Accepted Manuscript

Gravity currents produced by lock-release: theory and experiments concerning the effect of a free top in non-Boussinesq systems

S. Longo, M. Ungarish, V. Di Federico, L. Chiapponi, D. Petrolo

 PII:
 S0309-1708(18)30595-5

 DOI:
 https://doi.org/10.1016/j.advwatres.2018.09.009

 Reference:
 ADWR 3200

To appear in:

Advances in Water Resources

Received date:10 July 2018Revised date:3 September 2018Accepted date:13 September 2018

Please cite this article as: S. Longo, M. Ungarish, V. Di Federico, L. Chiapponi, D. Petrolo, Gravity currents produced by lock-release: theory and experiments concerning the effect of a free top in non-Boussinesq systems, *Advances in Water Resources* (2018), doi: https://doi.org/10.1016/j.advwatres.2018.09.009

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Highlights

- We have performed experiments on inertial Gravity Currents advancing in ambient fluid without top lid
- Experiments refer to non Boussinesq condition
- We have compared with theory the front speed, the thickness of the current, the depression of the free surface
- We have measured the fluid velocity with Ultrasounds techniques

1

Download English Version:

https://daneshyari.com/en/article/11033218

Download Persian Version:

https://daneshyari.com/article/11033218

Daneshyari.com