

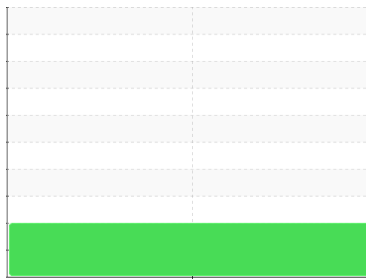


FUEL REPORT

Sample Rating Trend

ISO

Area
[W113571]
 Machine Id
JCB 3TS-8T GE03CTEAPP3233358
 Component
Diesel Fuel
 Fluid
OFF-ROAD DIESEL FUEL (20 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 B5 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 | JCBDF04572 | --- | --- |
| Sample Date | Client Info | 16 Aug 2023 | --- | --- |
| Machine Age | hrs Client Info | 0 | --- | --- |
| Sample Status | | ATTENTION | --- | --- |

PHYSICAL PROPERTIES

| method | limit/base | current | history1 | history2 |
|----------------------------|---------------------|--------------|----------|----------|
| Specific Gravity | *ASTM D1298 | 0.853 | --- | --- |
| Fuel Color | text *Visual Screen | Red | --- | --- |
| ASTM Color | scalar *ASTM D1500 | L5.5 | --- | --- |
| Visc @ 40°C | cSt ASTM D445 | 2.54 | --- | --- |
| Pensky-Martens Flash Point | °C *PMCC Calculated | 57 | --- | --- |

SULFUR CONTENT

| method | limit/base | current | history1 | history2 |
|--------------|-----------------|-----------|----------|----------|
| Sulfur | ppm ASTM D5185m | 0 | --- | --- |
| Sulfur (UVF) | ppm ASTM D5453 | 11 | --- | --- |

DISTILLATION

| method | limit/base | current | history1 | history2 |
|------------------------|-------------|------------|----------|----------|
| Initial Boiling Point | °C ASTM D86 | 158 | --- | --- |
| 5% Distillation Point | °C ASTM D86 | 185 | --- | --- |
| 10% Distill Point | °C ASTM D86 | 198 | --- | --- |
| 15% Distillation Point | °C ASTM D86 | 208 | --- | --- |
| 20% Distill Point | °C ASTM D86 | 216 | --- | --- |
| 30% Distill Point | °C ASTM D86 | 232 | --- | --- |
| 40% Distill Point | °C ASTM D86 | 247 | --- | --- |
| 50% Distill Point | °C ASTM D86 | 263 | --- | --- |
| 60% Distill Point | °C ASTM D86 | 278 | --- | --- |
| 70% Distill Point | °C ASTM D86 | 294 | --- | --- |
| 80% Distill Point | °C ASTM D86 | 311 | --- | --- |
| 85% Distillation Point | °C ASTM D86 | 321 | --- | --- |
| 90% Distill Point | °C ASTM D86 | 333 | --- | --- |
| 95% Distillation Point | °C ASTM D86 | 352 | --- | --- |
| Final Boiling Point | °C ASTM D86 | 361 | --- | --- |
| Distillation Residue | % ASTM D86 | 1.4 | --- | --- |
| Distillation Loss | % ASTM D86 | 0.8 | --- | --- |

IGNITION QUALITY

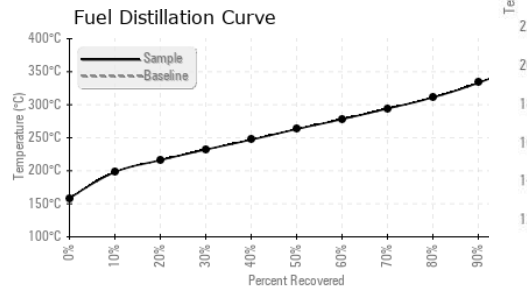
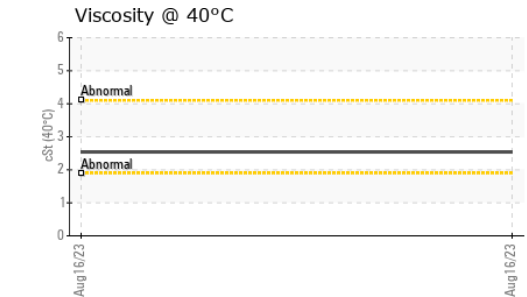
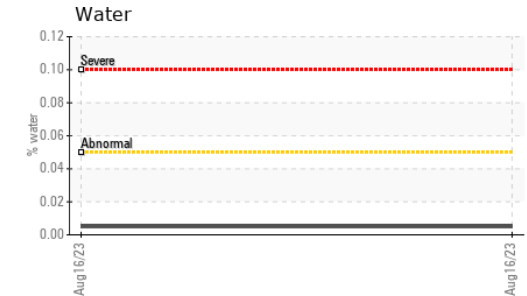
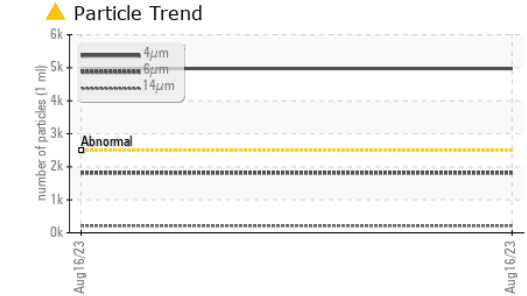
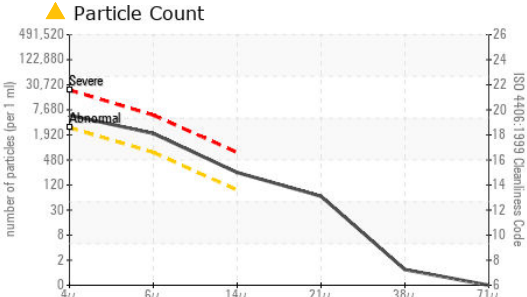
| method | limit/base | current | history1 | history2 |
|--------------|------------------|-------------|----------|----------|
| API Gravity | ASTM D7777 | 34.4 | --- | --- |
| Cetane Index | ASTM D4737 <40.0 | 44.0 | --- | --- |

