

# Shell LubeExpert



Designed to help mining customers reduce costs and improve productivity through better lubrication management.

The Shell LubeExpert service offering is a team of experienced technical professionals in the field of lubrication of fixed plant and mobile equipment, specifically with regard to open gears, lubricant delivery systems and failure analysis for mining equipment and maintenance. Our goal is to keep your equipment uptime numbers as high as possible and identify opportunities to reduce costs in your operation.

## FIXED PLANT EQUIPMENT

Open gears in equipment such as grinding mills and kilns are key to the operation of a mine. Shell LubeExpert offers the following services for fixed plant equipment:

- **Operational Audits**  
Visual, Thermography, Vibration, Grease System Audit and Adjustment, Strobe-O-Scope
- **Shutdown Inspections**  
Gear Inspections, Gear Hardness Testing, Gear Wear Profiling

## MOBILE EQUIPMENT

Whether it is shovels, excavators, draglines or haul trucks, our Lube Experts are on-board your equipment helping to drive reliability and cut costs performing the key activities below:

- **Operational Audits**  
Visual Inspections, Thermography, Lubrication System Audits and Adjustment
- **Shutdown Inspections**  
Open Gear Inspections, Gear Wear Profiling and Trending, Grease Systems Audits, Deflection Checks



## WHERE LUBRICANTS CAN ADD VALUE

With over 20 years of experience with the world's leading mining houses, the Shell LubeExpert team has developed a deep understanding of your industry challenges. We can use our knowledge and experience to create a plan that tailors our lubricants and services to meet your needs and help provide value to your operations.

Read the case study below to learn how our team successfully implemented the Shell LubeExpert service at a North American precious metals mine resulting in extended equipment life and \$3.9MM\* in cost savings.

# 1

## CHALLENGE

During routine inspections, the Shell LubeExpert identified a concern in grease coverage of the lower works on a Caterpillar 7495 HF.

# 2

## SOLUTION

After many iterations of root cause analysis, it was identified the lower track pressure switches were set incorrectly and the PLC was communicating with the grease system incorrectly.

# 3

## OUTCOME

After many shovel shutdown inspections, it has been confirmed that the issue was rectified and grease coverage is now considered proper and adequate for the mine's operational requirements.

# 4

## VALUE

Using information provided by the mine, it was determined that the corrected grease system operation contributes to a significant life extension of the lower works. This reduces unplanned downtime and parts and labor costs equating to **\$3,900,000 in savings.\***

\* Saving reported by one customer. Actual savings may vary, depending on the application, the current oil used, the maintenance procedures and the condition of the equipment.



## APPROVALS AND SPECIFICATIONS

We have longstanding relationships with many of the leading equipment manufacturers, and work with them to design lubricants that meet the requirements of their equipment and the tough mining environments.

We have over 3,000 equipment manufacturer approvals across our product range, and are either approved by or meet the specifications of many equipment manufacturers, including:

- Bucyrus International
- Caterpillar
- Cummins
- Detroit Diesel
- Falk
- GE
- Hägglunds
- Hitachi
- Komatsu
- Liebherr
- Metso Minerals
- MTU
- P&H
- Sandvik
- Tamrock
- Terex

[www.shell.us/mining](http://www.shell.us/mining)

The term "Shell Lubricants" refers to the various Shell Group companies engaged in the lubricants business.

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## FIND OUT MORE – TALK TO SHELL LUBRICANTS

Challenge us to demonstrate our plan for adding value to your opencast mining operations by contacting your local Shell Lubricants representative.

