



## EXPLANATION SHEET

## VWPs AND STANDPIPES

17 March 2021

IGS has well-developed techniques and systems for installing both Casagrande-type open-standpipes and vibrating wire piezometers (VWPs).

This is “IGS everyday business”.

Various direct-push installation methods and sealing systems are used, depending on circumstances. Methods can be (and often are) tailored to suit a client’s preferences or instruments.

### Casagrande Standpipes

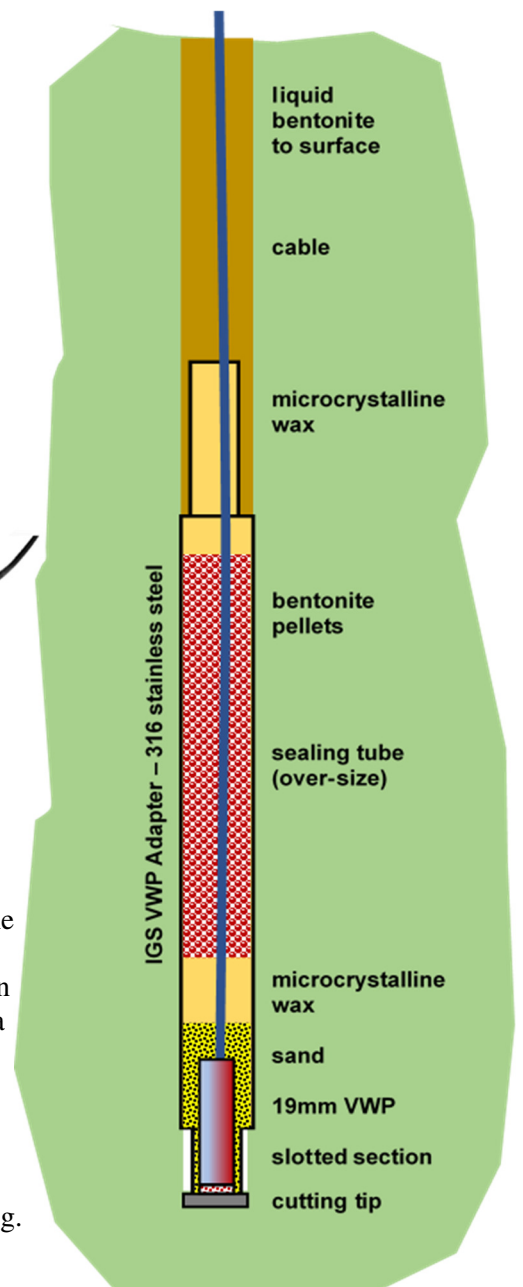


The most common method used by IGS for installing Casagrande Standpipes is a combination of “dummying” to make a hole, then direct-push-in of a galvanized steel encased Casagrande tip, pushed in by galvanized steel water pipe connecting tubes.

Though a little more complicated, PVC-cased Casagrande tips can also be installed by us, by insertion through our 55mm OD CPT casing tubes.



### Vibrating Wire Piezometers



We have developed a few methods to install vibrating wire piezometers:

- The simplest, and we believe the most “elegant”, method is shown in the adjacent figure. A standard 19mm diameter VWP is sealed into our own-designed VWP Adapter, and dummied/direct-pushed to installation depth. Sealing is achieved via the stainless-steel adapter itself, having a section above the VWP which is a larger diameter, and is thus forced into intimate contact with the soil.
- The most complex method, now seldom requested by clients, involves installation by insertion through our 55mm OD CPT casing tubes, followed by placement of a small sand filter then bentonite pellet sealing.
- Other methods are possible and available – if required.