

**Western Region
Of
Underground Master Mechanics
March 29, 2007**

WRUMM Staff
Open – Chairman
Brent Sadoris – Vice Chairman
Ben Lupercio – Secretary
Steve Volkert – Treasurer

Place: Stockmen's Hotel
City: Elko, Nevada

Treasures Report

We have combined bank accounts with the surface master mechanics group. The Surface and Underground officers felt this was a more effective way to collect dues and operate the organizations. We currently have \$8,718 in the combined bank account.

The Surface and Underground Master Mechanics organizations have lost their non-profit status. The organization status grant has expired and the officers are currently working to understand the benefits, if any, to renewing the grant. Carlos is going to check with an accounting firm to get more information.

Best Safety Practices and Best Maintenance Practices

The underground master mechanics attendance was very light, so we held this session jointly with the surface group. It was surprising to see that we have many of the same types of issues. For example, the surface group also struggles to install handrails or some form of fall protection on their equipment. Fuel filter plugging was an issue that several sites had. The group felt this was attributed to a fuel additive that some suppliers put into their fuel. The group had some interest in Bio-fuel, it was mentioned that this product is being tested. The test has been relatively transparent in terms of equipment performance. A discussion around a specific failure on an electric shovel was brought up. More than one site had experienced the same failure. All parties agreed that the failure was most likely due to incorrect mounting bolt torque. While this was a specific problem on a specific piece of equipment, the moral is the same. We all must work to improve the quality of our repairs as well as provide proper tooling for technicians to perform quality repairs. The guys from Newmont gave us a description of their project 1 Nevada. They are centralizing maintenance and operations from all their Nevada sites in an effort to better share information and internal business practices. It was mentioned that part of the goal was to develop job plans that could be shared across all sites. It was hoped that this could improve performance as we all have many employees that are new to the mining industry.

Bio-fuel Testing Protocol and Results – Barrick Goldstrike – Shane Owens

Shane Owens gave a presentation on the testing protocol and results of a B20 Bio-fuel test currently in progress at Goldstrike. A truck was set up to be the only vehicle operating in a controlled drift. The ventilation for this drift was such that it only had one source of fresh air and only one source of air exhaust. While this testing could still be considered crude, it was felt that the controls were fairly well in place for a proper analysis. Personal samples from this test were sent to two different laboratories and the results would suggest a particulate reduction of approximately 26% to 40%. See attachments for more detail.

Hydrive System – Queenstake – Steve Volkert

Steve Volkert gave a presentation on the test results from Queenstake's testing of the Hydrive system. The objective was to test for fuel economy, affect on exhaust emissions, affect on engine performance and product durability. Test results showed minimal improvements on exhaust emissions, no increase in fuel economy and the system appears to be labor intensive for maintenance. See the attached presentation for more details.

Brandon Hendrix, representing MTI, was a co-presenter on this topic and provided some commercial material to explain the operation of the HyDrive system. Brandon shared with the group, a presentation from a different test site that would suggest different results than those at Queenstake.

Brandon also presented some information on a test Hybrid LHD from MTI. It is a diesel/electric LHD. The LHD operates primarily on an electric motor as opposed to a direct drive diesel engine. The motor is supplied power by a stack of batteries and, when operating at peak demand, from an on board diesel powered generator. The diesel powered generator runs all the time and is used to charge the battery stack and supply additional power during peak demand. This vehicle will most likely be field tested at Stillwater this summer.

Open Loop Energy – Garrett Hoisington – International Fluid Power Society

We joined the surface master mechanics for this session. Garrett Hoisington from Open Loop Energy gave a presentation on The International Fluid Power Society. Garrett covered the history of this organization as well as some of the services they provide. Open Loop has used this group to help train and certify some of their technicians. It was mentioned that the IFPS would train and certify the mining technicians as well. For more information go to www.ifps.org

Industrial Fabrication Inc. – Ben Wilkinson – C-Max Lube System

Ben Wilkinson gave the group a presentation on the C-Max lube system. The C-Max is a heavy duty lube system which uses a vehicle hydraulic pressure to force grease out of a containment cylinder and into a grease injector manifold where the grease injector will

deliver the final metered portion of grease. The system uses an electric timer and an electric solenoid to control when hydraulic pressure is applied to the grease reservoir, which in turn controls the “pump” cycle of this system. See attachment for more information.

Next Meeting Presentations

TBA – If anyone would like to make a suggestion or volunteer to make a presentation please let me know.

Next Meeting Vendors

TBA – If anyone has any suggestions, please let me know.