

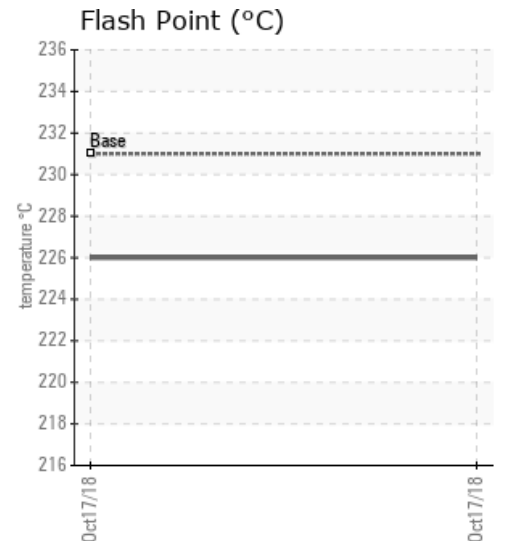
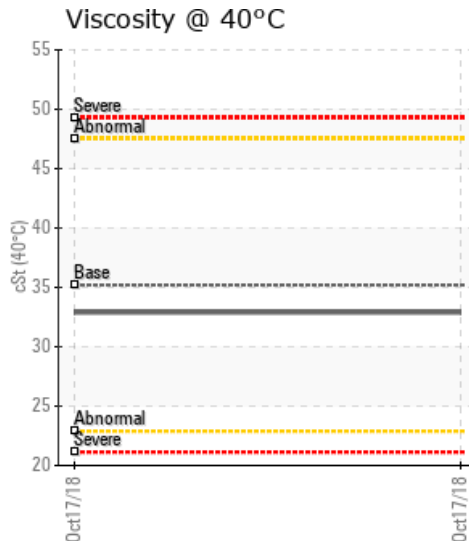
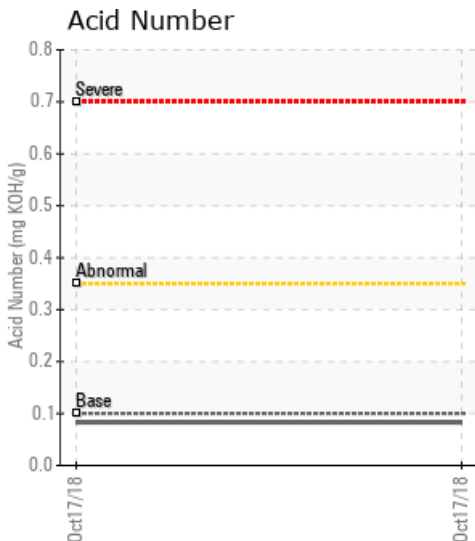
HOT OIL - SAMPLE VALVE

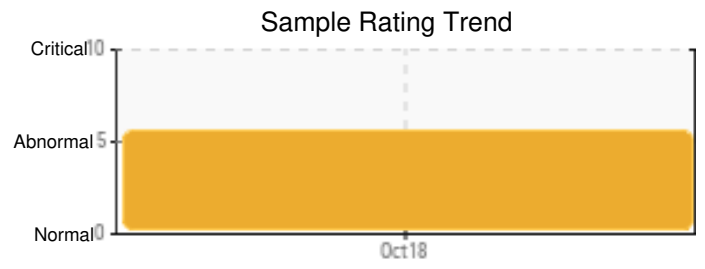
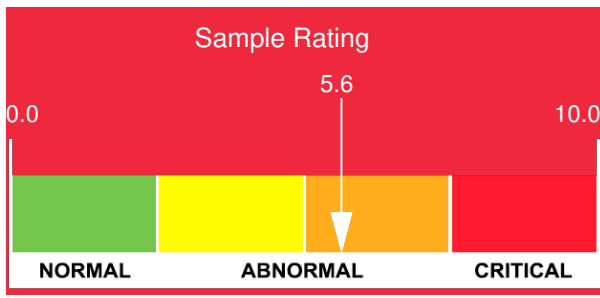
Customer: PTRHTF10150	System Information	Sample Information
PMC ORGANOMETALLIX 2316 HIGHLAND AVE CARROLLTON, KY 41008 USA Attn: Alan Jackson Tel: (502)732-4411 E-Mail: alan.jackson@pmc-group.com	System Volume: 0 gal Bulk Operating Temp: Not Specified Heating Source: Blanket: Fluid: PETRO CANADA CALFLO HTF Make:	Lab No: 02251746 Analyst: Joe Goecke Sample Date: 10/17/18 Received Date: 11/15/18 Completed: 11/26/18

Recommendation: Several distillation points are running low with the Low Boilers at 9.18%. Since viscosity and Flash points are within limits I would continue to run and resample in 6 months.

Comments: (GCD) 90% Distillation Point is severely low. (GCD) 10% Distillation Point is abnormally low. (GCD) % < 335°C is marginally high. (GCD) 50% Distillation Point is marginally low.

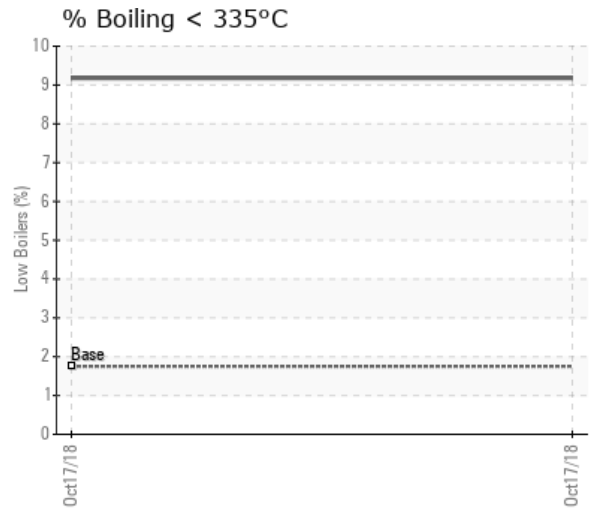
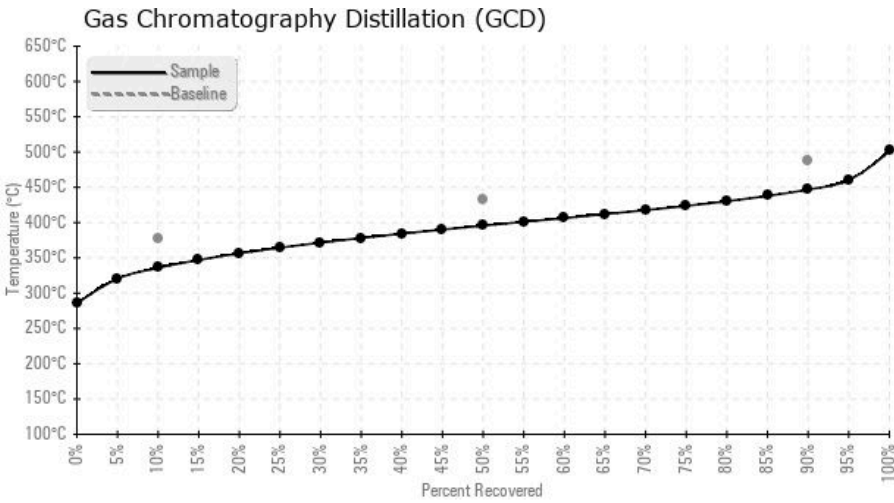
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
10/17/18	11/15/18	0y		439 / 226	5.2	32.9	0.083	0.035	636 / 336	744 / 396	836 / 447	9.18
Baseline Data				448 / 231		35.20	.1		712 / 378	810 / 432	910 / 488	1.75





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
10/17/18	5	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	115	0
Baseline Data			0	0						0			0	0					0				280	

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



Historical Comments	