



ABSTRACT

1000076

Senior Wells Engineer - Completions

SENIOR WELLS ENGINEER - COMPLETIONS

PROFILE

Multifaceted, diverse career ranging over 28 years from land to subsea wells, initial drilling activities through final completions handover, completions to production, local to international, small shallow wells to the largest gas production wells in the world. The journey has been through research, new product development, technology innovation, execution and operational advising. A strong background in both the mechanical and fluid aspects of well construction, from, creating, evaluation, and improving solutions with a system engineering approach that sometimes has required developing new solutions and techniques. Full understanding that everything starts with safety, testing, and quality. Having a mindset to assure planning, job preparation, and economic goals are aligned is paramount to a successful project. Developed a common-sense approach to working on tasks at hand regardless of how big or small to deliver solutions both individually as a manager or through teamwork.

Notable career highlights:

- Hundreds of formation damage tests from reservoirs around the world in developing an understanding of fluids interface with the reservoir.
- Forefront of fracturing fluid development for high temperatures in the 1990's.
- Early beta user on hydraulic fracturing software (GOFHR) and gravel pack software (Sand CADE).
- Patented and developed methods and tool applications for OHGP and Fracpacs for shunt tube technology. The development involved design, testing, training, marketing and worldwide introduction, including several of industry firsts related to hydraulic fracturing, gravel packing, multizone completions and horizontal wells.
- Enhanced multiple sand screen designs by developing the industry's first quality plans. Additional enhancements led to the industry first timed thread.
- Developed, Designed and Executed completions for several of the largest gas wells in the world.

Industry expert involving:

- Sand control
- Open hole gravel packing, Cased hole fracturing
- Ultra Deepwater Completions
- Ultra high rate gas wells
- Sand Screens, and Downhole completions equipment
- Formation damage
- Drilling and completion fluids
- Detail analysis of data to improve well integrity, reliability and productivity

PROFESSIONAL EXPERIENCE

10 months

....., Oslo, Norway

Consultant Senior Completion Engineer

Providing frontend engineering work developing the lower sand control completion design, PDO and BoD for an ultra deep water field development comprising of OHGP, multizone completion, water, and gas injectors. Establish company procedures and guidelines as a new operator. Responsible for the selection of the lower completion design.

1 year

Multiple locations

Completions Consultant Advisor

Provide consulting services for ultra-high rate cased hole gravel pack gas producer.

Full field completions review with recommendations on future developments with the field

Created first field scorecard with life of well cycle

Post review of completions in OHGP for major oil company for reliability and future implementations.

8 years

Primarily with **International Oil Company (IOC)**, Houston, Texas

Senior Completion Engineer - Technical Specialist Sand Control

Manned the central support team for IOC global completions. The daily activities ranged from supporting field operations, supply chain tendering, new technology evaluations, quality control checks, design reviews, Peer assists, BOD reviews, training, advising and coaching.

- Provide worldwide support for IOC regions (GOM, West Africa, Azerbaijan, North Sea, Alaska, Egypt and Trinidad) completion operations. Including job site execution of 20 pumping operations in Trinidad.
- Create new practices for a global effort for standardization in WBCO, Screens, sand and gravel selection, OHPG, and Perforation Practices.
- Worked with team members to establish templates for post job evaluation reporting and scorecard guidance to evaluate the integrity and robustness of the completion. This included evaluating and obtaining PackPro for pre-job engineering design and post job down hole gauge analysis for cased hole and open hole completions.
- Instructor for advanced development program for sand control.
- Evaluated numerous new technologies in fluids (high density carrier fluids, oil based carriers, kill pills), screens (Multi-zone screens, ICD's, Expandable, SAG's, shunt systems), and wired drill pipe erosion testing,
- Impacted IOC management to begin project of soft sand injectors and advised some of IOC's immobile proppant project including on job support for final field trial.

