Trip Report

File / Project:	Pflugerville WTP
Location:	Texas
Site Contact:	Brian Camp, Brandon Pritchett
Traveler:	Joe Witlox, Craig Scott, Cam Love, Phillip Geoff
Trip Date:	Jan 20th – 24th 2020
Distribution:	Craig Brown, Brandon Pritchett, Brian Camp
	Jim Imrie, Duncan Millar

Preface

A site visit by J. Witlox and our membrane techs was planned and fulfilled starting Jan 20th, 2020. The intent was to perform a fiber repair campaign on Train 3 and asses it's potential for repair and returning to production. Also, to review other repair opportunities, review cleaning protocol and talk with the Pflugerville team to better understand any other items they feel needed to be addressed.

Primary Goals

1. Begin repairs and perform MITs on Train #3 to evaluate its current condition.
2. Address the next train(s) requiring fiber repair.
3. Review membrane cleaning strategies and effectiveness.

Membrane Repair – Train 3

Initial MIT on train 3 was as expected – see Figure 1 below. During the inspection while the MIT was in progress it was clear that all cassettes had several leaks. Approximately 160 repairs were done before the next MIT was performed to see what kind of improvement there was. See Figure 2 below.

Figure 1

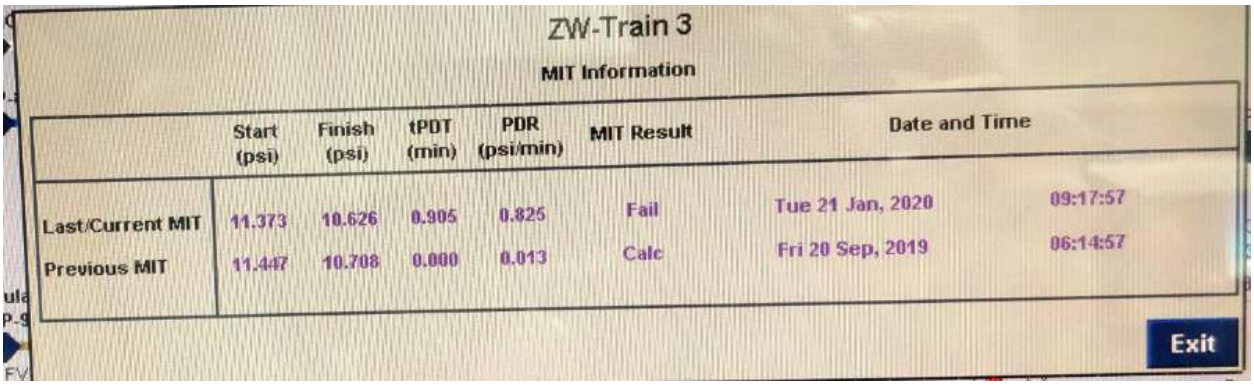
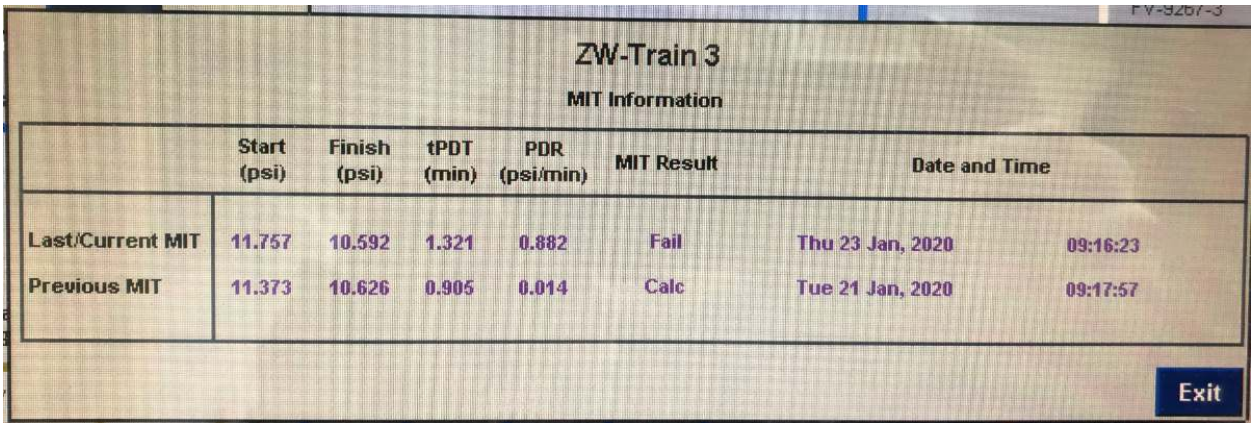


Figure 2



It was then discussed with Brandon Pritchett and Brian Camp that we would finish the week working on train 3 to help determine if the train could be brought back into service with another week of repairs and potentially using the 32 new modules on site.

While repairs were being done we had noticed several small pieces of shell that had not been evident during the replacement of trains 1&2.

As can be seen in the picture above, these bits of shells create several small leaks.

After day 4 and well over 200 repairs a MIT was initiated with results showing little to know improvement. The PDR was at .882.

With the number of repairs, the visual inspection showing so many shells and the MITs failing we re-visited the plan with Brandon Pritchett. Brandon agreed that it would make sense to move the crew over to Train 5. Where we had an opportunity to improve on a train that could be put back into production post a FCV replacement.

Initial MIT on train 5 was .279 and initial repairs showed an improvement to .173. Note, fail criteria is .33. The last MIT on January 30th showed a PDR of .181.

Cleans

A Maintenance Clean was initiated on Train 2. When checking concentration there was no chlorine residual at all. An investigation into the chemical holding tank for cleans showed that the chlorine had lost all concentration. The plan on site is to dump the old chemical, re-fill and then get back to cleans. I'll follow up with Brian Camp to work through cleans when he's ready.