



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

[154902]

Machine Id

74950779

Component

Diesel Engine

Fluid

VALVOLINE PREMIUM BLUE EXTREME 5W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		CU0022798	---	---
Sample Date		Client Info		15 Mar 2024	---	---
Machine Age	hrs	Client Info		8	---	---
Oil Age	hrs	Client Info		1	---	---
Filter Age	hrs	Client Info		1	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>90	27	---	---
Chromium	ppm	ASTM D5185(m)	>20	<1	---	---
Nickel	ppm	ASTM D5185(m)	>2	0	---	---
Titanium	ppm	ASTM D5185(m)	>2	0	---	---
Silver	ppm	ASTM D5185(m)	>2	0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	2	---	---
Lead	ppm	ASTM D5185(m)	>40	0	---	---
Copper	ppm	ASTM D5185(m)	>330	2	---	---
Tin	ppm	ASTM D5185(m)	>15	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---

CONTAMINATION

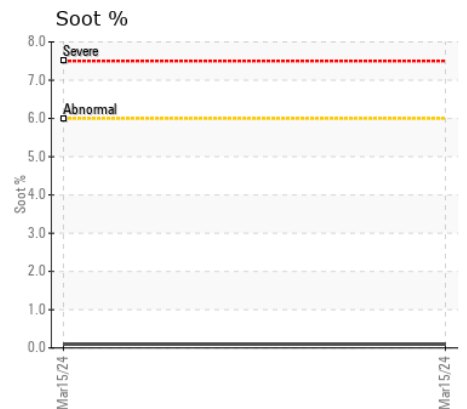
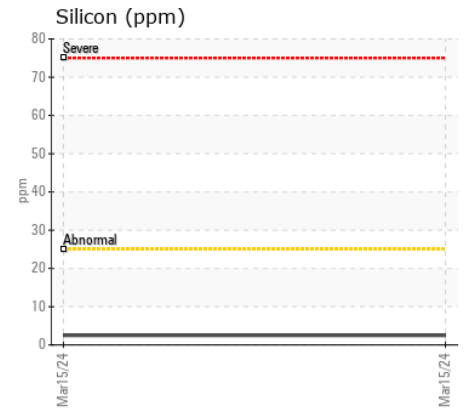
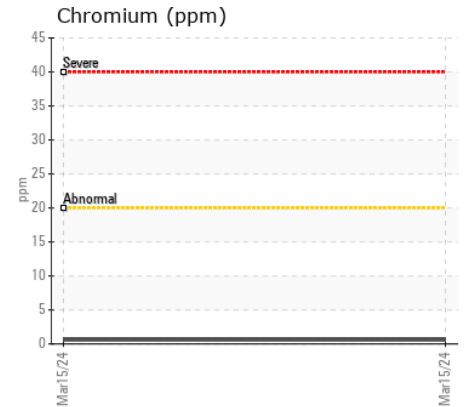
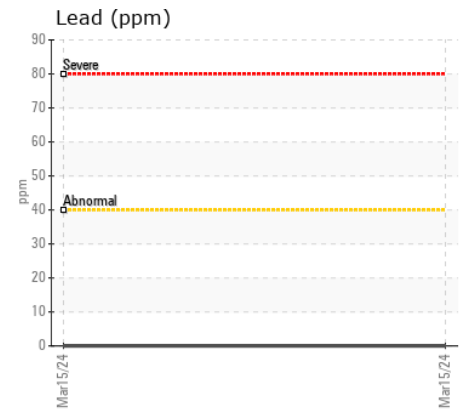
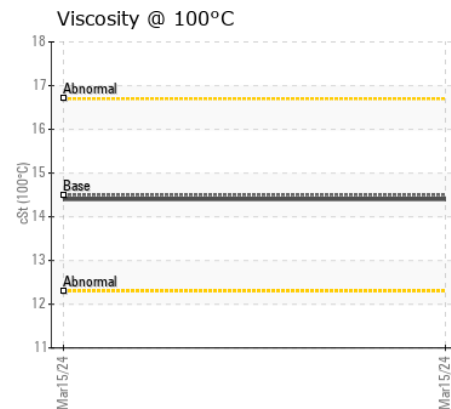
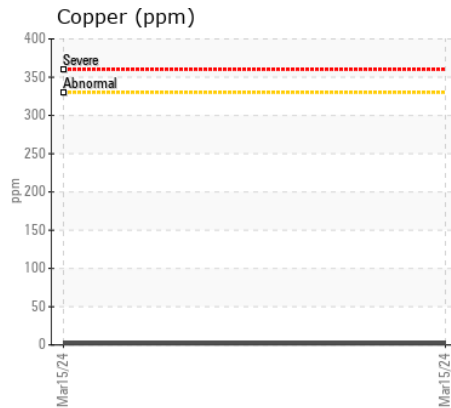
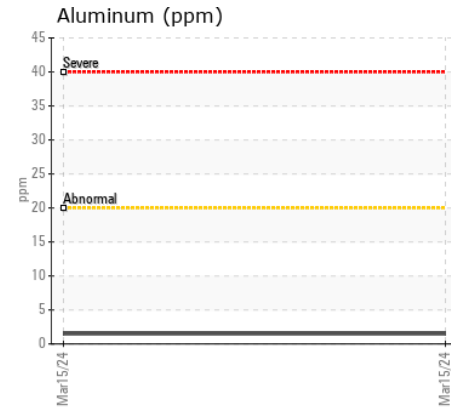
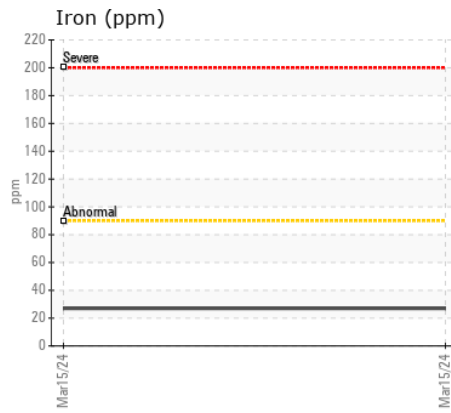
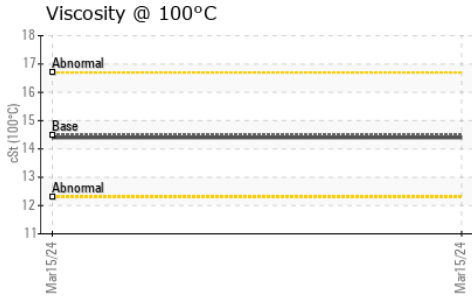
