

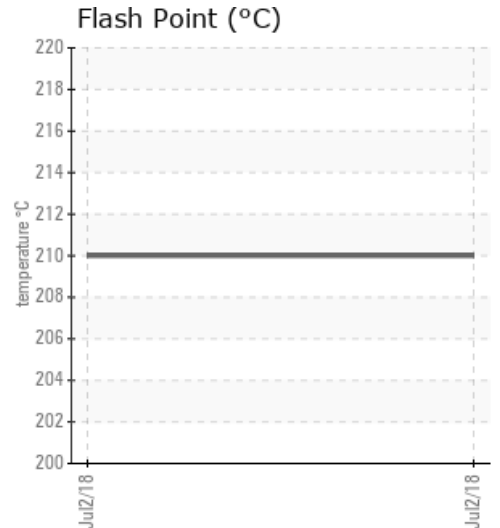
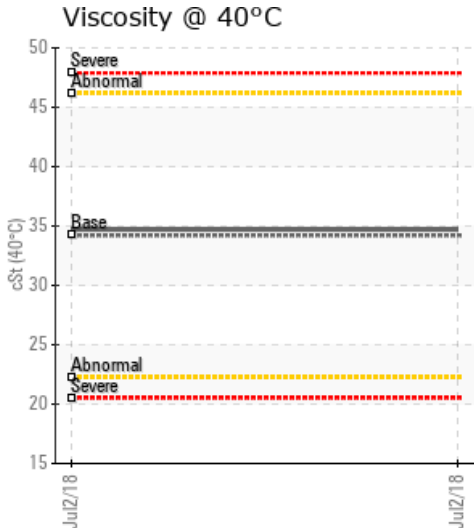
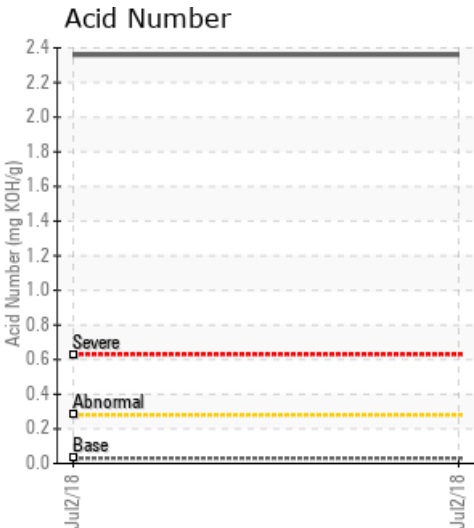
## NEAPCO

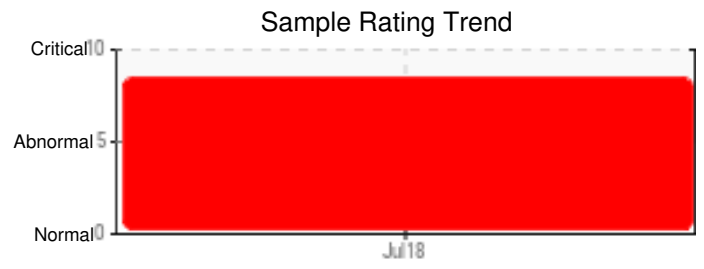
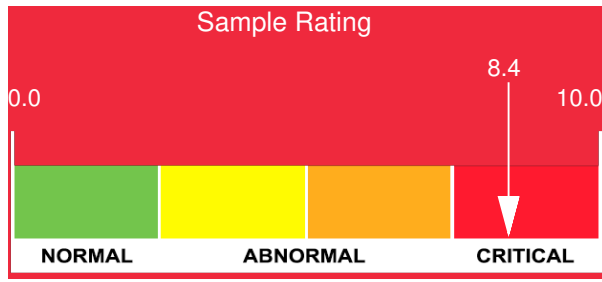
Customer: PTRHTF40112	System Information	Sample Information
Ondo sp. z o.o. ul. Czerwie&#324;skiego 3B Kraków, ZZ 31-319 Poland Attn: Boguslaw Borek Tel: 4(812)636-9943 E-Mail: boguslaw.borek@ondo.eu	System Volume: 45 ltr Bulk Operating Temp: 302F / 150C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make:	Lab No: 02282230 Analyst: Philip Riley Sample Date: 07/02/18 Received Date: 04/30/19 Completed: 05/07/19

Recommendation: Do we have any history to this system? Based on acid number and other contributory factors (water ingress, insoluble) I would recommend this system is changed with a cleaning and flushing regime incorporated. If there is a way to manage the water content in another charge of oil, the acidity levels and degradation could also be managed perhaps (with more system and application insight).

Comments: Water contamination levels are severely high. ppm Water contamination levels are severely high. Pentane Insolubles levels are severely high. Acid Number (AN) is severely high. Zinc ppm levels are abnormally high.

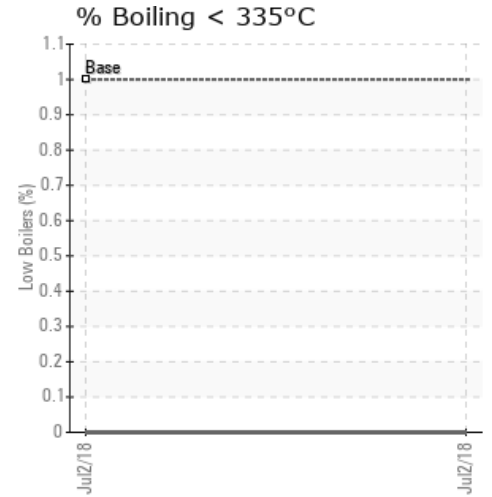
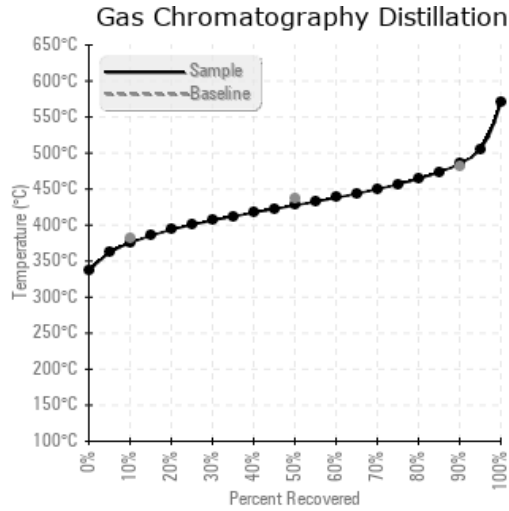
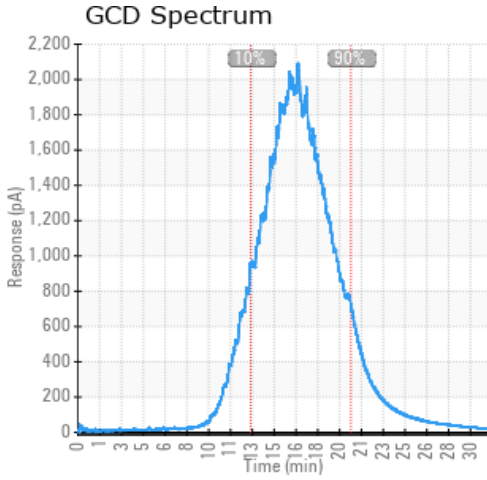
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
07/02/18	04/30/19	2700h		410 / 210	1423.5	34.7	2.36	1.06	707 / 375	801 / 427	906 / 485	0.00
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
07/02/18	9	0	0	0	0	0	0	0	0	0	9	4	0	0	0	0	0	0	0	0	11	0	244	31
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


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