



IADC Well Control Committee  
Meeting Minutes  
8<sup>th</sup> March 2017  
IADC Crown Center  
Houston, TX USA

## **Contractor roundtable**

There was no contractor roundtable prior to this meeting.

## **Well Control Committee Meeting**

### **Welcome & Introductions**

Steve Kropla of IADC opened the meeting and welcomed the attendees. He provided a building safety briefing and reminded everyone the meeting was subject to the [IADC Antitrust Policy and Guidelines](#). Mr. Kropla asked those present to introduce themselves and their companies.

### **Mud-Gas Separator (MGS) Presentation**

Robert Ziegler of Weatherford gave a presentation titled "Preparing for the Future: Mud Gas Separator Sizing and Considerations for Managed Pressure Drilling," which focused on MGS utilization for MPD operations, MGS sizing and MGS installation considerations.

Mr. Ziegler stressed that currently there is no unique document to comprehensively provide guidance on design and operation of MGS systems. This includes industry guidance for pressure testing, inspection protocols, installation, operation, testing, etc.

He added that there no API specifications for sizing MGS. The only known industry generated documents that attempt this is a 1991 SPE paper (McDougal, using a modified Atkinson Darcy-Weisbach equation) as well as another applicable equation by Weymouth (Watson et al 2003).

Mr. Ziegler said he saw a need to generate an industry best practice document and felt that logically that should be a task within the Well Control Committee. To begin that process, he stated that Weatherford now writing a paper which he would like to put up for industry peer review. The paper is expected to be complete within two or three months. At that time it will be submitted to the SPE for peer review and circulated to the IADC Well Control Committee.

Once this process is completed, he said, the finished document would be made available to IADC to publish as a recommended practice.

It was noted that BP is currently involved in a separate surface gas initiative that involves MGS systems. However, Mr. Ziegler said the Weatherford work will not be able to tie into that as it is a government driven initiative which is part of their process safety monitoring requirement.

Mr. Ziegler stressed that it is important to know what MGS can do and its capabilities. He also gave these general recommendations that have been considered by Weatherford while writing the paper:

- Ideally the mud level should be as low as possible, though the MGS will work to an extent when the intake is covered.
- Ideally, the MGS should include a high level sensor.
- For MGS installation, the vent line should be as straight as possible, and as big as possible. During rig design it is relatively easy to include an MGS as large as 96 inches, though this can be much more challenging to retrofit.
- For an HPHT well, consideration may be given to installing a second MGS and operating the two in parallel. It was noted, however, that contractors are sometimes reluctant to allow use of rig's well control equipment for MPD.

## **WellSharp Update**

Gerardo Barrera and Brooke Polk of IADC provided a joint update on IADC's WellSharp program.

Mr. Barrera noted that the average class size has gone up slightly. In addition, there were 6000 more people trained in WellSharp in February as opposed to January, a sign of an upturn in the onshore industry.

After more than 50 thousand exams given, the passing rate for the initial tests are 93 percent with an average score of 84. He noted that instructor exam success rates are lower at 84 percent, which indicates some instructors appear to be struggling with the exam.

Mr. Barrera said that IADC will be sending out a notice regarding proctor scheduling that will detail some personnel changes at IADC. Mr. Barrera will take care of liaising with Lloyds for proctor scheduling, while Sonia Martin will be handling the instructor approvals previously done by Mr. Barrera.

Regarding test codes, Mr. Barrera stated that orders now need a 72-hour lead time, and that there is now a minimum of 10 test codes required per order. He said IADC is currently working on a system to automate the process of purchasing exam codes.

Brooke Polk said that the WellSharp Questions Review Team has been reassembled that will be meeting about once a month to review and add questions to the test database. The next meeting will be March 22<sup>nd</sup> at IADC. She asked anyone who might be interested in participating to contact here.

She added that the Well Intervention instruction will have separate categories introductory level, service company equipment operator, and operator/wellsite supervisor. The draft curriculum is expected to be sent out before the end of March for a two-week comment period. The curriculum will also be reviewed by AESC and put to a final vote before being implemented. A timeline will be established for current programs to transition from WellCAP to WellSharp. Well servicing will also include a subsea supplement to equipment operators and wellsite supervisors.

Ms. Polk said the Level 5 engineering curriculum will probably be developed after the Well Intervention curriculum is implemented.

