INTRODUCTION

- Dry well with 2 pumps. Normal operating conditions are duty stand-by.
- DERAGGER® anti-ragging device installed on Pump 1.
- Benchmark data was collected from 19 Sep 2017 to 17 Dec 2017.
- Anti-ragging was switched on from 19 Dec 2017 to 22 Mar 2018.

RESULTS

- Complete elimination of ragging incidents once DERAGGER® anti-ragging device installed.
- Reduction in Average running current (Amps down from 13.28 to 9.0) and Average running power (kW down from 5.4 to 3.37)
- Minutes pumped per kWh went up from 15.7 without the DERAGGER®, to 20.11 with DERAGGER®.

CONCLUSION

- Despite heavy ragging issues, the DERAGGER® was able to detect and alleviate ragging issues in Pump 1 – there were zero blockage trips once the DERAGGER® was activated.
- Due to the DERAGGER®'s real-time ragging detection, which detects and addresses blockages before they are able to form, the pump was able to operate unimpeded by any form of blockage – this led to substantial energy reductions (an increase in Minutes pumped per kWh, and a reduction in Daily Average Power).

Data gathered by Clearwater Controls during dates specified, in collaboration with Anglian Water.

“We were really pleased with the DERAGGER®’s ability to both eliminate blockages and save significant energy. We found it easy to install and commission”

Gordon M Anderson MIET, Maintenance Support Technician, Anglian Water

INCREASE IN MINUTES PUMPED PER KWH WITH DERAGGER®: 28%

REDUCTION IN DAILY AVERAGE POWER WITH DERAGGER®: 37%
**BEFORE DERAGGER®:**

- Average running current (A): 13.28
- Average running power (kW): 5.4
- Total energy consumed (kWh): 249
- Pump runtime in minutes per kWh: 15.7

- Minutes pumped per kWh before DERAGGER®.

- Current (Amps) & Trips before DERAGGER®.

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**AFTER DERAGGER®:**

- Average running current (A): 9
- Average running power (kW): 3.37
- Total energy consumed (kWh): 369
- Pump runtime in minutes per kWh: 20.11

- Minutes pumped per kWh with DERAGGER® anti-ragging switched on.

- Current during period (Amps) with DERAGGER® anti-ragging switched on.

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Data gathered by Clearwater Controls during dates specified, in collaboration with Anglian Water.

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