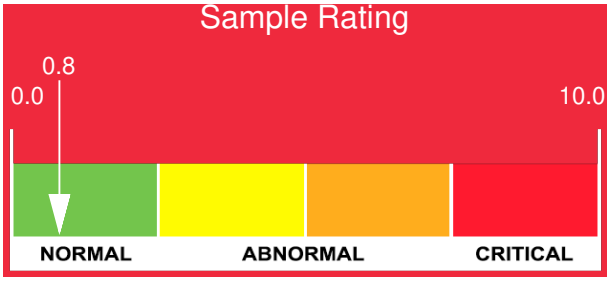
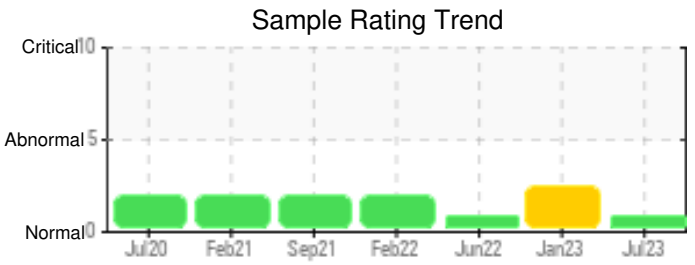




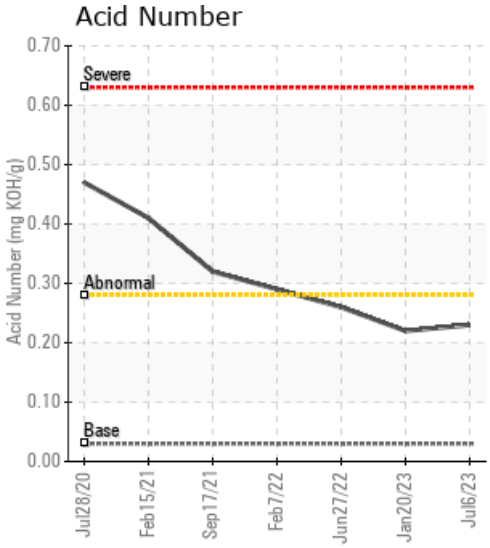
APP-TOX

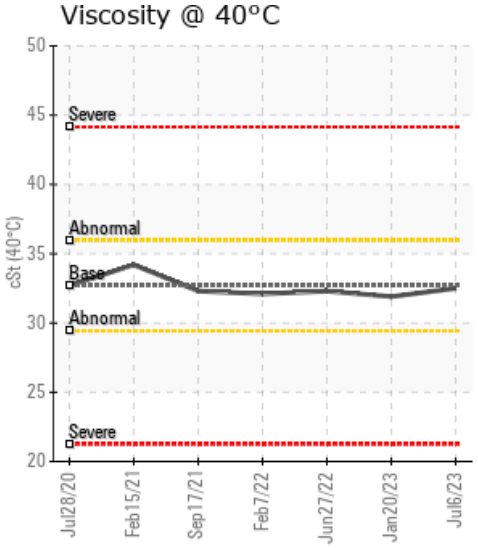
Customer: PTRHTF10059	System Information	Sample Information
CERTAINTEED - SAINT GOBAIN 11519 US RT 250 N MILAN, OH 44846 US Attn: DAVE BLAKELY Tel: (419)541-0843 E-Mail: dave.l.blakely@saint-gobain.com	System Volume: 8875 gal Bulk Operating Temp: 500F / 260C Heating Source: Blanket: Fluid: PETRO CANADA CALFLO AF Make: JOHN ZINK	Lab No: 02572803 Analyst: Yvette Trzcinski Sample Date: 07/06/23 Received Date: 07/27/23 Completed: 08/03/23 Yvette Trzcinski yvette.trzcinski@HFSinclair.com

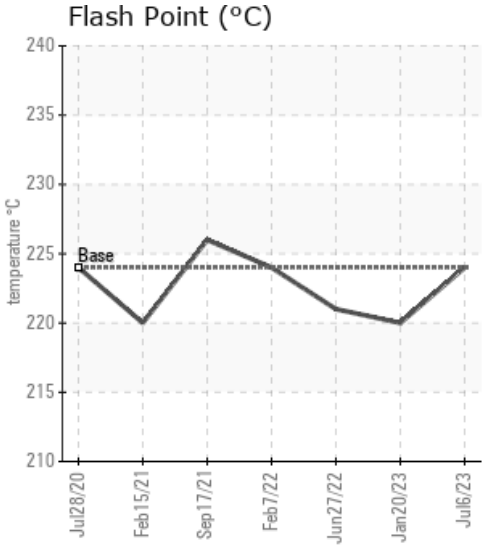
Recommendation: viscosity, acid number and flash point all within specification. GC distillation 90% slightly increased but with almost no change from the sample taken 6 months ago. resample in 6 -12 months

Comments: (GCD) 90% Distillation Point is marginally high.

