



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area  
**[154902]**  
 Machine Id  
**74950779**  
 Component  
**Diesel Engine**  
 Fluid  
**VALVOLINE 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>CU0022241</b>	CU0022798	---
Sample Date		Client Info		<b>15 Mar 2024</b>	15 Mar 2024	---
Machine Age	hrs	Client Info		<b>1951</b>	8	---
Oil Age	hrs	Client Info		<b>1</b>	1	---
Filter Age	hrs	Client Info		<b>1</b>	1	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>90	<b>1</b>	27	---
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	---
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	0	---
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	---
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	2	---
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	0	---
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	2	---
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

## CONTAMINATION

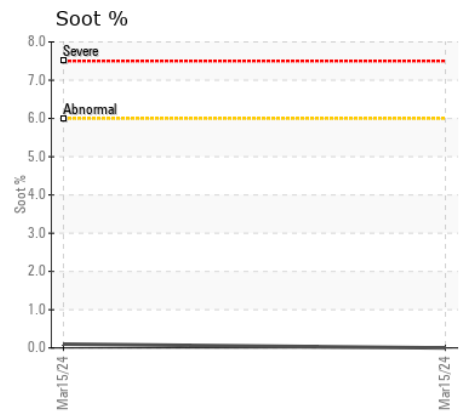
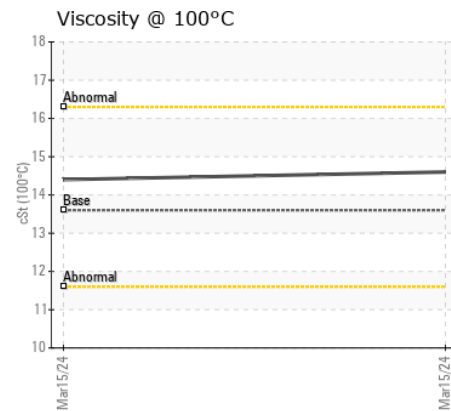
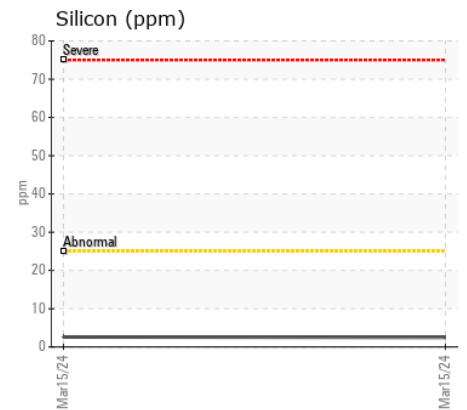
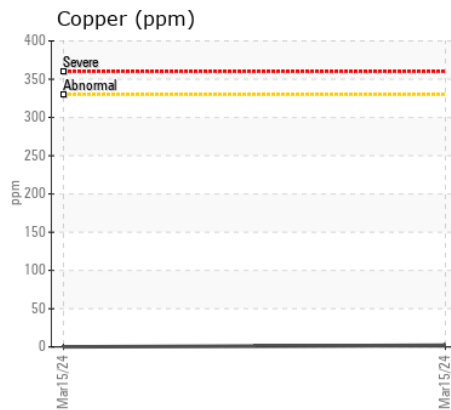
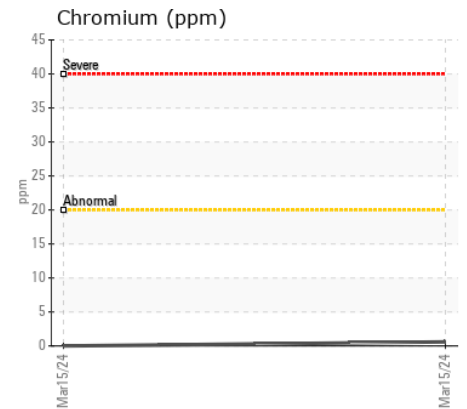
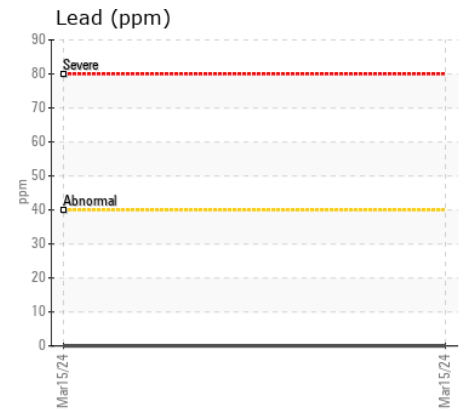
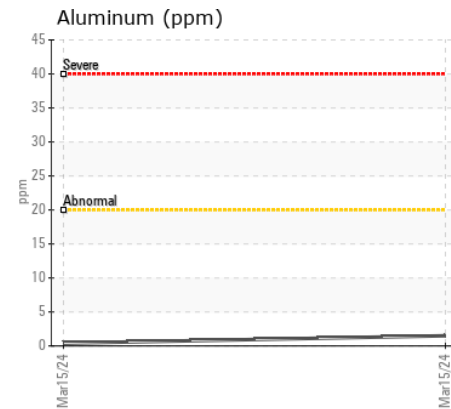
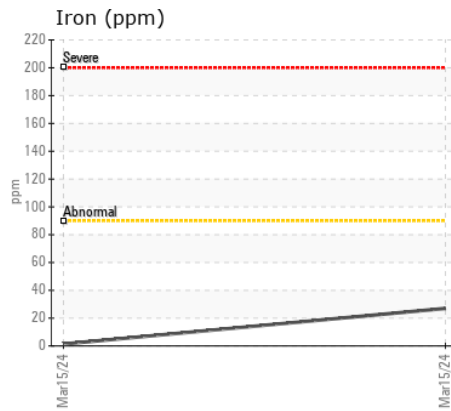
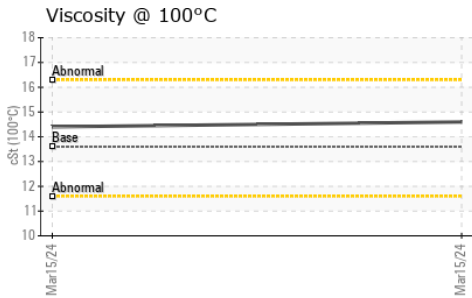
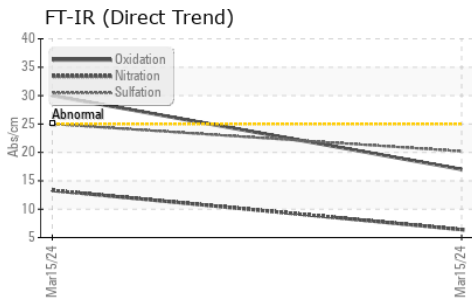
