



FUEL REPORT

Sample Rating Trend

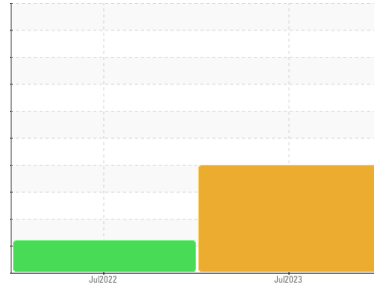
ISO



Area
ONX ENTREPRISE SOLUTION [131739]
Machine Id
CUMMINS 80039392

Component
Diesel Fuel
Fluid

No.2 DIESEL FUEL (LOW-SULPHUR) (--- GAL)



DIAGNOSIS

Recommendation

Check seals and/or filters for points of contaminant entry. Laboratory test indicate that this fuel is suitable for use and meets all test requirements. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you filter this fluid before use. The filter change at the time of sampling has been noted. Resample in 30-45 days to monitor this situation.

Corrosion

(not applicable)

Contaminants

There is a high 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	CU0020245	CU0018852	---
Sample Date	Client Info	24 Jul 2023	14 Jul 2022	---
Machine Age	hrs	0	0	---
Sample Status		SEVERE	ABNORMAL	---

PHYSICAL PROPERTIES

method	limit/base	current	history1	history2		
Specific Gravity	ASTM D1298*	0.839	0.832	0.828	---	
Fuel Color	text	Visual Screen*	Yellow	Yellow	---	
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	2	2	---
Pensky-Martens Flash Point	°C	ASTM D7215*	52	58.7	58.2	---

SULFUR CONTENT

method	limit/base	current	history1	history2		
Sulfur	ppm	ASTM D5185(m)	250	13	21	---

DISTILLATION

method	limit/base	current	history1	history2		
Initial Boiling Point	°C	ASTM D2887*	165	168	161	---
5% Distillation Point	°C	ASTM D2887*		186	180	---
10% Distill Point	°C	ASTM D2887*	201	194	190	---
15% Distillation Point	°C	ASTM D2887*		201	196	---
20% Distill Point	°C	ASTM D2887*	216	207	203	---
30% Distill Point	°C	ASTM D2887*	230	220	216	---
40% Distill Point	°C	ASTM D2887*	243	232	229	---
50% Distill Point	°C	ASTM D2887*	255	244	242	---
60% Distill Point	°C	ASTM D2887*	267	257	257	---
70% Distill Point	°C	ASTM D2887*	280	270	271	---
80% Distill Point	°C	ASTM D2887*	295	286	288	---
85% Distillation Point	°C	ASTM D2887*		297	300	---
90% Distill Point	°C	ASTM D2887*	310	309	314	---
95% Distillation Point	°C	ASTM D2887*		329	334	---
Final Boiling Point	°C	ASTM D2887*	341	350	345	---

IGNITION QUALITY

method	limit/base	current	history1	history2	
API Gravity	ASTM D1298*	37.7	38	39	---
Cetane Index	ASTM D4737*	<40.0	47	48	---

CONTAMINANTS

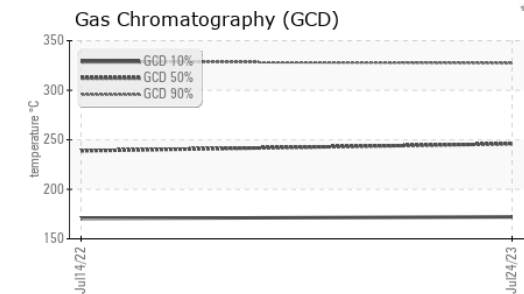
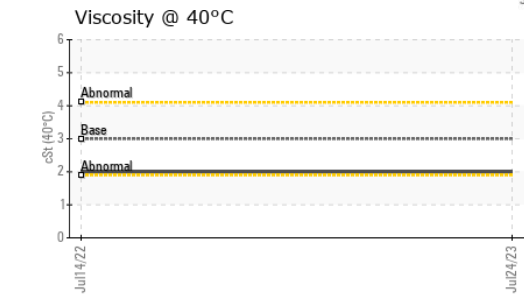
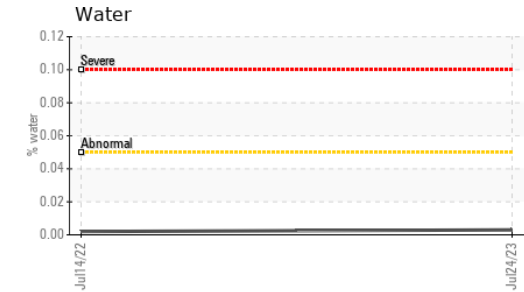
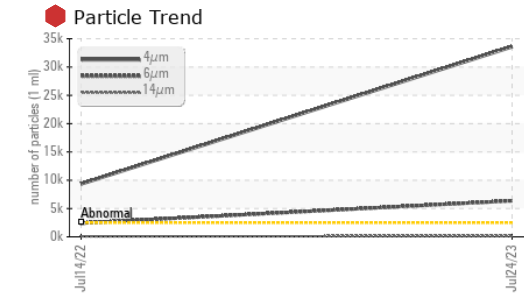
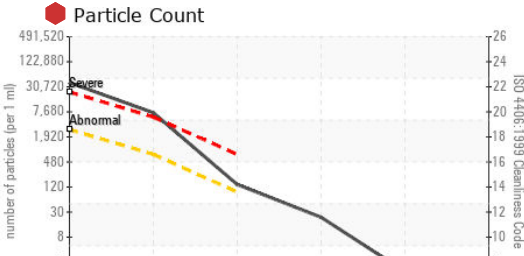
method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	<1.0	0	0	---
Sodium	ppm	ASTM D5185(m)	<0.1	<1	<1	---
Potassium	ppm	ASTM D5185(m)	<0.1	<1	0	---
Water	%	ASTM D6304*	<0.05	0.003	0.002	---
ppm Water	ppm	ASTM D6304*	<500	36.8	24.5	---

