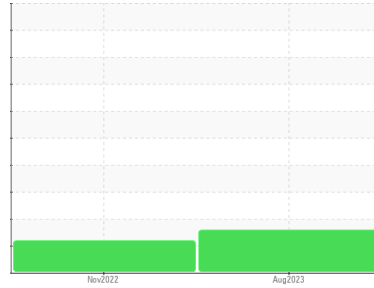




FUEL REPORT

Sample Rating Trend



ISO



Area
APTUM [146797]
 Machine Id
FIRE PUMP

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 perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We advise that you filter this fluid before use. We recommend an early resample to monitor this condition.

Corrosion

(not applicable)

▲ Contaminants

There is a moderate amount of particulates (2 to 100 microns in size) present in the fuel. The water content is negligible.

Fuel Condition

The fuel is still serviceable provided that the contaminant(s) can be reduced to acceptable levels. 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			CU0021395	CU0019658	---
Sample Date	Client Info			14 Aug 2023	25 Nov 2022	---
Machine Age	hrs	Client Info		0	155	---
Sample Status				ABNORMAL	ATTENTION	---

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		ASTM D1298*	0.839	0.840	0.840	---
Fuel Color	text	Visual Screen*	Yllow	Orang	Pink	---
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	2.4	2.4	---
Pensky-Martens Flash Point	°C	ASTM D7215*	52	55.5	57.1	---

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

DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D2887*	165	167	169	---
5% Distillation Point	°C	ASTM D2887*		193	193	---
10% Distill Point	°C	ASTM D2887*	201	203	203	---
15% Distillation Point	°C	ASTM D2887*		211	210	---
20% Distill Point	°C	ASTM D2887*	216	219	218	---
30% Distill Point	°C	ASTM D2887*	230	232	230	---
40% Distill Point	°C	ASTM D2887*	243	244	242	---
50% Distill Point	°C	ASTM D2887*	255	256	253	---
60% Distill Point	°C	ASTM D2887*	267	269	265	---
70% Distill Point	°C	ASTM D2887*	280	282	278	---
80% Distill Point	°C	ASTM D2887*	295	296	292	---
85% Distillation Point	°C	ASTM D2887*		306	302	---
90% Distill Point	°C	ASTM D2887*	310	317	312	---
95% Distillation Point	°C	ASTM D2887*		335	330	---
Final Boiling Point	°C	ASTM D2887*	341	353	348	---

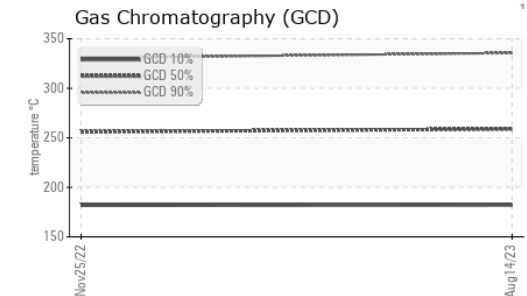
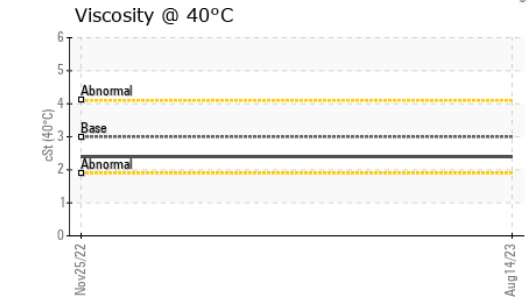
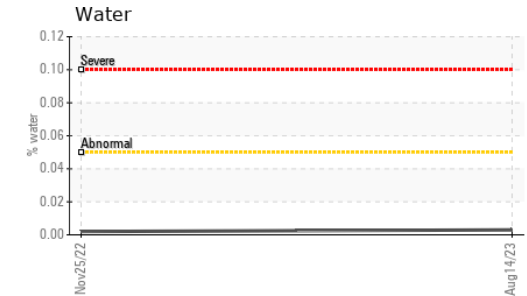
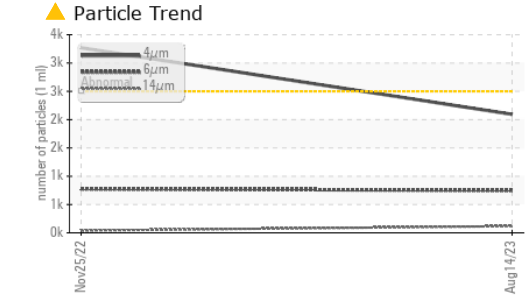
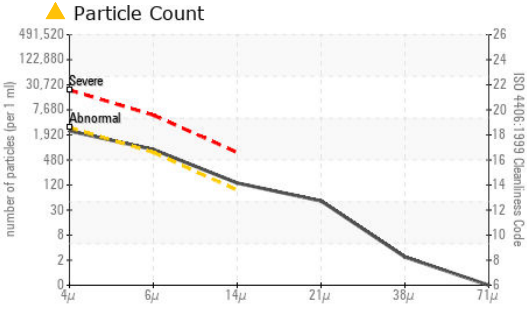
IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D1298*	37.7	36	36	---
Cetane Index		ASTM D4737*	<40.0	47	47	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	<1.0	0	0	---
Sodium	ppm	ASTM D5185(m)	<0.1	<1	0	---
Potassium	ppm	ASTM D5185(m)	<0.1	<1	0	---
Water	%	ASTM D6304*	<0.05	0.003	0.002	---
ppm Water	ppm	ASTM D6304*	<500	33.4	18.6	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	2093	▲ 3269	---
Particles >6µm		ASTM D7647	>640	▲ 750	▲ 776	---
Particles >14µm		ASTM D7647	>80	▲ 118	39	---
Particles >21µm		ASTM D7647	>20	▲ 44	9	---
Particles >38µm		ASTM D7647	>4	2	1	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>18/16/13	▲ 18/17/14	▲ 19/17/12	---

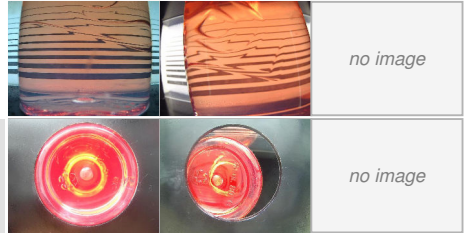


FUEL REPORT

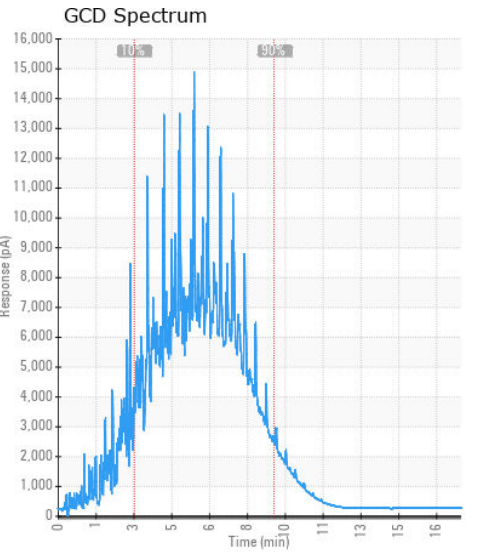
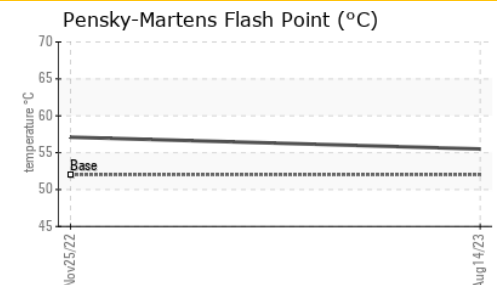
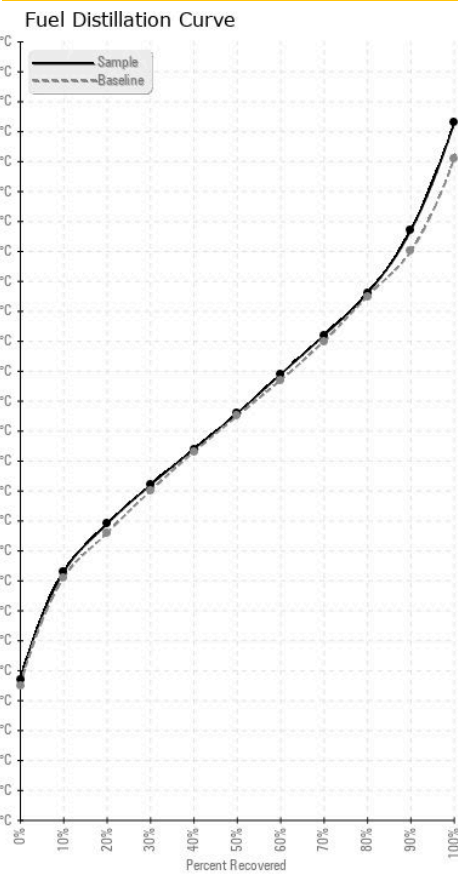


HEAVY METALS	method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185(m)	<0.1	0	---
Nickel	ppm	ASTM D5185(m)	<0.1	0	---
Lead	ppm	ASTM D5185(m)	<0.1	0	---
Vanadium	ppm	ASTM D5185(m)	<0.1	0	---
Iron	ppm	ASTM D5185(m)	<0.1	<1	---
Calcium	ppm	ASTM D5185(m)	<0.1	<1	---
Magnesium	ppm	ASTM D5185(m)	<0.1	<1	---
Phosphorus	ppm	ASTM D5185(m)	<0.1	<1	---
Zinc	ppm	ASTM D5185(m)	<0.1	<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. : CU0021395 **Received** : 16 Aug 2023 **7175 PACIFIC CIRCLE**
Lab Number : 02576308 **Diagnosed** : 18 Aug 2023 **MISSISSAUGA, ON**
Unique Number : 5629368 **Diagnostician** : Kevin Marson **CA L5T 2A5**
Test Package : FUEL (Additional Tests: CC Flash, GC-PercFuel, PrtCount) **Contact: Elisia Johnson**
To discuss this sample report, contact Customer Service at 1-800-268-2131. **elisia.johnson@cummins.com**
Test denoted () outside scope of accreditation, (m) method modified, (e) tested at external lab.* **T: (905)795-0050**
Validity of results and interpretation are based on the sample and information as supplied. **F: (905)795-9252**