

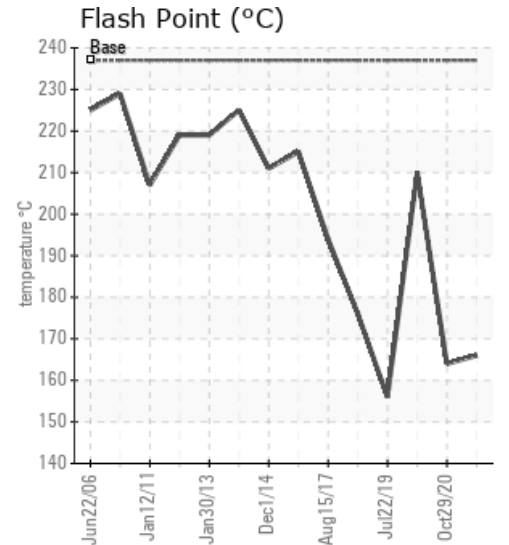
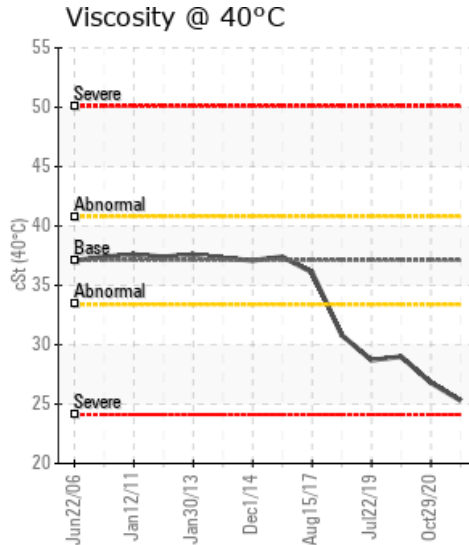
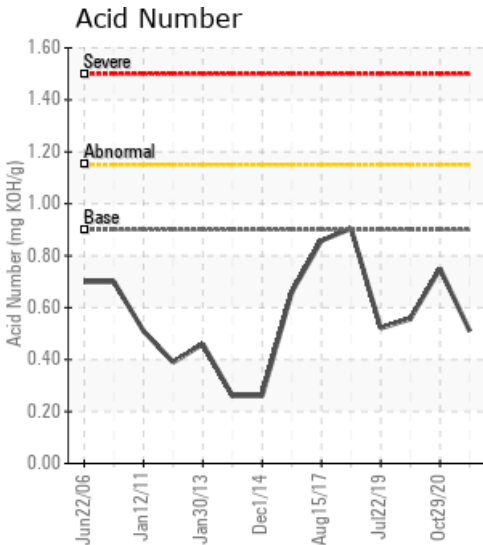
## B150 GROEN

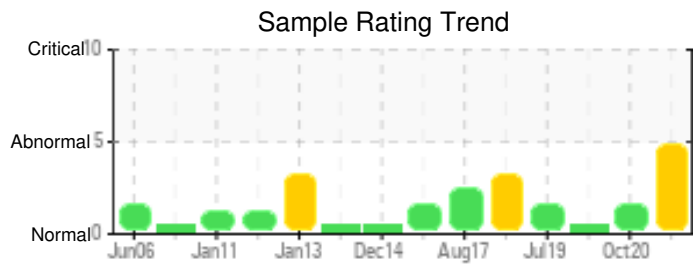
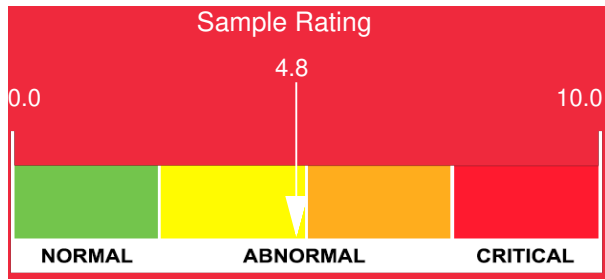
Customer: PTRHTF10078	System Information	Sample Information
WEST FORK CREATIONS 15 PEPSI DRIVE RED LODGE, MT 59068 USA Attn: Becky Rietz Tel: (406)426-3060 E-Mail: foodsafety@kingscupboard.com	System Volume: 55 gal Bulk Operating Temp: 475F / 246C Heating Source: Blanket: Fluid: PETRO CANADA PURITY FG HEAT TRANSFER FLUID Make: STERLCO	Lab No: 02503192 Analyst: Ron LeBlanc Sample Date: 04/12/22 Received Date: 08/03/22 Completed: 08/04/22 Ron LeBlanc Ronald.LeBlancSr@hollyfrontier.com

Recommendation: Decreased Viscosity: Lower viscosity oil added possibly. Indicates thermal degradation. IMPROVES THE FLUID'S ABILITY TO TRANSFER HEAT BUT often reduces flash, fire and auto-ignition points The GCD profile indicates cracking of the fluid. The lowered flash point coincides with cracking. You might try venting the expansion tank to remove the lighter fractions. Sample in 1 month.

