



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



Machine Id
834050

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 | | GFL0114132 | GFL0114168 | GFL0114126 |
| Sample Date | | Client Info | | 29 Mar 2024 | 27 Mar 2024 | 07 Mar 2024 |
| Machine Age | hrs | Client Info | | 1169 | 1151 | 1063 |
| Oil Age | hrs | Client Info | | 1169 | 1151 | 1063 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Not Changd | Not Changd | N/A |
| Filter Changed | | Client Info | | Not Changd | Not Changd | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >50 | 63 | 65 | 53 |
| Chromium | ppm | ASTM D5185m | >5 | 1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >4 | 2 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | >5 | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >3 | <1 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >25 | 4 | 3 | 3 |
| Lead | ppm | ASTM D5185m | >40 | 2 | 1 | <1 |
| Copper | ppm | ASTM D5185m | >150 | 16 | 13 | 14 |
| Tin | ppm | ASTM D5185m | >4 | 2 | 1 | 2 |
| 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.

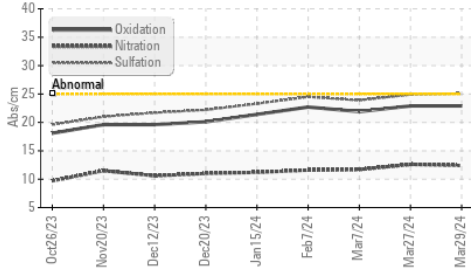
| | | | | | | |
|------------------|----------|-------------|-------|--------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 23 | 21 | 20 |
| Potassium | ppm | ASTM D5185m | >20 | 4 | 2 | <1 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | | 0 | 0 | 0 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 12.4 | 12.6 | 11.7 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 25.1 | 24.9 | 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 | >0.1 | NEG | NEG | NEG |

FLUID CONDITION

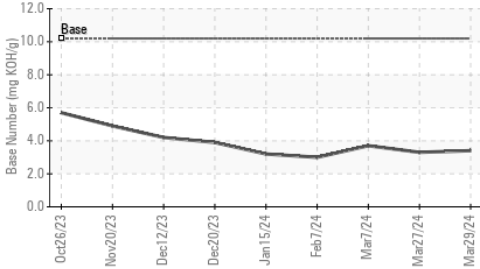
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|------|-------------|------|------|
| Sodium | ppm | ASTM D5185m | | 5 | 4 | 4 |
| Boron | ppm | ASTM D5185m | 50 | 12 | 7 | 12 |
| Barium | ppm | ASTM D5185m | 5 | 2 | 2 | 2 |
| Molybdenum | ppm | ASTM D5185m | 50 | 73 | 68 | 59 |
| Manganese | ppm | ASTM D5185m | 0 | 9 | 8 | 8 |
| Magnesium | ppm | ASTM D5185m | 560 | 733 | 794 | 667 |
| Calcium | ppm | ASTM D5185m | 1510 | 1242 | 1368 | 1133 |
| Phosphorus | ppm | ASTM D5185m | 780 | 801 | 784 | 690 |
| Zinc | ppm | ASTM D5185m | 870 | 990 | 990 | 871 |
| Sulfur | ppm | ASTM D5185m | 2040 | 2594 | 2837 | 2172 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 22.9 | 22.9 | 21.9 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10.2 | 3.4 | 3.3 | 3.7 |
| Visc @ 100°C | cSt | ASTM D445 | 15.1 | 14.3 | 14.2 | 14.3 |

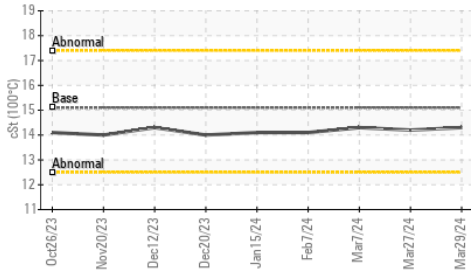
FT-IR (Direct Trend)



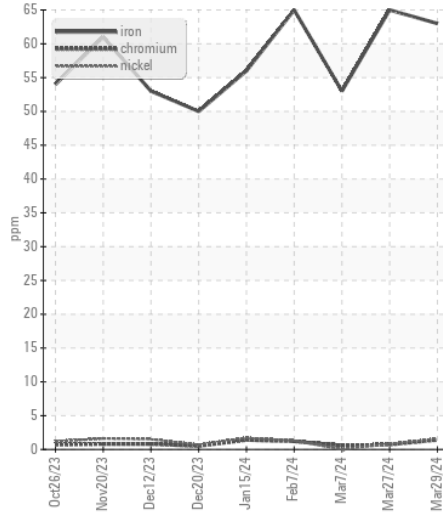
Base Number



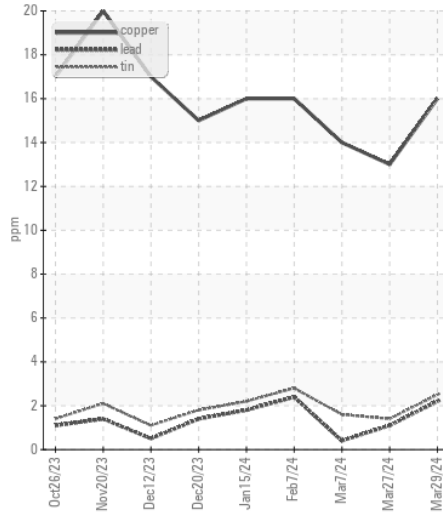
Viscosity @ 100°C



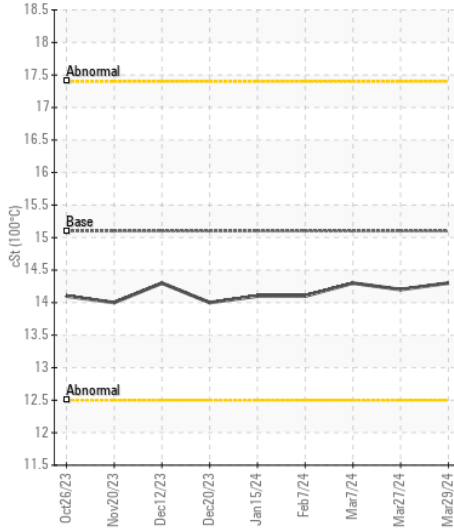
Ferrous Alloys



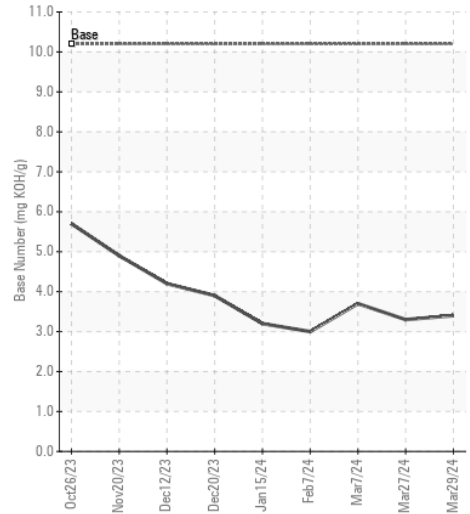
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0114132

Lab Number : 06174922

Unique Number : 11020975

Test Package : FLEET

Received : 09 May 2024

Tested : 10 May 2024

Diagnosed : 13 May 2024 - Sean Felton

GFL Environmental - 837 - Harrison TS

22820 S State Route 291

Harrisonville, MO

US 64701

Contact: SARA PATRICK

spatrick@gflenv.com

T:

F:

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)