



| | |
|-----------------|---------------|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |



Machine Id
810057
Component
Diesel Engine
Fluid
PETRO CANADA DURON SAE 15W40 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number | | Client Info | | GFL0088354 | GFL0088349 | --- |
| Sample Date | | Client Info | | 11 Apr 2024 | 18 Oct 2023 | --- |
| Machine Age | hrs | Client Info | | 2865 | 2065 | --- |
| Oil Age | hrs | Client Info | | 600 | 600 | --- |
| Filter Age | hrs | Client Info | | 600 | 600 | --- |
| Oil Changed | | Client Info | | Changed | Changed | --- |
| Filter Changed | | Client Info | | Changed | N/A | --- |
| Sample Status | | | | NORMAL | NORMAL | --- |

WEAR

All component wear rates are normal.

| | | | | | | |
|----------|-----|---------------|------|--------------|----|-----|
| Iron | ppm | ASTM D5185(m) | >80 | 37 | 79 | --- |
| Chromium | ppm | ASTM D5185(m) | >5 | 2 | 3 | --- |
| Nickel | ppm | ASTM D5185(m) | >2 | <1 | <1 | --- |
| Titanium | ppm | ASTM D5185(m) | | 0 | 0 | --- |
| Silver | ppm | ASTM D5185(m) | >3 | 0 | <1 | --- |
| Aluminum | ppm | ASTM D5185(m) | >30 | 12 | 18 | --- |
| Lead | ppm | ASTM D5185(m) | >30 | 0 | 1 | --- |
| Copper | ppm | ASTM D5185(m) | >150 | 4 | 24 | --- |
| Tin | ppm | ASTM D5185(m) | >5 | <1 | <1 | --- |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | --- |

CONTAMINATION

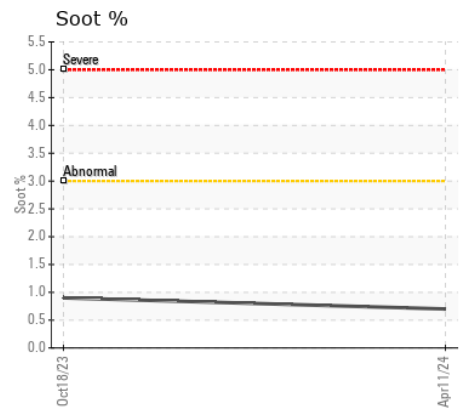
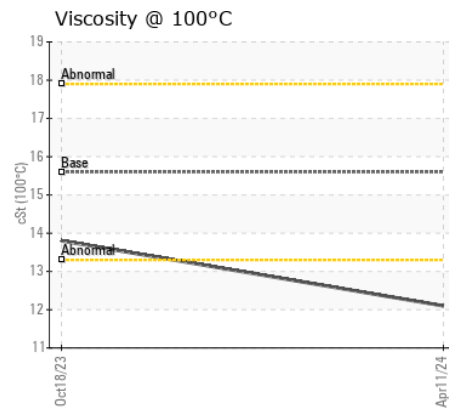
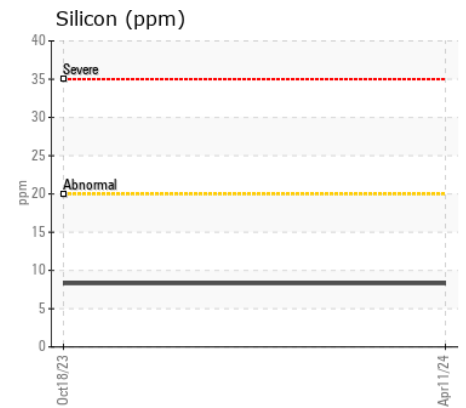
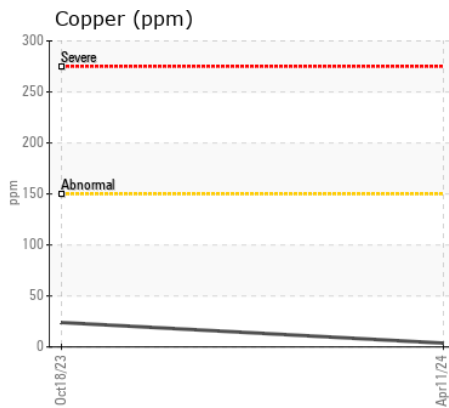
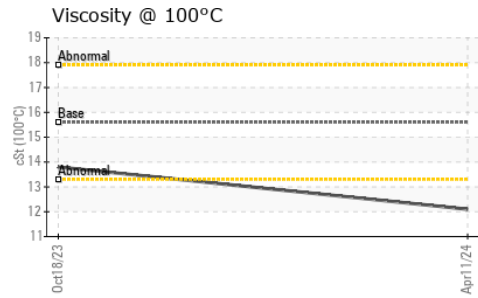
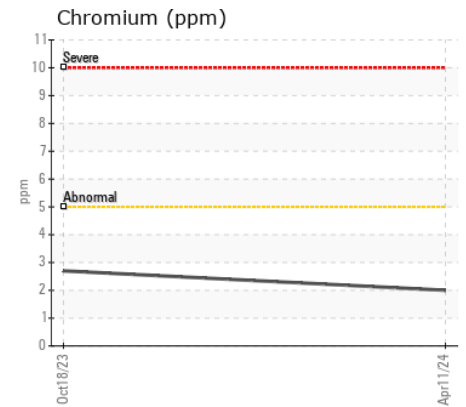
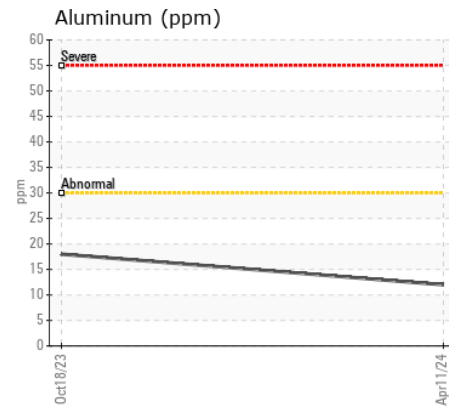
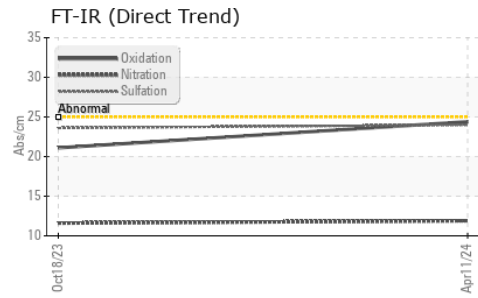
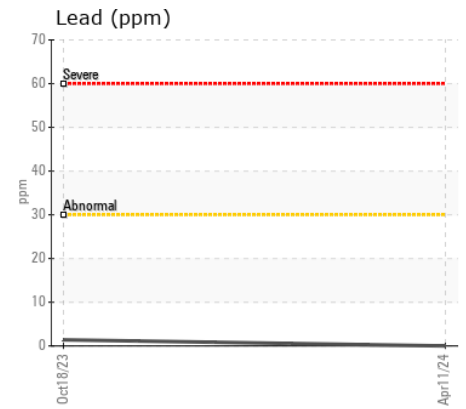
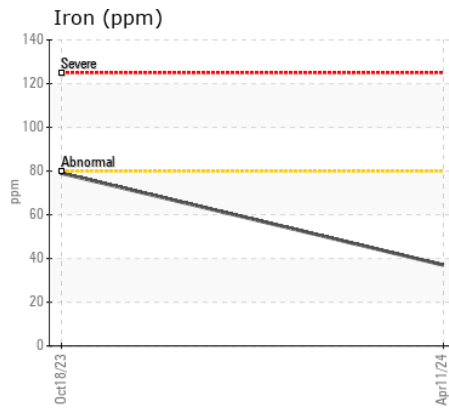
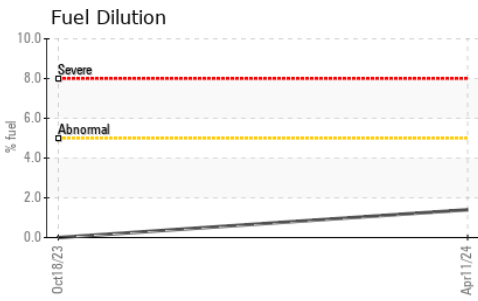
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Light fuel dilution occurring. No other contaminants were detected in the oil.

