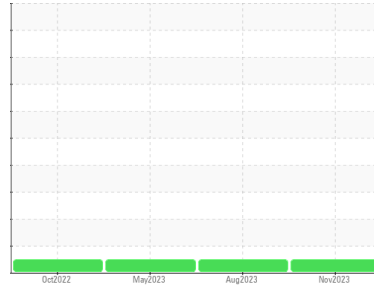




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**7673L**  
 Component  
**Diesel Engine**  
 Fluid  
**MOBIL 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

### Wear

All component wear rates are normal.

### Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

### 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.

| SAMPLE INFORMATION |                 | method | limit/base | current            | history1    | history2    |
|--------------------|-----------------|--------|------------|--------------------|-------------|-------------|
| Sample Number      | Client Info     |        |            | <b>IL06026244</b>  | IL0032338   | IL0028899   |
| Sample Date        | Client Info     |        |            | <b>16 Nov 2023</b> | 10 Aug 2023 | 04 May 2023 |
| Machine Age        | mls Client Info |        |            | <b>194914</b>      | 172868      | 145433      |
| Oil Age            | mls Client Info |        |            | <b>22046</b>       | 28435       | 42319       |
| Oil Changed        | Client Info     |        |            | <b>N/A</b>         | Changed     | Changed     |
| Sample Status      |                 |        |            | <b>NORMAL</b>      | NORMAL      | NORMAL      |

| CONTAMINATION |           | method | limit/base | current        | history1 | history2 |
|---------------|-----------|--------|------------|----------------|----------|----------|
| Fuel          | WC Method | >5     |            | <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      |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >100       | <b>10</b>    | 17       | 32       |
| Chromium    | ppm | ASTM D5185m | >20        | <b>&lt;1</b> | 1        | 2        |
| Nickel      | ppm | ASTM D5185m | >4         | <b>0</b>     | 0        | <1       |
| Titanium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Silver      | ppm | ASTM D5185m | >3         | <b>0</b>     | 0        | 0        |
| Aluminum    | ppm | ASTM D5185m | >20        | <b>4</b>     | 4        | 8        |
| Lead        | ppm | ASTM D5185m | >40        | <b>0</b>     | <1       | 3        |
| Copper      | ppm | ASTM D5185m | >330       | <b>&lt;1</b> | <1       | 2        |
| Tin         | ppm | ASTM D5185m | >15        | <b>0</b>     | <1       | 2        |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |

| ADDITIVES  |     | method      | limit/base | current     | history1 | history2 |
|------------|-----|-------------|------------|-------------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>0</b>    | <1       | 2        |
| Barium     | ppm | ASTM D5185m |            | <b>2</b>    | 0        | 0        |
| Molybdenum | ppm | ASTM D5185m |            | <b>61</b>   | 62       | 62       |
| Manganese  | ppm | ASTM D5185m |            | <b>0</b>    | <1       | <1       |
| Magnesium  | ppm | ASTM D5185m |            | <b>937</b>  | 1040     | 965      |
| Calcium    | ppm | ASTM D5185m |            | <b>1082</b> | 1133     | 1186     |
| Phosphorus | ppm | ASTM D5185m |            | <b>924</b>  | 1065     | 1009     |
| Zinc       | ppm | ASTM D5185m |            | <b>1194</b> | 1357     | 1271     |
| Sulfur     | ppm | ASTM D5185m |            | <b>3263</b> | 3722     | 2944     |

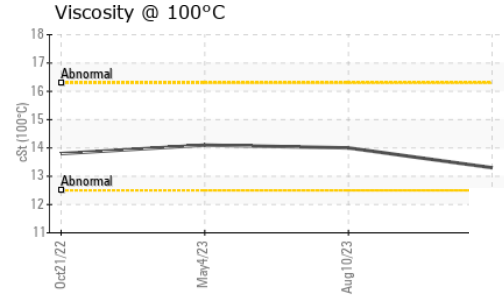
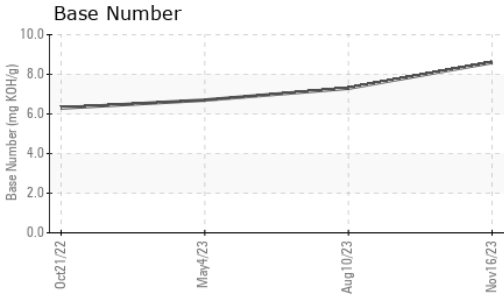
| CONTAMINANTS |     | method      | limit/base | current   | history1 | history2 |
|--------------|-----|-------------|------------|-----------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>4</b>  | 4        | 6        |
| Sodium       | ppm | ASTM D5185m | >118       | <b>0</b>  | <1       | 2        |
| Potassium    | ppm | ASTM D5185m | >20        | <b>11</b> | 8        | 20       |

| INFRA-RED |          | method      | limit/base | current     | history1 | history2 |
|-----------|----------|-------------|------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844 | >3         | <b>0.3</b>  | 0.4      | 0.6      |
| Nitration | Abs/cm   | *ASTM D7624 | >20        | <b>8.4</b>  | 10.1     | 12.0     |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30        | <b>20.5</b> | 22.5     | 24.1     |

| FLUID DEGRADATION |          | method      | limit/base | current     | history1 | history2 |
|-------------------|----------|-------------|------------|-------------|----------|----------|
| Oxidation         | Abs/.1mm | *ASTM D7414 | >25        | <b>17.0</b> | 19.6     | 22.5     |
| Base Number (BN)  | mg KOH/g | ASTM D2896  |            | <b>8.6</b>  | 7.3      | 6.7      |



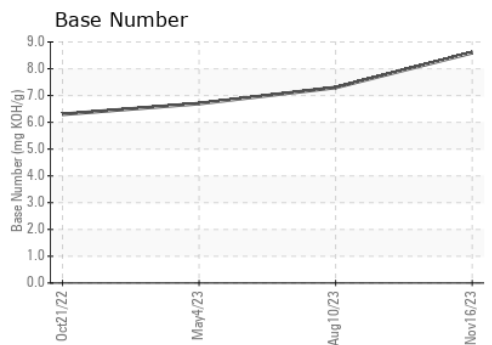
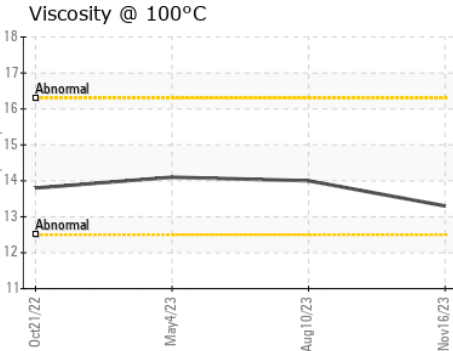
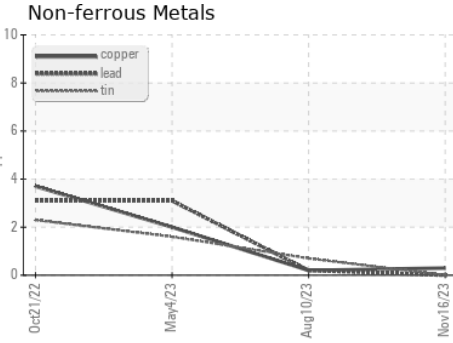
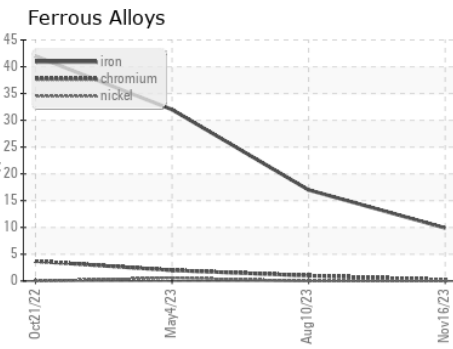
# OIL ANALYSIS REPORT



| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual    | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.2    | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base | current     | history1 | history2 |
|------------------|--------|------------|-------------|----------|----------|
| Visc @ 100°C     | cSt    | ASTM D445  | <b>13.3</b> | 14.0     | 14.1     |

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : IL06026244      **Received** : 06 Dec 2023  
**Lab Number** : **06026244**      **Diagnosed** : 07 Dec 2023  
**Unique Number** : 10776035      **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**RUSH TRUCK CENTER - CHICAGO IDEALEASE**  
 4655 SOUTH CENTRAL AVENUE  
 CHICAGO, IL  
 US 60638  
 Contact: MIKE LINLEY  
 linleym@rushtruckcenters.com  
 T: (708)496-7500  
 F: (708)496-8818

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)