



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



Machine Id
401186
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 | | GFL0061153 | GFL0113285 | GFL0111716 |
| Sample Date | | Client Info | | 09 Jun 2024 | 11 Apr 2024 | 12 Mar 2024 |
| Machine Age | kms | Client Info | | 0 | 804359 | 9427 |
| Oil Age | kms | Client Info | | 0 | 0 | 0 |
| Filter Age | kms | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | N/A | Changed | Changed |
| Filter Changed | | Client Info | | N/A | N/A | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|----------|-----|---------------|------|--------------|----|----|
| Iron | ppm | ASTM D5185(m) | >120 | 5 | 3 | 10 |
| Chromium | ppm | ASTM D5185(m) | >20 | 0 | 0 | <1 |
| Nickel | ppm | ASTM D5185(m) | >15 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185(m) | >2 | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | >3 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185(m) | >20 | <1 | 1 | 2 |
| Lead | ppm | ASTM D5185(m) | >40 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185(m) | >330 | <1 | <1 | 2 |
| Tin | ppm | ASTM D5185(m) | >15 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

CONTAMINATION

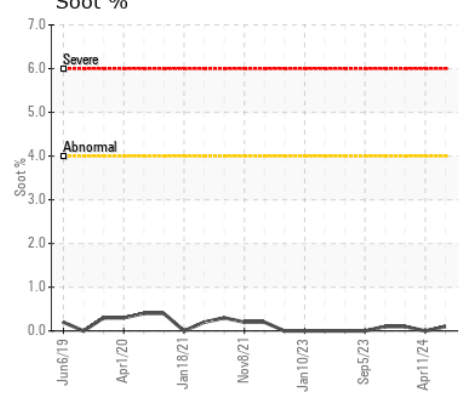
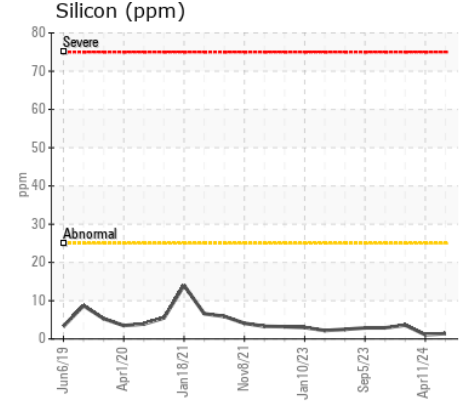
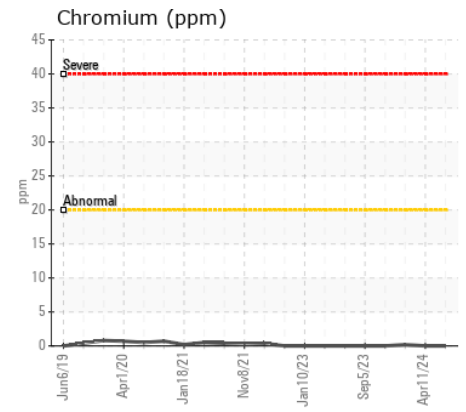
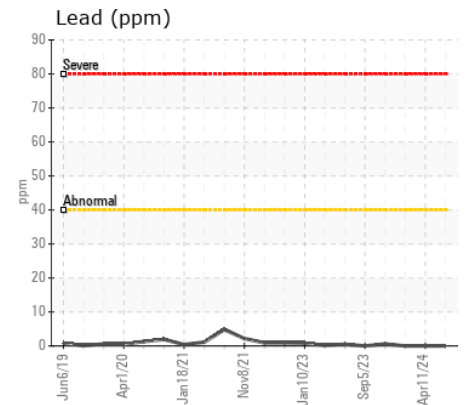
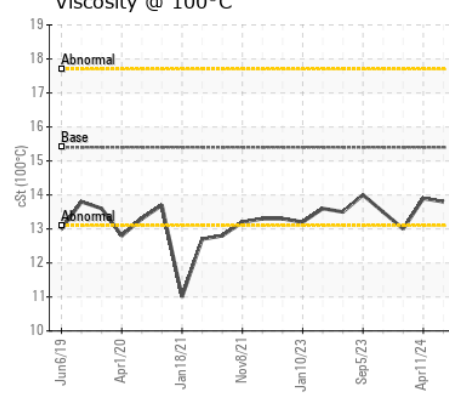
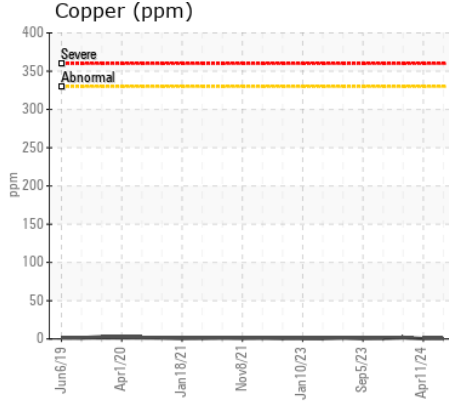
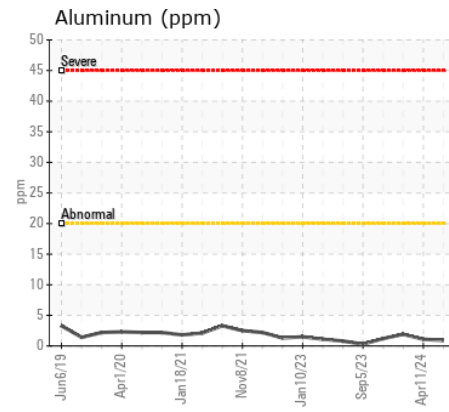
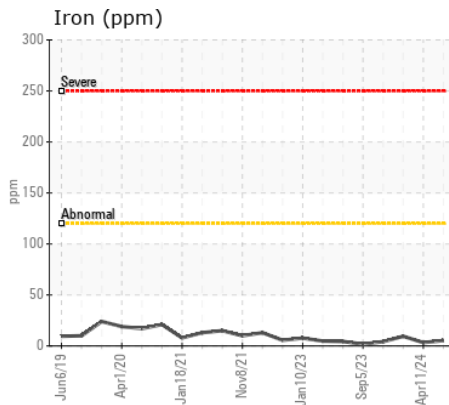
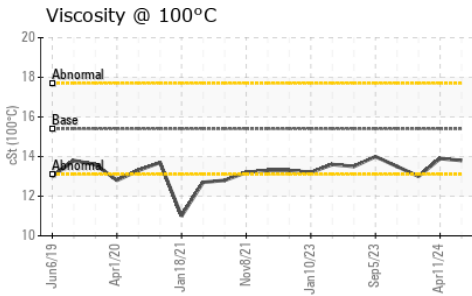
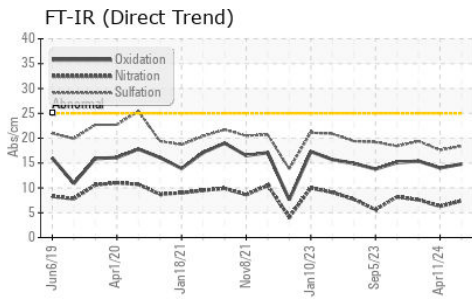
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|---------------|------|----------------|------|------|
| Silicon | ppm | ASTM D5185(m) | >25 | 1 | 1 | 4 |
| Potassium | ppm | ASTM D5185(m) | >20 | <1 | <1 | 3 |
| Fuel | | WC Method | >3.0 | <1.0 | <1.0 | 2.7 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | ASTM D7844* | >4 | 0.1 | 0 | 0.1 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 7.4 | 6.3 | 7.6 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 18.4 | 17.6 | 19.4 |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | NEG | NEG |

