

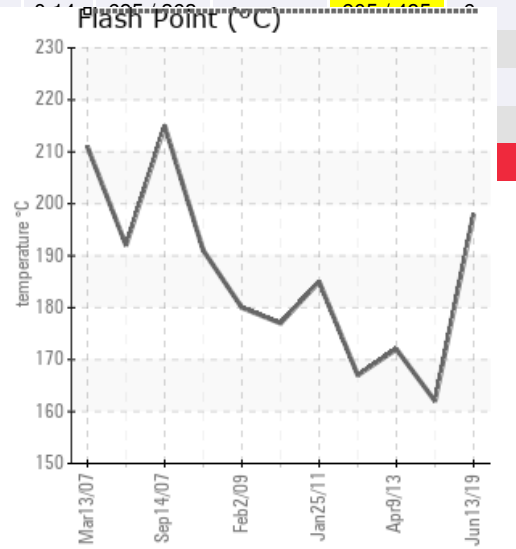
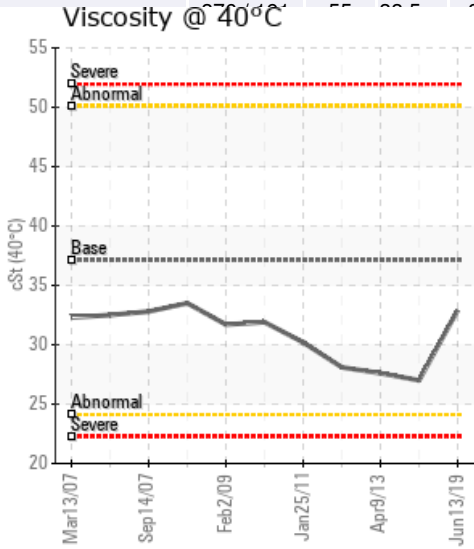
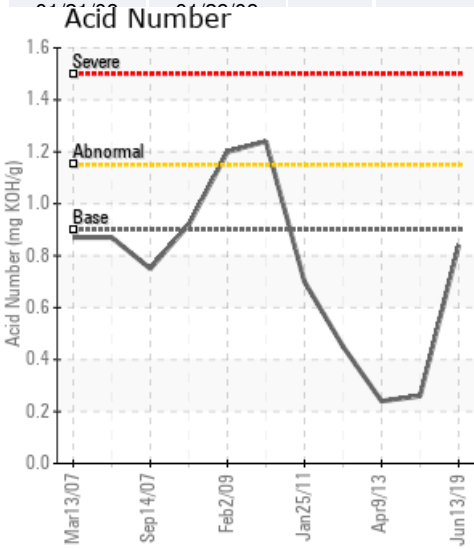
WANSON 450LN - KONUS

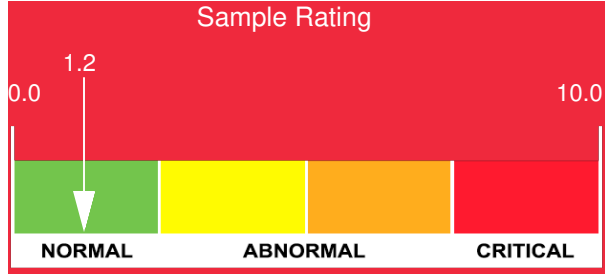
Customer: PTRHTF40042	System Information	Sample Information
MORA NV - MOL BELGIUM BERKENBOSSENLAAN 1 MOL 2400 MOL, 2400 Belgium Attn: WILBERT SNIJERS Tel: E-Mail: w.snijers@klt.nl	System Volume: 1800 ltr Bulk Operating Temp: 265F / 129C Heating Source: Blanket: Fluid: PETRO CANADA PURITY FG HEAT TRANSFER FLUID Make: WANSON	Lab No: 02291772 Analyst: Philip Riley Sample Date: 06/13/19 Received Date: 06/18/19 Completed: 06/20/19

Recommendation: Levels of Calcium and Phosphorus are unusual and high. COuld there be remnants of a cleaning agent or similar on change? All other parameters look to be in normal range with slightly low flash but nothing of concern. Fit for further use

Comments: Calcium ppm levels are abnormally high. COC Flash Point is marginally low.

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	%
06/13/19	06/18/19	0w		388 / 198	35.7	32.9	0.840	0.121	694 / 368	784 / 418	880 / 471	0.40
02/18/14	02/21/14	7w	PTRHTF40042	324 / 162	133.1	27.0	0.26	1.21	603 / 317	798 / 426	910 / 488	11.87
04/09/13	04/15/13	6w		342 / 172	43.6	27.6	0.24	0.612	652 / 344	788 / 420	889 / 476	7.60
02/02/12	02/13/12	5w	NA	333 / 167	38	28.1	0.45	0.022	636 / 336	798 / 426	894 / 479	9.945
01/25/11	01/31/11			365 / 185	103	30.2	0.7	0.547	626 / 330	794 / 424	897 / 481	10.69
12/08/09	01/27/10	3w		351 / 177	58	31.9	1.24	0.28	660 / 349		914 / 490	7.8
02/02/09	02/02/09			356 / 180	104	31.7	1.2	0.16	666 / 352		896 / 480	7.6





