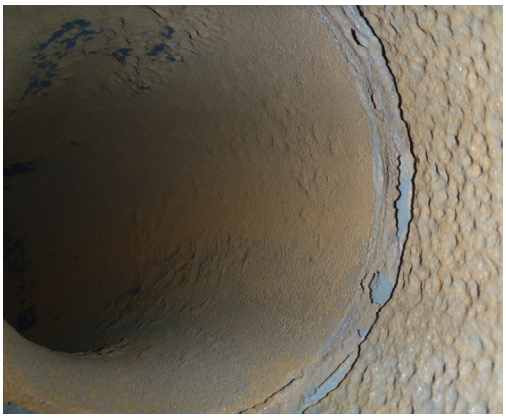
THERMO-WRAP™

PIPE REHABILITATION FOR LONG DISTANCE REPAIRS AND ODD GEOMETRIES



Problem

An offshore natural gas rig in Egypt was experiencing internal corrosion issues on a length of their 6" duplex steel pipes and on some of their 8" carbon steel pipes. A total of 36 combined linear meters of these piping systems were in need of repair. With the high design pressure of 1,885 psi (130 bar), the risk was becoming a safety concern if too much of the wall was lost due to the internal corrosion.

Solution

Thermo-Wrap™ is an E-glass fabric saturated with a proprietary epoxy blend to form a composite repair system that has been developed specifically for high temperature applications and environments. In order to promote adhesion, the pipe was cleaned by removing rust, paint, and other foreign matter using hand power tools. The two part epoxy was then applied to the prepared surface to promote bond and prevent corrosion. The section of pipe was then wrapped with the Thermo-Wrap system, a 100,000 psi (6,895 bar) tensile strength fiberglass wrap system, which provides structural integrity to the thinned pipe, now and into the future.

Result

The repairs were carried out by certified technicians in a matter of three days (which included all surface preparation and other site considerations required by offshore regulations) and are now fully capable of maintaining the high design pressures even in the event the internal defect becomes completely through-wall.

NRI™
Innovative Composite Solutions

1346 S. KILLIAN DRIVE • LAKE PARK, FL 33403 USA • 561.683.6992