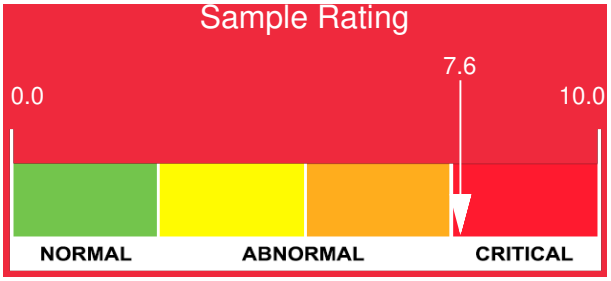
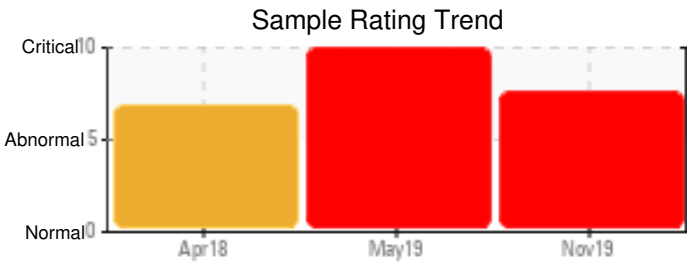




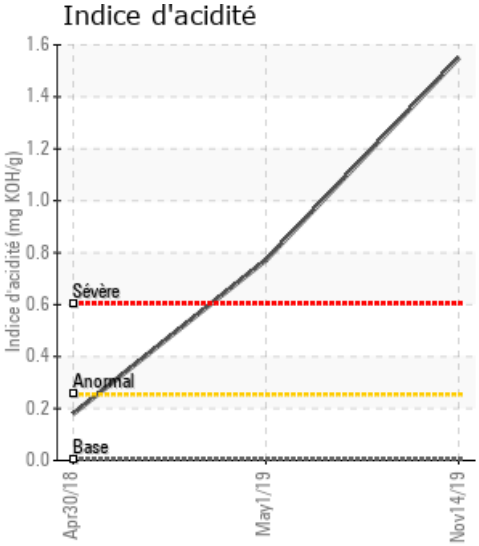
[LIGNE DE RETOUR AVAN POMPE] FOURNAISE

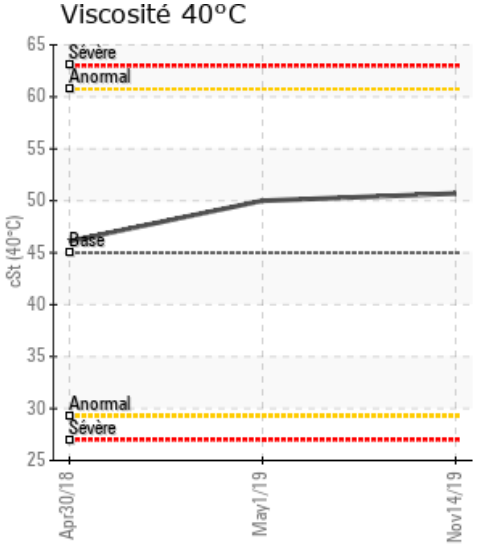
Customer: PTRHTF30114	System Information	Sample Information
ASPHALTE DRUMMOND INC 555 ROCHELEAU DRUMMONDVILLE, QC J2C 6L8 Canada Attn: Steve Lacharite Tel: (819)472-7474 E-Mail: asphalte@cgocable.ca	System Volume: 2000 ltr Bulk Operating Temp: 356F / 180C Heating Source: Blanket: Fluid: PARATHERM HE Make: HI-WAY	Lab No: 02327611 Analyst: Pierre Castagne Sample Date: 11/14/19 Received Date: 12/17/19 Completed: 03/11/20 Pierre Castagne pierre.castagne@petrocanadalsp.com

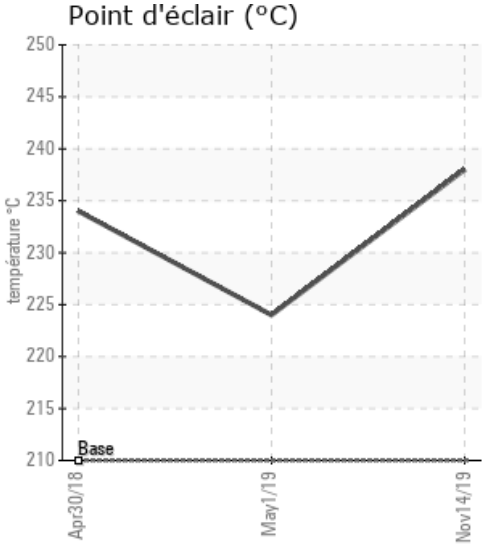
Recommendation: Il y a présence de plomb (Lead) 40 ppm, la limite supérieur est de 41 ppm. L`Indice d`acidit. (AN) est élevé 1.55, les solides (Pentanes Insolubles) 1.87, les fractions lourdes (GCD 90%) sont basses. Le fluide se dégrade.

