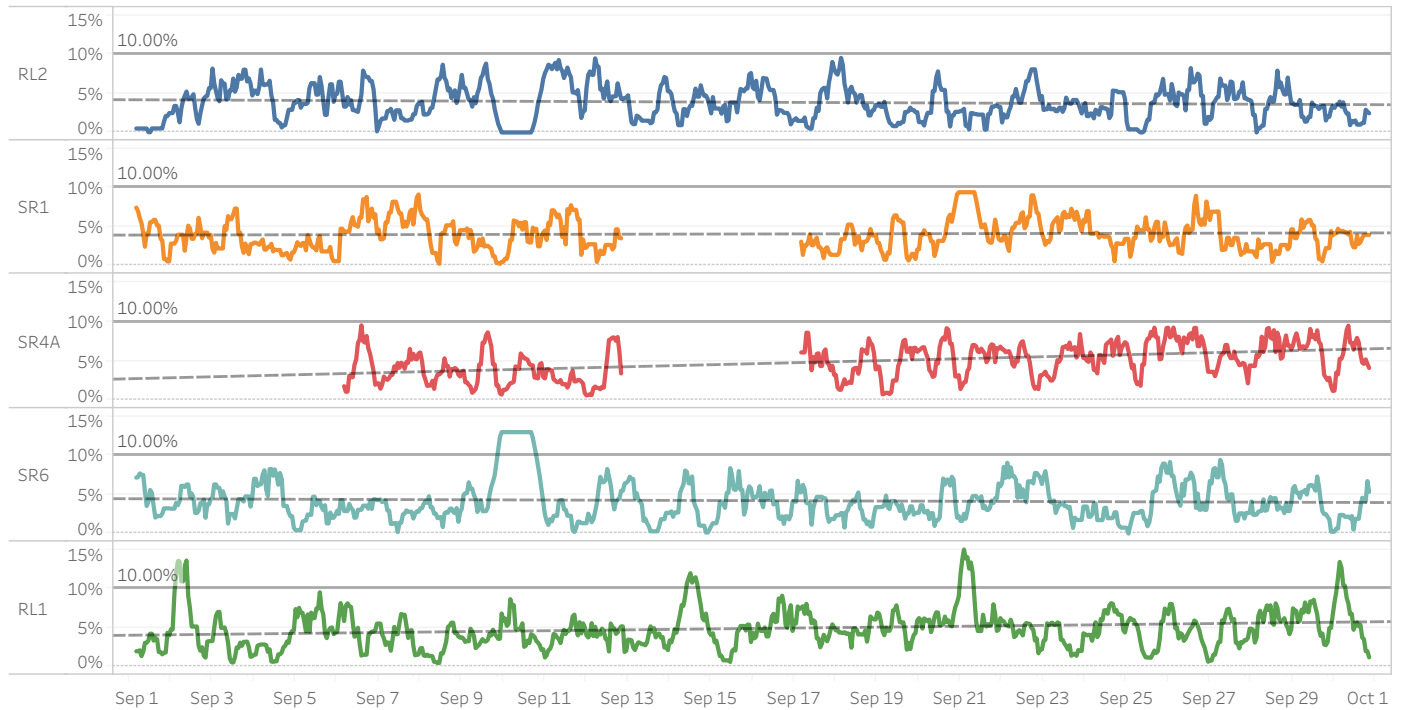


Coal Terminal Maintenance Analysis (Mock up)

Summary	Reclaimers	RL 1	RL 2	Staker Reclaimers	SR 1	SR 4A
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Introduction.

I have five machines that were analyzed and some great insights were depicted from each machine.

There are RL1, RL2, SR1, SR4A, and SR6 to go through their comparison for the idle capacity in percentage terms to the threshold of 10 percent, and this is for an 8-hours moving average analysis.

Disclaimer: This is a mack-up project, used exclusively for my personal Data Analytics and Tableau skills development and illustration for prospective employers to see my demonstrated skills in Tableau, and there is no affiliation with DBCT real data. It's just for practicing purposes.

