



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

Machine Id  
**INTERNATIONAL T12103**  
Component  
**Diesel Engine**  
Fluid  
**VALVOLINE 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>IL0035063</b>   | IL0034265   | IL05934639  |
| Sample Date    |     | Client Info |           | <b>03 Feb 2024</b> | 13 Oct 2023 | 08 Jul 2023 |
| Machine Age    | mls | Client Info |           | <b>332400</b>      | 305348      | 288878      |
| Oil Age        | mls | Client Info |           | <b>0</b>           | 0           | 0           |
| Filter Age     | mls | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | N/A         |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | N/A         |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

### WEAR

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >100 | <b>14</b>    | 16   | 29   |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>&lt;1</b> | <1   | 1    |
| Nickel       | ppm    | ASTM D5185m | >4   | <b>0</b>     | 0    | 0    |
| Titanium     | ppm    | ASTM D5185m |      | <b>1</b>     | 0    | 0    |
| Silver       | ppm    | ASTM D5185m | >3   | <b>&lt;1</b> | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>2</b>     | 3    | 6    |
| Lead         | ppm    | ASTM D5185m | >40  | <b>1</b>     | <1   | 3    |
| Copper       | ppm    | ASTM D5185m | >330 | <b>1</b>     | 1    | 1    |
| Tin          | ppm    | ASTM D5185m | >15  | <b>&lt;1</b> | 0    | <1   |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | <1   |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

### CONTAMINATION

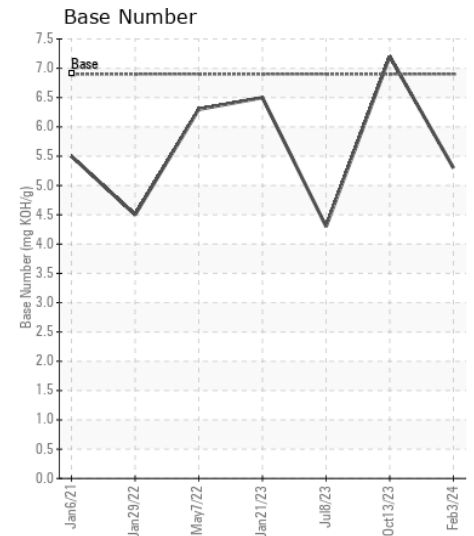
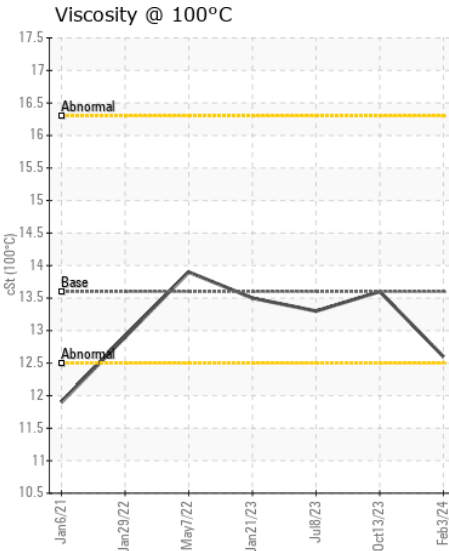
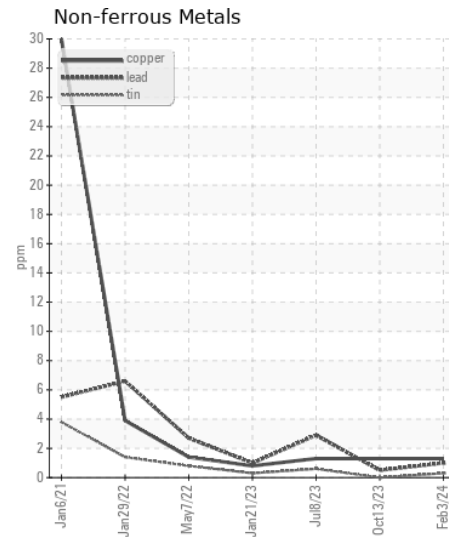
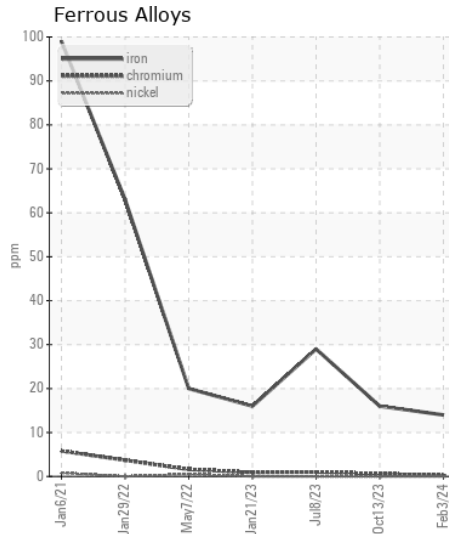
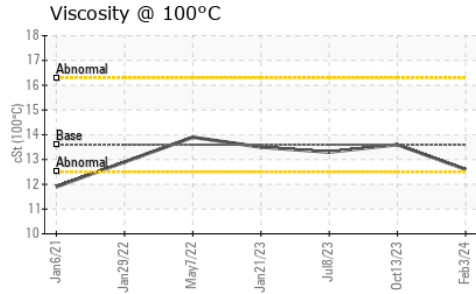
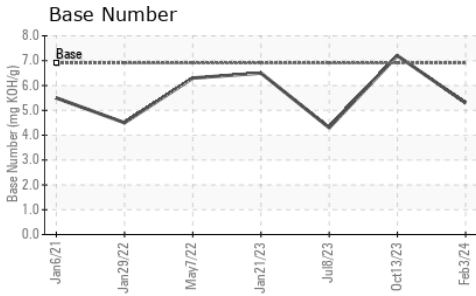
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>4</b>       | 6     | 6     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>7</b>       | 8     | 12    |
| Fuel             |          | WC Method   | >2.0  | <b>&lt;1.0</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>0.3</b>     | 0.3   | 0.6   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>10.3</b>    | 9.8   | 11.8  |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>21.8</b>    | 21.3  | 26.1  |
| 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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

