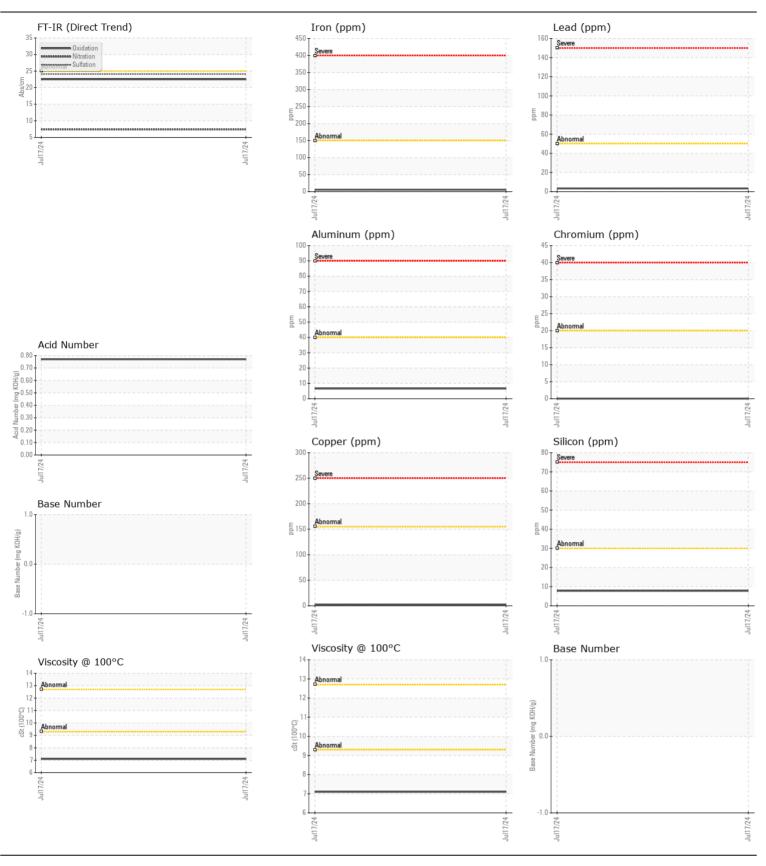


## Machine Id MERCEDES-BENZ 27393-010 Component

## Gasoline Engine

## {not provided} (--- GAL)

| {not provided} ( GAL)                                   |                    |                    |                            |               | .,            |          |          |
|---|--------------------|--------------------|----------------------------|---------------|---------------|----------|----------|
| RECOMMENDATION  | Test               | UOM                | Method                     | Limit/Abn     | Current       | History1 | History2 |
| No corrective action is recommended at this time.       | Sample Number      |                    | Client Info                |               | WCM2278685    |          |          |
|   | Sample Date        |                    | Client Info                |               | 17 Jul 2024   |          |          |
|   | Machine Age        | mls                | Client Info                |               | 0             |          |          |
|   | Oil Age            | mls                | Client Info                |               | 0             |          |          |
|   | Filter Age         | mls                | Client Info                |               | 0             |          |          |
|   | Oil Changed        |                    | Client Info                |               | N/A           |          |          |
|   | Filter Changed     |                    | Client Info                |               | N/A           |          |          |
|   | Sample Status      |                    |                            |               | NORMAL        |          |          |
|   |                    |                    |                            |               |               |          |          |
| WEAR  | Iron               | ppm                | ASTM D5185m                |               | 5             |          |          |
| All component wear rates are normal.                    | Chromium           | ppm                | ASTM D5185m                |               | 0             |          |          |
|   | Nickel             | ppm                | ASTM D5185m                | >5            | 0             |          |          |
|   | Titanium           | ppm                | ASTM D5185m                |               | <1            |          |          |
|   | Silver             | ppm                | ASTM D5185m                |               | 0             |          |          |
|   | Aluminum           | ppm                | ASTM D5185m                |               | 7             |          |          |
|   | Lead               | ppm                | ASTM D5185m                |               | 3             |          |          |
|   | Copper             | ppm                | ASTM D5185m                |               | 2             |          |          |
|   | Tin                | ppm                | ASTM D5185m                | >10           | 0             |          |          |
|   | Vanadium           | ppm                | ASTM D5185m                |               | 0             |          |          |
|   | White Metal        | scalar             | *Visual                    | NONE          | NONE          |          |          |
|   | Yellow Metal       | scalar             | *Visual                    | NONE          | NONE          |          |          |
|   | Silicon            |                    |                            |               | •             | [        |          |
| CONTAMINATION   |                    | ppm                | ASTM D5185m<br>ASTM D5185m |               | 8             |          |          |
| There is no indication of any contamination in the oil. | Potassium          | ppm                |                            |               | <1            |          |          |
|   | Fuel               | %                  | ASTM D3524                 |               | <1.0          |          |          |
