



|                 |                 |
|-----------------|-----------------|
| WEAR            | <b>ABNORMAL</b> |
| CONTAMINATION   | <b>SEVERE</b>   |
| FLUID CONDITION | <b>NORMAL</b>   |

Machine Id  
**EPIROC T35 JPS22SED2703**  
 Component  
**Left Final Drive**  
 Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**

### RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>JR0197601</b>   | JR0190862   | JR0181615   |
| Sample Date    |     | Client Info |           | <b>15 Jan 2024</b> | 30 Oct 2023 | 27 Jul 2023 |
| Machine Age    | hrs | Client Info |           | <b>2047</b>        | 1737        | 1151        |
| Oil Age        | hrs | Client Info |           | <b>1461</b>        | 500         | 1151        |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 500         | 0           |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Not Changd  | Changed     |
| Filter Changed |     | Client Info |           | <b>None</b>        | Not Changd  | N/A         |
| Sample Status  |     |             |           | <b>SEVERE</b>      | ABNORMAL    | SEVERE      |

### WEAR

Gear wear is indicated.

| PQ           | UOM    | Method      | Limit/Abn | Current       | History1 | History2 |
|--------------|--------|-------------|-----------|---------------|----------|----------|
| PQ           |        | ASTM D8184  |           | <b>676</b>    | 360      | ▲ 981    |
| Iron         | ppm    | ASTM D5185m | >500      | <b>▲ 1084</b> | ▲ 853    | ▲ 2096   |
| Chromium     | ppm    | ASTM D5185m | >10       | <b>▲ 11</b>   | 8        | ▲ 21     |
| Nickel       | ppm    | ASTM D5185m | >10       | <b>3</b>      | 2        | ▲ 10     |
| Titanium     | ppm    | ASTM D5185m |           | <b>6</b>      | 5        | ▲ 19     |
| Silver       | ppm    | ASTM D5185m |           | <b>0</b>      | 0        | 0        |
| Aluminum     | ppm    | ASTM D5185m | >25       | <b>▲ 57</b>   | ▲ 52     | ▲ 189    |
| Lead         | ppm    | ASTM D5185m | >25       | <b>0</b>      | 0        | 0        |
| Copper       | ppm    | ASTM D5185m | >50       | <b>1</b>      | <1       | 2        |
| Tin          | ppm    | ASTM D5185m | >10       | <b>0</b>      | 0        | 0        |
| Vanadium     | ppm    | ASTM D5185m |           | <b>&lt;1</b>  | 0        | <1       |
| White Metal  | scalar | *Visual     | NONE      | <b>NONE</b>   | MODER    | MODER    |
| Yellow Metal | scalar | *Visual     | NONE      | <b>NONE</b>   | NONE     | NONE     |

### CONTAMINATION

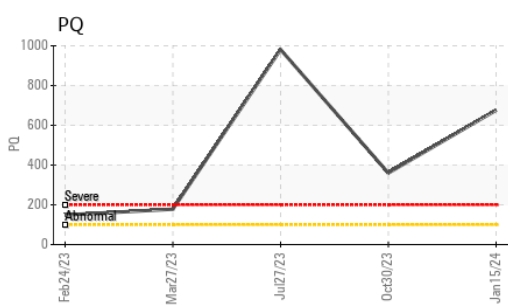
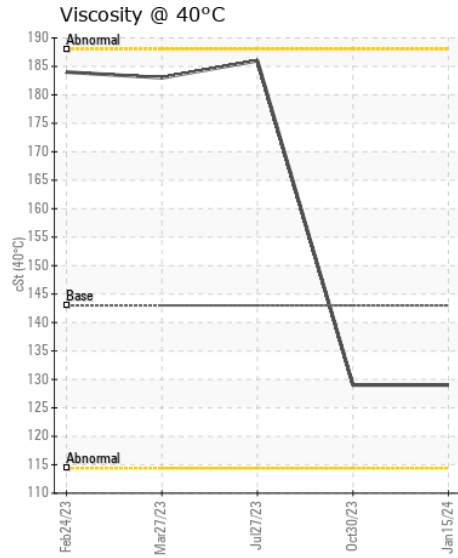
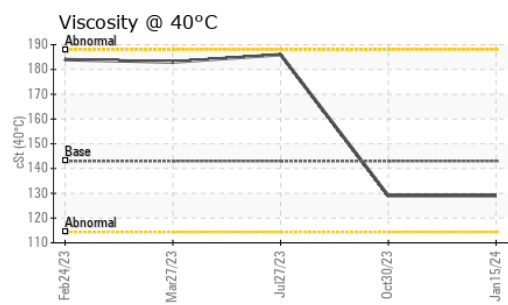
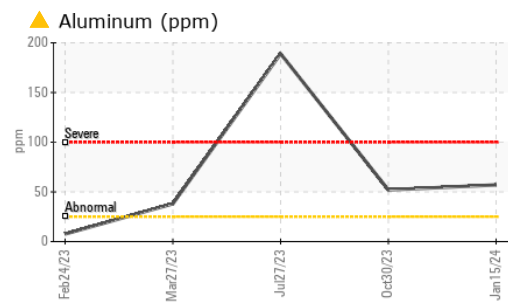
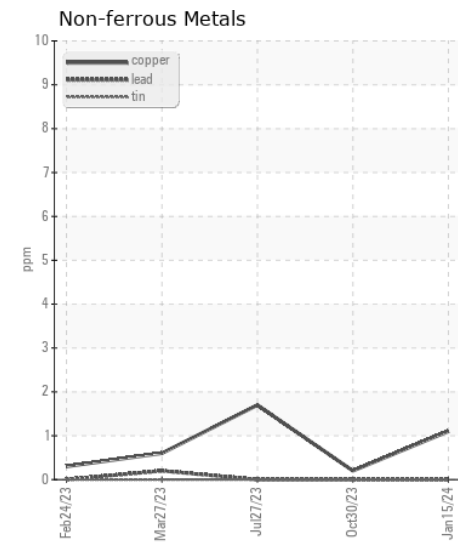
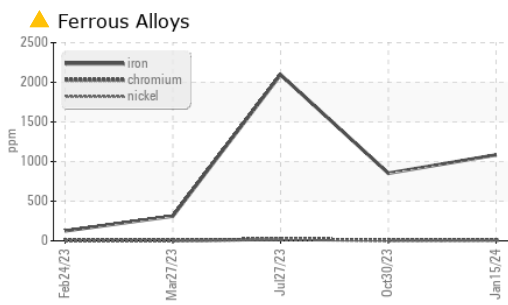
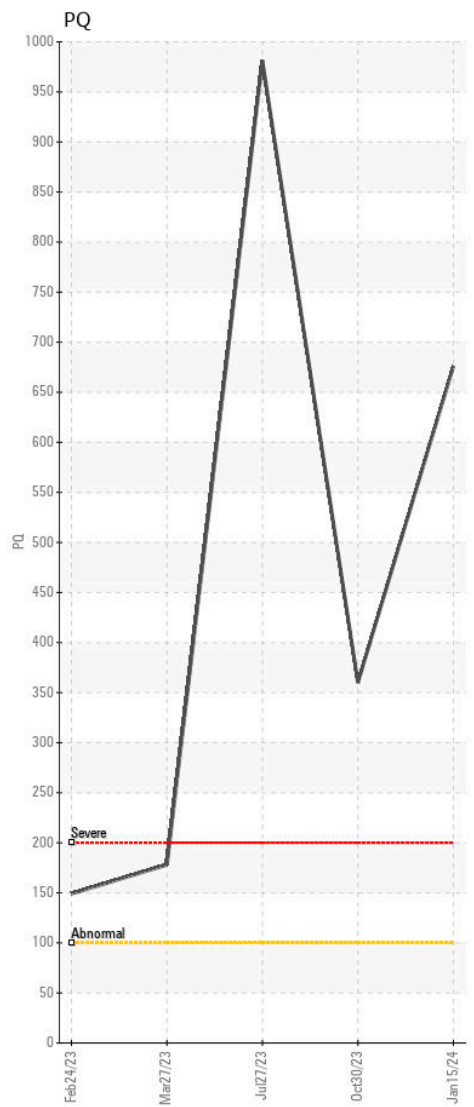
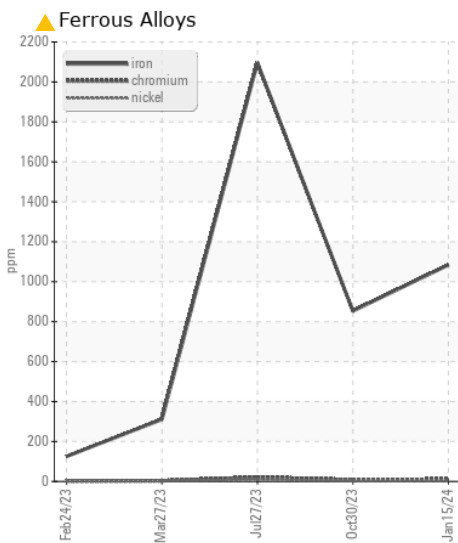
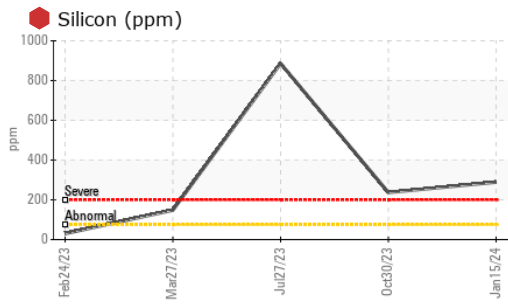
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

