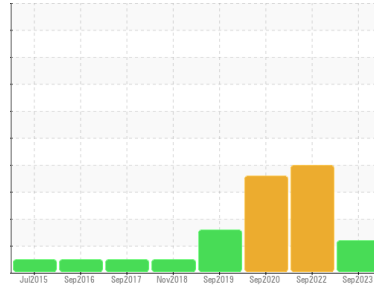




FUEL REPORT

Sample Rating Trend



ISO



Area
MARYSVILLE PLACE [69825]
 Machine Id
25280494
 Component
Diesel Fuel
 Fluid
No.2 DIESEL FUEL (LOW-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. We recommend an early resample to monitor this condition.

Corrosion

{not applicable}

Contaminants

There is a moderate 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). The fuel is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	CU0021718	CU0019848	CU0015627
Sample Date	Client Info	28 Sep 2023	16 Sep 2022	16 Sep 2020
Machine Age	hrs	785	762	19
Sample Status		ABNORMAL	SEVERE	SEVERE

PHYSICAL PROPERTIES

method	limit/base	current	history1	history2		
Specific Gravity	ASTM D1298*	0.839	0.818	0.823	0.830	
Fuel Color	text	Visual Screen*	Yellow	Yellow	Yellow	
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	1.9	1.9	2.0
Pensky-Martens Flash Point	°C	ASTM D7215*	52	52.5	52.6	58

SULFUR CONTENT

method	limit/base	current	history1	history2		
Sulfur	ppm	ASTM D5185(m)	250	10	12	13

DISTILLATION

method	limit/base	current	history1	history2		
Initial Boiling Point	°C	ASTM D2887*	165	161	157	168
5% Distillation Point	°C	ASTM D2887*		177	175	185
10% Distill Point	°C	ASTM D2887*	201	184	184	194
15% Distillation Point	°C	ASTM D2887*		190	190	200
20% Distill Point	°C	ASTM D2887*	216	196	199	206
30% Distill Point	°C	ASTM D2887*	230	207	213	218
40% Distill Point	°C	ASTM D2887*	243	219	227	229
50% Distill Point	°C	ASTM D2887*	255	231	241	240
60% Distill Point	°C	ASTM D2887*	267	244	256	253
70% Distill Point	°C	ASTM D2887*	280	257	270	267
80% Distill Point	°C	ASTM D2887*	295	275	286	284
85% Distillation Point	°C	ASTM D2887*		288	296	296
90% Distill Point	°C	ASTM D2887*	310	300	310	309
95% Distillation Point	°C	ASTM D2887*		322	331	331
Final Boiling Point	°C	ASTM D2887*	341	352	345	355
Distillation Residue	%	ASTM D86(e)*	3.0	---	---	---
Distillation Loss	%	ASTM D86(e)*	3.0	---	---	---

