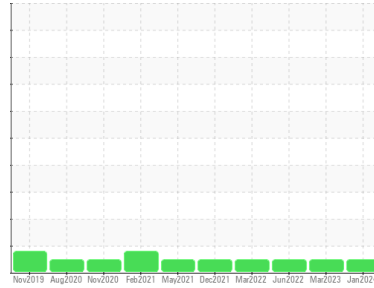


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
CR247

Component
Diesel Engine

Fluid
PETRO CANADA DURON UHP 5W40 (31 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | PC0078383 | PC0072024 | PC0065356 |
| Sample Date | Client Info | 25 Jan 2024 | 02 Mar 2023 | 28 Jun 2022 |
| Machine Age | hrs | 9843 | 8850 | 7775 |
| Oil Age | hrs | 500 | 500 | 0 |
| Oil Changed | Client Info | Changed | Changed | Changed |
| Sample Status | | NORMAL | NORMAL | NORMAL |

CONTAMINATION

| method | limit/base | current | history1 | history2 |
|--------|----------------|----------------|----------|----------|
| Fuel | WC Method >4.0 | <1.0 | <1.0 | <1.0 |
| Water | WC Method >0.1 | NEG | NEG | NEG |
| Glycol | WC Method | NEG | NEG | NEG |

WEAR METALS

| method | limit/base | current | history1 | history2 |
|-----------|------------------------|--------------|----------|----------|
| Iron | ppm ASTM D5185(m) >120 | 8 | 4 | 5 |
| Chromium | ppm ASTM D5185(m) >10 | 2 | 1 | 1 |
| Nickel | ppm ASTM D5185(m) >5 | 0 | <1 | 0 |
| Titanium | ppm ASTM D5185(m) | 0 | 0 | <1 |
| Silver | ppm ASTM D5185(m) >5 | 0 | 0 | 0 |
| Aluminum | ppm ASTM D5185(m) >20 | 2 | 1 | <1 |
| Lead | ppm ASTM D5185(m) >40 | 3 | <1 | <1 |
| Copper | ppm ASTM D5185(m) >300 | 1 | <1 | <1 |
| Tin | ppm ASTM D5185(m) >10 | <1 | <1 | 0 |
| Antimony | ppm ASTM D5185(m) | 0 | 0 | <1 |
| Vanadium | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Beryllium | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Cadmium | ppm ASTM D5185(m) | 0 | 0 | 0 |

ADDITIVES

| method | limit/base | current | history1 | history2 |
|------------|------------------------|--------------|----------|----------|
| Boron | ppm ASTM D5185(m) 65 | 38 | 41 | 37 |
| Barium | ppm ASTM D5185(m) 0 | 0 | 0 | 0 |
| Molybdenum | ppm ASTM D5185(m) 65 | 58 | 58 | 54 |
| Manganese | ppm ASTM D5185(m) 0 | 0 | <1 | <1 |
| Magnesium | ppm ASTM D5185(m) 1160 | 1092 | 1083 | 1042 |
| Calcium | ppm ASTM D5185(m) 820 | 817 | 861 | 840 |
| Phosphorus | ppm ASTM D5185(m) 1160 | 1010 | 1057 | 987 |
| Zinc | ppm ASTM D5185(m) 1260 | 1147 | 1180 | 1157 |
| Sulfur | ppm ASTM D5185(m) 3000 | 2836 | 2816 | 2734 |
| Lithium | ppm ASTM D5185(m) | <1 | <1 | <1 |

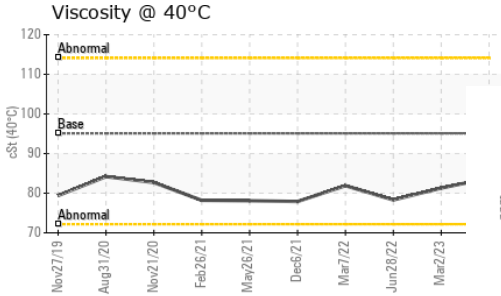
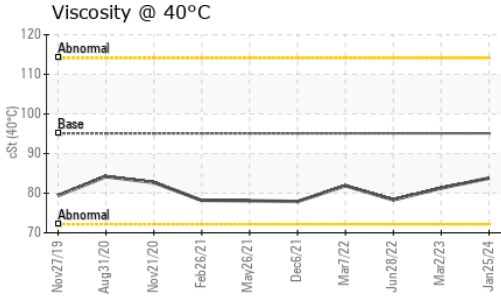
CONTAMINANTS

| method | limit/base | current | history1 | history2 |
|-----------|-----------------------|--------------|----------|----------|
| Silicon | ppm ASTM D5185(m) >25 | 3 | 3 | 3 |
| Sodium | ppm ASTM D5185(m) | 4 | 4 | 4 |
| Potassium | ppm ASTM D5185(m) >20 | <1 | <1 | <1 |

INFRA-RED

| method | limit/base | current | history1 | history2 |
|-----------|----------------------|-------------|----------|----------|
| Soot % | % ASTM D7844* | 0 | 0 | 0 |
| Nitration | Abs/cm ASTM D7624* | 10.9 | 11.2 | 10.0 |
| Sulfation | Abs./1mm ASTM D7415* | 21.9 | 23.5 | 20.2 |

