



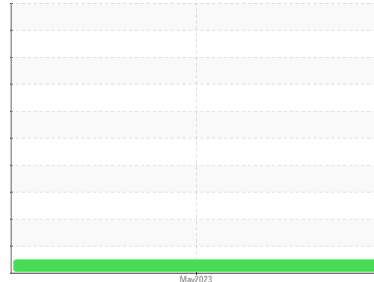
FUEL REPORT

Sample Rating Trend

NORMAL



Machine Id
KOHLER
Component
Diesel Fuel
Fluid
NOT GIVEN (--- 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

There is a moderate amount of silt (particulates < 6 microns in size) present in the fuel. There is no bacteria or fungus (yeast and/or mold) indicated in the sample. The water content is negligible.

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 | | | WC0748417 | --- | --- |
| Sample Date | Client Info | | | 12 May 2023 | --- | --- |
| Machine Age | hrs | Client Info | | 0 | --- | --- |
| Sample Status | | | | NORMAL | --- | --- |



| PHYSICAL PROPERTIES | | method | limit/base | current | history1 | history2 |
|---------------------|--------|-------------|------------|-------------|----------|----------|
| ASTM Color | scalar | *ASTM D1500 | | L5.5 | --- | --- |
| Visc @ 40°C | cSt | ASTM D445 | | 2.4 | --- | --- |

| SULFUR CONTENT | | method | limit/base | current | history1 | history2 |
|----------------|-----|-------------|------------|-----------|----------|----------|
| Sulfur | ppm | ASTM D5185m | | 0 | --- | --- |
| Sulfur (UVF) | ppm | ASTM D5453 | | 15 | --- | --- |

| 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 | 33.7 | --- | --- |
| % Gasoline | % | *In-House | <0.50 | 0.0 | --- | --- |
| % Biodiesel | % | *In-House | <20.0 | 0.0 | --- | --- |

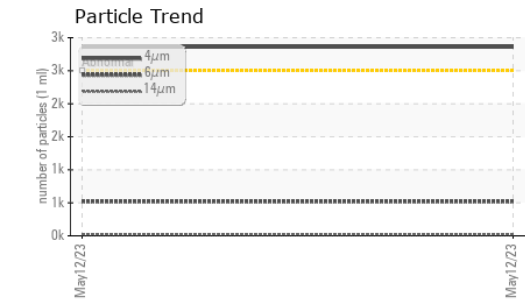
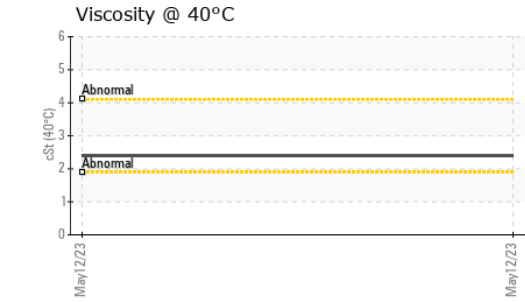
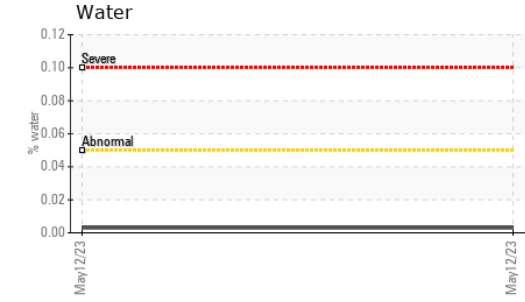
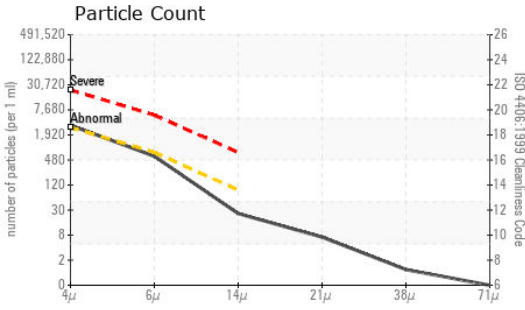
| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|-------------------|--|--------------|------------|-----------------|----------|----------|
| Particles >4µm | | ASTM D7647 | >2500 | 2859 | --- | --- |
| Particles >6µm | | ASTM D7647 | >640 | 520 | --- | --- |
| Particles >14µm | | ASTM D7647 | >80 | 22 | --- | --- |
| Particles >21µm | | ASTM D7647 | >20 | 6 | --- | --- |
| Particles >38µm | | ASTM D7647 | >4 | 1 | --- | --- |
| Particles >71µm | | ASTM D7647 | >3 | 0 | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >18/16/13 | 19/16/12 | --- | --- |

| 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 | <1 | --- | --- |
| 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 | --- | --- |

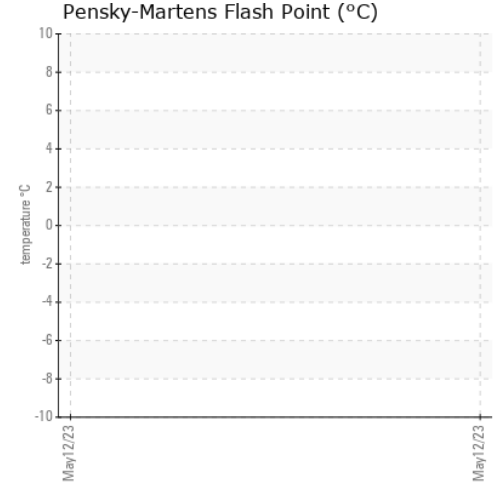
| SAMPLE IMAGES | | method | limit/base | current | history1 | history2 |
|---------------|--|--------|------------|---|----------|----------|
| Color | | | |  | no image | no image |
| Bottom | | | |  | no image | no image |



FUEL REPORT



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0748417 **Received** : 14 Jun 2023
Lab Number : 05873740 **Diagnosed** : 22 Jun 2023
Unique Number : 10518843 **Diagnostician** : Doug Bogart
Test Package : DF-5 (Additional Tests: 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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