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

| | | | | | | |
|--------------|----------|---------------|------|-------------|------|------|
| Sodium | ppm | ASTM D5185(m) | | 2 | 2 | 6 |
| Boron | ppm | ASTM D5185(m) | 0 | 5 | 5 | 3 |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 60 | 58 | 58 | 57 |
| Manganese | ppm | ASTM D5185(m) | 0 | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) | 1010 | 967 | 961 | 947 |
| Calcium | ppm | ASTM D5185(m) | 1070 | 1032 | 1047 | 1045 |
| Phosphorus | ppm | ASTM D5185(m) | 1150 | 993 | 992 | 977 |
| Zinc | ppm | ASTM D5185(m) | 1270 | 1162 | 1165 | 1156 |
| Sulfur | ppm | ASTM D5185(m) | 2060 | 2559 | 2547 | 2464 |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 14.8 | 14.0 | 15.4 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 15.4 | 13.8 | 13.9 | 13.0 |



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0061153 **Received** : 10 Jun 2024
Lab Number : 02640694 **Tested** : 10 Jun 2024
Unique Number : 5789856 **Diagnosed** : 10 Jun 2024 - Wes Davis
Test Package : MOB 1

GFL Environmental - 216
 15 Bermondsey Road
 Toronto, ON
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 Contact: Tom Hatzioannidis
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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.