| | | | | | | |
|------------------|----------|---------------|------|-------------|------|-----|
| Silicon | ppm | ASTM D5185(m) | >20 | 8 | 8 | --- |
| Potassium | ppm | ASTM D5185(m) | >20 | 18 | 37 | --- |
| Fuel | % | ASTM D7593* | >5 | 1.4 | <1.0 | --- |
| Water | | WC Method | >0.2 | NEG | NEG | --- |
| Glycol | | WC Method | | NEG | NEG | --- |
| Soot % | % | ASTM D7844* | >3 | 0.7 | 0.9 | --- |
| Nitration | Abs/cm | ASTM D7624* | >20 | 11.9 | 11.6 | --- |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 24.0 | 23.6 | --- |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | NEG | --- |

FLUID CONDITION

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

| | | | | | | |
|--------------|----------|---------------|------|--------------|------|-----|
| Sodium | ppm | ASTM D5185(m) | | 3 | 2 | --- |
| Boron | ppm | ASTM D5185(m) | 1 | 22 | 5 | --- |
| Barium | ppm | ASTM D5185(m) | 1 | 0 | <1 | --- |
| Molybdenum | ppm | ASTM D5185(m) | 60 | 45 | 67 | --- |
| Manganese | ppm | ASTM D5185(m) | 1 | <1 | <1 | --- |
| Magnesium | ppm | ASTM D5185(m) | 1010 | 585 | 1005 | --- |
| Calcium | ppm | ASTM D5185(m) | 1070 | 1710 | 1167 | --- |
| Phosphorus | ppm | ASTM D5185(m) | 1150 | 775 | 940 | --- |
| Zinc | ppm | ASTM D5185(m) | 1270 | 933 | 1244 | --- |
| Sulfur | ppm | ASTM D5185(m) | 2060 | 2012 | 2133 | --- |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 24.4 | 21.1 | --- |
| Visc @ 100°C | cSt | ASTM D7279(m) | 15.6 | 12.1 | 13.8 | --- |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0088354 **Received** : 15 Apr 2024
Lab Number : 02628670 **Tested** : 17 Apr 2024
Unique Number : 5761802 **Diagnosed** : 17 Apr 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: FUELDILUTION, PercentFuel)

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 North Bay, ON
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 Contact: Angele Labonte
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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.