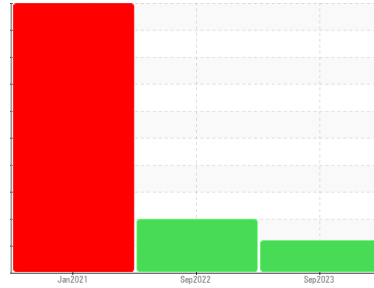




FUEL REPORT

Sample Rating Trend



ISO



Area
DICOM [147598]
 Machine Id
21800673
 Component
Diesel Fuel
 Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)

DIAGNOSIS

Recommendation

Laboratory test indicate that this fuel is suitable for use and meets all test requirements. We advise that you filter this fluid before use. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Corrosion

{not applicable}

Contaminants

There is a light amount of silt (particulates < 14 microns in size) present in the fuel. The water content is negligible.

Fuel Condition

All laboratory tests indicate that this sample meets specifications for No.2 ultra-low-sulfur diesel fuel (US EPA/CGSB-3.517-3 type B).

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	CU0021377	CU0016532	CU0017299
Sample Date	Client Info	06 Sep 2023	27 Sep 2022	05 Jan 2021
Machine Age	hrs	221	218	191
Sample Status		ATTENTION	ABNORMAL	SEVERE

PHYSICAL PROPERTIES

method	limit/base	current	history1	history2		
Specific Gravity	ASTM D1298*	0.839	0.839	0.839	0.844	
Fuel Color	text	Visual Screen*	Yllow	Pink	Pink	Pink
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	2.5	2.6	2.5
Pensky-Martens Flash Point	°C	ASTM D7215*	52	59.6	55.8	54.6

SULFUR CONTENT

method	limit/base	current	history1	history2		
Sulfur	ppm	ASTM D5185(m)	10	9	8	4

DISTILLATION

method	limit/base	current	history1	history2		
Initial Boiling Point	°C	ASTM D2887*	165	171	153	152
5% Distillation Point	°C	ASTM D2887*		194	187	186
10% Distill Point	°C	ASTM D2887*	201	204	199	198
15% Distillation Point	°C	ASTM D2887*		212	208	207
20% Distill Point	°C	ASTM D2887*	216	219	215	214
30% Distill Point	°C	ASTM D2887*	230	234	230	229
40% Distill Point	°C	ASTM D2887*	243	248	244	243
50% Distill Point	°C	ASTM D2887*	255	261	258	257
60% Distill Point	°C	ASTM D2887*	267	275	271	271
70% Distill Point	°C	ASTM D2887*	280	289	286	286
80% Distill Point	°C	ASTM D2887*	295	304	303	303
85% Distillation Point	°C	ASTM D2887*		315	312	313
90% Distill Point	°C	ASTM D2887*	310	325	323	325
95% Distillation Point	°C	ASTM D2887*		343	338	340
Final Boiling Point	°C	ASTM D2887*	341	363	345	354

IGNITION QUALITY

method	limit/base	current	history1	history2	
API Gravity	ASTM D1298*	37.7	37	37	36
Cetane Index	ASTM D4737*	<40.0	49	48	46

CONTAMINANTS

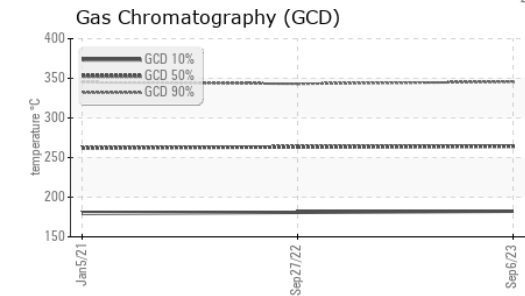
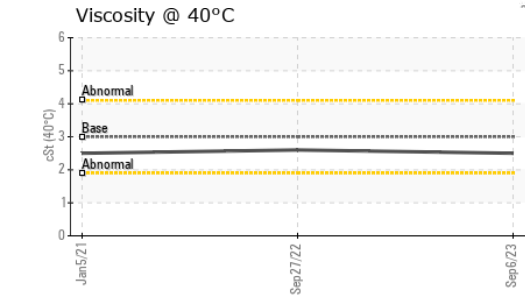
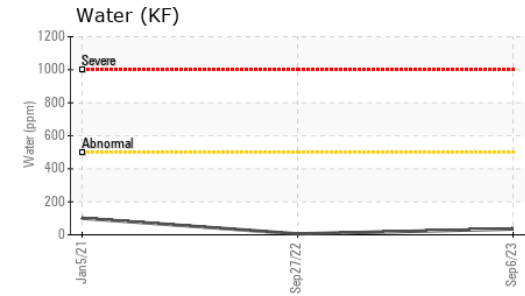
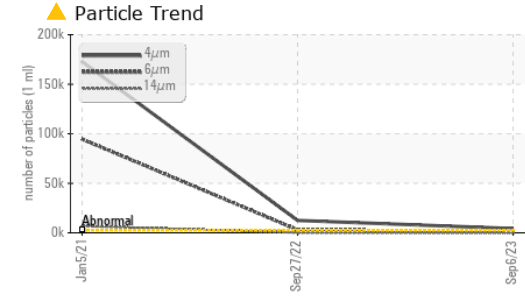
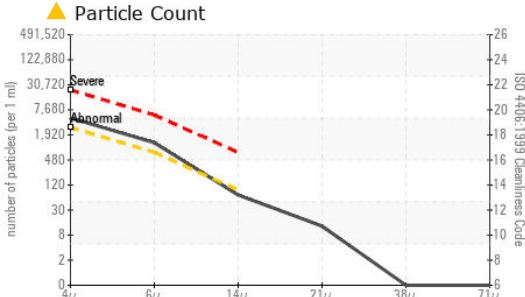
method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	<1.0	0	0	0
Sodium	ppm	ASTM D5185(m)	<0.1	0	<1	<1
Potassium	ppm	ASTM D5185(m)	<0.1	<1	0	0
Water	%	ASTM D6304*	<0.05	0.003	0.001	0.010
ppm Water	ppm	ASTM D6304*	<500	35.4	5.7	100.7

