

# Falcon Oilfield Services

## An Overview



**Falcon**  
oilfield services

[www.falconofs.com](http://www.falconofs.com)

- History
- Team
- Operations
- Track Record
- Services
- Questions & Answers



# Team



- Significant blue-chip international experience within management team.
- Experienced local and expat logging engineers across all logging disciplines
- Experienced reservoir engineers and log analysts.
- In house lab engineers and repair team
- Active program for the training of fresh gradates
- 90+ employees

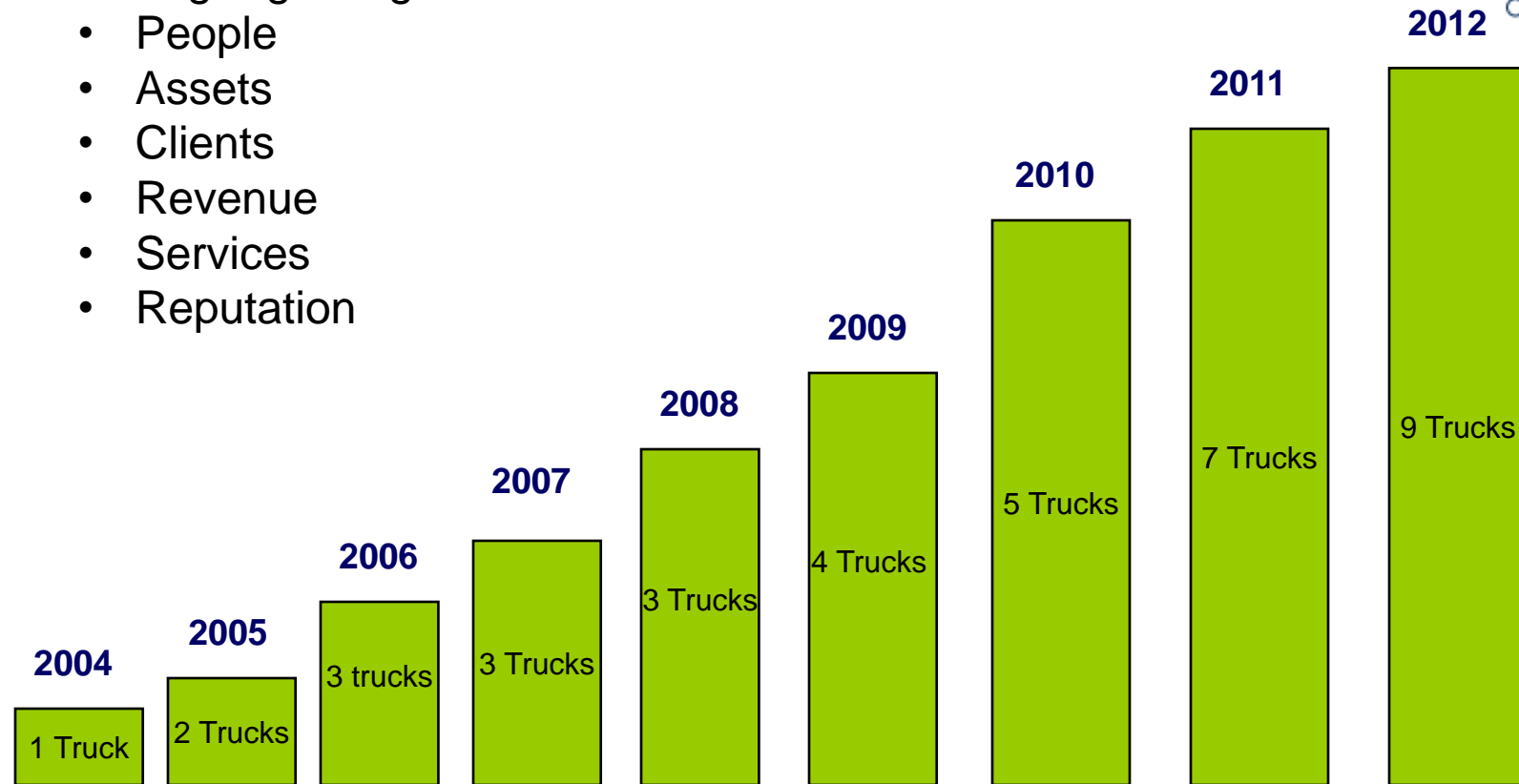


# History



Strong organic growth of

- People
- Assets
- Clients
- Revenue
- Services
- Reputation



# Operations



- 8 years in operation
- State of art operations base in Nizwa with 7 logging units
- 2 more units to be delivered in 2012
- Explosives bunker in Qarn Alam
- Head office in Muscat
- Over 3000 logging jobs with 6+ clients in Oman
- Reputation built on technology, service and value
- HSE Excellence



