



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



Machine Id
728083
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | GFL011241 | GFL0102125 | GFL0087936 |
| Sample Date | | Client Info | | 11 Apr 2024 | 08 Jan 2024 | 29 Sep 2023 |
| Machine Age | hrs | Client Info | | 13771 | 13771 | 13771 |
| Oil Age | hrs | Client Info | | 600 | 600 | 600 |
| Filter Age | hrs | Client Info | | 600 | 600 | 600 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >80 | 6 | 23 | 19 |
| Chromium | ppm | ASTM D5185m | >5 | <1 | <1 | 1 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >30 | 2 | 5 | 6 |
| Lead | ppm | ASTM D5185m | >30 | <1 | 0 | <1 |
| Copper | ppm | ASTM D5185m | >150 | <1 | 1 | 2 |
| Tin | ppm | ASTM D5185m | >5 | <1 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

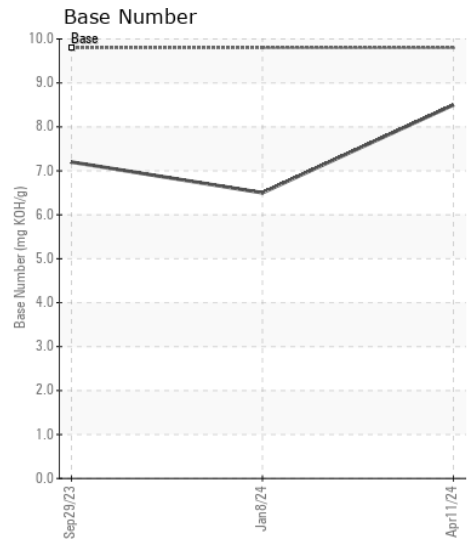
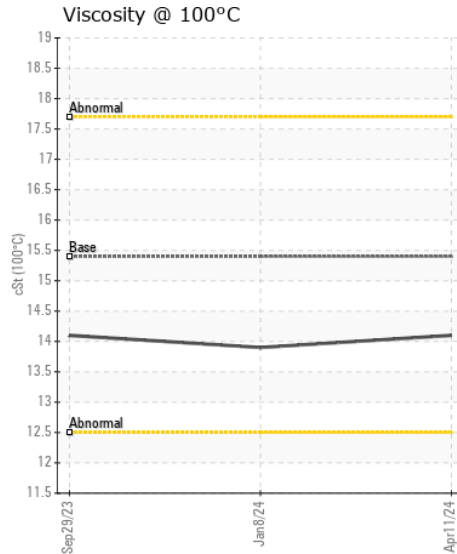
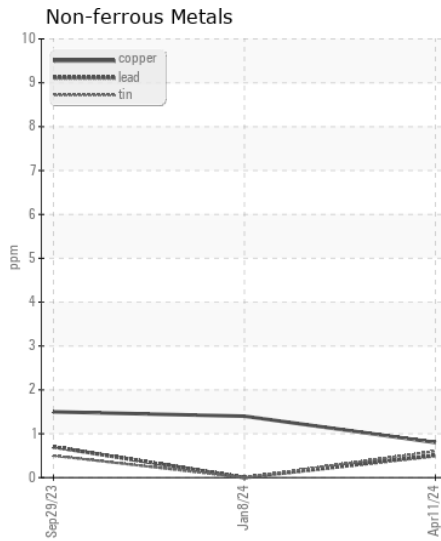
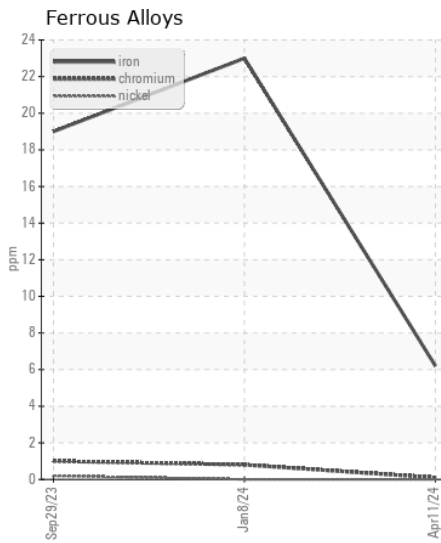
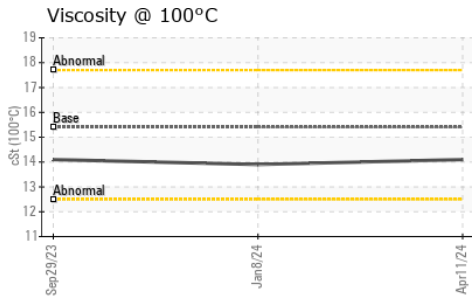
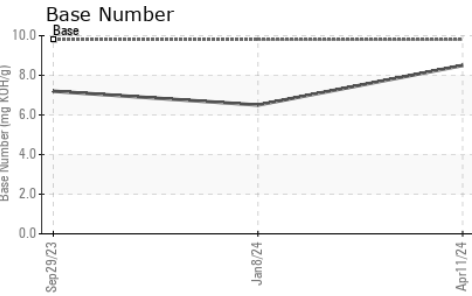
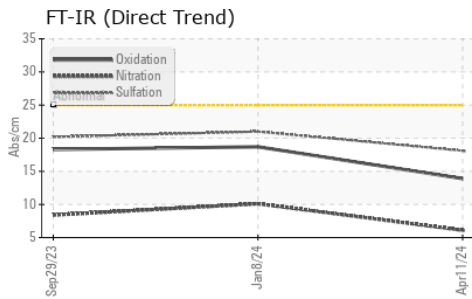
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >20 | 3 | 6 | 7 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 8 | 10 |
| 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 | 0.1 | 0.5 | 0.3 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 6.1 | 10.1 | 8.4 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 18.1 | 21.0 | 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 | >0.2 | 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 | | 2 | 7 | 4 |
| Boron | ppm | ASTM D5185m | 0 | 0 | <1 | 4 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 60 | 58 | 61 | 64 |
| Manganese | ppm | ASTM D5185m | 0 | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 1010 | 973 | 1034 | 1052 |
| Calcium | ppm | ASTM D5185m | 1070 | 1077 | 1061 | 1169 |
| Phosphorus | ppm | ASTM D5185m | 1150 | 1034 | 1072 | 1095 |
| Zinc | ppm | ASTM D5185m | 1270 | 1224 | 1318 | 1384 |
| Sulfur | ppm | ASTM D5185m | 2060 | 3640 | 2940 | 3373 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 13.9 | 18.7 | 18.3 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.8 | 8.5 | 6.5 | 7.2 |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 14.1 | 13.9 | 14.1 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0111241
Lab Number : 06154093
Unique Number : 10989516
Test Package : FLEET
Received : 19 Apr 2024
Tested : 22 Apr 2024
Diagnosed : 22 Apr 2024 - Wes Davis

GFL Environmental - 960 - West Central HC Jacksonville HC
 2263 State Hwy 104
 Jacksonville, IL
 US 62656
 Contact: David Bradshaw
 david.bradshaw@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)