



cleaner fluids mean better business

## **Filtration and Contamination Control Specialists**





## **Liebherr T282C Wheel Motor Filtration**

## **Hunter Valley New South Wales Coal Mining Operation**

Filter Technology were requested by a large Hunter Valley coal mining company to assist with extending the life of fluids in electric final drive gear sets, through fluid cleaning.

The mine's challenge was to extend the fluid life from the current change cycles of 4250 hours to 18,000 hours, (half-life), but wanted to limit risk exposure.

Filter Technology designed a solution for the Liebherr T 282 C Ultra Class trucks providing an On Board Depth Filtration system to each wheel motor final drive. This design was developed to be a standard kit fitment system for all T 282 Ultra Class trucks.

Dirt levels identified in oil testing done from used fluids from the mine's Ultra Class trucks was as poor as ISO 4406 – 23/21/18 in August 2013.

After fitment of a depth filtration system on a T 282 C truck, Filter Technology have successfully

reduced the dirt levels down to levels of ISO 4406 – 16/15/12 which amounts to 30% less contaminants in the fluid.

To date this oil has achieved 11,924 hours of service and the oil still remains fit for ongoing use. This is a 280% improvement in service life of the fluid and has added to substantial reductions in contamination levels.

The benefit to the mine thus far amounts to an annualised saving of approx. **\$14,868.00** for a set of final drives on one Ultra Class truck; in synthetic PAO 320 gear oil costs and labour savings on oil changes.

For the mine, the annualised savings on oil for their fleet of Ultra Class has been calculated to be approx. **\$675,000.00**.

The oil remains in service and the aim is now to achieve 18,000 hours on the fluid which will increase savings even further.





