Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: Overhead time-lapse of the first flow event in the lowflux experiment (TDWB-21-2). Video shown at 24 times actual speed with frames separated by 4 sec. Tick marks on edge of video occur every 1.0 m.

File Name: Supplementary Movie 2

Description: Overhead time-lapse of the first flow event in the midflux experiment (TDWB-21-4). Video shown at 24 times actual speed with frames separated by 4 sec. Tick marks on edge of video occur every 1.0 m.

File Name: Supplementary Movie 3

Description: Overhead time-lapse of the second flow event in the high-flux experiment (TDWB-21-3). Video shown at 24 times actual speed with frames separated by 4 sec. Tick marks on edge of video occur every 1.0 m

File Name: Supplementary Movie 4

Description: Overhead time-lapse of all three experiments with timing of frames synced to the opening of the valve at the beginning of an experiment that initiated delivery of a slurry to the basin. Video shown at 24 times actual speed with frames separated by 4 sec. Tick marks on edge of video occur every 1.0 m.