|                  |        |             |       |              |       |       |
|------------------|--------|-------------|-------|--------------|-------|-------|
| Silicon          | ppm    | ASTM D5185m | >75   | <b>● 289</b> | ▲ 237 | ● 886 |
| Potassium        | ppm    | ASTM D5185m | >20   | <b>14</b>    | 12    | 40    |
| Water            |        | WC Method   | >0.2  | <b>NEG</b>   | NEG   | NEG   |
| Silt             | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Debris           | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Sand/Dirt        | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Appearance       | scalar | *Visual     | NORML | <b>NORML</b> | NORML | NORML |
| Odor             | scalar | *Visual     | NORML | <b>NORML</b> | NORML | NORML |
| Emulsified Water | scalar | *Visual     | >0.2  | <b>NEG</b>   | NEG   | NEG   |

### FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

|             |     |             |       |              |       |       |
|-------------|-----|-------------|-------|--------------|-------|-------|
| Sodium      | ppm | ASTM D5185m | >170  | <b>10</b>    | 9     | 35    |
| Boron       | ppm | ASTM D5185m | 400   | <b>15</b>    | 13    | 81    |
| Barium      | ppm | ASTM D5185m | 200   | <b>0</b>     | 5     | 20    |
| Molybdenum  | ppm | ASTM D5185m | 12    | <b>12</b>    | 10    | 43    |
| Manganese   | ppm | ASTM D5185m |       | <b>25</b>    | 21    | 73    |
| Magnesium   | ppm | ASTM D5185m | 12    | <b>0</b>     | 5     | 11    |
| Calcium     | ppm | ASTM D5185m | 150   | <b>9</b>     | 78    | 15    |
| Phosphorus  | ppm | ASTM D5185m | 1650  | <b>443</b>   | 438   | 529   |
| Zinc        | ppm | ASTM D5185m | 125   | <b>45</b>    | 73    | 84    |
| Sulfur      | ppm | ASTM D5185m | 22500 | <b>17128</b> | 16176 | 18090 |
| Visc @ 40°C | cSt | ASTM D445   | 143   | <b>129</b>   | 129   | 186   |



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0197601 **Received** : 17 Jan 2024  
**Lab Number** : 06063009 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10834391 **Diagnostician** : Sean Felton  
**Test Package** : CONST ( Additional Tests: PQ )

**CAROLINA CIVIL**  
 PO BOX 80337  
 RALEIGH, NC  
 US 27623  
 Contact:

Certificate L2367  
 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: