

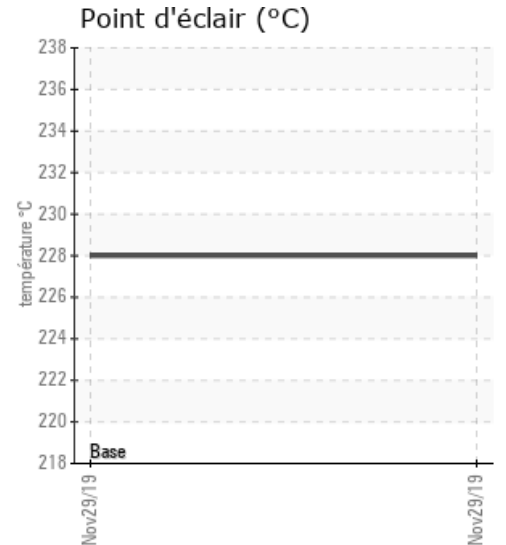
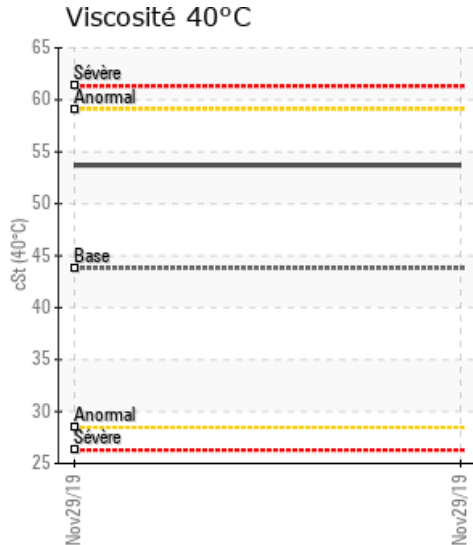
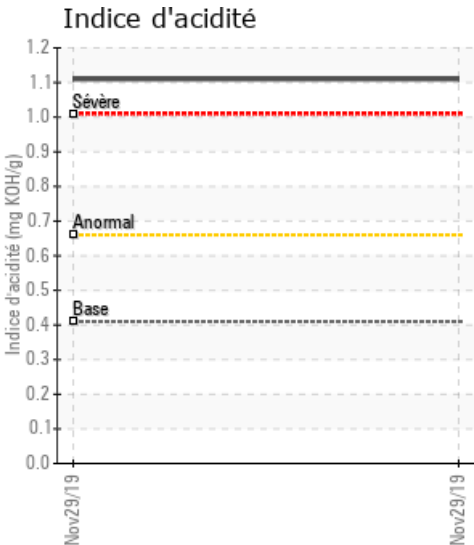
## USINE200

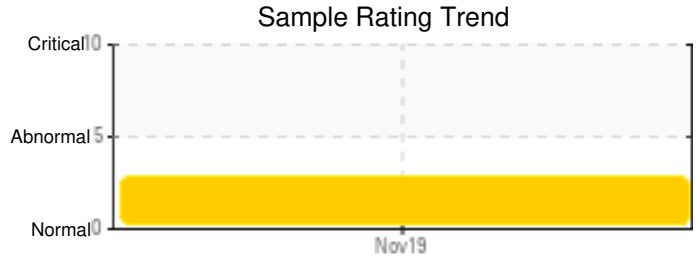
Customer: PTRHTF30149	System Information	Sample Information
Construction et Pavage Portneuf inc... 1630 Avenue le Neuf Bécancour, QC G9H 2E4 Canada Attn: Jean Francois Moisan Tel: (418)284-9249 E-Mail: jf.moisan@cppinc.ca	System Volume: 1200 ltr Bulk Operating Temp: 334F / 168C Heating Source: Blanket: Fluid: HEAT TRANSFER FLUID ISO 46 Make: ASTEC	Lab No: 02325828 Analyst: Pierre Castagne Sample Date: 11/29/19 Received Date: 12/09/19 Completed: 03/11/20 Pierre Castagne pierre.castagne@petrocanadalsp.com

Recommandation: La viscosité à 40C a augmenté: 53.7, les solides (Pentanes Insolubles) a augmenté: 1.42, l'indice d'acidité (AN) est de 1.11, les fractions légère (GCD @ 10%) ont augmenté. Le fluide caloporteur se dégrade, s'Oxyde.

Comments:

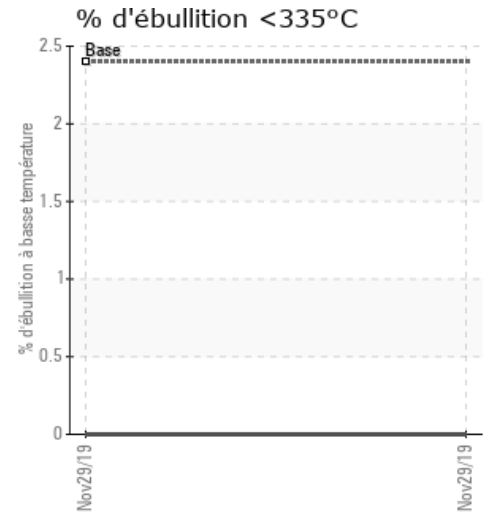
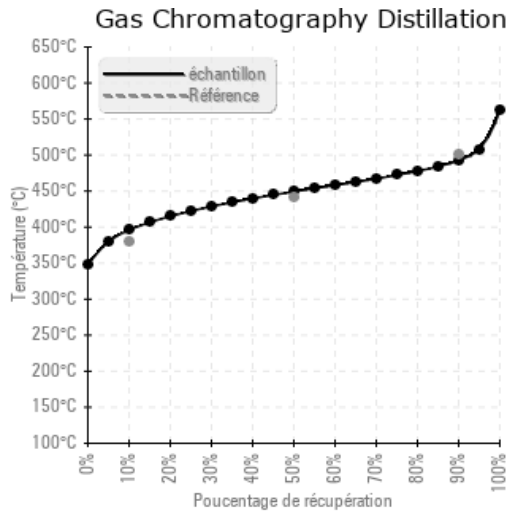
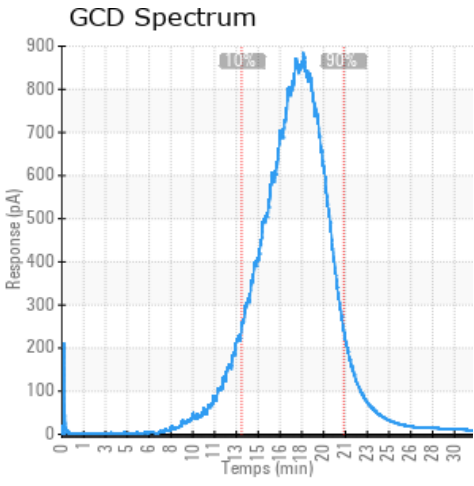
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
11/29/19	12/09/19	0y	TANK	442 / 228	69.7	53.7	1.11	1.42	745 / 396	841 / 449	919 / 493	0.00
Baseline Data				414 / 212		43.8	0.41		716 / 380	826 / 441	932 / 500	2.4





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
11/29/19	68	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	3
<b>Baseline Data</b>			0	0						0			0	0					5					250

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



### Historical Comments


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