

CASE STUDY

Carbontech Case study 004
8" Straight-line Composite Wrap



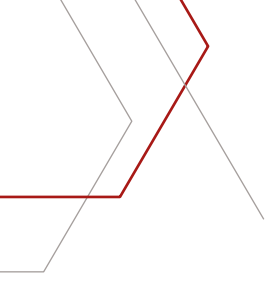


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PROJECT DETAILS

	Case Study Number CTCS:004	Design Pressure 50 Bar	
	Repair Summary 8" External corrosion	Operating Pressure 14.5 Bar	
	Client Shell & BP Refinery	Design Temperature 40°C	
	Service Type DPK	Operating Temperature 30°C	
	Line Size 8 Inch	Base Material Carbon steel	
	Line Class NA		



ANOMALY DESCRIPTION

An 8" line containing DPK suffered from severe external corrosion due to the line being partially buried in sand, the exposure from the sand and elements caused failure on the pipe coating and over time externally corroded to below the lines allowable thickness.

INTEGRITY CONCERNS

Further operation of piping with severe external corrosion poses the risk of loss of its containment and subsequently environmental damage and downtime in production to repair



Figure. 1: After



Figure. 2: After

THE CARBONTECH SOLUTION

Surface Preparation achieved: SA2.5

Product used: Revowrap 110

Engineering calculations: ISO TS 24817

Layers used: 4 layers

Post cured: Not required.

CONCLUSION

A successful repair was completed and the pipeline could run as per normal specifications until a planned replacement is scheduled. It should however be mentioned that with it being external corrosion a 20year guarantee is offered as once the line has been cleaned and wrap the corrosion mechanism is removed. The composite repair acted as both structural reinforcement and as corrosion protection against the highly corrosive atmospheric conditions.



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

