

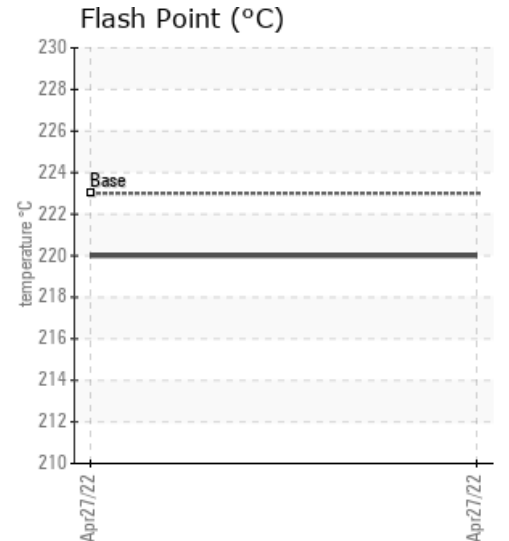
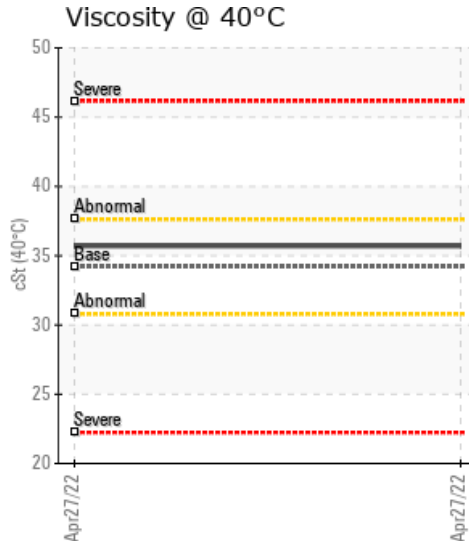
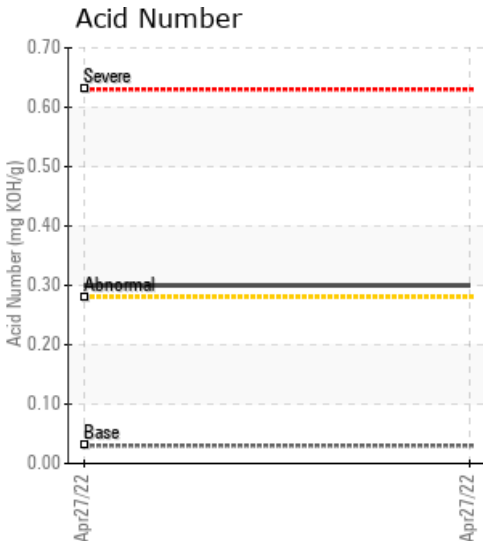
## HEAT TRANSFER

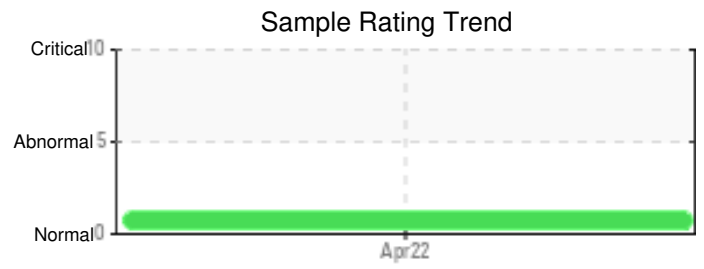
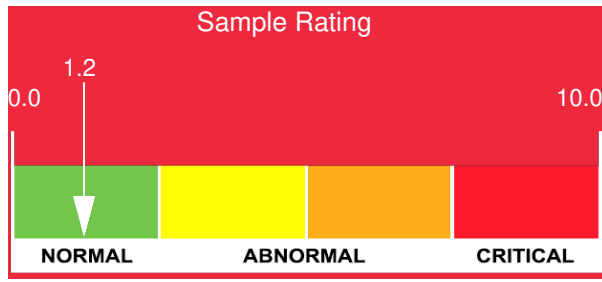
Customer: PTRHTF20218	System Information	Sample Information
McAsphalt Industries 61065 TWP 730 Clairmont, AB T8X 0T8 Canada Attn: Jim Reid Tel: (780)567-2145 E-Mail: jreid@mcasphalt.com	System Volume: 0 ltr Bulk Operating Temp: 400F / 204C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make: CEI	Lab No: 02509198 Analyst: Peter Hartevelde Sample Date: 04/27/22 Received Date: 09/06/22 Completed: 09/12/22 Peter Hartevelde peter.hartevelde@hollyfrontier.com

