WEAR CONTAMINATION **FLUID CONDITION** **NORMAL NORMAL NORMAL**

Machine Id

NO UNIT GFL0110688

Diesel Engine

| DIESEL ENGINE OIL SAE 40 (GAL) | | | | | | | |
|--|----------------------|----------------|--------------------------------|-----------|--------------|----------|----------|
| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm. Please specify the component make and model with your next sample. | Sample Number | | Client Info | | GFL0110688 | | |
| | Sample Date | | Client Info | | 23 Apr 2024 | | |
| | Machine Age | kms | Client Info | | 0 | | |
| | Oil Age | kms | Client Info | | 0 | | |
| | Filter Age | kms | Client Info | | 0 | | |
| | Oil Changed | | Client Info | | N/A | | |
| | Filter Changed | | Client Info | | N/A | | |
| | Sample Status | | | | NORMAL | | |
| WEAR | Iron | ppm | ASTM D5185(m) | >100 | 6 | | |
| | Chromium | ppm | ASTM D5185(m) | >20 | 0 | | |
| All component wear rates are normal. | Nickel | ppm | ASTM D5185(m) | >4 | 0 | | |
| | Titanium | ppm | ASTM D5185(m) | | 0 | | |
| | Silver | ppm | ASTM D5185(m) | >3 | 0 | | |
| | Aluminum | ppm | ASTM D5185(m) | | 2 | | |
| | Lead | ppm | ASTM D5185(m) | >40 | 0 | | |
| | Copper | ppm | ASTM D5185(m) | >330 | 1 | | |
| | Tin | ppm | ASTM D5185(m) | >15 | 0 | | |
| | Vanadium | ppm | ASTM D5185(m) | | 0 | | |
| | White Metal | scalar | Visual* | NONE | NONE | | |
| | Yellow Metal | scalar | Visual* | NONE | NONE | | |
| CONTAMINATION | Silicon | ppm | ASTM D5185(m) | >25 | 2 | | |
| OOMTAMINATION | Potassium | ppm | ASTM D5185(m) | >20 | - <1 | | |
| There is no indication of any contamination in the oil. | Fuel | ррпп | WC Method | >5 | <1.0 | | |
| | Water | | WC Method | | NEG | | |
| | Glycol | | WC Method | 70.L | NEG | | |
| | Soot % | % | ASTM D7844* | \3 | 0.2 | | |
| | Nitration | Abs/cm | ASTM D7624* | >20 | 9.0 | | |
| | Sulfation | Abs/.1mm | ASTM D7415* | | 19.6 | | |
| | Silt | scalar | Visual* | NONE | NONE | | |
| | Debris | scalar | Visual* | NONE | NONE | | |
| | Sand/Dirt | scalar | Visual* | NONE | VLITE | | |
| | Appearance | scalar | Visual* | NORML | NORML | | |
| | Odor | scalar | Visual* | NORML | NORML | | |
| | Emulsified Water | scalar | Visual* | >0.2 | NEG | | |
| FLUID CONDITION | Sodium | | ACTM DE10E(m) | . 016 | | | |
| FLUID CONDITION | | ppm | ASTM D5185(m) | | 3 | | |
| The condition of the oil is acceptable for the time in service. | Boron Barium | ppm | ASTM D5185(m) ASTM D5185(m) | 250 | 2 | | |
| | Molybdenum | ppm | ASTM D5185(m) | 10 | 0 59 | | |
| | Manganese | ppm | ASTM D5185(m) ASTM D5185(m) | 100 | 58 | | |
| | | ppm | | 150 | 0 964 | | |
| | Magnesium Calcium | ppm | ASTM D5185(m) ASTM D5185(m) | | 964 1042 | | |
| | | ppm | | 3000 | 983 | | |
| | Phosphorus Zinc | ppm | ASTM D5185(m) ASTM D5185(m) | | 1182 | | |
| | Sulfur | ppm | ASTM D5185(m) ASTM D5185(m) | 1350 | | | |
| | Oxidation | ppm Abs/1mm | (/ | | 2437 | | |
| | Visc @ 100°C | Abs/.1mm | ASTM D7414* ASTM D7279(m) | >25 | 15.9 13.4 | | |
| | | 051 | 4 1 1 1 1 1 / 7 / U/m | | 134 | | |





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Unique Number : 5772242

: GFL0110688 Lab Number : 02631089

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received **Tested**

Diagnosed Test Package : MOB 1 (Additional Tests: Visual)

: 24 Apr 2024 : 24 Apr 2024 : 24 Apr 2024 - Wes Davis

GFL Environmental - 207 - Pickering SW 1034 TOY AVENUE, PICKERING YARD PICKERING, ON CA L1W 3P1

Contact: Jamie Holder jholder2@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.

T: F: Validity of results and interpretation are based on the sample and information as supplied.