



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
NEWFLYER 1818
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (28 QTS)

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LP0001979	---	---
Sample Date		Client Info		20 May 2024	---	---
Machine Age	mls	Client Info		263566	---	---
Oil Age	mls	Client Info		263566	---	---
Filter Age	mls	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				NORMAL	---	---

WEAR

Metal levels are typical for a components first oil change.

Iron	ppm	ASTM D5185m	>75	8	---	---
Chromium	ppm	ASTM D5185m	>5	<1	---	---
Nickel	ppm	ASTM D5185m	>4	<1	---	---
Titanium	ppm	ASTM D5185m	>2	<1	---	---
Silver	ppm	ASTM D5185m	>2	<1	---	---
Aluminum	ppm	ASTM D5185m	>15	4	---	---
Lead	ppm	ASTM D5185m	>25	<1	---	---
Copper	ppm	ASTM D5185m	>100	1	---	---
Tin	ppm	ASTM D5185m	>4	1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

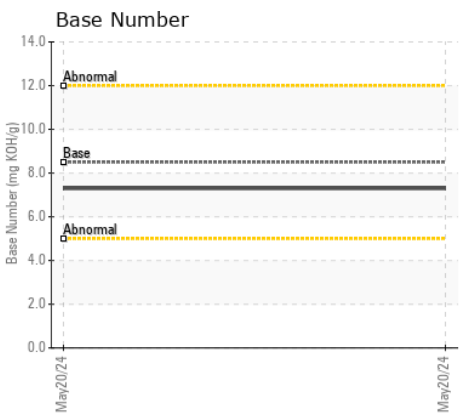
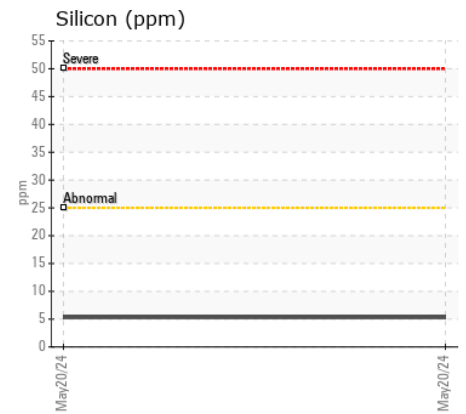
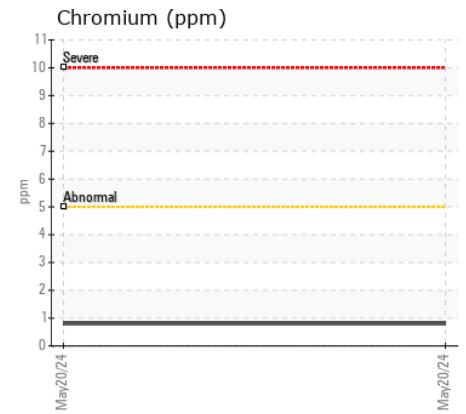
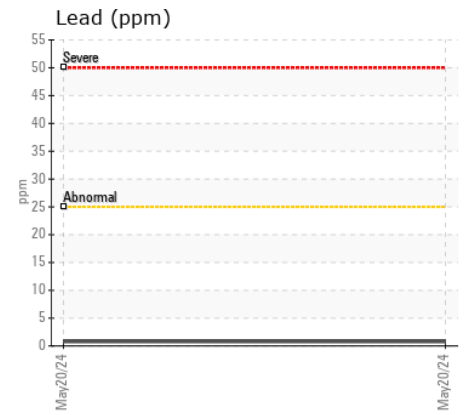
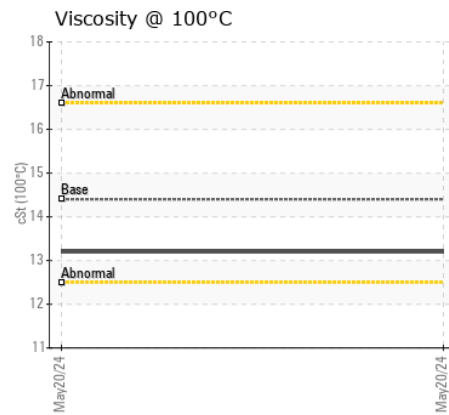
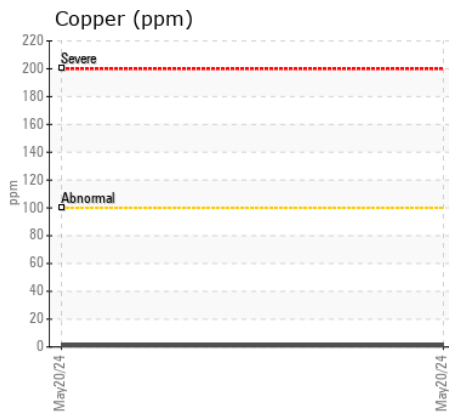
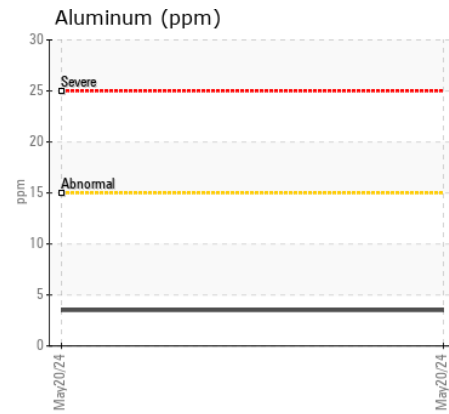
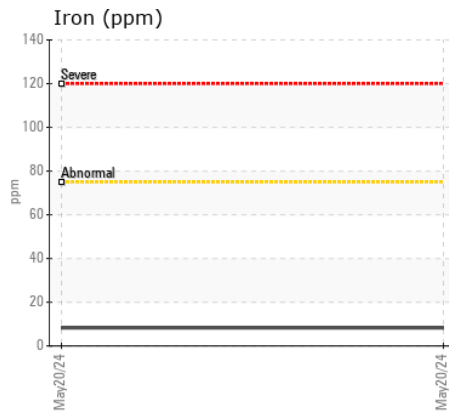