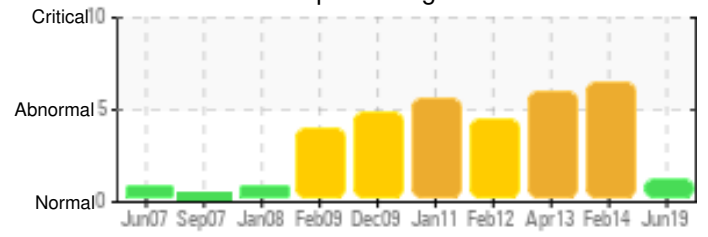
Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
06/13/19	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	0	159	0
02/18/14	164	0	0	0	0	5	0	0	0	0	2	1	0	0	0	0	1	0	0	0	1	0	97	0
04/09/13	88	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	73	0
02/02/12	5	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	3	0	0	1	40	0
01/25/11	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0
12/08/09	6	0	0	0	0	0	3	0	0	0	0	0		0	0		0			0	0	0	54	0
02/02/09	22	0	0	0	0	0	3	0	0	0	0	0		0	0		0			0	0	0	77	0
Elemental analysis results (above) in parts per million (ppm). [10,000 ppm = 1.0%]														0	0		0		0	0	0	121	0	
09/14/07	14	0	0	0	0	0		0	0	0	0	0		0	0		0			0	0	0	136	0
06/09/07	5	0	0	0	0	0	0	0	0	0	0	0		0	0		0		0	0	0	0	160	0
03/13/07	4	0	0	0	0	0	0	0	0	0	2	0		0	0		0		0	0	0	0	165	0
Baseline Data			0	0						0			0	0					0				230	

Historical Comments	
02/18/14	Oil should be changed at customers first opportunity. Pentane Insolubles levels are severely high. (GCD) 10% Distillation Point is severely low. (GCD) % < 335°C is abnormally high. COC Flash Point is abnormally low.
04/09/13	Iron ppm levels are noted. Pentane Insolubles levels are severely high. (GCD) 90% Distillation Point is low. (GCD) % < 335°C is marginally high. (GCD) 10% Distillation Point is marginally low. COC Flash Point is marginally low.
02/02/12	Sample fit for further service
01/25/11	
12/08/09	
02/02/09	
01/21/08	

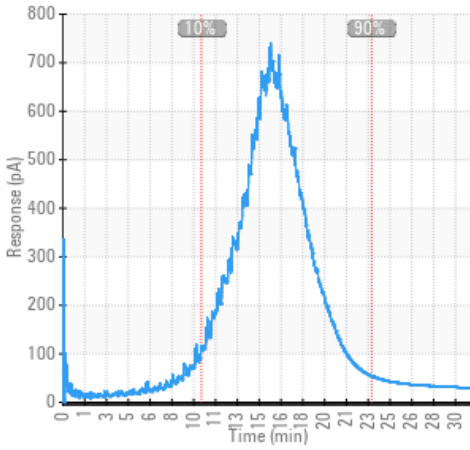
09/14/07

03/13/07

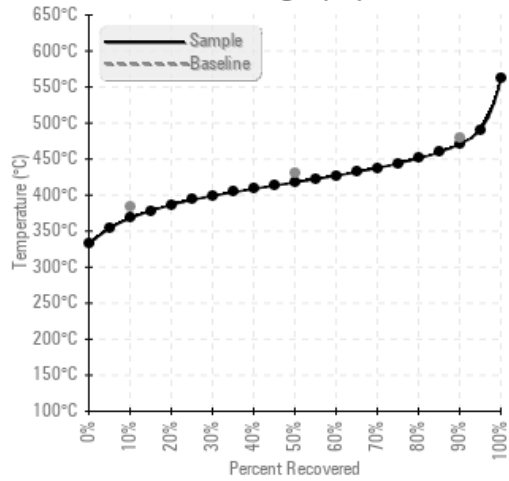
Sample Rating Trend



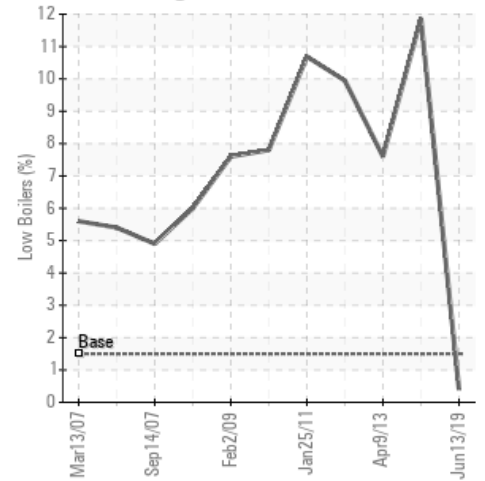
GCD Spectrum



Gas Chromatography Distillation



% Boiling < 335°C



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