|   | Water              |                    | WC Method<br>WC Method     | >0.2          | NEG           |          |          |
|   | Glycol<br>Soot %   | 0/                 | *ASTM D7844                |               | NEG           |          |          |
|   | Nitration          | %                  | *ASTM D7644                | . 00          | 0.1<br>7.4    |          |          |
|   | Sulfation          | Abs/cm<br>Abs/.1mm | *ASTM D7624                |               | 24.1          |          |          |
|   | Silt               |                    | *Visual                    | NONE          | NONE          |          |          |
|   | Debris             | scalar             | *Visual                    | NONE          | NONE          |          |          |
|   | Sand/Dirt          | scalar             | *Visual                    |               |               |          |          |
|   |                    | scalar             | *Visual                    | NONE<br>NORML | NONE<br>NORML |          |          |
|   | Appearance<br>Odor | scalar             | *Visual                    | NORML         | NORML         |          |          |
|   | Emulsified Water   | scalar             | *Visual                    | >0.2          | NEG           |          |          |
|   |                    | scalar             | visuai                     | >0.2          | NEG           |          |          |
| FLUID CONDITION   | Sodium             | ppm                | ASTM D5185m                | >400          | 2             |          |          |
|   | Boron              | ppm                | ASTM D5185m                |               | 105           |          |          |
| The AN level is acceptable for this fluid.              | Barium             | ppm                | ASTM D5185m                |               | 0             |          |          |
|   | Molybdenum         | ppm                | ASTM D5185m                |               | 9             |          |          |
|   | Manganese          | ppm                | ASTM D5185m                |               | <1            |          |          |
|   | Magnesium          | ppm                | ASTM D5185m                |               | 132           |          |          |
|   | Calcium            | ppm                | ASTM D5185m                |               | 1082          |          |          |
|   | Phosphorus         | ppm                | ASTM D5185m                |               | 620           |          |          |
|   | Zinc               | ppm                | ASTM D5185m                |               | 503           |          |          |
|   | Sulfur             | ppm                | ASTM D5185m                |               | 1938          |          |          |
|   | Oxidation          | Abs/.1mm           | *ASTM D7414                | >25           | 22.5          |          |          |
|   | Acid Number (AN)   |                    | ASTM D8045                 |               | 0.77          |          |          |
|   | Visc @ 100°C       | cSt                | ASTM D445                  |               | 7.1           |          |          |
|   |                    | 001                |                            |               |               | ,        |          |



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 NORTH AMERICAN WEST AUTOMOTIVE FORENSIC SERVICES Ξß Sample No. Received : WCM2278685 : 17 Jul 2024 PO BOX 2220 Lab Number : 06239637 MISSION VIEJO, CA Tested : 18 Jul 2024 : 18 Jul 2024 - Jonathan Hester US 92690 Unique Number : 11128471 Diagnosed Test Package : MOB 2 (Additional Tests: FuelDilution, TBN) Contact: CHAD TREDWAY Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. chad.nawest@gmail.com;northamericanwest@gmail.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (888)491-1080 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (949)271-2360

Contact/Location: CHAD TREDWAY - NORLAD Page 2 of 2