



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**52939**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 10W30 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0935014</b>	WC0844345	---
Sample Date		Client Info		<b>07 Jun 2024</b>	17 Feb 2024	---
Machine Age	hrs	Client Info		<b>88193</b>	64645	---
Oil Age	hrs	Client Info		<b>23548</b>	30560	---
Filter Age	hrs	Client Info		<b>23548</b>	30560	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>25</b>	42	---
Chromium	ppm	ASTM D5185(m)	>20	<b>1</b>	2	---
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Silver	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>8</b>	17	---
Lead	ppm	ASTM D5185(m)	>40	<b>2</b>	6	---
Copper	ppm	ASTM D5185(m)	>330	<b>1</b>	4	---
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	2	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---

## CONTAMINATION

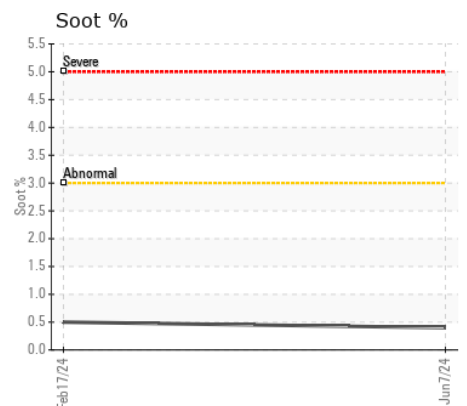
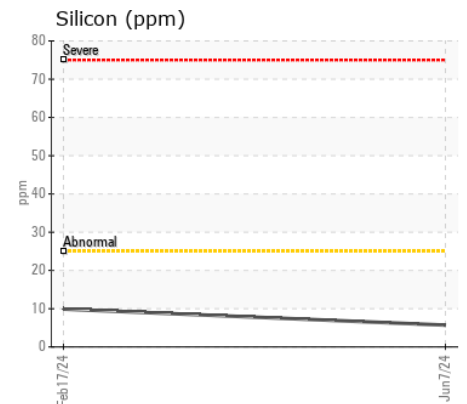
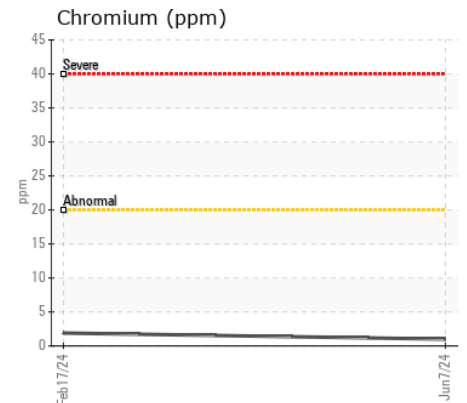
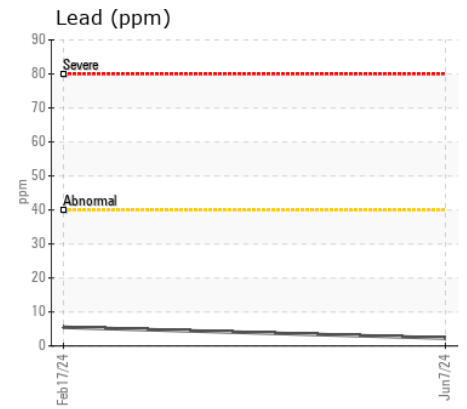
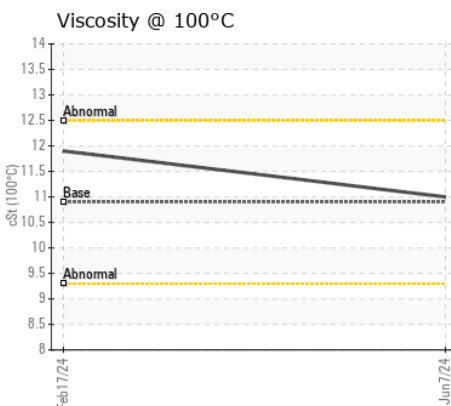
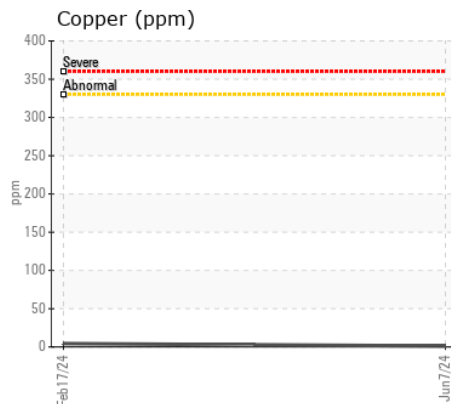
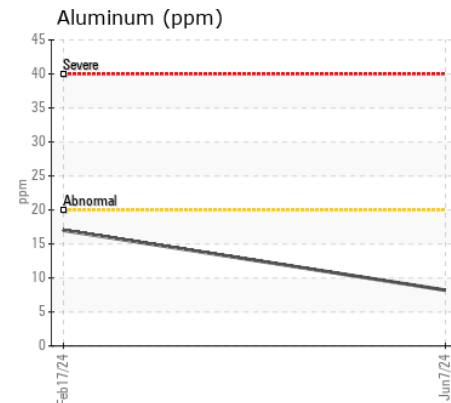
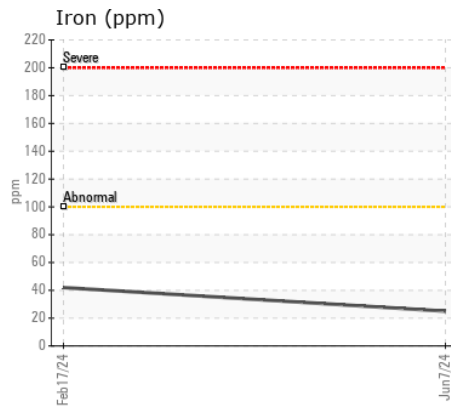
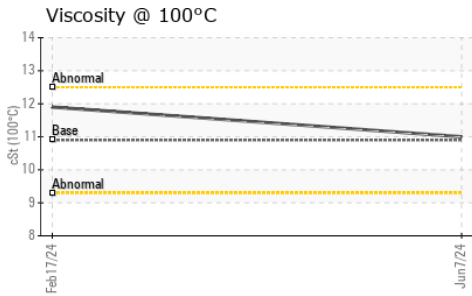
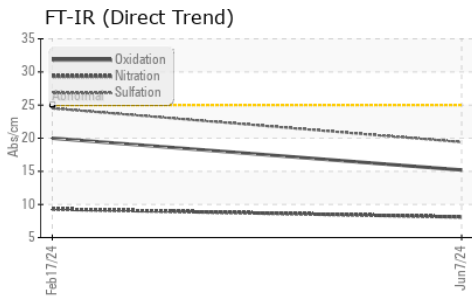
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>6</b>	10	---