CONTAMINANTS

| method | limit/base | current | history1 | history2 |
|-------------|----------------------|--------------|----------|----------|
| Silicon | ppm ASTM D5185m <1.0 | 0 | --- | --- |
| Sodium | ppm ASTM D5185m <0.1 | 0 | --- | --- |
| Potassium | ppm ASTM D5185m <0.1 | <1 | --- | --- |
| Water | % ASTM D6304 <0.05 | 0.005 | --- | --- |
| ppm Water | ppm ASTM D6304 <500 | 52.0 | --- | --- |
| % Gasoline | % *In-House <0.50 | 0.0 | --- | --- |
| % Biodiesel | % *In-House <20.0 | 0.0 | --- | --- |



FUEL REPORT

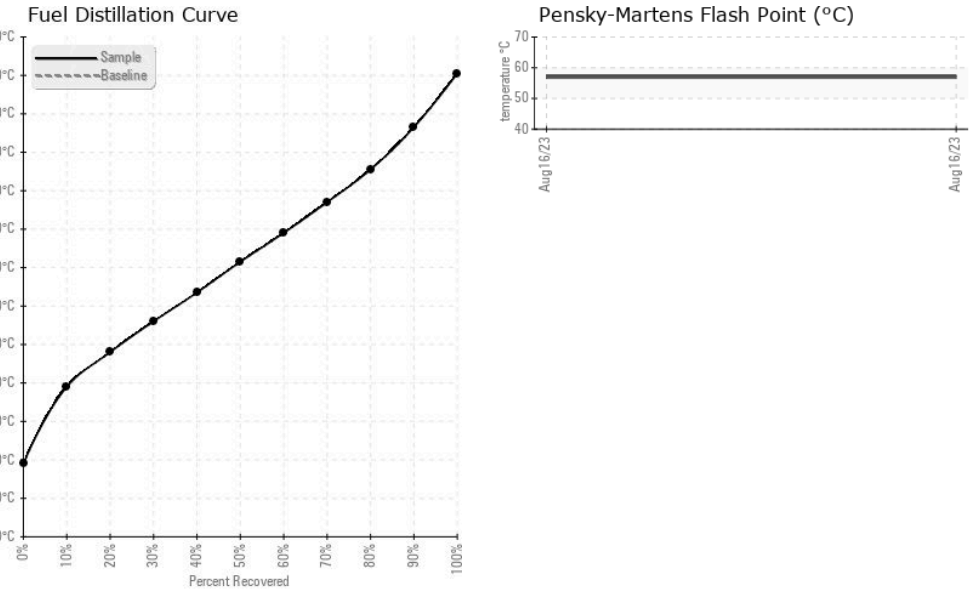


| FLUID CLEANLINESS | method | limit/base | current | history1 | history2 |
|-------------------|--------------|------------|------------|----------|----------|
| Particles >4µm | ASTM D7647 | >2500 | ▲ 4975 | --- | --- |
| Particles >6µm | ASTM D7647 | >640 | ▲ 1817 | --- | --- |
| Particles >14µm | ASTM D7647 | >80 | ▲ 211 | --- | --- |
| Particles >21µm | ASTM D7647 | >20 | ▲ 57 | --- | --- |
| Particles >38µm | ASTM D7647 | >4 | 1 | --- | --- |
| Particles >71µm | ASTM D7647 | >3 | 0 | --- | --- |
| Oil Cleanliness | ISO 4406 (c) | >18/16/13 | ▲ 19/18/15 | --- | --- |

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

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JCBDF04572 **Received** : 21 Aug 2023
Lab Number : 05930103 **Diagnosed** : 25 Aug 2023
Unique Number : 10615374 **Diagnostician** : Doug Bogart
Test Package : DF-2 (Additional Tests: Screen)

A & C FARM SERVICE INC - PAYNESVILLE
 412 BUSINESS 23 SOUTH
 PAYNESVILLE, MN
 US 56362
 Contact: JOE RONDEAU

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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