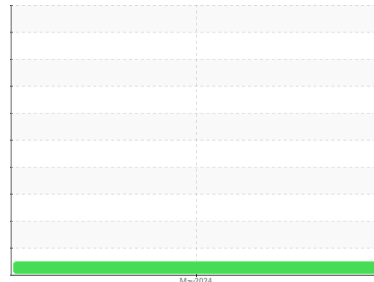




# FUEL REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**KIOTI CS2210 H061596 (S/N XY8200472)**  
 Component  
**Diesel Fuel**  
 Fluid  
**No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)**

## DIAGNOSIS

### Recommendation

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

### Corrosion

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

### Contaminants

The water content is negligible. There is no bacteria or fungus (yeast and/or mold) indicated in the sample. There is no indication of any contamination in the fuel. The amount and size of particulates present in the system are acceptable.

### 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	<b>KT0001498</b>	---	---
Sample Date	Client Info	<b>29 May 2024</b>	---	---
Machine Age	hrs Client Info	<b>186</b>	---	---
Sample Status		<b>NORMAL</b>	---	---

## PHYSICAL PROPERTIES

method	limit/base	current	history1	history2
ASTM Color	scalar *ASTM D1500	<b>L4.5</b>	---	---
Visc @ 40°C	cSt ASTM D445	<b>2.45</b>	---	---
Pensky-Martens Flash Point	°C *PMCC Calculated	<b>60.8</b>	---	---

## SULFUR CONTENT

method	limit/base	current	history1	history2
Sulfur	ppm ASTM D5185m	<b>0</b>	---	---
Sulfur (UVF)	ppm ASTM D5453	<b>9</b>	---	---

## DISTILLATION

method	limit/base	current	history1	history2	
Initial Boiling Point	°C ASTM D86	165	<b>171</b>	---	---
5% Distillation Point	°C ASTM D86		<b>196</b>	---	---
10% Distill Point	°C ASTM D86	201	<b>206</b>	---	---
15% Distillation Point	°C ASTM D86		<b>214</b>	---	---
20% Distill Point	°C ASTM D86	216	<b>222</b>	---	---
30% Distill Point	°C ASTM D86	230	<b>236</b>	---	---
40% Distill Point	°C ASTM D86	243	<b>248</b>	---	---
50% Distill Point	°C ASTM D86	255	<b>261</b>	---	---
60% Distill Point	°C ASTM D86	267	<b>274</b>	---	---
70% Distill Point	°C ASTM D86	280	<b>286</b>	---	---
80% Distill Point	°C ASTM D86	295	<b>301</b>	---	---
85% Distillation Point	°C ASTM D86		<b>311</b>	---	---
90% Distill Point	°C ASTM D86	310	<b>321</b>	---	---
95% Distillation Point	°C ASTM D86		<b>339</b>	---	---
Final Boiling Point	°C ASTM D86	341	<b>354</b>	---	---

## IGNITION QUALITY

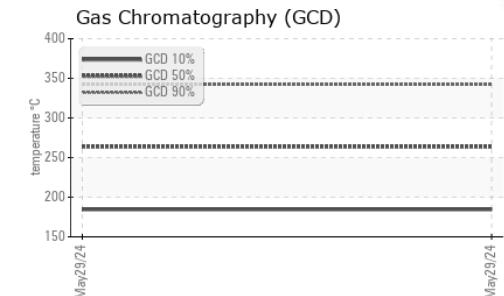
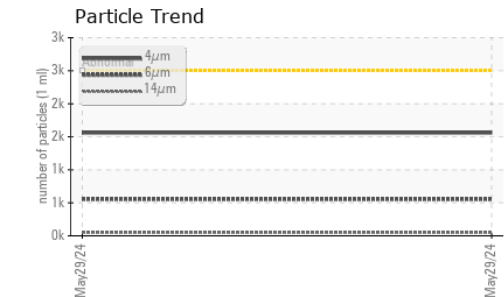
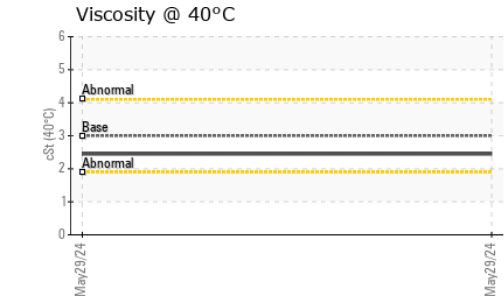
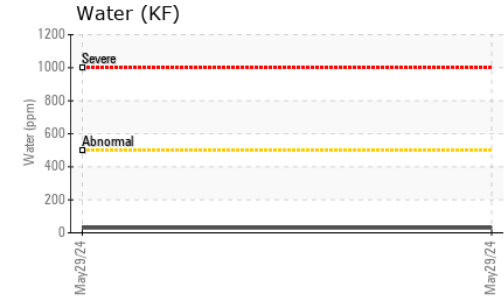
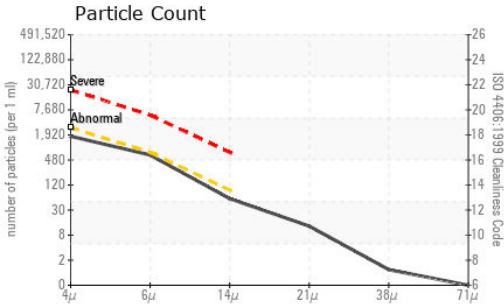
method	limit/base	current	history1	history2	
API Gravity	ASTM D7777	37.7	<b>34</b>	---	---
Cetane Index	ASTM D4737	<40.0	<b>45</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm ASTM D5185m	<1.0	<b>0</b>	---	---
Sodium	ppm ASTM D5185m	<0.1	<b>&lt;1</b>	---	---
Potassium	ppm ASTM D5185m	<0.1	<b>&lt;1</b>	---	---
Water	% ASTM D6304	<0.05	<b>0.003</b>	---	---
ppm Water	ppm ASTM D6304	<500	<b>30</b>	---	---
% Gasoline	% *In-House	<0.50	<b>0.0</b>	---	---
% Biodiesel	% *In-House	<20.0	<b>0.0</b>	---	---



# FUEL REPORT

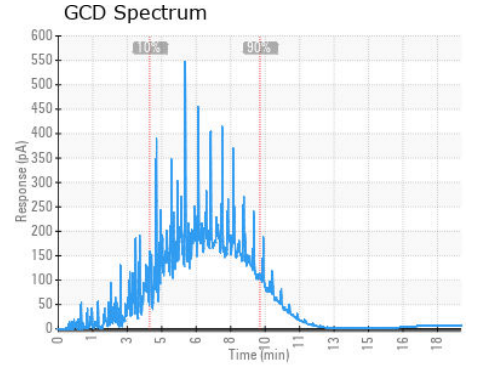
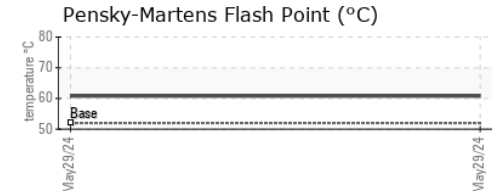
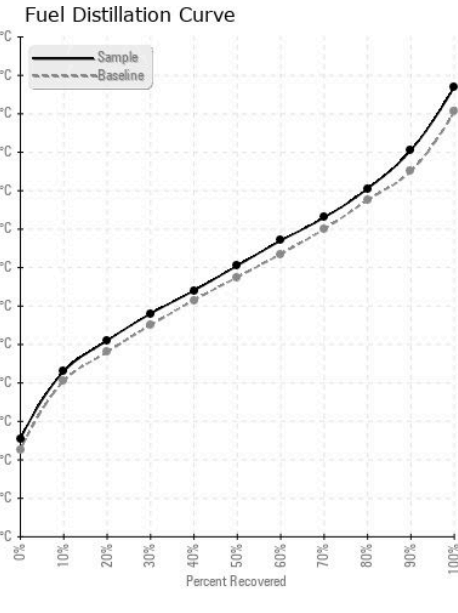


FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	<b>1560</b>	---	---
Particles >6µm	ASTM D7647	>640	<b>555</b>	---	---
Particles >14µm	ASTM D7647	>80	<b>50</b>	---	---
Particles >21µm	ASTM D7647	>20	<b>11</b>	---	---
Particles >38µm	ASTM D7647	>4	<b>1</b>	---	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	<b>18/16/13</b>	---	---

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

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

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KT0001498  
**Lab Number** : **06208241**  
**Unique Number** : 11075702  
**Test Package** : DF-2 ( Additional Tests: Fuel, Screen )  
**Received** : 12 Jun 2024  
**Tested** : 19 Jun 2024  
**Diagnosed** : 19 Jun 2024 - Doug Bogart

**LAMB & WEBSTER**  
 1085 SANDY LAKE RD  
 GROVE CITY, PA  
 US 16127  
 Contact: SERVICE MANAGER  
 deec@lwemail.com

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)