Potassium	ppm	ASTM D5185(m)	>20	<b>16</b>	40	---
Fuel		WC Method	>5	<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*	>3	<b>0.4</b>	0.5	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.1</b>	9.3	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>19.4</b>	24.5	---
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>2</b>	3	---
Boron	ppm	ASTM D5185(m)	250	<b>8</b>	68	---
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	<1	---
Molybdenum	ppm	ASTM D5185(m)	100	<b>55</b>	6	---
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185(m)	450	<b>870</b>	55	---
Calcium	ppm	ASTM D5185(m)	3000	<b>1118</b>	2157	---
Phosphorus	ppm	ASTM D5185(m)	1150	<b>995</b>	929	---
Zinc	ppm	ASTM D5185(m)	1350	<b>1181</b>	1122	---
Sulfur	ppm	ASTM D5185(m)	4250	<b>2542</b>	2822	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>15.2</b>	20.0	---
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	<b>11.0</b>	11.9	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0935014 **Received** : 05 Jul 2024  
**Lab Number** : 02645791 **Tested** : 05 Jul 2024  
**Unique Number** : 5803330 **Diagnosed** : 05 Jul 2024 - Wes Davis  
**Test Package** : MOB 1

**MANITOU LIN TRANSPORT**  
 75 MUMFORD ROAD  
 LIVELY, ON  
 CA P3Y 1L1  
 Contact: Mike Patey  
 mpatey@manitoulintransport.com  
 T: (705)692-5209  
 F: (705)692-9303

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.