|                  |          |             |      |             |      |      |
|------------------|----------|-------------|------|-------------|------|------|
| Sodium           | ppm      | ASTM D5185m |      | <b>0</b>    | 0    | 4    |
| Boron            | ppm      | ASTM D5185m | 39   | <b>24</b>   | 62   | 22   |
| Barium           | ppm      | ASTM D5185m | 1    | <b>25</b>   | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m | 49   | <b>66</b>   | 64   | 69   |
| Manganese        | ppm      | ASTM D5185m | 1    | <b>0</b>    | 0    | <1   |
| Magnesium        | ppm      | ASTM D5185m | 616  | <b>678</b>  | 663  | 738  |
| Calcium          | ppm      | ASTM D5185m | 1554 | <b>1172</b> | 1238 | 1413 |
| Phosphorus       | ppm      | ASTM D5185m | 899  | <b>771</b>  | 780  | 842  |
| Zinc             | ppm      | ASTM D5185m | 1069 | <b>877</b>  | 935  | 1054 |
| Sulfur           | ppm      | ASTM D5185m | 2624 | <b>2496</b> | 2582 | 2981 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>19.1</b> | 18.4 | 24.5 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 6.9  | <b>5.3</b>  | 7.2  | 4.3  |
| Visc @ 100°C     | cSt      | ASTM D445   | 13.6 | <b>12.6</b> | 13.6 | 13.3 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : IL0035063  
**Lab Number** : 06084586  
**Unique Number** : 10872031  
**Test Package** : FLEET

**Received** : 09 Feb 2024  
**Tested** : 12 Feb 2024  
**Diagnosed** : 12 Feb 2024 - Wes Davis

**TAMPA IDEALEASE**  
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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)