ComTrac® - Innovation in Conveyance

**The System**

Reach into highly deviated, deep and extended wells

- **Compensator Skid**
  - Weight: 5000 kg
  - Size: 3.2 x 2.4 x 3.8 m

- **Injector Head**
  - Weight: 2300 kg
  - Size: 1.6 x 1.1 x 2.3 m

- **Drum Skid**
  - Weight: 9000 kg
  - Size: 4.0 x 2.4 x 3.8 m

- **Composite Rod**

- **Bend Restrictor**

**Flexibility gives operational benefits**

- Mechanical and logging capability
  - No need to rig over between SL and e-line drums or units
- Large and heavy BHA
  - Straddles, perforation guns
- Precise control of toolstring movement
  - High quality logging data
  - Controlled movement for milling/jetting
- Ability to “push”
  - Highly deviated wells with reduced or eliminated tractor needs
- Low POB
  - Multiskilled 3 man crew per shift
- Flexible rig-up
  - No need for “line of sight”
  - Absence of high tension lines

**The Rod**

Why carbon composite?

- Slick and stiff rod
  - Lower friction and increased rigidity gives longer reach
  - Simplified PCE without grease
- Strength to weight
  - Twice the strength at one third of the weight of regular wirelines
- Less stretch give better depth accuracy
  - One fifth of the stretch coefficient of regular cables
- Electrical conductor
  - Can convey mechanical intervention and electrical tool strings
  - Large conductor allows high power tools
- Sour service
  - Resistant to H₂S and CO₂
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On a recent field trial the ComTrac system successfully completed the World’s first...

... intervention with a semi-stiff composite rod with monoconductor
... rig-up without line-of-sight or high tension lines using bend-restrictors
... jarring with a composite rod
... plug retrieval with a composite rod
... logging with Multifinger Caliper/GR/CCL on a composite rod
... suction/jetting intervention job with a composite rod

Flexible, safe and secure rig-up

Operational highlights

- 633 operational hours
- Cumulative run in hole footage of over 90,000m in 28 runs
- Successful jarring with composite rod, 12 activations in one run
- Mechanical intervention and logging with composite rod
- High power, electro-hydraulic cleanout tools run with semi-stiff composite rod
- Rigup without “line of sight” using innovative “bend restrictor” sections

Run Record

- 2 Drift Runs with sample bailer
- 2 Hex plug retrieval runs, including heavy duty jars
- 5 additional runs with pulling strings
- 1 LIB investigation
- 6 hydrostatic bailer runs
- 1 Multifinger caliper logging run
- 11 runs with cleanout tools (suction and jetting)