

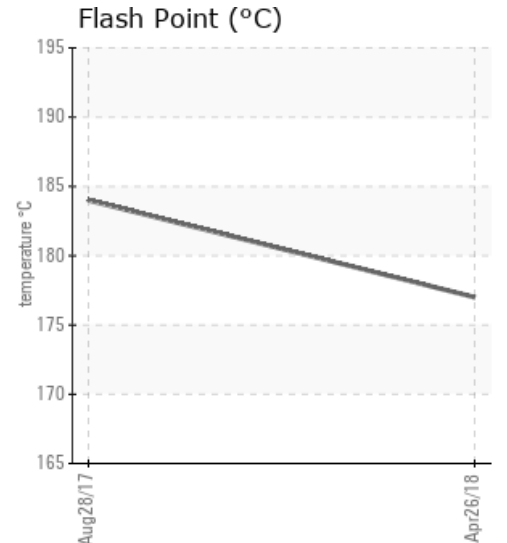
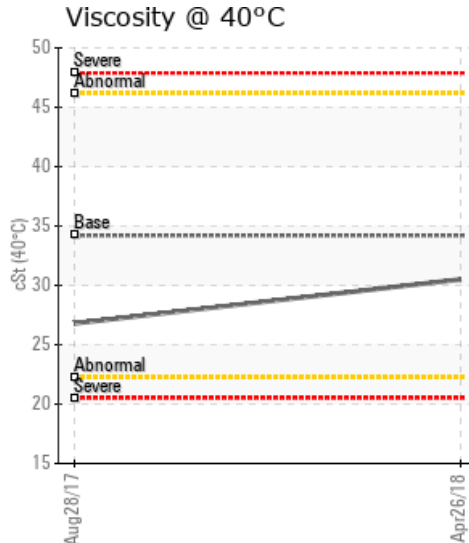
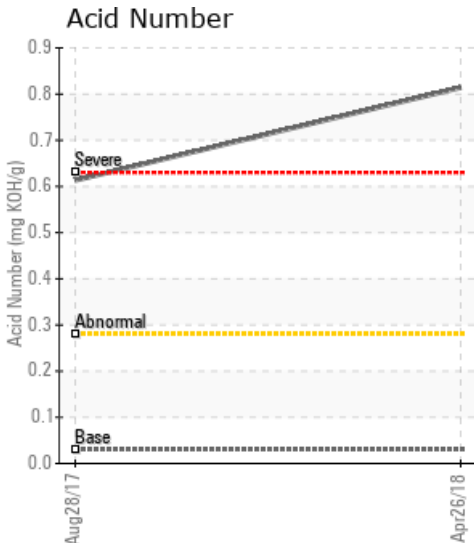
LINOLEUM PRODUCTION LINE (TARKETT)

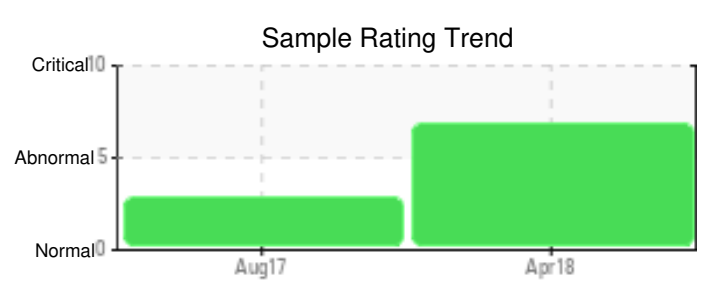
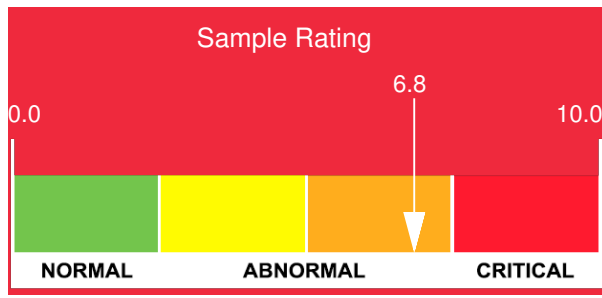
Customer: PTRHTF40125	System Information	Sample Information
PKP - UKRAINE GAGRINA STR 39 RIVNE, 33003 Ukraine Attn: Sergey Protsyk Tel: E-Mail: eugenia@pkpua.com	System Volume: 22000 ltr Bulk Operating Temp: 536F / 280C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make: KIRKA SURI BEOGRAD	Lab No: 02216279 Analyst: Alexander Panov Sample Date: 04/26/18 Received Date: 05/15/18 Completed: 07/04/18 To discuss this report contact Alexander Panov at (496)214-4586269

