



# FUEL REPORT

Sample Rating Trend



**NORMAL**



Area  
**[R904022632]**  
 Machine Id  
**182610 (S/N G1J00683)**  
 Component  
**Diesel Fuel**  
 Fluid  
**OFF-ROAD (200 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.

### 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>DCDF02627</b>	---	---
Sample Date	Client Info			<b>28 Oct 2023</b>	---	---
Machine Age	hrs	Client Info		<b>0</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		*ASTM D1298		<b>0.840</b>	---	---
Fuel Color	text	*Visual Screen		<b>Red</b>	---	---
ASTM Color	scalar	*ASTM D1500		<b>L5.5</b>	---	---
Visc @ 40°C	cSt	ASTM D445		<b>2.46</b>	---	---
Pensky-Martens Flash Point	°C	*PMCC Calculated		<b>58</b>	---	---
Cloud Point	°C	ASTM D5771		<b>-12</b>	---	---
Pour Point	°C	ASTM D5950		<b>-25</b>	---	---

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m		<b>12</b>	---	---
Sulfur (UVF)	ppm	ASTM D5453		<b>14</b>	---	---

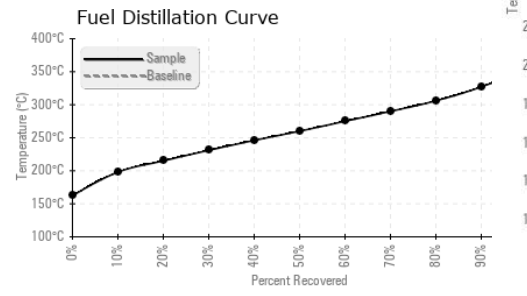
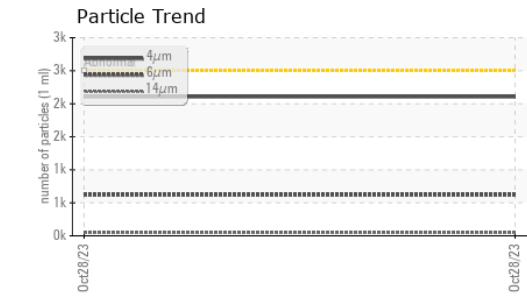
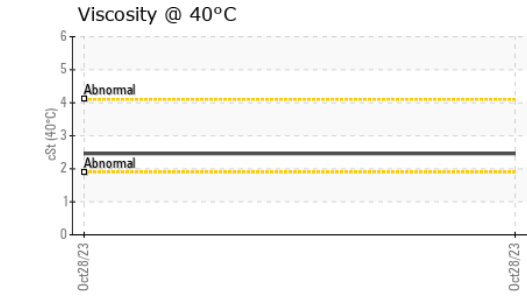
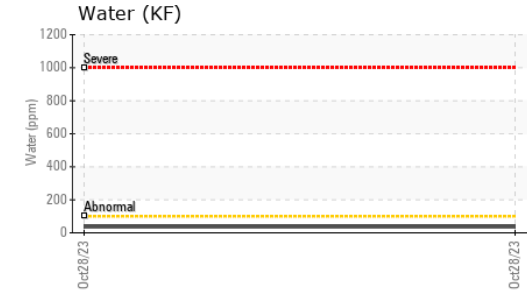
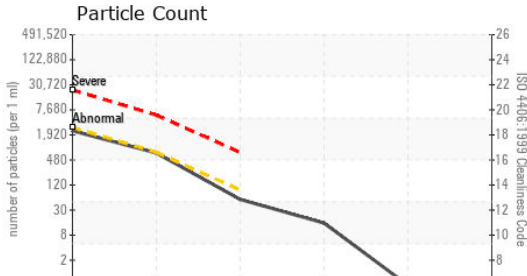
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86		<b>162</b>	---	---
5% Distillation Point	°C	ASTM D86		<b>187</b>	---	---
10% Distill Point	°C	ASTM D86		<b>198</b>	---	---
15% Distillation Point	°C	ASTM D86		<b>208</b>	---	---
20% Distill Point	°C	ASTM D86		<b>215</b>	---	---
30% Distill Point	°C	ASTM D86		<b>231</b>	---	---
40% Distill Point	°C	ASTM D86		<b>246</b>	---	---
50% Distill Point	°C	ASTM D86		<b>260</b>	---	---
60% Distill Point	°C	ASTM D86		<b>275</b>	---	---
70% Distill Point	°C	ASTM D86		<b>290</b>	---	---
80% Distill Point	°C	ASTM D86		<b>306</b>	---	---
85% Distillation Point	°C	ASTM D86		<b>316</b>	---	---
90% Distill Point	°C	ASTM D86		<b>327</b>	---	---
95% Distillation Point	°C	ASTM D86		<b>344</b>	---	---
Final Boiling Point	°C	ASTM D86		<b>354</b>	---	---
Distillation Residue	%	ASTM D86		<b>1.4</b>	---	---
Distillation Loss	%	ASTM D86		<b>0.7</b>	---	---

IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D7777		<b>37.0</b>	---	---
Cetane Index		ASTM D4737	<40.0	<b>48.4</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>0</b>	---	---
Water	%	ASTM D6304	<0.05	<b>0.003</b>	---	---
ppm Water	ppm	ASTM D6304	<500	<b>36.2</b>	---	---
% Gasoline	%	*In-House	<0.50	<b>0.0</b>	---	---
% Biodiesel	%	*In-House	<20.0	<b>0.0</b>	---	---



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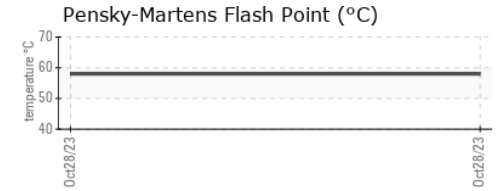
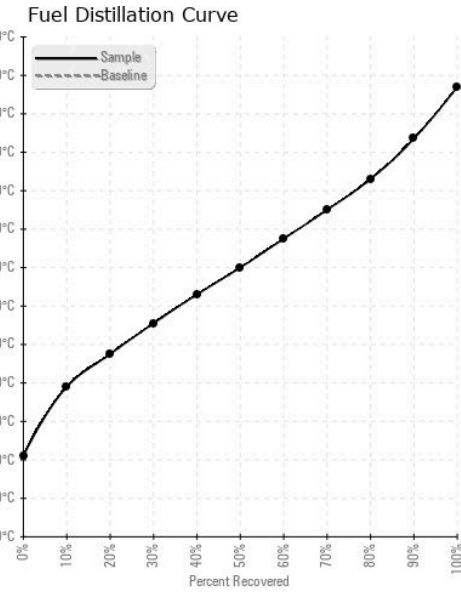


FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	<b>2106</b>	---	---
Particles >6µm	ASTM D7647	>640	<b>620</b>	---	---
Particles >14µm	ASTM D7647	>80	<b>48</b>	---	---
Particles >21µm	ASTM D7647	>20	<b>13</b>	---	---
Particles >38µm	ASTM D7647	>4	<b>0</b>	---	---
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>0</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>5</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.** : DCDF02627 **Received** : 06 Nov 2023  
**Lab Number** : 05999500 **Diagnosed** : 15 Nov 2023  
**Unique Number** : 10727860 **Diagnostician** : Doug Bogart  
**Test Package** : DF-3 ( Additional Tests: Screen )

**CURTIS ENGINE**  
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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)