..... 250 MMSCFD gas rate

- Reviewed, Selected and Designed gravel and screen
- Developed SOR for Screens and lead sand screen design review
- Developed total fluids SOR and fluids qualification program for the all completions operations including the reservoir drilling fluids.

2005 – 2008

(bpTT) Port of Spain, Trinidad

Senior Completion Engineer, Consultant

Plan, design and supervise both cased hole and open hole sand control completions including wells producing 250MMSCFD. Actively participate in promoting service quality improvements with vendors. Completed gravel packs on Flamboyant, Mahogany, and Cashima platforms.

- Re-Introduced gravel packing above fracture pressure on cased hole recompletes of Mahogany A-11 and A-12. These wells were high rate gas producers with MA12 being greater than 1 MMSCD/ft.
- Successfully introduced new technology to Trinidad
- Established quality programs for WBCO fluids and Gravel pack fluids on and offshore.
- Established pumping yard tests which eliminated offshore pumping operations shut downs and gravel pack failures.
- Participated in several QA/QC and HSE audits at vendor locations

- Coach and mentor graduate and new completion engineers. One challenge engineers graduated the bp program a year before any of his predecessors.

2003 – 2005

Schlumberger Port of Spain, Trinidad

Project Manager/Senior Desc Engineer

Provide in house technical, planning support to BP preventing business loss and regaining market share. Instrumental in preparing the scope of work and quality structure for the BPTT, BG and EOG service contracts for Schlumberger Trinidad.

Directly responsible and involved in the design, planning and execution phases of the following projects.

- BP Kapok 9 wells (250 MMSCFD) and 3 Cannonball wells (325 MMSCFD) open hole completions
- Bp TSP recompletions (6 wells)
- BP Immortelle OrientXact2 completions
- BNOC horizontal OH completions (4 wells)
- Established and managed desc engineers in offices for SLB in Trinidad to support completion operations in tools and fluids for the following operators. Trinmar/Petrotrin, 2 bpTT, EOG, BG.

2002 – 2003

Schlumberger, Rosharon, TX

InTouch Manager

Managed the global 24/7 InTouch help desk, identified and engaged subject matter experts while being responsible for the content of completions systems knowledge management for the help desks: packers and completion accessories, perforating, subsea, sand control, flow control and multi-laterals, gravel pack fluids, frac pack fluids for sand control.

Managed technical community leading and encouraging the capturing lessons learned, best practices, reviewing and approving technical manuals, supporting operations, completions designs and procedural reviews. Promoted tech alerts and safety bulletins to the completions community.

Instrumental in improvements of the InTouch infrastructure and user interface.

Peer review team member for all related new completions engineering projects.

Raised the satisfaction rating of the SandFace and Packer help desk from 60 to 90%.

2000 – 2002

Schlumberger, Rosharon, TX

Product Champion Alternate Path (Global Business Development Team)

Responsible for the global development, marketing and implementation of the AllFRAC technique. Responsible for implementation and development of new R&D improvements as well as engineering modifications for Schlumberger Alternate path screen technology worldwide.

- Internal and Client Presentations, Marketing Material and Engineering Manuals
- Support 100 fracs during this time period. Completions established new records in length of zone to be fracked moving from less than 100ft to over 360 ft. One example was the use of shunts in Shell Ursa completion.
- Risk Analysis on Major Projects
- Assist in Project Reviews for Screen Systems
- Global Service Delivery and Quality for sand control screens
- Assist in Global Sand Control Completions
- Budgetary and financial responsibilities for the Product line.

1998 – 1999

Schlumberger Lafayette, LA

Sandface Completion Engineer (Global Business Development Team)

Responsible for designing and implementing sand control completions. These included performing industry first jobs in the North Sea for BP and in Kazakhstan for Texaco.

