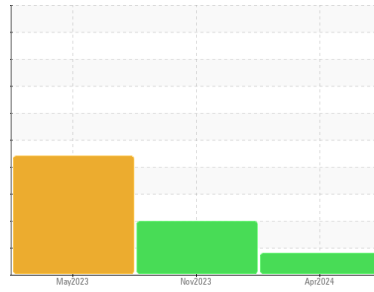




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
713063
 Component
Hydraulic System
 Fluid
PETRO CANADA HYDREX MV 32 (--- GAL)

DIAGNOSIS

Recommendation

Nous recommandons le remplacement des filtres de ce composant. Confirmez la source du lubrifiant utilisé pour l'appoint/remplissage. Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition.

Wear

Les taux d'usure de tous les composants sont normaux.

Contamination

Il y a une légère quantité de limon (particules de 4 à 14 microns) dans l'huile.

Fluid Condition

Les niveaux d'additifs indiquent l'ajout d'une autre marque ou d'un autre type d'huile. L'état de l'huile est acceptable pour la durée de service.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | GFL0114823 | GFL0097092 | GFL0062125 |
| Sample Date | Client Info | | 12 Apr 2024 | 08 Nov 2023 | 26 May 2023 |
| Machine Age | hrs | Client Info | 2374 | 24739 | 11031 |
| Oil Age | hrs | Client Info | 0 | 0 | 0 |
| Oil Changed | Client Info | | Not Chngd | Not Chngd | Not Chngd |
| Sample Status | | | ATTENTION | ABNORMAL | SEVERE |

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 D5185(m) | >50 | 5 | 4 | 4 |
| Chromium | ppm | ASTM D5185(m) | >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | >4 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185(m) | | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185(m) | | 0 | <1 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >5 | <1 | <1 | <1 |
| Lead | ppm | ASTM D5185(m) | >4 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185(m) | >15 | 0 | <1 | 0 |
| Tin | ppm | ASTM D5185(m) | >4 | 0 | 0 | 0 |
| Antimony | ppm | ASTM D5185(m) | | 0 | 0 | <1 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Beryllium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 | |
|------------|--------|---------------|---------|--------------|----------|------|
| Boron | ppm | ASTM D5185(m) | 0 | <1 | 1 | 1 |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | <1 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 0 | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) | 1 | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) | 0 | 2 | 2 | 2 |
| Calcium | ppm | ASTM D5185(m) | 50 | 500 | 533 | 642 |
| Phosphorus | ppm | ASTM D5185(m) | 330 | 202 | 195 | 201 |
| Zinc | ppm | ASTM D5185(m) | 430 | 91 | 65 | 27 |
| Sulfur | ppm | ASTM D5185(m) | 760 | 946 | 973 | 1078 |
| Lithium | ppm | ASTM D5185(m) | | <1 | <1 | <1 |

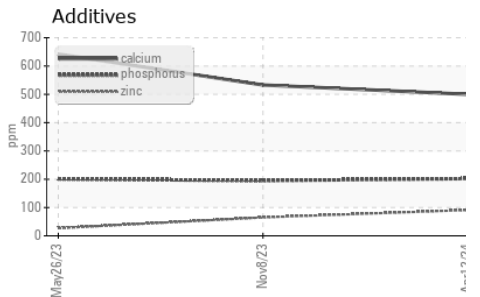
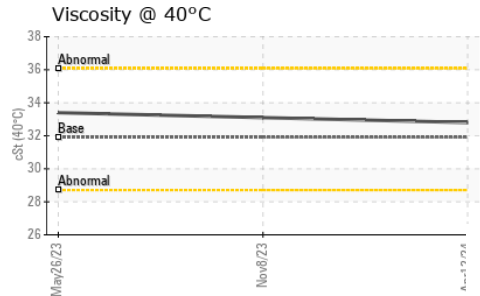
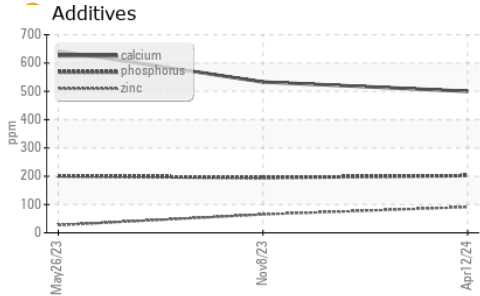
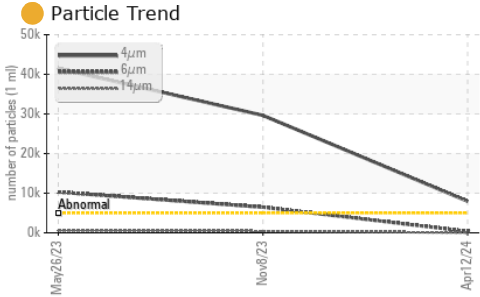
CONTAMINANTS

| | method | limit/base | current | history1 | history2 | |
|-----------|--------|---------------|---------|--------------|----------|----|
| Silicon | ppm | ASTM D5185(m) | >15 | 0 | <1 | <1 |
| Sodium | ppm | ASTM D5185(m) | | 6 | 4 | 4 |
| Potassium | ppm | ASTM D5185(m) | >20 | <1 | <1 | 0 |

