

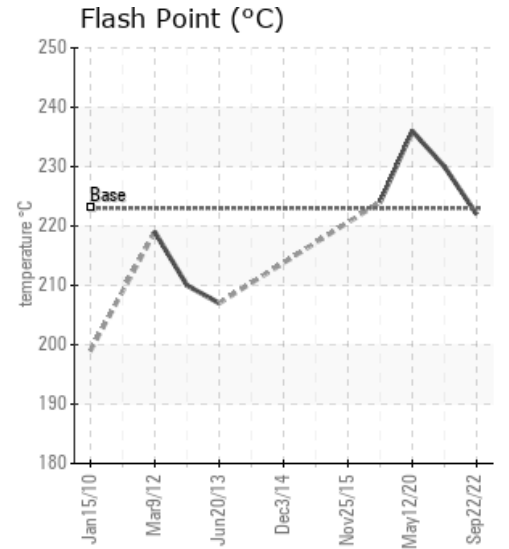
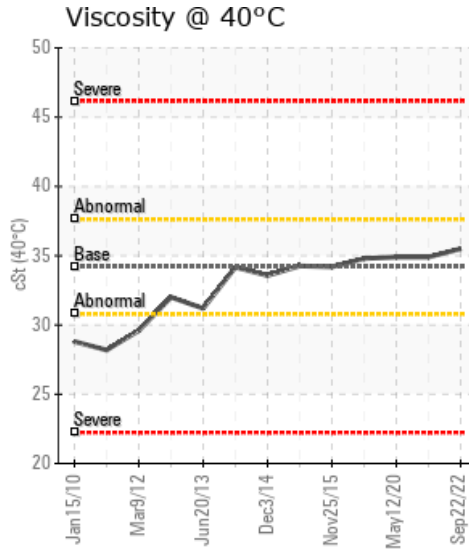
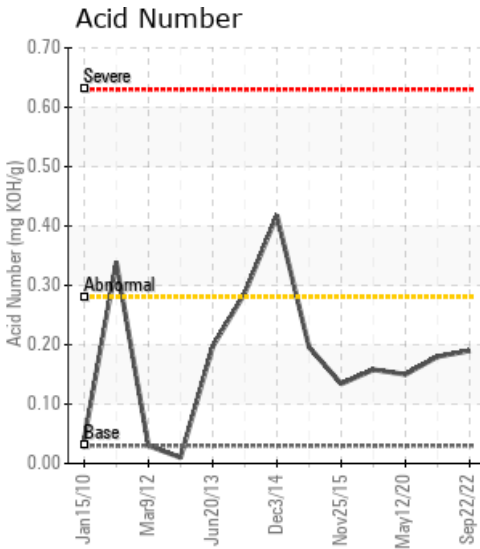
STILLYARD HOT OIL SYSTEM

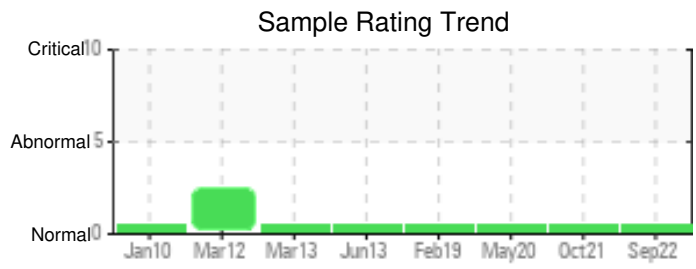
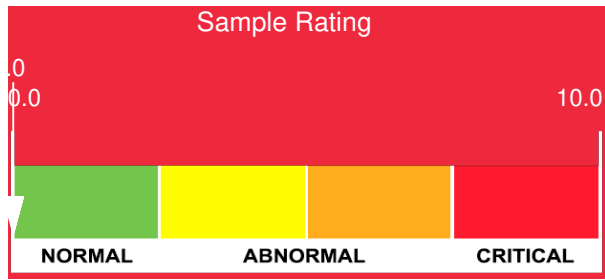
Customer: PTRHTF10094	System Information	Sample Information
CERTAINEED CORPORATION - OXFORD 200 CERTAINEED RD OXFORD, NC 27565 US Attn: Seth Newton Tel: (919)693-1141 E-Mail: Seth.newton@saint-gobain.com	System Volume: 0 gal Bulk Operating Temp: 450F / 232C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make:	Lab No: 02515788 Analyst: Manny Garcia Sample Date: 09/22/22 Received Date: 10/12/22 Completed: 10/17/22 Manny Garcia manuel.garcia@HFSinclair.com

Recommendation: Please re-submit fluid in September 2023 as scheduled.

