

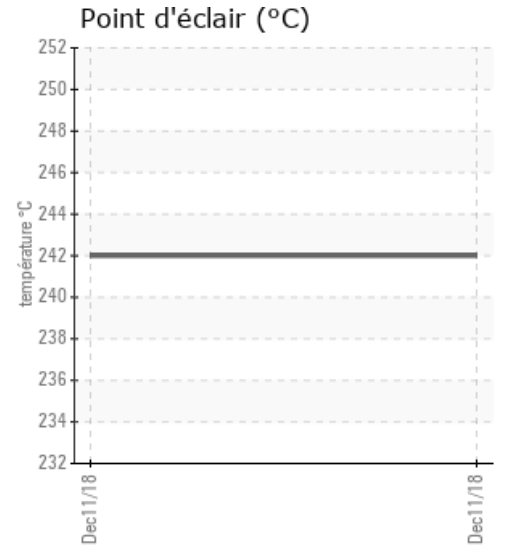
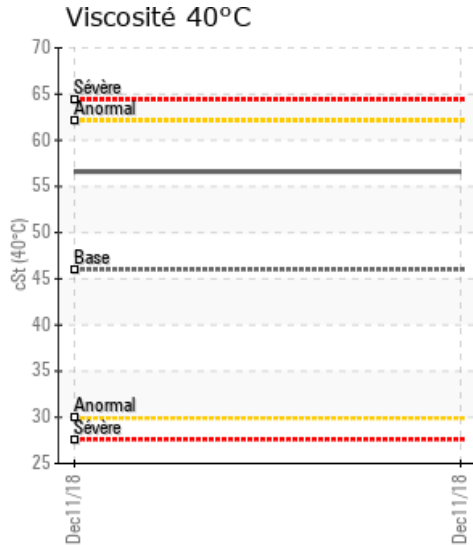
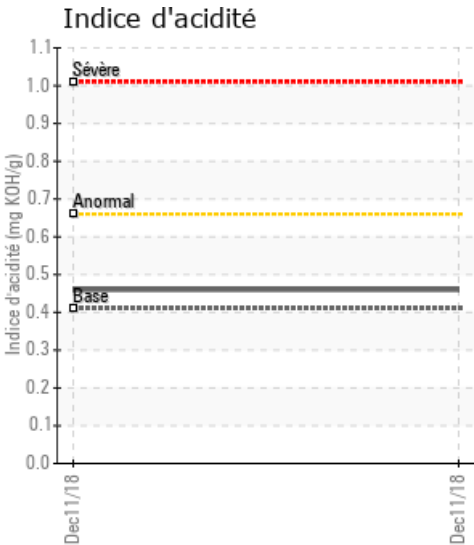
## HEAT TRANSFER

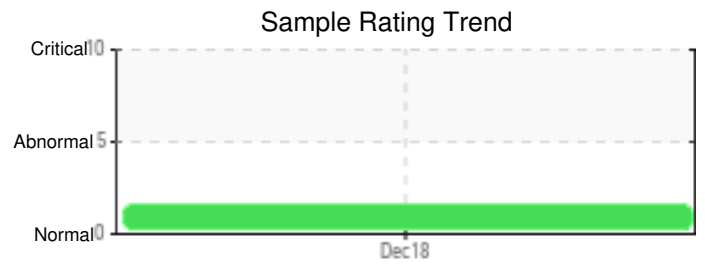
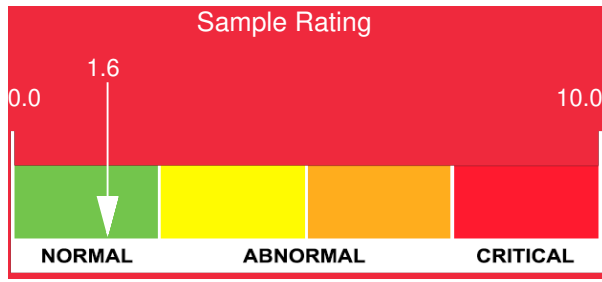
Customer: PTRHTF30123	System Information	Sample Information
LES INDUSTRIES MCASPHALT LTEE 7905 DUPLESSIS ST-HYAVINTHE, QC J2R 1S5 Canada Attn: Luc Paradis Tel: (450)779-1338 E-Mail: lparadis@mcasphalt.com	System Volume: 15000 ltr Bulk Operating Temp: 428F / 220C Heating Source: Blanket: Fluid: HEAT TRANSFER FLUID ISO 46 Make:	Lab No: 02256872 Analyst: Pierre Castagne Sample Date: 12/11/18 Received Date: 12/12/18 Completed: 01/17/19

