SONOMATIC

CASE STUDY

SONOMATIC INC, USA

1315 Price Plaza Drive,
Katy, Texas,
TX 77449

+1 832 316 9925

Agata.Surowiec@sonomatic.com

www.sonomatic.com

AUTOMATED ULTRASONIC INSPECTION OF SUBSEA JUMPERS WITH 2" GSPU COATING

1. INTRODUCTION

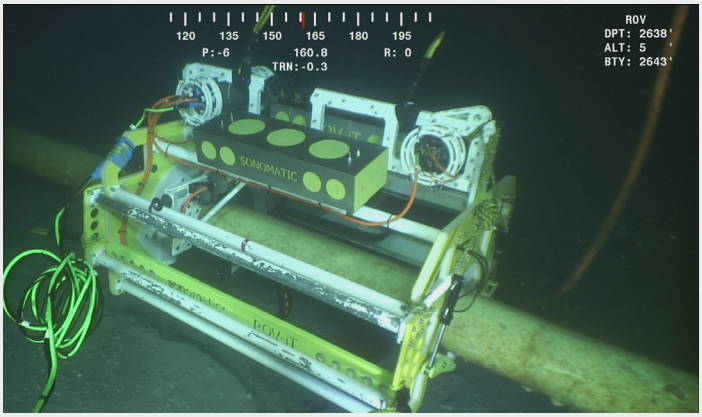
A client operates a number of subsea jumpers in GOM. These lines were not designed for in-line inspection but had been in service for some time and a validation of their condition was necessary. The inspection to validate condition was, therefore, to be performed using externally applied tools.

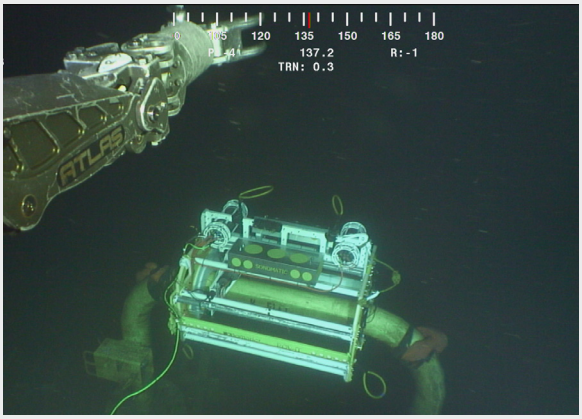
2. MAIN CHALLENGE

A 2" GSPU coating was present on the subsea jumpers, which prevented external inspection using conventional ultrasonic techniques. Inspection was performed in the water depth down to 3000ft.

3. PROCESS

To complete an external inspection of the subsea jumpers through the 2" GSPU coating, Sonomatic used their Dynamic Response Spectroscopy (DRS) technique. DRS uses low frequency ultrasound to penetrate coatings which are attenuative to conventional ultrasonic inspection techniques. The low frequency excitation causes a natural frequency response from the steel. Using advanced signal processing methods, the steel thickness can be derived from the natural frequency response.





4. OUTCOME & CLIENT FEEDBACK

Using the DRS technique, Sonomatic were able to build thickness maps of the areas of interest on the subsea jumpers. The results identified regions of concern.

"We appreciate the work that Sonomatic has done on this scope of work, from qualification to execution offshore. Especially with all of the flexibility because of schedule delays. I was very pleased with the quality of the data on the interim reports. I am very much looking forward to working with y'all in the future on other inspection tasks."