

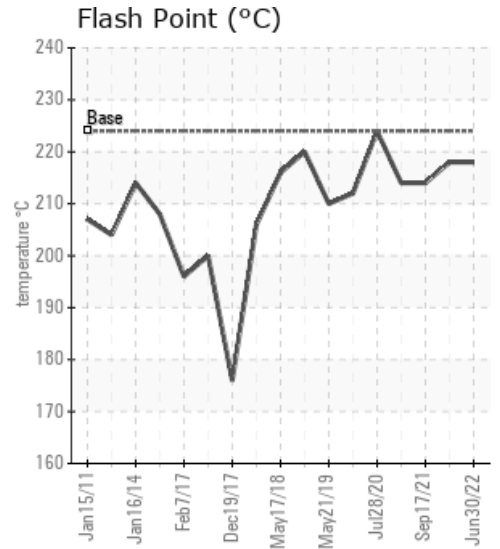
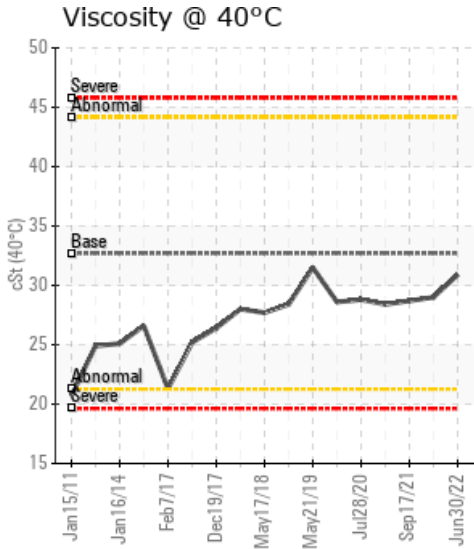
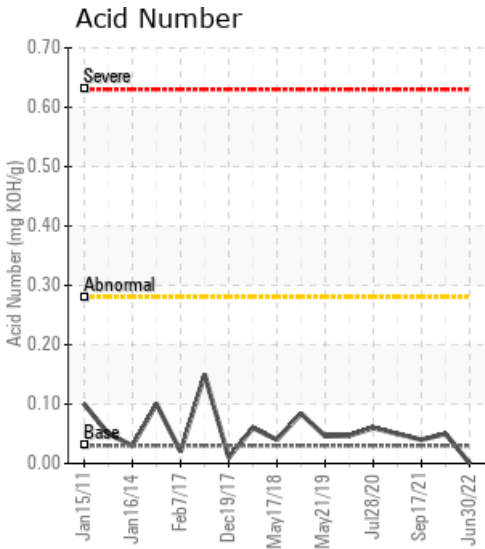
MODIFIED ROOM

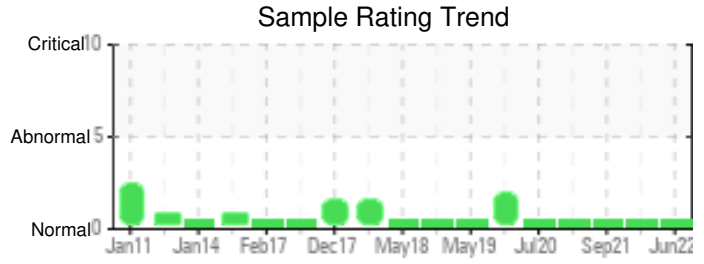
Customer: PTRHTF10059	System Information	Sample Information
CERTAINTEED - SAINT GOBAIN 11519 US RT 250 N MILAN, OH 44846 USA Attn: DAVE BLAKELY Tel: (419)541-0843 E-Mail: dave.l.blakely@saint-gobain.com	System Volume: 320 gal Bulk Operating Temp: 480F / 249C Heating Source: Blanket: Fluid: PETRO CANADA CALFLO AF Make: FIRST THERMOL	Lab No: 02501227 Analyst: Yvette Trzcinski Sample Date: 06/30/22 Received Date: 07/21/22 Completed: 07/25/22 Yvette Trzcinski yvette.trzcinski@hollyfrontier.com

Recommendation: Viscosity and Solids have increased very slightly but low boilers have decreased and the flash point is consistent from the last sample. Fluid is acceptable for continued service, re-sample at the next regular service interval

Comments:

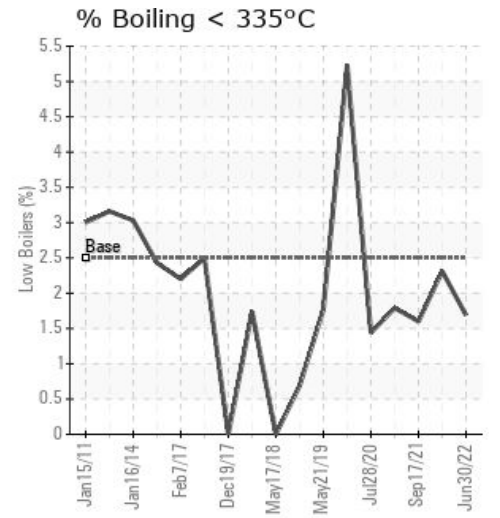
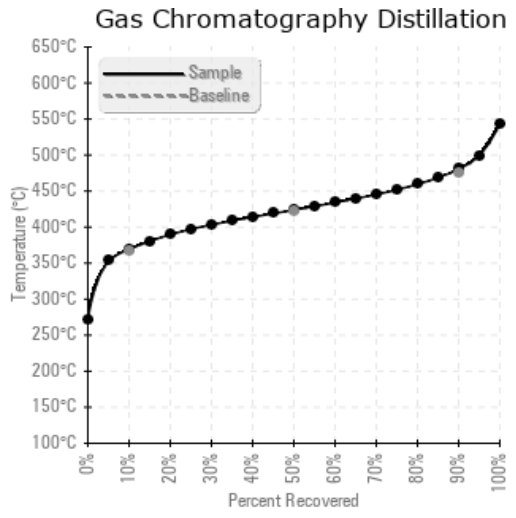
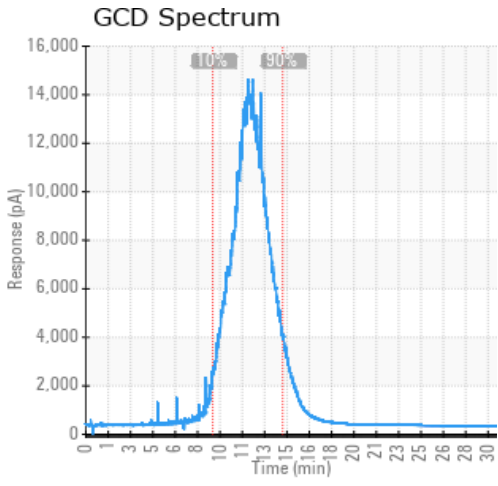
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
06/30/22	07/21/22	0.0h	sample port	424 / 218	11.2	30.9	0.00	0.061	696 / 369	795 / 424	897 / 481	1.69
01/12/22	02/18/22	0.0h	sample port	424 / 218	11.3	29.0	0.05	0.029	692 / 367	793 / 423	898 / 481	2.31
09/17/21	10/05/21	0.0h	SAMPLE PORT	417 / 214	25.2	28.7	0.04	0.097	695 / 368	793 / 423	897 / 481	1.60
01/04/21	01/19/21	0.0h	Sample Port	417 / 214	11.1	28.4	0.05	0.098	693 / 367	792 / 422	895 / 480	1.79
07/28/20	08/05/20	0.0h	FILTER DRAIN	435 / 224	20.9	28.8	0.06	0.030	696 / 369	793 / 423	895 / 479	1.44
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
06/30/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	0
01/12/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0
09/17/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	0
01/04/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
07/28/20	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	25	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	
01/12/22	Flash point, acid number and insolubles are all low and the GCD distillation boiling points are all within specification fluid is suitable for continued service re-sample in 6-12 months
09/17/21	Sample results indicate the fluid is acceptable for continued service the flash point, viscosity, acid number, solids and GCD boiling points are all at acceptable ranges and there has been very little change from the sample in January. Resample at your next interval 9 -12 months
01/04/21	Viscosity, acid number and flash point all within specifications and water and contamination are low, resample at the next interval
07/28/20	Viscosity has remained constant from the last sample in January and the low boilers amount has decreased - flash point looks good, Resample at the next sampling interval

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