FLUID CLEANLINESS

method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647	>2500	▲ 4285	▲ 12522	● 172797
Particles >6µm	ASTM D7647	>640	▲ 1089	▲ 2946	● 94576
Particles >14µm	ASTM D7647	>80	61	▲ 145	● 6775
Particles >21µm	ASTM D7647	>20	11	▲ 42	● 679
Particles >38µm	ASTM D7647	>4	0	5	2
Particles >71µm	ASTM D7647	>3	0	1	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ 19/17/13	▲ 21/19/14	● 25/24/20



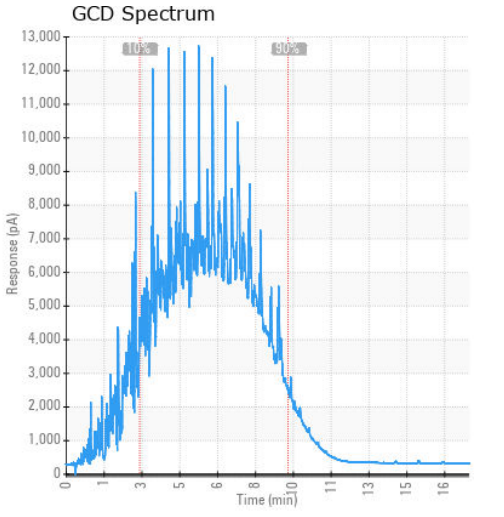
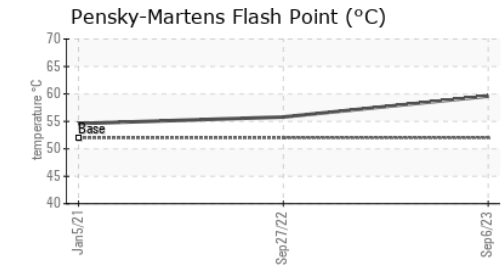
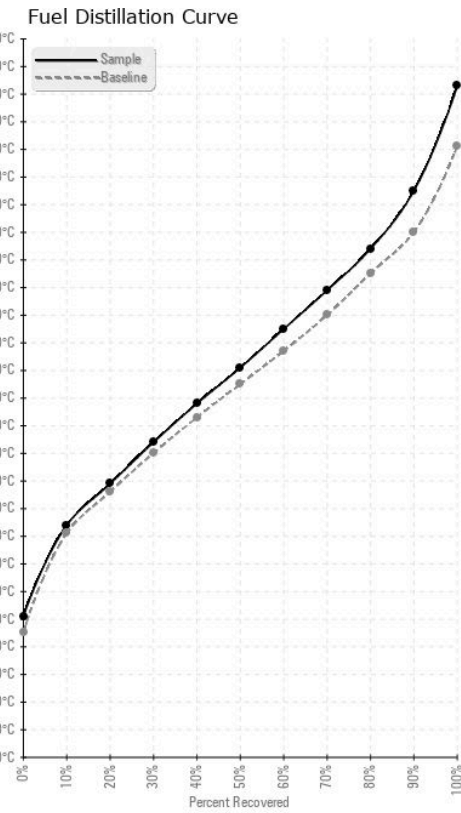
FUEL REPORT



HEAVY METALS	method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185(m)	<0.1	0	0
Nickel	ppm	ASTM D5185(m)	<0.1	0	0
Lead	ppm	ASTM D5185(m)	<0.1	0	0
Vanadium	ppm	ASTM D5185(m)	<0.1	0	0
Iron	ppm	ASTM D5185(m)	<1	<1	▲ 3
Calcium	ppm	ASTM D5185(m)	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	0	0	<1
Phosphorus	ppm	ASTM D5185(m)	<1	<1	<1
Zinc	ppm	ASTM D5185(m)	<1	<1	<1

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CUMMINS CANADA ULC - GENERATOR DIVISION
Sample No. : CU0021377 **Received** : 06 Oct 2023 7175 PACIFIC CIRCLE
Lab Number : 02587883 **Diagnosed** : 11 Oct 2023 MISSISSAUGA, ON
Unique Number : 5656949 **Diagnostician** : Kevin Marson CA L5T 2A5
Test Package : FUEL (Additional Tests: CC Flash, GC-PercFuel, PrtCount)
 Contact: Elisia Johnson
 elisia.johnson@cummins.com
 T: (905)795-0050
 F: (905)795-9252

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.
 Validity of results and interpretation are based on the sample and information as supplied.