



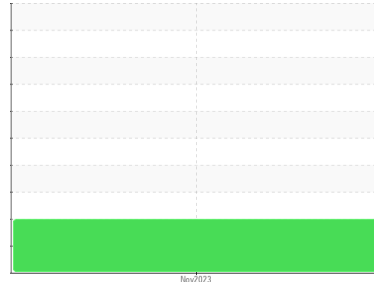
FUEL REPORT

Sample Rating Trend

ISO



Area
[409165]
 Machine Id
190783 (S/N 74166108)
 Component
Diesel Fuel
 Fluid
No.1 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.1 ultra-low-sulfur diesel fuel (US EPA/CGSB-3.517-3 type A).

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	CU0021595	---	---
Sample Date	Client Info	30 Nov 2023	---	---
Machine Age	kms Client Info	95000	---	---
Sample Status		ABNORMAL	---	---

PHYSICAL PROPERTIES

method	limit/base	current	history1	history2	
Specific Gravity	ASTM D1298*	0.825	0.826	---	---
Fuel Color	text Visual Screen*	Clear	Yellow	---	---
Visc @ 40°C	cSt ASTM D7279(m)	1.8	1.9	---	---
Pensky-Martens Flash Point	°C ASTM D7215*	38	49	---	---

SULFUR CONTENT

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

DISTILLATION

method	limit/base	current	history1	history2	
Initial Boiling Point	°C ASTM D2887*	159	153	---	---
5% Distillation Point	°C ASTM D2887*		172	---	---
10% Distill Point	°C ASTM D2887*	184	179	---	---
15% Distillation Point	°C ASTM D2887*		186	---	---
20% Distill Point	°C ASTM D2887*	196	192	---	---
30% Distill Point	°C ASTM D2887*	205	205	---	---
40% Distill Point	°C ASTM D2887*	216	219	---	---
50% Distill Point	°C ASTM D2887*	227	233	---	---
60% Distill Point	°C ASTM D2887*	238	248	---	---
70% Distill Point	°C ASTM D2887*	251	262	---	---
80% Distill Point	°C ASTM D2887*	264	279	---	---
85% Distillation Point	°C ASTM D2887*		291	---	---
90% Distill Point	°C ASTM D2887*	288	302	---	---
95% Distillation Point	°C ASTM D2887*		320	---	---
Final Boiling Point	°C ASTM D2887*	309	335	---	---

IGNITION QUALITY

method	limit/base	current	history1	history2	
API Gravity	ASTM D1298*	40.1	39	---	---
Cetane Index	ASTM D4737*	<40.0	46	---	---

CONTAMINANTS

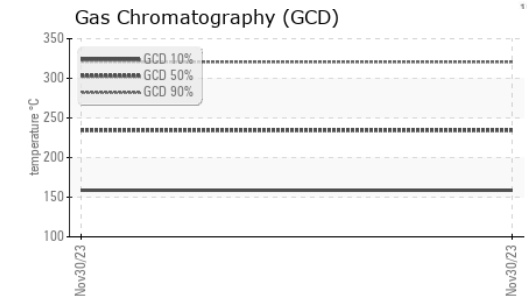
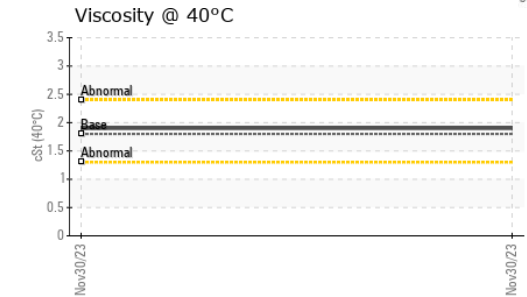
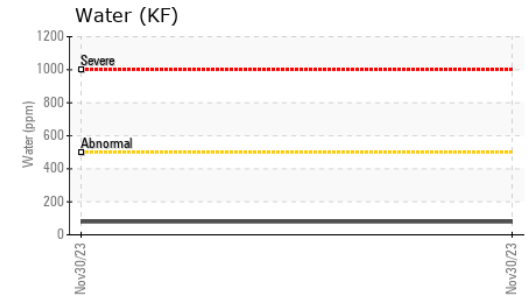
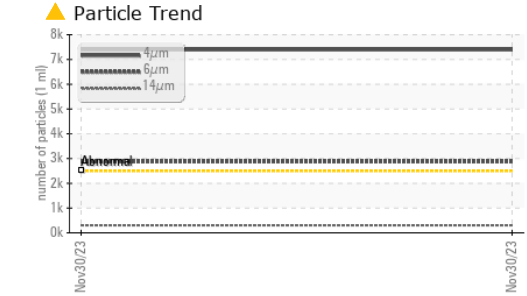
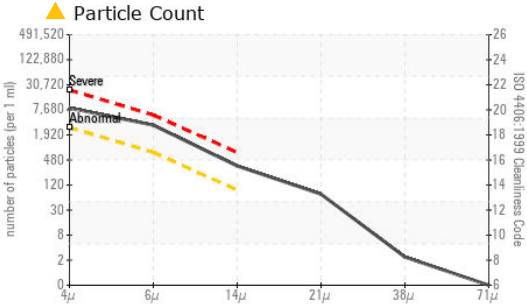
method	limit/base	current	history1	history2	
Silicon	ppm ASTM D5185(m)	<1.0	0	---	---
Sodium	ppm ASTM D5185(m)	<0.1	<1	---	---
Potassium	ppm ASTM D5185(m)	<0.1	<1	---	---
Water	% ASTM D6304*	<0.05	0.007	---	---
ppm Water	ppm ASTM D6304*	<500	79	---	---

