

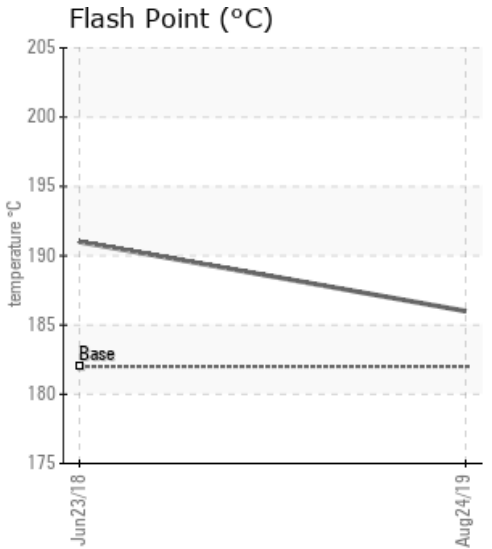
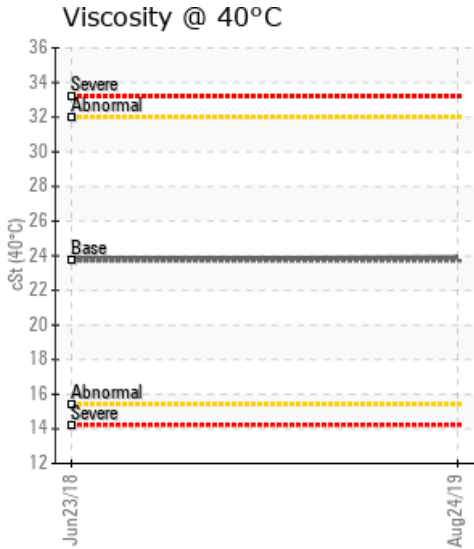
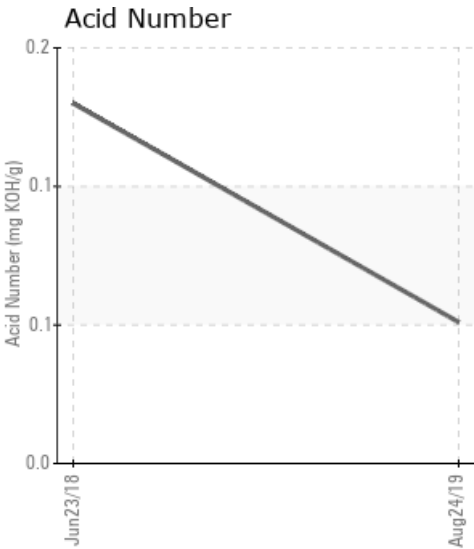
KAONA FUTHER 2

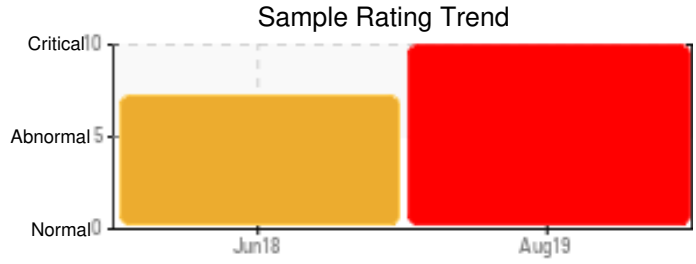
Customer: PTRHTF60010	System Information	Sample Information
SYNLUBE INTERNATIONAL CO LTD 76/1 MOO.7 THACHIN MUANG SAMUTSAKHON, 74000 THAILAND Attn: Kittisak Suthithanakom Tel: 6(681)850-1907 E-Mail: kittisak@synlube.co.th	System Volume: 4400 ltr Bulk Operating Temp: 545F / 285C Heating Source: Blanket: Fluid: EASTMAN THERMINOL XP Make:	Lab No: 02312793 Analyst: Philip Riley Sample Date: 08/24/19 Received Date: 10/04/19 Completed: 10/18/19

Recommendation: Not a Petro-Canada Fluid so no parameters with which to make an accurate diagnosis. However, the water contamination is extremely high and this causes multiple issues for the fluid. Regardless of product I would recommend a change and switch to Petro-Canada CALFLO HTF or PURITY FG HTF depending on application. A flush and clean will be essential based on the competitor product and the condition.