Recommendation: Signs of oxidation and thermal degradation are present. Venting the low boilers and using nitrogen blanket is recommended. Inspect the system and consider changing the fluid.

Comments: Acid Number (AN) is severely high. (GCD) 10% Distillation Point is abnormally low. COC Flash Point is abnormally low. (GCD) % < 335°C is marginally high.

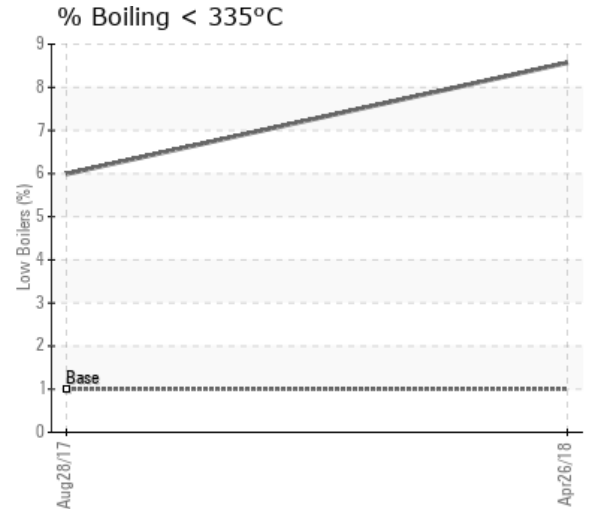
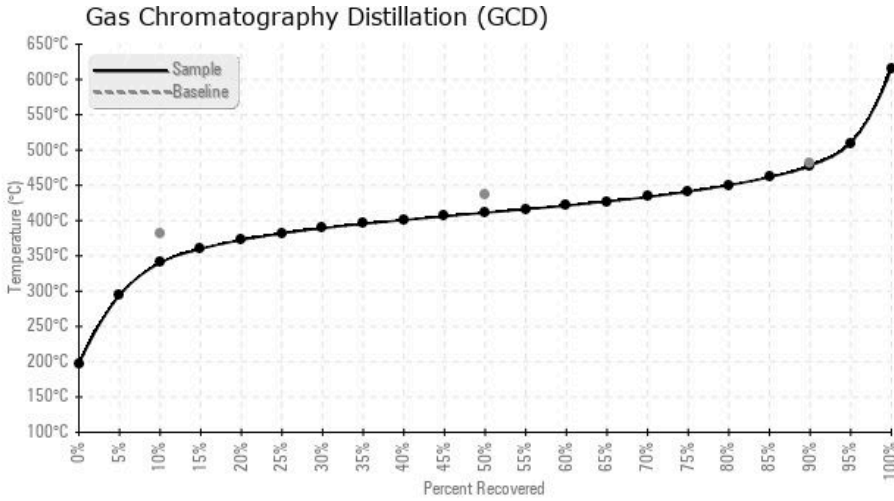
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
04/26/18	05/15/18	45m	THERMO DRUM INPUT	351 / 177	23.1	30.5	0.814	0.042	644 / 340	772 / 411	892 / 478	8.57
08/28/17	09/13/17	35m	THERMO DRUM INPUT	363 / 184	29.1	26.8	0.613	0.122	675 / 357	799 / 426	920 / 493	5.99
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
04/26/18	5	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
08/28/17	6	0	0	0	1	1	1	0	0	0	0	1	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

08/28/17	viscosity low and light ends high causing low flash point. In there is a way to vent the system should try and do this. GCD 10% is also low confirming evidence of presence of lighter molecules. Consider oil change at next suitable period based on flash point Acid Number (AN) is abnormally high. (GCD) 90% Distillation Point is marginally high. COC Flash Point is marginally low.
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