

## Machine Id INTERNATIONAL 8026775 Component Diesel Engine Fluid VALVOLINE 15W40 (--- GAL)

| RECOMMENDATION   | Test             | UOM           | Method                     | Limit/Abn | Current     | History1    | History2    |
|--|------------------|---------------|----------------------------|-----------|-------------|-------------|-------------|
| The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. | Sample Number    |               | Client Info                |           | IL0035065   | IL05601328  | IL05456701  |
|  | Sample Date      |               | Client Info                |           | 11 Jan 2024 | 19 Jul 2022 | 20 Jan 2022 |
|  | Machine Age      | mls           | Client Info                |           | 205977      | 114290      | 91228       |
|  | Oil Age          | mls           | Client Info                |           | 0           | 0           | 0           |
|  | Filter Age       | mls           | Client Info                |           | 0           | 0           | 0           |
|  | Oil Changed      |               | Client Info                |           | Changed     | N/A         | N/A         |
|  | Filter Changed   |               | Client Info                |           | Changed     | N/A         | N/A         |
|  | Sample Status    |               |                            |           | NORMAL      | NORMAL      | NORMAL      |
|  |                  |               |                            | . 100     | 05          | 40          | 01          |
| WEAR   | Iron<br>Chromium | ppm<br>ppm    | ASTM D5185m<br>ASTM D5185m |           | 25<br><1    | 10          | 21<br>2     |
| All component wear rates are normal.   | Nickel           | ppm           | ASTM D5185m                |           | 0           | <1          | 0           |
|  | Titanium         | ppm           | ASTM D5185m                | ~7        | <1          | <1          | <1          |
|  | Silver           |               | ASTM D5185m                | .2        | <1<br><1    | 2           | <1          |
|  | Aluminum         | ppm           | ASTM D5185m                |           | 3           | 1           | 2           |
|  | Lead             | ppm           | ASTM D5185m                |           | 4           | 2           | 5           |
|  | Copper           | ppm           | ASTM D5185m                |           | 2           | <1          | 2           |
|  | Tin              | ppm           | ASTM D5185m                |           | 1           | 1           | <1          |
|  | Vanadium         | ppm           | ASTM D5185m                | >15       | 0           | 0           | 0           |
|  | White Metal      | ppm<br>scalar | *Visual                    | NONE      | NONE        | NONE        | NONE        |
|  |                  |               | *Visual                    | NONE      | NONE        | NONE        | NONE        |
|  | Yellow Metal     | scalar        | visual                     | NONE      | NONE        | NONE        | NONE        |
| CONTAMINATION  | Silicon          | ppm           | ASTM D5185m                | >25       | 6           | 5           | 7           |
|  | Potassium        | ppm           | ASTM D5185m                | >20       | 4           | 1           | 2           |
| Light fuel dilution occurring. No other contaminants were detected in  | Fuel             | %             | ASTM D3524                 | >5        | 1.9         | <1.0        | <1.0        |
| the oil.   | Water            |               | WC Method                  | >0.2      | NEG         | NEG         | NEG         |
|  | Glycol           |               | WC Method                  |           | NEG         | NEG         | NEG         |
|  | Soot %           | %             | *ASTM D7844                | >3        | 0.4         | 0.2         | 0.3         |
|  | Nitration        | Abs/cm        | *ASTM D7624                | >20       | 9.3         | 9.8         | 10.3        |
|  | Sulfation        | Abs/.1mm      | *ASTM D7415                | >30       | 25.1        | 22.1        | 22.1        |
|  | Silt             | scalar        | *Visual                    | NONE      | NONE        | NONE        | NONE        |
|  | Debris           | scalar        | *Visual                    | NONE      | NONE        | NONE        | NONE        |
|  | Sand/Dirt        | scalar        | *Visual                    | NONE      | NONE        | NONE        | NONE        |
|  | Appearance       | scalar        | *Visual                    | NORML     | NORML       | NORML       | NORML       |
|  | Odor             | scalar        | *Visual                    | NORML     | NORML       | NORML       | NORML       |
|  | Emulsified Water | scalar        | *Visual                    | >0.2      | NEG         | NEG         | NEG         |
|  |                  |               |                            |           |             |             |             |
| FLUID CONDITION  | Sodium           | ppm           | ASTM D5185m                |           | 0           | 2           | 2           |
| The BN result indicates that there is suitable alkalinity remaining in the<br>oil. The condition of the oil is suitable for further service.                     | Boron            | ppm           | ASTM D5185m                |           | 64          | 52          | 26          |
|  | Barium           | ppm           | ASTM D5185m                |           | 25          | 0           | 0           |
|  | Molybdenum       | ppm           | ASTM D5185m                |           | 89          | 61          | 90          |
|  | Manganese        | ppm           | ASTM D5185m                |           | 0           | <1          | <1          |
|  | Magnesium        | ppm           | ASTM D5185m                |           | 455         | 739         | 577         |
|  | Calcium          | ppm           | ASTM D5185m                |           | 1315        | 1284        | 1306        |
|  | Phosphorus       | ppm           | ASTM D5185m                |           | 985         | 704         | 689         |
|  | Zinc             | ppm           | ASTM D5185m                |           | 1122        | 861         | 860         |
|  | Sulfur           | ppm           | ASTM D5185m                |           | 3100        | 2773        | 2359        |
|  | Oxidation        | Abs/.1mm      | *ASTM D7414                | >25       | 20.6        | 18.5        | 18.1        |

