



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

Area
(EIB860)
Machine Id
10801
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (11 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | GFL0072110 | GFL0074603 | GFL0083621 |
| Sample Date | | Client Info | | 11 Jan 2024 | 07 Jul 2023 | 05 Jun 2023 |
| Machine Age | hrs | Client Info | | 16229 | 15495 | 15284 |
| Oil Age | hrs | Client Info | | 0 | 237 | 15258 |
| Filter Age | hrs | Client Info | | 0 | 237 | 15258 |
| Oil Changed | | Client Info | | Not Changd | Changed | N/A |
| Filter Changed | | Client Info | | Not Changd | Changed | N/A |
| Sample Status | | | | ATTENTION | NORMAL | ABNORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >100 | 10 | 13 | 13 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 3 | 3 | <1 |
| Lead | ppm | ASTM D5185m | >40 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m | >330 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185m | >15 | 2 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

Fuel content negligible. There is no indication of any contamination in the oil.

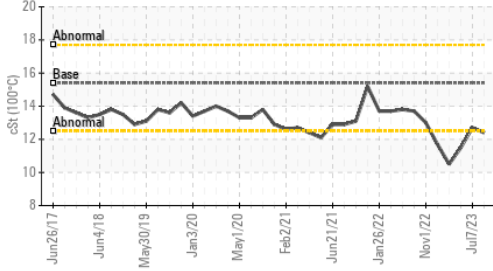
| | | | | | | |
|------------------|----------|-------------|-------|--------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 12 | 4 | 5 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 3 | <1 |
| Fuel | % | ASTM D3524 | >5 | 1.4 | <1.0 | ▲ 2.4 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.1 | 0.5 | 0.3 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 4.8 | 8.9 | 6.4 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 20.7 | 19.8 | 17.7 |
| 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

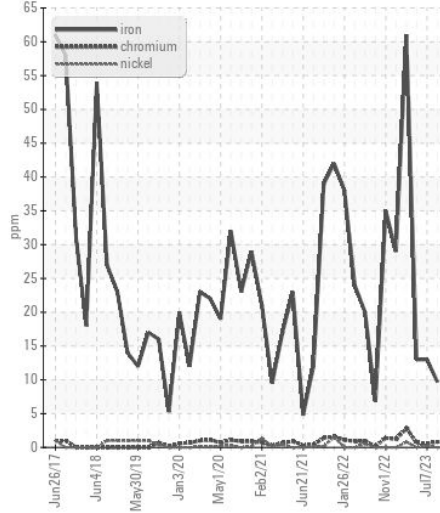
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

| | | | | | | |
|------------------|----------|-------------|------|---------------|------|--------|
| Sodium | ppm | ASTM D5185m | | 18 | 10 | 10 |
| Boron | ppm | ASTM D5185m | 0 | 59 | 5 | 37 |
| Barium | ppm | ASTM D5185m | 0 | <1 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 60 | 42 | 57 | 61 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 1010 | 509 | 816 | 762 |
| Calcium | ppm | ASTM D5185m | 1070 | 1508 | 998 | 1023 |
| Phosphorus | ppm | ASTM D5185m | 1150 | 717 | 848 | 832 |
| Zinc | ppm | ASTM D5185m | 1270 | 893 | 1081 | 1052 |
| Sulfur | ppm | ASTM D5185m | 2060 | 2494 | 3145 | 3228 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 18.0 | 15.8 | 13.0 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.8 | 9.2 | 8.1 | 7.2 |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | ▲ 12.4 | 12.7 | ▲ 11.5 |

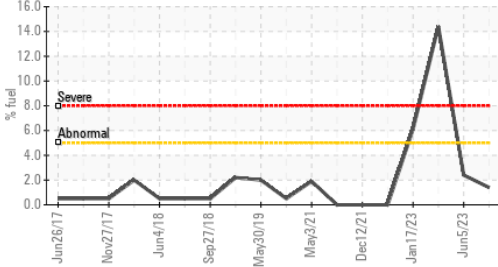
▲ Viscosity @ 100°C



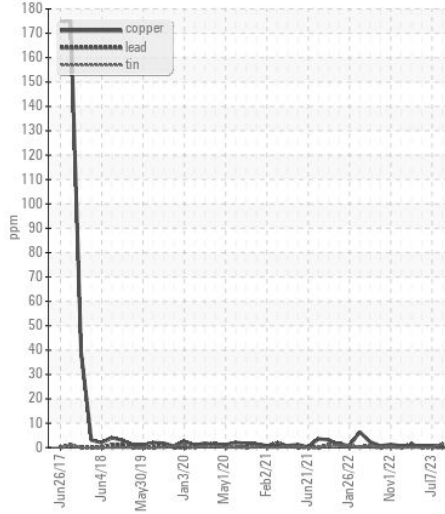
Ferrous Alloys



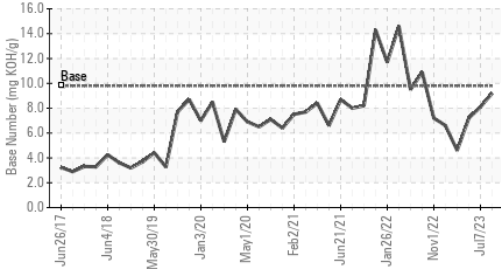
Fuel Dilution



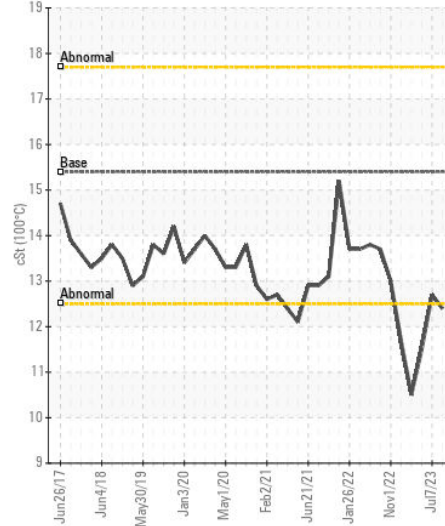
Non-ferrous Metals



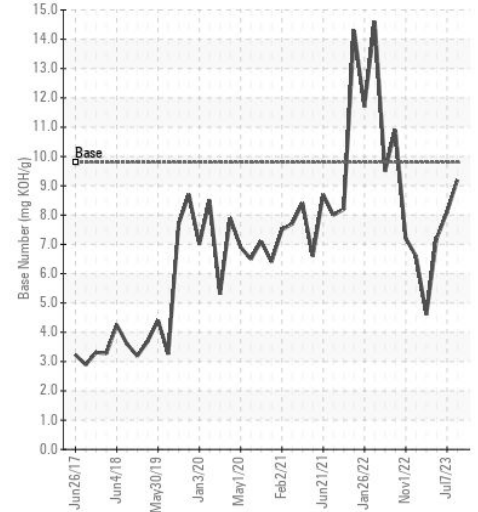
Base Number



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0072110 Recieved : 16 Jan 2024
 Lab Number : 06061839 Diagnosed : 18 Jan 2024
 Unique Number : 10833221 Diagnostician : Don Baldrige
 Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 095 - Atlanta West
 2699 Cochran Industrial Blvd
 Douglasville, GA
 US 30127-1332
 Contact: Darrell Welch
 darrell.welch@gflenv.com
 T: (800)207-6618
 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)