



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



Machine Id
933009
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number | | Client Info | | GFL0117338 | GFL0084349 | --- |
| Sample Date | | Client Info | | 07 May 2024 | 17 Aug 2023 | --- |
| Machine Age | kms | Client Info | | 0 | 1991 | --- |
| Oil Age | kms | Client Info | | 56375 | 809 | --- |
| Filter Age | kms | Client Info | | 0 | 809 | --- |
| Oil Changed | | Client Info | | Changed | Changed | --- |
| Filter Changed | | Client Info | | Changed | Changed | --- |
| Sample Status | | | | NORMAL | NORMAL | --- |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|---------------|------|--------------|-----|-----|
| Iron | ppm | ASTM D5185(m) | >50 | 31 | 14 | --- |
| Chromium | ppm | ASTM D5185(m) | >5 | 1 | <1 | --- |
| Nickel | ppm | ASTM D5185(m) | >4 | 1 | <1 | --- |
| Titanium | ppm | ASTM D5185(m) | >5 | 0 | 0 | --- |
| Silver | ppm | ASTM D5185(m) | >3 | 0 | 0 | --- |
| Aluminum | ppm | ASTM D5185(m) | >25 | 10 | 2 | --- |
| Lead | ppm | ASTM D5185(m) | >40 | <1 | <1 | --- |
| Copper | ppm | ASTM D5185(m) | >150 | 3 | 3 | --- |
| Tin | ppm | ASTM D5185(m) | >4 | <1 | <1 | --- |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | --- |
| White Metal | scalar | Visual* | NONE | NONE | --- | --- |
| Yellow Metal | scalar | Visual* | NONE | NONE | --- | --- |