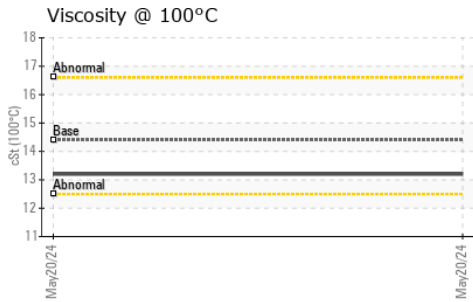
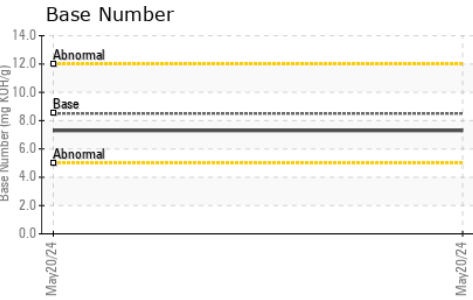
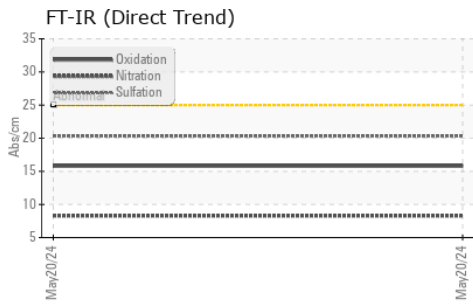
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Fuel		WC Method	>3.0	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>6	0.3	---	---
Nitration	Abs/cm	*ASTM D7624	>20	8.3	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.3	---	---
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	>216	3	---	---
Boron	ppm	ASTM D5185m	250	16	---	---
Barium	ppm	ASTM D5185m	10	0	---	---
Molybdenum	ppm	ASTM D5185m	100	36	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m	450	63	---	---
Calcium	ppm	ASTM D5185m	3000	2227	---	---
Phosphorus	ppm	ASTM D5185m	1150	887	---	---
Zinc	ppm	ASTM D5185m	1350	1124	---	---
Sulfur	ppm	ASTM D5185m	4250	3686	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.8	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.3	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	13.2	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LP0001979
Lab Number : 06189934
Unique Number : 11046686
Test Package : MOB 2
Received : 23 May 2024
Tested : 25 May 2024
Diagnosed : 25 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)