

SUCCESS STORY

MONITORING OF THE GROUNDWATER TEMPERATURE

TEMPERATURE DEPTH MEASURING POINT AT SCHENKER DEUTSCHLAND AG

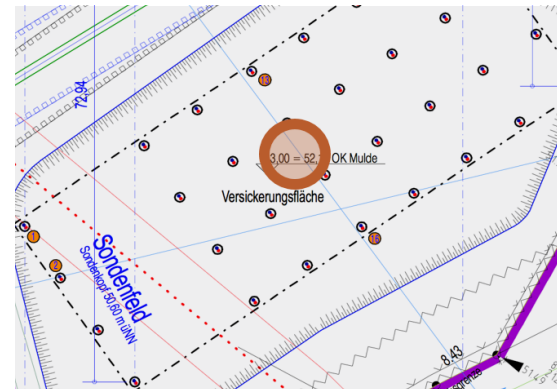


THE REQUIREMENT

Schenker Deutschland AG uses a geothermal probe field with 32 geothermal probes for its transfer terminal in Langenhagen, which is to be monitored regarding to the groundwater temperature at the depths of 12 m and 70 m.

The monitoring should be carried out automatically and continuously on a U-probe with a depth of 70 m within the probe field. The temperature-depth measuring point must be connected

to the building management system that the measurement data can be processed. The remote maintenance by enOware must be ensured at all times.



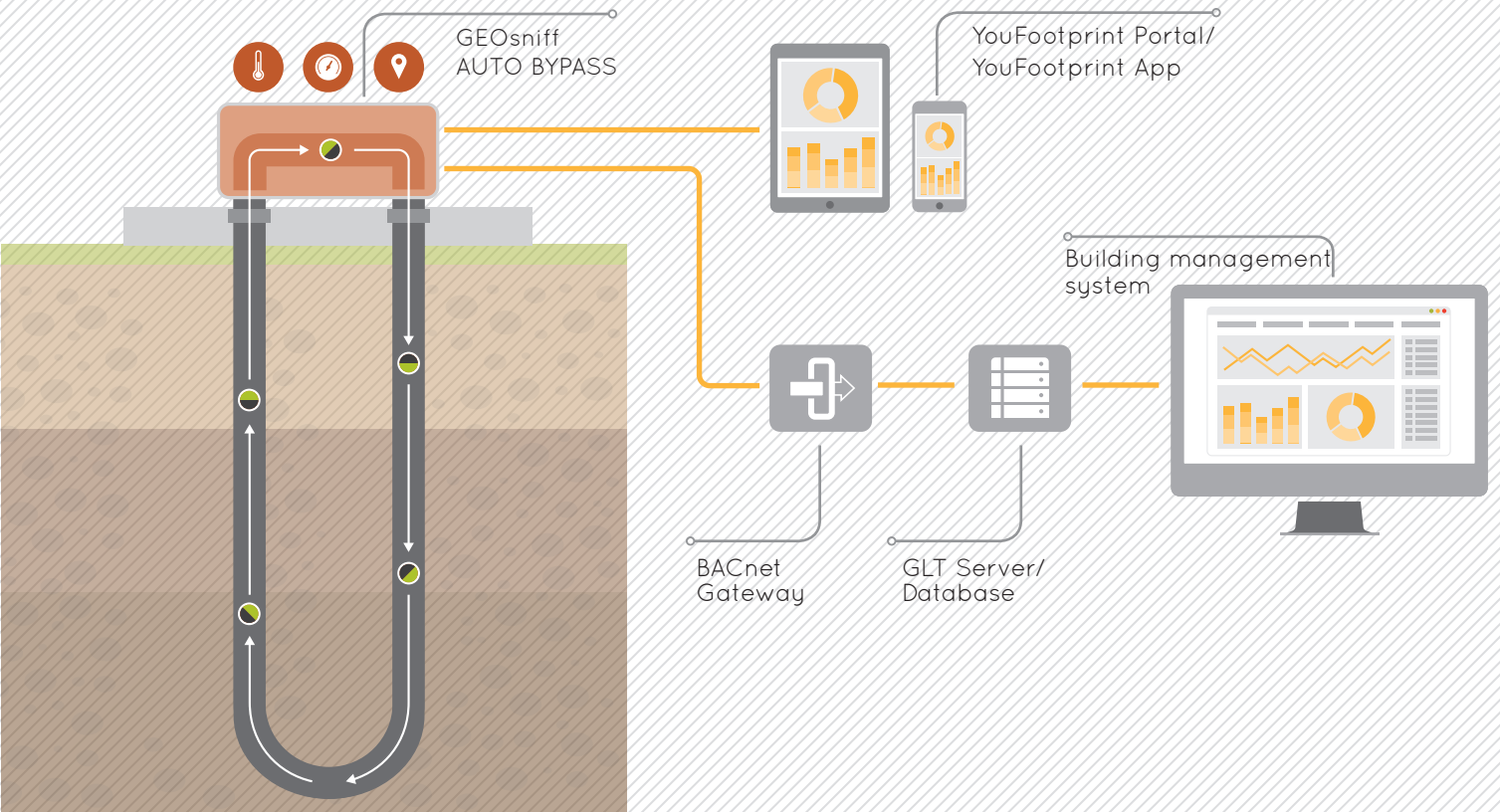
THE IMPLEMENTATION

Due to the professional cooperation between enOware GmbH and the planning office of Schenker Deutschland AG, an appropriate mounting bay was placed in the center of the probe field in which the necessary measuring technology could be installed.

The temperature measuring point was implemented with the GEOsniff AUTO BYPASS by enOware and was mounted in the glycol-filled U-probe. A BACnet gateway was connected to the building management system in the main office. Simultaneously, an integrated antenna was used to ensure remote maintenance

by enOware using GSM/UMTS/LTE and to push measurement data into the monitoring portal YouFootprint. The extensive test phase to obtain a depth-resolved temperature profile for underground temperature monitoring, proved successful as planned.

HOW IT WORKS



THE RESULT

In its function as a temperature measuring point, the installed GEOsniff AUTO BYPASS sends daily depth-resolved measured data to the building management system.

The fully self-sufficient operation automatically inserts the GEOsniff MEASUREMENT PIG, a wireless, floating sensor for pressure and temperature, into the geothermal probe. After successful measurement, the GEOsniff AUTO

BYPASS catches the sensor and reads it out wirelessly. The temperature measurement data, assigned to the depth, are sent to the monitoring portal YouFootprint and to the BACnet gateway. This provides the data

format-compatible to the server of the building management system, which is then read out and evaluated. Thus the requirements are fulfilled and successfully complete the project.



Thanks to the comprehensive know-how and advanced sensor technology of enOware, we are able to provide reliable, accurate results of the total ground temperature up to 70 m depth in our building management system – with a minimum of installation effort.



M. Witt, Head of Terminal, office Hannover



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