



WASTE WATER

Walla Walla Struvite Control Case Study Walla Walla, Washington, USA

With Hydropath treatment, a cleaned section of the belt press drum stayed free of new struvite for eight weeks, while pan deposits softened for hose removal. Scale returned after switch-off.

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New Scale on Cleaned
drum

5 weeks

Pan Deposits Softened

8 weeks

Pan Scale Removable by
Hose

7 weeks

Switch-off Contrast
Confirmed

BEFORE & AFTER

BEFORE

- Hard struvite covered the drum and pan
- Test sections required chisel cleaning
- Deposits were firmly bonded to metal surfaces

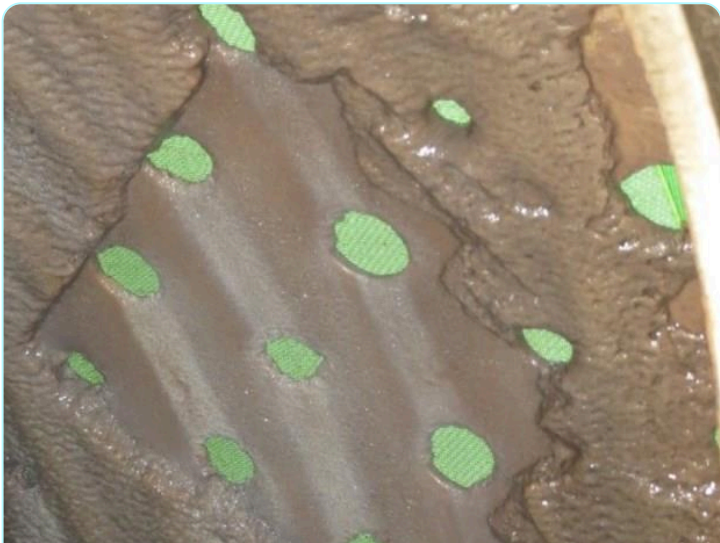
AFTER

- ✓ Cleaned drum stayed clear for eight weeks
- ✓ Existing drum scale gradually reduced
- ✓ Pan deposits softened for hose removal



BEFORE

Cleaned drum section at trial start



AFTER

Clear Drum as existing scale reduced.

OVERVIEW

The City of Walla Walla Waste Water Plant in Washington State experienced hard struvite accumulation on its belt press drum and pan. On 31 May 2013, 12 × 12 in sections were chiselled clean and one *HydroFLOW*® Custom unit was installed. The areas were inspected after five and eight weeks with the unit operating, then after four and seven weeks with it deliberately switched off, providing a direct treated and untreated comparison.

SOLUTION

One *HydroFLOW*® Custom unit was installed on the belt press system. Cleaned 12 × 12 in drum and pan sections were monitored for eight weeks with the unit on, followed by seven weeks off.

UNIT INSTALLED

1x *HydroFLOW*® Custom 1"

INSTALLATION DATE

31 May 2013

SIGNAL VERIFICATION

41.2 V peak-to-peak with a strong Hydropath signal

EVALUATION SEQUENCE

8 weeks on, followed by 7 weeks off



INSTALLATION

HydroFLOW® Custom installed on the belt press

CHALLENGE

Hard struvite accumulated on the belt press drum and pan, requiring chisels for removal and creating recurring maintenance.

- Hard deposits covered both the belt press drum and pan.
- Each 12 × 12 in test section needed a chisel to expose bare metal.
- Limited water flow around the drum restricted deposit removal.

RESULTS

No New drum Accumulation

The cleaned drum section remained free from new scale for eight weeks of treatment.

Existing drum Scale Reduced

Existing struvite layers on the drum were gradually removed during the treated period.

Pan Deposits Softened

After five weeks, pan deposits were soft enough for clear finger marks to be made.

Pan Scale Removable by Hose

After eight weeks, softened pan deposits could be washed off easily with a hose.

Scale Returned After Switch-off

A 1/8-inch pan layer formed within four weeks after the unit was switched off.

Clear Seven-Week Contrast

After seven weeks off, the drum had 1/8-inch hard scale and the pan had 1/4-inch scale.

KEY TAKEAWAY**Walla Walla Struvite Control**

At the City of Walla Walla Waste Water Plant, one *HydroFLOW*® Custom unit operated on the belt press system for eight weeks. The cleaned drum section showed no new accumulation, existing drum deposits gradually reduced, and pan scale softened enough to wash off with a hose. After the unit was switched off, scale returned: within seven weeks, a hard 1/8-inch layer covered the drum test section and a 1/4-inch layer formed on the pan. The on/off sequence provides a clear comparison of Hydropath treatment performance.

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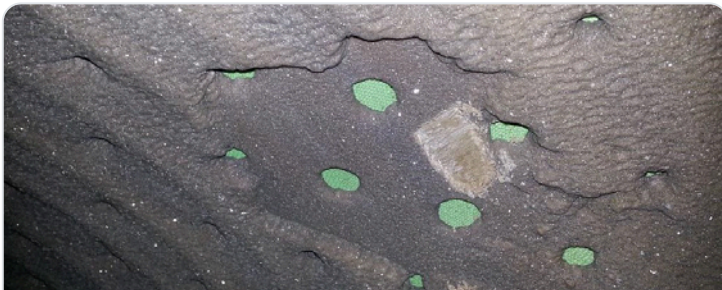
NEW DRUM SCALE AFTER 8 WEEKS

5 weeks

PAN DEPOSITS SOFTENED

7 weeks

SCALE REGROWTH WITH UNIT OFF

**ADDITIONAL PHOTO EVIDENCE****BEFORE***Drum section cleaned to bare metal before treatment***AFTER***Drum remained clear after five weeks of treatment***AFTER***Drum stayed clear as existing struvite began to reduce***INSPECTION***New struvite spread within four weeks of switching off***INSPECTION***Hard 1/8-inch drum scale after seven weeks off***BEFORE***Pan test section cleaned at the start of the trial*



AFTER

Soft pan deposits after five weeks of treatment



RESULTS

Soft struvite paste removed after eight weeks



INSPECTION

1/8-inch pan scale after four weeks off



INSPECTION

1/4-inch pan scale after seven weeks off

RELATED CASE STUDY

Orlando Wastewater Treatment Case Study

Orlando, FL

The City of Orlando installed HydroFLOW® units at their wastewater treatment facility to address struvite scale buildup. The system successfully removed existing scale and reduced polymer usage by 20%, earning an official endorsement letter from the city.

Struvite Removed

Effective removal and prevention of struvite scale in pipes and equipment

20% Polymer Cut

Reduced polymer chemical usage by one-fifth at the treatment plant

City Endorsed

Received official endorsement letter from the City of Orlando

HYDROPATH 

Ready to control struvite scale?

Get a free consultation for your wastewater treatment facility.

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🌐 hydropath.com

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