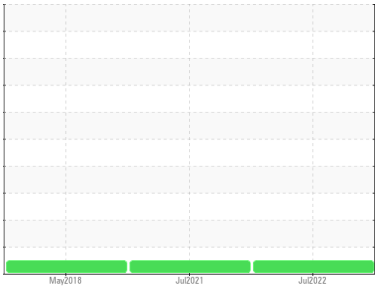
FUEL REPORT

Sample Rating Trend



NORMAL

Area
[2022-165]
Machine Id
B760105119
Component
Diesel Fuel
Fluid
DIESEL FUEL No. 2 (--- GAL)

DIAGNOSIS

Recommendation
All laboratory tests indicate that this sample meets specifications for No.2 ultra-low-sulfur diesel fuel.

Contaminants
There is no Bacteria, Yeast and/or Fungus indicated in the sample. There is no indication of any contamination in the fuel.

Fuel Condition
The condition of the fuel is suitable for service. Sulfur value derived by ASTM D4294 method for ULSD validation. Sulfur level is acceptable for ULSD specification.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0678305**	WCDF01944	WCDF00554
Sample Date		Client Info		**22 Jul 2022**	02 Jul 2021	24 May 2018
Machine Age	hrs	Client Info		**0**	0	0
Sample Status				**NORMAL**	NORMAL	NORMAL

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		*ASTM D1298		**0.839**	0.835	0.842
Fuel Color	text	*Visual Screen		**Red**	Red	Red
ASTM Color	scalar	*ASTM D1500		**L5.5**	L5.5	L5.0
Visc @ 40°C	cSt	ASTM D445	4.1	**2.48**	2.39	2.44
Pensky-Martens Flash Point	°C	*PMCC Calculated		**61**	59	64

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m		**4**	22	2
Sulfur (UVF)	ppm	ASTM D5453		**12**	8	9

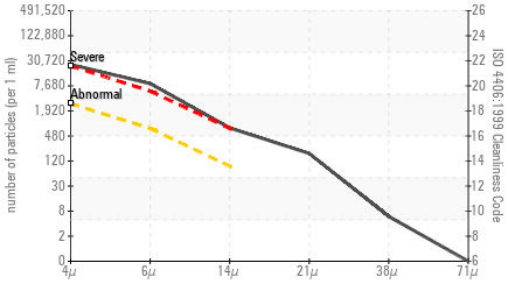
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86		**165**	165	165
5% Distillation Point	°C	ASTM D86		**190**	189	191
10% Distill Point	°C	ASTM D86		**201**	200	202
15% Distillation Point	°C	ASTM D86		**210**	207	211
20% Distill Point	°C	ASTM D86		**218**	215	219
30% Distill Point	°C	ASTM D86		**231**	229	234
40% Distill Point	°C	ASTM D86		**245**	242	248
50% Distill Point	°C	ASTM D86		**259**	256	262
60% Distill Point	°C	ASTM D86		**273**	270	276
70% Distill Point	°C	ASTM D86		**289**	285	291
80% Distill Point	°C	ASTM D86		**305**	302	307
85% Distillation Point	°C	ASTM D86		**315**	312	316
90% Distill Point	°C	ASTM D86		**327**	324	327
95% Distillation Point	°C	ASTM D86		**345**	340	343
Final Boiling Point	°C	ASTM D86		**353**	349	351
Distillation Residue	%	ASTM D86		**1.4**	1.4	1.4
Distillation Loss	%	ASTM D86		**0.8**	0.7	0.6

IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D7777		**37.2**	38.0	36.6
Cetane Index		ASTM D4737	<40.0	**48.7**	49.4	48.0

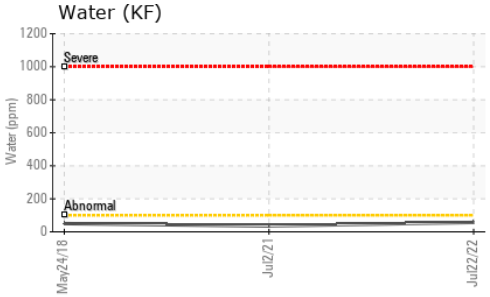
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	**0**	0	5
Sodium	ppm	ASTM D5185m	<0.1	**0**	<1	0
Potassium	ppm	ASTM D5185m	<0.1	**0**	0	0
Water	%	ASTM D6304	<0.05	**0.005**	0.003	0.005
ppm Water	ppm	ASTM D6304	<500	**57.0**	35.4	50
% Gasoline	%	*In-House	<0.50	**0.0**	0.0	0.0
% Biodiesel	%	*In-House	<20.0	**0.0**	0.5	1.5

