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

Machine Id 4017

Component Diesel Engine

| ECOMMENDATION   | Test             | UOM      | Method      | Limit/Abn | Current     | History1 | History |
|---|------------------|----------|-------------|-----------|-------------|----------|---------|
| Resample at the next service interval to monitor. Please specify the component make and model with your next sample.                      | Sample Number    |          | Client Info |           | WC0870789   |          |         |
|   | Sample Date      |          | Client Info |           | 10 Jan 2024 |          |         |
|   | Machine Age      | mls      | Client Info |           | 64053       |          |         |
|   | Oil Age          | mls      | Client Info |           | 0           |          |         |
|   | Filter Age       | mls      | Client Info |           | 0           |          |         |
|   | Oil Changed      |          | Client Info |           | Not Changd  |          |         |
|   | Filter Changed   |          | Client Info |           | Not Changd  |          |         |
|   | Sample Status    |          |             |           | NORMAL      |          |         |
| /EAR  | Iron             | ppm      | ASTM D5185m | >100      | 21          |          |         |
|   | Chromium         | ppm      | ASTM D5185m | >20       | 1           |          |         |
| Metal levels are typical for a new component breaking in.   | Nickel           | ppm      | ASTM D5185m |           | <1          |          |         |
|   | Titanium         | ppm      | ASTM D5185m |           | <1          |          |         |
|   | Silver           | ppm      | ASTM D5185m | >3        | 0           |          |         |
|   | Aluminum         | ppm      | ASTM D5185m |           | 7           |          |         |
|   | Lead             | ppm      | ASTM D5185m | >40       | 0           |          |         |
|   | Copper           | ppm      | ASTM D5185m |           | 1           |          |         |
|   | Tin              | ppm      | ASTM D5185m |           | <1          |          |         |
|   | Vanadium         | ppm      | ASTM D5185m |           | 0           |          |         |
|   | White Metal      | scalar   | *Visual     | NONE      | NONE        |          |         |
|   | Yellow Metal     | scalar   | *Visual     | NONE      | NONE        |          |         |
| ONTAMINATION  | Silicon          | ppm      | ASTM D5185m | >25       | 8           |          |         |
| SITTAIIIITATION   | Potassium        | ppm      | ASTM D5185m |           | 9           |          |         |
| There is no indication of any contamination in the oil.   | Fuel             | ррпп     | WC Method   |           | <1.0        |          |         |
|   | Water            |          | WC Method   |           | NEG         |          |         |
|   | Glycol           |          | WC Method   | 70.L      | NEG         |          |         |
|   | Soot %           | %        | *ASTM D7844 | <b>\3</b> | 0.5         |          |         |
|   | Nitration        | Abs/cm   | *ASTM D7624 | >20       | 10.5        |          |         |
|   | Sulfation        | Abs/.1mm | *ASTM D7415 |           | 20.1        |          |         |
|   | Silt             | scalar   | *Visual     | NONE      | NONE        |          |         |
|   | Debris           | scalar   | *Visual     | NONE      | NONE        |          |         |
|   | Sand/Dirt        | scalar   | *Visual     | NONE      | NONE        |          |         |
|   | Appearance       | scalar   | *Visual     | NORML     | NORML       |          |         |
|   | Odor             | scalar   | *Visual     | NORML     | NORML       |          |         |
|   | Emulsified Water |          | *Visual     | >0.2      | NEG         |          |         |
| LUID CONDITION  | Sodium           | ppm      | ASTM D5185m | >158      | 2           |          |         |
|   | Boron            | ppm      | ASTM D5185m |           | _<br>25     |          |         |
| 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 |           | 4           |          |         |
|   | Molybdenum       | ppm      | ASTM D5185m |           | 82          |          |         |
|   | Manganese        | ppm      | ASTM D5185m |           | 0           |          |         |
|   | Magnesium        | ppm      | ASTM D5185m | 450       | 135         |          |         |
|   | Calcium          | ppm      | ASTM D5185m |           | 1937        |          |         |
|   | Phosphorus       | ppm      | ASTM D5185m |           | 918         |          |         |
|   | Zinc             | ppm      |             | 1350      | 1194        |          |         |
|   | Sulfur           | ppm      | ASTM D5185m |           | 3194        |          |         |
|   | Oxidation        | Abs/.1mm | *ASTM D7414 |           | 16.5        |          |         |
|   | Base Number (BN) |          | ASTM D2896  |           | 6.3         |          |         |
|   | Visc @ 100°C     | cSt      | ASTM D445   |           | 13.8        |          |         |







Certificate L2367

Laboratory Sample No. Lab Number **Unique Number** 

: WC0870789 : 06059862 : 10831244

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Recieved : 12 Jan 2024 : 15 Jan 2024 Diagnosed Diagnostician : Wes Davis

Test Package : MOB 1 ( Additional Tests: TBN )

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)

WAKE COUNTY PUBLIC SCHOOL SYSTEM

1551 ROCK QUARRY ROAD RALEIGH, NC US 27610

Contact: DEVIN WEBER dweber@wcpss.net T: (919)856-8076

F: x: