



Smart Solutions

Case study:

Increasing cost savings using constant monitoring

Application: *Surface coal mine*

Location: *South America*

Products featured: *P&H 2800XPC shovels*

Challenge: Increase cost savings

Customer was experiencing rising maintenance costs and an increase in unplanned downtime.

The customer suspected that operating practices had a significant influence on both cost and downtime and wanted a solution to mitigate both.

Contributing factors:

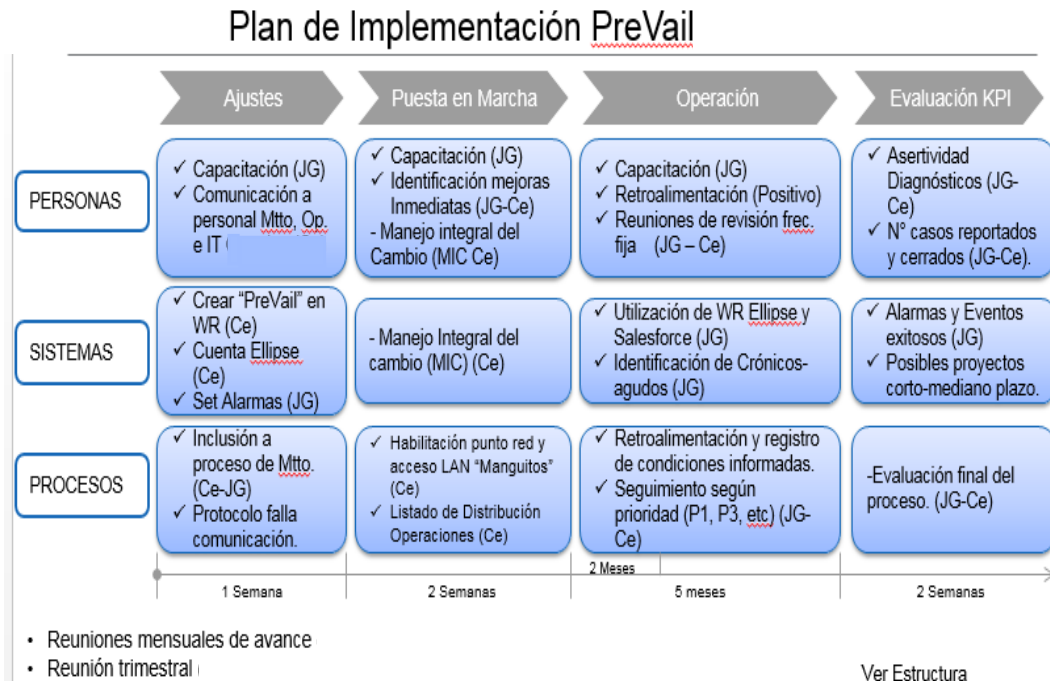
- **Recurrent alarms** that could indicate a major issue
- **Improper machine operation** and **machine abuse**
- **Machine consumption** of lubricants **are not easily monitored**, hard to implement strategies based on maintenance plans
- **Payload target** on each machine is **not easily monitored** by supervisors



Engagement process: Working toward a solution

Integrating Smart Solutions – including remote health monitoring, expert analysts and on-site service engineers – to the maintenance process at site.

A plan was designed to implement a maintenance process based on our Smart Solutions.

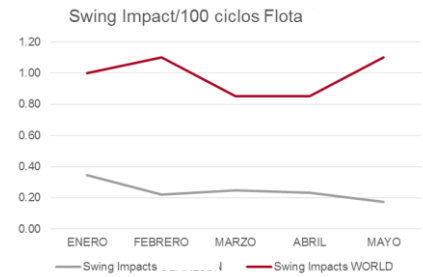
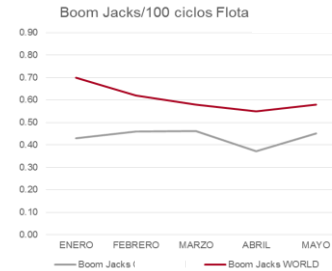


Solution: Continuous monitoring and work order generation

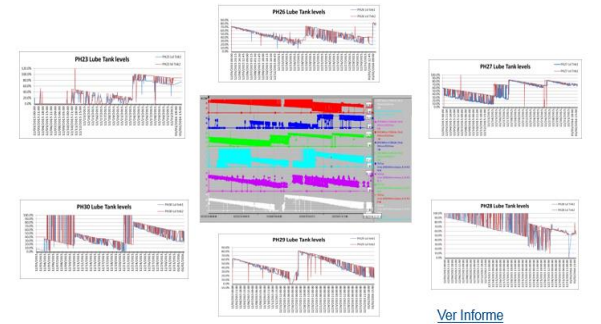
Prevail daily reports were used to identify **fleet wide issues**, which were discussed by the service engineering teams.

Upon identification of root cause the teams tracked all efforts in the site's own work order system.

A shared set of monthly scorecards were created in order to **track opportunities in production, operating practices and maintenance.**



Caso de estudio – Tiempos de ciclos de lubricación



Results:

Realized **\$736,634** in overall **benefits** in just 6 months

Avoided 218 hours of downtime for seven machines, a cost benefit of **\$22/Op hour**



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