

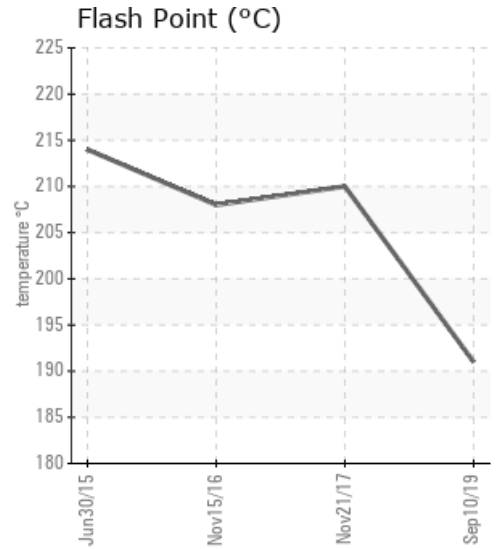
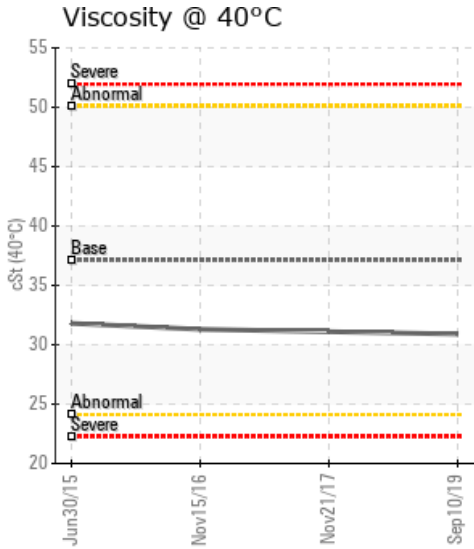
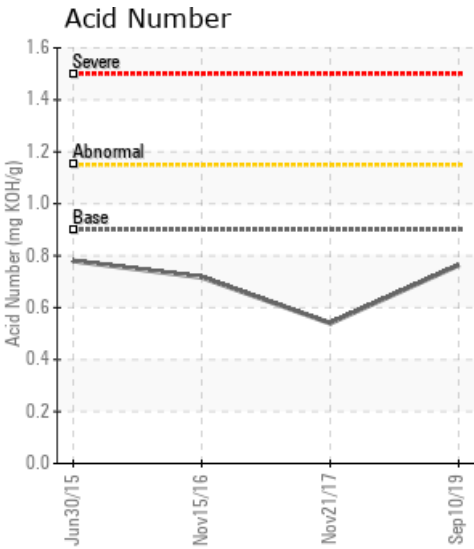
## TPC 1000LNE

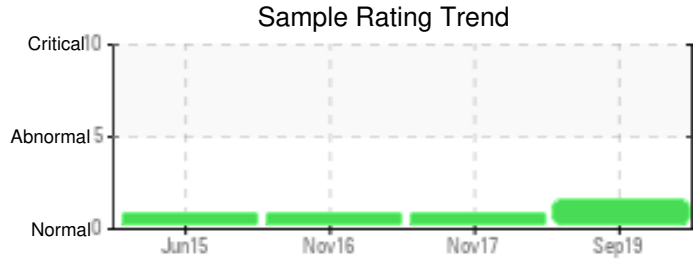
Customer: PTRHTF40071	System Information	Sample Information
ELBURG GLOBAL VEGETABLE OILS VAN KINSBERGENSTRAAT 5 ELBURG, 8081 CL NETHERLANDS Attn: Maintenance Manager Tel: E-Mail:	System Volume: 2000 ltr Bulk Operating Temp: 250F / 121C Heating Source: Blanket: Fluid: PETRO CANADA PURITY FG HEAT TRANSFER FLUID Make: WANSON	Lab No: 02309316 Analyst: Philip Riley Sample Date: 09/10/19 Received Date: 09/19/19 Completed: 10/02/19

Recommendation: COC Flash Pt marginally low, with little evidence of light ends. If safe to do so, try some form of venting to recover if possible. Slight deterioration of fluid rating but well within normal limits. Fit for further use and resample at next planned frequency. Note that oil life is not consistent and shows 3Y - 10Y

Comments: COC Flash Point is abnormally low. (GCD) 90% Distillation Point is marginally high.

