

## CASE STUDY

# 20" casing integrity evaluation using 80-arm multifinger caliper (MFC80)

### THE CHALLENGE

A multi-national operator needed to evaluate the integrity of a 20" casing in a well located in the North Sea. The casing had previously been pressure tested without success and one or more leaks were suspected.

The operator's ultimate objective was to re-drill the well and so the internal 13 3/8" casing had been removed by cutting it into sections. It was suspected that any of those cuts could have caused damage to the outer 20" casing and subsequently resulted in one or more leaks.

Immediate answers were required in order for the operator to implement appropriate remedial action. Due to READ's extensive well integrity experience, in-depth knowledge of the North Sea oil and gas market and unrivalled data analytics expertise, the client engaged with us to provide support for job planning, execution and data interpretation.

### THE SOLUTION

Data acquisition for a tubular of this size can be very challenging, however READ can offer the solution.

We proposed using our unique, one-of-a-kind 80-arm multifinger caliper (MFC80) with extended fingers. This technology offers an integrity evaluation solution for larger diameter casings and is the only tool currently in use within the industry capable of reaching and effectively evaluating a 20" casing.

While our equipment and highly-experienced field engineering team were being mobilised, we worked closely with our client to discuss and agree the job objectives.

These were to assess the general condition of the casing and identify areas of possible casing damage within a well where debris was also expected.

We successfully logged the casing in real-time during 2 full passes and immediately transmitted the data to our in-house ANSA data analysis team. They performed a Fast Turn Around (FTA) analysis and provided a report to the client in less than 4 hours.

### CLIENT OVERVIEW

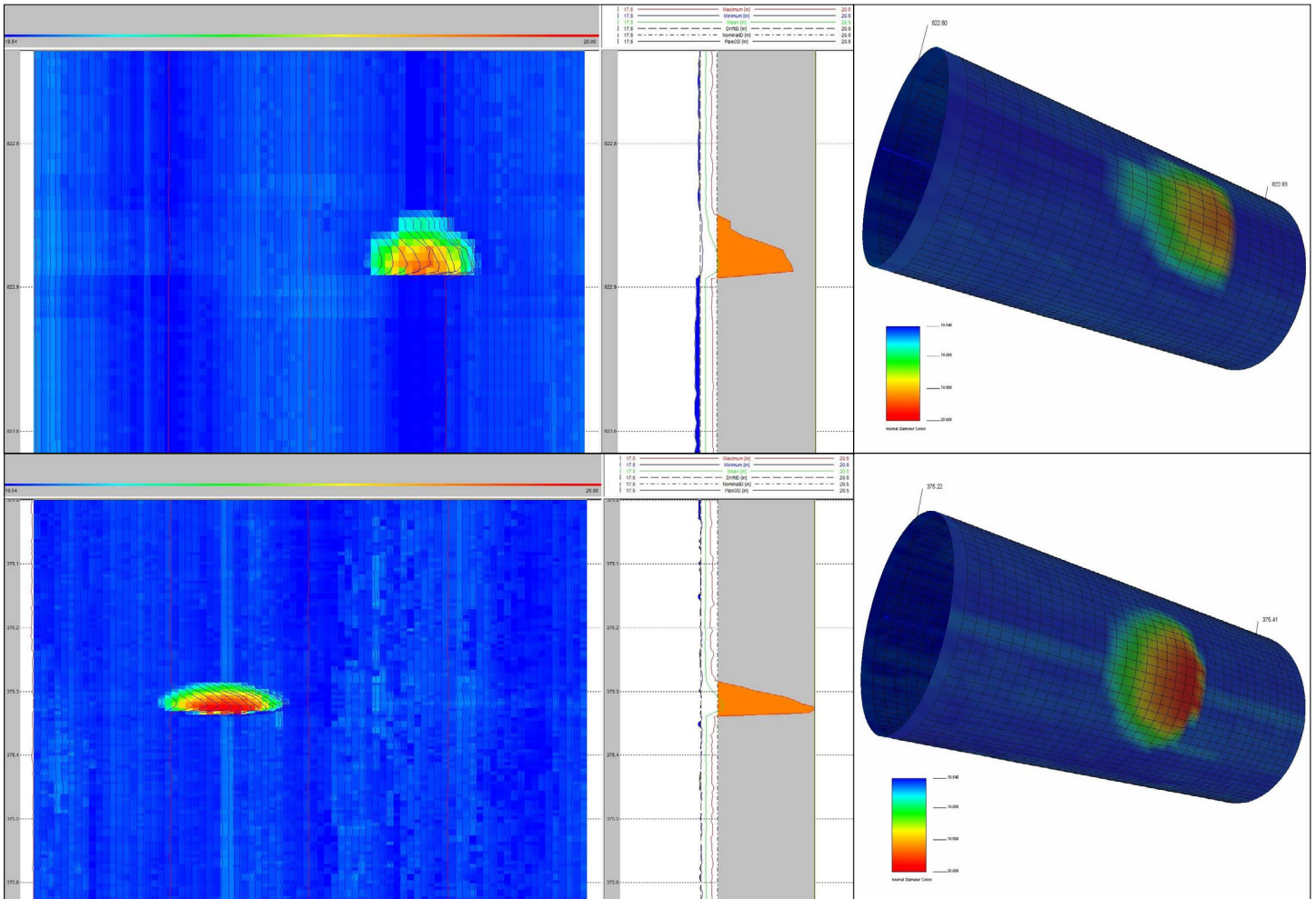
Multi-national operator  
North Sea field

### SERVICES

- Casing integrity evaluation
- ANSA Fast Turn Around (FTA)

### TECHNOLOGY INVOLVED

- 80-arm multifinger caliper with extended fingers



READ's data analysis report indicating damage features with 77% and 100% penetration.

**THE RESULTS**

The comprehensive report delivered by our ANSA team showed that the casing had multiple zones with metal loss, with several showing full wall penetration. Deposition was also found at varying degrees.

The depths of the majority of the deep penetration features matched closely with the depths where the 13 3/8" casing had been cut.

Our Fast Turn Around (FTA) report provided the client with the detailed and precise information they needed to make instant decisions and implement targeted remedial action.

Our client was extremely pleased with the results. With READ's MFC80 technology, field engineering expertise and reliable data analytics they gained valuable insight into the well integrity of their 20" casing.

**KEY RESULTS**

- Fast turnaround report with accurate answers
- In-field decision making for targeted remedial action