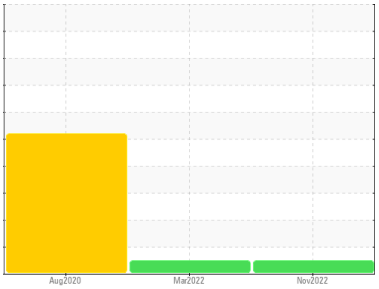
FUEL REPORT

Sample Rating Trend



NORMAL

Area
Detroit
Machine Id
[Detroit] Diesel - #1 Port
Component
Diesel Fuel
Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (17374 GAL)

DIAGNOSIS

Recommendation
All laboratory tests indicate that this sample meets specifications for No.2 ultra-low-sulfur diesel fuel. (Customer Sample Comment: Port aft tank)

Corrosion
All metal levels are normal indicating no corrosion in the system.

Contaminants
There is no bacteria or fungus (yeast and/or mold) indicated in the sample. The water content is negligible.

Fuel Condition
Sulfur value derived by ASTM D5453 method for ULSD validation. Sulfur level is acceptable for ULSD specification.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0600450**	WC0657067	WCDF01142
Sample Date		Client Info		**07 Nov 2022**	01 Mar 2022	09 Aug 2020
Machine Age		Client Info		**0**	0	0
Sample Status				**NORMAL**	NORMAL	SEVERE

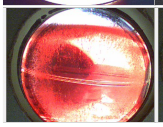
PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
ASTM Color	scalar	*ASTM D1500		**L4.5**	---	L7.5
Visc @ 40°C	cSt	ASTM D445	3.0	**2.4**	2.44	2.4

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	10	**0**	0	2798
Sulfur (UVF)	ppm	ASTM D5453		**10**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	**<1**	0	4
Sodium	ppm	ASTM D5185m	<0.1	**0**	0	3
Potassium	ppm	ASTM D5185m	<0.1	**0**	0	15
Water	%	ASTM D6304	<0.05	**0.003**	0.003	0.005
ppm Water	ppm	ASTM D6304	<500	**37.5**	35.4	50.0
% Gasoline	%	*In-House	<0.50	**0.0**	---	0.0
% Biodiesel	%	*In-House	<20.0	**0.0**	---	0.0

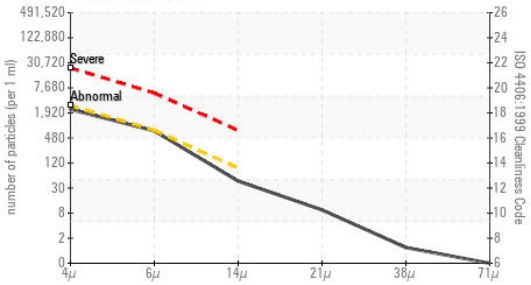
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	**2041**	---	---
Particles >6µm		ASTM D7647	>640	**624**	---	---
Particles >14µm		ASTM D7647	>80	**39**	---	---
Particles >21µm		ASTM D7647	>20	**8**	---	---
Particles >38µm		ASTM D7647	>4	**1**	---	---
Particles >71µm		ASTM D7647	>3	**0**	---	---
Oil Cleanliness		ISO 4406 (c)	>18/16/13	**18/16/12**	---	---

HEAVY METALS		method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m	<0.1	**3**	0	<1
Nickel	ppm	ASTM D5185m	<0.1	**0**	0	0
Lead	ppm	ASTM D5185m	<0.1	**0**	0	<1
Vanadium	ppm	ASTM D5185m	<0.1	**0**	0	0
Iron	ppm	ASTM D5185m	<0.1	**0**	0	3
Calcium	ppm	ASTM D5185m	<0.1	**0**	0	2023
Magnesium	ppm	ASTM D5185m	<0.1	**0**	0	270
Phosphorus	ppm	ASTM D5185m	<0.1	**2**	0	882
Zinc	ppm	ASTM D5185m	<0.1	**0**	0	1016

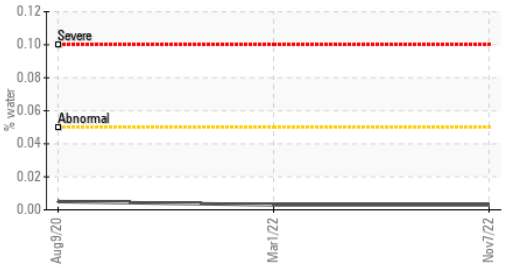
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						

FUEL REPORT

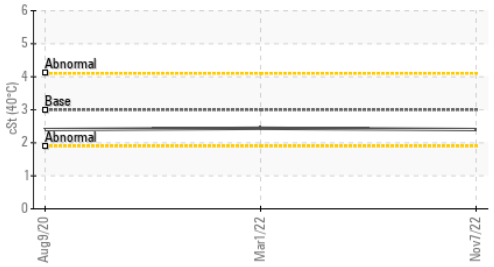
Particle Count



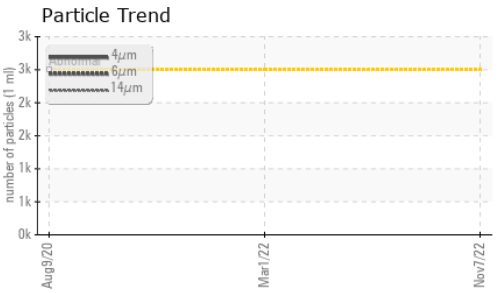
Water



Viscosity @ 40°C

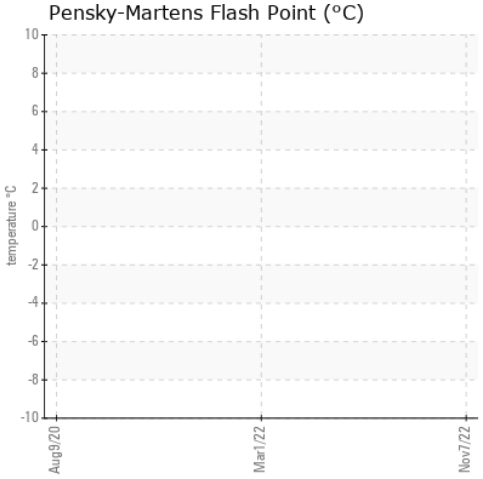


Particle Trend



GRAPHS

Pensky-Martens Flash Point (°C)



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0600450 **Received** : 08 Dec 2022
Lab Number : 05712895 **Diagnosed** : 15 Dec 2022
Unique Number : 10247470 **Diagnostician** : Doug Bogart
Test Package : DF-5 (Additional Tests: Screen)

Certificate L2367

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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