

CORROSION CONTAMINANTS FUEL CONDITION

NORMAL ABNORMAL ABNORMAL

[AU130951]

72056383

Diesel Fuel

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History
We advise that you check for the source of water entry. We advise that you filter this fluid before use. We advise that you follow the water drain-off procedure for this component. The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.	Sample Number		Client Info		CU0020215		
	Sample Date		Client Info		28 Apr 2023		
	Machine Age	hrs	Client Info		42		
	Sample Status				ABNORMAL		
CORROSION	Aluminum	ppm	ASTM D5185(m)	<0.1	0		
	Nickel	ppm	ASTM D5185(m)		0		
{not applicable}	Lead	ppm	ASTM D5185(m)	<0.1	0		
	Vanadium	ppm	ASTM D5185(m)	<0.1	0		
	Iron	ppm	ASTM D5185(m)	<0.1	<1		
CONTAMINANTS	Silicon	ppm	ASTM D5185(m)	<1.0	0		
There is a moderate amount of silt (particulates < 14 microns in size) present in the fuel. Free water present. There is no bacteria or fungus (yeast and/or mold) present in the sample.	Sodium	ppm	ASTM D5185(m)		<1		
	Potassium	ppm	ASTM D5185(m)	<0.1	0		
	Water	%	ASTM D6304*	< 0.05	0.010		
	ppm Water	ppm	ASTM D6304*	<500	100.8		
	Particles >4µm		ASTM D7647	>2500	<u> </u>		
	Particles >6µm		ASTM D7647	>640	2725		
	Particles >14μm		ASTM D7647	>80	79		
	Particles >21μm		ASTM D7647	>20	22		
	Particles >38μm		ASTM D7647	>4	1		
	Particles >71μm		ASTM D7647	>3	0		
	Oil Cleanliness		ISO 4406 (c)	>18/16/13	<u>^</u> 21/19/13		
	Bacteria	CFU/ml	ASTM D6469*	>=100000	0		
	Yeast	CFU/ml	ASTM D6469*	>=100000	0		
	Mold	Colonies	ASTM D6469*	MODER	NONE		
	Calcium	ppm	ASTM D5185(m)	<0.1	<1		
	Magnesium	ppm	ASTM D5185(m)	<0.1	0		
	Phosphorus	ppm	ASTM D5185(m)		<1 4		
	Zinc	ppm	ASTM D5185(m)	<0.1			
UEL CONDITION	Specific Gravity		ASTM D1298*	0.839	0.842		
The fuel is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.	Fuel Color	text	Visual Screen*	Yllow	Orang		
	Visc @ 40°C	cSt	ASTM D7279(m)	3.0	2.6		
	Pensky-Martens Flash Point	°C	ASTM D7215*	52	55.3		
	Sulfur	ppm	ASTM D5185(m)	250	44		
	Initial Boiling Point 10% Distill Point		ASTM D2887* ASTM D2887*		166		
	20% Distill Point		ASTM D2887*	201	200		
	30% Distill Point		ASTM D2887*	230	216 230		
	40% Distill Point		ASTM D2887*	243	243		
	50% Distill Point		ASTM D2887*	255	243 255		
	60% Distill Point		ASTM D2887*		269		
	70% Distill Point		ASTM D2887*	280	282		
	80% Distill Point		ASTM D2887*		298		
	90% Distill Point		ASTM D2887*	310	321		
	Final Boiling Point		ASTM D2887*	341	362		

API Gravity

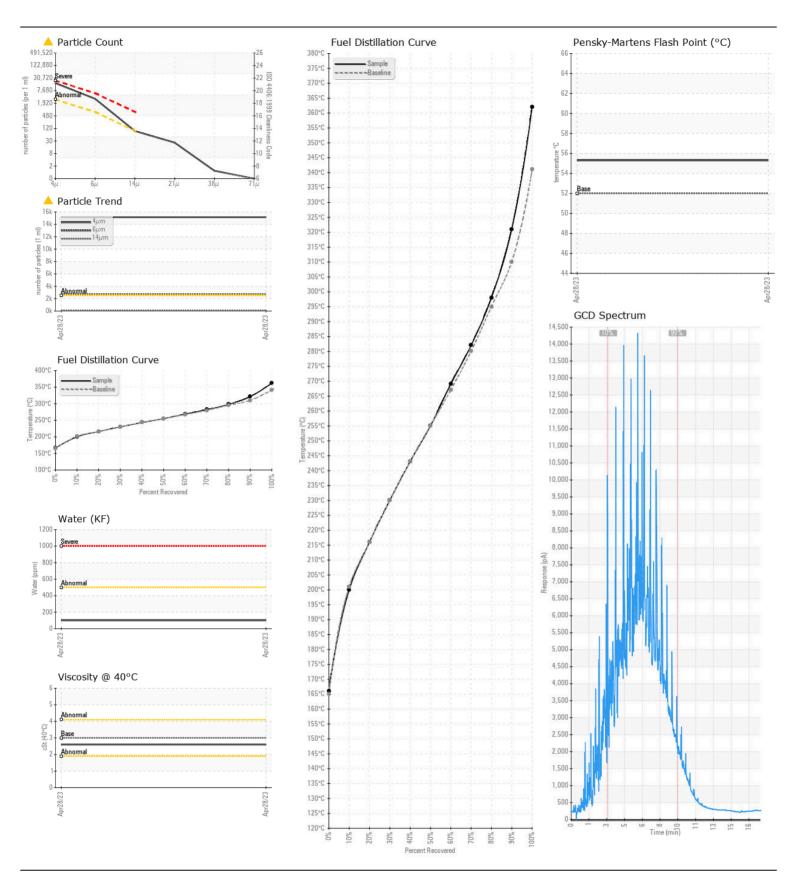
Cetane Index

36

46

ASTM D1298* 37.7

ASTM D4737* <40.0





CALA ISO 17025:2017 Accredited Laboratory

Report Id: CUMDAR [WCAMIS] 02555638 (Generated: 03/13/2024 17:01:05) Rev: 1

Laboratory Sample No.

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : CU0020215 Lab Number : 02555638

Unique Number : 5568653

Received **Tested** Diagnosed Test Package : FUEL (Additional Tests: Bacteria, Bottom, CC Flash, GC-PercFuel, PrtCourtontat: Maurice Connolly

: 04 May 2023 : 08 May 2023

: 08 May 2023 - Kevin Marson

CUMMINS DIESEL 50 SIMMONDS DRIVE DARTMOUTH, NS **CA B3B 1R3**

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. maurice.connolly@cummins.com T: (902)468-7938

F: (902)468-5177