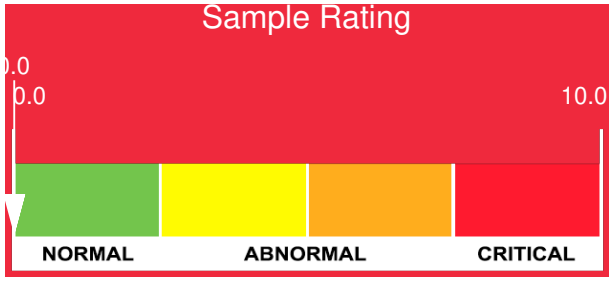
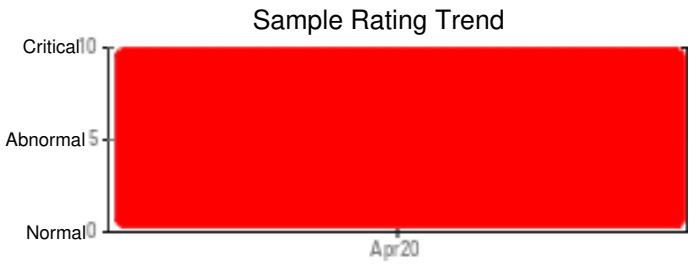




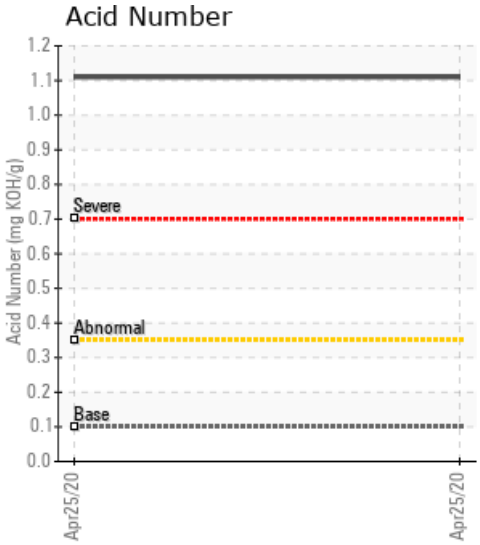
[MAIN LINE FEEDING HEATER] ACE-S9

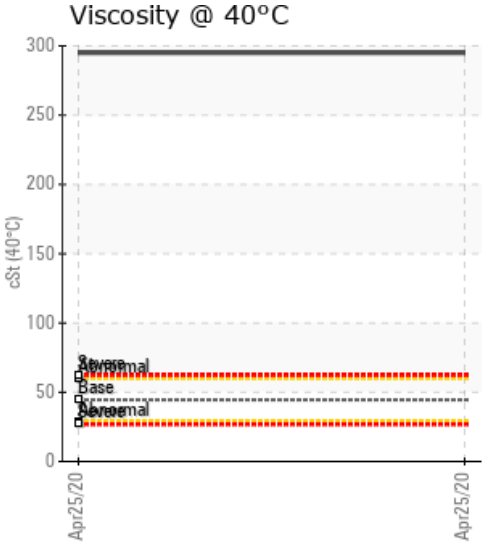
Customer:	System Information	Sample Information
GREENWALD ENTERPRISES LLC 24411 WIMBLEDON ROAD BEACHWOOD, OH 44122 USA Attn: RICHARD GREENWALD Tel: (216)401-1845 E-Mail: rgreenwald@greenwaldenterprises.com	System Volume: 3200 gal Bulk Operating Temp: 360F / 182C Heating Source: Blanket: Fluid: SCHAEFFER 281 HEAT TRANSFER OIL Make: HEATAC	Lab No: 04982608 Analyst: Doug Bogart Sample Date: 04/25/20 Received Date: 05/21/20 Completed: 05/27/20 Doug Bogart dougb@wearcheckusa.com

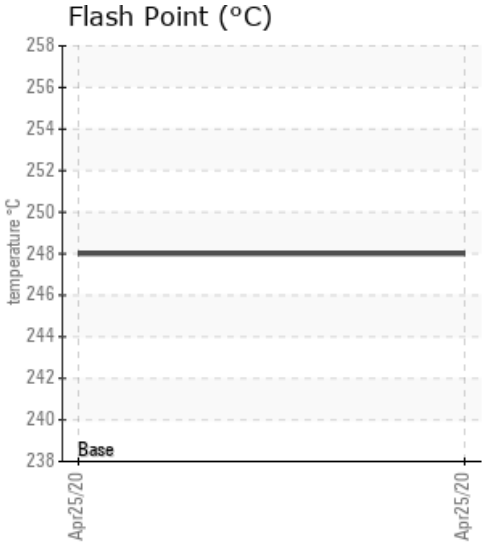
Recommendation: We recommend that you drain the fluid from the component if this has not already been done. The high viscosity dramatically reduces the heat transfer efficiency of the fluid. We recommend that you drain, clean and refill the system with fresh heat transfer fluid. All tests and evaluation performed at WearCheck Canada laboratory.

