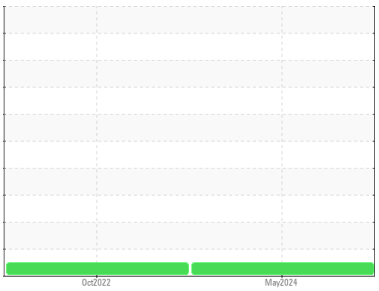
# FUEL REPORT

Sample Rating Trend




NORMAL

Area
## ROGERS CALL CENTRE [154384]
Machine Id
## CUMMINS
Component
**Diesel Fuel**
Fluid
**No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)**

## DIAGNOSIS

**Recommendation**
Laboratory test indicate that this fuel is suitable for use and meets all test requirements. Resample at the next service interval to monitor.

**Contaminants**
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. There is no indication of any contamination in the diesel fuel.

**Fuel Condition**
All laboratory tests indicate that this sample meets specifications for No.2 ultra-low-sulfur diesel fuel (US EPA/CGSB-3.517-3 type B).

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **CU0022889** | CU0020121 | --- |
| Sample Date | | Client Info | | **23 May 2024** | 13 Oct 2022 | --- |
| Machine Age | hrs | Client Info | | **268** | 230 | --- |
| Sample Status | | | | **NORMAL** | NORMAL | --- |

| PHYSICAL PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Specific Gravity | | ASTM D1298* | 0.839 | **0.840** | 0.838 | --- |
| Fuel Color | text | Visual Screen* | Yllow | **LtRed** | Pink | --- |
| Visc @ 40°C | cSt | ASTM D7279(m) | 3.0 | **2.3** | 2.3 | --- |
| Pensky-Martens Flash Point | °C | ASTM D7215* | 52 | **55** | 55.9 | --- |

| SULFUR CONTENT | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sulfur | ppm | ASTM D5185(m) | 10 | **7** | 8 | --- |

| DISTILLATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Initial Boiling Point | °C | ASTM D2887* | 165 | **166** | 167 | --- |
| 5% Distillation Point | °C | ASTM D2887* | | **188** | 189 | --- |
| 10% Distill Point | °C | ASTM D2887* | 201 | **198** | 198 | --- |
| 15% Distillation Point | °C | ASTM D2887* | | **205** | 204 | --- |
| 20% Distill Point | °C | ASTM D2887* | 216 | **211** | 211 | --- |
| 30% Distill Point | °C | ASTM D2887* | 230 | **225** | 224 | --- |
| 40% Distill Point | °C | ASTM D2887* | 243 | **237** | 236 | --- |
| 50% Distill Point | °C | ASTM D2887* | 255 | **250** | 248 | --- |
| 60% Distill Point | °C | ASTM D2887* | 267 | **263** | 262 | --- |
| 70% Distill Point | °C | ASTM D2887* | 280 | **277** | 275 | --- |
| 80% Distill Point | °C | ASTM D2887* | 295 | **294** | 292 | --- |
| 85% Distillation Point | °C | ASTM D2887* | | **306** | 303 | --- |
| 90% Distill Point | °C | ASTM D2887* | 310 | **318** | 314 | --- |
| 95% Distillation Point | °C | ASTM D2887* | | **337** | 331 | --- |
| Final Boiling Point | °C | ASTM D2887* | 341 | **369** | 351 | --- |

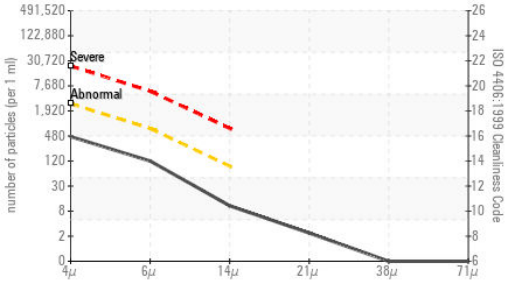
| IGNITION QUALITY | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| API Gravity | ASTM D1298* | 37.7 | **36** | 37 | --- |
| Cetane Index | ASTM D4737* | <40.0 | **46** | 46 | --- |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185(m) | <1.0 | **0** | 0 | --- |
| Sodium | ppm | ASTM D5185(m) | <0.1 | **0** | 0 | --- |
| Potassium | ppm | ASTM D5185(m) | <0.1 | **0** | 0 | --- |
| Water | % | ASTM D6304* | <0.05 | **0.003** | 0.004 | --- |
| ppm Water | ppm | ASTM D6304* | <500 | **38** | 46.5 | --- |

