



| | |
|-----------------|--------|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |



Machine Id
NEWFLYER 2029
Component
Diesel Engine
Fluid
{not provided} (28 QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

WEAR

Metal levels are typical for a components first oil change.

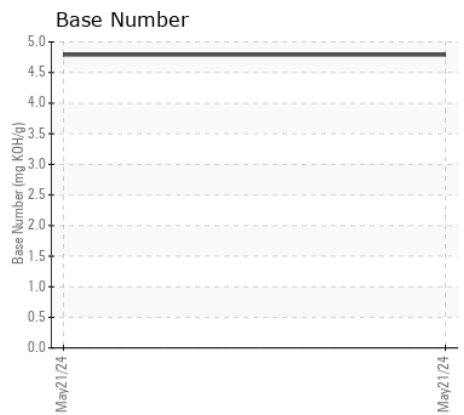
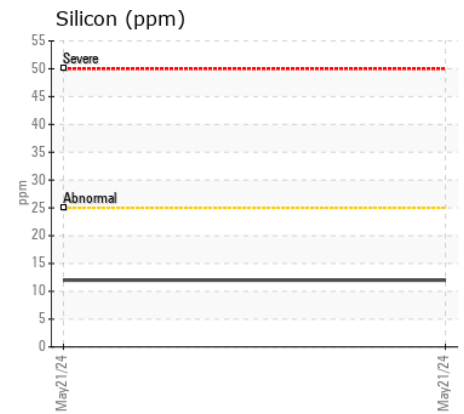
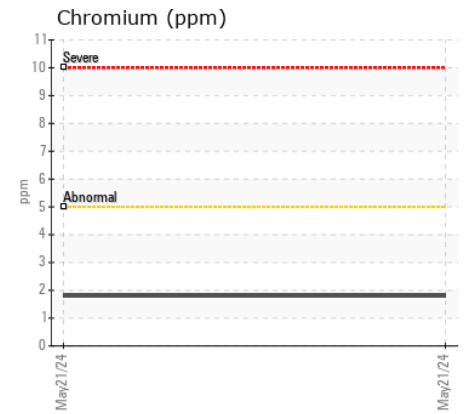
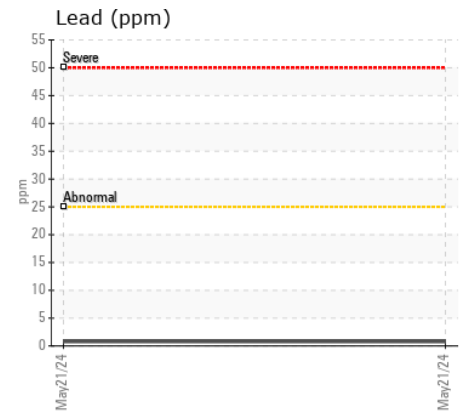
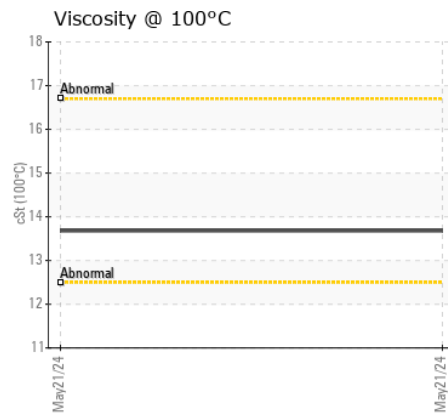
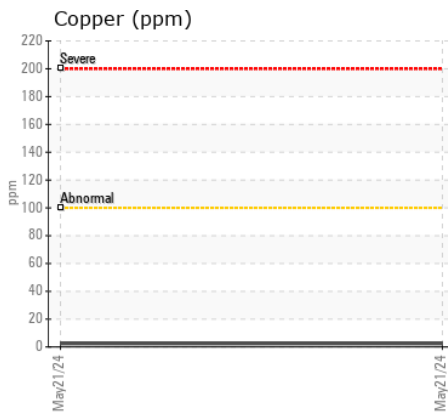
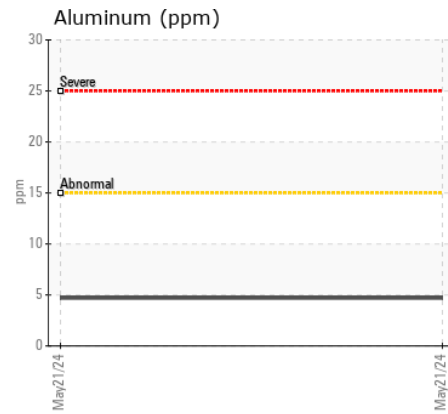
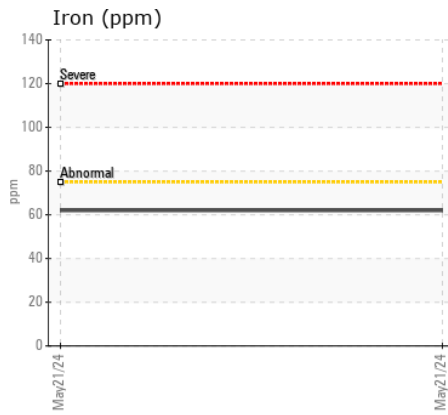
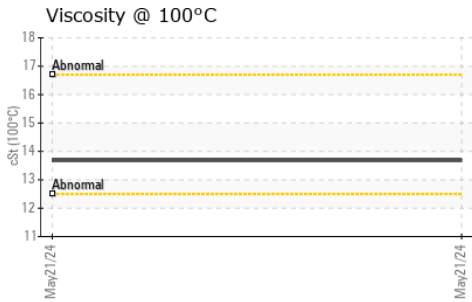
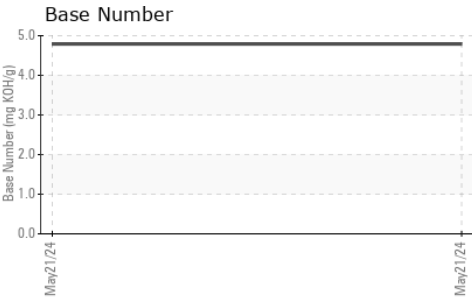
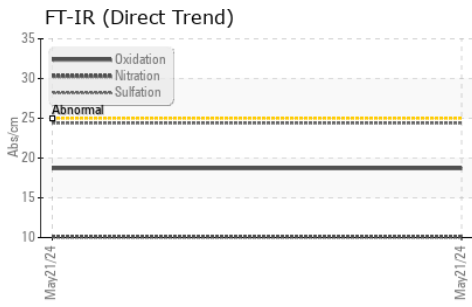
CONTAMINATION

