CASE STUDY
Reference no. CS.PMA.UKWA.003

ALTUS Intervention

MAKING INTERVENTION SMARTER

PRECISION MECHANICAL APPLICATIONS

WELLBORE CLEANOUT

Country: Norway
Field: Valhall
Year: 2015
Technologies: **PrecisionCollector** 380 ● **PrecisionSuction** 350 ● **PowerTrac** 318

Precision wellbore cleanout technology efficiently and effectively removes settled barites from above a retrievable bridge plug in a North Sea well.

- 152 litres of debris collected in 6 runs
- 3 times faster debris removal rate versus Slickline

CHALLENGE

The client needed to remove a column of settled barite debris from above a retrievable bridge plug in order to retrieve the plug and access the well for subsequent intervention operations. The plug had been in the well for over seven years, and the last reported hold up depth had indicated approximately 240 litres / 12 meters of debris had accumulated.

SOLUTION

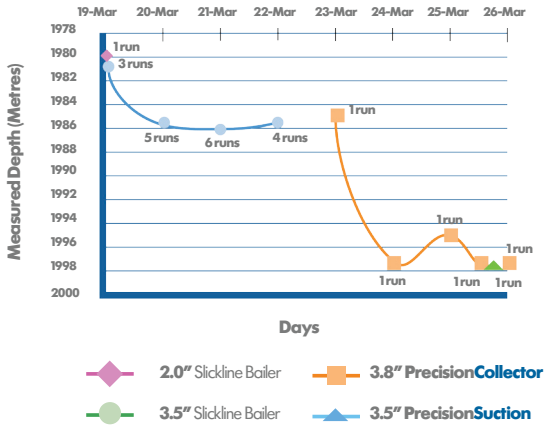
A Slickline bailer system was mobilized with the Precision Wellbore Cleanout options in case progress could not be made with the conventional Slickline bailing approach. This was anticipated due to the heavy nature of the barite debris and the length of time the plug has been in the well. Extensive pre job evaluation was performed in a test jig prior to mobilization with representative debris samples, leading to the optimisation of the full collection system for both the **PrecisionCollector** and the **PrecisionSuction** technologies.

Debris Collection Comparison

	Slickline Bailing	Precision Collection
Runs	19	6
Hours	153	82
Litres Collected	80	152
Litres/run	4.5	26
Litres/hr	0.5	1.9*

**Debris Collection 3 times faster*

Depth Progress



RESULTS

Initial attempts to collect and remove the debris using a conventional Slickline bailer were successful, however collection volumes per run varied widely and depth progress eventually stalled completely with most the debris column still in place. The cleanout method was then switched to the PrecisionCollector system which proved highly effective, delivering substantially higher litres per hour and litres per run collection rates versus the Slickline bailing. Following four runs of the **PrecisionCollector** the debris was seen to be more fluidic. The **PrecisionSuction** system was then run. It too collected efficiently and tagged the top of the plug catcher. A final **PrecisionCollector** run was then done to remove the debris from inside the plug catcher, hence cleaning the inside fishing neck. Following the removal of the debris, the plug was retrieved and the subsequent interventions carried out.

Depth Columns