Recommandation: On remarque la présence de bitume dans l'échantillon, on soupçonne une fuite de bitume dans l'huile. La viscosité est élevée (devrait être 35.8 @ 40°C, ISO 32), l'acidité (AN) est élevé. Les insolubles au pentane sont très élevés, le soufre est très élevé. Est-ce possible que vous avez fait un ajout (top-up) Recommandation: On vous recommande de vidanger, nettoyer, rincer le système et de remplir avec une nouvelle charge de Petro-Therm 32

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	%
12/11/18	12/12/18	0y		468 / 242	26.1	56.6	0.46	0.642	735 / 390	848 / 454	934 / 501	1.80
Baseline Data				32 / 0		46	0.41		721 / 383	835 / 446	930 / 499	2.8

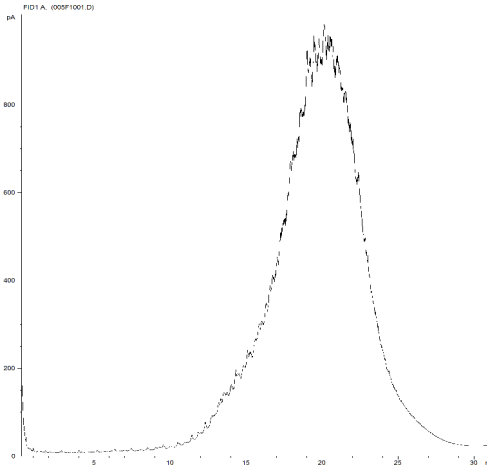




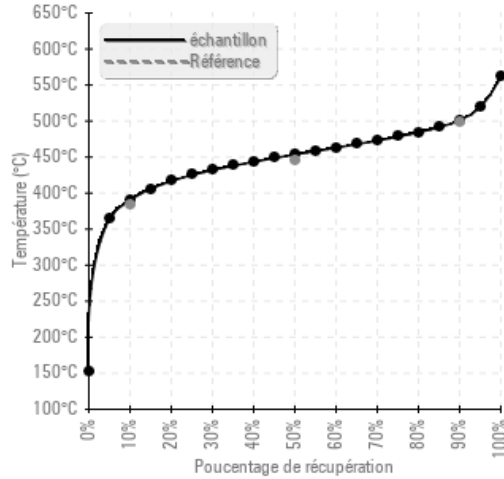
Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
12/11/18	6	0	1	0	0	0	0	0	0	3	0	2	0	0	0	0	0	0	0	1	9	0	4	0
Baseline Data			0	0						0		0	0	0					5				250	

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

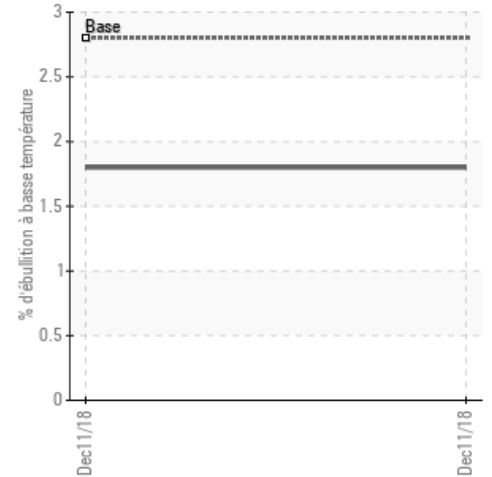
#### GCD Spectrum



#### Gas Chromatography Distillation



#### % d'ébullition <335°C



#### Historical Comments


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