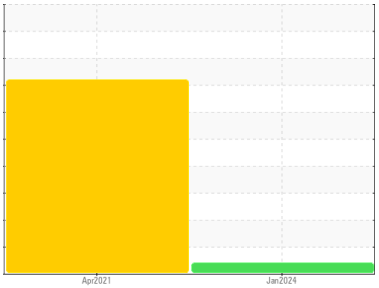
FUEL REPORT

Sample Rating Trend



VIS DEBRIS

Machine Id
Electricities - TANK 6 - Greenville
Component
Diesel Fuel
Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)

DIAGNOSIS

Recommendation

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. All other laboratory tests indicate that this sample meets specifications for No.2 ultra-low-sulfur diesel fuel.We were unable to perform a particle count due to a high concentration of particles present in this sample.

Corrosion

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

Contaminants

Fuel content negligible. Moderate concentration of visible dirt/debris present in the fuel. There is no bacteria or fungus (yeast and/or mold) present in the sample.

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		**WC0869470**	WCDF03697	---
Sample Date		Client Info		**25 Jan 2024**	13 Apr 2021	---
Machine Age	hrs	Client Info		**0**	0	---
Sample Status				**ABNORMAL**	ABNORMAL	---

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		*ASTM D1298	0.839	**0.840**	0.839	---
Fuel Color	text	*Visual Screen	Yllow	**Red**	Red	---
ASTM Color	scalar	*ASTM D1500		**L4.5**	L6.0	---
Visc @ 40°C	cSt	ASTM D445	3.0	**2.34**	2.42	---
Pensky-Martens Flash Point	°C	*PMCC Calculated	52	**58**	62	---

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	10	**0**	0	---
Sulfur (UVF)	ppm	ASTM D5453		**7**	6	---

DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86	165	**161**	164	---
5% Distillation Point	°C	ASTM D86		**187**	192	---
10% Distill Point	°C	ASTM D86	201	**197**	201	---
15% Distillation Point	°C	ASTM D86		**206**	209	---
20% Distill Point	°C	ASTM D86	216	**214**	217	---
30% Distill Point	°C	ASTM D86	230	**229**	231	---
40% Distill Point	°C	ASTM D86	243	**243**	245	---
50% Distill Point	°C	ASTM D86	255	**257**	259	---
60% Distill Point	°C	ASTM D86	267	**272**	274	---
70% Distill Point	°C	ASTM D86	280	**288**	289	---
80% Distill Point	°C	ASTM D86	295	**304**	307	---
85% Distillation Point	°C	ASTM D86		**314**	317	---
90% Distill Point	°C	ASTM D86	310	**326**	327	---
95% Distillation Point	°C	ASTM D86		**343**	340	---
Final Boiling Point	°C	ASTM D86	341	**352**	349	---
Distillation Residue	%	ASTM D86	3.0	**1.4**	1.4	---
Distillation Loss	%	ASTM D86	3.0	**0.7**	0.8	---

IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D7777	37.7	**37.0**	37.2	---
Cetane Index		ASTM D4737	<40.0	**47.9**	48.7	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	**0**	0	---
Sodium	ppm	ASTM D5185m	<0.1	**<1**	<1	---
Potassium	ppm	ASTM D5185m	<0.1	**0**	0	---
Water	%	ASTM D6304	<0.05	**0.005**	0.009	---
ppm Water	ppm	ASTM D6304	<500	**54**	95.3	---
% Gasoline	%	*In-House	<0.50	**0.0**	0.0	---
% Biodiesel	%	*In-House	<20.0	**0.0**	5.2	---

FUEL REPORT

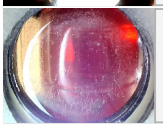
Water (KF)

Viscosity @ 40°C

Viscosity @ 40°C

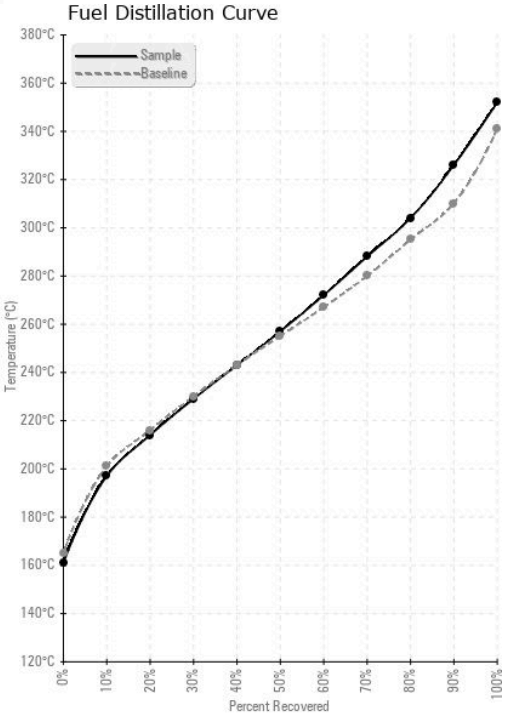
MICROBIAL		method	limit/base	current	history1	history2
Bacteria	CFU/ml	WC-Method	>=100000	**0**	▲ 100	---
Yeast	CFU/ml	WC-Method	>=100000	**0**	▲ 1000	---
Mold	Colonies	WC-Method	MODER	**---**	---	---

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

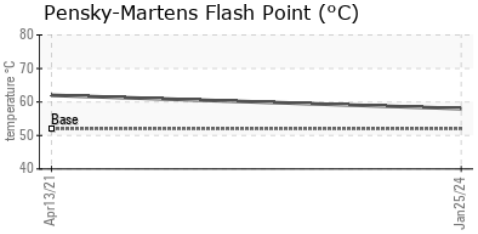
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*

GRAPHS

Fuel Distillation Curve



Pensky-Martens Flash Point (°C)



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0869470 **Recieved** : 30 Jan 2024
Lab Number : 06074273 **Diagnosed** : 06 Feb 2024
Unique Number : 10856364 **Diagnostician** : Doug Bogart
Test Package : DF-2 (Additional Tests: BACTERIA, 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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