Coal Terminal Maintenance Analysis (Mock up)

Summary	Reclaimers	RL 1	RL 2	Staker Reclaimers	SR 1	SR 4A
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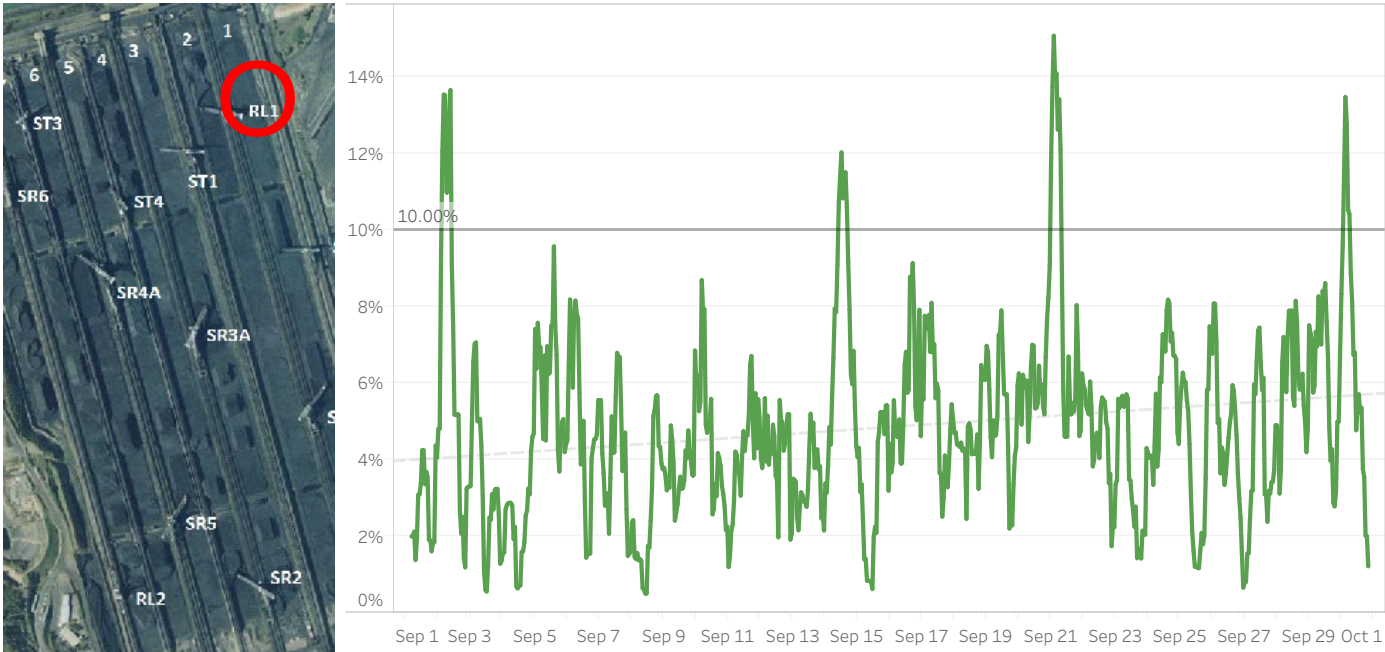
RECLAIMERS



Coal Terminal Maintenance Analysis (Mock up)

Summary	Reclaimers	RL 1	RL 2	Staker Reclaimers	SR 1	SR 4A
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RECLAIMERS 1 (RL1)



The image above illustrates the 8-hours moving average of idle capacity for Reclaimer 1 (RL1), expressed as a percentage of nominal capacity.

Throughout the month of September, RL1 exceeded the allowable threshold multiple times:

- 2/9 - rolling average peaked at 14%
- 14/9 - rolling average peaked at 12%
- 21/9 - rolling average peaked at 14%
- 21/9 - rolling average peaked at 13%

In addition, the data shows upward trend in the unused capacity for this machine.

