

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

9461-5713

Machine Id 79939678

Component Diesel Engine

SHELL Rotella T5 15W-40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

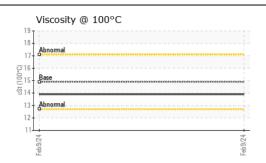
Elevated aluminum (AI) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

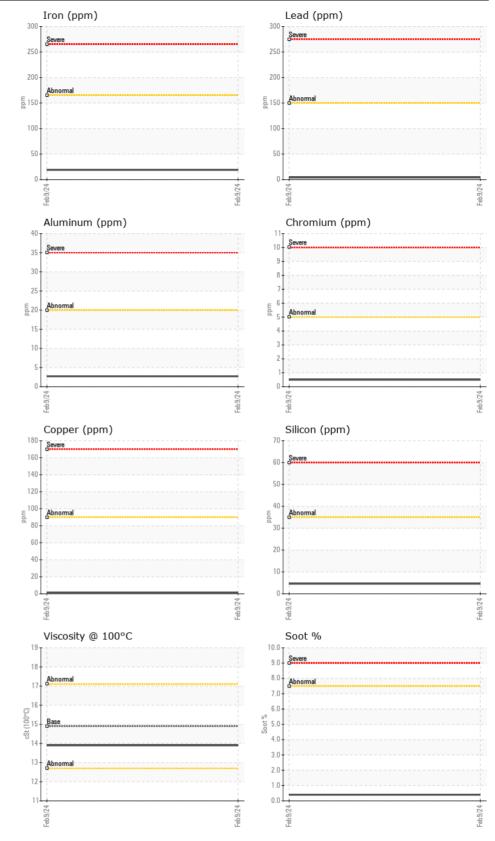
FLUID CONDITION

The condition of the oil is acceptable for the time in service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|------------------------|-----------------|--------------------------------|-----------|-------------|----------|----------|
| Sample Number | | Client Info | | CU0021581 | | |
| Sample Date | | Client Info | | 09 Feb 2024 | | |
| Machine Age | mls | Client Info | | 766000 | | |
| Oil Age | mls | Client Info | | 0 | | |
| Filter Age | mls | Client Info | | 0 | | |
| Oil Changed | | Client Info | | N/A | | |
| Filter Changed | | Client Info | | N/A | | |
| Sample Status | | | | NORMAL | | |
| lron | | | . 105 | 10 | | |
| Iron | ppm | ASTM D5185(m) | >165 | 19 | | |
| Chromium Nickel | ppm | ASTM D5185(m) | >5 | <1 | | |
| | ppm | ASTM D5185(m) | >4 | 0 | | |
| Titanium | ppm | ASTM D5185(m) | >2 | 0 | | |
| Silver | ppm | ASTM D5185(m) | >2 | 0 | | |
| Aluminum | ppm | ASTM D5185(m) | >20 | 3 | | |
| Lead | ppm | ASTM D5185(m) | >150 | 4 | | |
| Copper | ppm | ASTM D5185(m) | >90 | <1 | | |
| Tin | ppm | ASTM D5185(m) | >5 | <1 | | |
| Vanadium | ppm | ASTM D5185(m) | | 0 | | |
| Silicon | ppm | ASTM D5185(m) | >35 | 5 | | |
| Potassium | ppm | ASTM D5185(m) | >20 | 6 | | |
| Fuel | | WC Method | >3.0 | <1.0 | | |
| Water | | WC Method | >0.2 | NEG | | |
| Glycol | | WC Method | | NEG | | |
| Soot % | % | ASTM D7844* | >7.5 | 0.4 | | |
| Nitration | Abs/cm | ASTM D7624* | >20 | 10.5 | | |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 26.5 | | |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | | |
| Sodium | | | | 0 | | |
| Boron | ppm | ASTM D5185(m) ASTM D5185(m) | | 2 | | |
| Barium | ppm | ASTM D5185(m) | | 33 0 | | |
| | ppm | . , | | 25 | | |
| Molybdenum | ppm | ASTM D5185(m) | | | | |
| Manganese Magnesium | ppm | ASTM D5185(m) ASTM D5185(m) | | 0 137 | | |
| Calcium | ppm | ASTM D5185(m) ASTM D5185(m) | | 2291 | | |
| Phosphorus | ppm | ASTM D5185(m) | | 1048 | | |
| Zinc | ppm | ASTM D5185(m) | | 1048 | | |
| Sulfur | ppm | ASTM D5185(m) | | 3060 | | |
| Oxidation | ppm Abs/.1mm | ASTM D5165(III) ASTM D7414* | >25 | 19.8 | | |
| | | | >25 | | | |
| Visc @ 100°C | cSt | ASTM D7279(m) | 14.9 | 13.9 | | |

Contact/Location: Jean Verret - DIESTE





CUMMINS DIESEL Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CALA Sample No. Received : 16 Feb 2024 2400 AV WATT : CU0021581 Lab Number : 02616172 : 16 Feb 2024 Quebec City, QC Tested ISO 17025:2017 Accredited Unique Number : 5733282 : 16 Feb 2024 - Wes Davis CA G1P 3T3 Diagnosed Laboratory Test Package : MOB 1 Contact: Jean Verret To discuss this sample report, contact Customer Service at 1-800-268-2131. verret.jean@cummins.com Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (418)651-2911 Validity of results and interpretation are based on the sample and information as supplied. F: (418)651-3157

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Page 2 of 2