

Accepted Manuscript

Flow development and interface sculpting in stable lubricated pipeline transport

Parisa Sarmadi, Sarah Hormozi, Ian A. Frigaard

PII: S0377-0257(18)30120-4
DOI: [10.1016/j.jnnfm.2018.07.005](https://doi.org/10.1016/j.jnnfm.2018.07.005)
Reference: JNNFM 4030



To appear in: *Journal of Non-Newtonian Fluid Mechanics*

Received date: 9 April 2018
Revised date: 8 July 2018
Accepted date: 18 July 2018

Please cite this article as: Parisa Sarmadi, Sarah Hormozi, Ian A. Frigaard, Flow development and interface sculpting in stable lubricated pipeline transport, *Journal of Non-Newtonian Fluid Mechanics* (2018), doi: [10.1016/j.jnnfm.2018.07.005](https://doi.org/10.1016/j.jnnfm.2018.07.005)

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

- Stable triple layer core annular flows
- Viscoplastically sculpted skin layer controlled through flow rate variations
- Axisymmetric 2D simulations demonstrates feasibility and computes developing flow
- Parametric study reveals that skin yields when yield stress is too small: extensional yielding
- Extensional flow model developed allows quick simulation and estimation of necessary yield stresses for rigid skin

ACCEPTED MANUSCRIPT

Download English Version:

<https://daneshyari.com/en/article/9952643>

Download Persian Version:

<https://daneshyari.com/article/9952643>

[Daneshyari.com](https://daneshyari.com)