

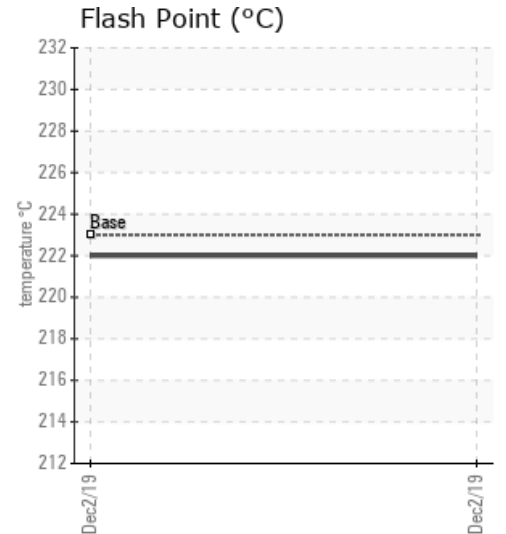
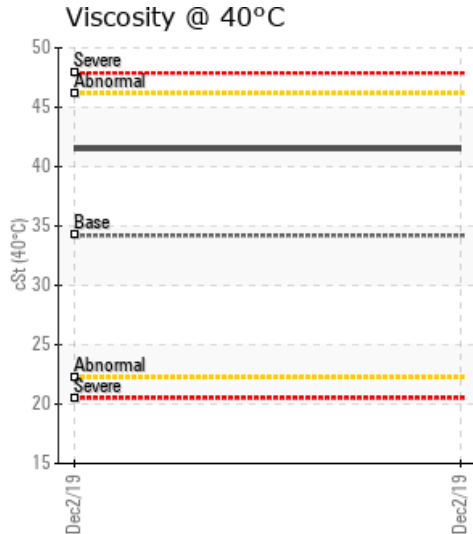
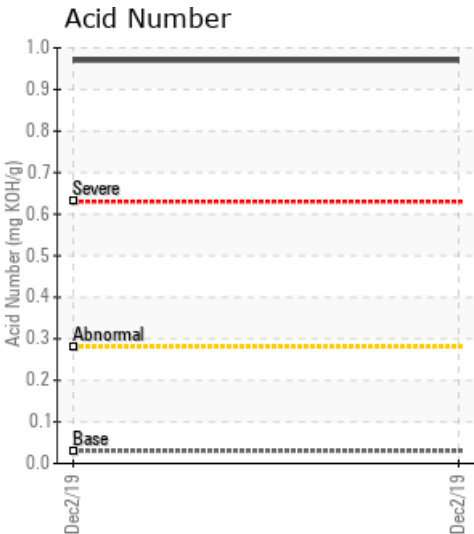
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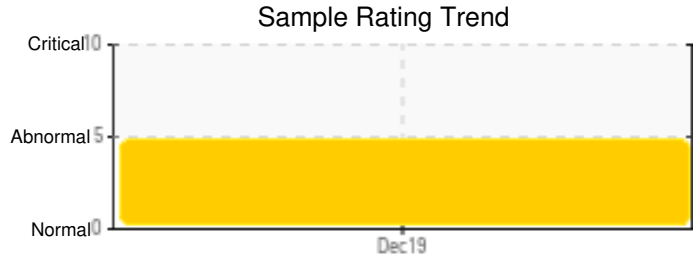
Customer: PTRHTF10227	System Information	Sample Information
LAKESIDE INDUSTRIES 1500 Wahl Lake Rd Port Ludlow, WA 98365 US Attn: Tel: E-Mail:	System Volume: 0 gal Bulk Operating Temp: Not Specified Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make: GENCOR	Lab No: 02332797 Analyst: Ron LeBlanc Sample Date: 12/02/19 Received Date: 01/20/20 Completed: 05/05/20 Ron LeBlanc Ronald.LeBlancSr@HFSinclair.com

Recommendation: AN is getting very close to condemning limit of 1.0 The oil appears to be oxidized due to the rise in AN which ultimately causes sludge deposits and corrosion if the fluid is used beyond AN condemning limit due to acidic compounds. Be sure to purge oil from collection point to get accurate sample quality.

Comments: Pentane Insolubles levels are severely high. Acid Number (AN) is severely high.

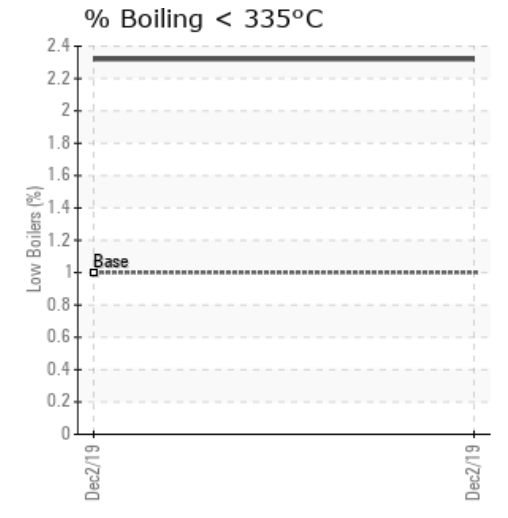
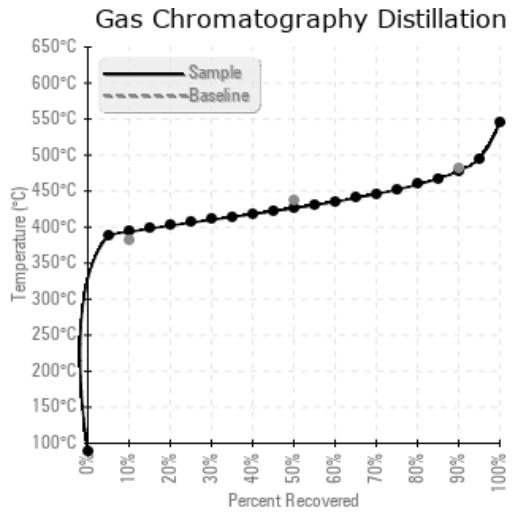
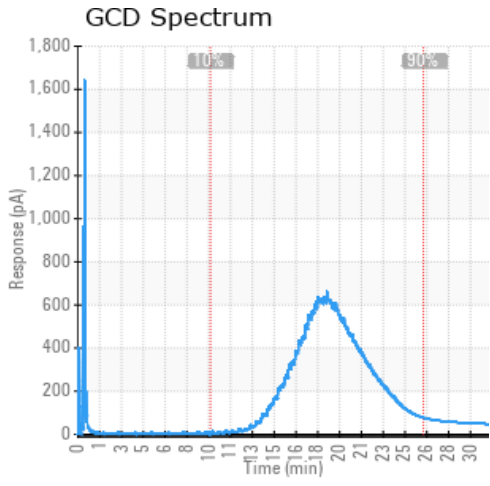
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
12/02/19	01/20/20	0.0h		432 / 222	29.9	41.5	0.970	1.48	740 / 393	799 / 426	892 / 478	2.32
Baseline Data				433 / 223		34.2	0.03		720 / 382	817 / 436	900 / 482	1.00





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
12/02/19	48	0	0	0	1	0	0	0	0	0	0	15	0	0	0	0	1	0	0	0	13	0	0	2
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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