FLEET LUBE 360 OIL DIAGNOSTICS

# OIL ANALYSIS REPORT

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

Area
**(UA35897)**
Machine Id
**3619C**
Component
**Natural Gas Engine**
Fluid
**PETRO CANADA DURON GEO LD 15W40 (7 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

## CONTAMINATION

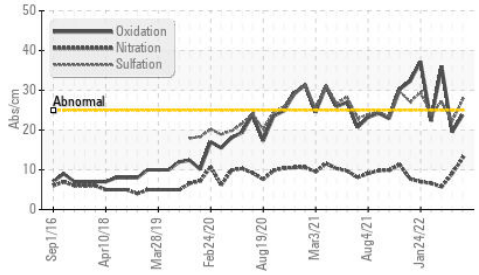
There is no indication of any contamination in the oil.

## FLUID CONDITION

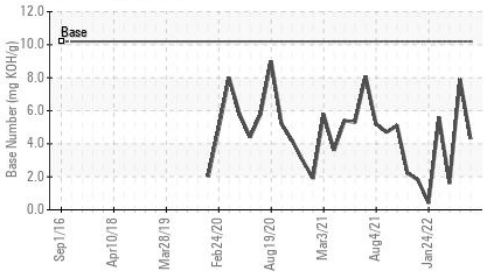
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | GFL0119068 | GFL0052189 | GFL0044036 |
| Sample Date | | Client Info | | 22 May 2024 | 20 Sep 2022 | 10 May 2022 |
| Machine Age | hrs | Client Info | | 20134 | 20134 | 20134 |
| Oil Age | hrs | Client Info | | 20134 | 21790 | 21070 |
| Filter Age | hrs | Client Info | | 0 | 1324 | 391 |
| Oil Changed | | Client Info | | N/A | Changed | Not Changd |
| Filter Changed | | Client Info | | N/A | Changed | Not Changd |
| Sample Status | | | | NORMAL | NORMAL | ABNORMAL |
| Iron | ppm | ASTM D5185m | >50 | 23 | 8 | 6 |
| Chromium | ppm | ASTM D5185m | >4 | 3 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >2 | <1 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >3 | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >9 | 3 | 2 | 1 |
| Lead | ppm | ASTM D5185m | >30 | 6 | <1 | <1 |
| Copper | ppm | ASTM D5185m | >35 | 1 | <1 | <1 |
| Tin | ppm | ASTM D5185m | >4 | <1 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >+100 | 5 | 7 | 3 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 1 | 0 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | | 0 | 0.1 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 12.9 | 9.0 | 5.7 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 27.6 | 22.2 | 27.2 |
| 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 | >0.1 | NEG | NEG | NEG |
| Sodium | ppm | ASTM D5185m | | 9 | 2 | 4 |
| Boron | ppm | ASTM D5185m | 50 | 13 | 26 | 17 |
| Barium | ppm | ASTM D5185m | 5 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 50 | 64 | 51 | 12 |
| Manganese | ppm | ASTM D5185m | 0 | 1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 560 | 691 | 497 | 70 |
| Calcium | ppm | ASTM D5185m | 1510 | 1977 | 1453 | 263 |
| Phosphorus | ppm | ASTM D5185m | 780 | 947 | 755 | 279 |
| Zinc | ppm | ASTM D5185m | 870 | 1139 | 866 | 82 |
| Sulfur | ppm | ASTM D5185m | 2040 | 3086 | 2741 | 1505 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 23.7 | 19.5 | 36.1 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10.2 | 4.3 | 7.9 | 1.6 |
| Visc @ 100°C | cSt | ASTM D445 | 15.1 | 14.8 | 13.9 | 7.6 |

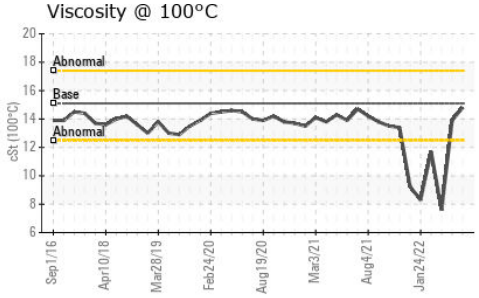
FT-IR (Direct Trend)



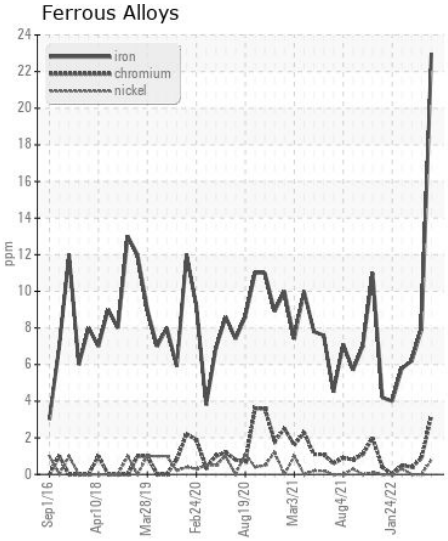

Base Number



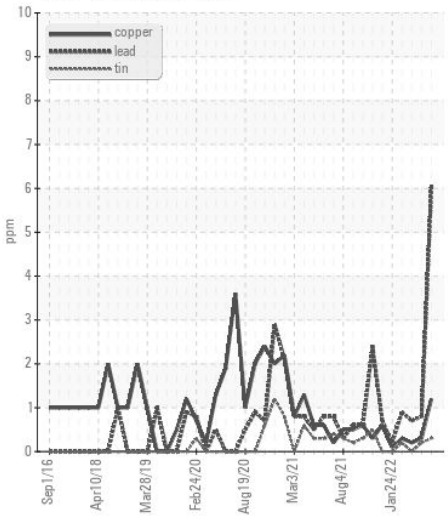

Viscosity @ 100°C



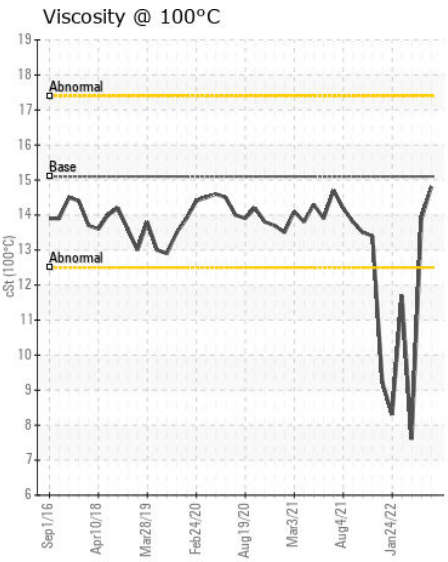

Ferrous Alloys



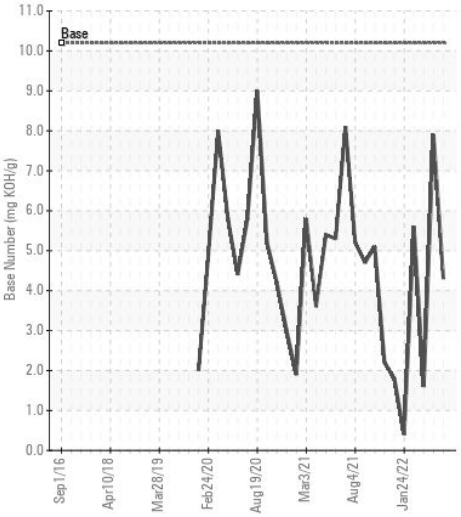

Non-ferrous Metals




Viscosity @ 100°C




Base Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : GFL0119068
**Lab Number** : 06191445
**Unique Number** : 11048197
**Test Package** : FLEET

**Received** : 24 May 2024
**Tested** : 29 May 2024
**Diagnosed** : 29 May 2024 - Wes Davis

*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)*

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