Comments:

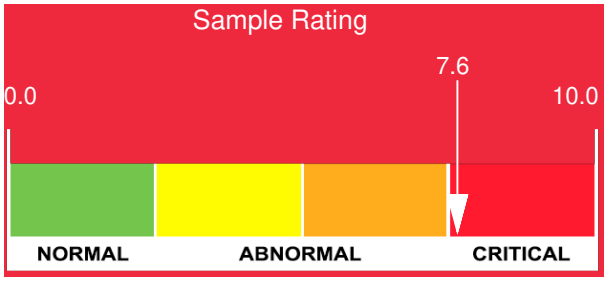
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
11/14/19	12/17/19	37492h	RETURN	460 / 238	20.0	50.7	1.55	1.87	704 / 374	785 / 418	896 / 480	0.00
05/01/19	07/19/19	32572h	RETURN BEFORE PUMP	435 / 224	42.9	50.0	0.772	0.626	734 / 390	822 / 439	912 / 489	1.36
04/30/18	05/09/18	27364h	PARATHERM-HE	453 / 234	17.9	46.1	0.18	0.147	728 / 387	827 / 442	918 / 492	0.41
Baseline Data				410 / 210		45	0.004		725 / 385		945 / 507	0.74

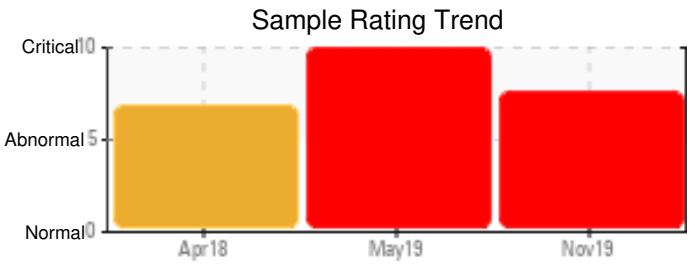






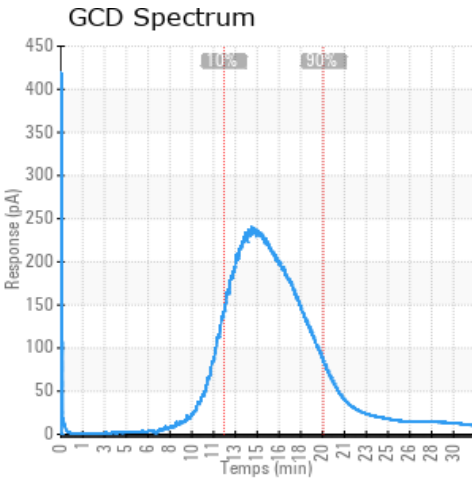
PETRO-CANADA LUBRICANTS

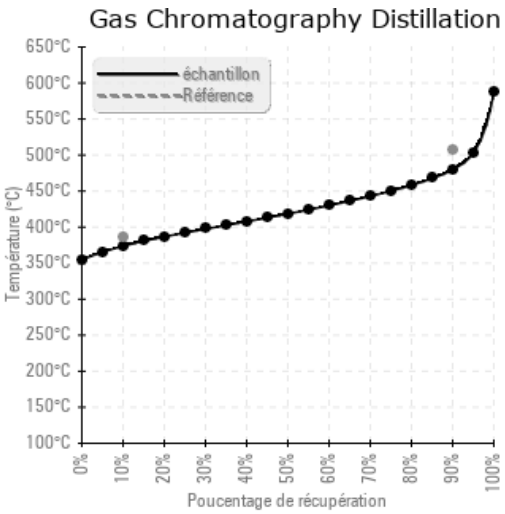


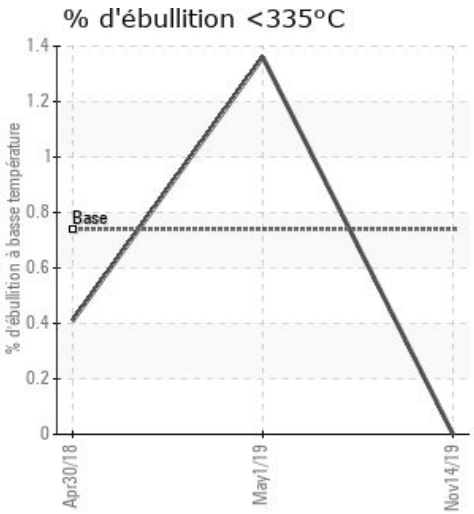


Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
11/14/19	4	0	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
05/01/19	4	0	0	0	0	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	3
04/30/18	4	0	0	0	0	58	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	2
Baseline Data			0	0						0			0	0					0				0	

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







Historical Comments

05/01/19	IL y a des fractions lourdes dans l'huile (GCD 90%), l'acidité de l'huile (AN) est élevé, les insolubles sont élevées.Recommendation: Vidanger l'huile nettoyer/rincer le système et remplir avec une nouvelle charge de fluide caloporteur
04/30/18	Il y a une grande presence de plomb, les fractions lourdes (GCD@90%), sont élevées. Les fractions lourdes favorisent les depots de carbone ainsi qu'une augmentation de la viscosité. La viscosité est de 46.1 cSt @40C.