

### **TDR raw data for silica sand and dune sand infiltration fronts**

In the folders “Silica sand” and “Dune sand” the raw TDR data are compiled as obtained from the TDR measurement setup. “Wave 1” refers to the TDR cable measurements. “Wave 2”, “Wave 3”, and “Wave 4” refer to the TDR rod measurements in depth 4 cm, 44 cm, and 84 cm. The “Data TDR” file collected the voltage supply and temperature during measurements, as well as the signal length corresponding to the signal travel time in the sand for all sensors as they were obtained by the Campbell Scientific measurement setup.

The Campbell Scientific raw data is given according to the measurement instruction files that are programmed by the user in CRBasic Editor. Definitions for the output file header are as follows (Campbell Scientific, Inc. 2000-2007 – CRBasic Editor 2.9):

MuxProbe	Multiplexer setting of the probe, whereas 1001 defines the probe to be set on position 1 in the first multiplexer level
WaveAvg	Number of waveform reflections averaged for the final single result; high values are necessary under high noise conditions
TDRVp	Propagation velocity of the coaxial cable connecting the TDR reflectometer and the probe (material specific, has to be determined in advance)
TDRPoints	Number of points in the collected waveform
CableLength	Length of the coaxial cable; defines the starting point of waveform collection (m)
WindowLength	Length of the waveform to be collected (m); must be chosen to collect the whole probe reflection in fully saturated conditions
ProbeLength	Length of the probe (m); only important for direct conversion of the waveform length to water content
ProbeOffset	Length of the probe offset (m); only important for direct conversion of the waveform length to water content
TDROption	Determination of output; 1 defines to collect the waveform values
SDMAddress	Address for the communication with the TDR100 reflectometer; is defined by the TDR100 settings