



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
NEWFLYER 1921
Component
Diesel Engine
Fluid
{not provided} (28 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LP0001990	---	---
Sample Date		Client Info		28 May 2024	---	---
Machine Age	mls	Client Info		199845	---	---
Oil Age	mls	Client Info		199845	---	---
Filter Age	mls	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				NORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	10	---	---
Chromium	ppm	ASTM D5185m	>5	0	---	---
Nickel	ppm	ASTM D5185m	>4	0	---	---
Titanium	ppm	ASTM D5185m	>2	0	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>15	1	---	---
Lead	ppm	ASTM D5185m	>25	0	---	---
Copper	ppm	ASTM D5185m	>100	<1	---	---
Tin	ppm	ASTM D5185m	>4	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

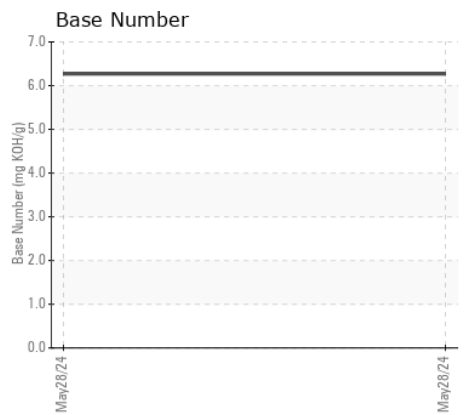
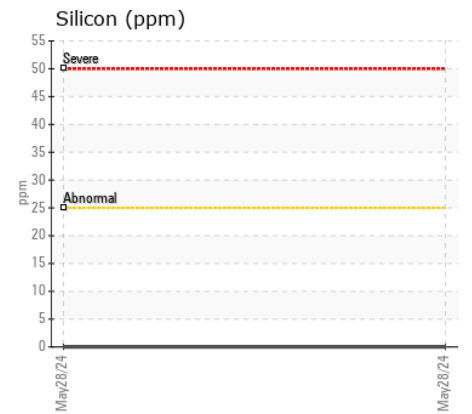
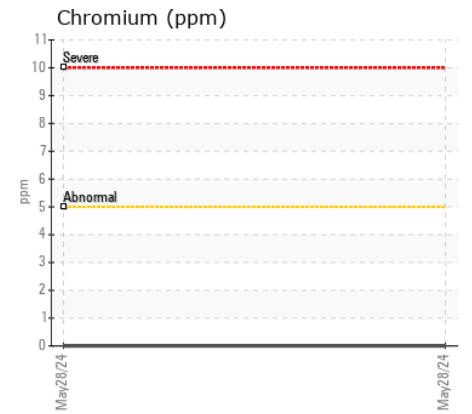
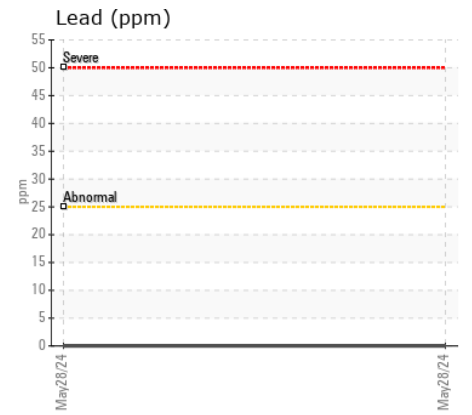
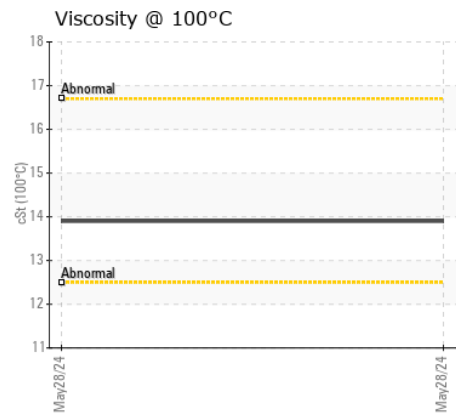
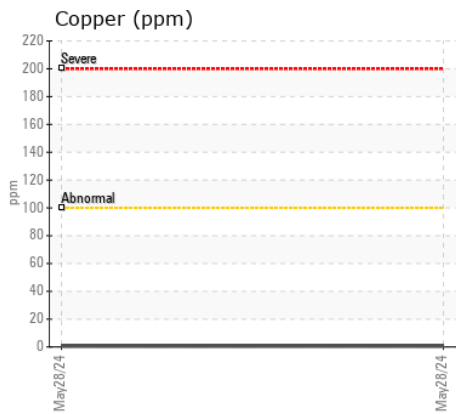
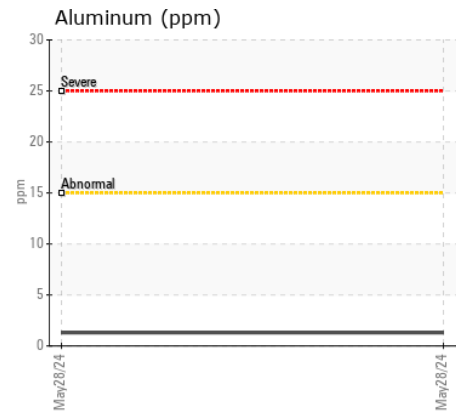
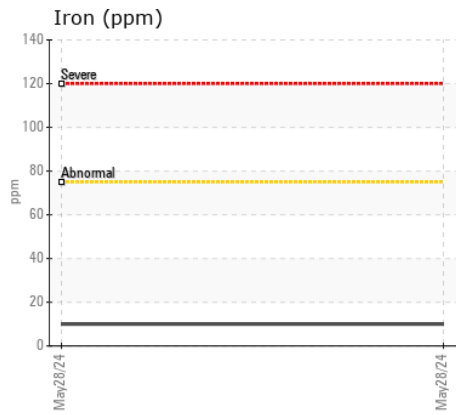
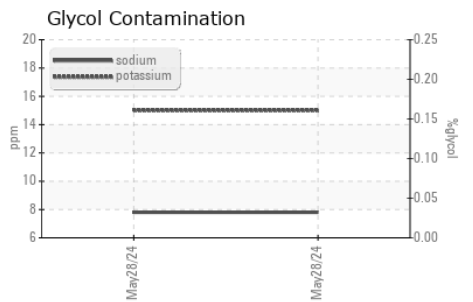
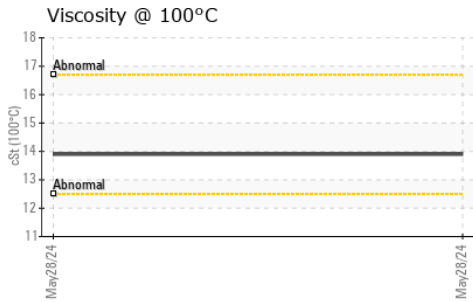
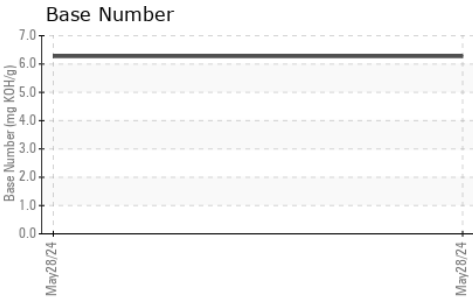
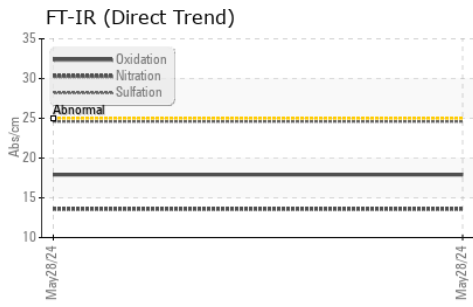
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	0	---	---
Potassium	ppm	ASTM D5185m	>20	15	---	---
Fuel		WC Method	>3.0	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol	%	*ASTM D2982		NEG	---	---
Soot %	%	*ASTM D7844	>6	1.2	---	---
Nitration	Abs/cm	*ASTM D7624	>20	13.6	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.6	---	---
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	---	---

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.

Sodium	ppm	ASTM D5185m		8	---	---
Boron	ppm	ASTM D5185m		8	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		29	---	---
Manganese	ppm	ASTM D5185m		0	---	---
Magnesium	ppm	ASTM D5185m		30	---	---
Calcium	ppm	ASTM D5185m		2347	---	---
Phosphorus	ppm	ASTM D5185m		944	---	---
Zinc	ppm	ASTM D5185m		1141	---	---
Sulfur	ppm	ASTM D5185m		4027	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.9	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		6.27	---	---
Visc @ 100°C	cSt	ASTM D445		13.9	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LP0001990 **Received** : 31 May 2024
Lab Number : 06196887 **Tested** : 05 Jun 2024
Unique Number : 11059010 **Diagnosed** : 05 Jun 2024 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: Glycol)

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)

T:
F: