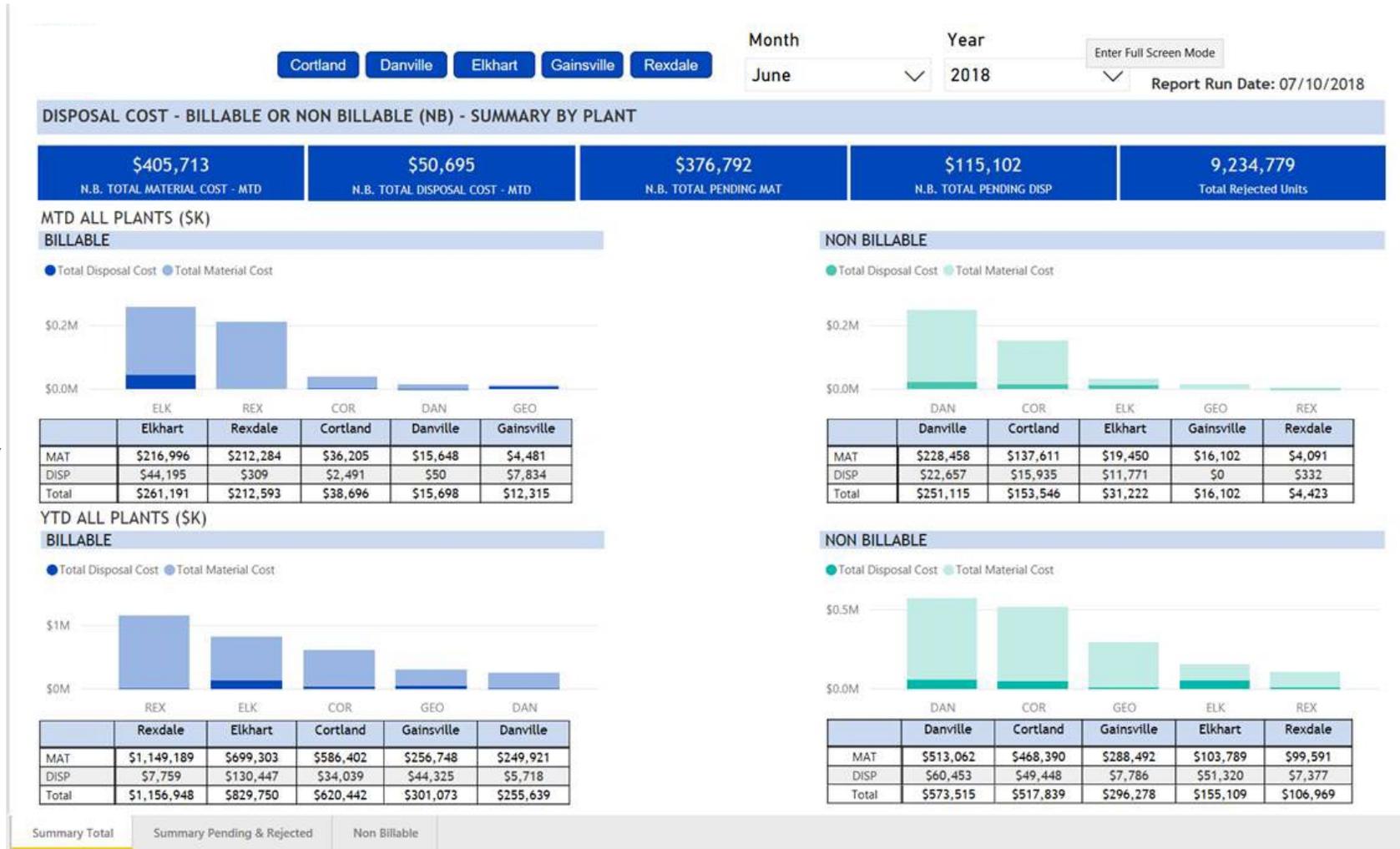# Synapse / Power BI Solution @ Manufacturer

Use Case: Track waste disposal cost at manufacturing plants

Problem: Scrap and scrap disposal costs indicate inefficiencies in manufacturing. Lack of visibility to scrap / disposal costs meant plant managers were not aware of and responding to these cost issues effectively.

Solution: Deploy Power BI report, supported by Synapse integration / data (solution recently upgraded from Azure SQL DW), to track scrap / disposal costs in real time.

Outcome: Plant managers improved manufacturing efficiencies and reduce costs, by reducing scrap waste and related disposal fee's, by understanding how and when costs are accrued.

Use Case: Monitor effectiveness of truck operators at a mine site, to improve truck operator performance.

Problem: Lack of visibility of truck operator performance at the mine site, meant truck assets were not being leveraged to their full extent.

Solution: Collect IoT data in real time, from trucks at the mine, to track how they are performing on mine roads / load delivery within the mine site. Compare truck operator performance against other truck operators, to determine where additional training can help improve poorly performing operators. Implement Azure IoT Hub, Azure Synapse, Power BI reporting, and Azure web application report delivery, to deliver the solution.

Outcome: Improved truck operator performance at the mine sites by 5%, optimizing truck assets more effectively and reducing overall truck costs.