IGNITION QUALITY

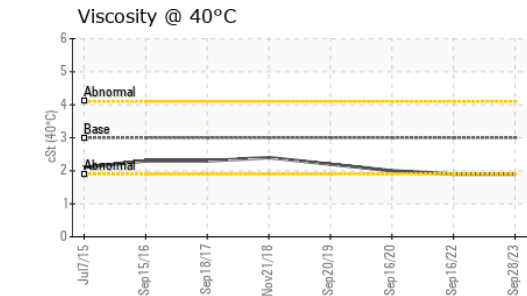
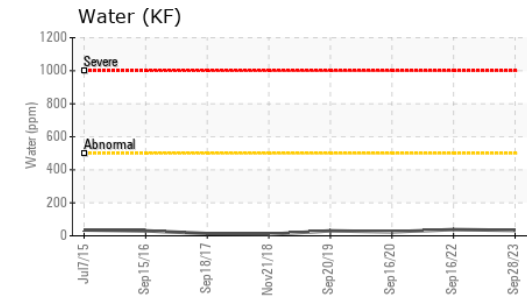
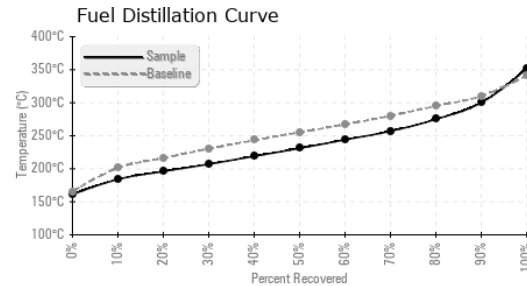
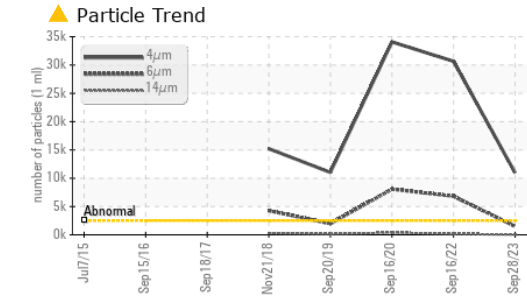
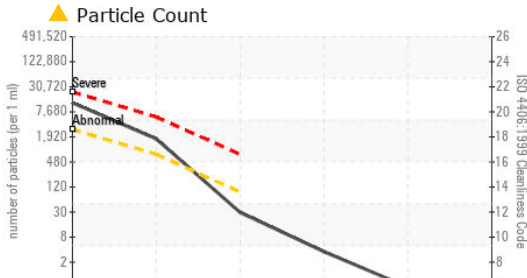
method	limit/base	current	history1	history2	
API Gravity	ASTM D1298*	37.7	41	40	---
Cetane Index	ASTM D4737*	<40.0	49	49	47

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	0	<1
Potassium	ppm	ASTM D5185(m)	<0.1	<1	0	<1
Water	%	ASTM D6304*	<0.05	0.003	0.003	0.002
ppm Water	ppm	ASTM D6304*	<500	33.1	37.8	24.3



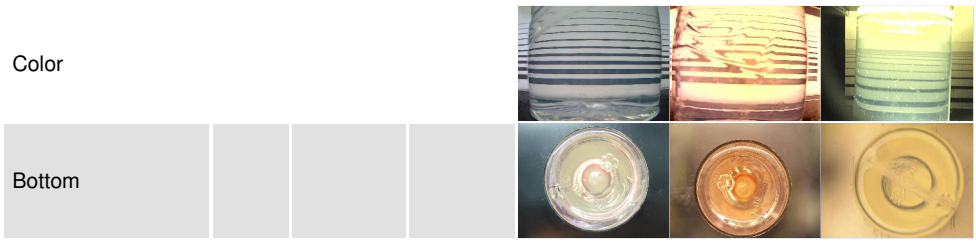
FUEL REPORT



FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	▲ 10971	● 30662	● 34074
Particles >6µm	ASTM D7647	>640	▲ 1503	● 6819	● 8065
Particles >14µm	ASTM D7647	>80	26	▲ 158	▲ 382
Particles >21µm	ASTM D7647	>20	3	24	▲ 102
Particles >38µm	ASTM D7647	>4	0	0	3
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ 21/18/12	● 22/20/14	● 22/20/16

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)	<1	0	0
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	<1	<1
Phosphorus	ppm	ASTM D5185(m)	<0.1	<1	0
Zinc	ppm	ASTM D5185(m)	<0.1	<1	<1

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : CU0021718 **Received** : 03 Oct 2023
Lab Number : 02586550 **Diagnosed** : 04 Oct 2023
Unique Number : 5655616 **Diagnostician** : Kevin Marson
Test Package : FUEL (Additional Tests: CC Flash, GC-PercFuel, PrtCount)

CUMMINS EASTERN CANADA LP
 321 DOAK ROAD
 FREDERICTON, NB
 CA E3C 2E7
 Contact: Shelley Brawn
 Shelley.Brawn@Cummins.com
 T: (506)451-1929
 F: (506)451-1927

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.