

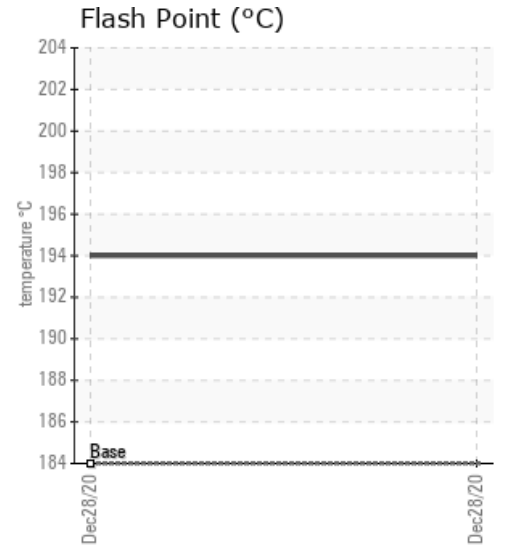
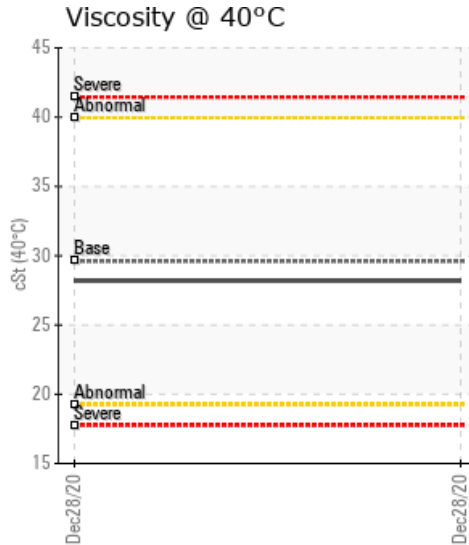
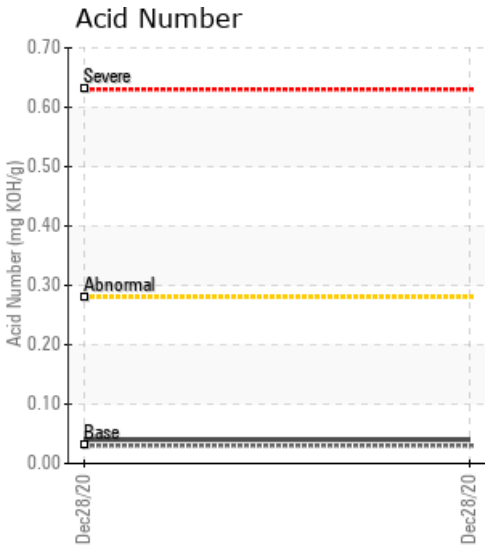
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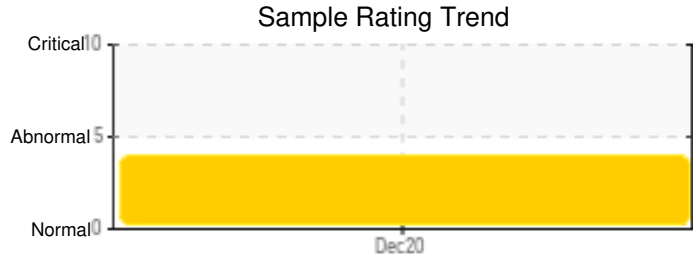
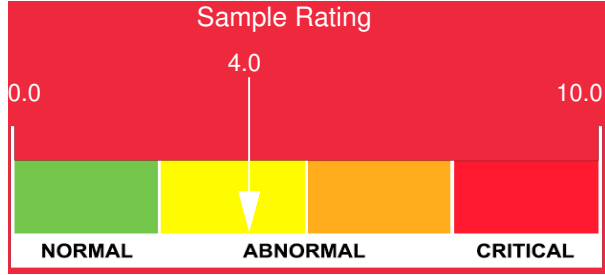
Customer: PTRHTF20254	System Information	Sample Information
CANFOR - CENLP 4700 50 STREET CHETWYND, BC V0C 1J0 Canada Attn: Michael Hynd Tel: E-Mail: michael.hynd@canfor.com	System Volume: 70000 ltr Bulk Operating Temp: 518F / 270C Heating Source: Blanket: Fluid: EASTMAN CHEMICAL THERMINOL 66 Make: DELTECH THERMAL FUEL	Lab No: 02397474 Analyst: Clinton Buhler Sample Date: 12/28/20 Received Date: 01/14/21 Completed: 01/25/21 Clinton Buhler Clinton.Buhler@hollyfrontier.com

