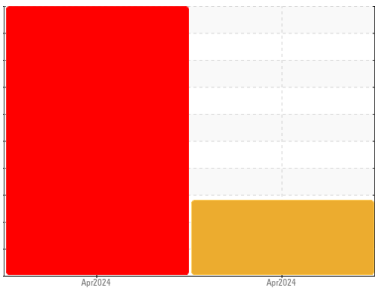
FUEL REPORT

Sample Rating Trend



ISO

Machine Id
HILLSBOROUGH - PIEDMONT ELECTRIC
Component
Gasoline
Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- QTS)

DIAGNOSIS

Recommendation
We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

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

Contamination
There is a high amount of particulates present in the fuel. Moderate concentration of visible dirt/debris present in the fuel.

Fluid Condition
All laboratory tests indicate that this sample meets specifications for No.2 diesel fuel, low sulfur (US EPA/CGSB-3.517-3 type B).

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC06145510**	WC06145511	---
Sample Date		Client Info		**09 Apr 2024**	08 Apr 2024	---
Machine Age	hrs	Client Info		**0**	0	---
Oil Age	hrs	Client Info		**0**	0	---
Oil Changed		Client Info		**N/A**	N/A	---
Sample Status				**ABNORMAL**	SEVERE	---

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Fuel Color	text	*Visual Screen	Yllow	**Yllow**	Yllow	---
ASTM Color	scalar	*ASTM D1500		**L3.0**	L3.0	---
Visc @ 40°C	cSt	ASTM D445	3.0	**2.4**	▲ 1.03	---
Pensky-Martens Flash Point	°C	*PMCC Calculated	52	**60.8**	---	---

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	10	**0**	14	---
Sulfur (UVF)	ppm	ASTM D5453		**15**	4	---

DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86	165	**171**	---	---
5% Distillation Point	°C	ASTM D86		**193**	---	---
10% Distill Point	°C	ASTM D86	201	**203**	---	---
15% Distillation Point	°C	ASTM D86		**212**	---	---
20% Distill Point	°C	ASTM D86	216	**220**	---	---
30% Distill Point	°C	ASTM D86	230	**236**	---	---
40% Distill Point	°C	ASTM D86	243	**250**	---	---
50% Distill Point	°C	ASTM D86	255	**263**	---	---
60% Distill Point	°C	ASTM D86	267	**276**	---	---
70% Distill Point	°C	ASTM D86	280	**289**	---	---
80% Distill Point	°C	ASTM D86	295	**303**	---	---
85% Distillation Point	°C	ASTM D86		**314**	---	---
90% Distill Point	°C	ASTM D86	310	**324**	---	---
95% Distillation Point	°C	ASTM D86		**342**	---	---
Final Boiling Point	°C	ASTM D86	341	**356**	---	---

IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D7777	37.7	**37**	---	---
Cetane Index		ASTM D4737	<40.0	**50**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	**<1**	<1	---
Sodium	ppm	ASTM D5185m	<0.1	**1**	5	---
Potassium	ppm	ASTM D5185m	<0.1	**0**	<1	---
Water	%	ASTM D6304	<0.05	**0.007**	0.160	---
ppm Water	ppm	ASTM D6304	<500	**72**	▲ 1603	---
% Gasoline	%	*In-House	<0.50	**0.0**	▲ 75.8	---
% Biodiesel	%	*In-House	<20.0	**0.0**	0.0	---

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FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	▲ **46586**	▲ 60989	---
Particles >6µm		ASTM D7647	>640	▲ **16065**	▲ 31338	---
Particles >14µm		ASTM D7647	>80	▲ **1617**	▲ 6008	---
Particles >21µm		ASTM D7647	>20	▲ **409**	▲ 2652	---
Particles >38µm		ASTM D7647	>4	● **7**	▲ 233	---
Particles >71µm		ASTM D7647	>3	**0**	▲ 8	---
Oil Cleanliness		ISO 4406 (c)	>18/16/13	▲ **23/21/18**	▲ 23/22/20	---

MICROBIAL		method	limit/base	current	history1	history2
Bacteria	CFU/ml	WC-Method	>=100000	**0**	---	---
Yeast	CFU/ml	WC-Method	>=100000	**10**	---	---
Mold	Colonies	WC-Method	MODER	**---**	---	---

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

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

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC06145510 **Received** : 10 Apr 2024
Lab Number : 06145510 **Tested** : 26 Apr 2024
Unique Number : 10970318 **Diagnosed** : 26 Apr 2024 - Angela Borella
Test Package : DF-2 (Additional Tests: API, BACTERIA, CC Flash, Cetane, Color-ASTM, Fuel, GC-PercFuel, GCD-ICP-K)

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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