



# OIL ANALYSIS REPORT

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

Machine Id  
**EPIROC MT65 TRK 219**  
 Component  
**Diesel Engine**  
 Fluid  
**MOBIL 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>WC0937729</b>   | WC0920127   | WC0916344   |
| Sample Date    |     | Client Info |           | <b>23 May 2024</b> | 24 Apr 2024 | 20 Mar 2024 |
| Machine Age    | hrs | Client Info |           | <b>8902</b>        | 0           | 8262        |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | 0           | 250         |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 250         |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | N/A         | Changed     |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | N/A         | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## WEAR

All component wear rates are normal.

|              |        |               |      |              |     |       |
|--------------|--------|---------------|------|--------------|-----|-------|
| Iron         | ppm    | ASTM D5185(m) | >100 | <b>7</b>     | 6   | 5     |
| Chromium     | ppm    | ASTM D5185(m) | >20  | <b>0</b>     | 0   | 0     |
| Nickel       | ppm    | ASTM D5185(m) | >4   | <b>0</b>     | <1  | 0     |
| Titanium     | ppm    | ASTM D5185(m) |      | <b>0</b>     | 0   | 0     |
| Silver       | ppm    | ASTM D5185(m) | >3   | <b>0</b>     | 0   | 0     |
| Aluminum     | ppm    | ASTM D5185(m) | >20  | <b>&lt;1</b> | 1   | 1     |
| Lead         | ppm    | ASTM D5185(m) | >40  | <b>&lt;1</b> | 0   | 0     |
| Copper       | ppm    | ASTM D5185(m) | >330 | <b>&lt;1</b> | <1  | <1    |
| Tin          | ppm    | ASTM D5185(m) | >15  | <b>0</b>     | 0   | 0     |
| Vanadium     | ppm    | ASTM D5185(m) |      | <b>0</b>     | 0   | 0     |
| White Metal  | scalar | Visual*       | NONE | <b>NONE</b>  | --- | VLITE |
| Yellow Metal | scalar | Visual*       | NONE | <b>NONE</b>  | --- | NONE  |

## CONTAMINATION

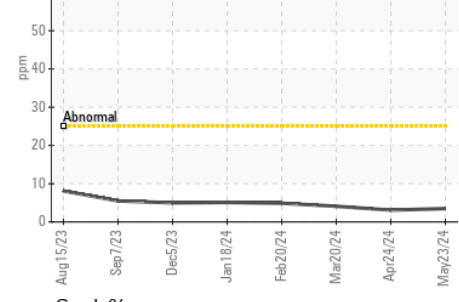
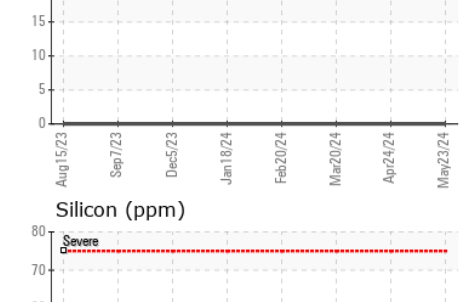
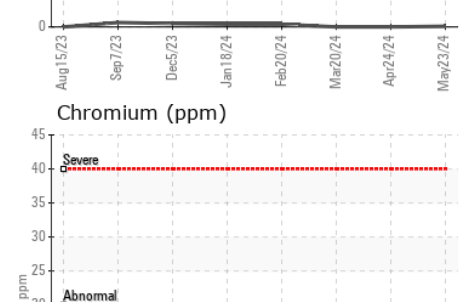
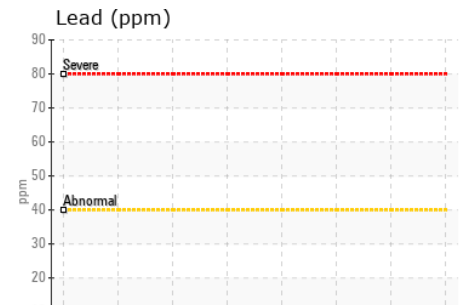
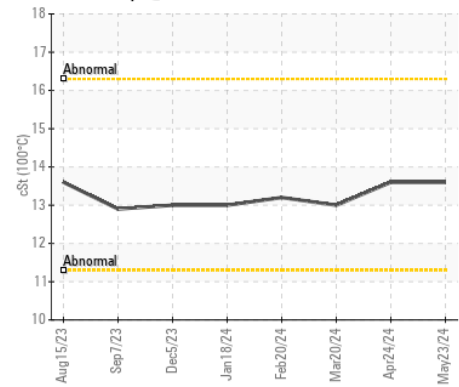
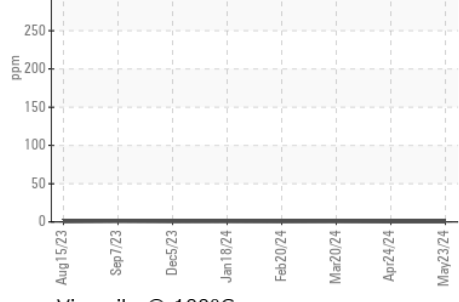
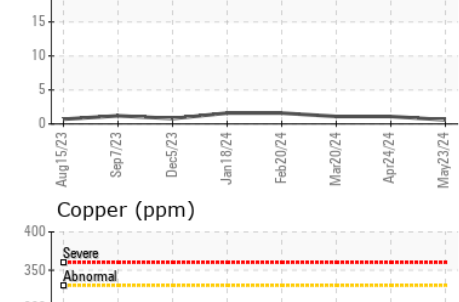
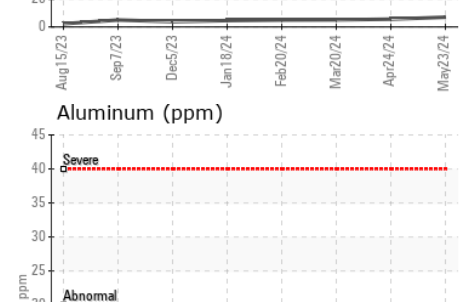
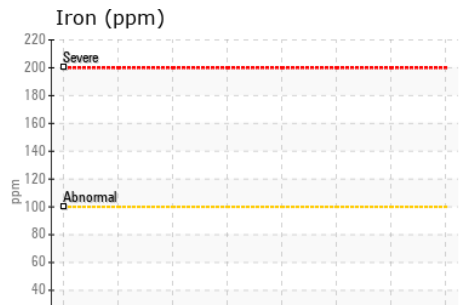
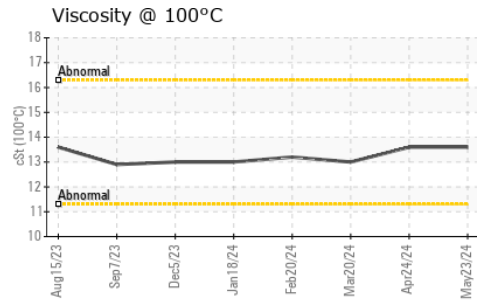
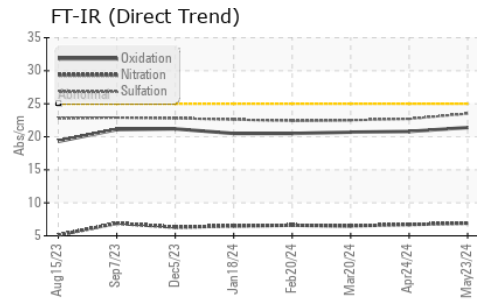
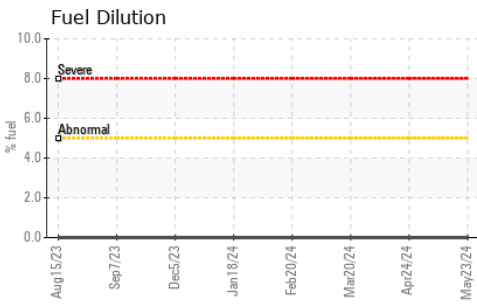
Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil.