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	2	---
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	---
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	ASTM D7844*	>6	<b>0</b>	0.1	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>6.4</b>	13.3	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.2</b>	25.0	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	---

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<b>3</b>	4	---
Boron	ppm	ASTM D5185(m)	39	<b>43</b>	36	---
Barium	ppm	ASTM D5185(m)	1	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185(m)	49	<b>46</b>	62	---
Manganese	ppm	ASTM D5185(m)	1	<b>0</b>	<1	---
Magnesium	ppm	ASTM D5185(m)	616	<b>798</b>	1085	---
Calcium	ppm	ASTM D5185(m)	1554	<b>1147</b>	881	---
Phosphorus	ppm	ASTM D5185(m)	899	<b>705</b>	935	---
Zinc	ppm	ASTM D5185(m)	1069	<b>803</b>	1184	---
Sulfur	ppm	ASTM D5185(m)	2624	<b>1901</b>	2487	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>17.0</b>	30.0	---
Visc @ 100°C	cSt	ASTM D7279(m)	13.6	<b>14.6</b>	14.4	---



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : CU0022241 **Received** : 10 Jun 2024  
**Lab Number** : 02640744 **Tested** : 10 Jun 2024  
**Unique Number** : 5789906 **Diagnosed** : 11 Jun 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: Visual )

**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: