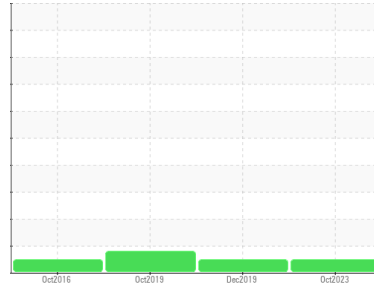




FUEL REPORT

Sample Rating Trend

NORMAL



Area
[328143]
 Machine Id
E00706 G120360279
 Component
Diesel Fuel
 Fluid
No.1 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)

DIAGNOSIS

Recommendation

Les tests de laboratoire indiquent que ce carburant peut être utilisé et qu'il répond à toutes les exigences. Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition.

Corrosion

(sans objet)

Contaminants

La propreté du système est acceptable pour votre objectif de propreté ISO 4406. La teneur en eau est négligeable. Il n'y a aucun indice de contamination dans le carburant diesel.

Fuel Condition

Tous les essais en laboratoire indiquent que cet échantillon satisfait aux spécifications pour le carburant diesel à ultra-faible teneur de soufre No.1 (US EPA/CGSB-3.517-3 type A).

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | | CU0021606 | CU0016053 | CU0014723 |
| Sample Date | Client Info | | | 17 Oct 2023 | 09 Dec 2019 | 09 Oct 2019 |
| Machine Age | hrs | Client Info | | 299 | 0 | 0 |
| Sample Status | | | | NORMAL | NORMAL | ATTENTION |

| PHYSICAL PROPERTIES | | method | limit/base | current | history1 | history2 |
|----------------------------|------|----------------|------------|--------------|----------|----------|
| Specific Gravity | | ASTM D1298* | 0.825 | 0.815 | 0.813 | 0.819 |
| Fuel Color | text | Visual Screen* | Clear | Red | Red | Pink |
| Visc @ 40°C | cSt | ASTM D7279(m) | 1.8 | 1.6 | 1.6 | 1.6 |
| Pensky-Martens Flash Point | °C | ASTM D7215* | 38 | 47 | 46 | 45 |

| SULFUR CONTENT | | method | limit/base | current | history1 | history2 |
|----------------|-----|---------------|------------|-----------|----------|----------|
| Sulfur | ppm | ASTM D5185(m) | 10 | 14 | 10 | 10 |

| DISTILLATION | | method | limit/base | current | history1 | history2 |
|------------------------|----|--------------|------------|------------|----------|----------|
| Initial Boiling Point | °C | ASTM D2887* | 159 | 154 | 143 | 146 |
| 5% Distillation Point | °C | ASTM D2887* | | 172 | 164 | 165 |
| 10% Distill Point | °C | ASTM D2887* | 184 | 177 | 172 | 171 |
| 15% Distillation Point | °C | ASTM D2887* | | 183 | 177 | 176 |
| 20% Distill Point | °C | ASTM D2887* | 196 | 190 | 182 | 181 |
| 30% Distill Point | °C | ASTM D2887* | 205 | 200 | 193 | 192 |
| 40% Distill Point | °C | ASTM D2887* | 216 | 211 | 205 | 204 |
| 50% Distill Point | °C | ASTM D2887* | 227 | 223 | 218 | 218 |
| 60% Distill Point | °C | ASTM D2887* | 238 | 234 | 231 | 232 |
| 70% Distill Point | °C | ASTM D2887* | 251 | 246 | 244 | 247 |
| 80% Distill Point | °C | ASTM D2887* | 264 | 261 | 259 | 263 |
| 85% Distillation Point | °C | ASTM D2887* | | 272 | 269 | 273 |
| 90% Distill Point | °C | ASTM D2887* | 288 | 283 | 280 | 285 |
| 95% Distillation Point | °C | ASTM D2887* | | 301 | 297 | 301 |
| Final Boiling Point | °C | ASTM D2887* | 309 | 321 | 312 | 315 |
| Distillation Residue | % | ASTM D86(e)* | 3.0 | --- | 1.3 | 1.3 |
| Distillation Loss | % | ASTM D86(e)* | 3.0 | --- | 0.5 | 0.6 |

