

Machine Id
801051
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (19 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | GFL0122322 | GFL0117911 | GFL0107127 |
| Sample Date | | Client Info | | 02 Jul 2024 | 11 Apr 2024 | 16 Jan 2024 |
| Machine Age | kms | Client Info | | 14713 | 175095 | 13612 |
| Oil Age | kms | Client Info | | 600 | 7500 | 0 |
| Filter Age | kms | Client Info | | 600 | 7500 | 0 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

Metal levels are typical for a new component breaking in.

| | | | | | | |
|----------|-----|---------------|------|--------------|----|----|
| Iron | ppm | ASTM D5185(m) | >75 | 15 | 16 | 13 |
| Chromium | ppm | ASTM D5185(m) | >5 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185(m) | >4 | <1 | 0 | <1 |
| Titanium | ppm | ASTM D5185(m) | >2 | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >15 | 2 | 2 | 2 |
| Lead | ppm | ASTM D5185(m) | >25 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185(m) | >100 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185(m) | >4 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

CONTAMINATION

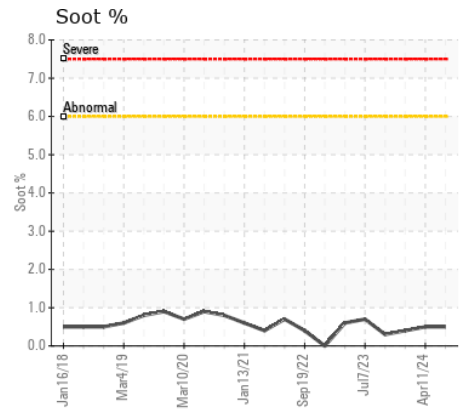
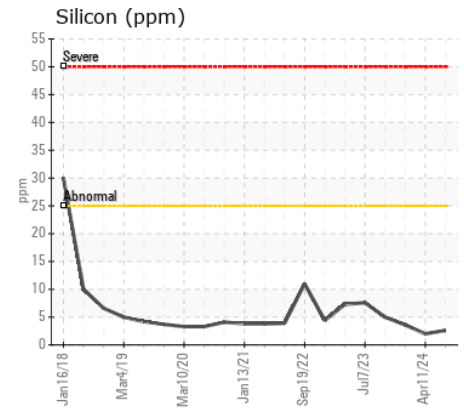
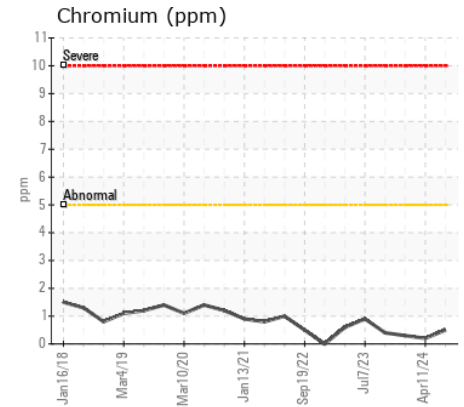
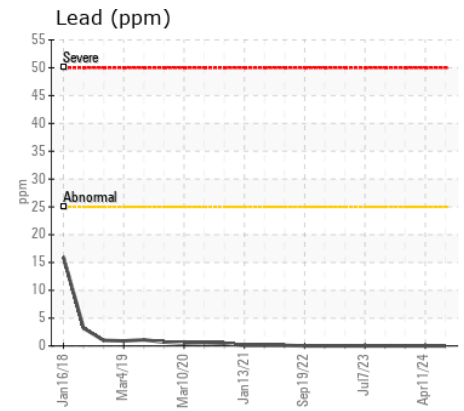
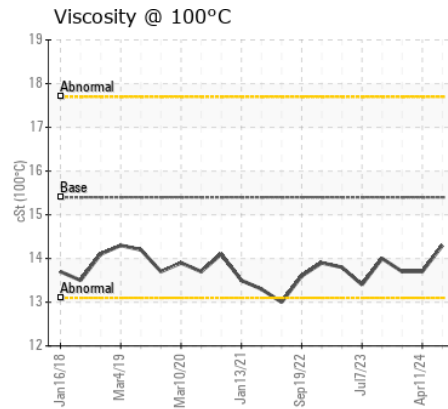
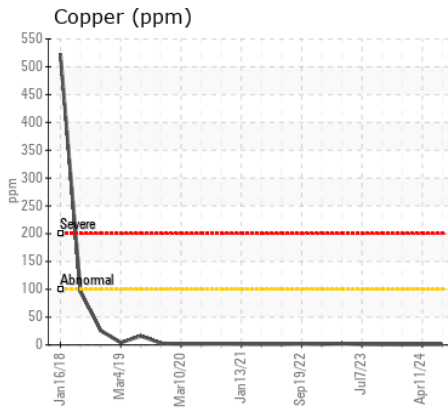
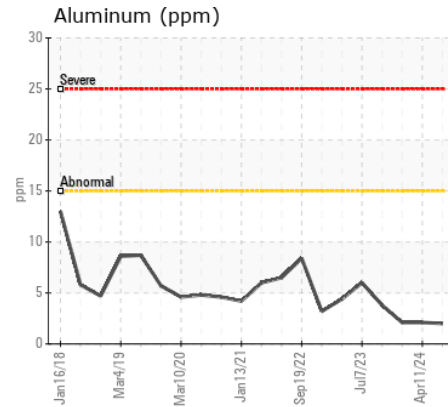
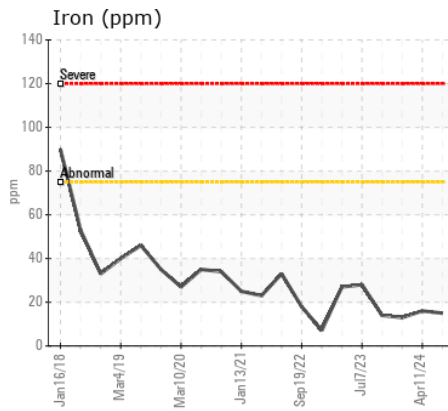
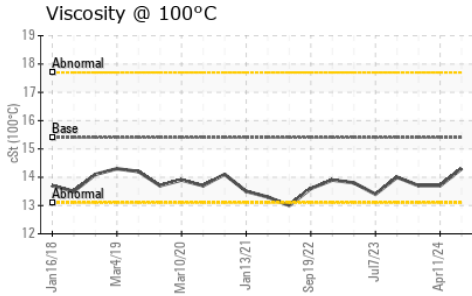
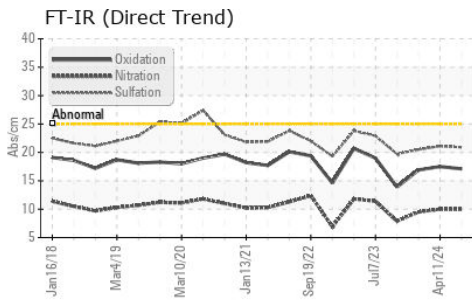
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|---------------|------|----------------|------|------|
| Silicon | ppm | ASTM D5185(m) | >25 | 3 | 2 | 4 |
| Potassium | ppm | ASTM D5185(m) | >20 | 2 | <1 | 2 |
| Fuel | | WC Method | >3.0 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | ASTM D7844* | >6 | 0.5 | 0.5 | 0.4 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 10.0 | 10.0 | 9.5 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 20.9 | 21.1 | 20.5 |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | NEG | NEG |

FLUID CONDITION

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

| | | | | | | |
|--------------|----------|---------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185(m) | | 9 | 10 | 8 |
| Boron | ppm | ASTM D5185(m) | 0 | 13 | 6 | 7 |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 60 | 64 | 59 | 57 |
| Manganese | ppm | ASTM D5185(m) | 0 | <1 | <1 | 0 |
| Magnesium | ppm | ASTM D5185(m) | 1010 | 900 | 946 | 905 |
| Calcium | ppm | ASTM D5185(m) | 1070 | 1061 | 1015 | 1043 |
| Phosphorus | ppm | ASTM D5185(m) | 1150 | 911 | 956 | 968 |
| Zinc | ppm | ASTM D5185(m) | 1270 | 1145 | 1154 | 1140 |
| Sulfur | ppm | ASTM D5185(m) | 2060 | 2343 | 2369 | 2533 |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 17.1 | 17.5 | 16.9 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 15.4 | 14.3 | 13.7 | 13.7 |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0122322 **Received** : 03 Jul 2024
Lab Number : 02645204 **Tested** : 03 Jul 2024
Unique Number : 5802743 **Diagnosed** : 03 Jul 2024 - Wes Davis
Test Package : MOB 1

GFL Environmental - 217 - Aurora
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 Contact: Mike Havens
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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.

T:
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