The Spanish version of the WellSharp exam was launched in January, and has its own Question Review Panel. In addition, IADC is about to pilot the Arabic and Mandarin translations, and is looking at developing an Indonesian Bahasa version.

WellCAP Plus is currently being revamped, with the development workgroup looking at adding simulation requirements and human factors elements. There are also plans for a new “enhanced” course under WellCAP Plus, which will look at high-fidelity simulation including human factors elements. IADC is also working on a standardized human factors curriculum for well control.

Ms. Polk said IADC recently completed a final review of the Train the Trainer curriculum, will be distributed for comment soon. IADC will also soon be launching a Train the Trainer accreditation system.

Ms. Polk introduced Keegan Mounce, new QA/QC Manager, and Ryan Mahoney, new QA/QC Coordinator. She said they will now be taking care of conducting the WellSharp audits within the three-year audit cycle.

It was noted that Internet Explorer is not recommended for accessing the WellSharp exam database. Instead, Chrome, Safari or Firefox is preferred. Providers should also be sure to clear the cache on web browsers.

The group took a break.

## **Using Choke Drills for Rig Site Knowledge & Skills Assessment**

Robert Carvel of Stellar Well Control (SWC) gave a presentation on a program conducted with Cobalt on to help them with crew assessments, drills and training. He noted Stellar had also worked with Rig QA on the training component of the project.

SWC used its WellCAT (Well Control Assessment & Training) system for this project. In this system, crew assessments are first needed to know what different individuals might need in the areas of coaching or training. To prepare for the assessments, SWC needed crew rosters by position, along with all of the operator and contractor’s well control policies and documents and information on prior well control incidents.

The assessments were performed individually while personnel were on tour. These started at the Drilling Superintendent and OIM level and went down to floorhands. Among other things, this provides a gauge of crew continuity. Mr. Carvel noted that while this was the first time SWC had used this approach, it was considered so successful that it is the way Stellar regularly does it now.

Mr. Carvel said it was important to gain the confidence of the rig crews to find out the specific areas people might need help with. The assessment would be stopped if the workers were unfamiliar with any specific items. At that point, Rig QA would “tutor” them on that aspect to help develop their understanding.

The assessments revealed that some younger drillers were dissatisfied with the instruction they received in well control school due to too many “war stories” from more veteran rig workers. SWC used that feedback to adjust some of the questions asked during the assessments. During the presentation, Mr. Carvel displayed the different forms used for the assessments for different positions.

Once the crew assessments were complete, Stellar wrote a summary of their findings and recommendations for Cobalt prior to doing choke drills. SWC tried to schedule the choke drills to enable them to work with both crews on a sixth generation drillship. Each entire crew was involved in the choke drill.

During the drills, a couple of times the rig was shut in and an emergency drill including shore personnel was performed. Because entire crew involved, one driller decided to bring in the pit personnel as well as drill floor crew. It was discovered that shaker hands and mud pit crew didn’t understand what was really going on, and the drill provided a good opportunity to explain their significance of their role in process.

As a result, Mr. Carvel, said, drilling curve improvement was “astronomical.” He stated the bottom line is to include choke drills into not only BSEE assessments but some onshore assessments as well.

He noted it is important to gauge each individual personally. It is also more useful to gauge competence by watching people perform on rig as opposed to classroom, since most crews don’t get that much time operating the choke.

Mr. Carvel concluded by saying that the program might be considered expensive, but that “it is well worth it.” He added that he had been in some discussions with underwriters about possible insurance credits for companies that provide this type of in-depth onsite training.

## **Update on Subcommittees & Workgroups**

Well Control Practices Subcommittee – Paul Sonnemann, SafeKick. Mr. Sonnemann stated the newly-formed subcommittee is working to create a format for its work. The group would like to establish a mechanism for regular review of issues that emerge in well control. One possible goal is to decide what needs to be recommended and taught. The group hopes to be able to ask questions about whether certain things are good practice, and they would like to design process for identifying and analyzing practices to

be reviewed. Mr. Sonnemann said he would like the subcommittee to meet after every Well Control Committee meeting. Such a meeting was planned following this meeting.