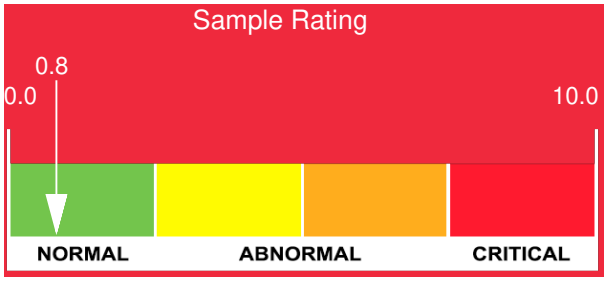
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
07/06/23	07/27/23	0.0m	sample port	435 / 224	11.1	32.5	0.23	0.209	708 / 375	805 / 429	908 / 487	1.37
01/20/23	01/30/23	0.0m	sample port	428 / 220	13.8	31.9	0.22	0.082	706 / 374	805 / 430	908 / 487	1.83
06/27/22	07/21/22	40.0m	sample port	430 / 221	20.6	32.3	0.26	0.122	710 / 377	807 / 431	913 / 490	1.20
02/07/22	02/18/22	36.0m	sample port	435 / 224	14.3	32.1	0.29	0.130	706 / 374	805 / 430	911 / 489	1.93
09/17/21	10/05/21	36.0m	SAMPLE PORT	439 / 226	26.3	32.3	0.32	0.158	710 / 377	806 / 430	911 / 488	1.01
Baseline Data				435 / 224		32.7	0.03		693 / 367	790 / 421	887 / 475	2.5

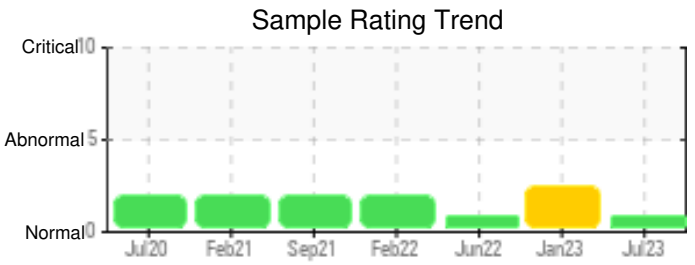






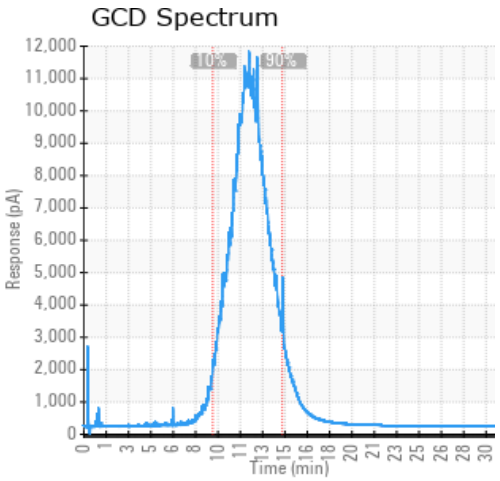
PETRO-CANADA LUBRICANTS

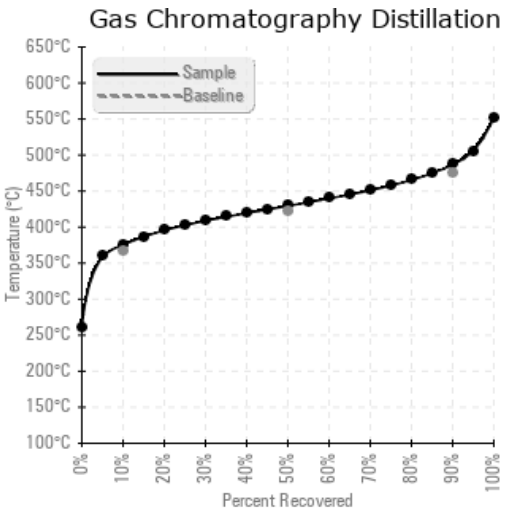


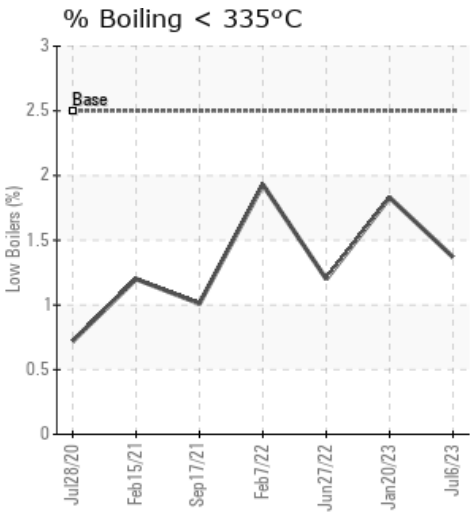


Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
07/06/23	63	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	245	3
01/20/23	51	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	249	1
06/27/22	66	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	1	0	0	0	0	0	225	2
02/07/22	53	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	238	2
09/17/21	44	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	246	2
Baseline Data			0	0						0			0	0					0				270	

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







Historical Comments

01/20/23	GCD 90% distillation temperature is marginally high indicates some oxidation degradation of the fluid, but acid number and viscosity are holding consistent and Pentane insolubles - solids level are at acceptable levels. Resample in 9-12 months (GCD) 90% Distillation Point is marginally high.
06/27/22	The GCD boiling point at 90% has increased slightly but the flash point, viscosity and acid number all look very good the fluid is acceptable for continued service Resample at the next service interval (GCD) 90% Distillation Point is marginally high.
02/07/22	Flash point, GCD boiling points, solids and viscosity as well as acid number have remained consistent from the last sample. In large systems when acid number is around 0.3 we recommend sweetening the system with new fluid. resample in 6 months Acid Number (AN) is abnormally high. (GCD) 90% Distillation Point is marginally high.
09/17/21	Flash point and viscosity are within acceptable ranges, the acid number has improved from the last sample as well as the solids amount - looks like there was some make up added to the system. The GDC 90% is slightly high but is fairly consistent over the last 3 samples. Product is acceptable for continued use and resample in 6 - 12 months Acid Number (AN) is abnormally high. (GCD) 90% Distillation Point is marginally high.