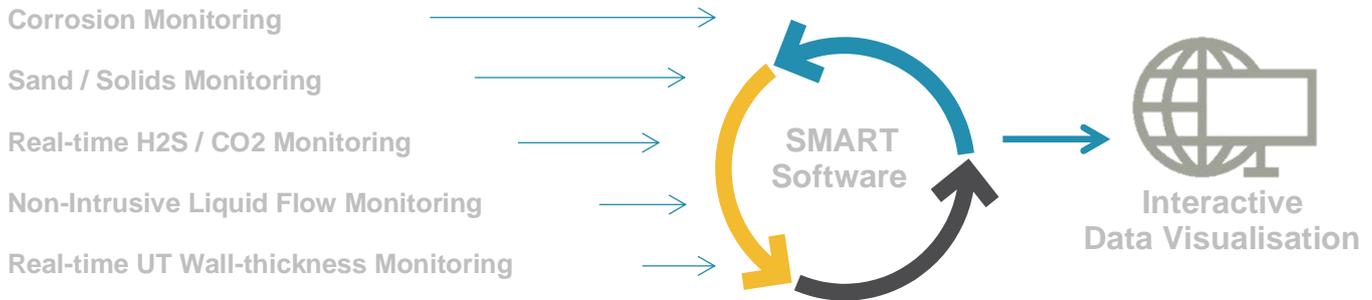




# Flow Assurance Monitoring Package



### Increased Safety

- Reduces risk / personnel exposure to potentially harmful H<sub>2</sub>S samples.
- Reduces personnel exposure to high-risk area - wall thickness monitoring



### Reduced Cost

- Realtime monitoring of multiple parameters allows well operations to continue, whilst monitoring the risk in real time.
- Reduced manual operations and onsite personnel requirement



### Real Time Decision Making

- Reduced downtime through Instantaneous data analysis that allows faster more reliable decisions



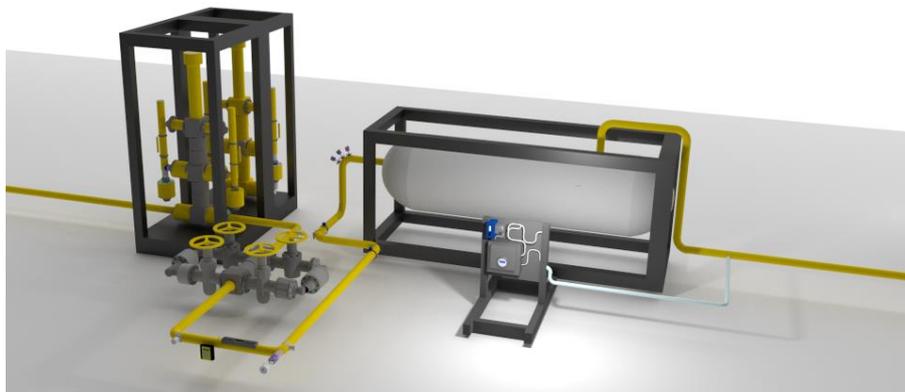
### Solids Quantification

- Integration of flowmeter allows real time solids quantification
- Dual monitoring method that can deliver volumetric flow and flow velocity



### Understand Your Well

- Measure frac fluid flowback
- Increased Real Time data allows instant, informed decision making



Sense



Understand



Perform

# Flow Assurance Monitoring Package

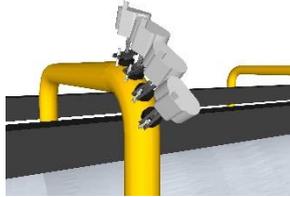
## Sand, Erosion & Corrosion Monitoring



Acoustic & intrusive sensor packages provide instantaneous detection of solids production and when combined with flow monitoring provides solids quantification.

- |                         |   |
|-------------------------|---|
| <b>Increased safety</b> | - Reducing risk and potential damage to plant               |
| <b>Reduced costs</b>    | - Data redundancy via two independent measurements          |
| <b>Continuous Data</b>  | - Instantaneous, data allows faster more reliable decisions |

## Realtime UT Wall Thickness Monitoring



An array of installed real-time UT wall thickness sensors, measures absolute wall thickness, this monitors corrosion / erosion high-risk areas continuously.

- |                         |  |
|-------------------------|--|
| <b>Increased safety</b> | - No requirement for personnel to inspect high-risk areas  |
| <b>Reduced costs</b>    | - No requirement for offshore manual operations            |
| <b>Continuous Data</b>  | - Real-time identification of wall loss at high-risk areas |

## Realtime H2S & CO2 Monitoring



The Realtime H2S monitoring systems is a fully automated system capable of delivering real time H2S and Co2 measurements up to 40% volume.

- |                              |  |
|------------------------------|--|
| <b>Increased Safety</b>      | - Reduces risk / personnel exposure to harmful samples |
| <b>Fully Automated</b>       | - Automated, minimum maintenance, infield calibration  |
| <b>Integration /Alarming</b> | - Integration of data and alarms to acquisition system |

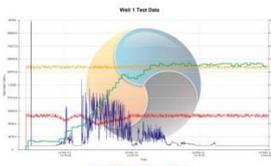
## Portable Non-Intrusive Flow Monitoring



Portable Non-Intrusive liquid flowmeter, utilises a dual monitoring method that can deliver volumetric flow and flow velocity, suitable for high solids content

- |                               |  |
|-------------------------------|--|
| <b>Non-Intrusive</b>          | - Allows installation and repositioning whilst flowing |
| <b>Fully Automated</b>        | - Automated, minimum maintenance, in-field calibration |
| <b>Integration / Alarming</b> | - Realtime integration into data acquisition system    |

## SMS SMART Data Visualisation



3D Data Visualisation and reporting delivers insight allowing decisions to be made based on real time contextual knowledge and data analysis

- |                            |  |
|----------------------------|--|
| <b>3D Visualisation</b>    | - Intuitive data mapping and visualisation                 |
| <b>Integrated Alarming</b> | - Data and alarms fully integrated into acquisition system |
| <b>Remotely accessed</b>   | - Data visibility through secure network access            |