

FUEL REPORT

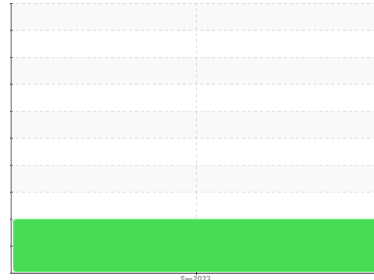
Sample Rating Trend

ISO



Area
THE STATE GROUP [174787]
Machine Id
526105159 GEN YELLOW

Component
Diesel Fuel
Fluid
No.2 DIESEL FUEL (ULTRALOW 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. We recommend you service the filters on this component. 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. The system cleanliness code is much higher than the acceptable limit for the target ISO 4406 cleanliness code.

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		WA0019637	---	---
Sample Date	Client Info		11 Sep 2023	---	---
Machine Age	yrs	Client Info	0	---	---
Sample Status			SEVERE	---	---

PHYSICAL PROPERTIES

	method	limit/base	current	history1	history2
Specific Gravity	ASTM D1298*	0.839	0.838	---	---
Fuel Color	text	Visual Screen*	Yellow	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	---	---
Pensky-Martens Flash Point	°C	ASTM D7215*	52	---	---

SULFUR CONTENT

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

DISTILLATION

	method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D2887*	165	---	---
5% Distillation Point	°C	ASTM D2887*	190	---	---
10% Distill Point	°C	ASTM D2887*	201	---	---
15% Distillation Point	°C	ASTM D2887*	205	---	---
20% Distill Point	°C	ASTM D2887*	216	---	---
30% Distill Point	°C	ASTM D2887*	230	---	---
40% Distill Point	°C	ASTM D2887*	243	---	---
50% Distill Point	°C	ASTM D2887*	255	---	---
60% Distill Point	°C	ASTM D2887*	267	---	---
70% Distill Point	°C	ASTM D2887*	280	---	---
80% Distill Point	°C	ASTM D2887*	295	---	---
85% Distillation Point	°C	ASTM D2887*	302	---	---
90% Distill Point	°C	ASTM D2887*	310	---	---
95% Distillation Point	°C	ASTM D2887*	332	---	---
Final Boiling Point	°C	ASTM D2887*	341	---	---

IGNITION QUALITY

	method	limit/base	current	history1	history2
API Gravity	ASTM D1298*	37.7	37	---	---
Cetane Index	ASTM D4737*	<40.0	47	---	---

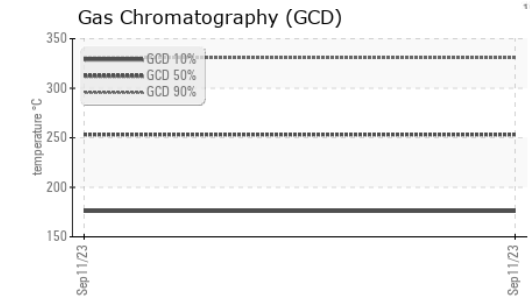
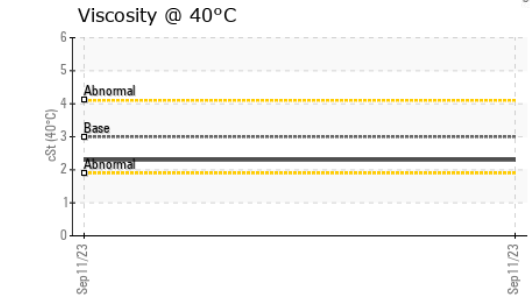
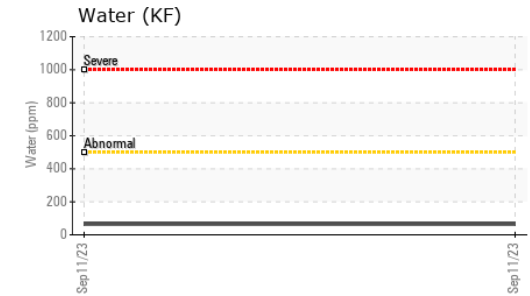
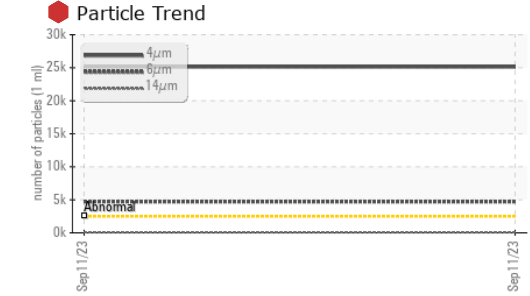
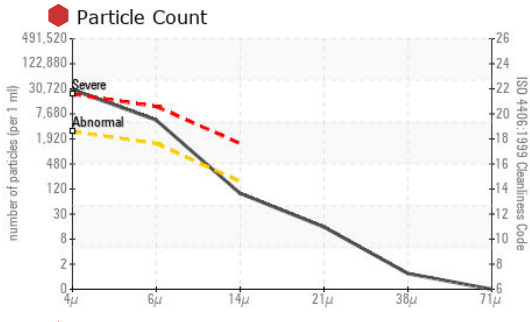
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	<1.0	0	---
Sodium	ppm	ASTM D5185(m)	<0.1	0	---
Potassium	ppm	ASTM D5185(m)	<0.1	4	---
Water	%	ASTM D6304*	<0.05	0.006	---
ppm Water	ppm	ASTM D6304*	<500	64.7	---

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	25134	---	---
Particles >6µm	ASTM D7647	>1300	4723	---	---
Particles >14µm	ASTM D7647	>160	83	---	---
Particles >21µm	ASTM D7647	>40	13	---	---
Particles >38µm	ASTM D7647	>10	1	---	---
Particles >71µm	ASTM D7647	>3	0	---	---
Oil Cleanliness	ISO 4406 (c)	>18/17/14	22/19/14	---	---

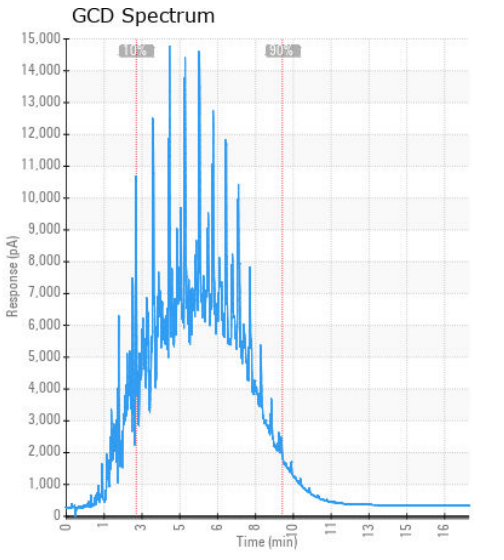
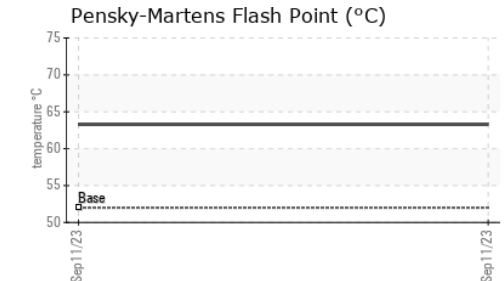
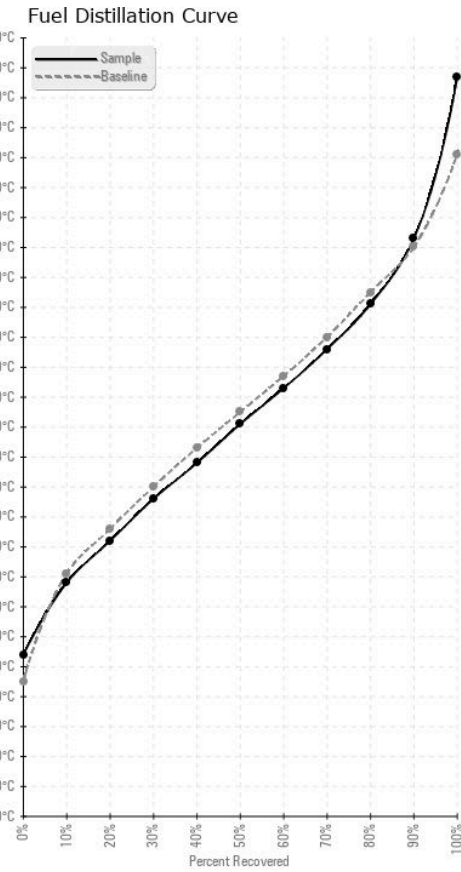
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HEAVY METALS	method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185(m)	<0.1	<1	---
Nickel	ppm	ASTM D5185(m)	<0.1	0	---
Lead	ppm	ASTM D5185(m)	<0.1	1	---
Vanadium	ppm	ASTM D5185(m)	<0.1	0	---
Iron	ppm	ASTM D5185(m)	<0.1	<1	---
Calcium	ppm	ASTM D5185(m)	<0.1	<1	---
Magnesium	ppm	ASTM D5185(m)	<0.1	0	---
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				no image	no image
Bottom				no image	no image

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WA0019637
Lab Number : 02586946
Unique Number : 5656012
Test Package : FUEL (Additional Tests: CC Flash, GC-PercFuel, PrtCount)

Received : 04 Oct 2023
Diagnosed : 06 Oct 2023
Diagnostician : Kevin Marson

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.

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