

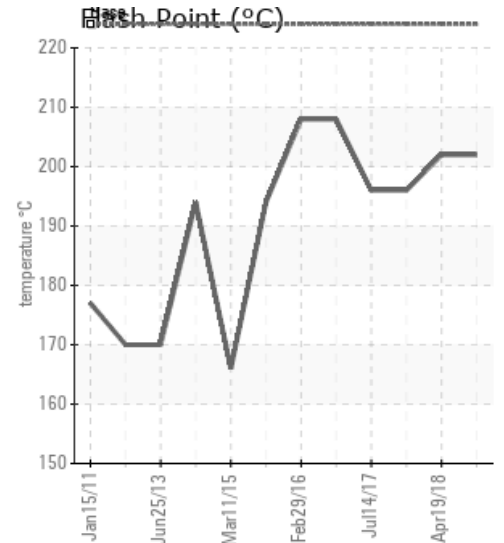
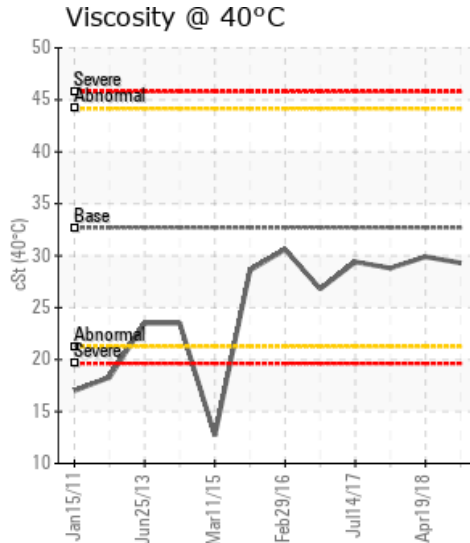
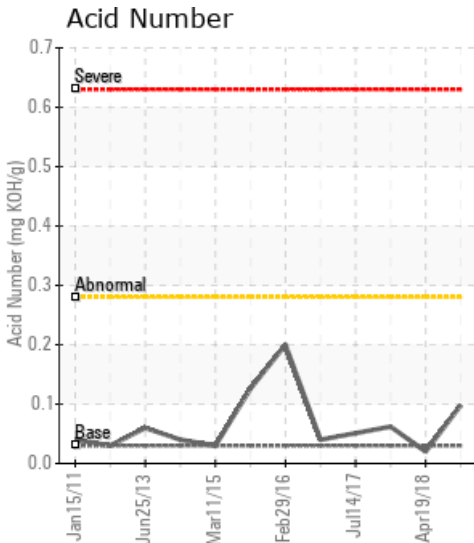
# ECLIPSE HEATER

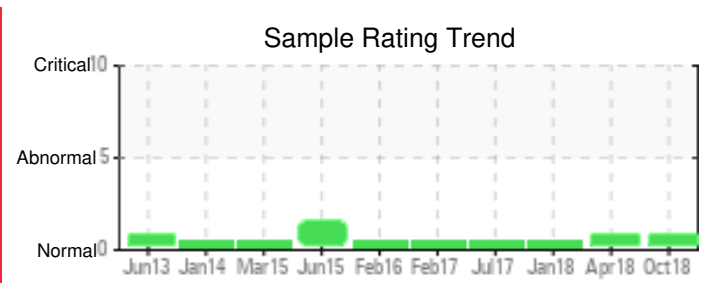
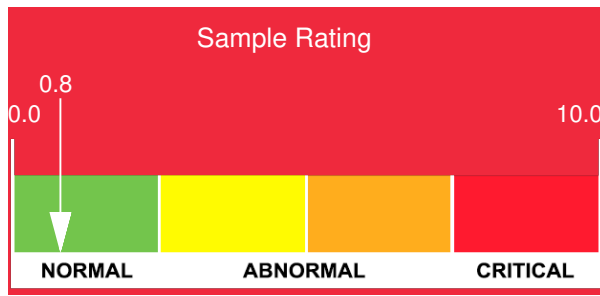
Customer: PTRHTF10059	System Information	Sample Information
CERTAINEED - SAINT GOBAIN 11519 US RT 250 N MILAN, OH 44846 USA Attn: DAVE BLAKELY Tel: (419)541-0843 E-Mail: dave.l.blakely@saint-gobain.com	System Volume: 605 gal Bulk Operating Temp: 525F / 274C Heating Source: Blanket: Fluid: PETRO CANADA CALFLO AF Make: FIRST THERMO	Lab No: 02247162 Analyst: Gaston Arseneault Sample Date: 10/11/18 Received Date: 10/24/18 Completed: 10/28/18 To discuss this report contact Gaston Arseneault at 973-986-6503

Recommendation: The fluid appears to be in excellent condition after 2.5 years, with minimal discoloration. Flash point remains strong. All properties tested are normal and well within acceptable limits. Acid Number (oxidation), moisture and overall contaminants are barely detectable. Pls re-sample at next scheduled interval.

