

# Safety Alert

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**Subject: Water Based Mud Spill on Deck**

## What Happened / Narrative

During routine Water-Based Mud (WBM) transfer operations at an offshore installation, the rig hose parted from the vessel's manifold resulting in a release of approximately 2,500 litres of WBM to spill onto the deck. The crew quickly stopped the transfer and proceeded to use standard SOPEP equipment onboard to contain the spill on deck and recovered the contaminated mud within an empty mud tank. The volume of WBM release was entirely contained with no loss to the environment.

## Why Did it Happen / Cause

The manifold is normally fitted with a hammer union connection. In order to facilitate the TODO connection on the end of the hose, the crew usually use a hammer union to TODO adapter. On initial inspection of the vessel's manifold, the thread between the manifold and the hammer union was found to be corroded. After further inspection of the manifold threads it was determined that the threads in place were incompatible. The original manifold threads onboard the vessel were non-compliant to the standard National Pipe Thread (NPT) connection and therefore did not correctly engage. As a result, these threads did not provide an adequate seal which increased the opportunity for corrosion to occur. This led the connection, over a period of time to become weakened and resulted in the hose parting from the manifold.

## Corrective Actions Taken / Recommendations

- Vessels with manifold thread connections found not to be NPT compliant to be inspected for corrosion and, if required, repaired by fully welding the connection to effectively provide the same strength as a fully welded slip-on fitting. Alternatively, the original manufactured thread should be cut off and the correct NPT thread nipple be welded in place.
- Regularly monitor and inspect the condition of the threads on manifolds by implementing into the vessels' Planned Maintenance System
- Pre-use checks to be conducted as part of the Wet bulk transfer checklist to incorporate visual inspections of the manifold connection threads.

## Photographs / Supporting Information



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