Base Number (BN) mg KOH/g ASTM D2896 6.9

ASTM D445 13.6

Visc @ 100°C cSt

9.0

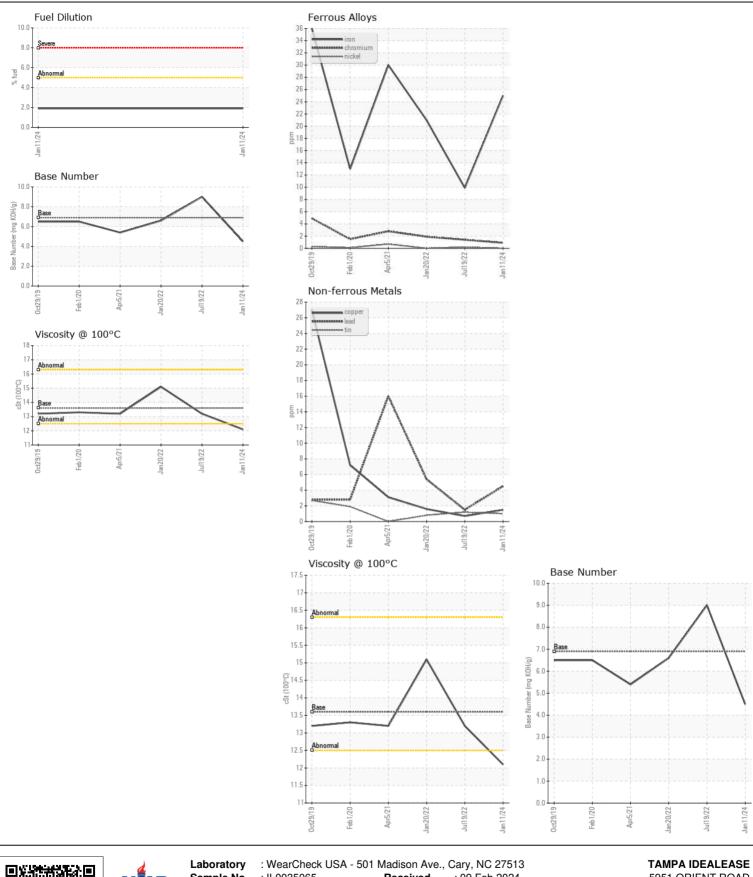
13.2

4.5

12.1

6.6

15.1



Sample No. Received 5951 ORIENT ROAD : IL0035065 : 09 Feb 2024 Lab Number : 06084598 Tested : 13 Feb 2024 TAMPA, FL Unique Number : 10872043 : 13 Feb 2024 - Wes Davis US 33610-9565 Diagnosed Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel) Contact: Russ Cook Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. russcook@idealease.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (813)626-9285 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (844)270-1356

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