FLUID CLEANLINESS

method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647	>2500	33579	9329	---
Particles >6µm	ASTM D7647	>640	6368	2417	---
Particles >14µm	ASTM D7647	>80	122	78	---
Particles >21µm	ASTM D7647	>20	20	23	---
Particles >38µm	ASTM D7647	>4	1	1	---
Particles >71µm	ASTM D7647	>3	0	0	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	22/20/14	20/18/13	---



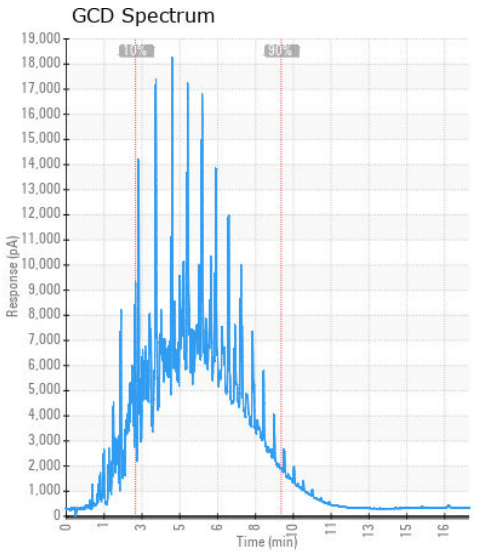
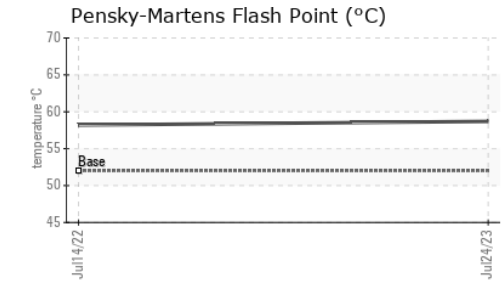
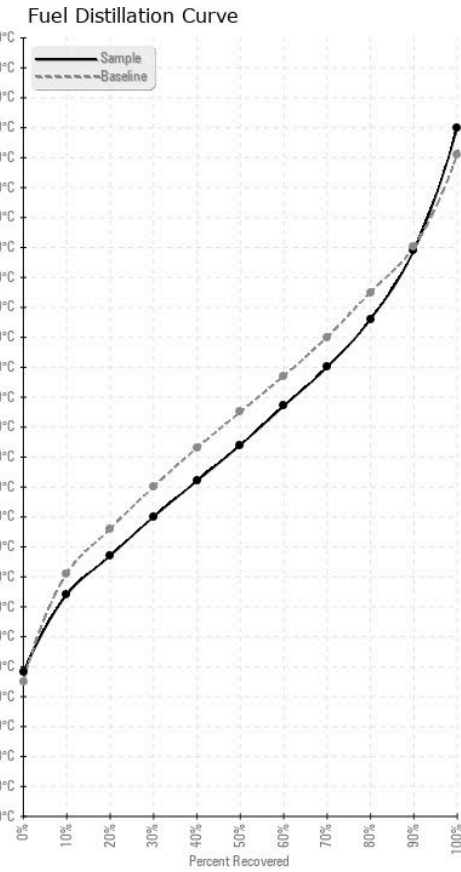
FUEL REPORT



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

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					no image
Bottom					no image

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : CU0020245 **Received** : 15 Aug 2023
Lab Number : 02576007 **Diagnosed** : 18 Aug 2023
Unique Number : 5629067 **Diagnostician** : Kevin Marson
Test Package : FUEL (Additional Tests: CC Flash, GC-PercFuel, PrtCount)

CUMMINS DIESEL
 50 SIMMONDS DRIVE
 DARTMOUTH, NS
 CA B3B 1R3
 Contact: Tanya Brown
 tanya.brown@cummins.com
 T: (902)468-7938
 F: (902)468-5177

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.