

## Energy Consumption Report LCF OnBoard Sticks Freight Western US Freight System

### EXECUTIVE SUMMARY

Kelsan Technologies Corporation was approached to evaluate the effectiveness of its Friction Management System at the Liberty Railway. The objectives included increasing wheel flange life on locomotives by outfitting them with LCF and reducing gauge face wear on the rail.

In this case, the Kelsan solution consists of LCF (Low Coefficient of Friction), applied on board the Liberty Railway locomotives by RB007 PBR LCF-Only brackets.

The trial results in this document include visual inspection of wheel flange wear and gauge face rail wear for unlubricated conditions and Kelsan LCF.

#### **Summary Results: Rail and Wheel Flange Wear**

Liberty Railway began using Kelsan LCF six years ago due to rapid wear of their wheel flanges and rail. "After installing the lubricators, the surfaces smoothed out and wear greatly reduced"(Ref.4). Over time the rail and wheel flanges became rough and abrasive once again because the application system failed. A trial was undertaken in May 2000 incorporating an upgrade to the latest technology in application systems. "After several months the wheel flanges and rail have become smooth again"(Ref.4). The improved delivery system transfers adequate lubricant to the rail/wheel interface to reduce the visible signs of wear.

#### **Summary Results:**

LCF fitted to 100% of the wheels on the locomotives resulted in a decrease in visible wear of the gauge face of the rail and the locomotive wheel flanges.

**Note:** To obtain a copy of the full report or find out the identity of the Western US Freight System, please contact John Milobar, Vice President Sales & Marketing at 604-984-6100 or [jmilobar@kelsan.com](mailto:jmilobar@kelsan.com).