Comments: Fluid is suitable for continued use as expected for a 12-month old product. Parameters all look great!

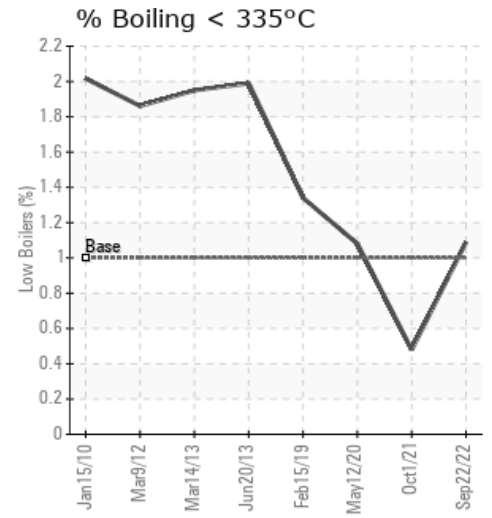
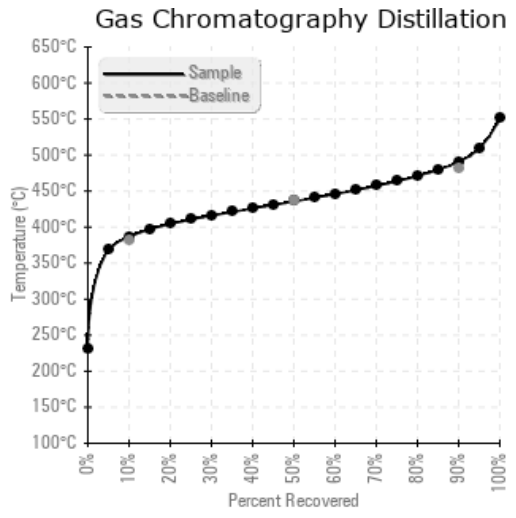
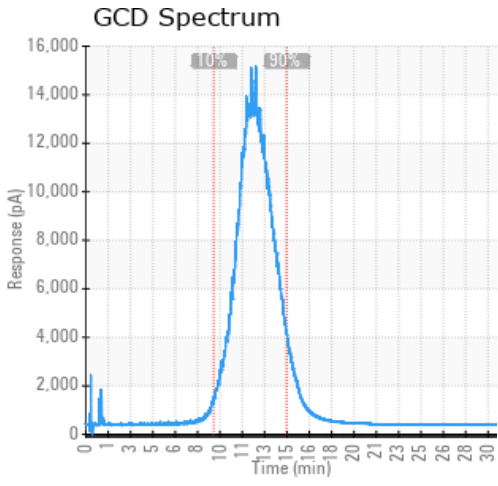
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
09/22/22	10/12/22	0.0m	TRACING LINE	432 / 222	9.4	35.5	0.19	0.267	728 / 386	816 / 436	915 / 491	1.09
10/01/21	10/18/21	0.0m		446 / 230	16.2	34.9	0.18	0.055	729 / 387	817 / 436	913 / 490	0.48
05/12/20	07/06/20	5.0m		457 / 236	22.8	34.9	0.15	0.191	723 / 384	813 / 434	912 / 489	1.08
02/15/19	02/28/19	1.0m	DRAIN POINT	435 / 224	9.7	34.8	0.158	0.029	698 / 370	788 / 420	892 / 478	1.34
11/25/15	11/27/15	0.0m				34.2	0.134					
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	
09/22/22	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10/01/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/12/20	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/15/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/25/15	2	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	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

10/01/21	Fluid condition looks excellent. Please re-submit next oil sample in October 2022
05/12/20	Despite the dark appearance, which is normal for hot oils, the sample shows nothing abnormal or marginal to act upon. Re-sample at next scheduled interval.
02/15/19	Glad to see this system back on our normal Hot Oil testing program. All parameters are within acceptable limits, contamination by water is barely detectable, oxidation is very mild. Keep monitoring along with the other systems. No action needed at this time.
11/25/15	Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable. The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

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