



OIL ANALYSIS REPORT

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

Area
(UA35898)
Machine Id
3618C
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (7 GAL)

RECOMMENDATION

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | GFL0023765 | GFL0052188 | GFL0044072 |
| Sample Date | | Client Info | | 18 Jan 2024 | 20 Sep 2022 | 26 May 2022 |
| Machine Age | hrs | Client Info | | 23651 | 21086 | 21086 |
| Oil Age | hrs | Client Info | | 229 | 22394 | 21739 |
| Filter Age | hrs | Client Info | | 0 | 1308 | 653 |
| Oil Changed | | Client Info | | N/A | Changed | Not Changd |
| Filter Changed | | Client Info | | N/A | Changed | Not Changd |
| Sample Status | | | | ATTENTION | NORMAL | NORMAL |

WEAR

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >50 | 28 | 33 | 15 |
| Chromium | ppm | ASTM D5185m | >4 | 1 | 5 | 2 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >9 | 2 | 11 | 7 |
| Lead | ppm | ASTM D5185m | >30 | 0 | 26 | 1 |
| Copper | ppm | ASTM D5185m | >35 | 2 | 2 | <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 |

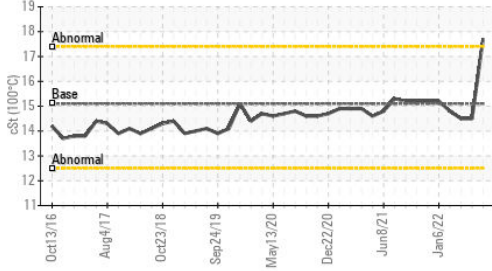
CONTAMINATION

| | | | | | | |
|------------------|----------|-------------|-------|--------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >+100 | 17 | 7 | 6 |
| Potassium | ppm | ASTM D5185m | >20 | 3 | 2 | 0 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | | 0.1 | 0.1 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 9.1 | 13.5 | 9.7 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 17.8 | 27.4 | 20.8 |
| 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 |

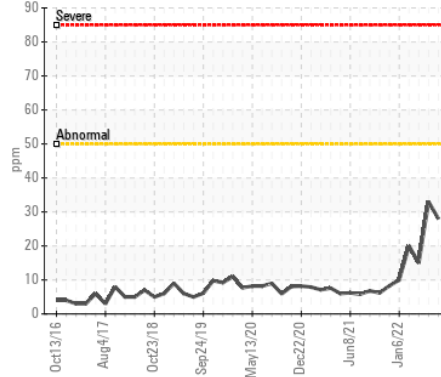
FLUID CONDITION

| | | | | | | |
|------------------|----------|-------------|------|----------------|------|------|
| Sodium | ppm | ASTM D5185m | | 58 | 12 | 7 |
| Boron | ppm | ASTM D5185m | 50 | 35 | 5 | 0 |
| Barium | ppm | ASTM D5185m | 5 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 50 | 54 | 107 | 96 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | 1 | <1 |
| Magnesium | ppm | ASTM D5185m | 560 | 661 | 642 | 637 |
| Calcium | ppm | ASTM D5185m | 1510 | 1575 | 1628 | 1479 |
| Phosphorus | ppm | ASTM D5185m | 780 | 875 | 770 | 683 |
| Zinc | ppm | ASTM D5185m | 870 | 1083 | 978 | 866 |
| Sulfur | ppm | ASTM D5185m | 2040 | 2804 | 2905 | 2440 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 16.2 | 24.7 | 16.5 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10.2 | 9.6 | 3.7 | 4.2 |
| Visc @ 100°C | cSt | ASTM D445 | 15.1 | ▲ 17.71 | 14.5 | 14.5 |

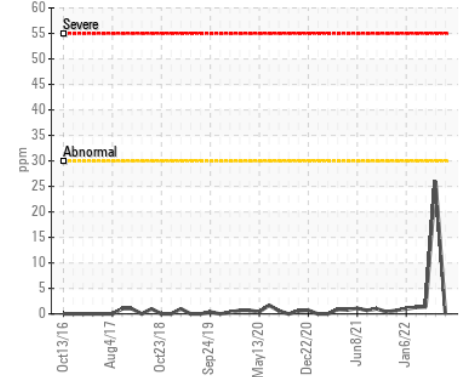
▲ Viscosity @ 100°C



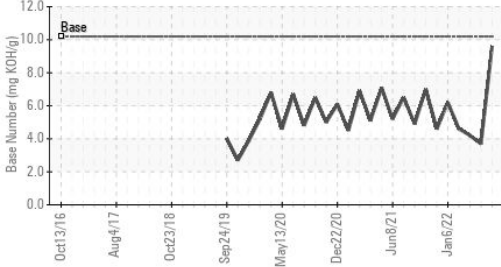
Iron (ppm)



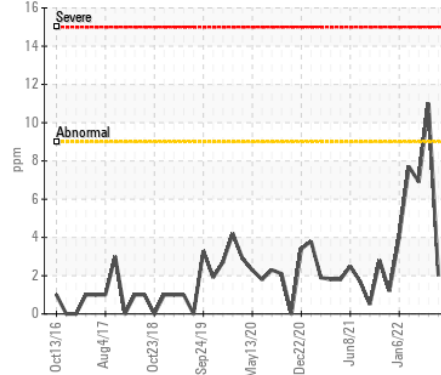
Lead (ppm)



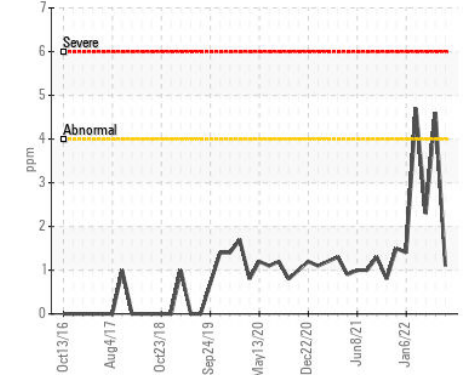
Base Number



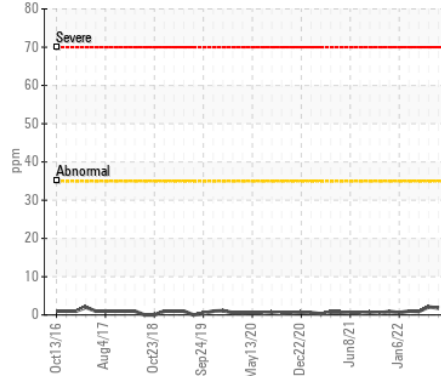
Aluminum (ppm)



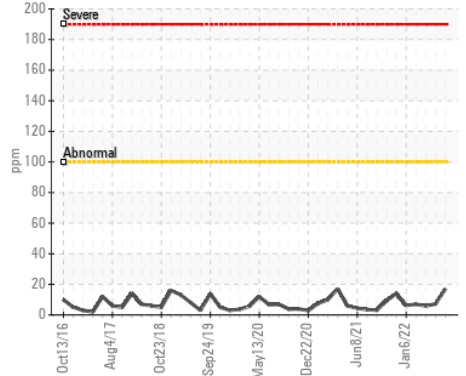
Chromium (ppm)



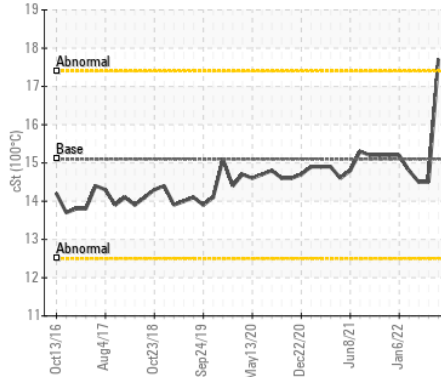
Copper (ppm)



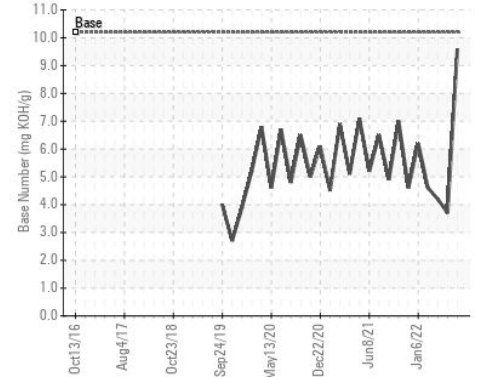
Silicon (ppm)



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0023765 Recieved : 19 Jan 2024
 Lab Number : 06065385 Diagnosed : 24 Jan 2024
 Unique Number : 10836767 Diagnostician : Doug Bogart
 Test Package : MOB1+

GFL Environmental - 045 - Tidewater
 3821 Cook Blvd.
 Chesapeake, VA
 US 23323
 Contact: ELVIN RODRIGUEZ
 elvinrodriguez@gflenv.com

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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F: