

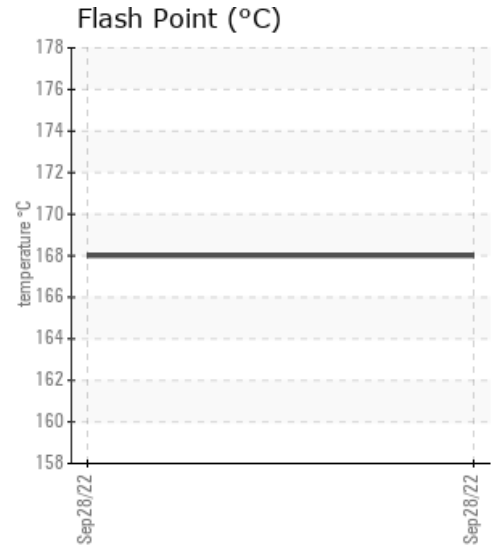
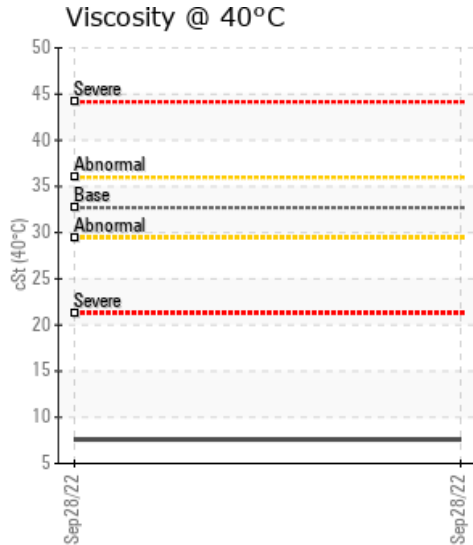
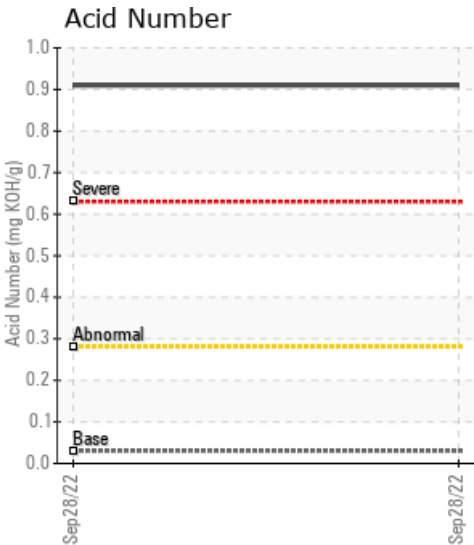
## CALFLO HTF

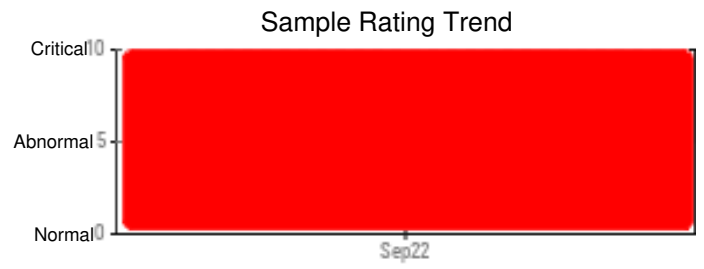
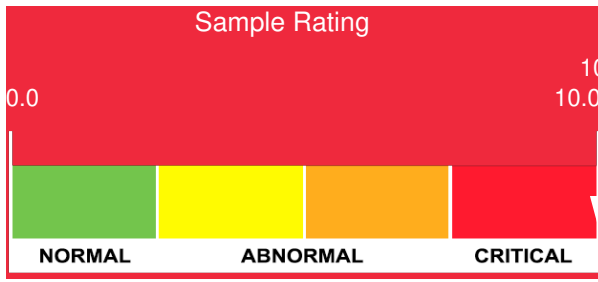
Customer:	System Information	Sample Information
Petro-Canada Technical/Yen Garcia	System Volume: 0 gal	Lab No: 02514417
Mississauga, ON L5J 1K2 Canada	Bulk Operating Temp: Not Specified	Analyst: Yen Garcia
Attn: Yen Garcia	Heating Source:	Sample Date: 09/28/22
Tel:	Blanket:	Received Date: 10/04/22
E-Mail: yen.garcia@hfsinclair.com	Fluid: PETRO CANADA CALFLO AF	Completed: 12/14/22
	Make: EXPANSION TANK	Yen Garcia
		yen.garcia@HFSinclair.com

Recommendation: We have been unable to identify the customer that sent this sample, but we suspect that was Panolam, Huntsville and that the sample could have been taken from the expansion tank. If the sample belongs to Panolam they are already aware of the oil condition and the need to replace it.

Comments: (GCD) % < 335°C is severely high. Acid Number (AN) is severely high. (GCD) 50% Distillation Point is severely low. (GCD) 90% Distillation Point is severely low. Visc @ 40°C is severely low. (GCD) 10% Distillation Point is abnormally low. COC Flash Point is abnormally low.

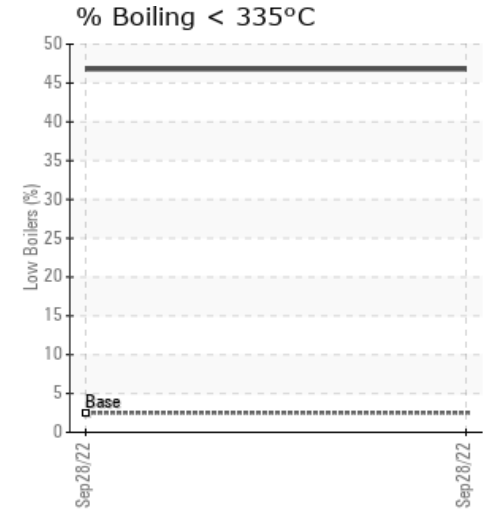
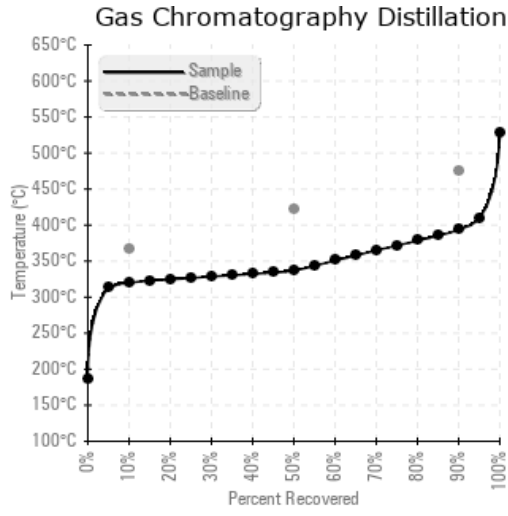
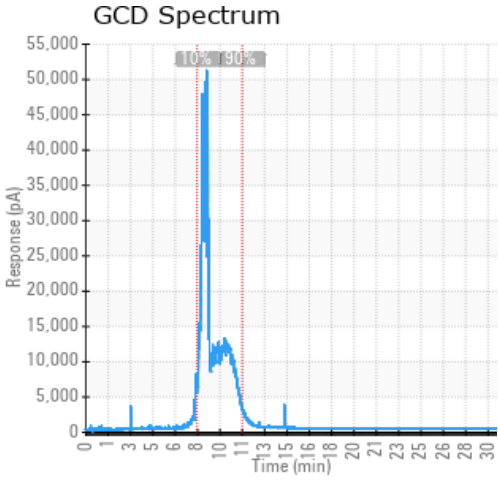
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
09/28/22	10/04/22	0.0h		334 / 168	26.4	7.6	0.91	0.057	608 / 320	638 / 337	740 / 394	46.78
Baseline Data				435 / 224		32.7	0.03		693 / 367	790 / 421	887 / 475	2.5





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	
09/28/22	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	252	1
Baseline Data			0	0						0			0	0					0					270	

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



### Historical Comments


Petro-Canada makes no representation or warranty of any kind, either express or implied, as to the accuracy or completeness of the analysis and assumes no responsibility and shall have no liability whatsoever with respect to such analysis, or a party's use of it. Petro-Canada is a division of HollyFrontier Corporation.