FLUID CLEANLINESS

| | method | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|-----------------|------------|------------|
| Particles >4µm | ASTM D7647 | >5000 | 7968 | ▲ 29635 | ▲ 41493 |
| Particles >6µm | ASTM D7647 | >1300 | 364 | ▲ 6472 | ▲ 10293 |
| Particles >14µm | ASTM D7647 | >160 | 22 | ▲ 434 | ▲ 581 |
| Particles >21µm | ASTM D7647 | >40 | 6 | ▲ 110 | ▲ 149 |
| Particles >38µm | ASTM D7647 | >10 | 1 | 9 | 4 |
| Particles >71µm | ASTM D7647 | >3 | 0 | 1 | 1 |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14 | 20/16/12 | ▲ 22/20/16 | ▲ 23/21/16 |

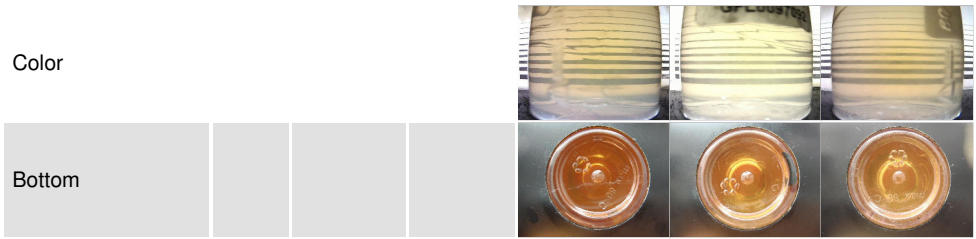
OIL ANALYSIS REPORT



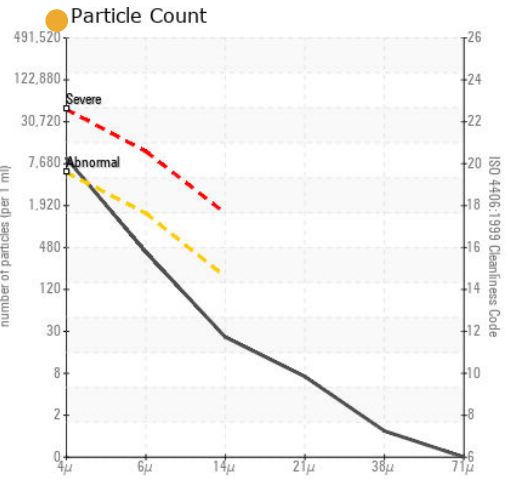
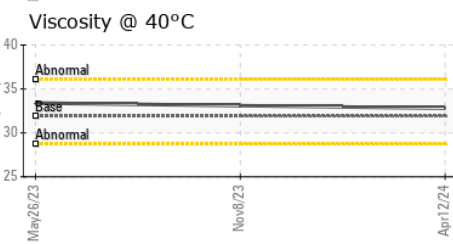
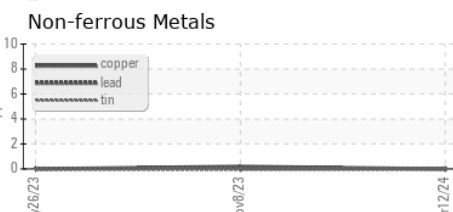
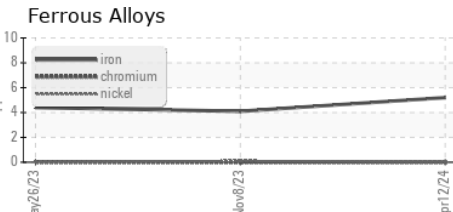
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | Visual* | NONE | NONE | NONE |
| Yellow Metal | scalar | Visual* | NONE | NONE | NONE |
| Precipitate | scalar | Visual* | NONE | NONE | NONE |
| Silt | scalar | Visual* | NONE | NONE | NONE |
| Debris | scalar | Visual* | NONE | NONE | VLITE |
| 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 @ 40°C | cSt | ASTM D7279(m) | 31.9 | 32.8 | 33.1 | 33.4 |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 780 - GMA - ICI - Solid Waste**
Sample No. : GFL0114823 **Received** : 24 Apr 2024 4365 boul. St-Elzear Ouest,
Lab Number : 02631189 **Tested** : 25 Apr 2024 Laval, QC
Unique Number : 5772342 **Diagnosed** : 25 Apr 2024 - Kevin Marson CA H7P 4J3
Test Package : MOB 1 (Additional Tests: PrtCount) Contact: Louis Michaud
 louis.michaud@gflenv.com

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.