Machine Condition: **CRITICAL**

CW PUMP BEARING

Tel: Fax: PUMP 2A

Wear Particle Analysis Report

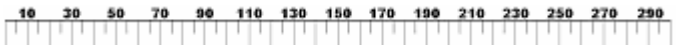
Lube Type:	MOBIL MOBILGEAR 630	**Received:**	06/23/2005	**ATTN:**	Matt McMahon
Machine MFG:	GOULD	**Report:**	07/07/2005		INSIGHT SERVICES
Machine MOD:		**Sample No:**	999-1-10-10		12703 TRISKETT ROAD
Machine Type:	Anti-Friction Bearing	**Analyst:**			CLEVELAND, OH 44111

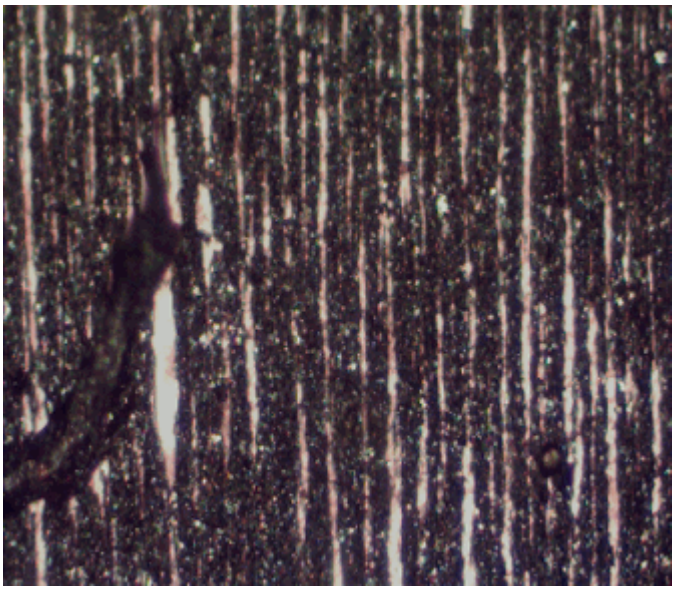
Particle Morphology

	Trace	Light	Moderate	Heavy	Max. Size	Particle Composition
Rubbing Wear					5-15	Ferrous
Rolling Contact						
Sliding Wear						
Rolling/Sliding Wear						
Cutting Wear						
Chunks					15-30	Ferrous
Spheres						
Corrosion						
Dark Metallic Oxides						
Red Oxides						
Dust/Dirt						
Other Contaminants						Fibers
Oxidaton By-Products						

Observations: Analytical ferrography detected the following abnormalities: High levels of ferrous rubbing wear up to 15 microns in size. Rubbing wear particles are generated as the result of normal sliding wear in a machine. Excessive particulate contamination in the lubricating system can significantly increase the generation of rubbing wear particles. Heavy levels of dark metallic oxides. Dark metallic oxides, partially oxidized ferrous wear particles, are typically generated under high temperatures and loads.

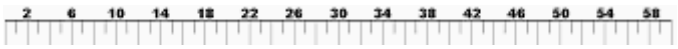
Microns

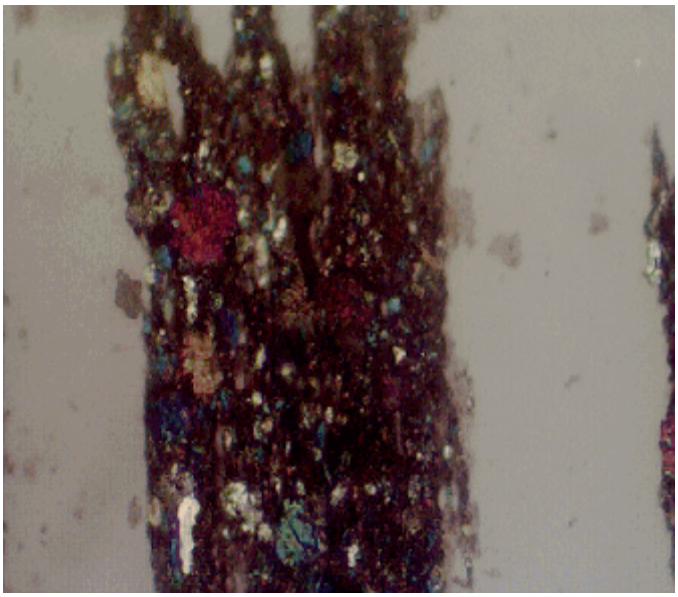




100x Dark metallic oxides, low alloy and contaminants.

Microns





500x Dark metallic oxides, low alloy ferrous particles.