



# Monitor your offshore solids more precisely

Improve your ability to precisely monitor solids during offshore operations by using direct, on-line filtration techniques with industry-leading technology from Shell Global Solutions. Our units provide a Well Flowline Monitoring Program that uses non-intrusive, cost-effective techniques to sample fluids and filter solids as small as 10 microns. Determine the type and content of suspended solids, including sand, proppant, corrosion/erosion products, as well as organic deposits, to minimize expensive downtime.

Known as SandBox in the field, the unit is available in both portable skids and the suitcase-sized model. These devices were developed specifically for offshore applications and can even be transported via helicopter. SandBox technology from Shell detects the physical presence of solids in flowing wells via filtration at process conditions, whether they are small or large. Conventional methods are usually limited to detecting particles that are 50 microns or larger. These systems are designed to alert for changes in solids production and may mistake a gas slug with sand if not properly calibrated. In addition, there is typically a minimum concentration of solids beyond which these detectors are ineffective.



SandBox technology applications include the monitoring of:

- Sand for type, size and content
- Wells for safe operation
- Location, source, characteristics and visual identification of solids
- Flowlines to assist well ramping
- Erosion and corrosion to reduce expensive, unscheduled downtime



## The SandBox solution provides:

- Cost-effective, on-line solids monitoring techniques for offshore platforms
- Detection of sand, metal shavings, proppant and organic deposits during well unloading/ramp up
- Calibration of clamp-on and sand ranger devices
- Capability to distinguish between false and real peak signals
- Routine well monitoring to promote safe operations

## The SandBox surveillance analysis covers:

- Total Suspended Solids (TSS)
- Energy Dispersive Spectroscopy, X-Ray Analysis for identification of solids
- Scanning Electron Microscope (SEM) for visualization of solids
- Particle Size Distribution or Laser Grain Analysis



As covered in *Offshore* (December issue, 2002, Drilling & Production, news section, page 20.)



Rely on the technology leaders for effective, portable monitoring of solids. Call us. We always like to share our case studies of SandBox operations. Ask us about our successes on Mars-TLP, Ursa-TLP, Auger-TLP, Brutus-TLP and many more.

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