



# FUEL REPORT

Sample Rating Trend



**NORMAL**



Area  
**QTS CHICAGO**  
 Machine Id  
**[QTS CHICAGO] PUMPHOUSE GEN**  
 Component  
**Diesel Fuel**  
 Fluid  
**No.2 DIESEL FUEL (ULTRALOW SULPHUR) (200 GAL)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. 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. 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>WC06185731</b>	---	---
Sample Date	Client Info		<b>20 May 2024</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	0.839	<b>0.854</b>	---	---
Fuel Color	text	*Visual Screen	<b>Yellow</b>	---	---
ASTM Color	scalar	*ASTM D1500	<b>L4.5</b>	---	---
Visc @ 40°C	cSt	ASTM D445	<b>3.0</b>	---	---
Pensky-Martens Flash Point	°C	*PMCC Calculated	<b>52</b>	---	---

## SULFUR CONTENT

	method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	<b>10</b>	---	---
Sulfur (UVF)	ppm	ASTM D5453	<b>7</b>	---	---

## DISTILLATION

	method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86	<b>165</b>	---	---
5% Distillation Point	°C	ASTM D86	<b>207</b>	---	---
10% Distill Point	°C	ASTM D86	<b>201</b>	---	---
15% Distillation Point	°C	ASTM D86	<b>229</b>	---	---
20% Distill Point	°C	ASTM D86	<b>216</b>	---	---
30% Distill Point	°C	ASTM D86	<b>230</b>	---	---
40% Distill Point	°C	ASTM D86	<b>243</b>	---	---
50% Distill Point	°C	ASTM D86	<b>255</b>	---	---
60% Distill Point	°C	ASTM D86	<b>267</b>	---	---
70% Distill Point	°C	ASTM D86	<b>280</b>	---	---
80% Distill Point	°C	ASTM D86	<b>295</b>	---	---
85% Distillation Point	°C	ASTM D86	<b>309</b>	---	---
90% Distill Point	°C	ASTM D86	<b>310</b>	---	---
95% Distillation Point	°C	ASTM D86	<b>332</b>	---	---
Final Boiling Point	°C	ASTM D86	<b>341</b>	---	---
Distillation Residue	%	ASTM D86	<b>3.0</b>	---	---
Distillation Loss	%	ASTM D86	<b>3.0</b>	---	---

## IGNITION QUALITY

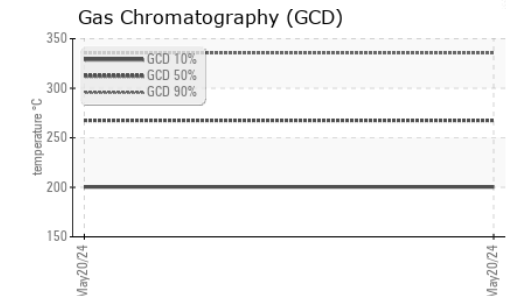
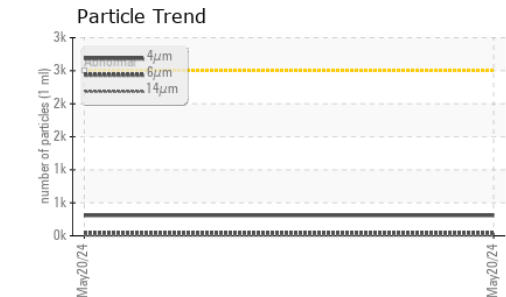
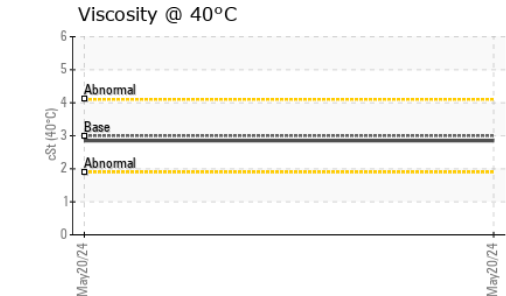
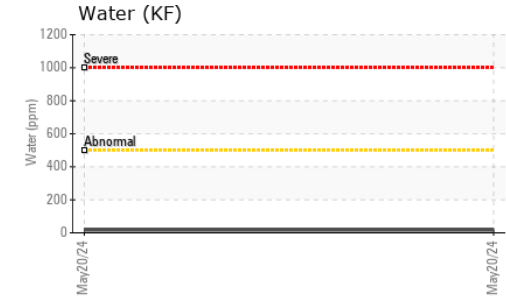
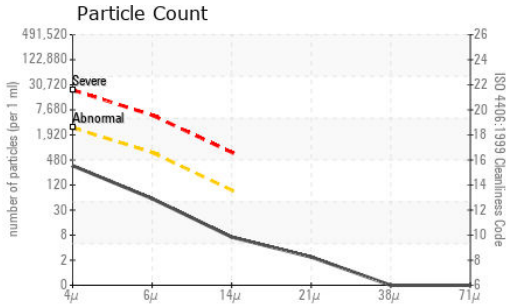
	method	limit/base	current	history1	history2
API Gravity	ASTM D7777	37.7	<b>34.2</b>	---	---
Cetane Index	ASTM D4737	<40.0	<b>45.3</b>	---	---

## CONTAMINANTS

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



# FUEL REPORT

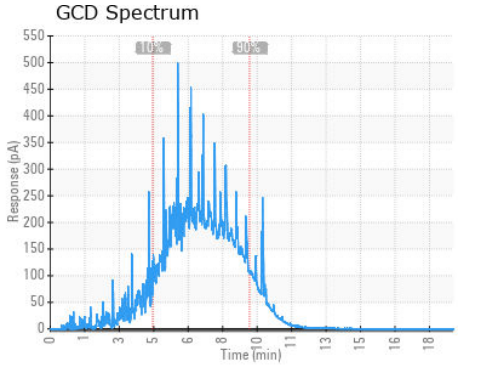
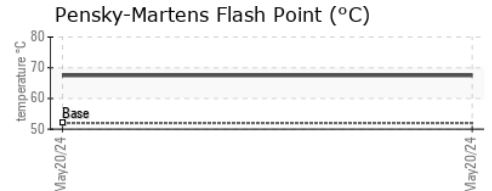
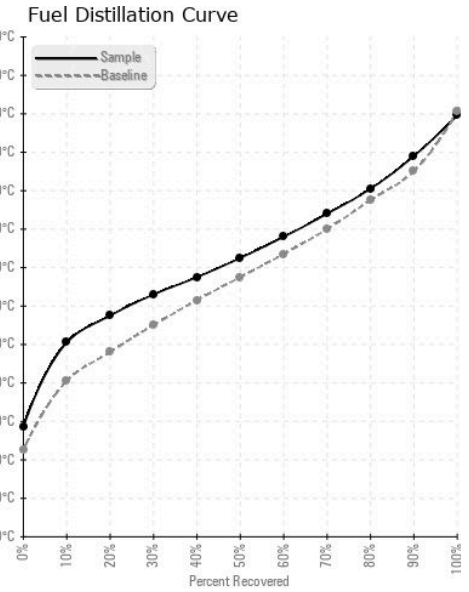


FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	<b>309</b>	---	---
Particles >6µm	ASTM D7647	>640	<b>50</b>	---	---
Particles >14µm	ASTM D7647	>80	<b>6</b>	---	---
Particles >21µm	ASTM D7647	>20	<b>2</b>	---	---
Particles >38µm	ASTM D7647	>4	<b>0</b>	---	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	<b>15/13/10</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>0</b>	---	---
Zinc	ppm	ASTM D5185m <0.1	<b>0</b>	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC06185731      **Received** : 20 May 2024  
**Lab Number** : **06185731**      **Tested** : 28 May 2024  
**Unique Number** : 11037057      **Diagnosed** : 28 May 2024 - Angela Borella  
**Test Package** : DF-2 ( Additional Tests: Fuel, Screen )

**PETROLEUM RECOVERY SERVICES**  
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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)