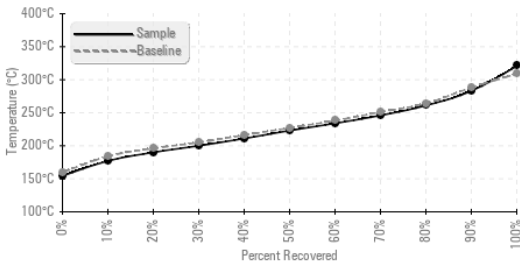
| IGNITION QUALITY | | method | limit/base | current | history1 | history2 |
|------------------|--|-------------|------------|-----------|----------|----------|
| API Gravity | | ASTM D1298* | 40.1 | 42 | 42.5 | 41.3 |
| Cetane Index | | ASTM D4737* | <40.0 | 48 | 47.2 | 44.9 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|---------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185(m) | <1.0 | <1 | 0 | 0 |
| Sodium | ppm | ASTM D5185(m) | <0.1 | <1 | 0 | <1 |
| Potassium | ppm | ASTM D5185(m) | <0.1 | 0 | <1 | <1 |
| Water | % | ASTM D6304* | <0.05 | 0.002 | 0.000 | 0.001 |
| ppm Water | ppm | ASTM D6304* | <500 | 23.4 | 7.3 | 19.9 |



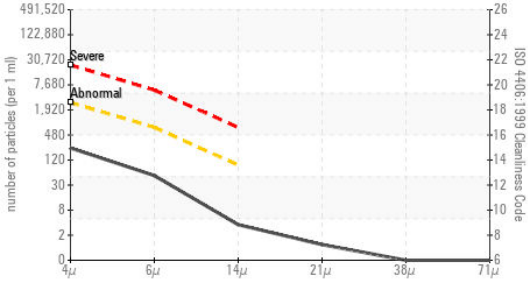
FUEL REPORT

Fuel Distillation Curve



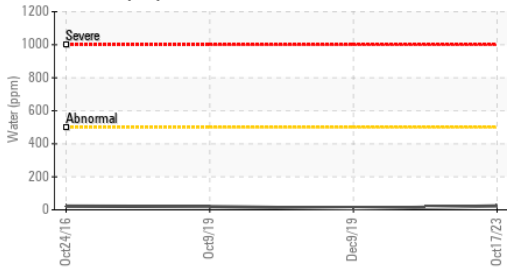
| FLUID CLEANLINESS | method | limit/base | current | history1 | history2 |
|-------------------|--------------|------------|----------------|----------|------------|
| Particles >4µm | ASTM D7647 | >2500 | 206 | 306 | ▲ 4366 |
| Particles >6µm | ASTM D7647 | >640 | 45 | 25 | ▲ 1176 |
| Particles >14µm | ASTM D7647 | >80 | 3 | 3 | 72 |
| Particles >21µm | ASTM D7647 | >20 | 1 | 1 | 16 |
| Particles >38µm | ASTM D7647 | >4 | 0 | 0 | 0 |
| Particles >71µm | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >18/16/13 | 15/13/9 | 15/12/9 | ▲ 19/17/13 |

Particle Count



| 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 | <1 | 0 |
| Vanadium | ppm | ASTM D5185(m) | <0.1 | 0 | 0 |
| Iron | ppm | ASTM D5185(m) | <0.1 | <1 | <1 |
| Calcium | ppm | ASTM D5185(m) | <0.1 | 2 | <1 |
| Magnesium | ppm | ASTM D5185(m) | <0.1 | <1 | <1 |
| Phosphorus | ppm | ASTM D5185(m) | <0.1 | <1 | <1 |
| Zinc | ppm | ASTM D5185(m) | <0.1 | 1 | <1 |

Water (KF)



| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|

Color



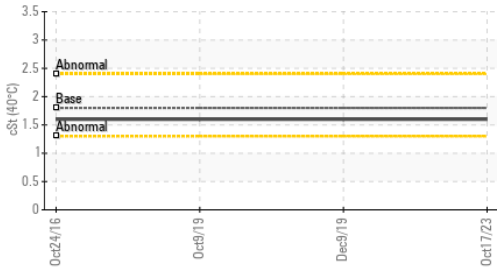
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Bottom

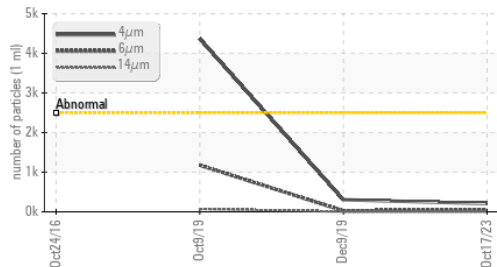


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Viscosity @ 40°C



Particle Trend



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : CU0021606
Lab Number : **02592771**
Unique Number : 5669850
Test Package : FUEL (Additional Tests: CC Flash, GC-PercFuel, PRTCOUNT)

CUMMINS EASTERN CANADA LP
 315 AV LIBERTE
 CANDIAC, QC
 CA J5R 6Z7
 Contact: Thomas Owens
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 T: (450)638-6863
 F: (450)638-1202

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.