

عنوان مقاله:

Investigation of local scour below offshore pipeline under steady current using Flow ۳D numerical model

محل انتشار:

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خلاصه مقاله:

In this paper, local scour below offshore pipeline under steady current has been investigated by Flow ۳D numerical model in different situations. Then the results compared with similar physical experiments to evaluate the reliability and quality of the Flow ۳D sediment scour model. The results show that the Flow ۳D model can predict scour depth almost good but it can't simulate the scour shape and the downstream process of local scour. Also, by conducting experiments for different gap ratio (pipeline distance to bed on pipeline diameter G/D), the effect of pipeline gap on scour depth is investigated. When G/D gets larger, scour depth and width gets bigger and the scour shape centerline moves to downstream of the pipeline.

کلمات کلیدی:

local scour, Flow ۳D, current, offshore pipeline

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