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

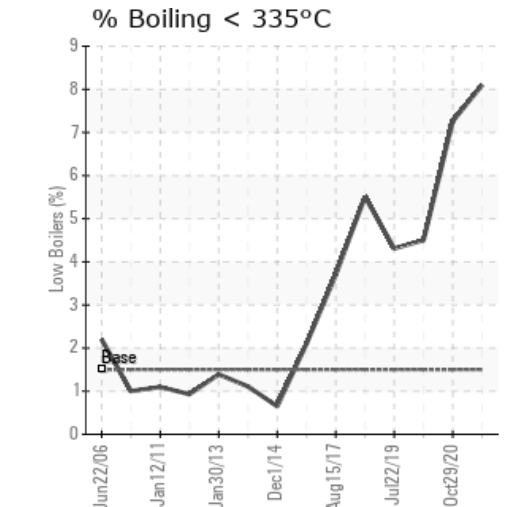
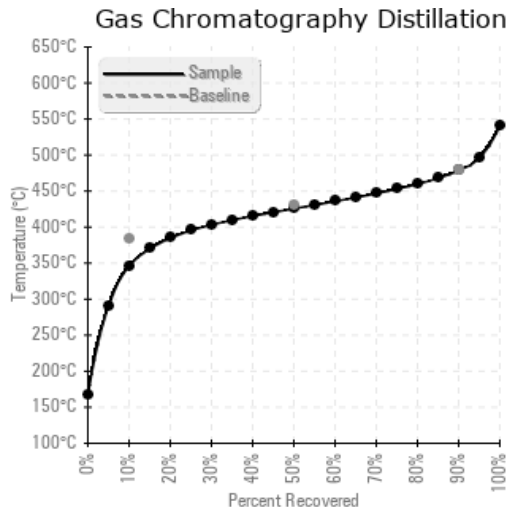
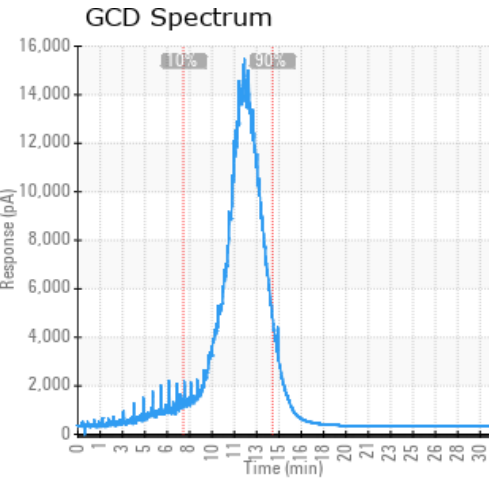
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
04/12/22	08/03/22	12.0m	drain plug	331 / 166	38.4	25.3	0.51	0.328	655 / 346	798 / 426	893 / 478	8.10
10/29/20	11/11/20	0.0m	Drain	327 / 164	31.6	26.8	0.75	0.250	667 / 353	800 / 427	888 / 475	7.26
08/22/19	09/06/19	6.0m	DRAIN	410 / 210	0.00	29.0	0.557	0.223	690 / 366	803 / 429	888 / 476	4.50
07/22/19	08/01/19	0.8m	DRAIN VALVE	313 / 156	20.9	28.7	0.521	0.185	690 / 366	801 / 427	885 / 474	4.31
06/28/18	07/23/18	5.0m	OIL DRAIN	349 / 176	78.3	30.8	0.905	1.24	685 / 363	803 / 428	897 / 481	5.51
Baseline Data				459 / 237		37.12	0.90		721 / 383	807 / 431	892 / 478	1.5





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
04/12/22	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	84	0
10/29/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	93	0
08/22/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	95	0
07/22/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	94	1
06/28/18	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84	6
Baseline Data			0	0						0			0	0				0	0				230	

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



Historical Comments	
10/29/20	COC Flash Point is very low. The boiling point is low which correlates with the flash point low. The severely low flash point is concerning. Taking a sample before purging enough oil can cause the indications reported. If a good sample was drawn then adding some fresh oil can raise both Flash Point and Boiling Point. Resample in 3 months. COC Flash Point is severely low.
08/22/19	Sample is improved from previous sample. Sample looks normal. Re-sample in 3 months.
07/22/19	The COC Flash Point has dropped over the last 2 samples. It might be due to where the sample is being taken or not purging enough oil before sample is drawn. The oil could have been overheated or severely taken up to operating temperature rapidly. Viscosity has dropped significantly in the last 2 samples. If possible add fresh oil to bring viscosity and COC Flash Point up. Take another sample and send in to verify results. COC Flash Point is severely low.
06/28/18	Pentane Insolubles levels are severely high. COC Flash Point is severely low. A small charge of new oil can bring the COC flash point up. Resample and purge extra oil out of sample port to get a good sample to confirm numbers. Pentane Insolubles levels are severely high. COC Flash Point is severely low.

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.