

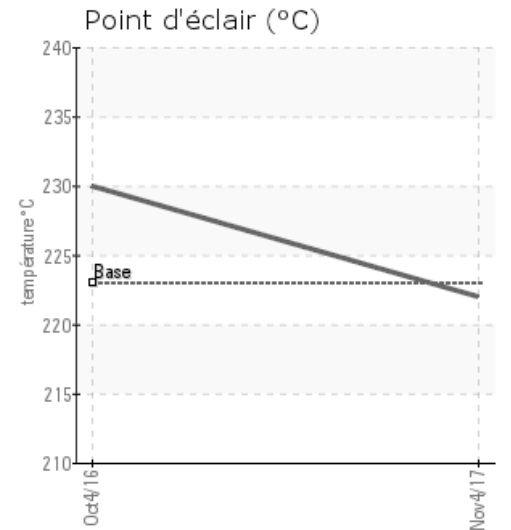
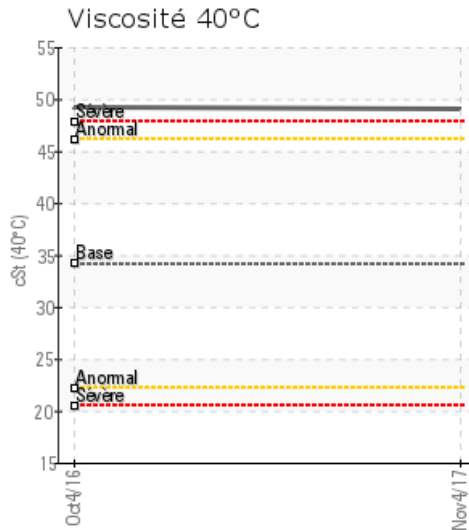
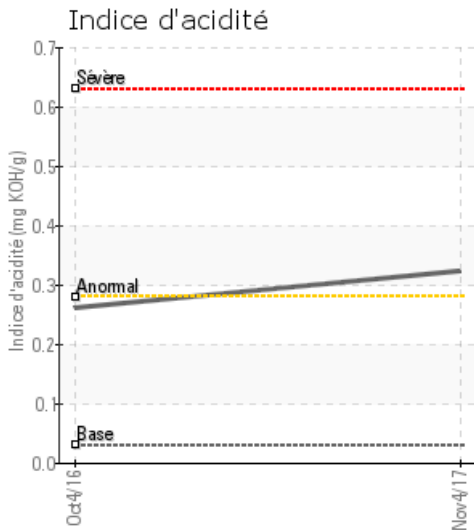
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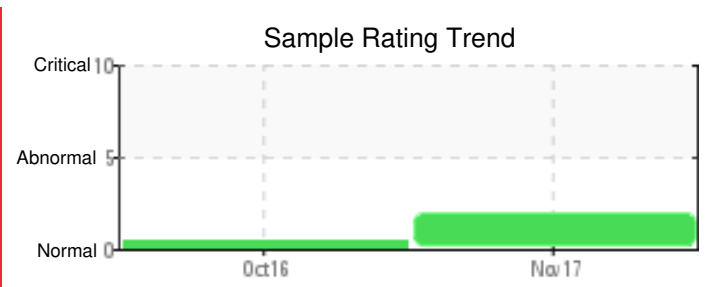
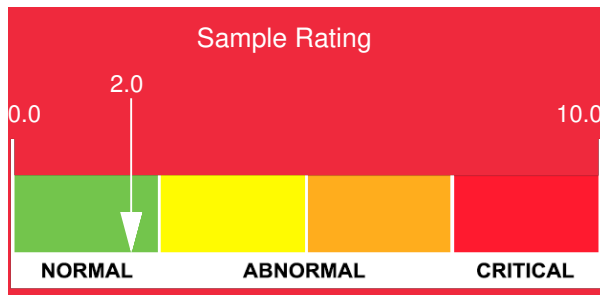
Customer: PTRHTF30091	System Information	Sample Information
PM Fabrication 17250 Cote St. Antoine Mirabel, QC J7J 2G9 Canada Attn: Guy Legault Tel: (514)771-9546 E-Mail: glegault@pmrivenord.com	System Volume: 1000 ltr Bulk Operating Temp: 350F / 177C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make:	Lab No: 02186482 Analyst: Pierre Castagne Sample Date: 11/04/17 Received Date: 12/07/17 Completed: 12/15/17 To discuss this report contact Pierre Castagne at 450-981-0693

Recommendation: Il y a trace de Bitume, la viscosité est hors norme. Reprendre un échantillon dans 6 mois.