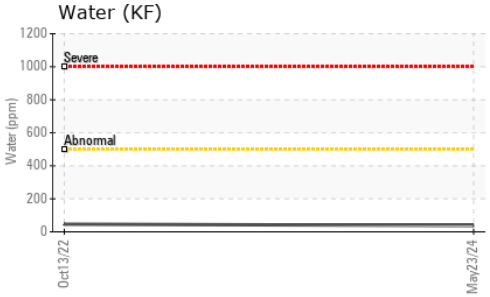
| FLUID CLEANLINESS | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Particles >4µm | ASTM D7647 | >2500 | **408** | 2085 | --- |
| Particles >6µm | ASTM D7647 | >640 | **106** | 477 | --- |
| Particles >14µm | ASTM D7647 | >80 | **9** | 12 | --- |
| Particles >21µm | ASTM D7647 | >20 | **2** | 2 | --- |
| Particles >38µm | ASTM D7647 | >4 | **0** | 0 | --- |
| Particles >71µm | ASTM D7647 | >3 | **0** | 0 | --- |
| Oil Cleanliness | ISO 4406 (c) | >18/16/13 | **16/14/10** | 18/16/11 | --- |

# FUEL REPORT

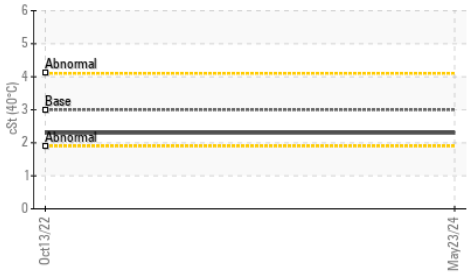
Particle Count



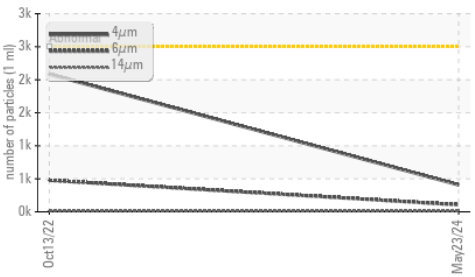

Water (KF)



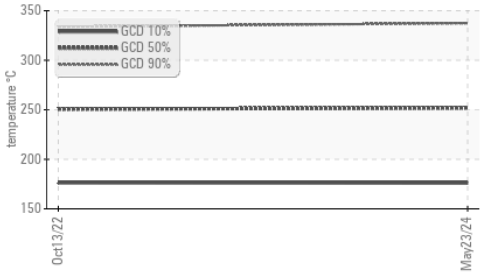

Viscosity @ 40°C



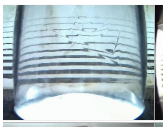
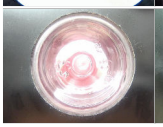
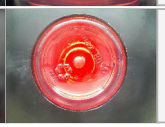

Particle Trend




Gas Chromatography (GCD)