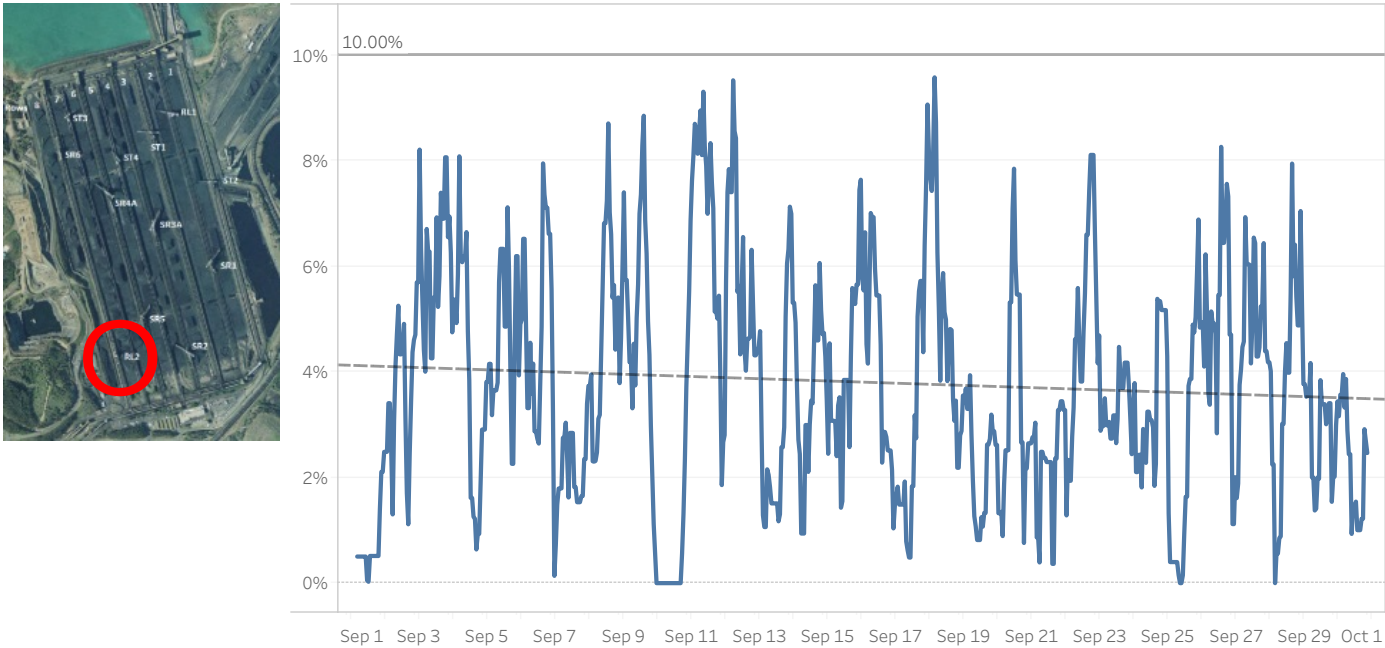
If the trend continues, every hour of operation will be increased in the idle capacity by approximately 0.05% in the long run.

This proves to us that this machine requires maintenance in the upcoming month.

Coal Terminal Maintenance Analysis (Mock up)

Summary	Reclaimers	RL 1	RL 2	Staker Reclaimers	SR 1	SR 4A
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RECLAIMERS 2 (RL2)



The image above illustrates the 8-hours moving average of idle capacity for Reclaimer 2 (RL 2), expressed as a percentage of nominal capacity.

Throughout the month of September, RL2 does not exceed the allowable threshold.

When I interpreted the R-square and the P-value of the trend line, we can safely say the RL 2 is safe to use for the upcoming month without being worried about its maintenance.