Comments:

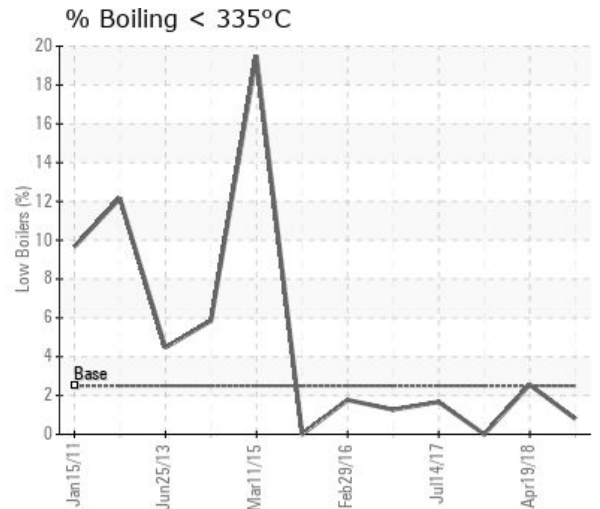
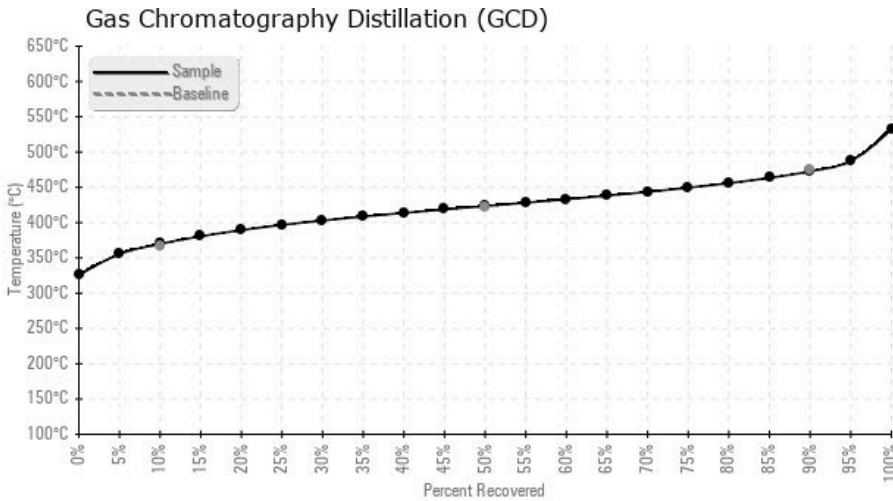
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
10/11/18	10/24/18	0y		396 / 202	17.5	29.3	0.098	0.047	697 / 370	794 / 423	883 / 473	0.80
04/19/18	04/27/18	0y	HEADER	396 / 202	4.2	29.9	0.02	0.061	692 / 367	802 / 428	907 / 486	2.55
01/20/18	01/29/18	2y		385 / 196	0.00	28.8	0.062	0.035	694 / 368	782 / 417	882 / 472	0.00
07/14/17	07/28/17	0y		385 / 196	33.2	29.4	0.051	0.027	698 / 370	796 / 425	900 / 482	1.67
02/07/17	02/15/17	12y	SIDE STREAM FLTR PRT	406 / 208	14.4	26.8	0.04	0.043	698 / 370	796 / 425	899 / 482	1.27
02/29/16	03/10/16	6y	RETURN LINE PUMP	406 / 208	9.7	30.6	0.20	0.162	695 / 369	799 / 426	903 / 484	1.77
Baseline Data				435 / 224		32.7	0.03		693 / 367	790 / 421	887 / 475	2.5





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
10/11/18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76	0
04/19/18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83	0
01/20/18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	87	0
07/14/17	1	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	6	0	0	0	95	0
02/07/17	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	91	0
02/29/16	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	0
Baseline Data			0	0						0			0	0					0				270	

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



Historical Comments	
04/19/18	The fluid appears to be in excellent condition after 2 years, with minimal discoloration. Flash point remains strong. All properties tested are normal and well within acceptable limits. Moisture and overall contaminants are barely detectable. Pls re-sample at next scheduled interval. (GCD) 90% Distillation Point is marginally high.
01/20/18	The fluid appears to be in excellent condition after 2 years, with minimal discoloration. Flash point remains strong. All properties tested are normal and well within acceptable limits. Moisture and overall contaminants are barely detectable. Pls re-sample at next scheduled interval.
07/14/17	The sample appears to be in good condition. Re sample at next scheduled interval
02/07/17	The fluid appears to be in good condition with no apparent contamination or degradation. Re-sample at next scheduled interval.
02/29/16	Oil is in good condition, no issues at this time. Re-sample at next scheduled interval.

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