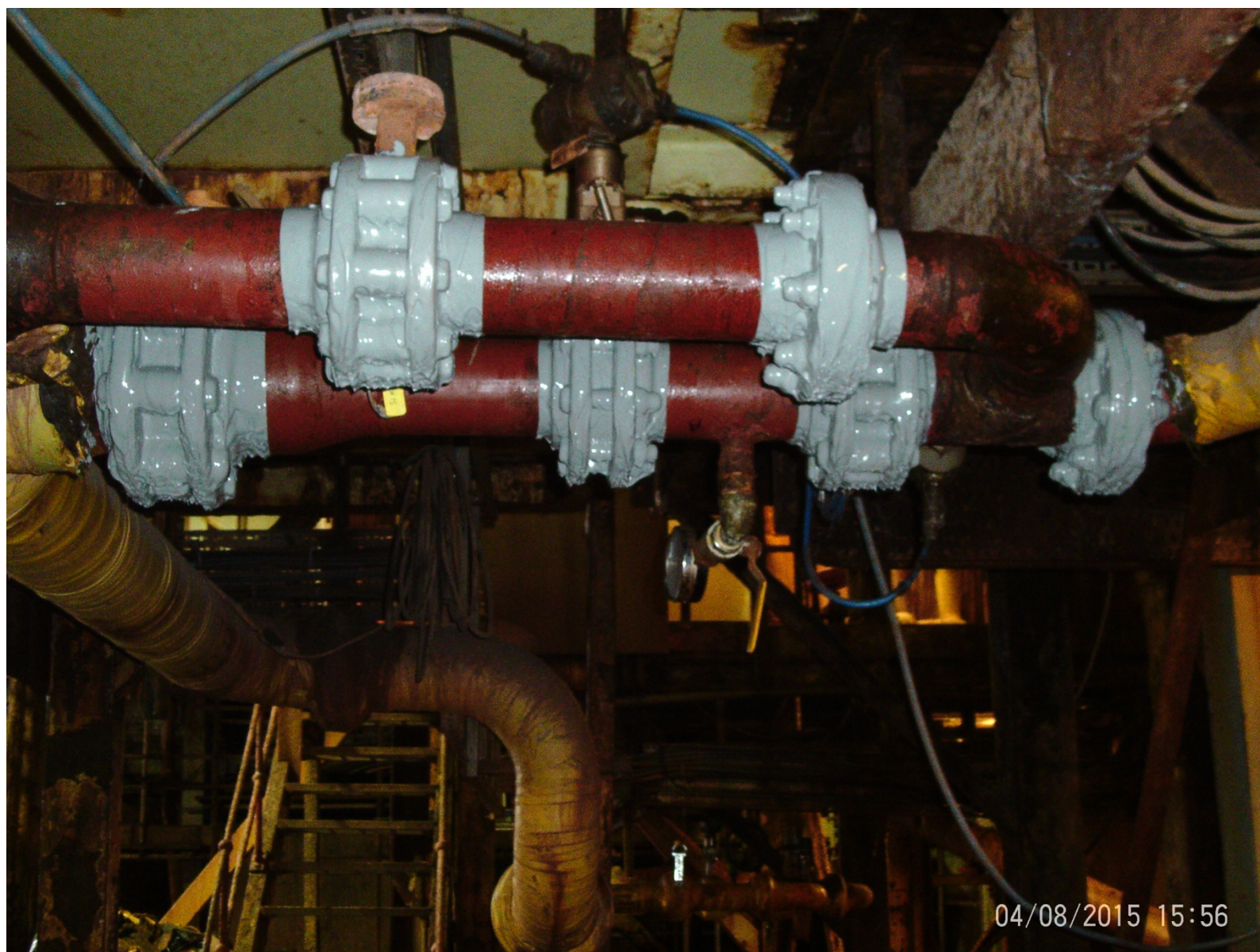




Flange & Valve Protection Trial

Boulby Potash Mine

Case Study

Flange and Valve Protection Trial

Location	Boulby Mine
Local Environment	Potash Mine
Date	August 2015
Condition	Damp & Dirty
Total Coatings	42
Substrate Type	Flange / Valve Assemblies
Duration	3 Days

Flanges & Valve Prior To Coating



Summary

Oxifree TM198 was selected by Cleveland Potash Ltd (Part of the ICL Group) to carry out a trial on flange/valve assemblies to mitigate the vast corrosion issues they were having.

Introduction

Corrosion is common in across the whole Boulby Mine site, due to the damp environment and also being situated on the east coast of England next to the North Sea

Objective

Oxifree were requested to carry out the coating of Oxifree TM198 on 28 off 9" x 9" Flange Assemblies, 10 off 11" Flange Assemblies & 4 off 13" Flange Assemblies

Flanges/Valves - Oxifree



Flanges & Valve Prior To Coating



Case Study

Process

Oxifree application technicians completed the project in 3 days. The Oxifree TM198 was applied directly onto the flange/valve assemblies after a quick clean with a degreaser.

The application was carried out using the Oxifree Polymelt 50 application machine (situated on the floor) with a 15m hose.

Flanges/Valves - Oxifree



Solution

A 4mm coat was applied to all areas. The coating, as approved by the client, will ensure the flanges/valves are protected for 10 years. No sandblasting required. In the future, the material is easy to remove for inspection. The anti-corrosion oil also acts as a penetrating oil for any existing corrosion.

Flanges/Valves - Oxifree



Conclusion

Oxifree was deemed as the only viable cost-effective solution for these areas by the client with one of the main attributes being that Oxifree TM198 is extremely resistant to most chemicals.

Discussions with client at the end of 2022, confirmed that the material had been removed in late 2021 due to change in plant configuration. Client confirmed that no further corrosion had taken place and the TM198 material had stood up well within the potash environment.

No future plans for the re-coating have been finalised as of yet due to the site going through a transition from potash to polyhalite. Therefore, there is a major decommissioning and construction phase in process.

Flanges/Valves - Oxifree

