RCD provider would be required to provide documentation proving results of the test.

Extreme Temperature Testing – Should be API monogrammed. Conduct validation testing at the planned flowing wellhead temperature and the actual drilling fluid with additives to be used. Conduct a Fluid compatibility test according to the relevant ASTM on packer element material.

Motion by Bryan Grayson to accept the current API 16RCD changes and to submit to API. Stuart ... seconded. 15 for, none against, no abstentions. **Motion was passed.**

**MPD Best Practices Document:**

Worked on definitions and minor changes. Since there were no further changes to be made other than as required by the editor, sorting the definitions in alphabetic order and adding the necessary drawings. “MAASP” was removed from the document. Don Reitsma made a motion to vote on the acceptance of the document. Seconded by David Pavel. 15 for, none against, no abstentions. **Motion was passed.**

**Dual Gradient:** Worked on upcoming workshop and training.

**Wednesday, 5 December 2012**

For the upcoming conference a keynote speaker and panel member for the Foams and Fluids discussion is still needed. Halliburton and M-I Swaco are on the panel. Cabot has not responded. Weatherford will see if they can get someone.

**Breakout into Task Groups & Subcommittees**


16RCD Task Group. 16RCD Operational RP. Discussion on fluid compatibility testing, test mandrel, combined testing. Discussion around lowering testing standards for lower pressure heads and heads with no pressure rating.

**Breakout Session Summaries**

**See above for API 16RCD and MPD Best Practices**

**Dual Gradient Breakout Report:**

The 2013 workshop is scheduled for May 9, 2013 (during OTC). Frederick Jacquemin reported. To facilitate better interaction between speaker and audience there will be two sessions, one in the morning and one in the afternoon. The morning session will include four speakers from Operators discussing drivers for DGD; deep water, depleted fields, problem formation, solutions. After the sessions are

	<b>IADC UBO &amp; MPD Committee Meeting Copenhagen, Denmark</b>	<b>4<sup>th</sup> Quarter Meeting December 3-5 2012</b>

complete, the audience will split into four groups. A speaker and follower will be positioned around the venue with the follower recording the interaction. At the end of the morning sessions, the follower will provide feedback to audience. The afternoon session will follow a similar format. Afternoon sessions will discuss operational challenges; design, integration and interfaces, well control, training. The day will close out with a wrap up and closing remarks.

Discussed Next steps. IADC white paper. Should be able to post on the IADC website.

#### **DGD Workshop Thursday May 9<sup>th</sup> 2013**

- The DGD subcommittee finalized the agenda of the workshop with 4 presenters selected for the morning session on “Drivers leading an operator to select a DGD solution” and 4 presenters for the afternoon session on “DGD Operational Challenges”
- Each presenter will be paired with a “follower” that will follow each presenter displayed in each corner of the room for exchange and focus group discussion in a smaller audience. The speaker/follower pairs will rotate every 10min to a different corner and the followers will take note and present a short debrief and key takeaways to the larger audience.
- Frederic and Kristin will gain acceptance and final confirmation of a few tentative speakers and followers over the next few days. Target to post the final DGD workshop agenda on the IADC website is set at Dec 15<sup>th</sup> 2012.

#### **DGD Subcommittee activities planned in 2013**

- Organize DGD workshop May 9<sup>th</sup> 2013 and work on venue/agenda for DGD industry events 2014
- Draft a “white paper” on Dual Gradient Drilling to be posted on the IADC website (target: prior to the end of 2013). This white paper would include reasons driving operators to select a DGD solution, from deep water to depleted fields or problem formations, definitions and description of how the dual gradient concepts and a panel of solutions tried in the past or available today to achieve dual gradient objectives, and finally some considerations on well control/well integrity highlighting similarities and differences of the various DGD solutions

#### **Adjournment:**

Meeting adjourned at 1:00pm.