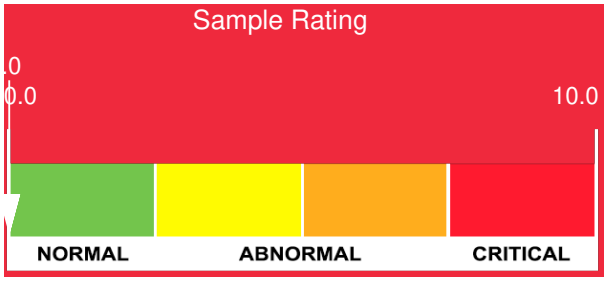
Comments: All component wear rates are normal. The water content is negligible. Sodium ppm levels are severely high. Acid Number (AN) is severely high. Calcium ppm levels are severely high. Visc @ 40°C is severely high. The fluid viscosity is higher than normal. The high AN level of the fluid indicates the presence of oxi-polymerized products. The AN level is much higher than the recommended limit. Viscosity of sample indicates oil is within ISO 320 range, advise investigate. The fluid is no longer serviceable.

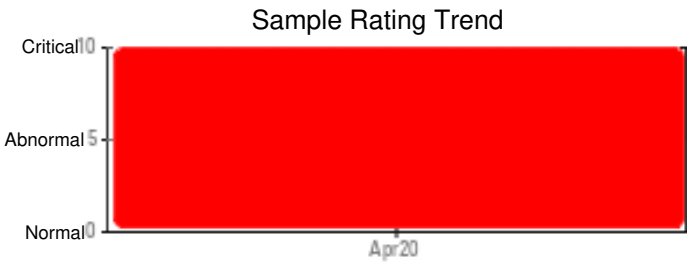
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
04/25/20	05/21/20	0y		478 / 248	158.8	295	1.11	4.64	744 / 396	851 / 455	947 / 508	0.88
Baseline Data				444 / 229		44.5	0.1		720 / 382	828 / 442	934 / 501	1.9







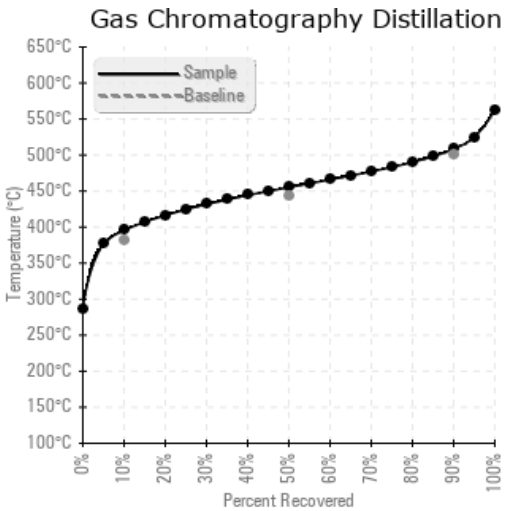


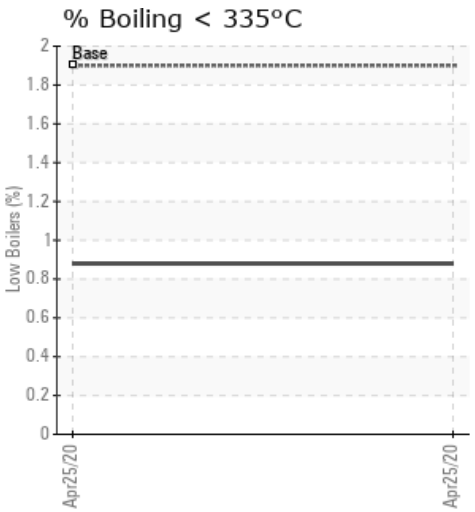


Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
04/25/20	117	0	0	0	0	0	0	0	0	0	0	290	1	0	0	0	2	0	0	2	443	0	4	4
Baseline Data																								

Elemental anaysis results (above) in parts per million (ppm). [10,000 ppm = 1.0%]

GCD Spectrum





Historical Comments
