

# WELL CONTROL COMPETENCY ASSESSMENTS AT THE WELLSITE



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Wild  
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# History Repeating Itself

- Historical questions come to mind where we as an industry have failed. There was a recent piece written by Derek Park which illustrated the old saying of “Those who cannot remember the past are doomed to repeat it.”
- Sea Gem N.Sea-December 1965
- Alexander Kielland-March 1980
- Ocean Ranger- February 1982
- Piper Alpha July 1988
- Petrobras P-36- March 2001
- Montara, West Atlas- August 2009
- Deepwater Horizon-April 2010
- Nigeria – January 2012



411 lives have been lost collectively by these accidents and granted this is offshore and heavily regulated,,,,,,,,,,,,,

So the question is, are we living with acceptable risks even under these regulations??

# US domestic land events

- Watonga Okla-2012 Continental Res.
- Powers Lake N. Dakota, 2 killed, 2 seriously injured
- Jane Lew, West Virginia CNX 2011
- Rock Cave West Virginia 2010- 2 dead Sam Jack Drlg
- Ashley Alabama 2009 Dominion Res
- OZ Springs, Oak Ridge Tennessee 2009
- St Martinsville La.-2008, Greywolf Drlg.
- Crosby Texas- Duke Energy Storage drill out, 1 injured Nabors rig 2007
- Windsor Energy, Park County Wyoming H2S 2006
- DeRitter La- 2005 Snubbing job- 7 dead Sonat/Cudd
- Liberty Texas -2003 Storage well drill out 3 dead
- Brookhaven Ms.-Nabors H2S 1999?
- Lost Hills Field, San Joaquin Basin 1998
- Lake Somerville Texas-1997 Nails Creek 2 dead So.West Drlg
- Torch Operating/Big E #3Baka No. 1- La Grange Texas 1995 one dead,
- Terra Resources Monahan, West Tx. 1995?
- Amarex-Pennington-Thompson #1 TRG 131, So. Texas 1981
- Stevensville Mississippi, 1975 Conoco 1 dead, 2 injured
- PineyWoods Miss. 1973 Shell Oil. 1 dead H2S



# Well Control Call-outs

- ▣ Wild Well get 5-7 calls a week, of the current ones , 70% are land based.
- ▣ Majority of wells drilled in the US are as well
- ▣ 55,000+ wells drilled this year in the US, 1 per 1000 will be a full blowout
- ▣ Over 600,000 production wells actively being worked
- ▣ 85% of the blowouts in the last 10 years have been due to a lack of fundamental Well Control. Forgetting the basics!



# It's Always a Challenge

- ▣ **Industry challenge** is to respond to the need for a proper process for assessment for kick identification with inexperienced and experienced crews. Fast drilling and horizontal conditions and complex fluids mask subtle changes in down-hole dynamics that can be easily missed or at least mis-diagnosed.

**Land drilling doesn't always face the same requirements** (regulatory) that offshore drilling does.

We need to explore ways to increase operational wellsite awareness and good communications to add to our safety and efficiency, when formal training alone isn't enough.

- ▣ **WellSite Competency Drills and Assessment: *drills***
- ▣ **Rig Audits**
- ▣ **Random testing with gap analysis**
- ▣ **Incident Command Coaching; *drills***
- ▣ **DWOPS: *drills***



# Visible Safety Leadership from Senior Players in the Industry are inconsistent.

- ▣ “Workers do not believe it to be the high priority that duty holders claims to be.” (stop action or shut-in)
- ▣ Technical issues can be solved by design but behavioral issues require a little more attention
- ▣ Individuals Must have confidence and authority to do the right thing within the work environment and at the right time. Job Integrity
- ▣ If we don't empower and support the employees to react properly then we are condemned to future incidents



- ▣ Well control training (IADC/API/IWCF) is generally recertified every 2 years and many crews forget what they experienced just 6 months later, sometimes less, depending on the type of training they received.(adult learning applications)
- ▣ One effective way to add importance to what is expected at the rigsite, and give confidence to the crews is offering well control tune-up (measured kick drills) training specific to each job responsibility.  
Frequency....

Many employees have never even heard about well control and what to even look for until they reach AD level, so additional awareness is useful and profitable.



# Insurance companies have supported WC training for many years to reduce their losses

- ❑ But generally clients only have one supervisor per site to be compliant
- ❑ Is the Rig manager the only one that needs awareness here, offshore it's AD and above^^
- ❑ Can the driller see all that goes on
- ❑ If the hands are well informed, will they do what is needed, and if they don't know..... then self-preservation will definitely take over.



- ❑ Can they really create a Stop Action?? Saying so isn't practicing it! **A disconnect!**

## Problems we face together

- ❑ In the rush to field new rigs and new crews on an ever increasing scale, we place hands with little education and illiteracy in multiple languages and expect understanding on engineering , technical type principles.
- ❑ Tick and Flick expectation in training still exists
- ❑ Too high a rate of consultants with poor skills
- ❑ 9 out of 10 mentality
- ❑ No problem “ it’s just shale drilling”, we’ve done this before..
- ❑ Workover to Drilling experiences

## Why not incorporate skills in well control awareness where they operate in a practical sense.

- ❑ Non-threatening environment
- ❑ Supportive
- ❑ Real world practice
- ❑ Job specific
- ❑ Well specific



# Wellsite expectations

- ▣ To give an evaluation of crew effectiveness to react to the potentials of a kick
- ▣ Judge skill sets per crew member
- ▣ Reemphasizes knowledge of warning signs
- ▣ A fair Gap analysis to apply necessary improvements for managers
- ▣ Non judgmental condition towards crews



# Suggested Path Forward??

- ▣ Meet and Greet with the Command and RM/Toolpusher.
- ▣ Walk thru a typical wellsite toolbox safety meeting
- ▣ Challenge each position about WC responsibilities
- ▣ Define actions before and during a kick
- ▣ **\*\*Execute a kick drill for timing and effectiveness with remediation**
- ▣ Leave & Review Laminated Killsheet
- ▣ Shut-in procedures
- ▣ Crew responsibilities
- ▣ Written report on effectiveness and potential for additional support and training per employee



# Elements of WellSite Assessments

- ❑ *Train* the trainers for incorporation of company's best practices (Mentoring)
- ❑ *Challenge* employee on his duties before and after a kick is detected
- ❑ *Challenge* each job position why his input is critical to the over all operation
- ❑ *Challenge* employee's on operational equipment and maintenance necessary for containment
- ❑ *Timed drills* for efficiency
- ❑ *Confirm* that the driller completely understands his role for shutting in the well.
- ❑ *Challenge* supervisors et al
- ❑ *Test* critical positions and report gap analysis finding for improvements to act upon
- ❑ *Incorporate* frequency relative to operations, bi-annual or quarterly



# Cost vs Benefits

- ▣ Low costs-easier to move one (assessor) than four(employees) \$\$\$\$\$\$\$\$\$\$
- ▣ Much cheaper than day rate loss or worse
- ▣ Discounts on BOP insurance, even secondary
- ▣ Employee's day is more than "rub and scrub"
- ▣ Team building, learns efficiency and awareness
- ▣ Improves client and contractor relationship
- ▣ Compliant to Sub Part O needs, SEMS etc.

# Good tools are still good tools

- ▣ By using the tools we, as an industry, have found to be effective, we can eliminate unnecessary loss of life and property.
- ▣ This is good Stewardship
- ▣ It's good business too!  
So can we, yes....
- ▣ We can learn from our past and do it better.  
And hopefully.....and by design not be doomed to repeat it!

