

BELZONA SOLUTION FOR FEED WATER PIPELINE

CUSTOMER

Oil Company, Oman

APPLICATION DATE

2013 - 2014

APPLICATION SITUATION

Pipeline for feed water used to produce steam for Enhanced Oil Recovery (EOR) process. The plant had been in operation since 2010 and had originally used liquid epoxy coatings and Fusion Bonded Epoxy (FBE) for internal corrosion protection.

PROBLEM

The EOR process and the plant have been in operation since 2010 and the internal pipe coating had been carried out using a liquid epoxy coating and Fusion Bonded Epoxy (FBE) in the different pipeline segments. Within two years of operation, leaks were detected on two separate occasions. The main reason was found to be internal lining failure due to the variance in temperature during the steam injection process. The friction and high internal abrasion contributed to the deterioration of the pipe lining.

PRODUCTS

Belzona 1391S

SUBSTRATE

Steel

APPLICATION METHOD

Application was carried out in accordance with Belzona Know How System Leaflet VPF-2 using spin spray application equipment.

BELZONA FACTS

Belzona 1391S was used between 2010 and 2013 to mitigate localized damage caused by failing FBE. A trial application in the middle of 2012 was completed and inspected after the lining's first year in service. Based on the outcome of this trial, Belzona 1391S was approved for their expansion project and the application for a 10,000 m2 area. To date, the application is performing as expected and there have not been any instances of leakage or abrasion damage to the pipe. The NDT inspection results for pipe wall thickness have revealed no significant change in the readings.

PICTURES

1. Pipeline sections
2. Spin spray rig
3. Pipeline sections being lined
4. Pipeline close up



1.



2.



3.



4.

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