A Simple Method for Measuring the Verticality of Small-Diameter Driven Wells - DTU Orbit (13/12/2018)

The presence of stones, solid waste, and other obstructions can deflect small-diameter driven wells during installation, leading to deviations of the well from its intended position. This could lead to erroneous results, especially for measurements of ground water levels by water level meters. A simple method was developed to measure deviations from the intended positions of well screens and determine correction factors required for proper measurement of ground water levels in nonvertical wells. The method is based upon measurement of the hydrostatic pressure in the bottom of a water column, which is established in the well lube. The method was used to correct water level measurement in wells driven through a landfill site. Errors of up to 27 cm in water level were observed at the landfill site. The correction of the water level measurements had a significant effect on estimated local ground water flow directions.