

### **OIL ANALYSIS REPORT**

Sample Rating Trend

FUEL

# 25 CUMBERLAND LANE

Diesel Engine Fluid DIESEL ENGINE OIL SAE 15W40 (--- GAL)

#### DIAGNOSIS

#### Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

#### Wear

All component wear rates are normal.

#### Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

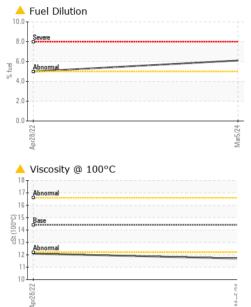
#### Fluid Condition

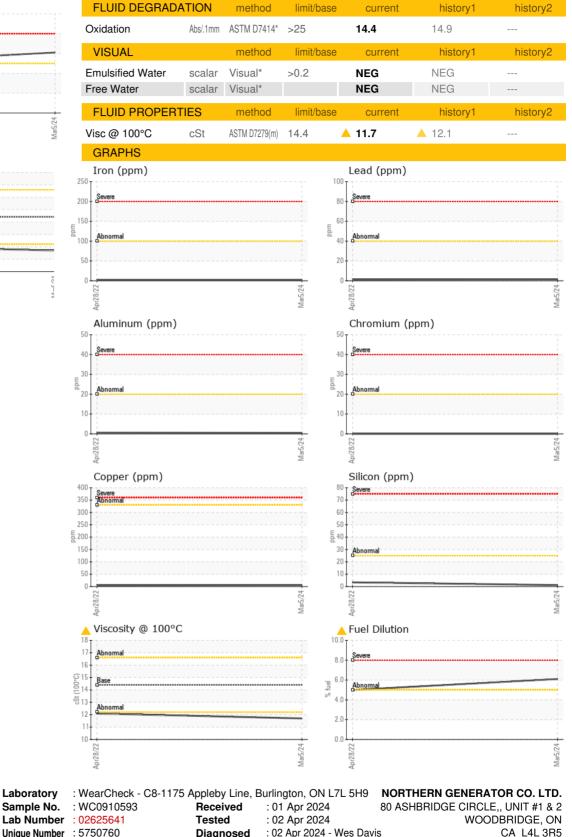
Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

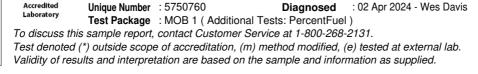
|               |          |               | Apr2022    | Mar2024            |             |          |
|---------------|----------|---------------|------------|--------------------|-------------|----------|
| SAMPLE INFORM | ATION    | method        | limit/base | current            | history1    | history2 |
| Sample Number |          | Client Info   |            | WC0910593          | WC0678679   |          |
| Sample Date   |          | Client Info   |            | 05 Mar 2024        | 28 Apr 2022 |          |
| Machine Age   | hrs      | Client Info   |            | 0                  | 111         |          |
| Oil Age       | hrs      | Client Info   |            | 0                  | 0           |          |
| Oil Changed   |          | Client Info   |            | N/A                | N/A         |          |
| Sample Status |          |               |            | ABNORMAL           | ABNORMAL    |          |
| CONTAMINATIO  | N        | method        | limit/base | current            | history1    | history2 |
| Water         |          | WC Method     | >0.2       | NEG                | NEG         |          |
| Glycol        |          | WC Method     |            | NEG                | NEG         |          |
| WEAR METALS   |          | method        | limit/base | current            | history1    | history2 |
| Iron          | ppm      | ASTM D5185(m) | >100       | 2                  | 1           |          |
| Chromium      | ppm      | ASTM D5185(m) | >20        | 0                  | 0           |          |
| Nickel        | ppm      | ASTM D5185(m) | >4         | 0                  | 0           |          |
| Titanium      | ppm      | ASTM D5185(m) |            | 0                  | <1          |          |
| Silver        | ppm      | ASTM D5185(m) | >3         | 0                  | <1          |          |
| Aluminum      | ppm      | ASTM D5185(m) | >20        | <1                 | <1          |          |
| Lead          | ppm      | ASTM D5185(m) | >40        | 2                  | 1           |          |
| Copper        | ppm      | ASTM D5185(m) | >330       | 6                  | 4           |          |
| Tin           | ppm      | ASTM D5185(m) | >15        | <1                 | <1          |          |
| Antimony      | ppm      | ASTM D5185(m) |            | 0                  | 0           |          |
| Vanadium      | ppm      | ASTM D5185(m) |            | 0                  | 0           |          |
| Beryllium     | ppm      | ASTM D5185(m) |            | 0                  | 0           |          |
| Cadmium       | ppm      | ASTM D5185(m) |            | 0                  | 0           |          |
| ADDITIVES     |          | method        | limit/base | current            | history1    | history2 |
| Boron         | ppm      | ASTM D5185(m) | 250        | <1                 | <1          |          |
| Barium        | ppm      | ASTM D5185(m) | 10         | 0                  | 0           |          |
| Molybdenum    | ppm      | ASTM D5185(m) | 100        | 55                 | 54          |          |
| Manganese     | ppm      | ASTM D5185(m) |            | 0                  | <1          |          |
| Magnesium     | ppm      | ASTM D5185(m) | 450        | 916                | 917         |          |
| Calcium       | ppm      | ASTM D5185(m) | 3000       | 977                | 986         |          |
| Phosphorus    | ppm      | ASTM D5185(m) | 1150       | 947                | 964         |          |
| Zinc          | ppm      | ASTM D5185(m) | 1350       | 1105               | 1128        |          |
| Sulfur        | ppm      | ASTM D5185(m) | 4250       | 2604               | 2774        |          |
| Lithium       | ppm      | ASTM D5185(m) |            | <1                 | <1          |          |
| CONTAMINANTS  |          | method        | limit/base | current            | history1    | history2 |
| Silicon       | ppm      | ASTM D5185(m) | >25        | 1                  | 3           |          |
| Sodium        | ppm      |               | >158       | 1                  | 1           |          |
| Potassium     | ppm      | ASTM D5185(m) | >20        | 0                  | 0           |          |
| Fuel          | %        | ASTM D7593*   | >5         | <mark>▲</mark> 6.1 | ▲ 5         |          |
| INFRA-RED     |          | method        | limit/base | current            | history1    | history2 |
| Soot %        | %        | ASTM D7844*   | >3         | 0                  | 0           |          |
| Nitration     | Abs/cm   | ASTM D7624*   | >20        | 5.5                | 5.4         |          |
| Sulfation     | Abs/.1mm | ASTM D7415*   | >30        | 18.6               | 19.3        |          |
|               |          |               |            |                    |             |          |



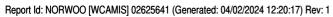
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CALA

ISO 17025:2017

Laboratory

Sample No.

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