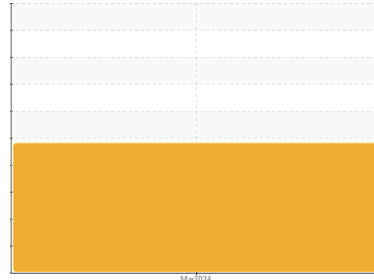




# FUEL REPORT

Sample Rating Trend



CONTAMINANT



Area

Carilion Roanoke Memorial Hospital [4606]

Machine Id

[Carilion Roanoke Memorial Hospital] TANK 4 BOILER RES

Component

Diesel Fuel

Fluid

No.2 DIESEL FUEL (ULTRALOW SULPHUR) (20000 GAL)

## DIAGNOSIS

### Recommendation

We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. We recommend you service and check the fuel filters for mucous-like deposits. Check with fuel supplier for biocides available to destroy the microorganisms in the fuel system.

### Corrosion

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

### Contaminants

There is a moderate amount of silt (particulates < 14 microns in size) present in the fuel. Free water present. There is a moderate concentration of Bacteria, Yeast and/or Fungus present in the sample.

### Fuel Condition

Sulfur value derived by ASTM D5453 method for ULSD validation.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC06139079	---	---
Sample Date	Client Info	21 Mar 2024	---	---
Machine Age	hrs Client Info	0	---	---
Sample Status		ABNORMAL	---	---

## PHYSICAL PROPERTIES

method	limit/base	current	history1	history2
Fuel Color	text *Visual Screen	Yellow	Red	---
ASTM Color	scalar *ASTM D1500		L4.0	---
Visc @ 40°C	cSt ASTM D445	3.0	2.57	---
Pensky-Martens Flash Point	°C *PMCC Calculated	52	63.4	---

## SULFUR CONTENT

method	limit/base	current	history1	history2
Sulfur	ppm ASTM D5185m	10	188	---
Sulfur (UVF)	ppm ASTM D5453		153	---

## DISTILLATION

method	limit/base	current	history1	history2
Initial Boiling Point	°C ASTM D86	165	174	---
5% Distillation Point	°C ASTM D86		199	---
10% Distill Point	°C ASTM D86	201	210	---
15% Distillation Point	°C ASTM D86		218	---
20% Distill Point	°C ASTM D86	216	226	---
30% Distill Point	°C ASTM D86	230	240	---
40% Distill Point	°C ASTM D86	243	253	---
50% Distill Point	°C ASTM D86	255	266	---
60% Distill Point	°C ASTM D86	267	279	---
70% Distill Point	°C ASTM D86	280	293	---
80% Distill Point	°C ASTM D86	295	308	---
85% Distillation Point	°C ASTM D86		318	---
90% Distill Point	°C ASTM D86	310	328	---
95% Distillation Point	°C ASTM D86		344	---
Final Boiling Point	°C ASTM D86	341	356	---

## IGNITION QUALITY

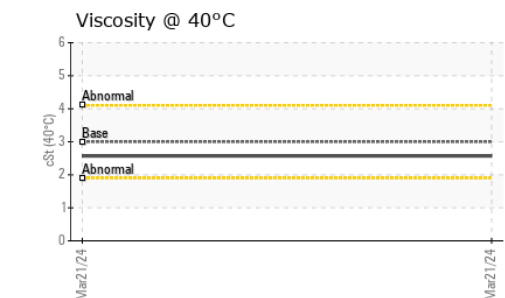
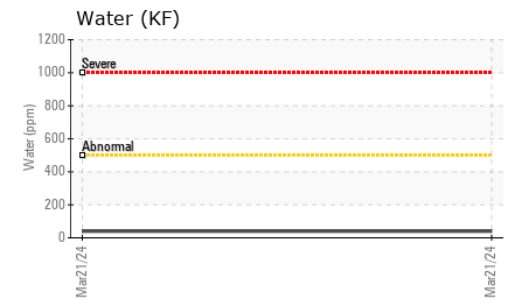
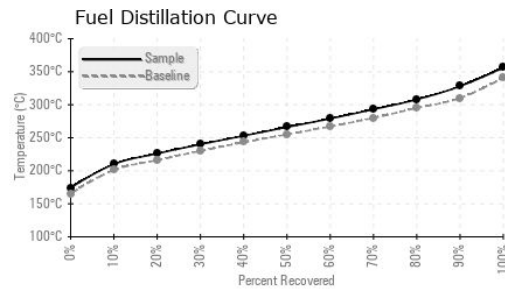
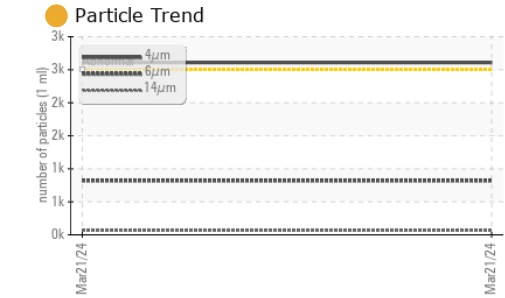
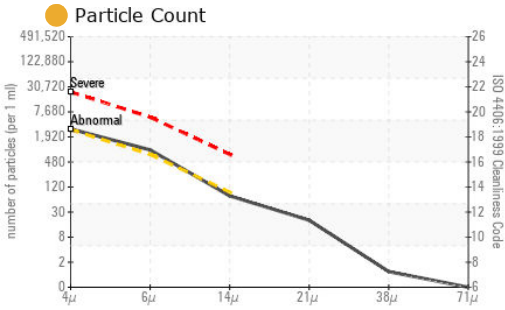
method	limit/base	current	history1	history2
API Gravity	ASTM D7777	37.7	36	---
Cetane Index	ASTM D4737	<40.0	48	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m	<1.0	0	---
Sodium	ppm ASTM D5185m	<0.1	<1	---
Potassium	ppm ASTM D5185m	<0.1	0	---
Water	% ASTM D6304	<0.05	0.003	---
ppm Water	ppm ASTM D6304	<500	40	---
% Gasoline	% *In-House	<0.50	0.0	---
% Biodiesel	% *In-House	<20.0	1.2	---



# FUEL REPORT



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC06139079  
**Lab Number** : 06139079  
**Unique Number** : 10963887  
**Test Package** : DF-2 ( Additional Tests: Bacteria, Fuel, Screen )

**Received** : 04 Apr 2024  
**Tested** : 15 Apr 2024  
**Diagnosed** : 15 Apr 2024 - Doug Bogart

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)

**PETROLEUM RECOVERY SERVICES**  
 210 POWELL DR  
 SUMMERVILLE, SC  
 US 29483  
 Contact: AJAY EL  
 Ajay@prsfuel.com  
 T: (843)225-1777  
 F:

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	● <b>2608</b>	---	---
Particles >6µm	ASTM D7647	>640	● <b>821</b>	---	---
Particles >14µm	ASTM D7647	>80	<b>65</b>	---	---
Particles >21µm	ASTM D7647	>20	<b>17</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>19/17/13</b>	---	---

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

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					no image	no image
Bottom					no image	no image