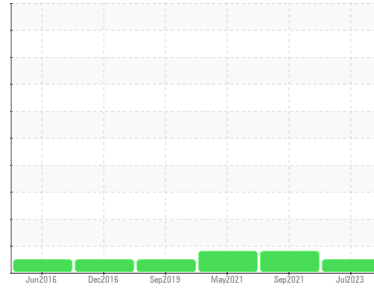




FUEL REPORT

Sample Rating Trend

NORMAL



Area
WOODBINE ENTERTAINMENT [147186]
 Machine Id
UNIT #2 (S/N 33144025)

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.

Corrosion

{not applicable}

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			CU0021463	CU0017701	CU0017470
Sample Date	Client Info			17 Jul 2023	17 Sep 2021	03 May 2021
Machine Age	hrs	Client Info		1108	0	0
Sample Status				NORMAL	ATTENTION	ATTENTION

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		ASTM D1298*	0.839	0.842	0.847	0.829
Fuel Color	text	Visual Screen*	Yellow	Red	Pink	Pink
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	2.6	2.4	2.3
Pensky-Martens Flash Point	°C	ASTM D7215*	52	60.3	59.5	59.9

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185(m)	10	7	8	7

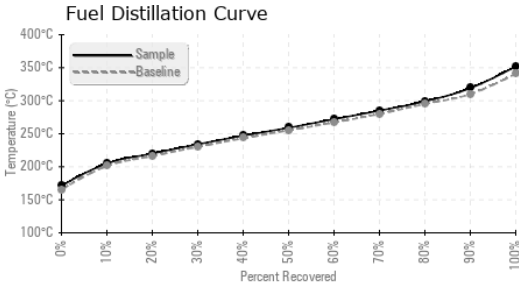
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D2887*	165	171	158	157
5% Distillation Point	°C	ASTM D2887*		195	188	190
10% Distill Point	°C	ASTM D2887*	201	205	199	201
15% Distillation Point	°C	ASTM D2887*		212	208	209
20% Distill Point	°C	ASTM D2887*	216	220	214	216
30% Distill Point	°C	ASTM D2887*	230	234	228	229
40% Distill Point	°C	ASTM D2887*	243	247	240	241
50% Distill Point	°C	ASTM D2887*	255	259	252	253
60% Distill Point	°C	ASTM D2887*	267	272	266	267
70% Distill Point	°C	ASTM D2887*	280	285	279	280
80% Distill Point	°C	ASTM D2887*	295	299	295	296
85% Distillation Point	°C	ASTM D2887*		309	305	306
90% Distill Point	°C	ASTM D2887*	310	319	318	320
95% Distillation Point	°C	ASTM D2887*		336	338	341
Final Boiling Point	°C	ASTM D2887*	341	352	360	368
Distillation Residue	%	ASTM D86(e)*	3.0	---	---	---
Distillation Loss	%	ASTM D86(e)*	3.0	---	---	---

IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D1298*	37.7	36	35	39
Cetane Index		ASTM D4737*	<40.0	47	44	51

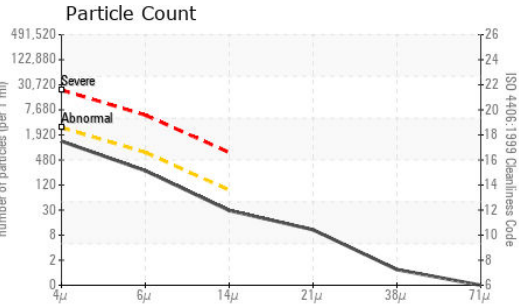
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	<1.0	0	0	0
Sodium	ppm	ASTM D5185(m)	<0.1	<1	<1	<1
Potassium	ppm	ASTM D5185(m)	<0.1	<1	0	0
Water	%	ASTM D6304*	<0.05	0.003	0.002	0.002
ppm Water	ppm	ASTM D6304*	<500	25.4	24.4	16.5



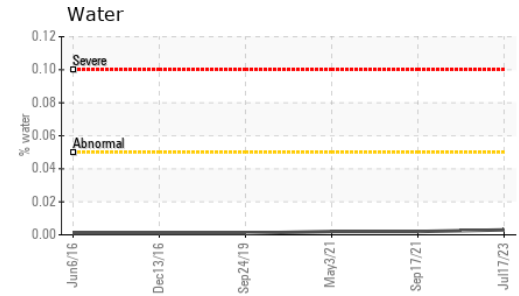
FUEL REPORT



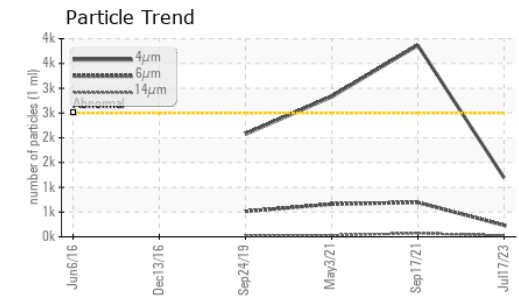
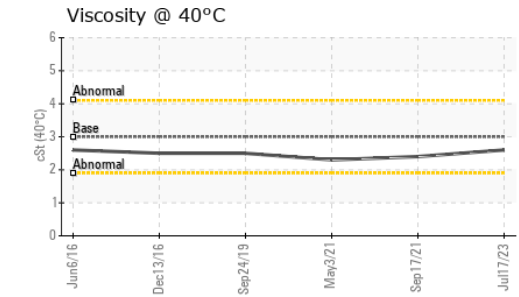
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	1191	▲ 3867	▲ 2827
Particles >6µm	ASTM D7647	>640	233	▲ 695	▲ 659
Particles >14µm	ASTM D7647	>80	26	71	32
Particles >21µm	ASTM D7647	>20	9	28	8
Particles >38µm	ASTM D7647	>4	1	2	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	17/15/12	▲ 19/17/13	▲ 19/17/12



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	<1
Vanadium	ppm	ASTM D5185(m)	<0.1	0	0
Iron	ppm	ASTM D5185(m)	<0.1	<1	<1
Calcium	ppm	ASTM D5185(m)	<0.1	<1	<1
Magnesium	ppm	ASTM D5185(m)	<0.1	0	<1
Phosphorus	ppm	ASTM D5185(m)	<0.1	<1	<1
Zinc	ppm	ASTM D5185(m)	<0.1	<1	<1



SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CUMMINS CANADA ULC - GENERATOR DIVISION
Sample No. : CU0021463
Lab Number : **02576309**
Unique Number : 5629369
Test Package : FUEL (Additional Tests: CC Flash, GC-PercFuel, PrtCount)

Received : 16 Aug 2023
Diagnosed : 18 Aug 2023
Diagnostician : Kevin Marson
 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.