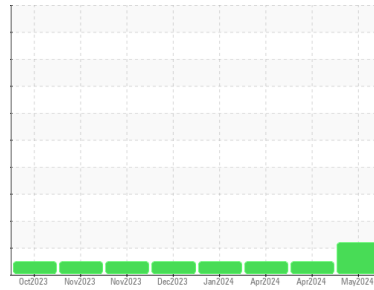




OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



Machine Id
834055
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

DIAGNOSIS

Recommendation

The oil is near the end of its useful service life, recommend schedule an oil change. 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 BN level is low.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | GFL0118791 | GFL0118846 | GFL0114133 |
| Sample Date | Client Info | | 08 May 2024 | 30 Apr 2024 | 01 Apr 2024 |
| Machine Age | hrs | Client Info | 1170 | 1122 | 992 |
| Oil Age | hrs | Client Info | 1170 | 1122 | 992 |
| Oil Changed | Client Info | | Not Chngd | Not Chngd | Not Chngd |
| Sample Status | | | ABNORMAL | NORMAL | NORMAL |

CONTAMINATION

| | method | limit/base | current | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >0.1 | NEG | NEG | NEG |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >50 | 61 | 60 | 60 |
| Chromium | ppm | ASTM D5185m >4 | 2 | 2 | 1 |
| Nickel | ppm | ASTM D5185m >2 | 1 | 3 | 2 |
| Titanium | ppm | ASTM D5185m | 0 | <1 | <1 |
| Silver | ppm | ASTM D5185m >3 | <1 | <1 | <1 |
| Aluminum | ppm | ASTM D5185m >9 | 5 | 5 | 5 |
| Lead | ppm | ASTM D5185m >30 | 2 | 4 | 2 |
| Copper | ppm | ASTM D5185m >35 | 20 | 16 | 18 |
| Tin | ppm | ASTM D5185m >4 | 3 | 4 | 2 |
| Vanadium | ppm | ASTM D5185m | 0 | 0 | <1 |
| Cadmium | ppm | ASTM D5185m | 0 | 2 | <1 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|------------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m 50 | 8 | 4 | 17 |
| Barium | ppm | ASTM D5185m 5 | <1 | 2 | 5 |
| Molybdenum | ppm | ASTM D5185m 50 | 57 | 53 | 58 |
| Manganese | ppm | ASTM D5185m 0 | 13 | 13 | 13 |
| Magnesium | ppm | ASTM D5185m 560 | 802 | 816 | 737 |
| Calcium | ppm | ASTM D5185m 1510 | 1405 | 1541 | 1412 |
| Phosphorus | ppm | ASTM D5185m 780 | 766 | 827 | 782 |
| Zinc | ppm | ASTM D5185m 870 | 981 | 1040 | 984 |
| Sulfur | ppm | ASTM D5185m 2040 | 2596 | 2876 | 2529 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-------------------|-----------|----------|----------|
| Silicon | ppm | ASTM D5185m >+100 | 24 | 21 | 24 |
| Sodium | ppm | ASTM D5185m | 7 | 7 | 6 |
| Potassium | ppm | ASTM D5185m >20 | 2 | 4 | 5 |

INFRA-RED

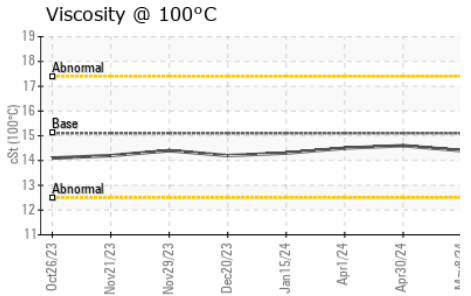
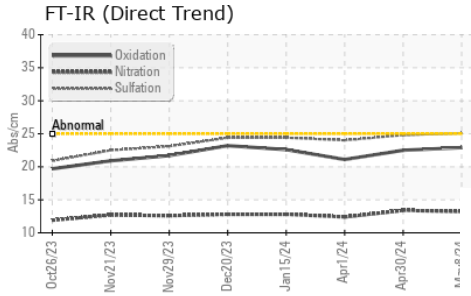
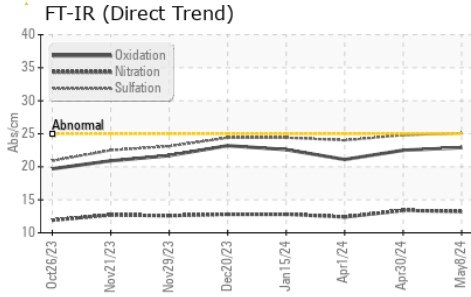
| | method | limit/base | current | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Soot % | % | *ASTM D7844 | 0.1 | 0.1 | 0 |
| Nitration | Abs/cm | *ASTM D7624 >20 | 13.2 | 13.4 | 12.4 |
| Sulfation | Abs/.1mm | *ASTM D7415 >30 | 25.1 | 24.8 | 24.0 |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|-----------------|--------------|----------|----------|
| Oxidation | Abs/.1mm | *ASTM D7414 >25 | 22.9 | 22.5 | 21.1 |
| Base Number (BN) | mg KOH/g | ASTM D2896 10.2 | ▲ 2.8 | 3.3 | 4.2 |



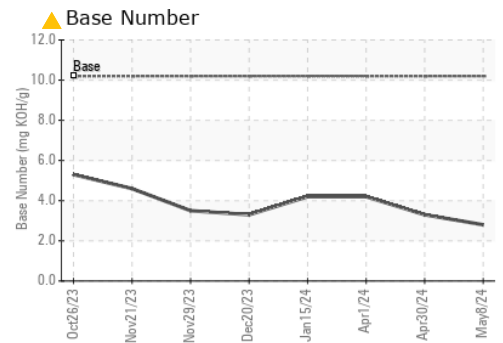
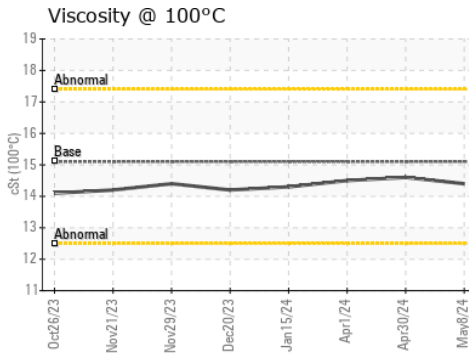
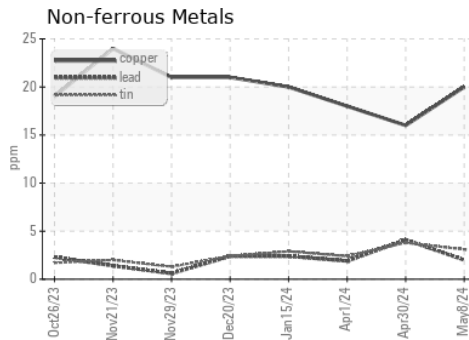
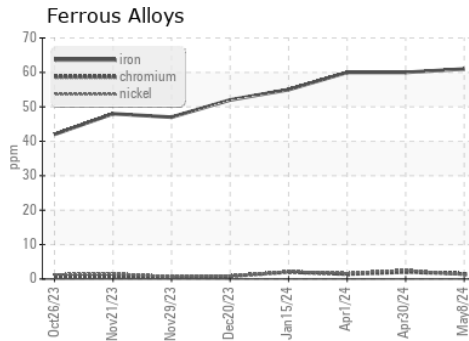
OIL ANALYSIS REPORT



| PARAMETER | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.1 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 100°C | cSt | ASTM D445 | 15.1 | 14.4 | 14.6 |

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0118791
Lab Number : 06176743
Unique Number : 11022796
Test Package : FLEET

Received : 13 May 2024
Tested : 14 May 2024
Diagnosed : 14 May 2024 - Angela Borella

GFL Environmental - 837 - Harrison TS
 22820 S State Route 291
 Harrisonville, MO
 US 64701
 Contact: SARA PATRICK
 spatrack@gflenv.com

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)