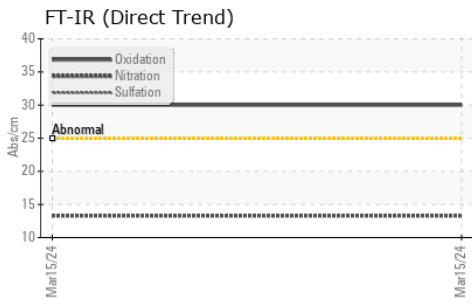
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	2	---	---
Potassium	ppm	ASTM D5185(m)	>20	<1	---	---
Fuel		WC Method	>3.0	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*	>6	0.1	---	---
Nitration	Abs/cm	ASTM D7624*	>20	13.3	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	25.0	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		4	---	---
Boron	ppm	ASTM D5185(m)		36	---	---
Barium	ppm	ASTM D5185(m)		0	---	---
Molybdenum	ppm	ASTM D5185(m)		62	---	---
Manganese	ppm	ASTM D5185(m)		<1	---	---
Magnesium	ppm	ASTM D5185(m)		1085	---	---
Calcium	ppm	ASTM D5185(m)		881	---	---
Phosphorus	ppm	ASTM D5185(m)		935	---	---
Zinc	ppm	ASTM D5185(m)		1184	---	---
Sulfur	ppm	ASTM D5185(m)		2487	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	30.0	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.5	14.4	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : CU0022798 **Received** : 10 May 2024
Lab Number : 02634476 **Tested** : 10 May 2024
Unique Number : 5775629 **Diagnosed** : 10 May 2024 - Kevin Marson
Test Package : MOB 1

CN RAIL
 76 INTERMODAL DR
 BRAMPTON, ON
 CA L6T 5B3
 Contact: Service Manager

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.

T:
F: