



FUEL REPORT

Sample Rating Trend



ISO



Machine Id
KIOTI YJJ800028

Component
Diesel Fuel

Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)

DIAGNOSIS

Recommendation

We advise that you filter this fluid before use. 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 high amount of particulates present in the fuel. The water content is negligible. There is no bacteria or fungus (yeast and/or mold) indicated 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 | KT0000895 | --- | --- |
| Sample Date | Client Info | 08 Apr 2024 | --- | --- |
| Machine Age | hrs Client Info | 61 | --- | --- |
| Sample Status | | ABNORMAL | --- | --- |

PHYSICAL PROPERTIES

| method | limit/base | current | history1 | history2 |
|----------------------------|---------------------|-------------|----------|----------|
| ASTM Color | scalar *ASTM D1500 | L5.0 | --- | --- |
| Visc @ 40°C | cSt ASTM D445 | 3.0 | --- | --- |
| Pensky-Martens Flash Point | °C *PMCC Calculated | 52 | --- | --- |

SULFUR CONTENT

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

DISTILLATION

| method | limit/base | current | history1 | history2 | |
|------------------------|-------------|---------|------------|----------|-----|
| Initial Boiling Point | °C ASTM D86 | 165 | 170 | --- | --- |
| 5% Distillation Point | °C ASTM D86 | | 188 | --- | --- |
| 10% Distill Point | °C ASTM D86 | 201 | 198 | --- | --- |
| 15% Distillation Point | °C ASTM D86 | | 205 | --- | --- |
| 20% Distill Point | °C ASTM D86 | 216 | 212 | --- | --- |
| 30% Distill Point | °C ASTM D86 | 230 | 227 | --- | --- |
| 40% Distill Point | °C ASTM D86 | 243 | 242 | --- | --- |
| 50% Distill Point | °C ASTM D86 | 255 | 256 | --- | --- |
| 60% Distill Point | °C ASTM D86 | 267 | 274 | --- | --- |
| 70% Distill Point | °C ASTM D86 | 280 | 291 | --- | --- |
| 80% Distill Point | °C ASTM D86 | 295 | 309 | --- | --- |
| 85% Distillation Point | °C ASTM D86 | | 320 | --- | --- |
| 90% Distill Point | °C ASTM D86 | 310 | 330 | --- | --- |
| 95% Distillation Point | °C ASTM D86 | | 345 | --- | --- |
| Final Boiling Point | °C ASTM D86 | 341 | 359 | --- | --- |

IGNITION QUALITY

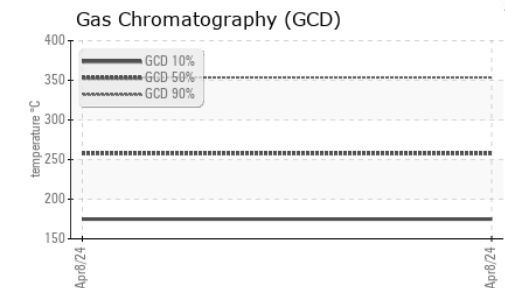
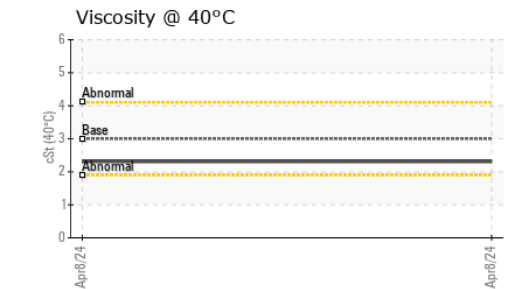
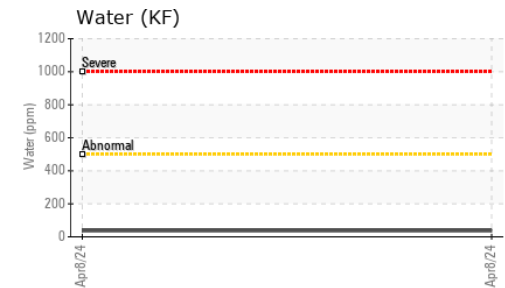
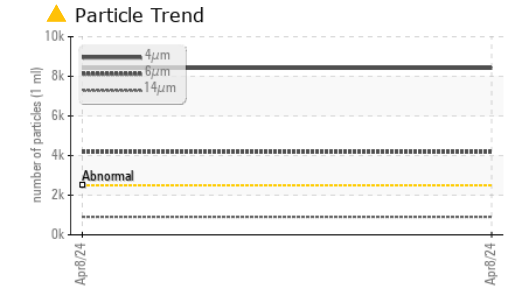
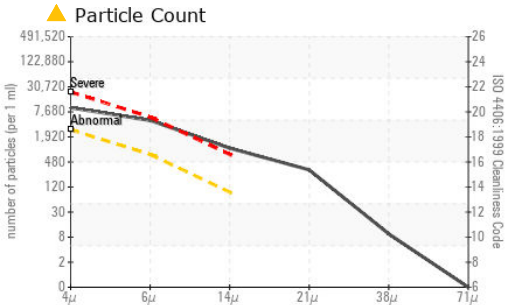
| method | limit/base | current | history1 | history2 | |
|--------------|------------|---------|-----------|----------|-----|
| API Gravity | ASTM D7777 | 37.7 | 38 | --- | --- |
| Cetane Index | ASTM D4737 | <40.0 | 50 | --- | --- |