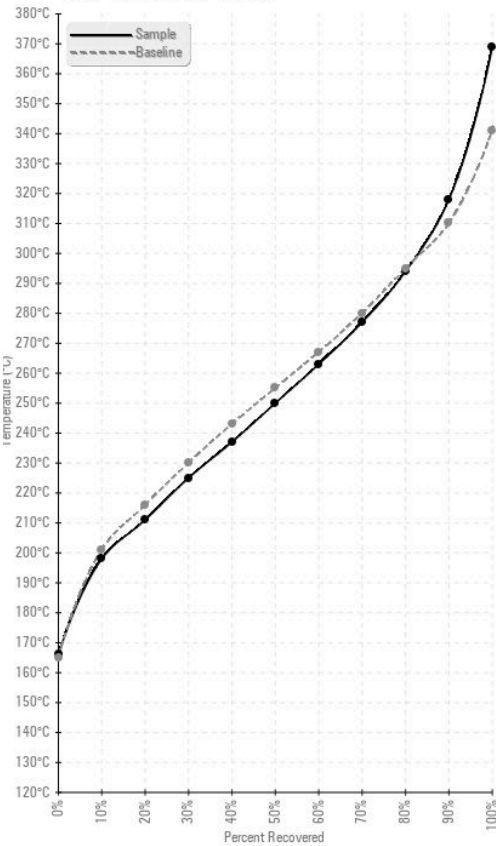



| HEAVY METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Aluminum | ppm | ASTM D5185(m) | <0.1 | **0** | 0 | --- |
| Nickel | ppm | ASTM D5185(m) | <0.1 | **0** | 0 | --- |
| Lead | ppm | ASTM D5185(m) | <0.1 | **0** | 0 | --- |
| Vanadium | ppm | ASTM D5185(m) | <0.1 | **0** | 0 | --- |
| Iron | ppm | ASTM D5185(m) | <0.1 | **0** | <1 | --- |
| Calcium | ppm | ASTM D5185(m) | <0.1 | **<1** | 2 | --- |
| Magnesium | ppm | ASTM D5185(m) | <0.1 | **0** | <1 | --- |
| Phosphorus | ppm | ASTM D5185(m) | <0.1 | **<1** | <1 | --- |
| Zinc | ppm | ASTM D5185(m) | <0.1 | **<1** | <1 | --- |

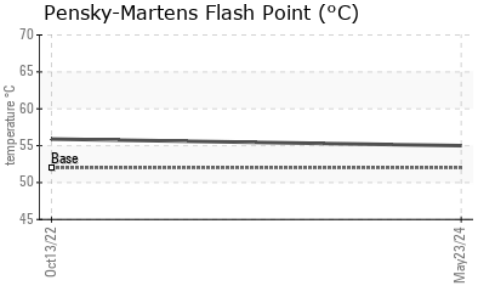
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  |  | *no image* |
| Bottom | | |  |  | *no image* |

## GRAPHS

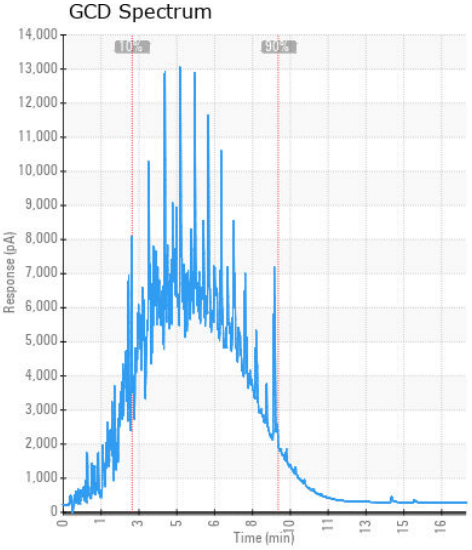
Fuel Distillation Curve




Pensky-Martens Flash Point (°C)




GCD Spectrum




ISO 17025:2017 Accredited Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
**Sample No.** : CU0022889
**Lab Number** : 02643847
**Unique Number** : 5801386
**Test Package** : FUEL ( Additional Tests: CC Flash, PrtCount )

**Received** : 24 Jun 2024
**Tested** : 26 Jun 2024
**Diagnosed** : 26 Jun 2024 - Kevin Marson

*To discuss this sample report, contact Customer Service at 1-800-268-2131.*
*Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.*
*Validity of results and interpretation are based on the sample and information as supplied.*


**CUMMINS CANADA ULC - GENERATOR DIVISION**
7175 PACIFIC CIRCLE
MISSISSAUGA, ON
CA L5T 2A5
Contact: Elisia Johnson
elisia.johnson@cummins.com
T: (905)795-0050
F: (905)795-9252