



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



Area
(85J1TW)
Machine Id
729054-361497
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 | | GFL0098721 | GFL0065494 | GFL0090154 |
| Sample Date | | Client Info | | 16 Jan 2024 | 27 Oct 2023 | 05 Oct 2023 |
| Machine Age | hrs | Client Info | | 5770 | 150 | 5540 |
| Oil Age | hrs | Client Info | | 150 | 150 | 150 |
| Filter Age | hrs | Client Info | | 150 | 150 | 150 |
| Oil Changed | | Client Info | | Not Changd | Not Changd | Not Changd |
| Filter Changed | | Client Info | | Not Changd | Not Changd | Not Changd |
| Sample Status | | | | NORMAL | NORMAL | SEVERE |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >120 | 2 | 6 | 25 |
| Chromium | ppm | ASTM D5185m | >20 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >5 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | >2 | <1 | 2 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 1 | 6 | 5 |
| Lead | ppm | ASTM D5185m | >40 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185m | >330 | 0 | <1 | 2 |
| Tin | ppm | ASTM D5185m | >15 | 0 | <1 | <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

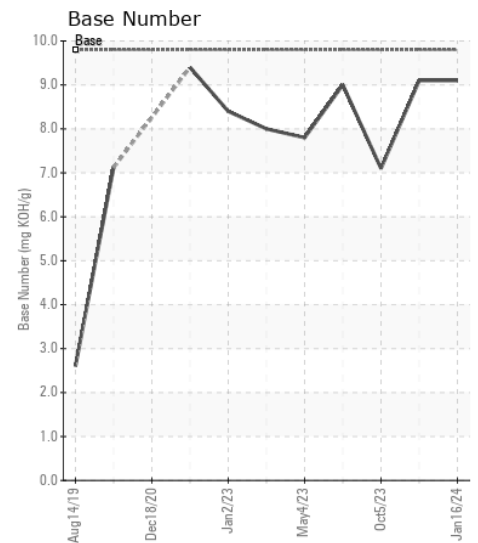
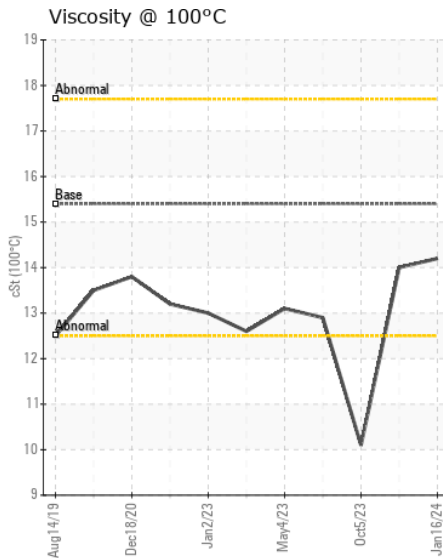
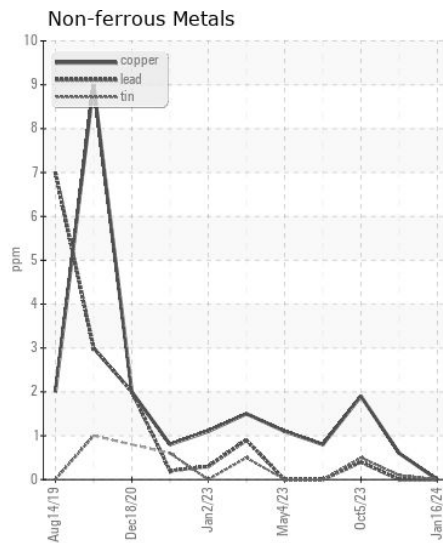
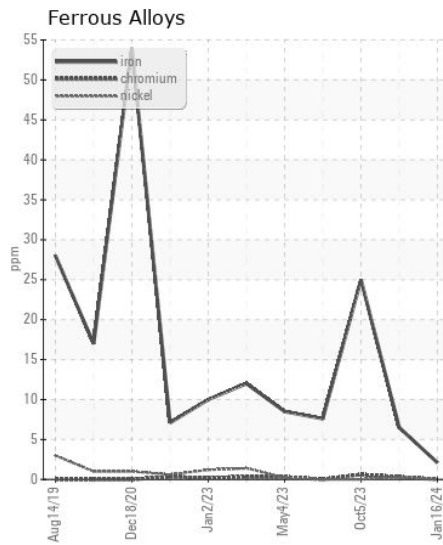
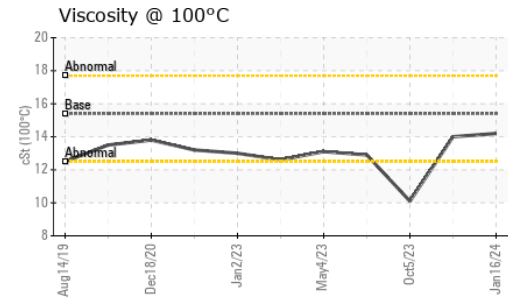
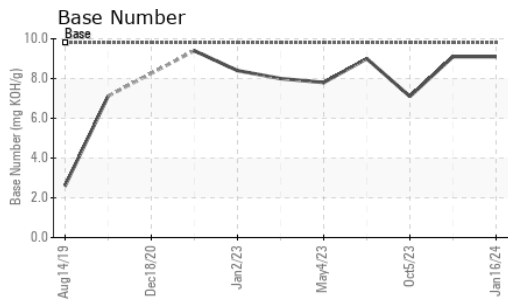
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 4 | 4 | 9 |
| Potassium | ppm | ASTM D5185m | >20 | 1 | 2 | 7 |
| Fuel | | WC Method | >3.0 | <1.0 | 1.0 | 11.5 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >4 | 0.1 | 0.1 | 0.8 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 4.4 | 4.9 | 7.4 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 17.2 | 17.5 | 19.4 |
| 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 | 12 | 36 |
| Boron | ppm | ASTM D5185m | 0 | 1 | 1 | 8 |
| Barium | ppm | ASTM D5185m | 0 | 0 | <1 | 0 |
| Molybdenum | ppm | ASTM D5185m | 60 | 57 | 58 | 51 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | 1010 | 991 | 907 | 802 |
| Calcium | ppm | ASTM D5185m | 1070 | 979 | 1003 | 875 |
| Phosphorus | ppm | ASTM D5185m | 1150 | 1074 | 999 | 884 |
| Zinc | ppm | ASTM D5185m | 1270 | 1258 | 1231 | 1063 |
| Sulfur | ppm | ASTM D5185m | 2060 | 3224 | 3717 | 2837 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 13.4 | 13.7 | 14.9 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.8 | 9.1 | 9.1 | 7.1 |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 14.2 | 14.0 | 10.1 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0098721 **Received** : 18 Jan 2024
Lab Number : 06064854 **Diagnosed** : 19 Jan 2024
Unique Number : 10836236 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 829 - Wilco Hauling
 5054 Highway HH
 Hartville, MO
 US 65667
 Contact: James Jones
 james.jones@gflenv.com
 T: (417)349-5006
 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)