



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

Machine Id
422042-24
 Component
Diesel Engine
 Fluid
MOBIL DELVAC 1300 SUPER15W40 (10 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | GFL0110804 | GFL0088462 | GFL0088472 |
| Sample Date | | Client Info | | 09 Apr 2024 | 12 Jan 2024 | 13 Sep 2023 |
| Machine Age | hrs | Client Info | | 24710 | 24154 | 23634 |
| Oil Age | hrs | Client Info | | 600 | 600 | 600 |
| Filter Age | hrs | Client Info | | 600 | 600 | 600 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | ABNORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >100 | 10 | 8 | 4 |
| Chromium | ppm | ASTM D5185m | >20 | 0 | 0 | <1 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | <1 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >20 | 1 | 3 | 2 |
| Lead | ppm | ASTM D5185m | >40 | 0 | 0 | 1 |
| Copper | ppm | ASTM D5185m | >330 | 0 | <1 | <1 |
| Tin | ppm | ASTM D5185m | >15 | 0 | 0 | 1 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | <1 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

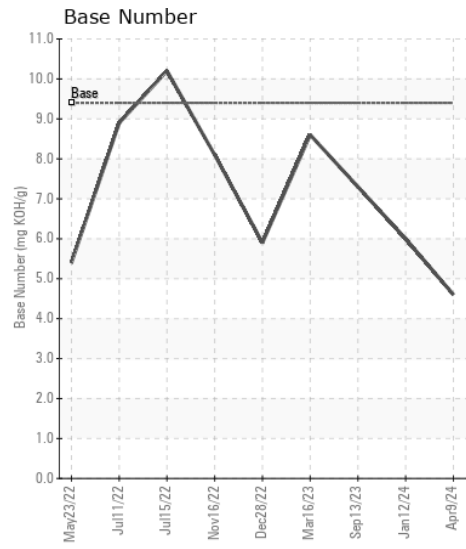
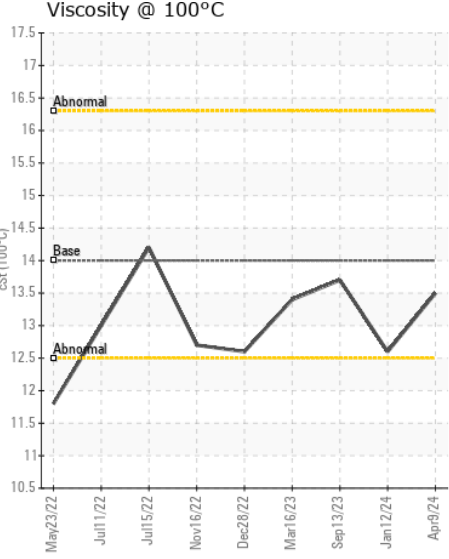
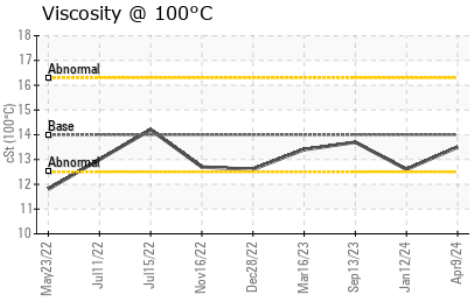
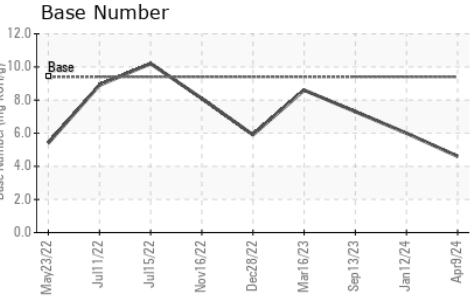
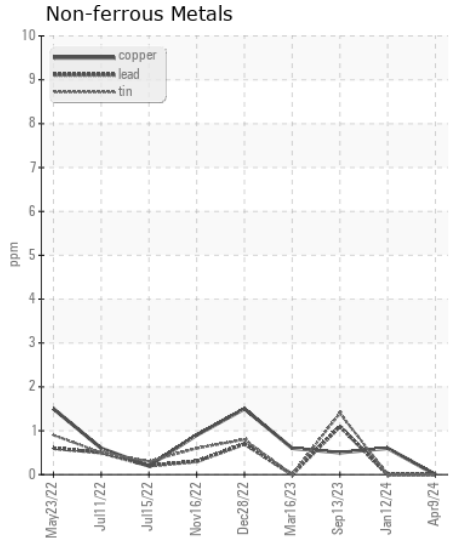
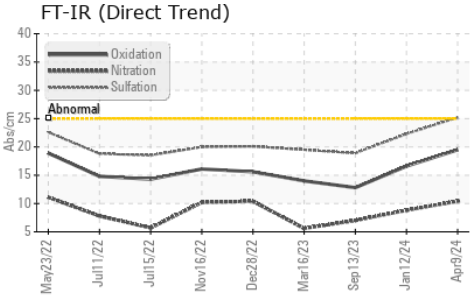
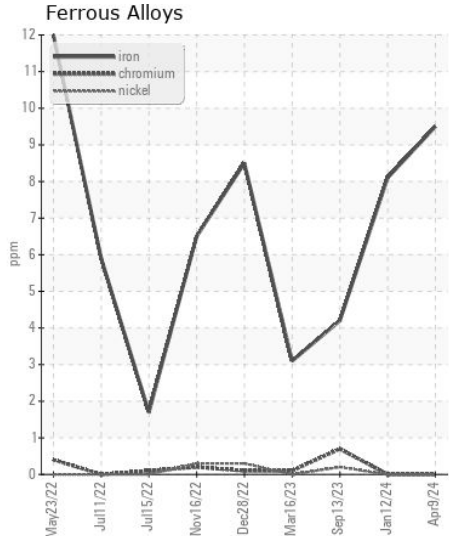
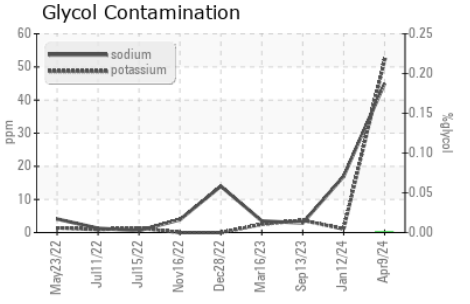
Sodium and/or potassium levels are high. Test for glycol is negative.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 5 | 6 | 6 |
| Potassium | ppm | ASTM D5185m | >20 | ▲ 52 | 1 | 4 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | % | *ASTM D2982 | | 0.0 | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.4 | 0.3 | 0.2 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 10.4 | 8.8 | 7.0 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 25.2 | 22.3 | 18.9 |
| 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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

| | | | | | | |
|------------------|----------|-------------|-----|-------------|------|------|
| Sodium | ppm | ASTM D5185m | | ▲ 45 | 17 | 3 |
| Boron | ppm | ASTM D5185m | 0 | 33 | 214 | 327 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 | 44 |
| Molybdenum | ppm | ASTM D5185m | 0 | 14 | 84 | 74 |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | 1 |
| Magnesium | ppm | ASTM D5185m | 0 | 44 | 355 | 363 |
| Calcium | ppm | ASTM D5185m | | 2052 | 1322 | 1242 |
| Phosphorus | ppm | ASTM D5185m | | 885 | 1065 | 927 |
| Zinc | ppm | ASTM D5185m | | 1033 | 1225 | 1162 |
| Sulfur | ppm | ASTM D5185m | | 3465 | 3122 | 3456 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 19.5 | 16.6 | 12.8 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.4 | 4.6 | 6.0 | 7.3 |
| Visc @ 100°C | cSt | ASTM D445 | 14 | 13.5 | 12.6 | 13.7 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0110804 **Received** : 15 Apr 2024
Lab Number : 06148216 **Tested** : 17 Apr 2024
Unique Number : 10978294 **Diagnosed** : 17 Apr 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 146 - Augusta
 1064 Franke Industrial
 Augusta, GA
 US 30909
 Contact: JEFFERY WASHINGTON
 jeff.washington@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)

T:
F: