

CASE STUDY

Carbontech Case study 029
6" WELDWRAP – 146 BARg



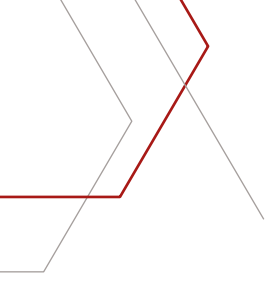


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PROJECT DETAILS

	Case Study Number CTCS:029	Design Pressure 146 Barg	
	Repair Summary WELDWRAP - 36% wall loss	Operating Pressure 146 Barg	
	Client Pipeline Eastern Colorado USA	Design Temperature Ambient	
	Service Type No Data	Operating Temperature Ambient	
	Line Size 6"	Base Material Carbon steel	
	Line Class No Data		



ANOMALY DESCRIPTION
36% External wall loss on 6" pipe.

Fig 1: External Pitting



Fig 2: Overview of Repair area



INTEGRITY CONCERNS

Continued and unmitigated corrosion will result in the pipe to weaken around the corroded area. This will result in the pipe losing its structural integrity and may cause sudden failure of the pipe. Furthermore, leaking process could result in major fire, environmental hazards and loss of production with significant consequences



THE CARBONTECH SOLUTION

Certified Permawrap installers applied a high compressive PermaPutty load transfer material to all defect areas and then installed a 6"x12" WeldWrap sleeve over the repair area. The installation took less than 30 minutes and the repair reinforced the pipe back to its original hoop strength.

Surface Preparation achieved: SA2.5

Product used: Weldwrap

Engineering calculations: ISO-24817

Post cured: Not Required - Ambient cure system

Fig 3: Completed Repair



CONCLUSION

The composite repair system satisfied the ISO TS 24817 standard and was successfully installed.

The wrap provides structural integrity to the pipe in accordance with the required design specifications that will prevent continued external corrosion for the remainder of the required 20-year design lifetime without the risk of losing production



CARBONTECH

The place chemistry, engineering and global expertise are brought together to drive progressive innovation in advanced composite technologies for the emergency repair of critical assets "There is nothing generic about us" we don't just sell pipe wraps; we provide accurate engineering backing to deliver tailored solutions

Sound and responsible engineering is the basis on which we build our company, products and services. It is the core to our success and it is the foundation on which we have engineered and manufactured our innovative and bespoke products

We strive by a zero-failure philosophy and warrant our engineered composite solutions are tested, proven and validated. We vow to provide dependable, responsible and accurate information regarding the capabilities of our systems

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PROGRESSIVE COMPOSITE ENGINEERING

