# FUEL REPORT

Sample Rating Trend


**WATER**

Machine Id
## INTERNATIONAL 74725745 - BRECKENRIDGE COMM SCHOOLS
Component
**Diesel Fuel**
Fluid
**No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)**

## DIAGNOSIS

**Recommendation**
We advise that you follow the water drain-off procedure for this component. No other corrective action is recommended at this time. All other 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**
There is a moderate amount of silt (particulates < 14 microns in size) present in the fuel. Free water present. There is no bacteria or fungus (yeast and/or mold) present in the sample.

**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 | | **WC06150858** | --- | --- |
| Sample Date | | Client Info | | **04 Apr 2024** | --- | --- |
| Machine Age | mls | Client Info | | **53188** | --- | --- |
| Sample Status | | | | **ABNORMAL** | --- | --- |

| PHYSICAL PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| ASTM Color | scalar | *ASTM D1500 | | **L4.0** | --- | --- |
| Visc @ 40°C | cSt | ASTM D445 | 3.0 | **2.84** | --- | --- |

| SULFUR CONTENT | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sulfur | ppm | ASTM D5185m | 10 | **0** | --- | --- |
| Sulfur (UVF) | ppm | ASTM D5453 | | **12** | --- | --- |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | <1.0 | **0** | --- | --- |
| Sodium | ppm | ASTM D5185m | <0.1 | **3** | --- | --- |
| Potassium | ppm | ASTM D5185m | <0.1 | **16** | --- | --- |
| Water | % | ASTM D6304 | <0.05 | **0.015** | --- | --- |
| ppm Water | ppm | ASTM D6304 | <500 | **154** | --- | --- |
| % Gasoline | % | *In-House | <0.50 | **0.0** | --- | --- |
| % Biodiesel | % | *In-House | <20.0 | **0.0** | --- | --- |

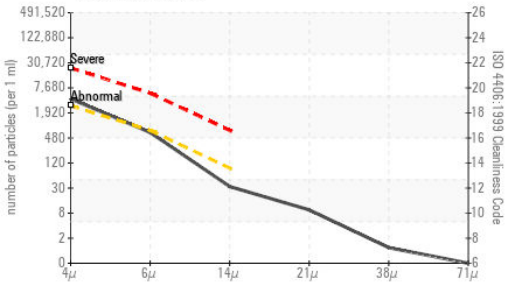
| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >2500 | **3656** | --- | --- |
| Particles >6µm | | ASTM D7647 | >640 | **573** | --- | --- |
| Particles >14µm | | ASTM D7647 | >80 | **29** | --- | --- |
| Particles >21µm | | ASTM D7647 | >20 | **8** | --- | --- |
| Particles >38µm | | ASTM D7647 | >4 | **1** | --- | --- |
| Particles >71µm | | ASTM D7647 | >3 | **0** | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >18/16/13 | **19/16/12** | --- | --- |

| MICROBIAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Bacteria | CFU/ml | WC-Method | >=100000 | **0** | --- | --- |
| Yeast | CFU/ml | WC-Method | >=100000 | **0** | --- | --- |
| Mold | Colonies | WC-Method | MODER | **---** | --- | --- |

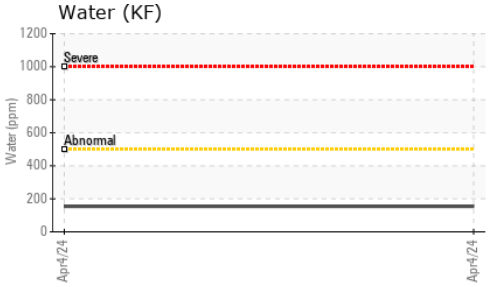
| HEAVY METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Aluminum | ppm | ASTM D5185m | <0.1 | **0** | --- | --- |
| Nickel | ppm | ASTM D5185m | <0.1 | **0** | --- | --- |
| Lead | ppm | ASTM D5185m | <0.1 | **0** | --- | --- |
| Vanadium | ppm | ASTM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

# FUEL REPORT

Particle Count

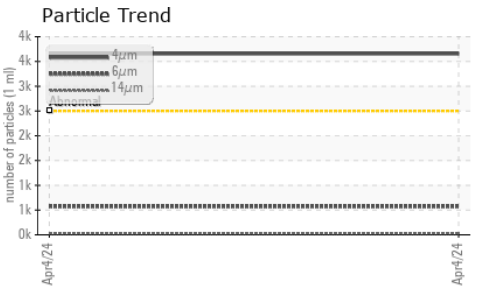


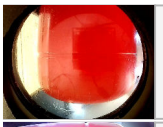

Water (KF)




Viscosity @ 40°C

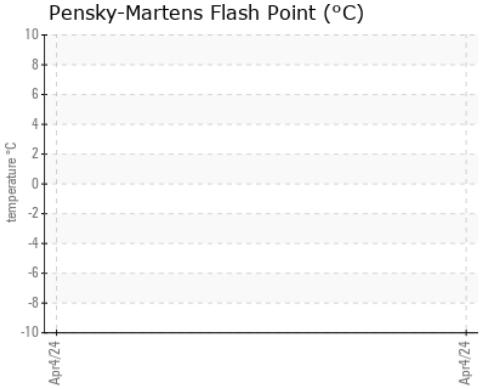

Particle Trend




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

GRAPHS

Pensky-Martens Flash Point (°C)




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC06150858 **Received** : 16 Apr 2024
**Lab Number** : 06150858 **Tested** : 22 Apr 2024
**Unique Number** : 10980936 **Diagnosed** : 22 Apr 2024 - Doug Bogart
**Test Package** : DF-5 ( Additional Tests: Bacteria, 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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