



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



Machine Id
834048
Component
Diesel 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 | | GFL0108114 | GFL0108115 | GFL0108135 |
| Sample Date | | Client Info | | 30 Jan 2024 | 26 Jan 2024 | 24 Jan 2024 |
| Machine Age | hrs | Client Info | | 1241 | 1221 | 0 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Not Changd | Changed | Not Changd |
| Filter Changed | | Client Info | | Not Changd | Changed | Not Changd |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >80 | 6 | 33 | 26 |
| Chromium | ppm | ASTM D5185m | >5 | <1 | 2 | 1 |
| Nickel | ppm | ASTM D5185m | >2 | <1 | 2 | <1 |
| Titanium | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >30 | 2 | 5 | 5 |
| Lead | ppm | ASTM D5185m | >30 | <1 | 3 | 2 |
| Copper | ppm | ASTM D5185m | >150 | 2 | 8 | 6 |
| Tin | ppm | ASTM D5185m | >5 | <1 | 2 | 2 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

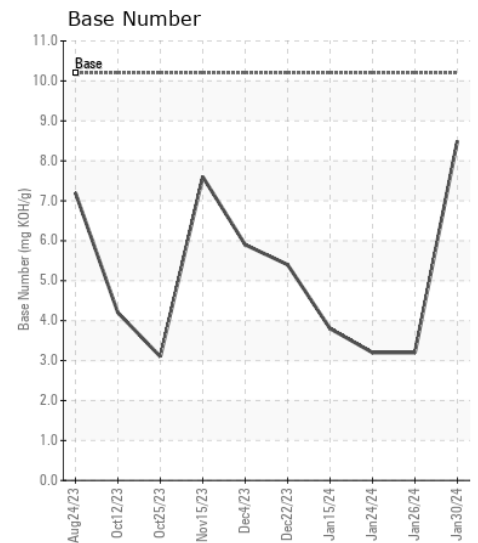
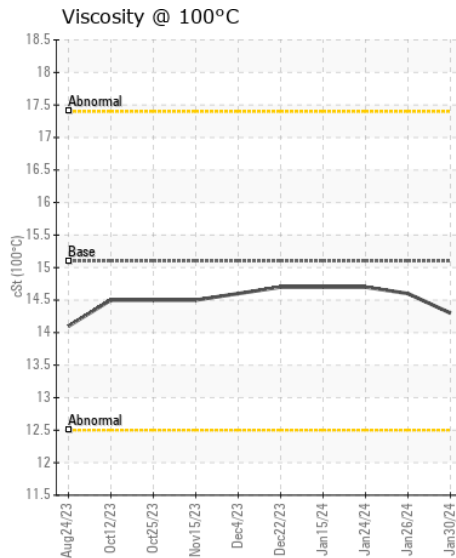
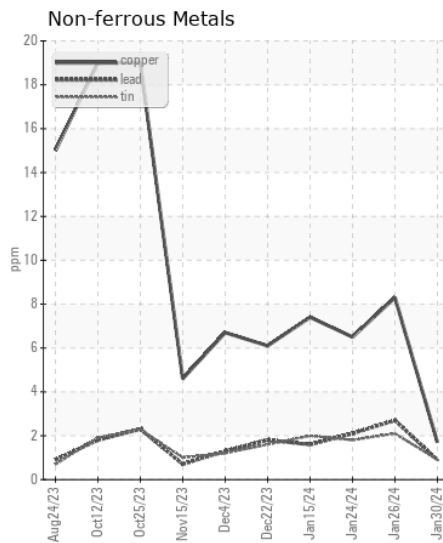
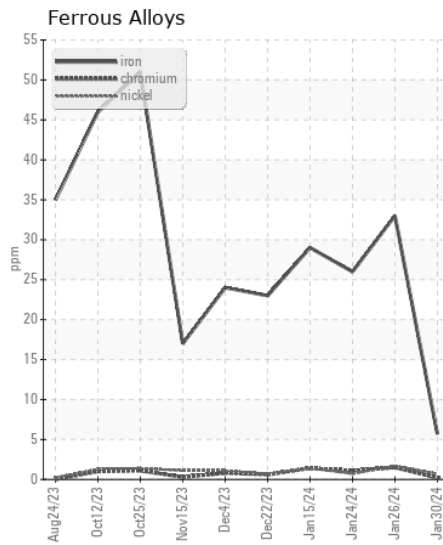
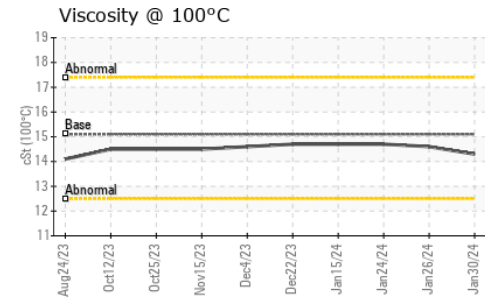
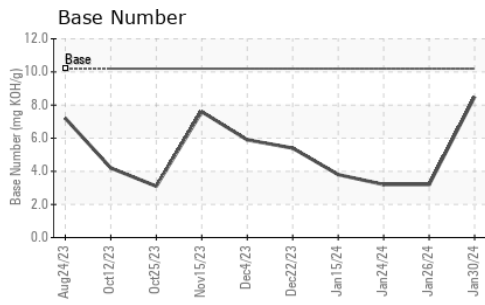
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >20 | 6 | 15 | 12 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 8 | 6 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0 | 0 | 0 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 6.6 | 12.1 | 12.3 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 19.4 | 24.0 | 23.9 |
| 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 | >0.2 | 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 | | 0 | 0 | 5 |
| Boron | ppm | ASTM D5185m | 50 | 46 | 5 | 4 |
| Barium | ppm | ASTM D5185m | 5 | 13 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 50 | 51 | 58 | 44 |
| Manganese | ppm | ASTM D5185m | 0 | 1 | 6 | 4 |
| Magnesium | ppm | ASTM D5185m | 560 | 554 | 669 | 634 |
| Calcium | ppm | ASTM D5185m | 1510 | 1455 | 1458 | 1458 |
| Phosphorus | ppm | ASTM D5185m | 780 | 715 | 685 | 686 |
| Zinc | ppm | ASTM D5185m | 870 | 928 | 1025 | 870 |
| Sulfur | ppm | ASTM D5185m | 2040 | 2435 | 2189 | 2002 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 16.2 | 21.4 | 21.5 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10.2 | 8.5 | 3.2 | 3.2 |
| Visc @ 100°C | cSt | ASTM D445 | 15.1 | 14.3 | 14.6 | 14.7 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0108114
Lab Number : 06086535
Unique Number : 10873980
Test Package : FLEET

Received : 12 Feb 2024
Tested : 13 Feb 2024
Diagnosed : 13 Feb 2024 - Wes Davis

GFL Environmental - 837 - Harrison TS
 22820 S State Route 291
 Harrisonville, MO
 US 64701
 Contact: JOHNNY PEREZ
 johnny.perez@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)

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F: