

IADC Well Control Committee Meeting Minutes 11th December 2019 Ensign Energy Services Houston, TX USA

Contractor roundtable

An informal discussion of drilling contractors was held prior to the Well Control Committee meeting. Key topics discussed included the following:

- Operator demands for more equipment at lower rates
- BSEE interpretations different from API Standard 53
- Quality issues with OEMs and resulting NPT
- Recent onshore rig fire
- Substandard MPD equipment on onshore rigs
- Loss of senior personnel due to uncertainty in the industry
- Operators applying offshore standards to onshore rigs
- Extra RMD training for contractor personnel
- Update on Subsea Technician Competency Assessment

Well Control Committee Meeting

Welcome & Introductions

Pete Bennett of Pacific Drilling (Committee Chairman) opened the meeting and welcomed the attendees. Nial Shepherd of Ensign (Committee Vice-Chairman) provided the building safety briefing. Steve Kropla of IADC provided a building safety briefing and reminded everyone the meeting was subject to the <u>IADC</u> <u>Antitrust Policy and Guidelines</u>.

Mr. Bennett asked those present to introduce themselves.

Orbit Valves, Drilling Chokes and RMD

Charlie Orbell of ADS Services provided a presentation on "Orbit Valves, Drilling Chokes and RMD." ADS mainly operates in West Texas supplying Rotating Control Heads, pressure control valves and chokes. Mr. Orbell said in his opinion, MPD is a drilling tool that should be used on all wells to provide dynamic control and immediate response, particularly in West TX since it has many overpressured zones.

Mr. Orbell said he has overserved a gap in crew training which has been made worse by frequent turnover on onshore rigs. He stressed a failsafe system is needed to prevent overpressuring. His company has been teaching dynamic control of well, fairly with a fairly broad curriculum specific to West Texas. Contractors have been positive about training provided to crews.

The group discussed incorporating more MPD and RMD training in conventional well control courses. Does current WellSharp course adequately address secondary well control methods? It was noted there is currently a push to get rid of conventional well control equipment.

Rig Fire Aftermath and RMD Training

Mike Nuss described a rig fire in the DJ Basin involving stop work authority. A conventional rig with a snubbing unit on top was drilling out horizontal plugs, tripping out of the hole. In this case, the wrong type of snubbing unit was on site, but the operator used it anyway. The driller tried to stop work and was overruled. The rig fire resulted with three employees hospitalized. Mr. Nuss stressed everyone is under pressure, especially in an industry downturn highlighting the, need to agree on a plan and formalize any changes. He encouraged contractors to develop a specific plan and stick to it, and to stop work and replan if the wrong equipment is in place or equipment breaks.

Nial Shepherd of Ensign discussed fire on rig T445 on 1st August. While sliding, there was a pit gain of about 7 bbls over a 2-minute span. The Driller noticed a small flame at the end of the flare stack and attempted to call the company man. He heard what sounded like air coming out of the flow line and went to investigate. During this time, there was more than 1400 units gas at the shakers. Just as the Driller was returning to the console, he heard a popping sound similar to a tire popping. He looked through an opening in the floor and saw a large plume of smoke in the sub area. At this time, there was a fire at the shakers.

The Driller turned off the pump, top drive rotary, and tightened brake chain. He saw the fire, then went down to accumulator, opened HCR, and closed the annular. After mustering, the Driller was instructed to close the pipe rams and HCR, because the fire was unable to be contained. The fire migrated to the front of the sub area. All personnel on location were able to safely muster.

As corrective actions, the company will develop and issue a Well Control Manual that covers equipment, competency, training, procedures and policies. They will also develop un-conventional well control training to be added to the curriculum of company organized Well Control Training Courses. This will provide an additional ½ to 1 day of training specific to Company well control methods and

unconventional drilling. Other steps will be to engage with clients to agree on minimum equipment standards and well control practices regarding unconventional drilling. They also intend to review of rig floor layout and design to ensure adequate exit routes in the case of an emergency.

The group took a short break.

WellSharp Updates

Alma Roberts gave an update on the WellSharp system. She discussed recent metrics: 9000 total courses YTD, up slightly due to introduction of Well Servicing courses. She discussed analytics of the program, such as reviewing how frequently questions are asked and how many times they are missed. As an example, one question on BOP stacks was missed 43 percent of the time on the drillers test. Questions with such high failure rates are reviewed to determine if it indicated a need to improve the training or whether question needed to be rewritten for better clarity.