- Onsite job support 6 jobs including 3000 ft HRWP and 3000 ft Shunt pack.
- Multiple Tender preparations
- Developing Multizone and Multi- functional gravel packing systems

1997 – 1998

Schlumberger Lafayette, LA

Product Champion Horizontal Well Completions (Business Development Team)

Provided all engineering design, testing and marketing for Schlumberger horizontal open hole gravel pack techniques. Including the introduction of 100% efficiency viscous gel packing techniques (shunt Tubes) and complete HRWP systems for open hole completions. Responsibilities:

- Develop marketing material in forms of videos, brochures and technical papers for Horizontal Gravel Pack Completions
- Providing Worldwide Support and Training for OHGP within all sand control regions of SLB
- Developing Alternate Path Horizontal Gravel Packing Techniques (shunt rheology curve) and boundaries
- Developed the shunt configuration of the 2x2 design and introduction of a timed thread to the oil industry.
- Service Delivery and Quality for Horizontal Completions
- Shunt sales and pull through went from \$3 to \$65 million during this time period of industry downturn.

1995 – 1997

StimLab, Inc Duncan, OK

Rheology Group Leader

Focused on testing fracturing fluids being utilized in the industry relating to proppant transport.

- Managing the Rheology Department team of 10
- Managing the Rheology Consortium (23-34 Major Operators, Service Companies and Suppliers)
- Co-Authoring of 7 year-end Rheology Consortium Reports
- Providing numerous large scale customer studies
- Providing Designs for Fracturing Treatments
- Initiating a Screen Consortium (6 Major Operators, Service Companies and Screen Suppliers)
- Multiple customer tests conducted by all service companies fluids for proppant transport, chemical companies for friction reducers and various other testing including the first shunt test for erosion.

1990 – 1995

StimLab Duncan, OK

Formation Damage Group Leader

Responsible for the core flow department as group leader. Under my leadership, testing services grew from an estimated \$50,000 to over 1 million dollars per year.

- Managing the Core Flow Department (group of 8)
- Managing the GRI Formation Study on Coal-Bed Methane.
- Managing and Coordinating the Acid Consortium (15-23 Major Operators, Service Companies and Suppliers).

- Provided 25% of time in the Rheology group in data analysis, fluid research, and presentations
- Managed over 200 Core Flow Formation Damage Studies.
- Designing Core Flow Testing Devices for Internal and External use including single port hassler sleeve with flow by head still in use by Core lab today.
- Managing all Logistical and Operational Processes for the manufacture of 2 automated International Labs.
- Co-authoring 4-year end Stimulation Consortium Research Manuals.

1987 – 1988

Tenneco-Operators Inc., Farmington, NM

Production Engineer

Assigned the direct responsibility for the production of over 80 gas wells. Actively monitored the wells and proposed improvements to increase the production. Worked with upstream pipeline organization in auditing the measurement of the gas from the fields performing spot audits utilizing full testing trailers. Worked on the following:

- Tenneco Engineer in Training Program
- Field Engineer as a Pumper and Gas Measurement Engineer
- QHSE indoctrination Program

1980 – 1985

Sun Cementing of Wyoming Gillette and Newcastle, WY

Bulk plant operator, bulk truck operator and pumper

Working in the bulk plant during the first year to gain experience, and then gradually responsibilities were added including:

- Actively participated in over 100 field jobs
- Running Bulk Truck and Cement Truck mainly on surface and plug back operations
- Surface Production and Plug Back Cementing operations

EDUCATION

1984–1987	University of Wyoming B.S. Petroleum Engineering	Laramie, WY
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1983–1984	Casper College	Casper, WY
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INTERESTS

Outdoor activities, farming and sports

MEMBERSHIPS

SPE (1986 - 2017), API subcommittee 19SS

PUBLICATIONS AND PRESENTATIONS

- Author/Co-Author of 14 SPE papers
- Co-Author GRI formation damage report on coal bed methane
- Numerous presentations on formation damage and completions.
- Instructor for SPE sand control horizontal completions with Wally Penberthy 1998-2000.

PATENTS

12 Issued in Areas of Sand Control Tool Development, Logging and Fracturing Techniques. Several are utilized currently by the industry.