

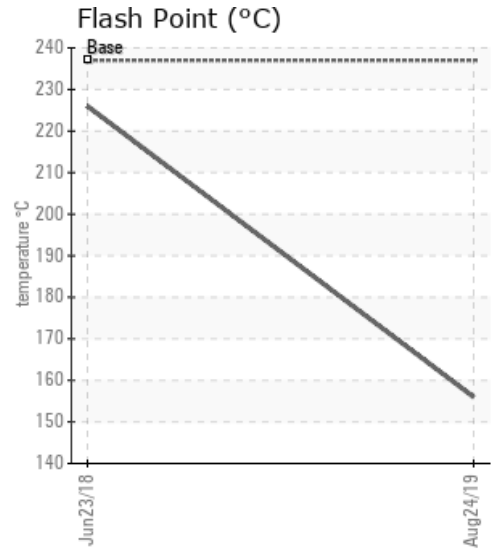
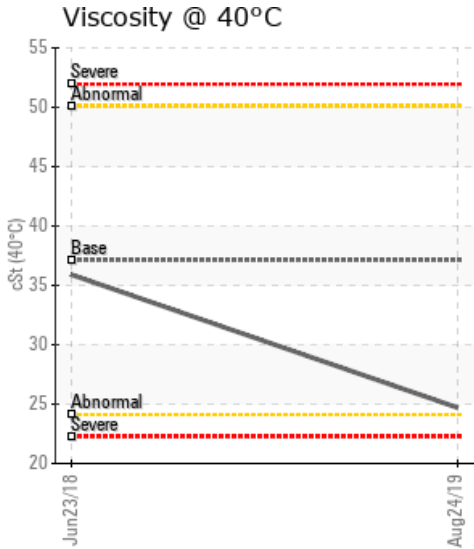
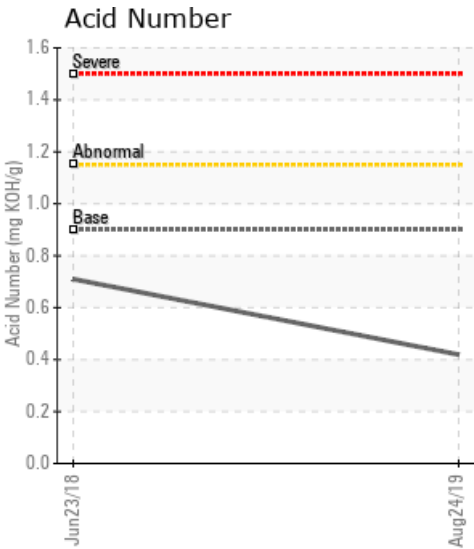
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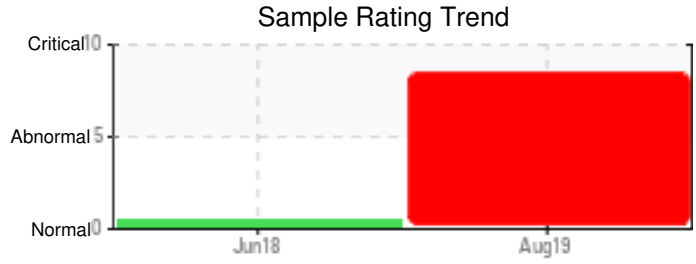
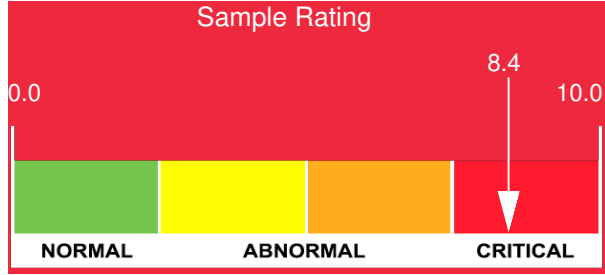
Customer: PTRHTF60010	System Information	Sample Information
SYNLUBE INTERNATIONAL CO LTD 76/1 MOO.7 THACHIN MUANG SAMUTSAKHON, 74000 THAILAND Attn: Kittisak Suthithanakom Tel: 6(681)850-1907 E-Mail: kittisak@synlube.co.th	System Volume: 4400 ltr Bulk Operating Temp: 545F / 285C Heating Source: Blanket: Fluid: PETRO CANADA PURITY FG HEAT TRANSFER FLUID Make:	Lab No: 02312791 Analyst: Philip Riley Sample Date: 08/24/19 Received Date: 10/04/19 Completed: 10/18/19

