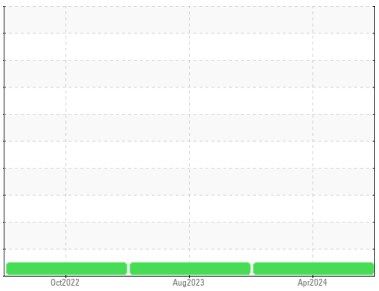
FUEL REPORT

Sample Rating Trend



NORMAL

Area
RIOCAN [154336]
Machine Id
37253537 TOWER A
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. Resample at the next service interval to monitor.

Contaminants
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. There is no indication of any contamination in the diesel fuel.

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		**CU0022899**	CU0016524	CU0019662
Sample Date		Client Info		**27 Apr 2024**	18 Aug 2023	17 Oct 2022
Machine Age	hrs	Client Info		**238**	216	193
Sample Status				**NORMAL**	NORMAL	NORMAL

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		ASTM D1298*	0.839	**0.843**	0.842	0.843
Fuel Color	text	Visual Screen*	Yllow	**Pink**	Pink	Red
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	**2.5**	2.5	2.6
Pensky-Martens Flash Point	°C	ASTM D7215*	52	**60**	63.5	65.3

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185(m)	10	**9**	10	11

DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D2887*	165	**172**	175	162
5% Distillation Point	°C	ASTM D2887*		**195**	198	193
10% Distill Point	°C	ASTM D2887*	201	**205**	207	204
15% Distillation Point	°C	ASTM D2887*		**213**	215	213
20% Distill Point	°C	ASTM D2887*	216	**220**	222	220
30% Distill Point	°C	ASTM D2887*	230	**233**	236	234
40% Distill Point	°C	ASTM D2887*	243	**245**	247	246
50% Distill Point	°C	ASTM D2887*	255	**257**	259	258
60% Distill Point	°C	ASTM D2887*	267	**270**	271	270
70% Distill Point	°C	ASTM D2887*	280	**282**	283	283
80% Distill Point	°C	ASTM D2887*	295	**296**	297	298
85% Distillation Point	°C	ASTM D2887*		**306**	307	306
90% Distill Point	°C	ASTM D2887*	310	**317**	317	316
95% Distillation Point	°C	ASTM D2887*		**335**	334	334
Final Boiling Point	°C	ASTM D2887*	341	**359**	361	348

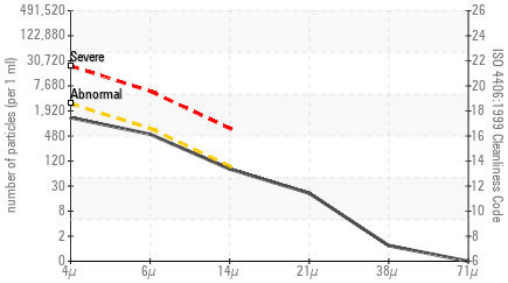
IGNITION QUALITY	method	limit/base	current	history1	history2
API Gravity	ASTM D1298*	37.7	**36**	36	36
Cetane Index	ASTM D4737*	<40.0	**46**	47	46

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	<1.0	**0**	0	0
Sodium	ppm	ASTM D5185(m)	<0.1	**<1**	0	<1
Potassium	ppm	ASTM D5185(m)	<0.1	**0**	<1	0
Water	%	ASTM D6304*	<0.05	**0.003**	0.003	0.002
ppm Water	ppm	ASTM D6304*	<500	**30**	25.3	23.6

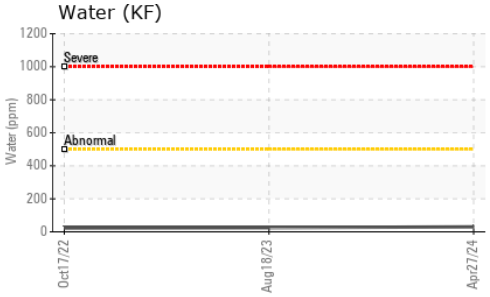
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	**1159**	636	709
Particles >6µm	ASTM D7647	>640	**464**	278	157
Particles >14µm	ASTM D7647	>80	**68**	41	8
Particles >21µm	ASTM D7647	>20	**18**	11	2
Particles >38µm	ASTM D7647	>4	**1**	0	0
Particles >71µm	ASTM D7647	>3	**0**	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	**17/16/13**	16/15/13	17/14/10

FUEL REPORT

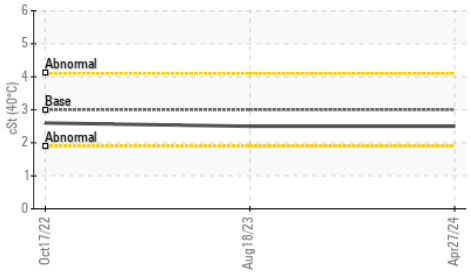
Particle Count



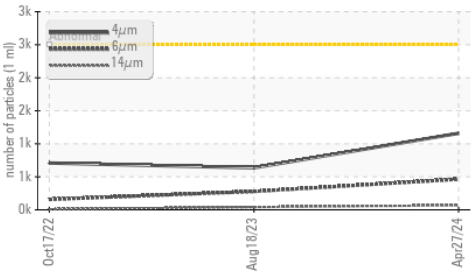
Water (KF)