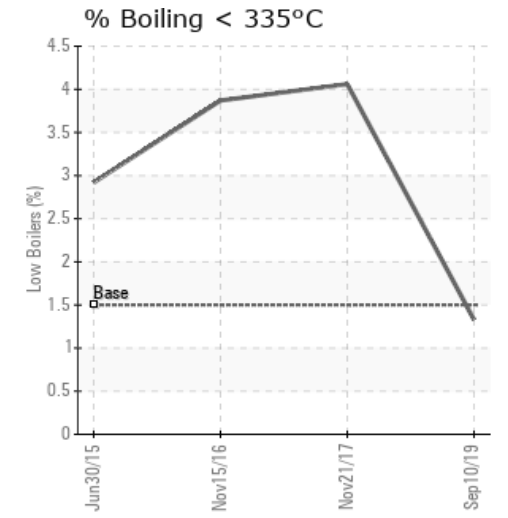
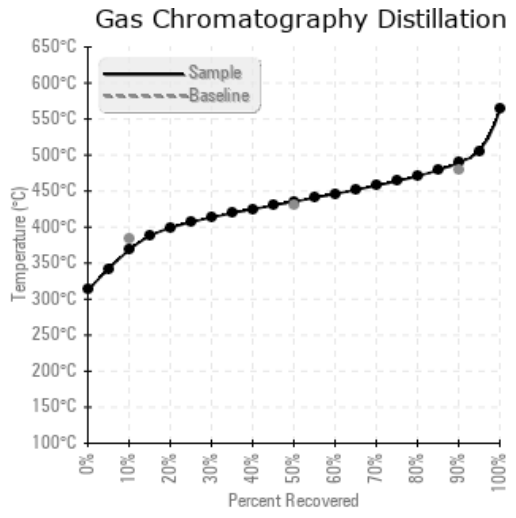
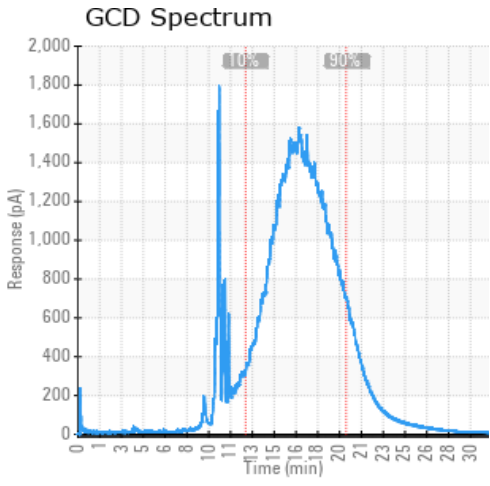
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
09/10/19	09/19/19	10y		376 / 191	34.1	30.9	0.764	0.066	694 / 368	816 / 435	913 / 489	1.33
11/21/17	11/27/17	3y		410 / 210	12.0	31.1	0.54	0.048	656 / 347	796 / 424	895 / 479	4.06
11/15/16	11/24/16	2y		406 / 208	82.5	31.3	0.717	0.056	663 / 351	804 / 429	904 / 484	3.87
06/30/15	07/03/15	1y		417 / 214	42.6	31.8	0.78	0.056	652 / 345	801 / 427	902 / 483	2.92
Baseline Data				459 / 237		37.12	0.90		721 / 383	807 / 431	892 / 478	1.5





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
09/10/19	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	3
11/21/17	19	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0
11/15/16	9	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0
06/30/15	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	1
Baseline Data			0	0						0			0	0					0				230	

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



Historical Comments	
11/21/17	Low GC 10% showing evidence of some light ends. Consistent with previous years, all other parameters OK and fit for further use. Unusual spike on GC at 7-10 C chain (GCD) 10% Distillation Point is marginally low.
11/15/16	The oil is in good condition and fit for service. Suggest sample at next scheduled maintenance interval. (GCD) 10% Distillation Point is marginally low.
06/30/15	Oil appears to be in good condition and fit for further service. Sample at next scheduled maintenance interval. (GCD) 10% Distillation Point is abnormally low.

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