Recommendation: Sample results would indicate that the heating fluid is in suitable condition for continued service. Low boiling vapor content of 8.88% may be associate to thermal degradation. Safely venting expansion tank (if equipped to safely do so) of low boiling vapors can restore this value near to normal levels. 90% distillation temperature is higher than expected for this fluid and can be an indication of oxidation. However, Acid Number is low, so this may not be the case. Please re-sample in 6 months to help establish a trend.

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

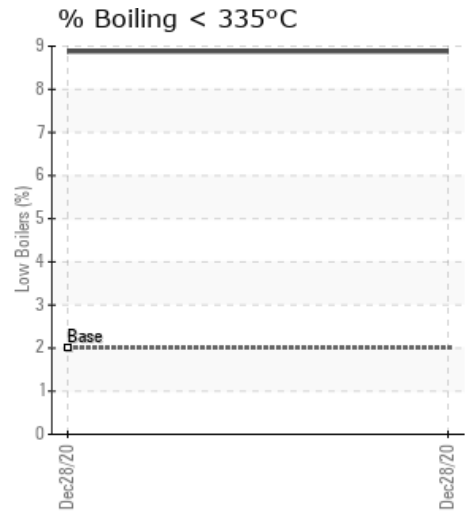
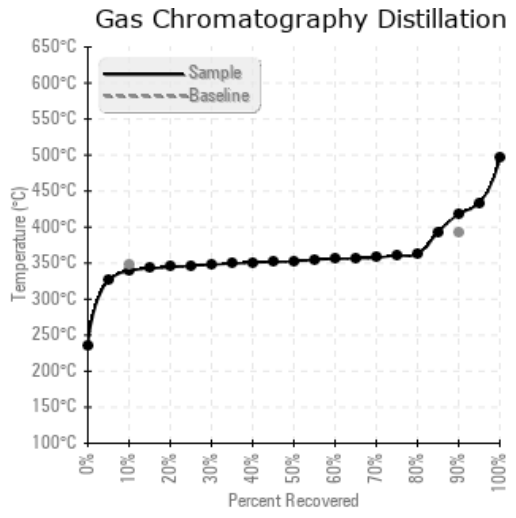
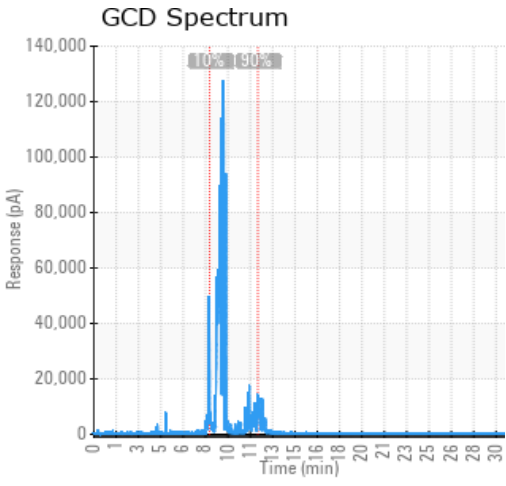
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
12/28/20	01/14/21	5.0y		381 / 194	7.6	28.2	0.04	0.082	643 / 340	666 / 352	785 / 418	8.88
Baseline Data				363 / 184		29.6	0.03		658 / 348		738 / 392	2.00





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
12/28/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	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

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