Recommendation: Sample rating very poor. Viscosity loss, flash point extremely low, evidence of fluid cracking on GC Distillation. Recommend a fluid change and resample following the change. Please inspect system and consider a clean and flush

Comments: (GCD) % < 335°C is severely high. (GCD) 10% Distillation Point is severely low. COC Flash Point is severely low. (GCD) 90% Distillation Point is marginally high.

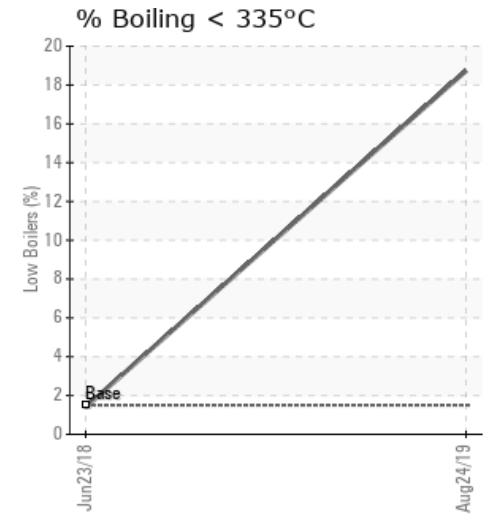
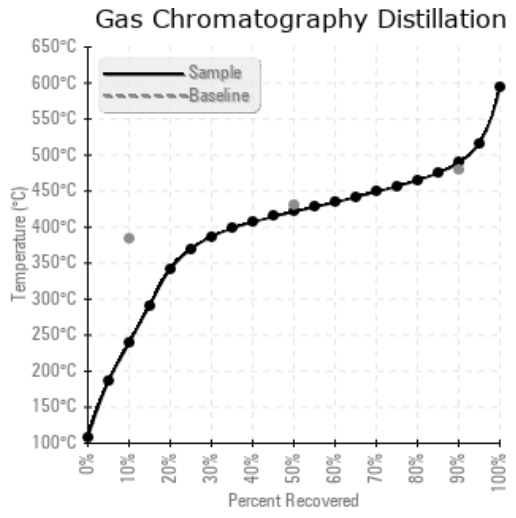
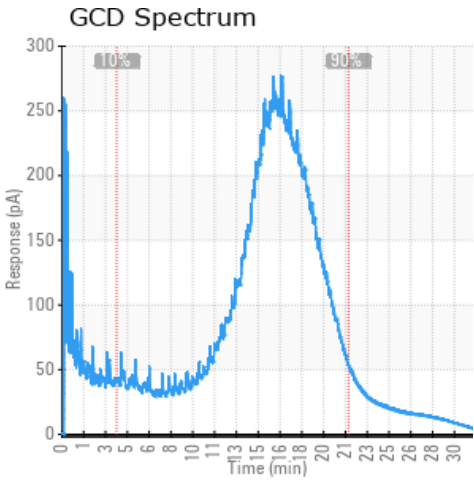
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
08/24/19	10/04/19	1y	SUPPLY RETURN	313 / 156	9.8	24.7	0.419	0.055	461 / 238	790 / 421	912 / 489	18.73
06/23/18	07/13/18	0y	RETURN	439 / 226	0.00	35.9	0.71	0.007	702 / 372	800 / 426	904 / 485	1.40
Baseline Data				459 / 237		37.12	0.90		721 / 383	807 / 431	892 / 478	1.5





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
08/24/19	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	4
06/23/18	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	207	0
Baseline Data			0	0						0			0	0					0				230	

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



Historical Comments

06/23/18	The current fluid has a normal viscosity, flash point, and distillation points. There is minimum solids or water in the fluid. Please continue to run the fluid and take a sample in 12 months.

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