Coal Terminal Maintenance Analysis (Mock up)

Reclaimers	RL 1	RL 2	Staker Reclaimers	SR 1	SR 4A	SR 6
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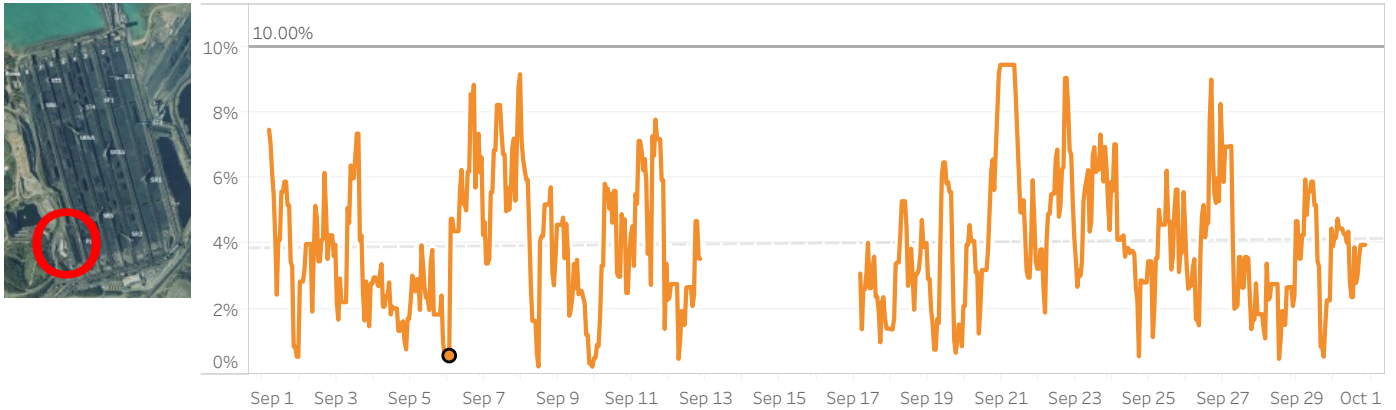
STAKER RECLAIMERS



Coal Terminal Maintenance Analysis (Mock up)

RL 1	RL 2	Staker Reclaimers	SR 1	SR 4A	SR 6	Summary
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STAKER RECLAIMERS 1 (SR 1)



The image above illustrates the 8-hours moving average of idle capacity for Staker Reclaimer 1 (SR 1), expressed as a percentage of nominal capacity.

Throughout the month of September, SR 1 does not exceed the allowable threshold.

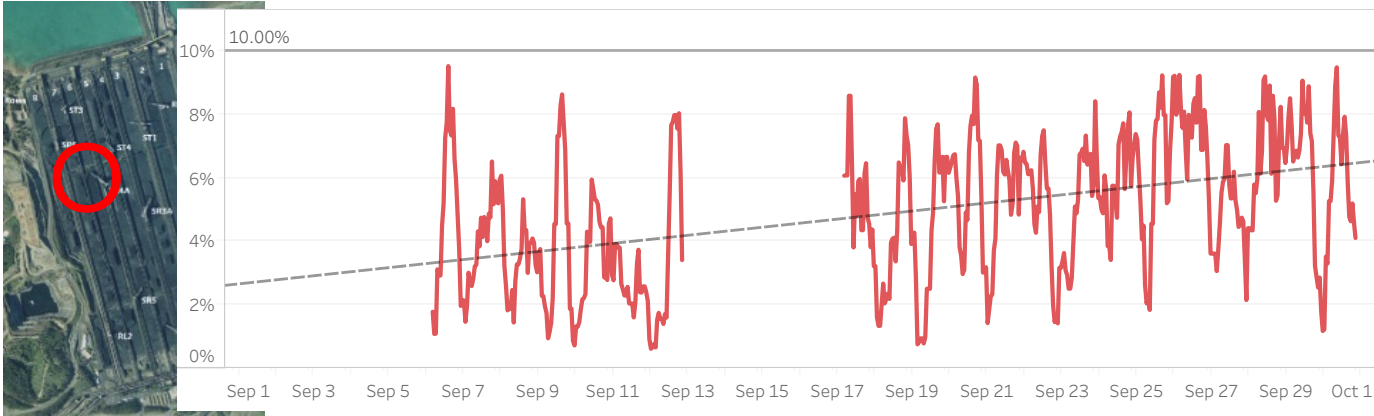
The gap between the moving average shows that it is interchangeable between the Staker and the Reclaimer, and therefore there is not enough data to proceed with the moving average calculation.

