



CORROSION

Boise Paper MIC Case Study Wallula, Washington, USA

Hydropath technology inhibited microbial induced corrosion in Boise Paper's starch line, preventing new nodules from forming while existing nodules gradually broke down over a 15-week trial.

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New Nodules

15 wks

Successful Trial Period



Existing Corrosion
Reduced



No Chemicals Required



BEFORE & AFTER

BEFORE

- Existing nodules in contaminated pipe
- Risk of pin-hole leaks from MIC
- Clean pipe required ongoing protection

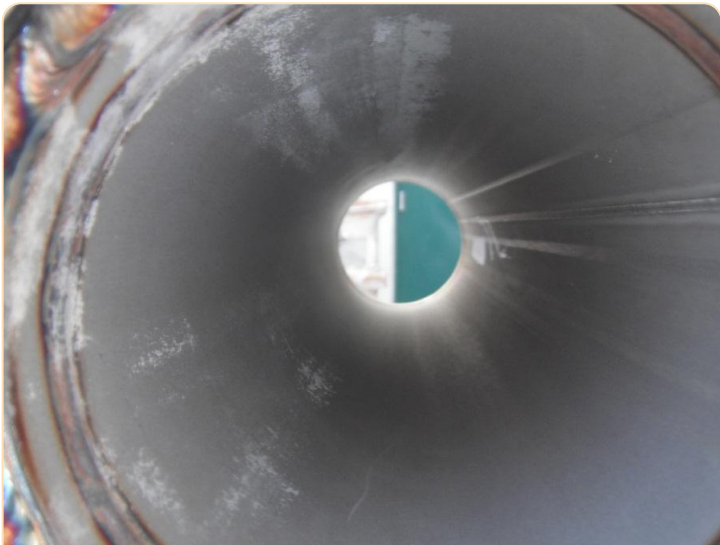
AFTER

- ✓ No new nodules formed
- ✓ Existing colonies began breaking down
- ✓ Clean spool remained protected



BEFORE

Contaminated pipe spool section



AFTER

Contaminated pipe spool after 15 weeks

OVERVIEW

Boise Paper Mill evaluated Hydropath technology on the W3 starch line to inhibit microbial induced corrosion (MIC). Bacteria colonise steel pipe surfaces, forming nodules that can eventually cause pin-hole leaks. During the 15-week trial, contaminated and clean pipe spool sections were monitored for nodules formation and breakdown

CHALLENGE

MIC was increasing the risk of internal pipe failure.

- Bacteria were established inside existing nodules
- Corrosive acids were attacking the pipe from within
- Nodules could progress into pin-hole leaks

SOLUTION

1x *HydroFLOW*® i120 was fitted on the stainless steel W3 starch line, approximately 3 metres upstream of the monitored test spool sections.

UNIT INSTALLED

1x *HydroFLOW*® i120

PIPE SIZE

4.5" outer diameter

INSTALLATION POINT

W3 starch line before test spools

TRIAL DURATION

15 weeks



INSTALLATION

HydroFLOW® i120 installed on line



PIPEWORK

Clean pipe spools

RESULTS

No New Nodules

No new nodules formed over 15 weeks.

Existing Colonies Reduced

Existing nodules gradually broke down.

Clean Pipe Protected

Clean pipe remained free from new corrosion.

MIC Inhibited

Microbial induced corrosion was controlled.

Pin-Hole Risk Reduced

Lower risk of future internal pipe failure.

Chemical-Free Protection

Protected pipework without chemicals.

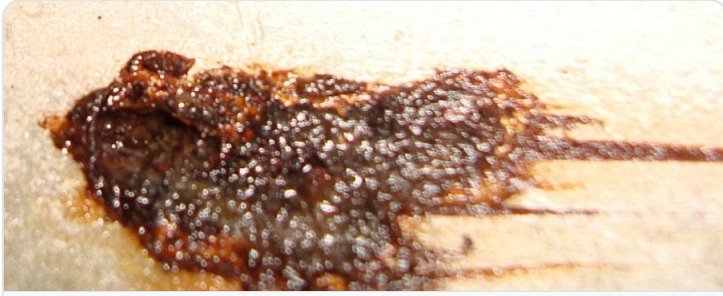
KEY TAKEAWAY

Summary

A 15-week trial at Boise Paper Mill showed that Hydropath technology prevented new nodules while existing colonies gradually broke down. The treated pipe remained free from new corrosion throughout the trial, demonstrating effective chemical-free MIC control.



ADDITIONAL PHOTO EVIDENCE



BEFORE

First Nodule



AFTER

First Nodule after 15 weeks



BEFORE

Second Nodule



AFTER

Second Nodule after 15 Weeks



BEFORE

Third Nodule



AFTER

Third Nodule after 15 Weeks



BEFORE

Fourth Nodule



AFTER

Fourth Nodule after 15 Weeks

HYDROPATH

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