



# OIL ANALYSIS REPORT

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

Machine Id  
**INTERNATIONAL 52930**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 10W30 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0915479</b>	WC0892037	WC0720934
Sample Date		Client Info		<b>26 Apr 2024</b>	12 Jan 2024	16 Nov 2023
Machine Age	kms	Client Info		<b>143143</b>	188848	153105
Oil Age	kms	Client Info		<b>27433</b>	0	0
Filter Age	kms	Client Info		<b>27433</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	<b>24</b>	20	26
Chromium	ppm	ASTM D5185(m)	>20	<b>1</b>	1	2
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>29</b>	11	20
Lead	ppm	ASTM D5185(m)	>40	<b>1</b>	2	2
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	1	2
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	<1	1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

## CONTAMINATION

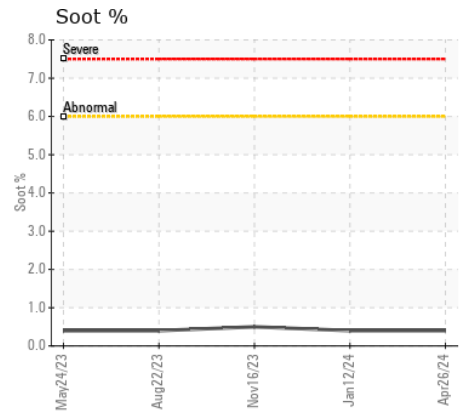
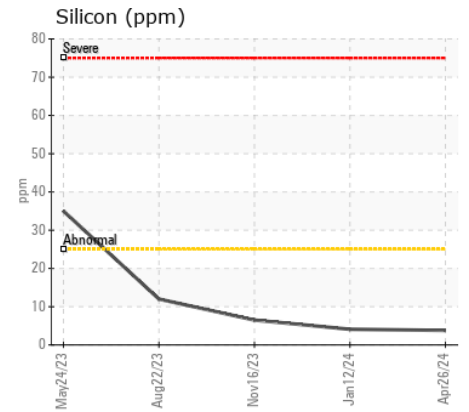
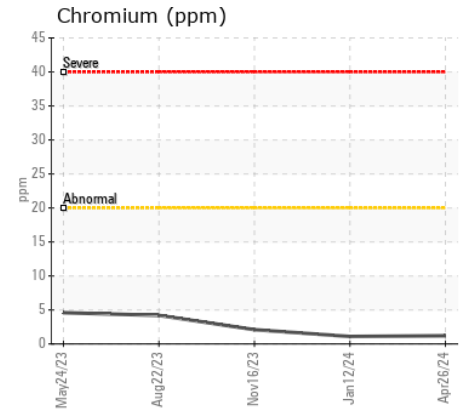
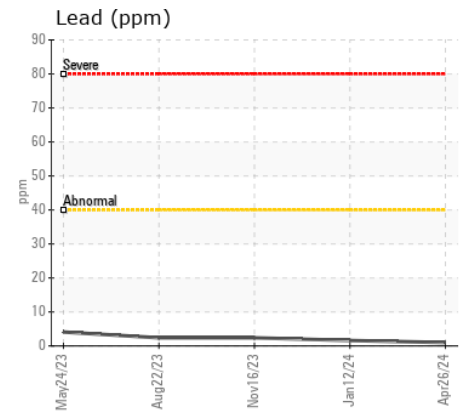
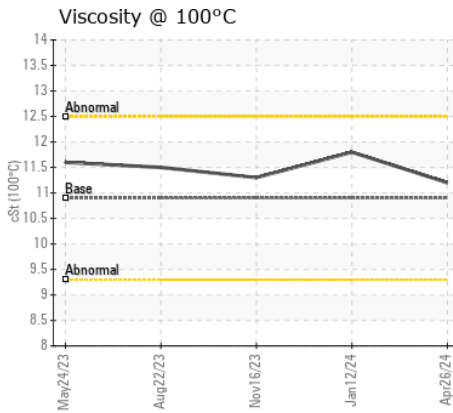
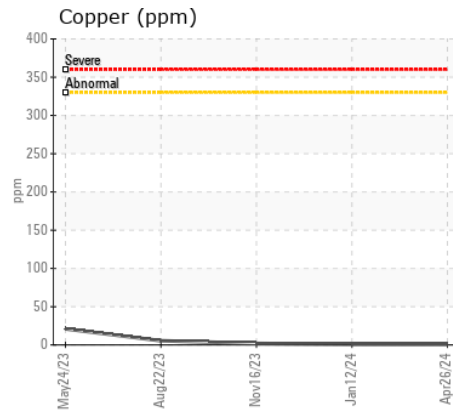
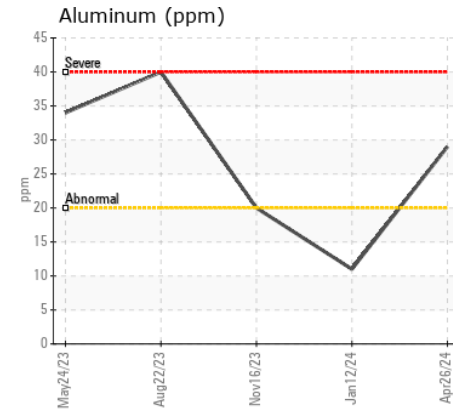
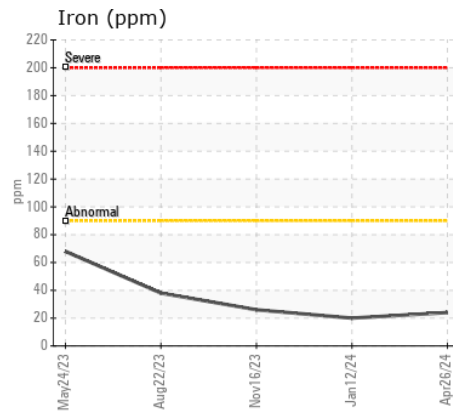
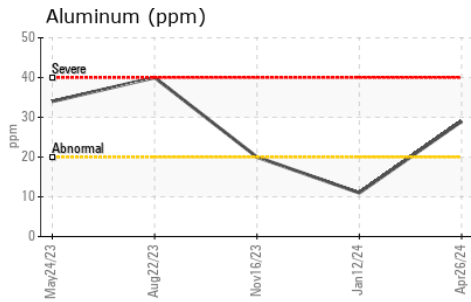
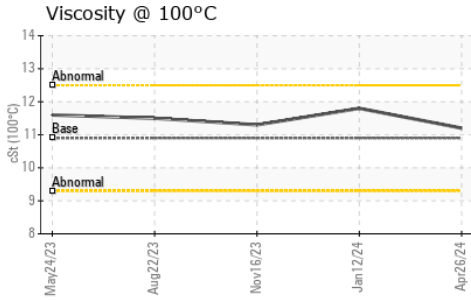
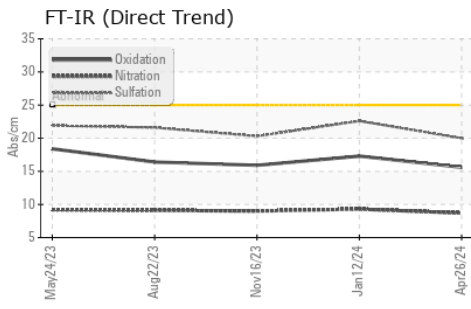
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>4</b>	4	6
Potassium	ppm	ASTM D5185(m)	>20	<b>96</b>	27	45
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>6	<b>0.4</b>	0.4	0.5
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.7</b>	9.3	9.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.0</b>	22.6	20.3
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	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<b>2</b>	2	2
Boron	ppm	ASTM D5185(m)	250	<b>8</b>	83	5
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)	100	<b>57</b>	9	60
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	450	<b>932</b>	152	958
Calcium	ppm	ASTM D5185(m)	3000	<b>1175</b>	2004	1080
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1051</b>	964	1001
Zinc	ppm	ASTM D5185(m)	1350	<b>1244</b>	1127	1198
Sulfur	ppm	ASTM D5185(m)	4250	<b>2647</b>	2976	2518
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>15.6</b>	17.3	15.9
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	<b>11.2</b>	11.8	11.3



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0915479 **Received** : 30 Apr 2024  
**Lab Number** : 02632296 **Tested** : 30 Apr 2024  
**Unique Number** : 5773449 **Diagnosed** : 30 Apr 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: Visual )

**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.