Comments:

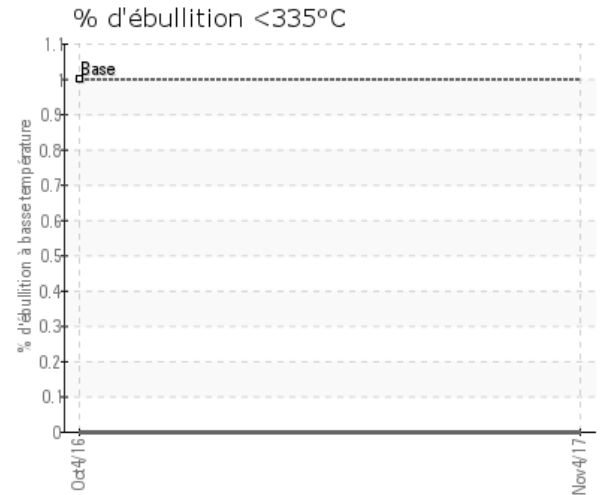
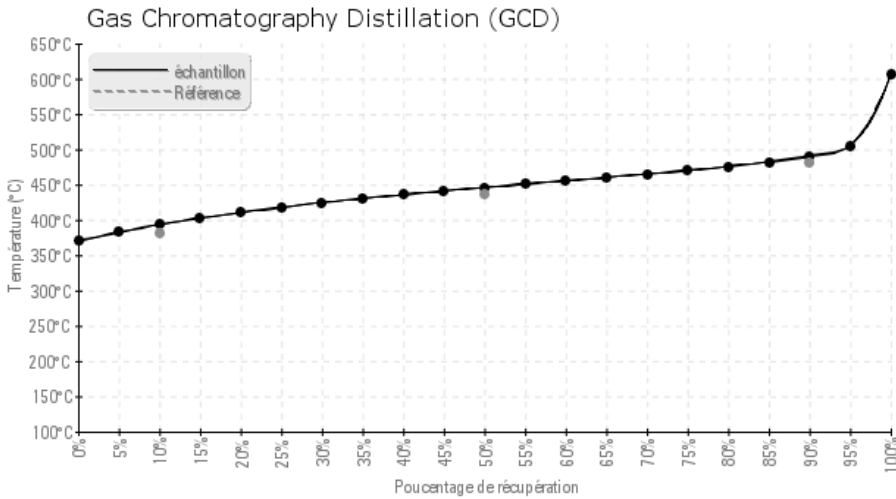
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
11/04/17	12/07/17	0y		432 / 222	22.0	49.0	0.323	0.204	740 / 394	835 / 446	915 / 491	0.00
10/04/16	10/17/16	1y	MELANGEUR	446 / 230	31.6	49.2	0.26	0.185	731 / 388	842 / 450	972 / 522	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		
11/04/17	13	0	0	0	1	3	1	1	0	0	1	2	0	0	0	0	0	0	0	0	1	0	1	21		
10/04/16	18	0	0	0	1	4	1	1	0	0	1	2	1	0	0	0	0	0	0	0	1	0	2	28		
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	
10/04/16	On constate la présence de fractions Lourdes (GCD @90°C), les fractions lourdes favorisent les dépôts de carbone ainsi qu'une augmentation de la viscosité. On constate une trace d'asphalte (Vanadium) dans l'échantillon. Il y a des additifs dans l'échantillon qui ne font pas partie des additifs typiques à un fluide caloporteur. Vérifier que vous utilisez des pompes de transfert dédiées uniquement au fluide caloporteur.

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