Comments: ppm Water contamination levels are severely high. Water contamination levels are severely high. (GCD) 90% Distillation Point is severely high. (GCD) 10% Distillation Point is marginally high.

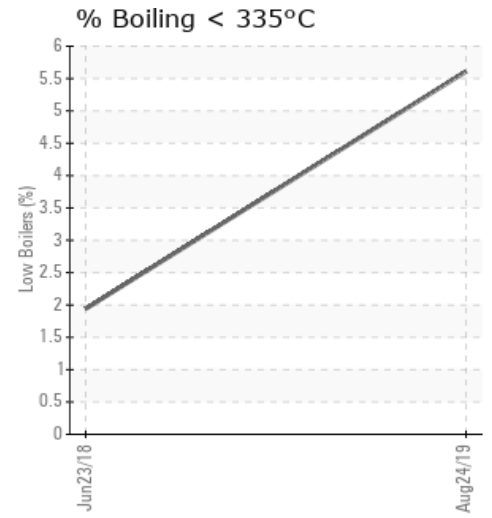
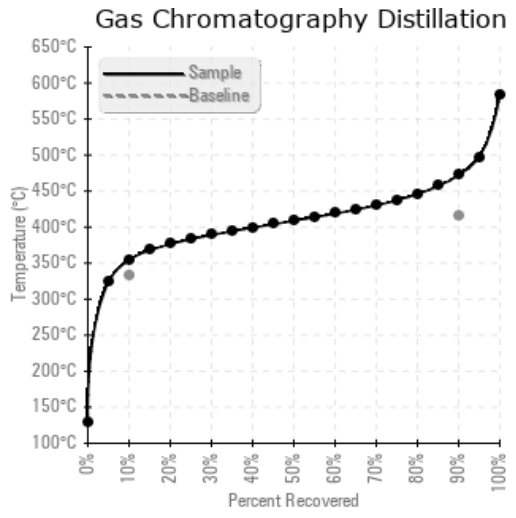
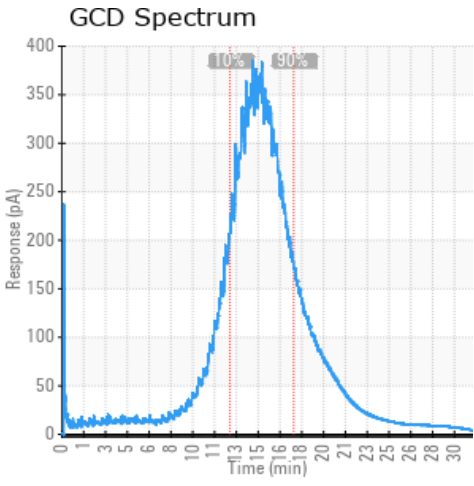
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
08/24/19	10/04/19	11y	SUPPLY RETURN	367 / 186	8118.0	23.9	0.051	0.040	670 / 355	768 / 409	882 / 472	5.61
06/23/18	07/13/18	10y	SUPPLY/RETURN	376 / 191	14555.4	23.8	0.13	0.116	691 / 366	777 / 414	901 / 483	1.94
Baseline Data				360 / 182		23.7			630 / 332		781 / 416	





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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06/23/18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Baseline Data			0	0						0			0	0				0					0	

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



Historical Comments	
06/23/18	The current fluid has normal viscosity. The low flash point is a concern for the 285C high bulk oil temperature. The water content is extremely high. The fluid needs to be changed due to the severe water contamination. Water contamination levels are severely high. Water contamination levels are severely high (GCD) 10% Distillation Point is severely high. (GCD) 90% Distillation Point is severely high.

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