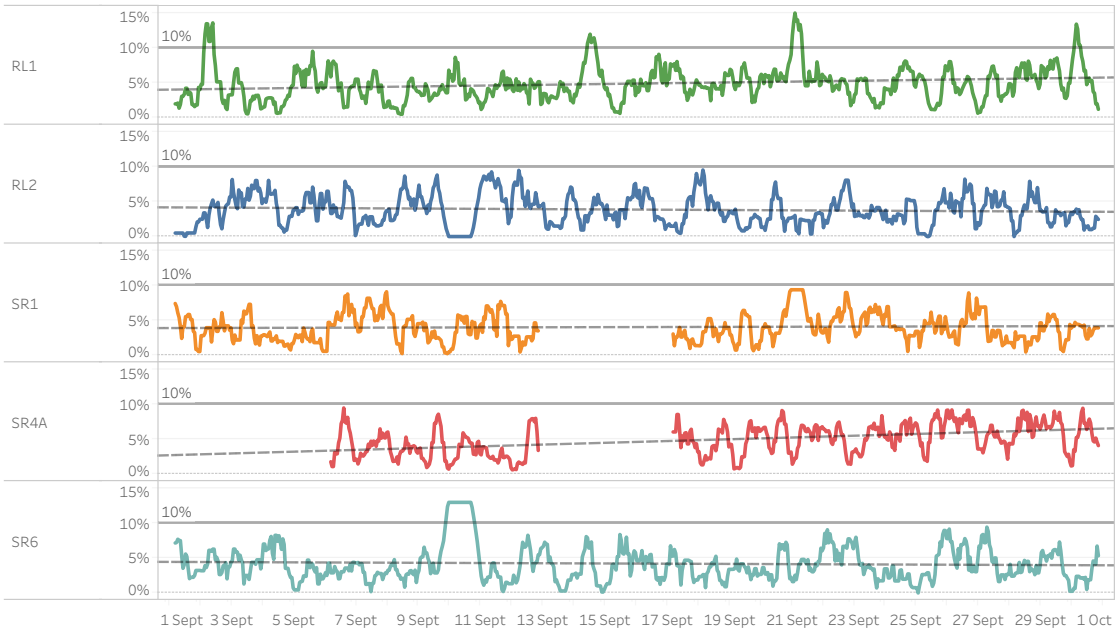
Coal Terminal Maintenance Analysis

Summary	Reclaimers	RL1	RL2	Stacker- Reclamer	SR1	SR4A	SR6



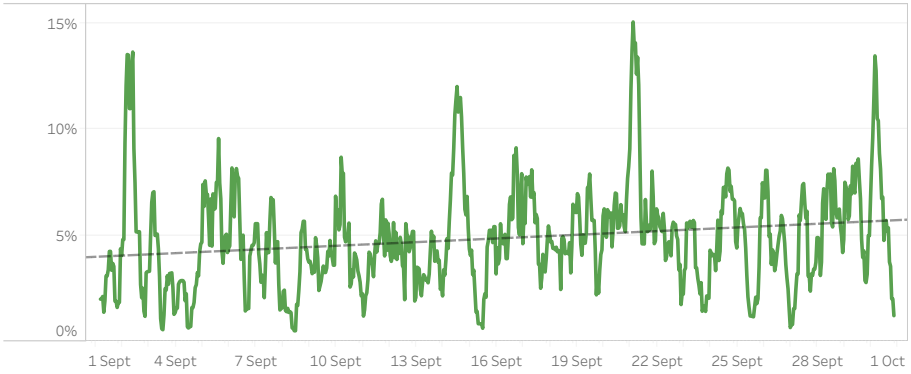
Coal Terminal Maintenance Analysis

RECLAIMERS

Coal Terminal Maintenance Analysis

Summary	Reclaimers	RL1	RL2	Stacker- Reclamer	SR1	SR4A	SR6

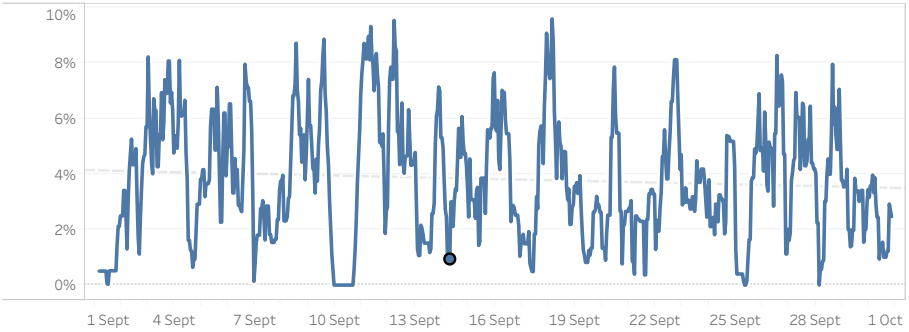
RECLAIMER 1(RL1)



The Visualization above illustrates the 8-hour moving average of idle capacity for reclaimer1(RL 1),expressed as a percentage of nominal capacity
Throughout the month RL1 exceeded the allowable thresold multiple times:
2/9-rolling average peaked at 14%
14/9-rolling average peaked at 12%
21/9-rolling average peaked at 15%
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 increasing idle capacity by approximately 0.05% in the long run.
It is evident that this machine reuires maintenance in the upcoming month.

Coal Terminal Maintenance Analysis

RECLAIMER 2(RL2)



The Visualization above illustrates the 8-hour moving average of idle capacity for reclaimer2(RL 2),expressed as a percentage of nominal capacity

The chart shows that at no given point in time did the 8-hour average exceed the thresold of 10%.This suggests that the machine is running smoothly and does not require maintenance.