Recommendation: With the exception of the acid number (AN) the fluid is in a near fresh condition. Since the test method for AN is not the most accurate and there is no corrosion taking place, (Fe is at 2 ppm.) the AN can be ignored. The fluid is suitable for use. Please re-sample in 6 months.

Comments: Acid Number (AN) is abnormally high.

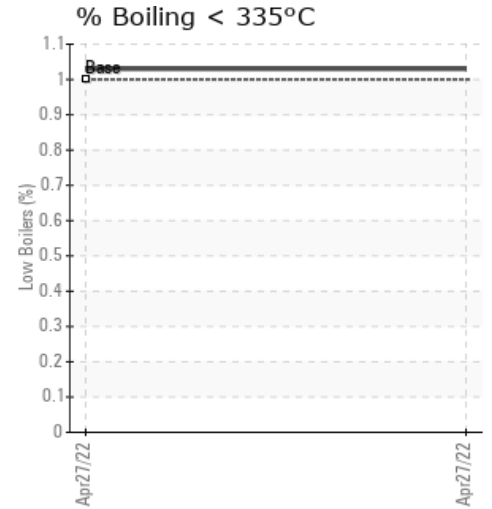
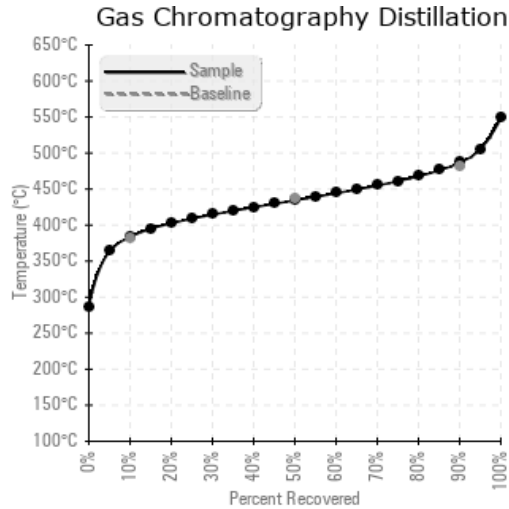
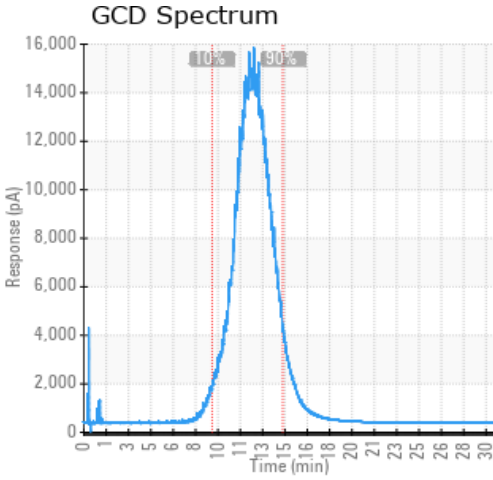
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
04/27/22	09/06/22	0.0y		428 / 220	22.7	35.7	0.30	0.096	722 / 384	814 / 434	908 / 487	1.03
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
04/27/22	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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


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