# Services



- Broad range of services which cover all logging operations with the exception of the open hole
- Perforation, freepoint, backoff & cutters
- Plugs, packers & dump bailers
- Cement evaluation
- Casing, tubing & well integrity evaluations
- Reservoir monitoring including PLT, Pressure Temperature Gauges and permanent monitoring systems.
- Petrophysical services including Slim Induction, Pulsed Neutron and Open Hole (2012)
- Interpretation services for 3rd party data





# What We Do: The Foundation Services

# Production Logging Services



- Full range of sensors and accessories to cover all environments
- Can be ran in SRO and Memory modes
- Significant experience operating in high angle and deviated wells using tractors and coiled tubing
- Highly successful in harsh environments including high pressure gas wells, high temperature wells and high H<sub>2</sub>S



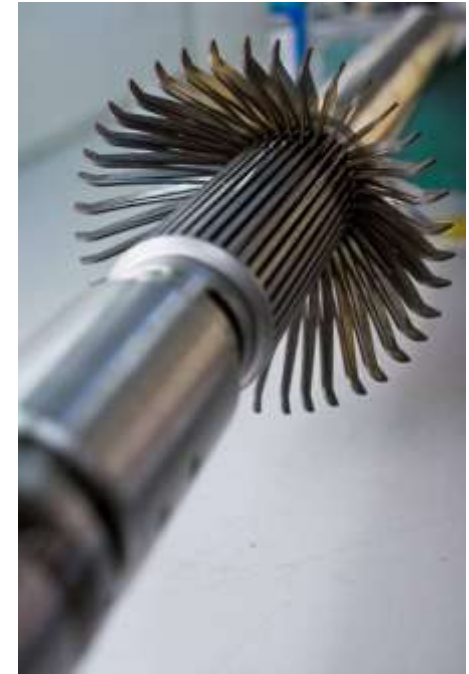


# Well Integrity Services

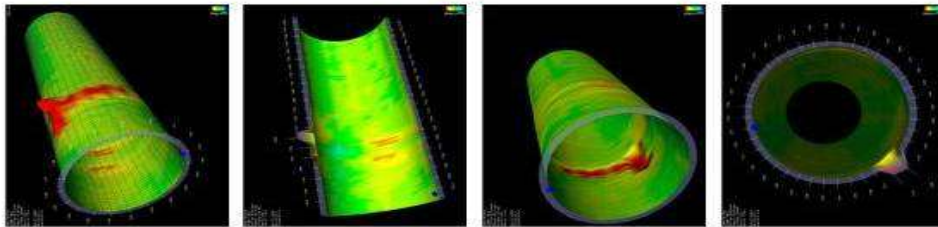


## MIT Features & Applications

- Available in 24, 40 or 60-finger versions. (2" - 9 5/8"+)
- Surface Read Out or Memory options.
- 3D data analysis using MITpro or WIVA software.
- Suitable for all well deviations.
- Hi accuracy Internal wear and damage measurements.



MITview Software





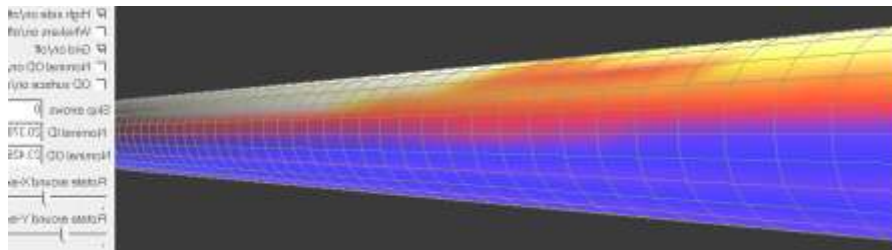
# What We Do: The Differentiated Services

# Advanced Production Logging Services



## Array Tools (CAT, SAT and RAT) Features & Applications

- Very experienced in horizontal environment
- Array of up to 12 radial sensors (micro-spinners, resistance & capacitance)
- Tool orientation measurable by internal relative bearing sensor.
- Through tubing phase fluid and velocity identification.
- Fully combinable with SRO and memory logging tools.
- Software is available for 3D phase profiling.
- Multiple deployment options (tractor, coil etc)



# Advanced Well Integrity Services



## MTT Features & Applications

- Electromagnetic Inspection of tubing and casing for internal & external metal loss.
- Casing can be logged after the tool has passed through restrictions.
- Measures absolute wall thickness.
- 3D visualisations provide powerful qualitative images of well condition.
- Detects pitting and gradual wall loss.