OIL ANALYSIS REPORT

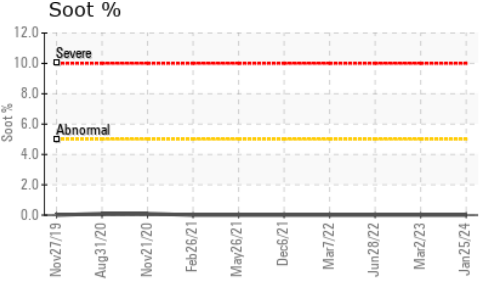
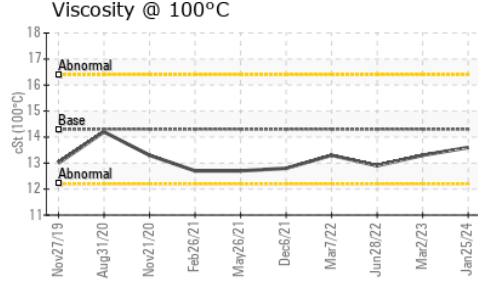
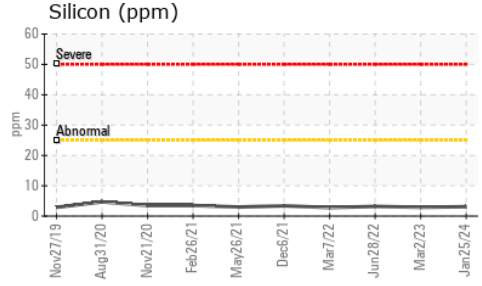
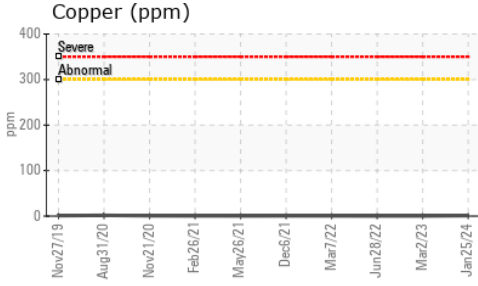
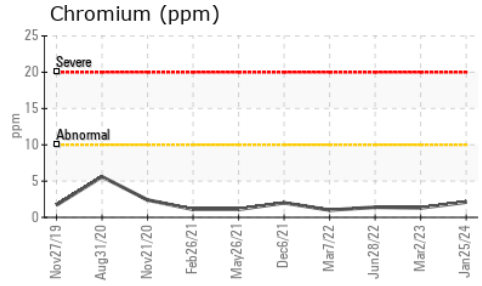
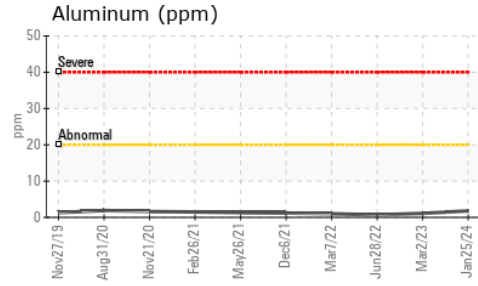
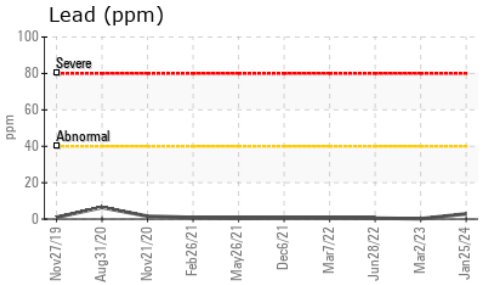
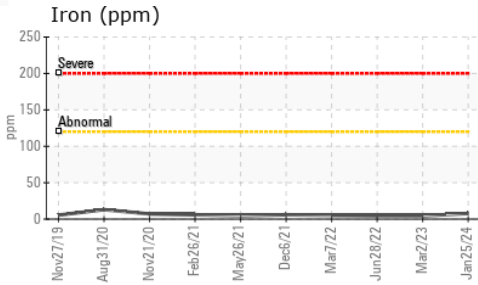


| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|-------------|------------|-------------|----------|----------|
| Oxidation | Abs./1mm | ASTM D7414* | >25 | 22.8 | 22.1 | 19.5 |

| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|---------|------------|------------|----------|----------|
| Emulsified Water | scalar | Visual* | >0.1 | NEG | NEG | NEG |
| Free Water | scalar | Visual* | | NEG | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|----------------------|-------|---------------|------------|-------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D7279(m) | 95.1 | 83.8 | 81.3 | 78.3 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 14.3 | 13.6 | 13.3 | 12.9 |
| Viscosity Index (VI) | Scale | ASTM D2270* | 169 | 165 | 166 | 165 |

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations
Sample No. : PC0078383 **Received** : 01 Feb 2024 151 Ram Forest Rd,
Lab Number : **02612729** **Diagnosed** : 01 Feb 2024 Stouffville, ON
Unique Number : 5721824 **Diagnostician** : Wes Davis CA L4A 2G8
Test Package : MOB 1 (Additional Tests: KV40, VI)
 Contact: Shannon Abbott
 sabbott@gipi.com
 T: (905)750-5900
 F:

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.