Curriculum Subcommittee – Matt Parizi, Chevron. There was no report

Simulator Subcommittee – Michael Arnold, Intertek. Mr. Arnold said the group was considering recommending a Train the Trainer course for well control instructors where they could learn more effective ways to operate simulators for courses. The group has noticed an upturn in some segments of the industry and are concerned that might impact the focus given by training providers on simulator practice and assessment. The group may survey simulator OEMs about the possibility of providing visual alarms along with graphs. Some providers have “wish lists” for simulator functionality, and the subcommittee is compiling a list of those. He also noted that simulator assessment sheets tend to vary between providers, and said the group is looking at the possibility of a standardized assessment instrument.

Barriers Subcommittee – Scott Randall, PlusAlpha Risk Management. There was no report.

### **Discussion & Next Meeting**

Mr. Kropla noted that the next Well Control Conference of the Americas will take place at Moody Gardens Hotel & Conference Center in Galveston on 29-30 August. He said the Planning Committee had met the prior week and that the program should be distributed by the end of April.

Mr. Kropla noted that presentations scheduled for the June meeting would include a presentation by Helix on 20K BOP systems used on Total’s Solaris project, as well as a presentation on HPHT Considerations by Harris Lefleur of Smith Mason. (POSTSCRIPT: Mr. Lefleur’s presentation was postponed due to a scheduling conflict. Instead, the June meeting will feature a report of the IADC Underbalanced Operations & Managed Pressure Drilling Committee by Chairman Oscar Gabaldon of Blade Energy Partners).

The next meeting of the Well Control Committee will be at IADC Headquarters on Thursday, 22<sup>nd</sup> June. This was changed from 21<sup>st</sup> June due to a scheduling conflict.

The meeting was adjourned, with meetings of the Well Control Practices Subcommittee and Simulator Subcommittee scheduled to follow immediately.

Attendance:

<b>Name</b>		<b>Company Name</b>
Austin	Johnson	<b>AFGLOBAL</b>
Brendyn	Emerson	<b>BLOWOUT ENGINEERS</b>
Ricky	Erwin	<b>BLOWOUT ENGINEERS</b>
Dan	Eby	<b>BLOWOUT ENGINEERS/SIERRA HAMILTON</b>

Bob	Sliva	<b>CONSOLIDATED PRESSURE CONTROL</b>
Gergely	Szekely	<b>CONTITECH OIL &amp; MARINE CORP</b>
Chance	Jackson	<b>GSM OILFIELD SERVICES</b>
William	Burch	<b>HELIX OILFIELD SERVICES</b>
Steve	Kropla	<b>IADC</b>
Donnie	Williams	<b>LLOYDS REGISTER</b>
Ray	Pereira	<b>M&amp;M INTERNATIONAL</b>
Laura	Murchison Ringler	<b>MURCHISON DRILLING SCHOOLS, INC.</b>
JR	Mills	<b>NABORS DRILLING</b>
John	Bottrell	<b>NOMAC DRILLING CORPORATION</b>
Peter	Bennett	<b>PACIFIC DRILLING</b>
Felipe	Terra	<b>PETROLEO BRASILEIRO S.A.</b>
Benny	Mason	<b>RIG QA INTERNATIONAL INC</b>
Pete	Kidd	<b>RIG QA INTERNATIONAL INC</b>
Roger	Sanchez	<b>RIG QA INTERNATIONAL INC</b>
Paul	Sonnemann	<b>SAFEKICK</b>
Zhaoguang	Yuan	<b>SCHLUMBERGER</b>
Larry	Schmermund	<b>SMITH MASON &amp; COMPANY</b>
Randy	Smith	<b>SMITH MASON &amp; COMPANY</b>
Jaime	Acero	<b>SMITH MASON &amp; COMPANY</b>
Cheryl	Francis	<b>STATOIL</b>
Chuck	Boyd	<b>STATOIL</b>
Robert	Carvell	<b>STELLAR WELL CONTROL</b>
Sam	Bowden	<b>STELLAR WELL CONTROL</b>
Robert	Ziegler	<b>WEATHERFORD TECHNOLOGY &amp; TRAINING CENTER</b>
Barry	Cooper	<b>WELL CONTROL SCHOOL</b>
Steve	Richert	<b>WILD WELL CONTROL INC.</b>
Kevin	Braggs	<b>XCEL SAFETY TRAINING SOLUTIONS</b>