|                  |          |               |       |              |       |       |
|------------------|----------|---------------|-------|--------------|-------|-------|
| Silicon          | ppm      | ASTM D5185(m) | >25   | <b>4</b>     | 3     | 4     |
| Potassium        | ppm      | ASTM D5185(m) | >20   | <b>&lt;1</b> | 2     | 0     |
| Fuel             | %        | ASTM D7593*   | >5    | <b>0.0</b>   | <1.0  | <1.0  |
| Water            |          | WC Method     | >0.2  | <b>NEG</b>   | NEG   | NEG   |
| Glycol           |          | WC Method     |       | <b>NEG</b>   | NEG   | NEG   |
| Soot %           | %        | ASTM D7844*   | >3    | <b>0.2</b>   | 0.2   | 0.1   |
| Nitration        | Abs/cm   | ASTM D7624*   | >20   | <b>6.9</b>   | 6.7   | 6.5   |
| Sulfation        | Abs/.1mm | ASTM D7415*   | >30   | <b>23.5</b>  | 22.7  | 22.5  |
| Silt             | scalar   | Visual*       | NONE  | <b>VLITE</b> | ---   | VLITE |
| Debris           | scalar   | Visual*       | NONE  | <b>VLITE</b> | ---   | NONE  |
| Sand/Dirt        | scalar   | Visual*       | NONE  | <b>NONE</b>  | ---   | NONE  |
| Appearance       | scalar   | Visual*       | NORML | <b>NORML</b> | ---   | NORML |
| Odor             | scalar   | Visual*       | NORML | <b>NORML</b> | NORML | NORML |
| Emulsified Water | scalar   | Visual*       | >0.2  | <b>NEG</b>   | NEG   | NEG   |

## FLUID CONDITION

The condition of the oil is acceptable for the time in service.

|              |          |               |      |             |      |      |
|--------------|----------|---------------|------|-------------|------|------|
| Sodium       | ppm      | ASTM D5185(m) | >118 | <b>2</b>    | 2    | 2    |
| Boron        | ppm      | ASTM D5185(m) |      | <b>52</b>   | 52   | 51   |
| Barium       | ppm      | ASTM D5185(m) |      | <b>0</b>    | 0    | 0    |
| Molybdenum   | ppm      | ASTM D5185(m) |      | <b>39</b>   | 39   | 39   |
| Manganese    | ppm      | ASTM D5185(m) |      | <b>0</b>    | <1   | 0    |
| Magnesium    | ppm      | ASTM D5185(m) |      | <b>512</b>  | 511  | 516  |
| Calcium      | ppm      | ASTM D5185(m) |      | <b>1731</b> | 1746 | 1649 |
| Phosphorus   | ppm      | ASTM D5185(m) |      | <b>732</b>  | 721  | 728  |
| Zinc         | ppm      | ASTM D5185(m) |      | <b>844</b>  | 855  | 859  |
| Sulfur       | ppm      | ASTM D5185(m) |      | <b>2017</b> | 2027 | 2013 |
| Oxidation    | Abs/.1mm | ASTM D7414*   | >25  | <b>21.4</b> | 20.8 | 20.7 |
| Visc @ 100°C | cSt      | ASTM D7279(m) |      | <b>13.6</b> | 13.6 | 13.0 |



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0937729  
**Lab Number** : 02638422  
**Unique Number** : 5787584  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel, Visual )  
**Received** : 29 May 2024  
**Tested** : 30 May 2024  
**Diagnosed** : 30 May 2024 - Wes Davis  
*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.  
 Validity of results and interpretation are based on the sample and information as supplied.*

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