It was statistical proof that we don't have to be worried about the maintenance of SR 1 in the coming month.

Coal Terminal Maintenance Analysis (Mock up)

RL 1	RL 2	Staker Reclaimers	SR 1	SR 4A	SR 6	Summary
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STAKER RECLAIMERS 4A (SR 4A)



The image above illustrates the 8-hours moving average of idle capacity for Staker Reclaimer 4A (SR 4A), expressed as a percentage of nominal capacity.

Throughout the month of September, SR 4A does not exceed the allowable threshold. But we need to be careful and give a closer look at the performance of this machine.

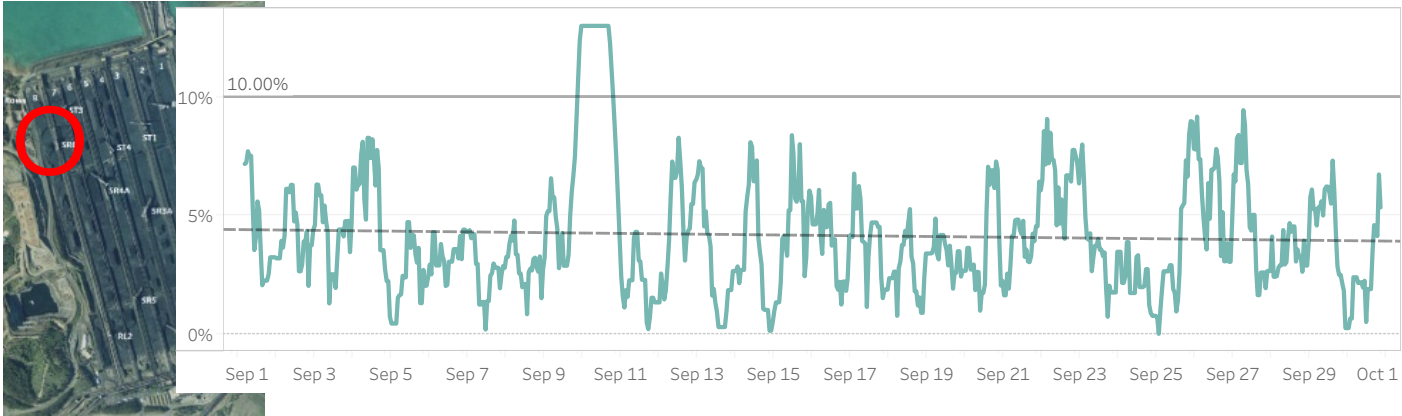
According to the interpretation of the trend line, there is a continuous inclination in the trend line, which depicts a high chance of breakdown or poor performance of this machine in the upcoming month.

I, therefore, recommend maintenance to this SR 4A machine in the coming month.

Coal Terminal Maintenance Analysis (Mock up)

RL 1	RL 2	Staker Reclaimers	SR 1	SR 4A	SR 6	Summary
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STAKER RECLAIMERS 6 (SR 6)



The image above illustrates the 8-hours moving average of idle capacity for Staker Reclaimer 6 (SR 6), expressed as a percentage of nominal capacity.

Throughout the month of September, SR 6 exceeded the allowable threshold, with an observation in the moving average, where there is a flat trend in the moving average of idle capacity, and it's observed that RL 2 had the same trend, this may be because they are in the same line of operation.

I, therefore, recommend the maintenance of this machine in the upcoming month.

Coal Terminal Maintenance Analysis (Mock up)

RL 1	RL 2	Staker Reclaimers	SR 1	SR 4A	SR 6	Summary
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SUMMARY

In summary, there are three machines that need maintenance in the upcoming month.

Reclaimer 1 (RL1)
Staker Reclaimer 6 (SR 6)
And the Staker Reclaimer 4A (SR 4A)

The SR 4A does not cross the allowable threshold, but it is coming near a very dangerous point in its service life, if maintenance is not undertaken, as this is obvious from the continuous inclination of the trend line.

THANK YOU!