

# Thermal Response Test Equipment Data

Fill-in Date: 10-2010

Country: Norway

Contact Person: Gaute Storrø, Heiko Liebel

Organisation/Company: Norges geologiske undersøkelse

Address: Postboks 6315 Sluppen, 7491 Trondheim, Norway

Phone: +47 73904315

Email: gaute.storro@ngu.no; heiko.liebel@ntnu.no



## GENERAL TRT DATA

Type: <i>Heat injection</i>	No TRTs: <i>~50</i>	Size, weight: <i>400 cm, 180 cm, 190 cm, 540 kg</i>
Aim: <i>Research /commercial</i>		Pump: <i>Duijvelaar DPV 10-80; 3kW, 2.5 l/s</i>
Powered by: <i>Electricity</i>		Heater: <i>Värmebaronen EK 180-12S, 8 x 3 kW</i>
Built on/in: <i>Trailer</i>		HP/Cooler: <i>-</i>
<p style="text-align: center;">Principle outline</p>		Temperature measurements: <i>Thermocouples</i>
		Flow rate measurements: <i>ABB Kent Messtechnik MTH-DA-KGm-HM</i>
		Voltage stabilization: <i>No</i>
		Supply Power Monitoring: <i>Yes</i>
		GPS: <i>No</i>
		Remote Control of Operation: <i>Yes</i>
		Remote Data Collection: <i>Yes</i>
		Logger: <i>CTRX10</i>

## TRT EXPERIENCE

Years of operation: *since 2000*

Number of performed measurements: *~35 Research/ ~15 commercial*

Typical borehole depths: *100 – 400 m*

Applications: *BHE*

Typical collector type: *1U, 2U*

Typical fluid type: *HX35*

Typical groundwater temperature: *4-8 °C*

Geographical area: *Norway*

Analysis Method: *Line source*