



OIL ANALYSIS REPORT

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

Machine Id

8776

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number | | Client Info | | NL0001788 | NL0000567 | --- |
| Sample Date | | Client Info | | 05 Dec 2023 | 12 Sep 2023 | --- |
| Machine Age | mls | Client Info | | 77656 | 40469 | --- |
| Oil Age | mls | Client Info | | 45000 | 45000 | --- |
| Filter Age | mls | Client Info | | 45000 | 45000 | --- |
| Oil Changed | | Client Info | | Changed | Changed | --- |
| Filter Changed | | Client Info | | Changed | Changed | --- |
| Sample Status | | | | NORMAL | ATTENTION | --- |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|-----|
| Iron | ppm | ASTM D5185m | >100 | 24 | 51 | --- |
| Chromium | ppm | ASTM D5185m | >20 | <1 | <1 | --- |
| Nickel | ppm | ASTM D5185m | >4 | <1 | <1 | --- |
| Titanium | ppm | ASTM D5185m | | <1 | <1 | --- |
| Silver | ppm | ASTM D5185m | >3 | 0 | <1 | --- |
| Aluminum | ppm | ASTM D5185m | >20 | 6 | 23 | --- |
| Lead | ppm | ASTM D5185m | >40 | 0 | 1 | --- |
| Copper | ppm | ASTM D5185m | >330 | 94 | 301 | --- |
| Tin | ppm | ASTM D5185m | >15 | 3 | 7 | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | --- |
| White Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | --- |

CONTAMINATION

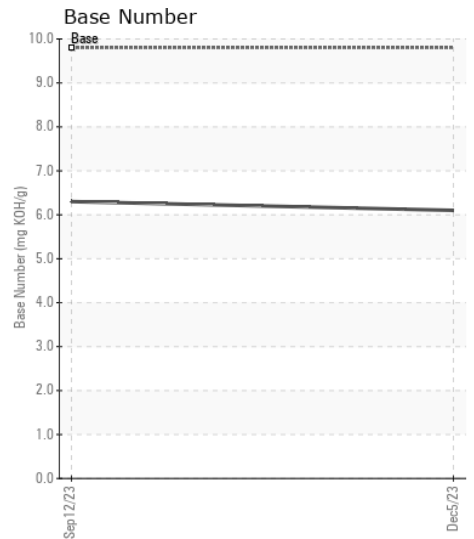
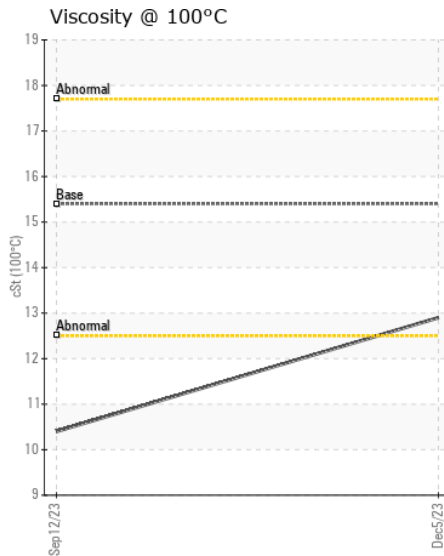
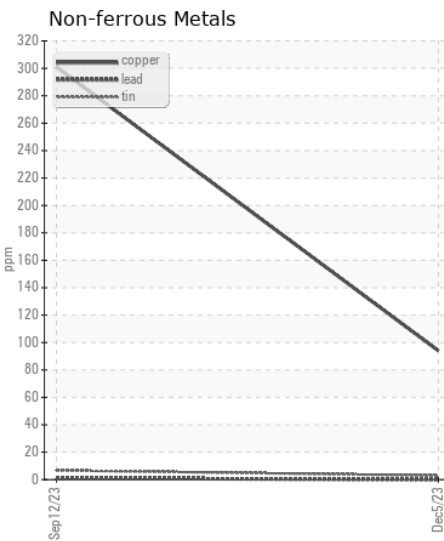
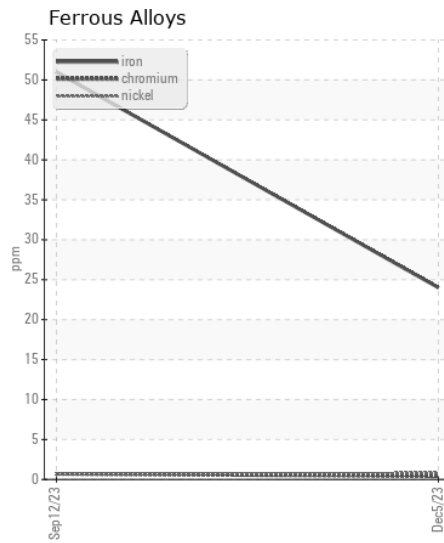
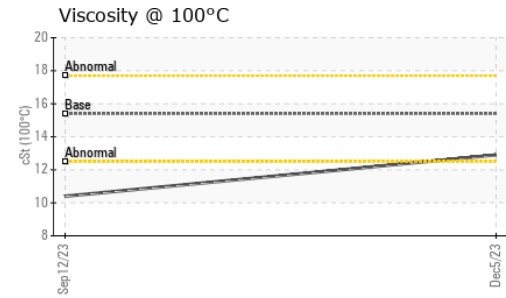
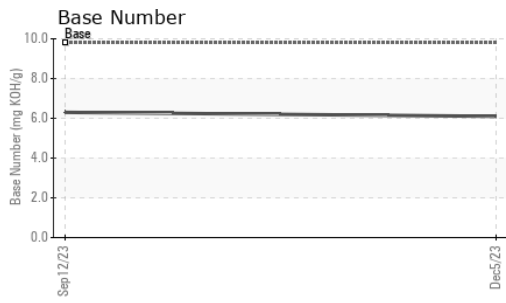
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-----|
| Silicon | ppm | ASTM D5185m | >25 | 10 | 60 | --- |
| Potassium | ppm | ASTM D5185m | >20 | 16 | 68 | --- |
| Fuel | | WC Method | >5 | <1.0 | 0.4 | --- |
| Water | | WC Method | >0.2 | NEG | NEG | --- |
| Glycol | | WC Method | | NEG | NEG | --- |
| Soot % | % | *ASTM D7844 | >3 | 0.6 | 0.6 | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 9.8 | 12.0 | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 22.0 | 24.9 | --- |
| 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 | >0.2 | 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 | <1 | --- |
| Boron | ppm | ASTM D5185m | 0 | 2 | 44 | --- |
| Barium | ppm | ASTM D5185m | 0 | <1 | 5 | --- |
| Molybdenum | ppm | ASTM D5185m | 60 | 70 | 125 | --- |
| Manganese | ppm | ASTM D5185m | 0 | <1 | 3 | --- |
| Magnesium | ppm | ASTM D5185m | 1010 | 878 | 726 | --- |
| Calcium | ppm | ASTM D5185m | 1070 | 1105 | 1414 | --- |
| Phosphorus | ppm | ASTM D5185m | 1150 | 865 | 753 | --- |
| Zinc | ppm | ASTM D5185m | 1270 | 1106 | 830 | --- |
| Sulfur | ppm | ASTM D5185m | 2060 | 2219 | 2215 | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 18.8 | 24.6 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.8 | 6.1 | 6.3 | --- |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 12.9 | ▲ 10.4 | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : NL0001788 **Received** : 01 Feb 2024
Lab Number : 06076709 **Diagnosed** : 02 Feb 2024
Unique Number : 10858800 **Diagnostician** : Wes Davis
Test Package : FLEET

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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)