FUEL REPORT

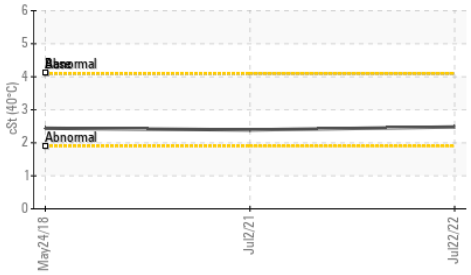
Particle Count



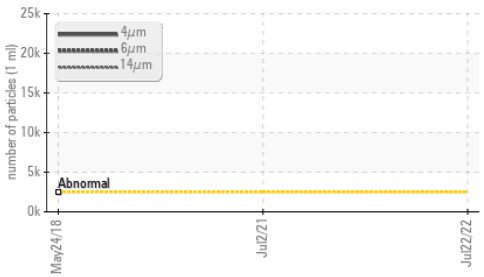
Water (KF)



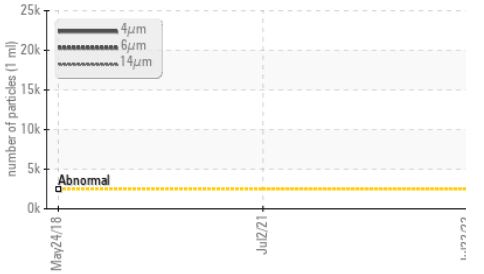
Viscosity @ 40°C



Particle Trend

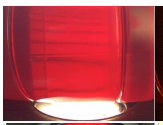
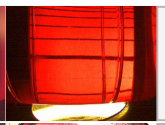
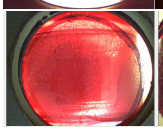


Particle Trend



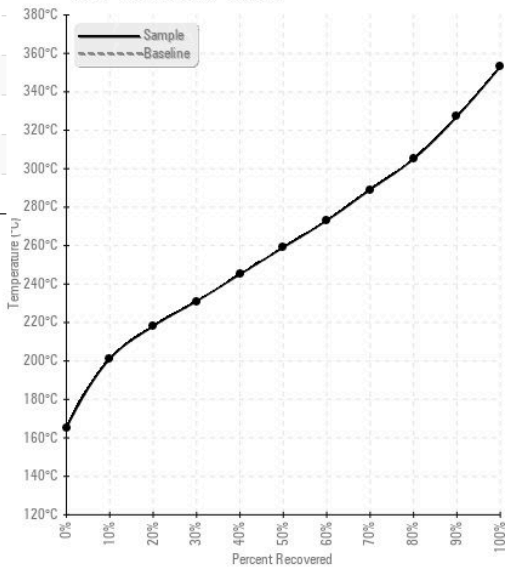
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	**21643**	---	---
Particles >6µm	ASTM D7647	>640	**7588**	---	---
Particles >14µm	ASTM D7647	>80	**658**	---	---
Particles >21µm	ASTM D7647	>20	**161**	---	---
Particles >38µm	ASTM D7647	>4	**5**	---	---
Particles >71µm	ASTM D7647	>3	**0**	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	**22/20/17**	---	---

HEAVY METALS		method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m	<0.1	**0**	0	0
Nickel	ppm	ASTM D5185m	<0.1	**0**	0	0
Lead	ppm	ASTM D5185m	<0.1	**0**	0	0
Vanadium	ppm	ASTM D5185m	<0.1	**0**	0	0
Iron	ppm	ASTM D5185m	<0.1	**0**	0	0
Calcium	ppm	ASTM D5185m	<0.1	**0**	5	0
Magnesium	ppm	ASTM D5185m	<0.1	**0**	0	0
Phosphorus	ppm	ASTM D5185m	<0.1	**1**	8	0
Zinc	ppm	ASTM D5185m	<0.1	**0**	2	0

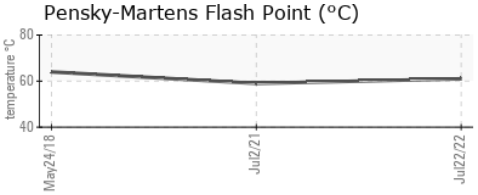
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					*no image*
Bottom					*no image*

GRAPHS

Fuel Distillation Curve



Pensky-Martens Flash Point (°C)



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0678305 **Received** : 27 Jul 2022
Lab Number : 05602450 **Tested** : 02 Aug 2022
Unique Number : 10071931 **Diagnosed** : 02 Aug 2022 - Doug Bogart
Test Package : DF-2 (Additional Tests: Fuel, Screen)

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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