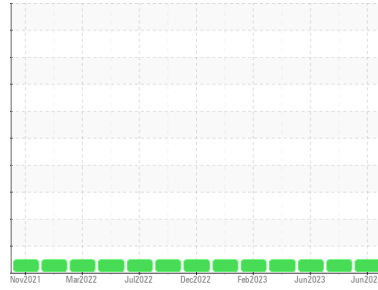




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
946015-260296
 Component
Natural Gas Engine
 Fluid
PETRO CANADA 15W40 (--- GAL)

DIAGNOSIS

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.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | GFL0121755 | GFL0092129 | GFL0084734 |
| Sample Date | Client Info | | 17 Jun 2024 | 29 Dec 2023 | 20 Jun 2023 |
| Machine Age | hrs | Client Info | 47607 | 179371 | 152196 |
| Oil Age | hrs | Client Info | 600 | 25645 | 0 |
| Oil Changed | Client Info | | Changed | Changed | Not Changed |
| Sample Status | | | NORMAL | NORMAL | NORMAL |

CONTAMINATION

| | method | limit/base | current | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >0.1 | NEG | NEG | NEG |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >50 | 33 | 4 | 9 |
| Chromium | ppm | ASTM D5185m >4 | <1 | 0 | <1 |
| Nickel | ppm | ASTM D5185m >2 | 1 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >9 | 3 | 1 | 2 |
| Lead | ppm | ASTM D5185m >30 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185m >35 | 3 | 2 | 1 |
| Tin | ppm | ASTM D5185m >4 | 2 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|-------------|-------------|----------|----------|
| Boron | ppm | ASTM D5185m | 17 | 44 | 45 |
| Barium | ppm | ASTM D5185m | 4 | 3 | 0 |
| Molybdenum | ppm | ASTM D5185m | 50 | 43 | 48 |
| Manganese | ppm | ASTM D5185m | 6 | 2 | <1 |
| Magnesium | ppm | ASTM D5185m | 840 | 770 | 604 |
| Calcium | ppm | ASTM D5185m | 1395 | 1168 | 1470 |
| Phosphorus | ppm | ASTM D5185m | 802 | 758 | 766 |
| Zinc | ppm | ASTM D5185m | 999 | 899 | 931 |
| Sulfur | ppm | ASTM D5185m | 2849 | 2301 | 2957 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-------------------|-----------|----------|----------|
| Silicon | ppm | ASTM D5185m >+100 | 26 | 9 | 19 |
| Sodium | ppm | ASTM D5185m | 4 | 3 | 3 |
| Potassium | ppm | ASTM D5185m >20 | 5 | 2 | <1 |

INFRA-RED

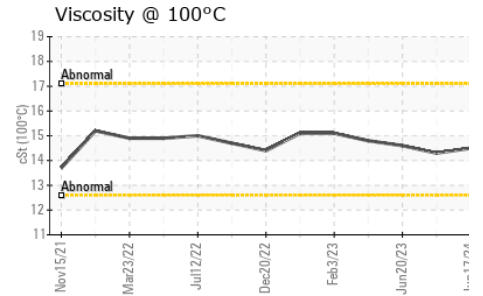
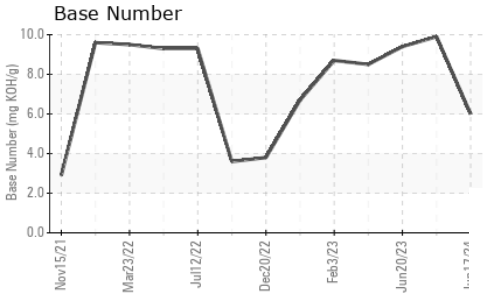
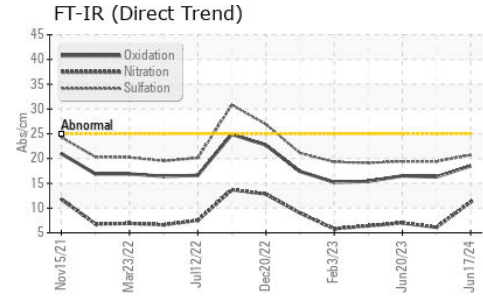
| | method | limit/base | current | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Soot % | % | *ASTM D7844 | 0.1 | 0 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 >20 | 11.2 | 6.1 | 7.0 |
| Sulfation | Abs/.1mm | *ASTM D7415 >30 | 20.7 | 19.4 | 19.4 |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Oxidation | Abs/.1mm | *ASTM D7414 >25 | 18.5 | 16.3 | 16.5 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 6.0 | 9.9 | 9.4 |



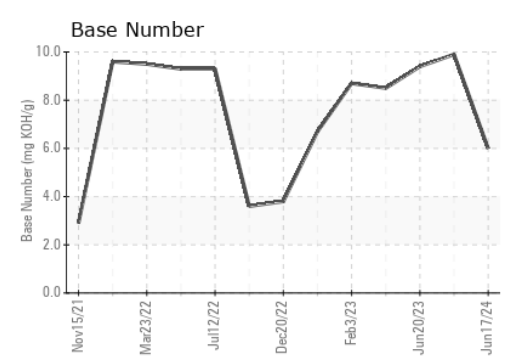
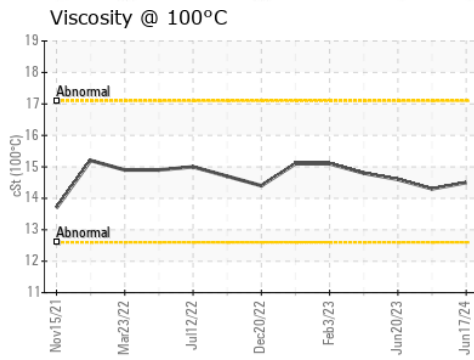
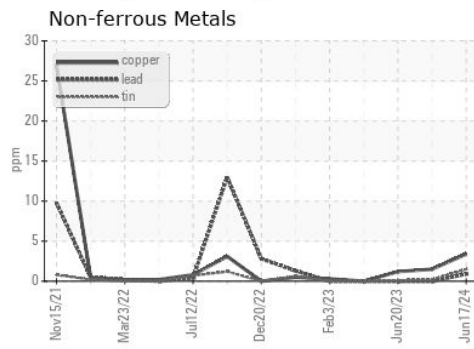
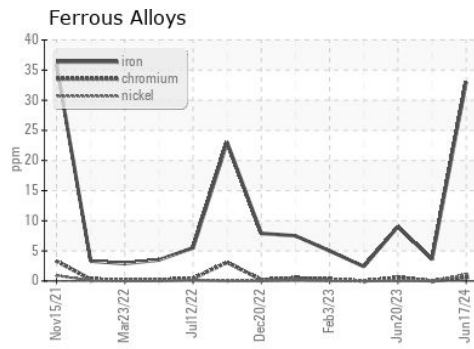
OIL ANALYSIS REPORT



| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| 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 | >0.1 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 100°C | cSt | ASTM D445 | 14.5 | 14.3 | 14.6 |

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0121755
Lab Number : 06216735
Unique Number : 11089599
Test Package : FLEET
Received : 21 Jun 2024
Tested : 24 Jun 2024
Diagnosed : 24 Jun 2024 - Sean Felton

GFL Environmental - 856 - Houston South
 8515 Highway 6 South
 Houston, TX
 US 77083
 Contact: Apolinar Zacarias
 pzacariascano@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)