

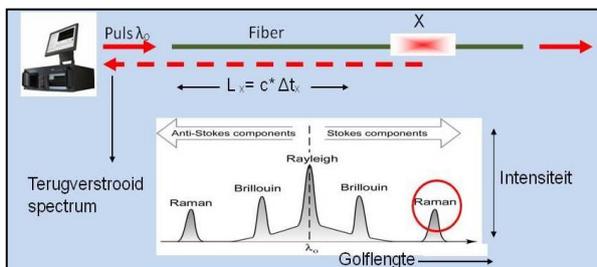
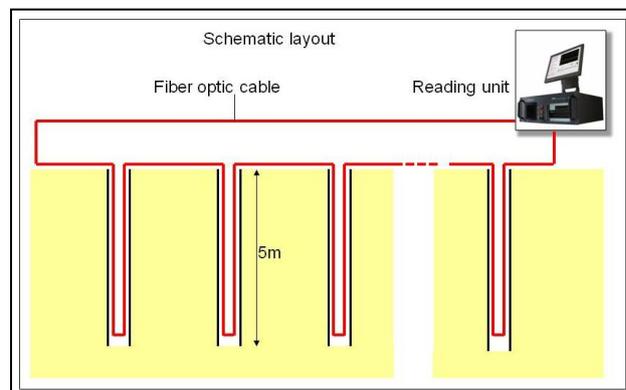
INVENTEC INSTALLS DTS-SYSTEM FOR SOIL REMEDIATION

For a thermal soil remediation project in Vorst, Belgium, Inventec was awarded the contract to engineer, supply and install a Distributed Temperature Sensing (DTS) system. In this case the technology serves to monitor the distributed temperature of the soil for the duration of the remediation process.

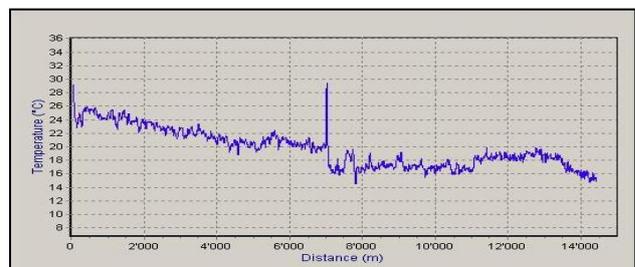
The system basically consists of a fiber optic cable loop that is connected to a reading unit. This reading unit continuously launches a light pulse of one specific wavelength through the optical fiber and analyses the back-scattered spectrum. The temperature reading at any one point along the fiber results from the shift of the so-called Raman frequency at that point. Measuring this frequency shift at 0,50m or 1,00m intervals along the fiber cable produces the distributed temperature profile over the full length of the cable. The measurement accuracy of the system is 0,1°C.

The system at Vorst consists of three parallel sections of 500m each with 14 vertical loops to a depth of 5m below the soil surface.

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Operating principle DTS



General example of a DTS reading