# Advanced Well Integrity Services



## Radial Bond Tool Features & Applications

- Simultaneous cement bond and radial integrity measurements
- Horizontal/deviated hole investigations
- Micro annulars and channelling detection and their orientation.
- 360 Degree coverage
- Ran in combination with PLT and other well integrity sensors. Memory or SRO
- Value added interpretation products



# Perforation & Explosive Services



- Industry recognised partners with global reputation including GEODynamics, Owen, DynaEnergetics & ETA
- Exclusive access to state of the art perforation technologies
- Commitment to bring new explosive technologies to the region and offer the most value solutions eg Gasgun
- Plugs, Packers and Patches
- Stuck pipe, freepoint and cutting services



# Perforation History to Date



- Running since 2008
- > 500 Runs
- > 5000 m perforated
- > 75,000 Shots
- > 98% success rate

# Thru Tubing Perforation - ShoGun



- 1 11/16 System
- 2 1/8 System





# Pipe Recovery - SplitShot



- Simple / Safe – No chemicals, low explosive content
- Flexible – Small ID.
- Fast
- Superior – very good success rate – EVEN in GRE!!!

PRESSURE RATINGS			
Parts Number(s)	Size O.D.	Load (gr./ft.)	Pressure Rating (psi)
SSC-2000-311&411 321&421	2.000	2000	18,000
SSC-2000-312&412 322&422	2.000	1200	18,000
SSC-1375-312&412 322&422	1.375	900	18,000
SSC-1375-311&411 321&421	1.375	600	18,000
SSC-1000-301&401	1.000	500	10,000
SSC-0875-301&401	.875	500	9,500



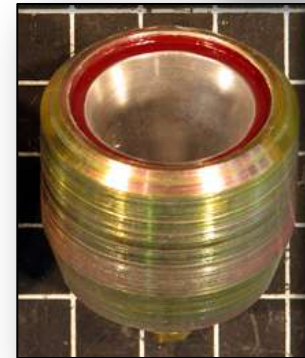


# What We Do: The Unique Services

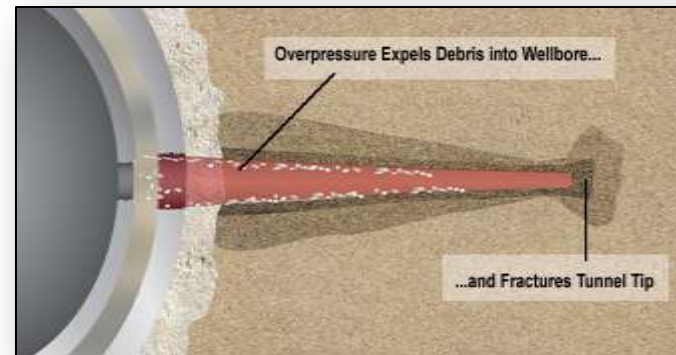
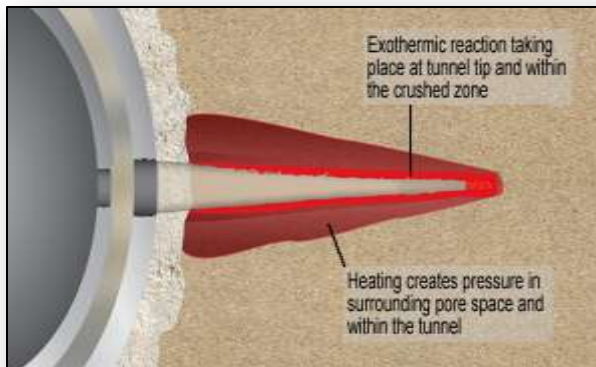
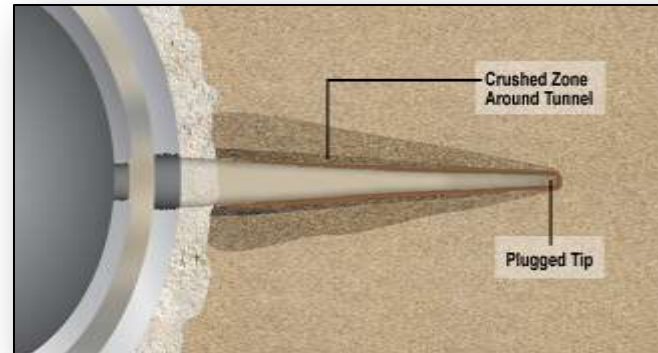
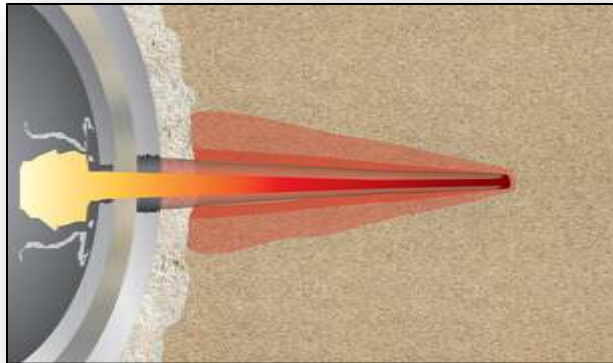
# CONNEX – Reactive Liners



- CONNEX<sup>®</sup> charges are a **drop-in substitute** for their conventional equivalents.
- No change is required to gun hardware, initiation devices, handling or running procedures.
- HSE risks are unchanged.
- No down-side** – will always be at least as good than the leading conventional charge.



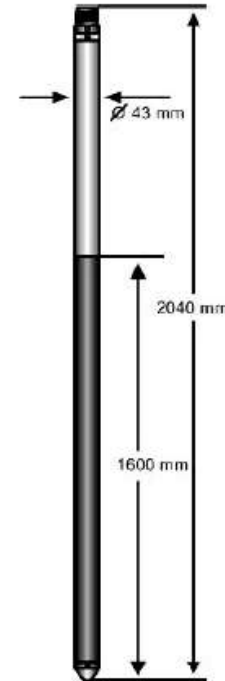
# CONNEX – Reactive Liners



# Thru Tubing Dual Induction Tool



- Custom built tool – smallest in world
- Rapid development – 9 months
- Directly measure residual  $S_w$  in a injection environment
- Thru tubing into barefoot completion
- Depth Investigation
  - Deep :51 in
  - Medium :27 in
- Recorded Curves
  - Deep Conductivity
  - Medium Conductivity
  - Deep Resistivity
  - Medium Resistivity



# Steam Surveillance Services



- Environment of high oil prices, declining production and increasing demand
- Steam injection is a key EOR (enhance oil recovery) technique going forward
- Vast heavy oil reserves in Oman and Gulf
- Although steam injection/flood has been used for decades in California and Indonesia, the technique has never been used globally and certainly not within the Gulf region until recently
- Falcon has re-engineered existing technologies to create products fit for Gulf conditions and reservoirs



# Steam Surveillance Services



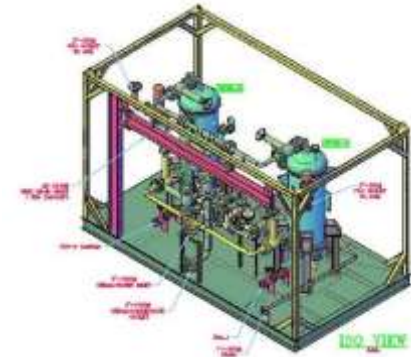
- **Logging String**
  - In house designed high temp string
  - Temperature, Spinner and CCL
  - Dual Gamma with Tracers Krypton-85 or Iodine-131
  - Automatic Surface Injection System for tracer work
- **New Generation String (Deployed Feb 2010)**
  - Modular
  - Multiplexed data
  - Pressure
  - Steam interpretation modules in Emmeraude (developed with Kappa)
- **Next Generation String (In field trial)**
  - Fully Digital – Specified in house,
  - Developed with Hunter
  - Quartz Pressure and Scintillation Gamma



# Steam Surveillance Services



- Surface Steam Quality Equipment developed and built entirely in Oman with unique features
- Dual cyclonic separators provides accuracy and resolution over a large injection range.
- Flow rates of up to 3000 bbl/day upto 6000 in parallel configuration
- Redundancy of quality measurement incl. orifice plates and total dissolved solid measurement.
- Real time GSM data transmission.







# Talent & Technology

# Talent



- Home grown talent with Omanisation at close to 90%
- In-house and external training programs
- Client courses
- Real jobs for Omani graduates including field engineering and reservoir engineering
- High retention rates, increase loyalty and great service quality.



# New Technology & Partners



Access to other logging tools and deployment equipment including

- Downhole Tractor - Welltec
- Electric Cutting Tool – Sondex
- Tiltmeter Survey - Pinnacle
- Open Hole – Baker Atlas
- Coiled Tubing Logging Units – BJ, IPC
- Gyro & Directional surveys – Gyrodata
- Leak detection – Archer
- Permanent Gauges – Spartek
- Retrievable ESP – ZieTECS
- Smart Wells/DTS – Tendeka/X3M



Falcon has a **OUTSTANDING** reputation as a partner for companies wishing to introduce downhole technologies into the region



# Q & A

# Thank you for your time

for more information, contact us on:

P.O.Box 750. P.C 116.

Mina Al Fahal, Sultanate of Oman

Telephone +968 24571114

Fax +968 24565595

[www.falconofs.com](http://www.falconofs.com)

