



INTERNATIONAL WELL CONTROL VERIFICATION, L.C.

NAME: ROBERT (BOB) HARVEY
CITIZEN OF: Canada
LANGUAGES: English

EDUCATION / TRAINING

- B. Eng. (Civil, Water Resources), Memorial University, 1974
- M. Eng (Ocean), Memorial University (thesis not yet complete)
- Petroleum Industry Training & Safety Courses
 - Offshore Safety: Liero 1 – 3 & BST (expired)
 - International Well Control Certificate (expired)
 - Semi-submersible Ballast Control Certificate
- Software Capabilities
 - MS Office
 - MS Project
 - Pertmaster Project Risk
 - @RISK Monte Carlo Simulation
 - CFD Fire Dynamics Simulator Modelling
 - Bowtie XP
 - Precision Tree
 - Visual Basic.Net
 - PHA Pro
 - @RISK for Project
 - Flaresim
 - Relex Fault Tree Software

WORK EXPERIENCE (1974 – present)

- **International Well Control Verification, L.C.** (2012 – present)
 - Managing Director – Houston, TX
- **HTK International** – (2010 – 2012)
 - Senior Risk Specialist – Houston, TX / St. John's, NL
 - Risk Lead – Husky Energy – St. John's NL, Canada
 - Risk Champion – Tubular Bells Development, BP US
 - Blowout response plan development for exploration program, Australia

- Worldwide Exploration (AWE)
- **BOOTS & COOTS – (2009 – 2010)**
 - Principal Technical Specialist - Houston
 - Well control hazard assessment and audit, AWE exploration program, ongoing Hazard assessment of new rig design, Mad Dog field, BP US
 - QRA of alternative well designs, Kodiak development, BP US
 - Evaluate well design to determine need for managed pressure drilling, Repsol
 - QRA process development for subsea and dry tree well production, BP US
- **John Wright Company – (2006 – 2009)**
 - Principal Risk Engineer – Houston
 - Peer review of Kashagan Field development QRA, Caspian Sea, Shell
 - Integrity management gap assessment, North American Gas, BP US
 - Development of risk management processes, North American Gas, BP US
 - Critical Well Risk Assessment, North American Gas, BP US (3 studies)
 - CFD fire modeling for new platform concepts, BP US
 - Development of blowout response plans and contingency manuals, BP US and Indonesia
 - Evaluation of susceptibility of drilling rigs to fire and blast damage, Lower 48 states, BP
 - Development of risk management process, xHPHT developments, Gulf of Mexico, BP
 - Underground diamond mine QRA, Northwest Territories, Canada, BHP Billiton
- **Risknology Inc, (2004 – 2006)**
 - Executive Consultant / QA Manager – Houston
 - Thunder Horse EA, BP, Aug 2005 - Mar
 - Project risk management studies, Mardi Gras Development, BP (two studies)
 - Fire risk study (CFD modeling), Telemark Development, Norsk Hydro
 - Dropped object study, Telemark Development, Norsk Hydro
 - Escape and evacuation study, Telemark Development, Norsk Hydro
 - Dropped object study, Frade Field Development, Chevron
 - Dropped object study, Independence Hub
 - HPHT gas well QRA, Woodside Energy
 - Development of risk assessment process for API RP90 Sustained Casing Pressure
- **IRC – (2003 – 2004)**

- Technical Director – Perth, Australia
- SIMOPs safety case for Angostura drilling, testing and production operations, BHP Billiton
- Development of performance standards for HSE verification of Angostura design, BHP Billiton
- Smoke and fire modeling (CFD model development), Angostura process platform, BHP Billiton
- Helicopter safety review, Angostura Development, BHP Billiton
- Search and rescue capabilities review, Angostura Development, BHP Billiton
- Escape, evacuation and rescue analysis for Angostura platforms, BHP Billiton
- Risk analysis of subsea gas leak, Angostura field development, BHP Billiton
- Underground diamond mine QRA, Northwest Territories, Canada, BHP Billiton
- Risked cost-benefit analysis of leak detection system, Angostura export pipeline, BHP Billiton
- **Canadian Risk Technologies/ Altinex (1994 – 2003)**
 - Managing Director – St. John's, NL Canada
 - Management of subsea tree, templates & manifold installation contract, Terra Nova field, Petro-Canada.
 - Development of drilling programs for offshore HPHT gas wells, Sable Offshore (2 projects)
 - Preparation of applications to regulatory agency for HPHT well approvals, Sable Offshore
 - Risked cost-benefit analysis of subsea gas flowline isolation valve, Husky Energy
 - Evaluation of operational & HSE risks related to GOM deep-water exploration operations, JNOC
 - Risked CBA of trenching of seafloor for flowline protection, Husky Energy
 - Project risk management process development, Petro-Canada, St. John's
 - Risk-based drilling unit selection, Faeroe Islands deep water drilling program, BP, Aberdeen
 - Project risk management, Terra Nova FPSO Turnaround
 - QRA of Terra Nova subsea well completion design, Petro-Canada,
 - QRA of jack-up operations in presence of icebergs on Grand Banks, Chevron Canada

- Assessment of technology for offshore marginal field development for Grand Banks, Husky Energy
- Operator's representative for slimhole exploration program, eastern Canada:
 - Well design,
 - Rig selection and contract negotiation
 - Regulatory application development
 - Wellsite supervisor/engineer
 - Contracts management
- Development of well integrity standard, ADMA-OPCO, Abu Dhabi
- Review capability of eastern Canadian yards to construct facilities for Terra Nova field development
- Lecturer, Petroleum Engineering, Memorial University, St. John's, NL
- Advisor on development of Memorial University Petroleum Engineering Elective
- **College of the North Atlantic (1993 – 1997)**
 - Petroleum Engineering Instructor – St. John's NL Canada
- **Canada-Newfoundland and Labrador Offshore Petroleum Board (1986 – 1993)**
 - Well Operations Section Supervisor – St. John's NL Canada
- **Canada Oil and Gas Lands Administration (1985 – 1986)**
 - Engineering Manager – St. John's NL Canada
- **Labrador Shelf District (1982 – 1985)**
 - Safety Engineer – St. John's NL Canada
- **Environment Canada (1975 – 1982)**
 - Industrial Wastewater Program Manager – St. John's NL Canada
- **Beak Consultants, Montreal (1974 – 1975)**
 - Process Engineer – Montreal, Quebec, Canada

- **RISK MANAGEMENT:** Specialist in risk assessment for deep water developments: more than 20 projects completed including HSE safety case studies, qualitative and quantitative risk assessment studies (including fault tree, event tree and bowtie development), risked cost-benefit analyses and project risk management studies. In addition, I have planned and chaired more than 70 Hazop, Hazid, FMEA and learnings capture workshops.
- **PETROLEUM ENGINEERING:** Well design, drilling program development and management, preparation of AFEs, wellsite supervisor, contract manager for subsea equipment installation, wellsite drilling engineer for extended reach wells



(offshore) and slimhole wells (onshore), extensive regulatory experience related to well licensing and auditing, including development of regulations

- **ENVIRONMENTAL ENGINEERING:** Extensive experience in environmental impact assessment, wastewater cleanup and enforcement of environmental regulations