FLUID CLEANLINESS

method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647	>2500	▲ 7394	---	---
Particles >6µm	ASTM D7647	>640	▲ 2875	---	---
Particles >14µm	ASTM D7647	>80	▲ 304	---	---
Particles >21µm	ASTM D7647	>20	▲ 64	---	---
Particles >38µm	ASTM D7647	>4	2	---	---
Particles >71µm	ASTM D7647	>3	0	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ 20/19/15	---	---



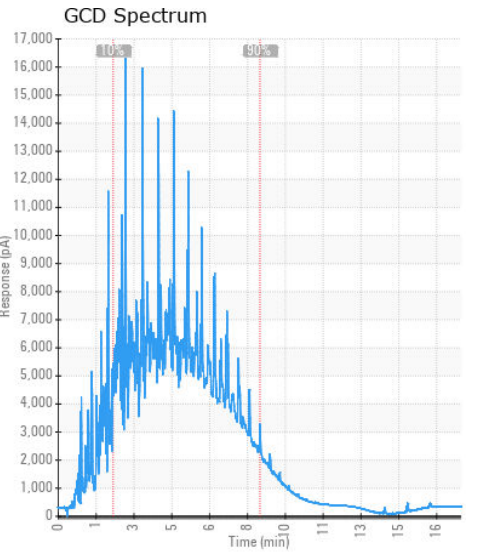
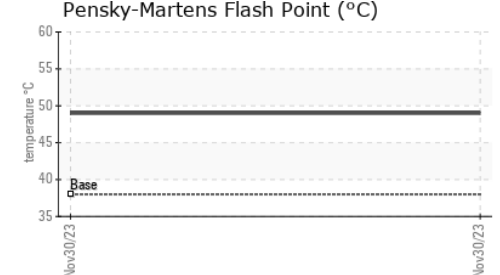
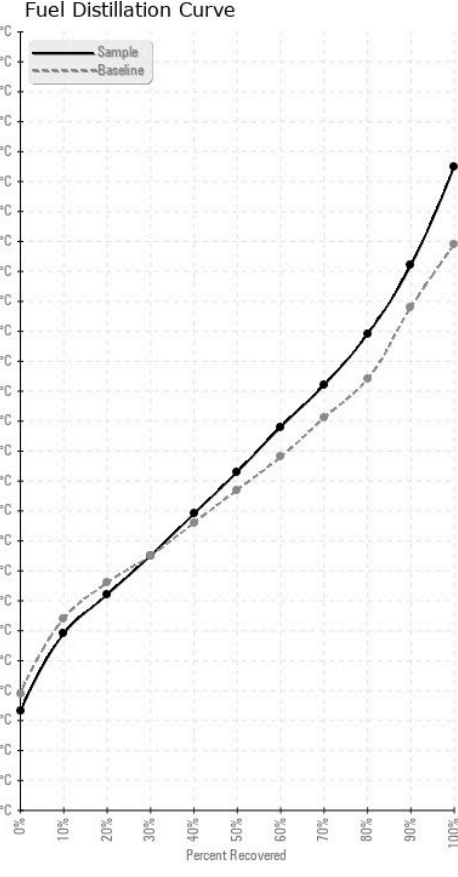
FUEL REPORT



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	0	---
Magnesium	ppm	ASTM D5185(m)	<0.1	0	---
Phosphorus	ppm	ASTM D5185(m)	<0.1	0	---
Zinc	ppm	ASTM D5185(m)	<0.1	0	---

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

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : CU0021595 **Received** : 06 Dec 2023
Lab Number : 02601362 **Diagnosed** : 11 Dec 2023
Unique Number : 5694447 **Diagnostician** : Kevin Marson
Test Package : FUEL (Additional Tests: CC Flash, GC-PercFuel, PrtCount)

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