

Wellhead Desander Retrofit

Overview

Due to the EnSep's Engineers detailed knowledge of produced water treatment technology gained over many years, we were able to assist the Client with a 10,000 psi Wellhead Desander Retrofit, location Offshore Turkmenistan.

Scenario

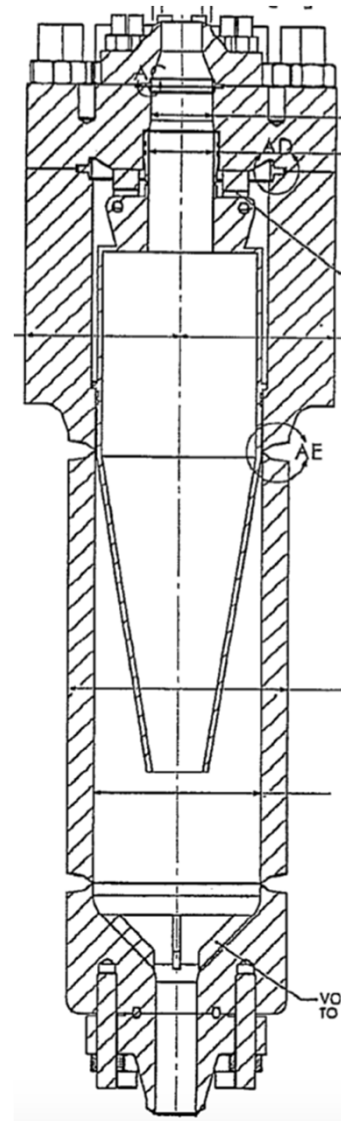
The clients fleet of Wellhead Desanding Packages were originally designed with a single hydrocyclone (Uni-Clone) for high flow, low efficiency particle separation; however, the process conditions of the well required low flow, high efficiency particle separation.

The existing Uni-clone arrangement did not efficiently separate the solids particles, causing solids carry over, resulting in high erosion of the downstream choke valves.

To rectify the issue, EnSep designed, built and supplied multiple small diameter hydrocyclone cartridge inserts to suit the flow characteristics of the well.



EnSeps small diameter ceramic hydrocyclone inserts



Uni-Clone single insert hydrocyclone unit suitable for high flow, low particle separation efficiency.

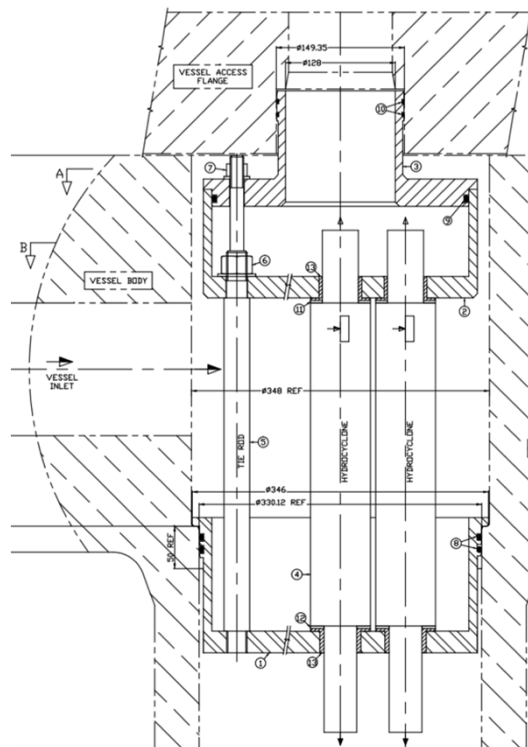
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EnSep Response

The existing 12" nominal bore desanding vessel rated at 10,000 psi was retrofitted with a cartridge designed to accept 7 off, 2" diameter ceramic hydrocyclones, complete with Stainless Steel Plates and o' rings to mimic the Uni-Clone sealing method.



*Assembled Replacement
Hydrocyclone Cartridge*



*Cross-sectional view
Replacement Hydrocyclone
Cartridge installed in the vessel*

EnSep Capabilities

EnSep are able to supply desanding hydrocyclone retrofits that can be installed in most applications with the minimum of modifications.

In addition, EnSep manufacture and supply equivalent spares for a large range of older generation desanding hydrocyclones.