

OIL ANALYSIS REPORT

Sample Rating Trend FUEL

Machine Id NEW FLYER 1111 Component

Diesel Engine

SAFETY-KLEEN PERFORMANCE PLUS XHD-7 15W40 (--- GAL)

| SAMPLE INFORM | IATION | method | limit/base | current | history1 | history |
|---------------|---------------|---------------|------------|--------------------|------------------|------------|
| Sample Number | | Client Info | | WC0891059 | WC0878122 | WC083020 |
| Sample Date | | Client Info | | 17 Jan 2024 | 07 Dec 2023 | 16 Oct 202 |
| Machine Age | kms | Client Info | | 798982 | 0 | 781048 |
| Oil Age | kms | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | N/A | N/A |
| Sample Status | | | | ABNORMAL | ABNORMAL | NORMAL |
| CONTAMINATION | ٧ | method | limit/base | current | history1 | history |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| WEAR METALS | | method | limit/base | current | history1 | history |
| Iron | ppm | ASTM D5185(m) | >75 | 15 | 15 | 18 |
| Chromium | ppm | ASTM D5185(m) | >5 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185(m) | >4 | <1 | <1 | 0 |
| Titanium | ppm | ASTM D5185(m) | >2 | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | >2 | 0 | <1 | <1 |
| Aluminum | ppm | ASTM D5185(m) | >15 | 2 | 2 | 2 |
| Lead | ppm | ASTM D5185(m) | >25 | <1 | <1 | <1 |
| Copper | ppm | ASTM D5185(m) | >100 | <1 | 1 | 2 |
| Tin | ppm | ASTM D5185(m) | >4 | 0 | 0 | <1 |
| Antimony | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Beryllium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history |
| Boron | ppm | ASTM D5185(m) | | <1 | <1 | <1 |
| Barium | ppm | ASTM D5185(m) | | 0 | <1 | <1 |
| Molybdenum | ppm | ASTM D5185(m) | | 58 | 60 | 59 |
| Manganese | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) | | 945 | 943 | 955 |
| Calcium | ppm | ASTM D5185(m) | | 1022 | 1024 | 1041 |
| Phosphorus | ppm | ASTM D5185(m) | | 977 | 929 | 981 |
| Zinc | ppm | ASTM D5185(m) | | 1151 | 1166 | 1183 |
| Sulfur | ppm | ASTM D5185(m) | | 2602 | 2413 | 2420 |
| Lithium | ppm | ASTM D5185(m) | | <1 | <1 | <1 |
| CONTAMINANTS | | method | limit/base | current | history1 | history |
| Silicon | ppm | ASTM D5185(m) | >25 | 4 | 4 | 3 |
| Sodium | ppm | ASTM D5185(m) | | 2 | 1 | 1 |
| Potassium | ppm | ASTM D5185(m) | >20 | <1 | 0 | 0 |
| Fuel | % | ASTM D7593* | >3.0 | <mark>▲</mark> 4.1 | <mark>▲</mark> 3 | <1.0 |
| INFRA-RED | | method | limit/base | current | history1 | history |
| Soot % | % | ASTM D7844* | >6 | 0.8 | 0.8 | 1 |
| | | | | | | |
| Nitration | Abs/cm | ASTM D7624* | >20 | 8.5 | 8.5 | 8.7 |

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

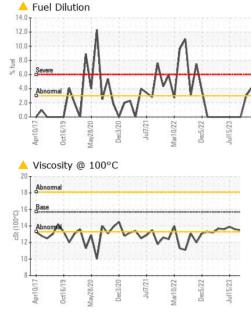
Contamination

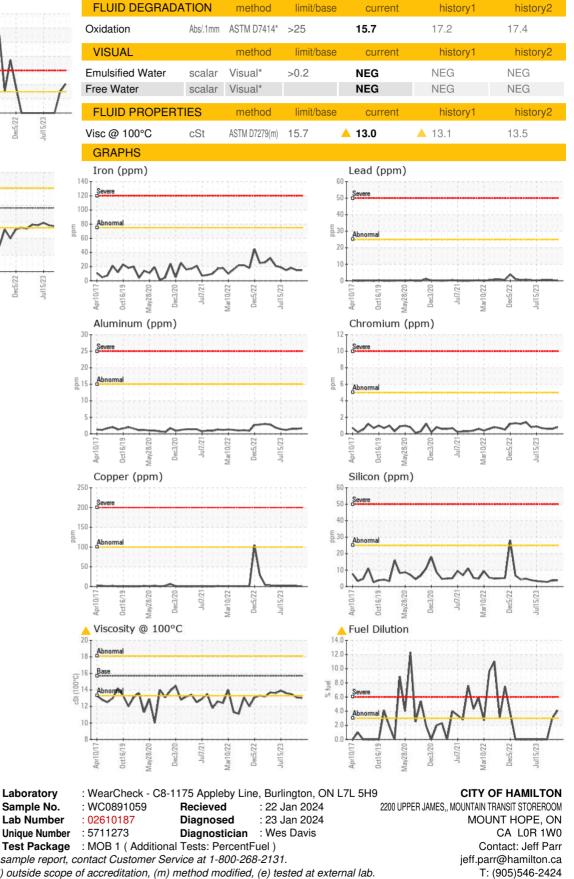
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

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To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

CALA

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Laboratory

Sample No.

F: (905)679-4502