



Machine Id  
**728098 INTERNATIONAL 7400**  
Component  
**Diesel Engine**  
Fluid  
**TIER ONE 15W40 (--- GAL)**

**RECOMMENDATION**

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter 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>GFL0115245</b>  | ---      | ---      |
| Sample Date    |     | Client Info |           | <b>17 Apr 2024</b> | ---      | ---      |
| Machine Age    | hrs | Client Info |           | <b>24674</b>       | ---      | ---      |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | ---      | ---      |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | ---      | ---      |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | ---      | ---      |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | ---      | ---      |
| Sample Status  |     |             |           | <b>SEVERE</b>      | ---      | ---      |

**WEAR**

Valve wear is indicated. All other component wear rates are normal.

|              |        |             |      |              |     |     |
|--------------|--------|-------------|------|--------------|-----|-----|
| Iron         | ppm    | ASTM D5185m | >100 | <b>42</b>    | --- | --- |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>2</b>     | --- | --- |
| Nickel       | ppm    | ASTM D5185m | >4   | <b>▲ 10</b>  | --- | --- |
| Titanium     | ppm    | ASTM D5185m |      | <b>1</b>     | --- | --- |
| Silver       | ppm    | ASTM D5185m | >3   | <b>&lt;1</b> | --- | --- |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>6</b>     | --- | --- |
| Lead         | ppm    | ASTM D5185m | >40  | <b>1</b>     | --- | --- |
| Copper       | ppm    | ASTM D5185m | >330 | <b>256</b>   | --- | --- |
| Tin          | ppm    | ASTM D5185m | >15  | <b>4</b>     | --- | --- |
| Vanadium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | --- | --- |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | --- | --- |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | --- | --- |

**CONTAMINATION**

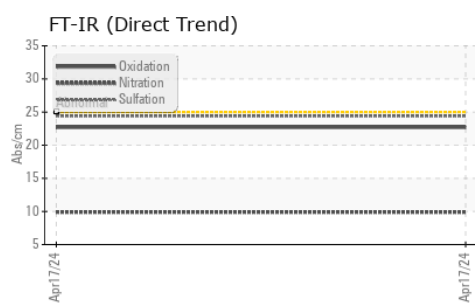
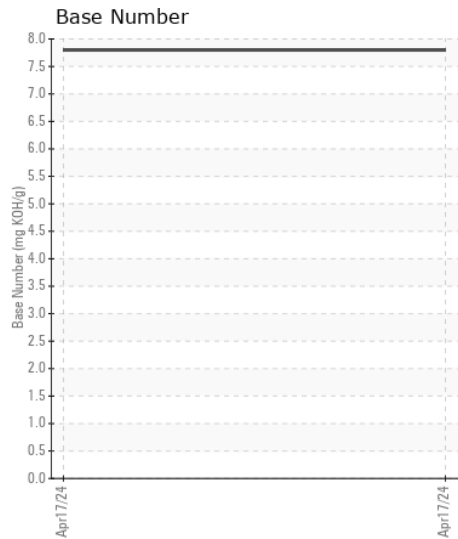
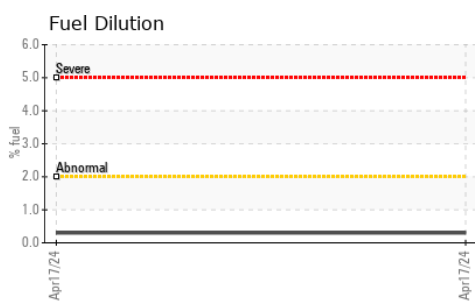
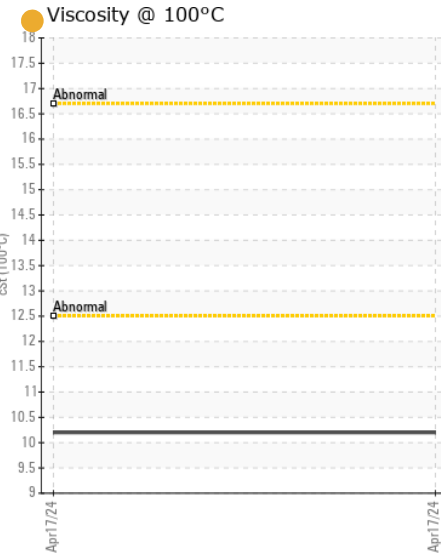
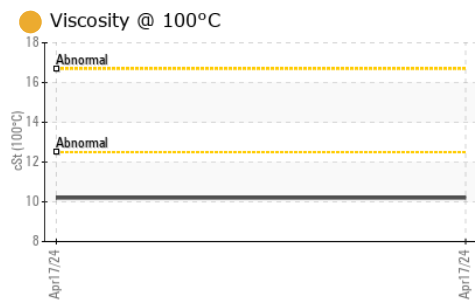
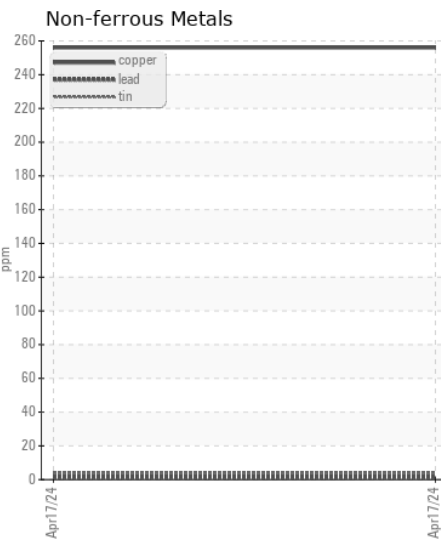
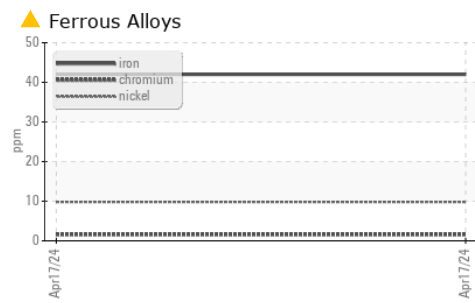
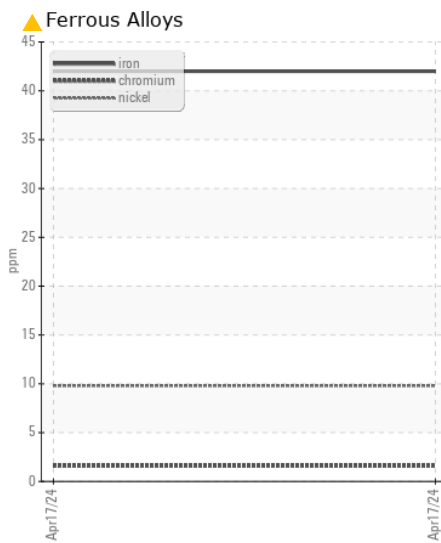
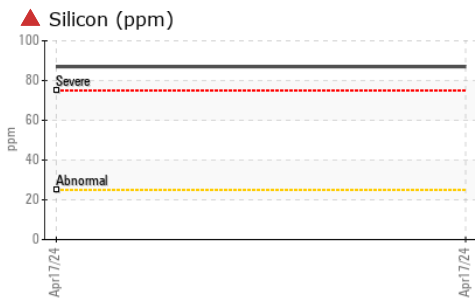
Fuel content negligible. Elemental level of silicon (Si) above normal.

