

Will it happen again?

~ Local lab provides answers ~

Permian Basin Metallurgical Laboratories likes to make success stories out of failures. "When we discover what caused a part to fail, we can help the client keep it from happening again," explains PBML's Bill Mock. "Prevention is vital, especially where failures can endanger lives."

On parts failures, the lab can usually find the answer in 10 days to two weeks, which is much faster than most out-of-town labs. Preliminary information can be given after two or three days, if requested. They can provide such information as: was the part defective, was it the wrong part for the job, was it overloaded or improperly maintained, and others. Some investigations may involve a trip to the site where the failure occurred, to collect more information about conditions and usage.

Mock lists six steps the lab takes on most jobs:

1. They gather background information regarding the failure. "The more information we have, the better we can target our testing, and the faster the client gets the results," says Mock.
2. They examine the part. This includes recording how the various tests were performed, making photos or graphs and collecting as much information as possible.
3. The findings are discussed. Discussion allows the information to be organized and considered.
4. A solid conclusion is reached. Mock says, "Eighty percent of the time we reach a very solid conclusion. The rest of the time we must decide whether our conclusion is adequate or if further testing is required to reach a higher confidence level and is economically justified. In these cases, we may need additional data. We always discuss this decision with the client."
5. The results are explained in understandable terms. That's the only way the report is worthwhile to the client.
6. The client receives recommendations on how to prevent future problems.

Pre-testing of repaired items such as rod hooks, chains or elevators is something Mock would like to see more clients doing. "We can make sure the parts are strong enough to do the job, and possibly prevent accidents," he says. The lab can also



Why did these parts fail? Permian Basin Metallurgical Labs' Bill Mock and Mike Agee can provide answers.

push a part to the breaking point, to establish its limits.

"This is an interesting job," adds Lab Manager Mike Agee. "While the science of metallurgy has been around for hundreds of years, there are all kinds of new twists that keep things interesting." He also likes knowing that he's helping people solve real problems, whether they're in the field or in manufacturing. That's what turns failures into success stories for clients and for Permian Basin Metallurgical Labs.

Permian Basin Metallurgical Laboratories offers a wide variety of testing for oil field analysis. The address is 2600 I-20 East (East of Odessa) and the phone number is 580-3526.