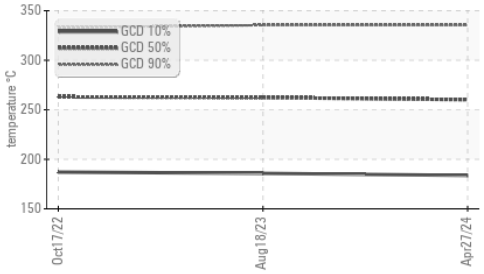
Viscosity @ 40°C



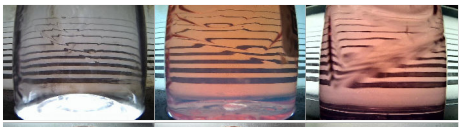
Particle Trend



Gas Chromatography (GCD)

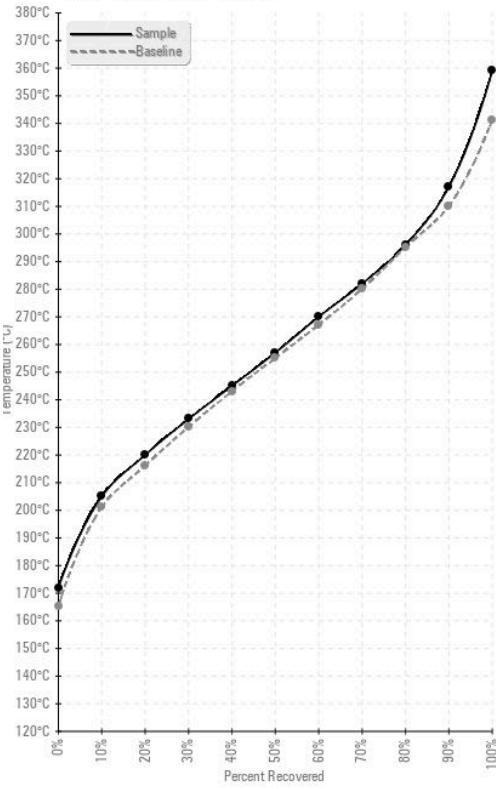


HEAVY METALS		method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185(m)	<0.1	**0**	0	0
Nickel	ppm	ASTM D5185(m)	<0.1	**0**	0	0
Lead	ppm	ASTM D5185(m)	<0.1	**0**	0	<1
Vanadium	ppm	ASTM D5185(m)	<0.1	**0**	0	0
Iron	ppm	ASTM D5185(m)	<0.1	**0**	<1	<1
Calcium	ppm	ASTM D5185(m)	<0.1	**<1**	<1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

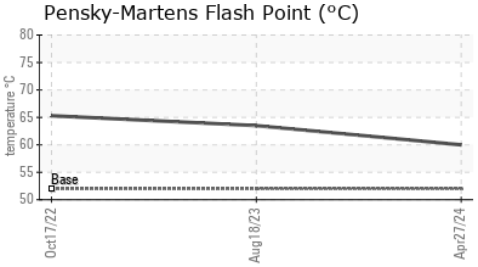
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

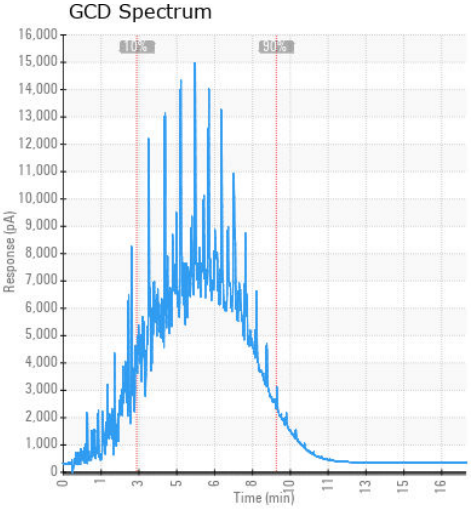
Fuel Distillation Curve



Pensky-Martens Flash Point (°C)



GCD Spectrum



CALA Testing Accreditation No. 1005078
ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : CU0022899
Lab Number : 02640921
Unique Number : 5798460
Test Package : FUEL (Additional Tests: CC Flash, PrtCount)

Received : 10 Jun 2024
Tested : 12 Jun 2024
Diagnosed : 12 Jun 2024 - Kevin Marson

CUMMINS CANADA ULC - GENERATOR DIVISION
7175 PACIFIC CIRCLE
MISSISSAUGA, ON
CA L5T 2A5
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.