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PERMANENT MONITORING NEEDS-BASED SYSTEM SELECTION

Select from five operation-specific options to suit your individual technical, operational, and economic requirements, each system delivering distinct and direct benefits to optimise production levels, enhance pump reliability and reduce costs.

- >> Low Cost Monitoring System
- >> Six-Parameter Monitoring System
- >> Hi-Temp Monitoring System
- >> Quartz Monitoring System
- >> PCP Protection System

NEEDS-BASED MONITORING SYSTEMS

As the cost of producing from maturing fields increases with declining levels of production, the need for reserves to be produced in the most efficient and profitable manner is paramount. This on-going industry challenge is the driving force behind our needs-based permanent monitoring system selection.

Furthermore, Zenith recognise the importance of balancing operator production and cost-saving targets and as such also offer systems where parameters can be hand-picked to measure the data that is valuable to your individual operations should you not find a system to suit from these five standard options.

“ ADVANCING VALUE ” LOW COST MONITORING SYSTEM

Economically advancing the level of information from your well.

In cost-conscious operations acquiring the additional data needed to improve production can present a number of problems — expensive memory gauge slickline logs present cost challenges whilst fluid shots can prove inaccurate. Both options give intermittent and non-real-time data. With permanent gauges usually deemed too expensive to consider, the low-cost permanent monitoring system from Zenith presents an affordable, accurate alternative delivering the real-time data that allows you to optimise your production.

“ ADVANCING KNOWLEDGE ” SIX-PARAMETER MONITORING SYSTEM

Delivering detailed well, reservoir & pumping system operational information.

With limited downhole pressure and temperature data available from PCP, jet pump and gas-lift wells, the Zenith six-parameter permanent monitoring system provides an economical alternative to high-end quartz reservoir monitoring gauges. Oilfield-rugged for reciprocating pumps and fully-welded for gas-lift wells, the system provides you with detailed well and condition information for your PCP, jet pump and gas-lift operations.

“ ADVANCING RELIABILITY ” HI-TEMP MONITORING SYSTEM

Continuous data from high temperature & challenging environments.

Pressure data is of primary importance in understanding the performance of your reservoirs and wells. Rated to 250°C, Zenith's high temperature permanent monitoring system reliably delivers continuous downhole pressure and temperature information in high temperature environments and thermal stimulation, steam injection operations such as steam flood and steam assisted gravity drainage wells.

“ ADVANCING ACCURACY ” QUARTZ MONITORING SYSTEM

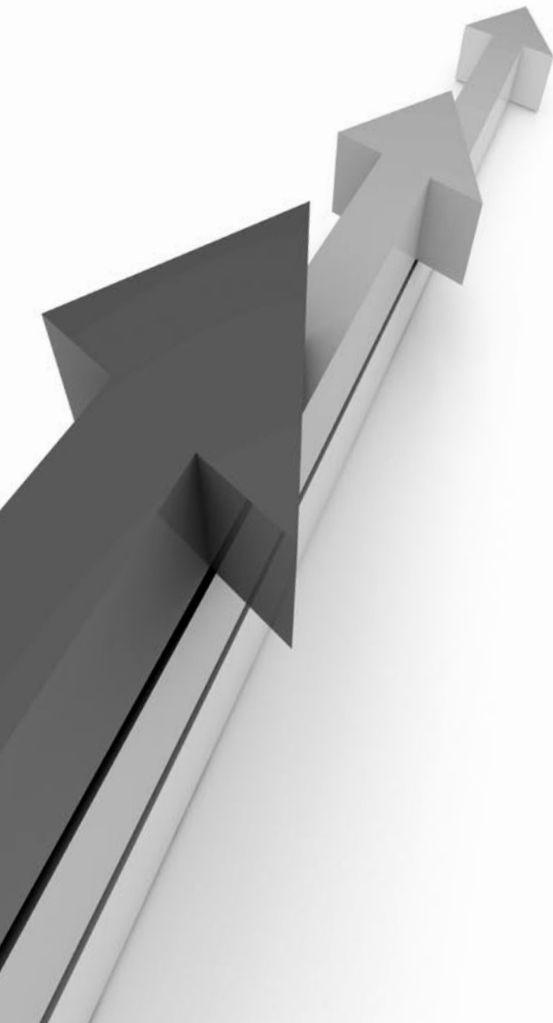
Providing reliable, accurate reservoir data at high temperatures.

High-specification pressure and temperature gauges are developed from Zenith's industry experience of artificial lift monitoring to provide the cost-effective quartz permanent monitoring system. Reliable, accurate reservoir data at high temperatures enables transient analysis of build-up surveys, reservoir pressure trend monitoring, and reservoir temperature monitoring.

“ ADVANCING RUNLIFE ” PCP PROTECTION SYSTEM

Designed specifically to monitor and protect from common PCP problems.

Alternative technologies focus on well and pump performance but do little to analyse the mechanical issues that decrease PCP runlife such as rod breakage, and rotor and elastomer damage. The Zenith PCP Protection system provides full PCP condition monitoring, including downhole rotor position, rod torsion and pump rotation speed. These parameters, in addition to permanent pressure gauge measurements, provide the knowledge to achieve improved PCP installation and help you achieve maximum runlife and production.



LOW COST MONITORING SYSTEM FEATURES & BENEFITS

Low cost downhole data solution

Real-time data provides continuous information to assist in improving production and reservoir knowledge

Simple integration into the wellsite

Can be installed in slimline casing

Available with Z-Trendz data management suite

SIX-PARAMETER MONITORING SYSTEM FEATURES & BENEFITS

Dual pressure monitoring (tubing and annulus pressure) with vibration parameter for pump condition monitoring

Low cost system in comparison with traditional Quartz reservoir monitoring gauges

Suitable for any form of artificial lift

Available with Z-Trendz data management suite

HI-TEMP MONITORING SYSTEM FEATURES & BENEFITS

Provides downhole pressure measurement from high temperature wells

No electronics downhole

No fibre optics

Available with Z-Trendz data management suite



Zenith's data management suite, Z-Trendz™, takes operator efficiency to the next level. Automated trending, diagnosis and control at the wellsite not only enables optimisation of production levels and pump runlife, but also of your own work-flow.

QUARTZ MONITORING SYSTEM FEATURES & BENEFITS

Provides data to enable...

» Transient analysis of build up surveys

» Reservoir pressure trend monitoring

» Reservoir temperature monitoring

Pressure and temperature rating options to suit requirements (5,000psi, 150°C to 16,000psi, 175°C)

Available with Z-Trendz data management suite

PCP PROTECTION SYSTEM FEATURES & BENEFITS

New technology provides application-specific measurements in addition to data from six-parameter monitoring system:

» Rod torsion

» Total pump cycles for runlife monitoring

» Downhole RPM

» Rotor position relative to stator — during installation and operation

Improves elastomer and rod runlife

Available with Z-Trendz data management suite