Discussion of meeting with MPD Committee and IADC ACD staff to establish more formal accredited MPD training outside of WellSharp, such as a supplemental course for UBO/MPD similar to subsea. It was felt that would make the option more attractive for training providers and could eventually lead to a standalone course. It was suggested that the WellSharp Advisory Panel be invited to the next meeting. The group also stressed the need to bridge Well Control and UBO/MPD Committees. Brian Piccolo, future chairman of UBO/MPD Committee, voiced support and suggested a meeting with the Advisory Panel.

WellsInMind/Human Performance in Oil & Gas

Steve Kropla of IADC gave the presentation on the WellsInMind initiative, noting that its name would likely change to Human Performance Oil & Gas (HPOG). Chris Parker of BP had originally but scheduled to make the presentation but was unable to attend the meeting.

Mr. Kropla noted the initiative had originated with a "Human Performance in Well Control Workshop" was recently coordinated by IADC in conjunction with the SPE/IADC 2019 International Drilling Conference in The Hague, Netherlands. That event was sponsored by BP, Shell, Total and Baker Hughes/GE. The workshop had originally been proposed by Shell during the June 2018 Board meeting of the Well Control Institute, an organization focusing on well control under the auspices of IADC.

Members of the organizing committee have continued to meet to discuss how to best follow up to the workshop, with the result being WellsInMind/HPOG which will be modeled on the successful DROPS program. A kickoff meeting for HPOG

was originally scheduled to be held at IADC on 1st April but was moved to the Noble Drilling training center to accommodate a larger audience.

Committee Organization

Steve Kropla awarded Pete Bennett a plaque commemorating his two years of service as Committee Chairman. Nial Shepherd of Ensign Energy Services was named the new Committee Chairman. A vacancy currently exists for a Vice Chair employed by an offshore contractor.

General Discussion

It was suggested the next meeting include a discussion on the Well Control Subcommittee's review of current well control practices.

It was also suggested to include an update on on API Standards related to well control.

Next Meeting

The next Well Control Committee meeting will be at 9 a.m. 11th March 2020 at IADC's Crown Center 1 in Houston. This will take place at IADC's offices at 3657 Briarpark Drive, Suite 200. The meeting will be preceded by a Drilling Contractors Roundtable from 8 a.m. to 9 a.m.

Attendance:

First Name	Last Name	Company Name
Charles	Orbell	ADS SERVICES
Jed	DiPaolo	ADS SERVICES
Brian	Piccolo	AFGLOBAL
Mike	Vander Staak	BEYOND ENERGY
Lester	Leger	CAD CONTROL SYSTEMS
lan	McDaniel	CAMERON A SCHLUMBERGER COMPANY
Charles	Boyd	CS INC. (CS)
Jon	Shoemaker	DIAMOND OFFSHORE
Nial	Shepherd	ENSIGN SOUTHERN DRILLINC
Danny	Patterson	ENSIGN SOUTHERN DRILLINC
Michael R	Nuss	ENSIGN SOUTHERN DRILLINC
Robert	Kemper	EXXONMOBIL

		
Adam	Fosson	HELMERICH & PAYNE
Steve	Kropla	IADC
Alma	Roberts	IADC
Julio C.	Ochoa	INTERNATIONAL TRAINING SERVICES
Richard	Grayson	NABORS CORPORATE SERVICES, INC.
Chris Spanky	McGehee	NOBLE DRILLING CORP.
Andrew	Warren	OTC SOLUTIONS, LLC
Peter D	Bennett	PACIFIC DRILLING
Dustin James	Dvorak	PATERSON UTI
Kurt	Lipton	PATERSON UTI
Micah	Spahn	PRUITT
Ernest	Okeke	PRUITT
Paul	Sonnemann	SAFEKICK
Larry	Schmermund	SMITH MASON & COMPANY, LLC
Chris	Stewart	VALARIS PLC
Tammy	Lewis	VALARIS PLC
Matthew	Vorenkamp	VORENKAMP WELL CONTROL TRAINING
Nadine	(Osayande) Amini	WEATHERFORD INTERNATIONAL
Rudy	Flores	WEATHERFORD INTERNATIONAL
Harshad	Patil	WEATHERFORD INTERNATIONAL
Robert	Goodwin	WEATHERFORD INTERNATIONAL
Dana	Varisco	WELL CONTROL SCHOOL