

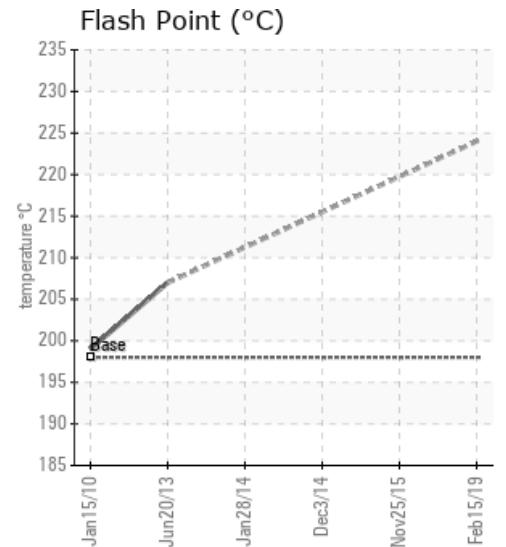
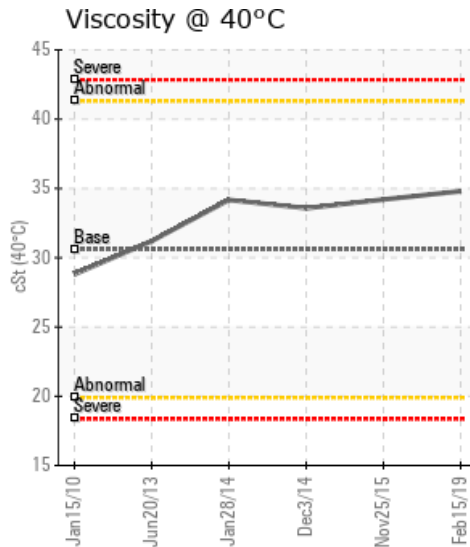
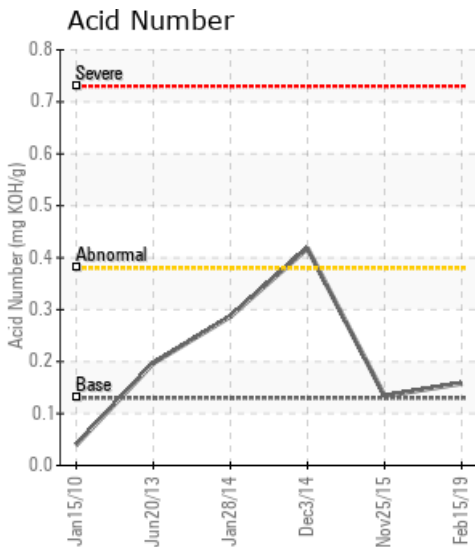
STILLYARD HOT OIL SYSTEM

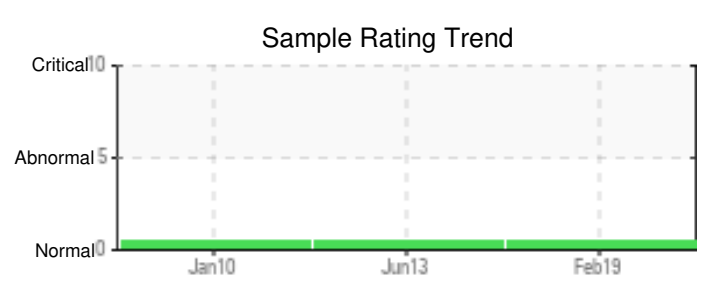
Customer: PTRHTF10094	System Information	Sample Information
CERTAINEED CORPORATION - OXFORD 200 CERTAINEED RD OXFORD, NC 27565 USA Attn: Andy Davis Tel: (919)693-1141 E-Mail: andy.j.davis@saint-gobain.com	System Volume: 0 gal Bulk Operating Temp: 0F / -18C Heating Source: Blanket: Fluid: MOBIL MOBILTHERM 43 Make:	Lab No: 02270624 Analyst: Gaston Arseneault Sample Date: 02/15/19 Received Date: 02/28/19 Completed: 03/04/19

Recommendation: 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.

Comments:

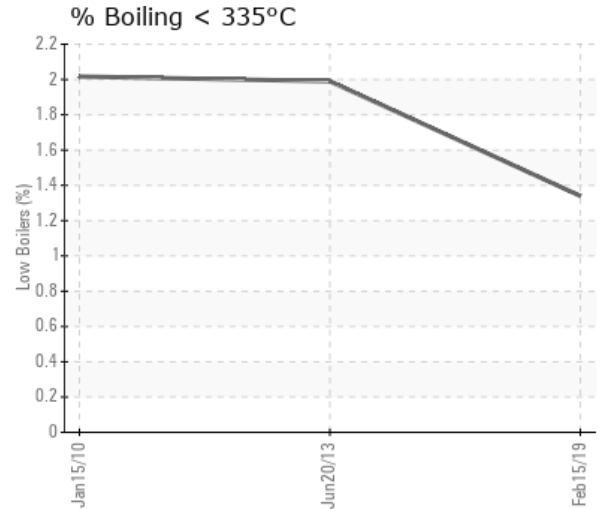
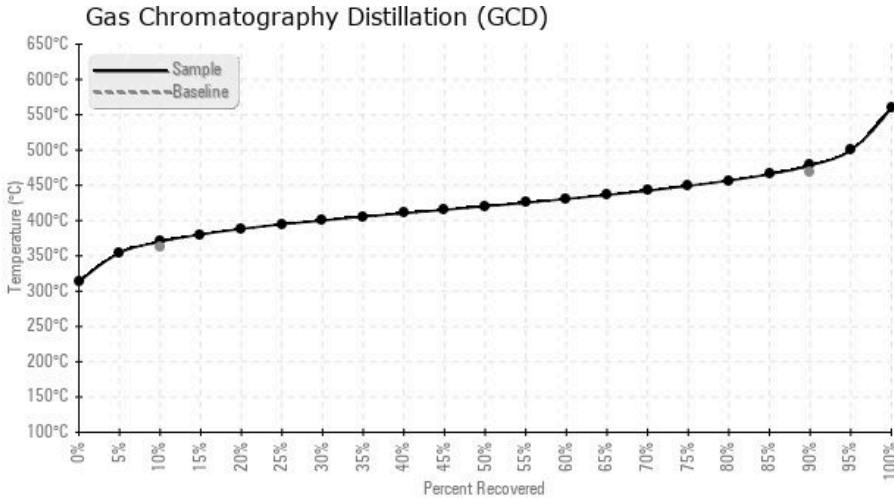
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
02/15/19	02/28/19	1h	DRAIN POINT	435 / 224	9.7	34.8	0.158	0.029	698 / 370	788 / 420	892 / 478	1.34
11/25/15	11/27/15	0h				34.2	0.134					
12/03/14	01/05/15	0h				33.57	0.418					
01/28/14	01/31/14	0h				34.17	0.287					
06/20/13	06/28/13	0h	L INLINE FLTR COLUMN	405 / 207	45.5	31.2	0.197	0.324	697 / 369	795 / 424	890 / 477	1.99
01/15/10	09/27/10			390 / 199	41	28.8	0.04	0.059	692 / 367	774 / 412	858 / 459	2.017
Baseline Data				388 / 198		30.6	0.13		685 / 363		876 / 469	





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
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
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
12/03/14	2	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
01/28/14	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0
06/20/13	2	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	10	0
01/15/10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	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	
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.
12/03/14	No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of particulates present in the fluid. The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.
01/28/14	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 condition of oil is suitable for further service.
06/20/13	Overall the oil is in good condition and suitable for further use. The acid number and viscosity are elevated, which are signs that the oil is beginning to show signs of oxidation. Please continue to sample annually to monitor the condition of the fluid.
01/15/10	Results look good. No action required at this time. Re-sample in 6 months or so.

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