The chart plateaus at the 10th september 2015,suggesting that the machine was working at full capacity for a prolonged period of time.Further investigation of data showed that possibly this may have achieved at the expense of sacrified utilisation of machine SR6 which will be discussed in the report of that machine.

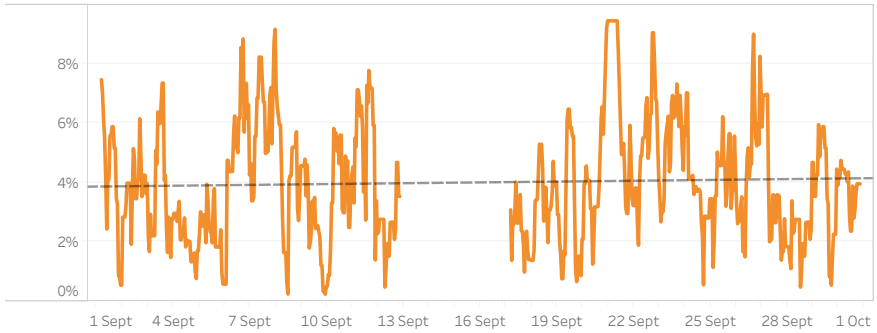
Coal Terminal Maintenance Analysis

STACKER-RECLAIMER

Coal Terminal Maintenance Analysis

Summary	Reclaimers	RL1	RL2	Stacker- Reclamer	SR1	SR4A	SR6

STACKER-RECLAIMER 1(SR1)



The Visualization above illustrates the 8-hour moving average of idle capacity for Stacker-Reclaimer(SR 1),expressed as a percentage of nominal capacity

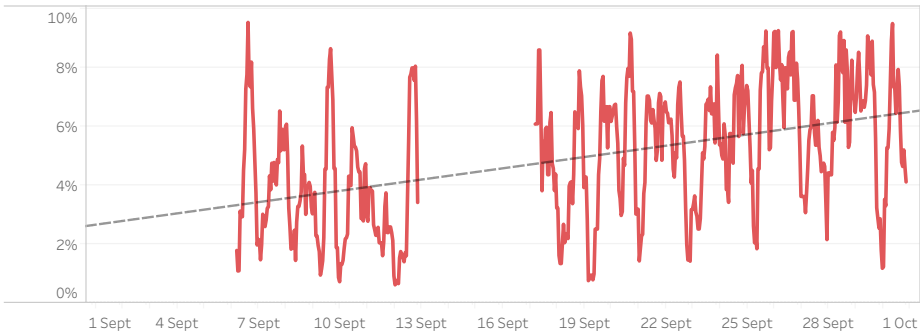
The chart shows that at no given point in time did the 8-hour average exceed the thresold of 10%.This suggests that the machine is running smoothly and does not require maintenance.

The gap in the chart is attributable to lack of data for the period of 10 Sep 00:00 to 16 Sep 23:00(inclusive).
It is assumed that the machine was performing stacking tasks during indicated period.

Coal Terminal Maintenance Analysis

Summary	Reclaimers	RL1	RL2	Stacker- Reclamer	SR1	SR4A	SR6

STACKER-RECLAIMER 4A(SR4A)



The Visualization above illustrates the 8-hour moving average of idle capacity for Stacker-Reclaimer 4A(SR 4A),expressed as a percentage of nominal capacity

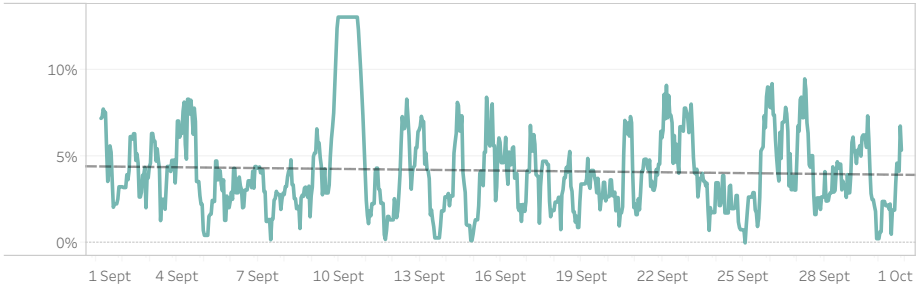
The chart shows that at no given point in time did the 8-hour average exceed the thresold of 10%.However ,there is an evident upward trend in the dynamic range of the metric.If this trend continuous,the 8-hour moving average of idle capacity is predicted to increase at a rate of approximately 0.12% per hour in the long run.It is highly recommended to review the performance of the machine in the coming weeks as preventive maintainence may required.

The gap in the chart is attributable to lack of data for the period of 10 Sep 00:00 to 16 Sep 23:00(inclusive).It is assumed that the machine was performing stacking tasks during indicated period.

Coal Terminal Maintenance Analysis

Summary	Reclaimers	RL1	RL2	Stacker- Reclamer	SR1	SR4A	SR6

STACKER-RECLAIMER 6(SR6)



The image above illustrates the 8-hour moving average of idle capacity for Stacker-reclaimer 6 (SR6), expressed as a percentage of nominal capacity .
The chart shows a surge in the 8-hour average of the ithe opacity around the 10th of September 2015. Although per standard criterion this suggests that SR6 requires maintenance. this surge doesn't look normal.Further investigation uncovered that for the period between 9 Sep 19:90 to 10 Sep 19:00 this machine was operating at the constant reduced capacity of 3,000 tonnes flat. This happens to be the same period when the machine R12 was operating at its maximum capacity. Given that both these machines are situated on the same line in the stockyard,it maybe the case that there was a conflict of tasks between the two machines and priority was given to RL2. If this the case then it appears that SR6 doesn't require maintenance since it has not exceeded the 10% threshold at any other point of the month.