|                  |          |             |       |              |     |     |
|------------------|----------|-------------|-------|--------------|-----|-----|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>▲ 87</b>  | --- | --- |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>6</b>     | --- | --- |
| Fuel             | %        | ASTM D3524  | >2.0  | <b>0.3</b>   | --- | --- |
| Water            |          | WC Method   | >0.2  | <b>NEG</b>   | --- | --- |
| Glycol           |          | WC Method   |       | <b>NEG</b>   | --- | --- |
| Soot %           | %        | *ASTM D7844 | >3    | <b>0.5</b>   | --- | --- |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>9.9</b>   | --- | --- |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>24.4</b>  | --- | --- |
| Silt             | scalar   | *Visual     | NONE  | <b>NONE</b>  | --- | --- |
| Debris           | scalar   | *Visual     | NONE  | <b>NONE</b>  | --- | --- |
| Sand/Dirt        | scalar   | *Visual     | NONE  | <b>NONE</b>  | --- | --- |
| Appearance       | scalar   | *Visual     | NORML | <b>NORML</b> | --- | --- |
| Odor             | scalar   | *Visual     | NORML | <b>NORML</b> | --- | --- |
| Emulsified Water | scalar   | *Visual     | >0.2  | <b>NEG</b>   | --- | --- |

**FLUID CONDITION**

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

|                  |          |             |     |               |     |     |
|------------------|----------|-------------|-----|---------------|-----|-----|
| Sodium           | ppm      | ASTM D5185m |     | <b>&lt;1</b>  | --- | --- |
| Boron            | ppm      | ASTM D5185m |     | <b>233</b>    | --- | --- |
| Barium           | ppm      | ASTM D5185m |     | <b>&lt;1</b>  | --- | --- |
| Molybdenum       | ppm      | ASTM D5185m |     | <b>128</b>    | --- | --- |
| Manganese        | ppm      | ASTM D5185m |     | <b>5</b>      | --- | --- |
| Magnesium        | ppm      | ASTM D5185m |     | <b>674</b>    | --- | --- |
| Calcium          | ppm      | ASTM D5185m |     | <b>1414</b>   | --- | --- |
| Phosphorus       | ppm      | ASTM D5185m |     | <b>755</b>    | --- | --- |
| Zinc             | ppm      | ASTM D5185m |     | <b>846</b>    | --- | --- |
| Sulfur           | ppm      | ASTM D5185m |     | <b>2550</b>   | --- | --- |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25 | <b>22.7</b>   | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896  |     | <b>7.8</b>    | --- | --- |
| Visc @ 100°C     | cSt      | ASTM D445   |     | <b>● 10.2</b> | --- | --- |



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0115245 **Received** : 22 Apr 2024  
**Lab Number** : **06156732** **Tested** : 25 Apr 2024  
**Unique Number** : 10992155 **Diagnosed** : 25 Apr 2024 - Don Baldrige  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 642- Grand Rapids Hauling**  
 5826 Alden Nash Ave SE  
 Lowell, MI  
 US 49331  
 Contact: Josh Arnett  
 joshuaarnett@gflenv.com

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)