CONTAMINANTS

| method | limit/base | current | history1 | history2 | |
|-------------|-----------------|---------|--------------|----------|-----|
| Silicon | ppm ASTM D5185m | <1.0 | <1 | --- | --- |
| Sodium | ppm ASTM D5185m | <0.1 | 0 | --- | --- |
| Potassium | ppm ASTM D5185m | <0.1 | 0 | --- | --- |
| Water | % ASTM D6304 | <0.05 | 0.003 | --- | --- |
| ppm Water | ppm ASTM D6304 | <500 | 37 | --- | --- |
| % Gasoline | % *In-House | <0.50 | 0.0 | --- | --- |
| % Biodiesel | % *In-House | <20.0 | 5.0 | --- | --- |



FUEL REPORT

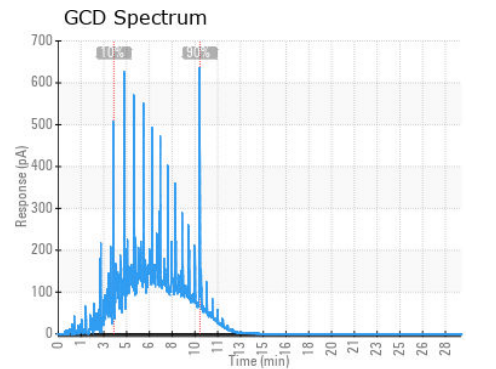
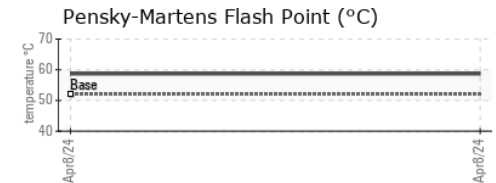
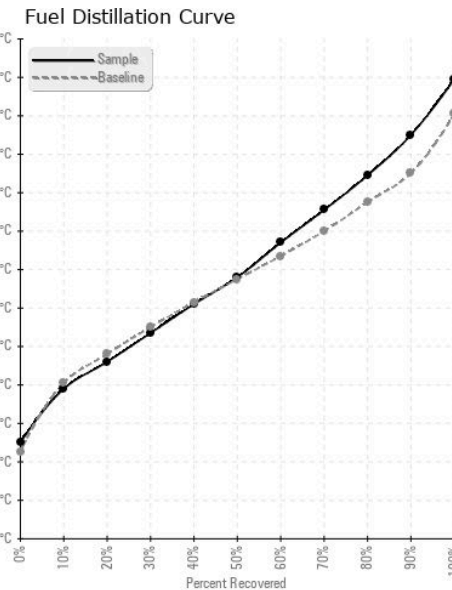


| FLUID CLEANLINESS | method | limit/base | current | history1 | history2 |
|-------------------|--------------|------------|------------|----------|----------|
| Particles >4µm | ASTM D7647 | >2500 | ▲ 8412 | --- | --- |
| Particles >6µm | ASTM D7647 | >640 | ▲ 4178 | --- | --- |
| Particles >14µm | ASTM D7647 | >80 | ▲ 904 | --- | --- |
| Particles >21µm | ASTM D7647 | >20 | ▲ 273 | --- | --- |
| Particles >38µm | ASTM D7647 | >4 | 8 | --- | --- |
| Particles >71µm | ASTM D7647 | >3 | 0 | --- | --- |
| Oil Cleanliness | ISO 4406 (c) | >18/16/13 | ▲ 20/19/17 | --- | --- |

| 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 | <1 | --- | --- |
| Magnesium | ppm | ASTM D5185m <0.1 | 0 | --- | --- |
| Phosphorus | ppm | ASTM D5185m <0.1 | 0 | --- | --- |
| 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 |

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KT0000895 **Received** : 18 Apr 2024
Lab Number : 06153866 **Tested** : 06 May 2024
Unique Number : 10989289 **Diagnosed** : 06 May 2024 - Doug Bogart
Test Package : DF-2 (Additional Tests: Fuel, Screen)

LARRYS DIESEL REPAIR
 260 N INDUSTRIAL DR
 FRONTENAC, KS
 US 66763
 Contact: LARRY R.
 larry.r@larrysdiesel.com

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)