|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Note | Station | Grain size | Ui-1 | Ui | Hi-1 | Hi | ri-1 | ri | mixi | Sri | MFRi | Re | E | Exc. Den. | g' | 1.19(g’H)1/2 | | Ri0 | |
| - | 1a | coarse | 2.38 | 4.77 | 0.12 | 1.08 | 1.30 | 2.70 | 2.94 | 0.17 | 14.04 | 7.57x105 | 0.39 | 1.72 | 13.85 | 4.60 | 0.65 | |
| - | 1b | coarse | 4.77 | 3.00 | 1.08 | 1.96 | 2.70 | 5.70 | 1.57 | 0.11 | 4.72 | 4.62x105 | 0.38 | 0.35 | 2.83 | 2.80 | 0.61 | |
| impact | 2a | coarse | 3.50 | 4.28 | 0.37 | 0.50 | 0.80 | 3.00 | 7.54 | 0.81 | 32.28 | 8.06x105 | 0.16 | 6.32 | 50.83 | 6.00 | 1.67 | |
| - | 2b | coarse | 6.25 | 5.00 | 0.84 | 1.00 | 3.20 | 4.20 | 3.73 | 0.57 | 18.65 | 9.33x105 | 0.20 | 2.51 | 20.19 | 5.35 | 0.97 | |
| - | 2c | coarse | 5.00 | 4.16 | 1.00 | 1.10 | 4.20 | 5.20 | 3.09 | 0.34 | 12.83 | 7.06x105 | 0.13 | 1.87 | 15.00 | 4.83 | 1.15 | |
| obstacle | 2d | coarse | 4.16 | 2.00 | 1.10 | 1.93 | 5.20 | 6.20 | 2.49 | 0.12 | 4.98 | 4.81x105 | 0.01 | 1.27 | 10.22 | 5.29 | 5.95 | |
| impact | 3a | coarse | 10.00 | 7.14 | 0.63 | 0.73 | 1.50 | 2.50 | 17.11 | 0.40 | 122.13 | 4.46x106 | 0.20 | 15.89 | 127.73 | 11.49 | 1.81 | |
| impact | 3b | coarse | 7.14 | 4.16 | 0.73 | 0.96 | 2.50 | 3.50 | 12.16 | 0.20 | 50.56 | 2.43x106 | 0.07 | 10.94 | 87.93 | 10.93 | 4.82 | |
| - | 4a | coarse | 9.62 | 4.33 | 0.35 | 0.60 | 4.72 | 6.80 | 2.94 | 0.68 | 12.72 | 3.84x105 | 0.19 | 1.72 | 13.81 | 3.44 | 1.05 | |
| - | 4b | coarse | 2.87 | 10.96 | 0.60 | 0.79 | 1.44 | 3.64 | 12.83 | 1.17 | 140.52 | 5.56x106 | 0.12 | 11.61 | 93.33 | 10.23 | 1.80 | |
| - | 4c | coarse | 10.96 | 10.70 | 0.79 | 1.17 | 3.64 | 5.78 | 8.16 | 0.45 | 87.29 | 5.12x106 | 0.15 | 6.94 | 55.80 | 9.63 | 1.64 | |
| - | 5a | fine | 11.90 | 6.21 | 0.17 | 1.05 | 3.00 | 5.00 | 4.30 | 0.02 | 26.73 | 1.40x106 | 0.28 | 3.08 | 24.80 | 6.07 | 0.67 | |
| - | 5b | fine | 6.21 | 5.75 | 1.05 | 1.20 | 5.00 | 6.00 | 3.19 | 0.02 | 18.33 | 1.10x106 | 0.44 | 1.97 | 15.83 | 5.19 | 0.57 | |
| slope in | 5c | fine | 5.75 | 4.80 | 1.20 | 1.39 | 6.00 | 7.00 | 2.65 | 0.02 | 12.71 | 8.83x105 | 0.31 | 1.43 | 11.48 | 4.75 | 0.68 | |
| slope out | 5d | fine | 4.80 | 3.40 | 1.48 | 1.83 | 8.00 | 9.00 | 2.64 | 0.01 | 8.98 | 8.22x105 | 0.09 | 1.42 | 11.43 | 5.44 | 1.81 | |
| - | 6a | coarse | 5.22 | 3.27 | 0.20 | 1.02 | 2.00 | 6.00 | 2.45 | 0.19 | 8.01 | 4.08x105 | 0.22 | 1.23 | 9.89 | 3.78 | 0.93 | |
| - | 6b | coarse | 3.27 | 3.58 | 1.02 | 1.24 | 6.00 | 7.00 | 1.88 | 0.09 | 6.73 | 4.17x105 | 0.49 | 0.66 | 5.31 | 3.05 | 0.51 | |
| - | 6c | coarse | 3.58 | 3.59 | 1.24 | 1.59 | 7.00 | 8.00 | 1.61 | 0.04 | 5.76 | 4.58x105 | 0.56 | 0.39 | 3.10 | 2.64 | 0.38 | |
| slope in | 6d | coarse | 3.59 | 3.68 | 1.59 | 2.00 | 8.00 | 9.00 | 1.43 | 0.04 | 5.25 | 5.25x105 | 0.67 | 0.21 | 1.67 | 2.18 | 0.25 | |
| Slope out | 6e | coarse | 2.48 | 2.67 | 2.11 | 2.18 | 10.00 | 11.00 | 1.40 | 0.03 | 3.73 | 4.06x105 | 0.44 | 0.18 | 1.41 | 2.09 | 0.43 | |

Table 1 Supporting material B: parameters of the experimental currents. U: flow velocity, H: flow depth, r: distance from the fountain impact, MFR: mass flow rate, Re: flow Reynolds’ number, E: entrainment coefficient, Exc. Den.: excess density with respect to surrounding atmosphere, g’: reduced gravity, Ri0:nominal Richardson number