

TECHNICAL COURSE

60 Years of Worldwide Blowout Events: Root Causes & Lessons Learnt

Course Overview

The course is intended to enhance drilling personnel appreciation to one of the risks in the drilling industry. It is not intended to induce apprehension but to build appreciation towards good communication, team work, situational awareness and the courage to come forward and say something in the case of unclear instruction or situation – as well as to evaluate the fine balance between short cuts (cost savings) and the probability of unwanted well control event.

The course dissects real blow out cases and is a good complement to well control certification training by in-depth evaluation of policies, procedures and the hardware used or not used in the drilling process. The training includes classroom sessions, case studies, and discussions among participants to make the session interactive.

Course Objectives

- Discussing the **60 years record** of worldwide blowout events
- Understanding **human behaviour** and its effect on blowout incidents
- Discussing selected **Shallow Gas Blowout**
- Detailed discussion focusing on the 2 major events, the **Deepwater Horizon** and **Montara** blowouts
- Analyzing some events by use of the **Ishikawa diagram**
- Determining **causal effect** of the blowout
- Sharing **lessons learnt** and best practices

Targeted Audiences

- Entry-Level Rig Crew Members (Roustabouts, Floorhands, Derrickhands)
- Drilling Supervisor, Drilling Managers and Superintendent, Rig Manager, TP, Drillers, Assistant Drillers, Drilling Engineers, and Wellsite Engineers
- Service Company Personnel (Mud Loggers, Wireline Operators, Cementing Engineers)
- HSE Professionals Working in Drilling Operations

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Learning Outcome

Upon successful completion, participants will be able to:

1. Appreciate the influence of **human behavior** on drilling incidents in particular well control
2. Appreciate the **consequences of blow out** sometimes effecting the environment, cost of life, loss of rig and platform, and the reputation
3. Understand & Manage the use of **Ishikawa diagram** to assist in root cause analysis
4. Understanding the **Causal effect** of the blow out events presented
5. Take learning out of these blow out events with the aim of **not repeating** them in their own operations

Delivery Method



Interactive Lectures



Case Studies



Group Discussion

Key Benefits of This Program

- ✓ **Deep Insights from Real-World Blowouts:** Study actual case studies from around the world spanning six decades
- ✓ **Master the Root Causes:** Identify common technical and human failures behind blowouts
- ✓ **Learn From the Past, Protect the Future:** Convert past mistakes into proactive safety strategies
- ✓ **Practical Tools & Best Practices:** Gain hands-on knowledge on industry-recognized prevention methods
- ✓ **For Crews and Engineers, By Experts:** Training conducted by seasoned industry professionals with blowout management experience
- ✓ **Certificate of Completion:** Boost your professional profile with a recognized certificate in blowout incident analysis & prevention

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Course Outline

Day	Content
Day 1	• Introduction, outlining the objectives of the course • Human behavior affecting the operational success and safety • Outline latest well control event as per SINTEF • Selected significant blowout events over the past 60 years • Ishikawa diagram • Shallow Gas blowouts
Day 2	• Review of Day 1 lessons • Shallow Gas blowouts (continued from Day 1) • Enchova, Norway 2/4-14, Prior Trust Blowouts and other events • Montara blowout 2009
Day 3	• Review of Day 2 lessons • Lapindo Brantas, Elgin HTHP and other events • Macondo Deepwater Horizon blowout 2010 • Close out discussion and lessons learnt

Year	Blowout Event
1964	USA GoM, CP Baker Drilling Barge, 22 Fatalities
1969	USA St. Barbara Channel, Platform Alpha, 100 kbbbl Oil Spill
1977	Norway Ekofisk Bravo, 202 kbbbl spill
1979	Mexico GoM, Ixtoc 1, 3.5 mil bbl oil spill
1980	Gulf of Arabia Hasbah Platform, 19 Fatalities, 100 kbbbl oil spill
1984	Brazil Campos Basin, Enchova Platform, 42 Fatalities
1985	USA Mississippi, EN Ross 2 Snubbing Blowout
1985	Kazak / Russia Tengiz Well #37
1988	Norway, 2/4-14 HTHP
1990	UK, 22/4b-4 Shallow Gas Blowout
1991	Kuwait, 700 Wells on Fire, 11 Fatalities, Al-Awda Project
1993	Vietnam Actinia Semi, Shallow Gas

Year	Blowout Event
1997	Kalimantan, Ataka E Unocal, UGBO Gas Broaching, Loss Platform
2004	Norway, Well P-31A Snorre A TLP
2004	Egypt, Tamsah Platform Burned Down, Gas Thru Wet Cement in Shoe Track
2006	East Java Lapindo Banjar Panji 1, UGBO Mud Volcano
2009	Australia, Montara, 31 kbbbl Oil Spill
2010	USA GoM, Deepwater Horizon, 11 Fatalities, 4.9 mil bbl oil spill
2010	Norway Well C-06A Gullfaks C Concrete Structure, Hole in Casing
2012	UK Elgin HTHP Well G4
2016	Norway Well 31/2-G4 Troll A Concrete Structure
2018	USA Oklahoma Well Pryor Trust 718 Patterson UTI Rig, 5 Fatalities
2025	Russia, Yamalo Nenets Land Well