



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

Area

(YA163846)

Machine Id

10537C

Component

Natural Gas Engine

Fluid

PETRO CANADA DURON GEO LD 15W40 (5 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | GFL0118397 | GFL0112895 | GFL0112957 |
| Sample Date | | Client Info | | 30 May 2024 | 12 Apr 2024 | 04 Mar 2024 |
| Machine Age | hrs | Client Info | | 12368 | 12368 | 12368 |
| Oil Age | hrs | Client Info | | 319 | 274 | 610 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | N/A | N/A | N/A |
| Filter Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >50 | 10 | 9 | 10 |
| Chromium | ppm | ASTM D5185m | >4 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | <1 |
| Silver | ppm | ASTM D5185m | >3 | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >9 | 2 | 2 | 2 |
| Lead | ppm | ASTM D5185m | >30 | 1 | 0 | <1 |
| Copper | ppm | ASTM D5185m | >35 | 0 | 0 | <1 |
| Tin | ppm | ASTM D5185m | >4 | <1 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

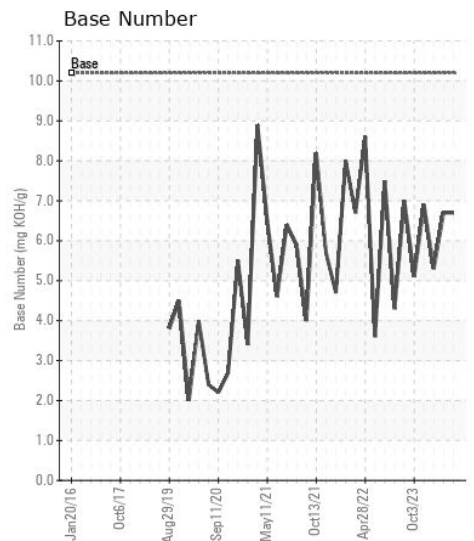
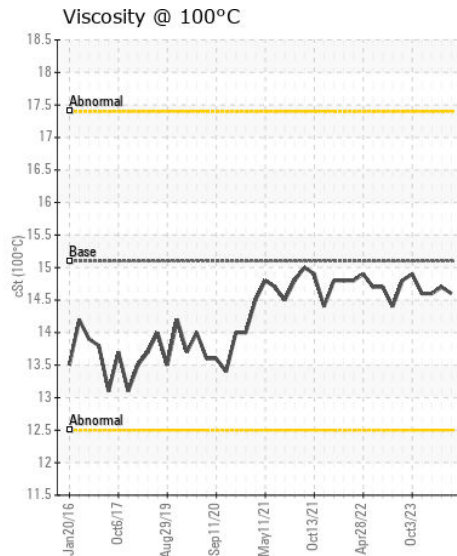
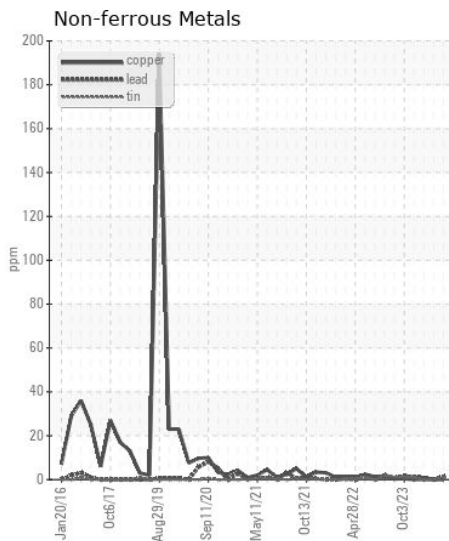
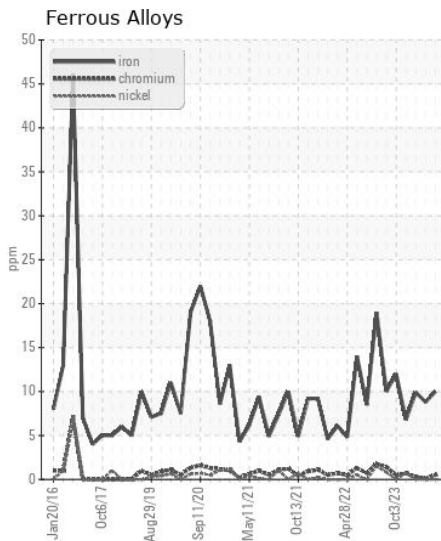
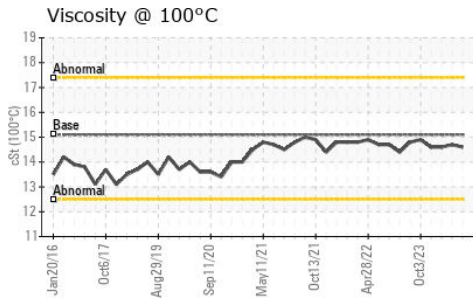
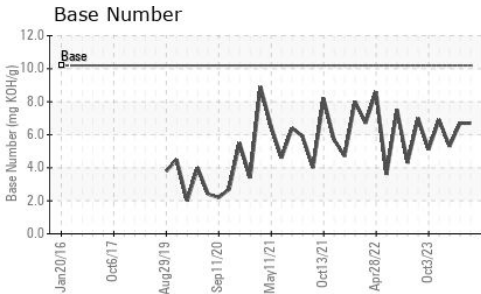
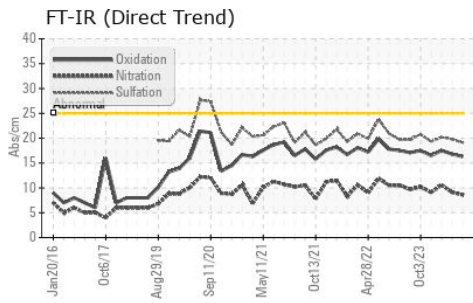
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|--------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >+100 | 8 | 4 | 4 |
| Potassium | ppm | ASTM D5185m | >20 | 1 | 0 | 0 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | | 0 | 0 | 0 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 8.6 | 9.1 | 10.6 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 19.1 | 19.8 | 20.2 |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.1 | NEG | NEG | NEG |

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185m | | 4 | 3 | 5 |
| Boron | ppm | ASTM D5185m | 50 | 24 | 25 | 14 |
| Barium | ppm | ASTM D5185m | 5 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 50 | 50 | 53 | 47 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 560 | 585 | 650 | 622 |
| Calcium | ppm | ASTM D5185m | 1510 | 1697 | 1639 | 1746 |
| Phosphorus | ppm | ASTM D5185m | 780 | 865 | 864 | 817 |
| Zinc | ppm | ASTM D5185m | 870 | 1006 | 1028 | 1005 |
| Sulfur | ppm | ASTM D5185m | 2040 | 3323 | 2955 | 2700 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 16.3 | 16.8 | 17.5 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10.2 | 6.7 | 6.7 | 5.3 |
| Visc @ 100°C | cSt | ASTM D445 | 15.1 | 14.6 | 14.7 | 14.6 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0118397
Lab Number : 06195099
Unique Number : 11057222
Test Package : FLEET
Received : 30 May 2024
Tested : 31 May 2024
Diagnosed : 31 May 2024 - Wes Davis

GFL Environmental - 017 - Durham
 148 Stone Park Court
 Durham, NC
 US 27703
 Contact:
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 F: (919)598-1852

To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)