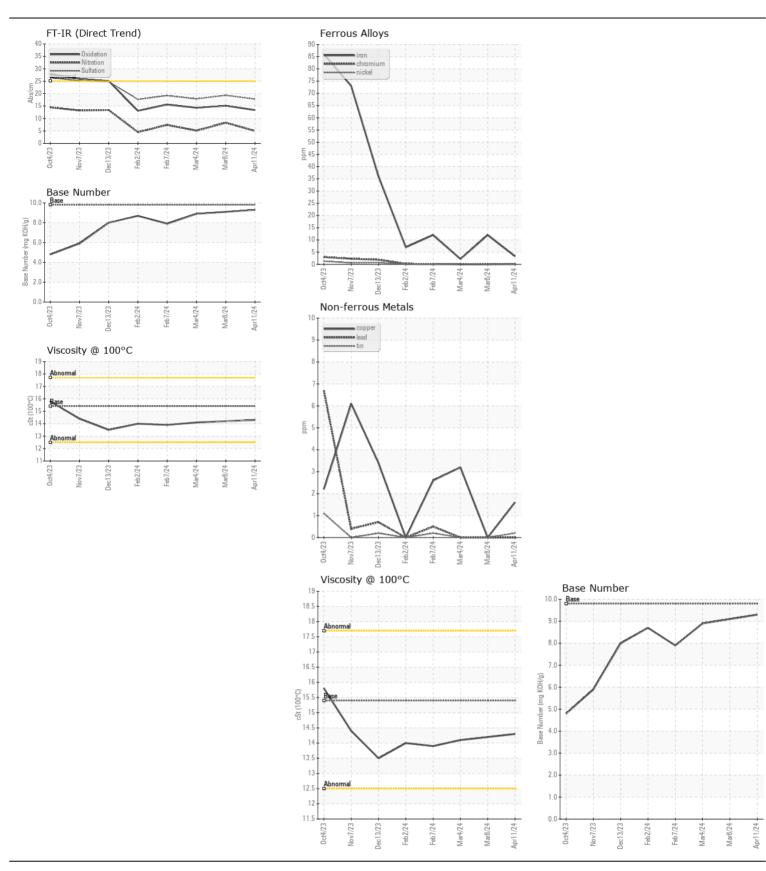
WEAR CONTAMINATION **FLUID CONDITION**

NORMAL NORMAL NORMAL

Machine Id 366M

Component
Diesel Engine

| ECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|------------------|----------|-------------|-----------|-------------|-------------|------------|
| Resample at the next service interval to monitor. | Sample Number | | Client Info | | GFL0104452 | GFL0104300 | GFL010436 |
| | Sample Date | | Client Info | | 11 Apr 2024 | 08 Mar 2024 | 04 Mar 202 |
| | Machine Age | hrs | Client Info | | 4155 | 3750 | 3715 |
| | Oil Age | hrs | Client Info | | 300 | 600 | 600 |
| | Filter Age | hrs | Client Info | | 300 | 600 | 600 |
| | Oil Changed | | Client Info | | Changed | Changed | Changed |
| | Filter Changed | | Client Info | | Changed | Changed | Changed |
| | Sample Status | | | | NORMAL | ABNORMAL | NORMAL |
| /EAR | Iron | ppm | ASTM D5185m | >110 | 3 | 12 | 2 |
| | Chromium | ppm | ASTM D5185m | >4 | <1 | 0 | 0 |
| All component wear rates are normal. | Nickel | ppm | ASTM D5185m | | 0 | 0 | <1 |
| | Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| | Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| | Aluminum | ppm | ASTM D5185m | | 1 | 1 | <1 |
| | Lead | ppm | ASTM D5185m | | 0 | 0 | 0 |
| | Copper | ppm | ASTM D5185m | >85 | 2 | 0 | 3 |
| | Tin | ppm | ASTM D5185m | | <1 | 0 | 0 |
| | Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| | White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| ONTAMINATION | Silicon | ppm | ASTM D5185m | >30 | 10 | 9 | 3 |
| ONTAIMINATION | Potassium | ppm | ASTM D5185m | | 0 | 6 | 0 |
| There is no indication of any contamination in the oil. | Fuel | pp | WC Method | | <1.0 | <1.0 | <1.0 |
| | Water | | WC Method | | NEG | NEG | NEG |
| | Glycol | | WC Method | 7 U.L | NEG | NEG | NEG |
| | Soot % | % | *ASTM D7844 | >3 | 0.1 | 0.4 | 0.1 |
| | Nitration | Abs/cm | *ASTM D7624 | >20 | 5.0 | 8.3 | 5.1 |
| | Sulfation | Abs/.1mm | *ASTM D7415 | | 17.8 | 19.3 | 17.9 |
| | 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 | NORM |
| | Odor | scalar | *Visual | NORML | NORML | NORML | NORMI |
| | Emulsified Water | | *Visual | >0.2 | NEG | NEG | NEG |
| LUID CONDITION | Sodium | nnm | ASTM D5185m | | 1 | ▲ 389 | 2 |
| I LOID CONDITION | Boron | ppm | ASTM D5185m | 0 | 4 | 3 | 2 |
| The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. | Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| | Molybdenum | ppm | ASTM D5185m | | 59 | 71 | 52 |
| | Manganese | ppm | ASTM D5185m | | <1 | 0 | 0 |
| | Magnesium | ppm | ASTM D5185m | | 1000 | 899 | 899 |
| | Calcium | ppm | ASTM D5185m | | 1096 | 963 | 985 |
| | Phosphorus | ppm | ASTM D5185m | | 1137 | 847 | 990 |
| | Zinc | ppm | ASTM D5185m | | 1309 | 1132 | 1173 |
| | Sulfur | ppm | ASTM D5185m | | 3818 | 2821 | 2830 |
| | Oxidation | Abs/.1mm | *ASTM D7414 | | 13.4 | 15.1 | 14.3 |
| | Base Number (BN) | | ASTM D2896 | | 9.3 | 9.1 | 8.9 |
| | Visc @ 100°C | cSt | ASTM D445 | | 14.3 | 14.2 | 14.1 |







Certificate L2367

Laboratory

Sample No.

: GFL0104452 Lab Number : 06150081 Unique Number: 10980159 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 16 Apr 2024

Tested : 17 Apr 2024 Diagnosed : 17 Apr 2024 - Wes Davis

GFL Environmental - 410 - Michigan West

39000 Van Born Rd Wayne, MI US 48184

Contact: Belal Dgheish bdgheish@gflenv.com T: (734)714-2340

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)