CONTAMINATION

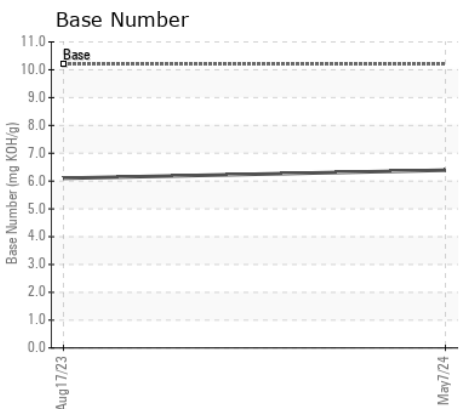
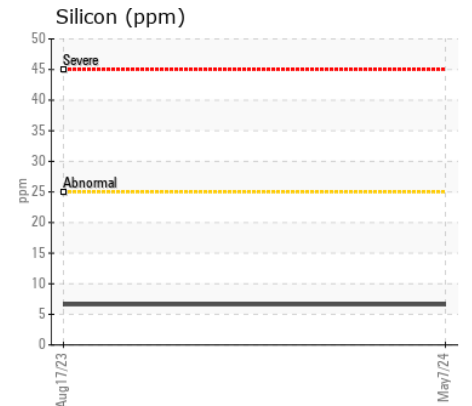
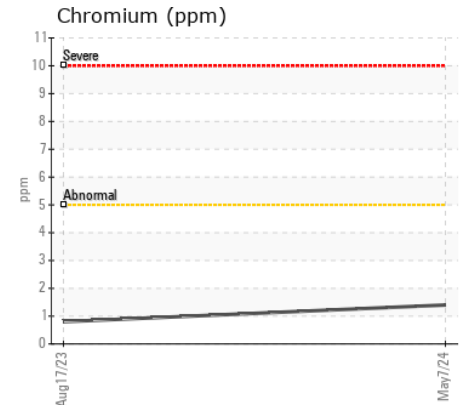
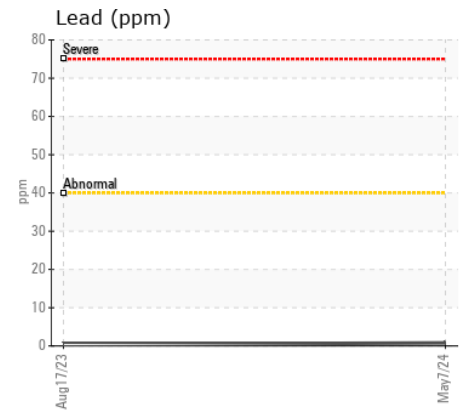
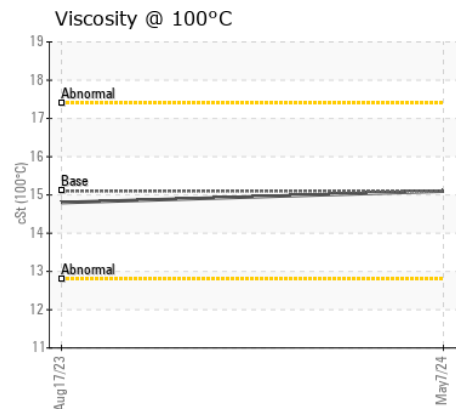
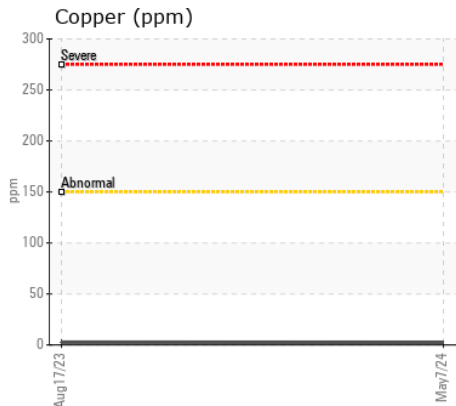
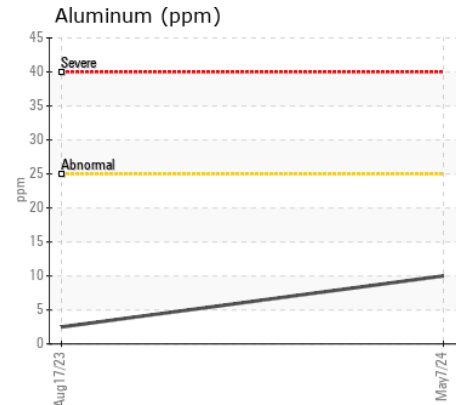
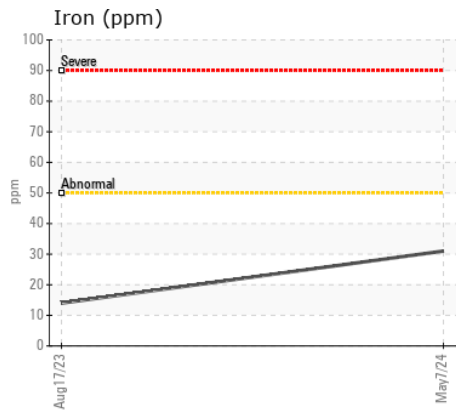
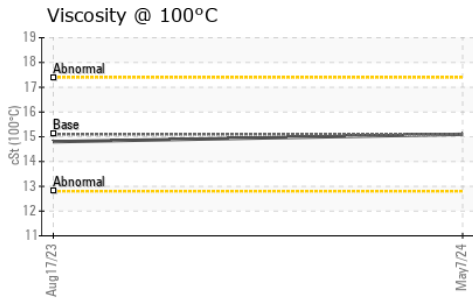
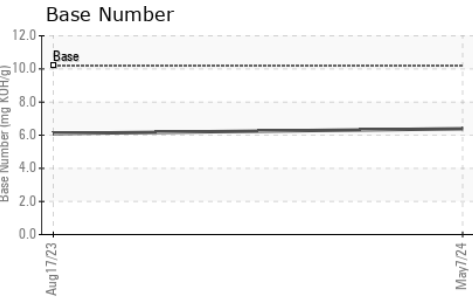
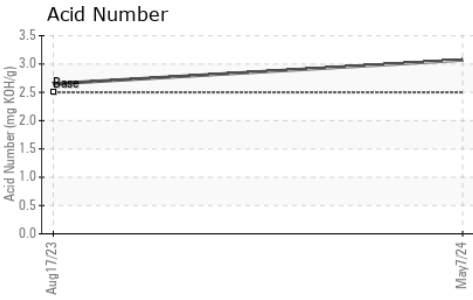
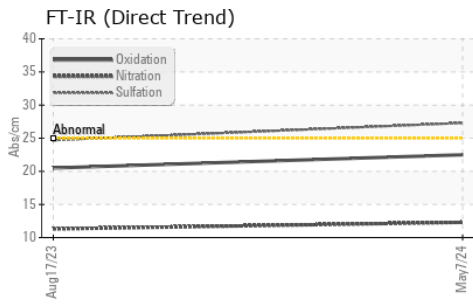
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|---------------|-------|--------------|-------|-----|
| Silicon | ppm | ASTM D5185(m) | >25 | 7 | 7 | --- |
| Potassium | ppm | ASTM D5185(m) | >20 | 5 | 2 | --- |
| Water | | WC Method | >0.1 | NEG | NEG | --- |
| Soot % | % | ASTM D7844* | | 0 | 0 | --- |
| Nitration | Abs/cm | ASTM D7624* | >20 | 12.3 | 11.3 | --- |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 27.3 | 24.7 | --- |
| Silt | scalar | Visual* | NONE | NONE | --- | --- |
| Debris | scalar | Visual* | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | Visual* | NONE | NONE | --- | --- |
| Appearance | scalar | Visual* | NORML | NORML | --- | --- |
| Odor | scalar | Visual* | NORML | NORML | NORML | --- |
| Emulsified Water | scalar | Visual* | >0.1 | NEG | NEG | --- |

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|------------|---------------|------|--------------|------|-----|
| Sodium | ppm | ASTM D5185(m) | | 9 | 7 | --- |
| Boron | ppm | ASTM D5185(m) | 50 | 12 | 8 | --- |
| Barium | ppm | ASTM D5185(m) | 5 | <1 | 0 | --- |
| Molybdenum | ppm | ASTM D5185(m) | 50 | 60 | 52 | --- |
| Manganese | ppm | ASTM D5185(m) | 0 | 1 | 1 | --- |
| Magnesium | ppm | ASTM D5185(m) | 560 | 618 | 577 | --- |
| Calcium | ppm | ASTM D5185(m) | 1510 | 1782 | 1590 | --- |
| Phosphorus | ppm | ASTM D5185(m) | 780 | 794 | 714 | --- |
| Zinc | ppm | ASTM D5185(m) | 870 | 996 | 908 | --- |
| Sulfur | ppm | ASTM D5185(m) | 2040 | 1988 | 1905 | --- |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 22.5 | 20.5 | --- |
| Acid Number (AN) | mg KOH/g | ASTM D974* | 2.5 | 3.07 | 2.65 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896* | 10.2 | 6.39 | 6.10 | --- |
| i-pH | Scale 0-14 | ASTM D7946* | <4.5 | 5.05 | 5.07 | --- |
| Visc @ 100°C | cSt | ASTM D7279(m) | 15.1 | 15.1 | 14.8 | --- |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117338 **Received** : 16 May 2024
Lab Number : 02635989 **Tested** : 21 May 2024
Unique Number : 5785151 **Diagnosed** : 21 May 2024 - Wes Davis
Test Package : MOB 2 (Additional Tests: i-pH, TAN Auto, TAN Man, Visual)

GFL Environmental - 550 - Rocky View County
 220 Carmek Blvd
 Rocky View County, AB
 CA T1X 1X1
 Contact: GFL Calgary
 calgarymaintenance@gflenv.com

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.

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