

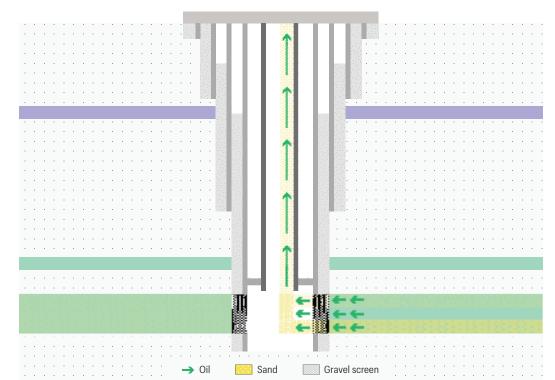
# Locates sand entry into the wellbore and provides a qualitative sand count

### What it delivers

Sand production is a serious issue. It affects productivity and the integrity of well completions and surface assets. Locating the source and quantity of sand production downhole is the critical first step to managing sand effectively.

Sand Flow precisely locates sand entry to the wellbore and provides a qualitative sand count, clearly identifying problem zones, even in turbulent flow conditions. Delivered by our True Flow system with Chorus (acoustic) platform, Sand Flow provides the clarity and insight needed to manage sand production more effectively.

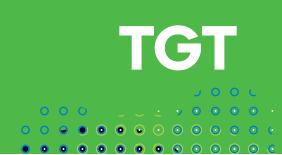
Sand Flow is commonly used to diagnose a known sand production issue, but it can also be used proactively to ensure downhole sand control measures are working optimally.



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Well sketch shows a range of scenarios where sand is entering the well, that Sand Flow can evaluate.

Sand Flow provides the clarity and insight needed to manage well system performance more effectively.



## Challenges

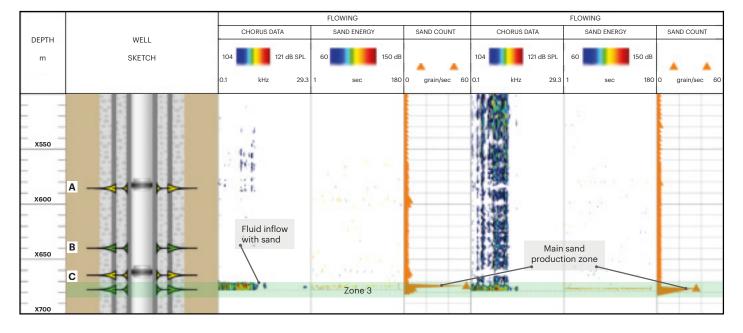
- · Locate sand entry in the wellbore
- Unexpected increase in sand production
- Unconsolidated formation that requires regular intervention
- Sand screen failure
- Surface equipment failure

#### **Benefits**

- Understand the true sources of sand production
- Understand sand production dynamics
- Better well and reservoir management decisions, precisely targeted
- Improve well system performance and extend productive life of asset
- Maintain asset integrity

Indicative logplot for Sand Flow Shut-in survey formed a baseline and indicated no sand-related activity. Flowing survey identified the main sand producing zone.

Sand Hitting Energy panel shows the lower sand count peak is not the actual sand producing zone—the energy levels of these particles are lower. Whereas the 'hotter' the colour, the 'louder' the sound emitted by the sand grain bouncing off the tool body. Each small bar on that panel represents one single sand grain hitting event. The total number of those events is reflected on the Sand Count Panel.



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**Case studies** CS008: Identifying proppant backflow zones enhances multistage hydraulic fracturing programme

CS008: Identification of sand-producing intervals enables operator to optimise well operations

#### **Technical papers**

Neftyanoye Khozyaistvo, No. 05, 2018 Proppant backflow zones determination by spectral noise logging