

Lube Analysis: A Powerful Tool

Did you know the oil in your car contains powerful clues about its engine? If you analyzed the oil, you'd learn vital information about the engine's productivity and performance, and this slick-sleuthing might spotlight a developing problem that could trigger that dreaded engine light. The benefits of using a predictive conditioning monitoring technology like lubricant analysis on your auto may not justify the cost. But applying this best-practice technology on power plant and mining equipment is a different animal. Lube analysis is a powerful tool in the Luminant maintenance toolbox.

As participants of the Luminant Technical Center of Excellence (TCE) Lubricant Analysis Workshop learned during the Sept. 9-10 course, this tool can improve machine reliability, prevent catastrophic failures leading to unplanned outages, and head off maintenance costs and lost revenues.

"Lubricant analysis is one of the many valuable tools in our predictive condition-based-maintenance toolbox," said Dale Higginbotham, TCE director, as he spoke to the workshop group.

Condition-based maintenance is a strategy that assesses a piece of equipment's actual condition. The objective is to repair or service it when there is an impending fault or degraded condition. Lubricant analysis helps achieve that goal.

This year's workshop, hosted by Luminant's Power Optimization Center (POC), expanded on the success of last year's inaugural meeting. The event drew over 50 employees engaged in equipment reliability from across Luminant, an increase of more than 40 percent. Employees came from Martin Lake, Monticello, Big Brown, Sandow, Comanche Peak, Oak Grove, GPO, Mining and the POC and TCE. These participants recognized that a lube analysis program can provide critical information for any equipment requiring lubricants.

The workshop was again co-hosted by Predict, a leading provider of predictive condition monitoring technologies. Garry Waggoner, TCE reliability manager, welcomed the group and highlighted the role of predictive maintenance in the overall ROI (Reliability Optimization Initiative) efforts currently underway. Experts from Predict, Exxon Mobil, Fluid Solutions, SKF, Shell, Trico and UE Systems led presentations on hydraulic oils, filter replacements, service reports, bearing applications and maintenance, grease and turbine oils, sample ports and proper sampling, and ultrasound for greasing.

A highlight of the two days was the technical exchange of real-life case studies by Luminant practitioners. Scott Prejean, Oak Grove; Chris Blackmon, TCE; Frank Rogers, Monticello; and Lindon Collinsworth, Big Brown, all shared specific studies of best-practice lubricant analysis events and practices from their facilities. Collinsworth received his second prestigious award from Predict for using Big Brown's lubricant analysis program to identify abnormal wear on a gearbox, resulting in an ultimate savings of \$1.4 million.

“We are very intent on improving our awareness of lubricant analysis practices and products and effectively maintaining high levels of equipment reliability at our facilities,” said Bill Dockrey, POC equipment reliability manager, who, along with Predict, coordinated the conference. Wanda Osborne, POC administrative assistant, also played a key role in organizing the workshop and carrying out all the logistics needed to assure a successful event.

Even before the 2nd annual workshop ended, plans were underway to make next year’s seminar even better. Striving for continuous improvement typifies everything Luminant does, whether it’s a lube analysis program or a training workshop.



Luminant employees engaged in equipment reliability gained insight from industry experts and exchanged case studies in the 2nd annual TCE Lubricant Analysis Workshop.



Left to right: Raymond Dalley, Predict instrument business manager, and Dale Higginbotham, TCE director, honored Lindon Collinsworth, Big Brown lignite plant supervisor, with a special award for his best-practice use of lubricant analysis.