



# Shell Shearwater - 2017 Shutdown Cleaning



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| <b>Client</b>           | Shell  |
| <b>Project</b>          | Cleaning of 1st and 2nd stage production vessels and engineering of weir plate extension |
| <b>Location</b>         | Shell Shearwater   |
| <b>Size of Contract</b> | Compact project  |

## THE CUSTOMER

Shell Shearwater is a normally manned integrated Process, Utilities and Quarters (PUQ) platform which is bridge linked to a Wellhead (WH) platform. It is located 140 miles East of Aberdeen. The Shearwater field is a high pressure, high temperature (HP/HT) reservoir. Crude oil production is 50,000bpd. Gas piped via 34" SEAL pipeline to Bacton via a 288 miles line. Oil via 24" GAEL pipeline into the Forties pipeline then onto Cruden Bay and Grangemouth.

## THE SCOPE

Solids removal and cleaning of production vessels. Cleaning of vessel for entry to undertake hot work engineering which involved fabrication and installation of an extension to the weir plate in the first stage separator.

## THE CHALLENGE

To non-intrusively clean the production vessels and ensure the removal of solids without opening of the manway doors. Secondly, to reduce the timescales in preparing the first stage separator for personnel entry for the engineering scope. Historical data indicated that the solids were a mixture of sand, hydrocarbon and drill mud.

## ALTRAD SERVICES' SOLUTION

Altrad Specialist Services assembled a team from its Chemical Cleaning, Environmental Services Offshore and Motherwell Bridge divisions to supply multi skilled personnel. The vessels were chemically flushed with a bespoke chemical additive to break down the coagulated sand solids and allow them to flow through the Cape Specialist Services "Syphonvac" system whilst the vessel remained closed.

The Altrad "Syphonvac" was attached to the drain nozzles at the base of the vessel and facilitate the flow of the chemically treated sand into tote tanks for collection and subsequent transfer to onshore for environmentally safe disposal.

The chemical process appeared to modify the characteristics of the debris from a hard-stubborn clay type substance to an emulsified light waste which exhibited good flow characteristics and facilitated removal through the drain nozzles.

Overall this unique combination of a bespoke additive for chemical flushing with the ability to remove the solids from the vessel whilst it remained closed, significantly reduced the timeline for vessel cleaning and prevented man entry of the vessels to conduct the internal cleaning phase.



Online "Syphonvac" setup

## ABOUT ALTRAD SERVICES

Altrad Services is an international leader in the provision of critical industrial services principally to the energy and natural resources sectors.

Our multi-disciplinary service offering includes access systems, insulation, specialist coatings, passive fire protection, refractory linings, environmental services, oil and gas storage tanks and heat exchanger replacement and refurbishment.