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.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|------------------|----------|-------------|-----------|-------------|----------|----------|
| Sample Number | | Client Info | | LP0001978 | --- | --- |
| Sample Date | | Client Info | | 21 May 2024 | --- | --- |
| Machine Age | mls | Client Info | | 176623 | --- | --- |
| Oil Age | mls | Client Info | | 176623 | --- | --- |
| Filter Age | mls | Client Info | | 0 | --- | --- |
| Oil Changed | | Client Info | | N/A | --- | --- |
| Filter Changed | | Client Info | | N/A | --- | --- |
| Sample Status | | | | NORMAL | --- | --- |
| Iron | ppm | ASTM D5185m | >75 | 62 | --- | --- |
| Chromium | ppm | ASTM D5185m | >5 | 2 | --- | --- |
| Nickel | ppm | ASTM D5185m | >4 | 2 | --- | --- |
| Titanium | ppm | ASTM D5185m | >2 | <1 | --- | --- |
| Silver | ppm | ASTM D5185m | >2 | 1 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >15 | 5 | --- | --- |
| Lead | ppm | ASTM D5185m | >25 | <1 | --- | --- |
| Copper | ppm | ASTM D5185m | >100 | 2 | --- | --- |
| Tin | ppm | ASTM D5185m | >4 | <1 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | <1 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Silicon | ppm | ASTM D5185m | >25 | 12 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 4 | --- | --- |
| Fuel | | WC Method | >3.0 | <1.0 | --- | --- |
| Water | | WC Method | >0.2 | NEG | --- | --- |
| Glycol | | WC Method | | NEG | --- | --- |
| Soot % | % | *ASTM D7844 | >6 | 0.5 | --- | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 10.1 | --- | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 24.4 | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | --- | --- |
| Debris | scalar | *Visual | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- | --- |
| Odor | scalar | *Visual | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | --- | --- |
| Sodium | ppm | ASTM D5185m | | 5 | --- | --- |
| Boron | ppm | ASTM D5185m | | 10 | --- | --- |
| Barium | ppm | ASTM D5185m | | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | 32 | --- | --- |
| Manganese | ppm | ASTM D5185m | | <1 | --- | --- |
| Magnesium | ppm | ASTM D5185m | | 41 | --- | --- |
| Calcium | ppm | ASTM D5185m | | 1996 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | 774 | --- | --- |
| Zinc | ppm | ASTM D5185m | | 980 | --- | --- |
| Sulfur | ppm | ASTM D5185m | | 3145 | --- | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 18.7 | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 4.79 | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | | 13.68 | --- | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : LP0001978
 Lab Number : 06193060
 Unique Number : 11049812
 Test Package : MOB 2

Received : 28 May 2024
 Tested : 31 May 2024
 Diagnosed : 31 May 2024 - Wes Davis

GREATER PORTLAND TRANSIT DISTRICT
 114 VALLEY STREET
 PORTLAND, ME
 US 04102-3039
 Contact: JOHN JACQUES
 jjacques@gpmetro.org

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)

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F: