



# OIL ANALYSIS REPORT

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

Machine Id  
**51935**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 10W30 (--- LTR)**

## 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>WC0935016</b>	WC0915504	WC0879077
Sample Date		Client Info		<b>04 Jun 2024</b>	10 Apr 2024	13 Dec 2023
Machine Age	mls	Client Info		<b>390254</b>	359859	297080
Oil Age	mls	Client Info		<b>30396</b>	30341	26729
Filter Age	mls	Client Info		<b>30396</b>	30341	26729
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)	>100	<b>20</b>	23	21
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>4</b>	4	6
Lead	ppm	ASTM D5185(m)	>40	<b>2</b>	1	1
Copper	ppm	ASTM D5185(m)	>330	<b>1</b>	2	2
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	NONE

## CONTAMINATION

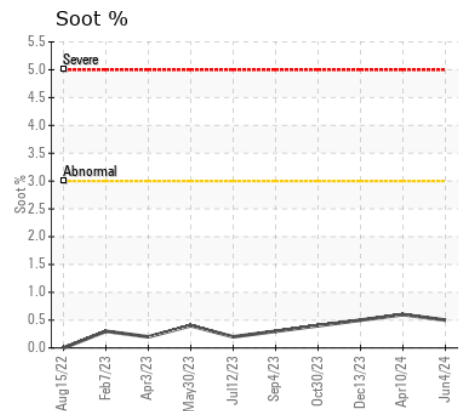
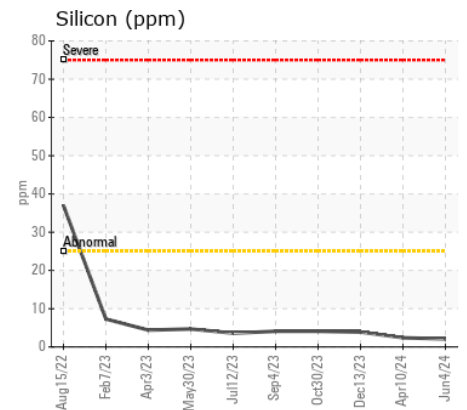
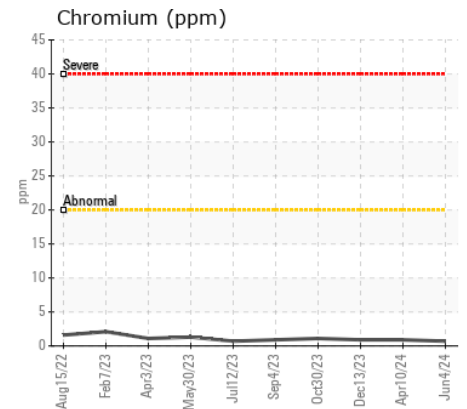
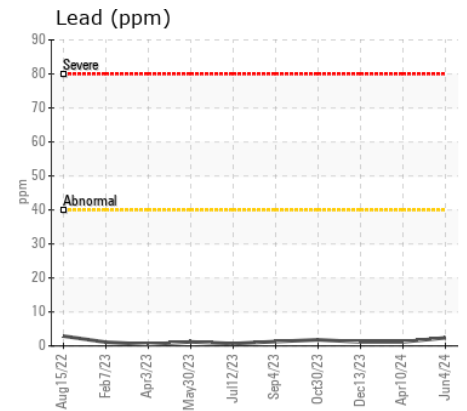
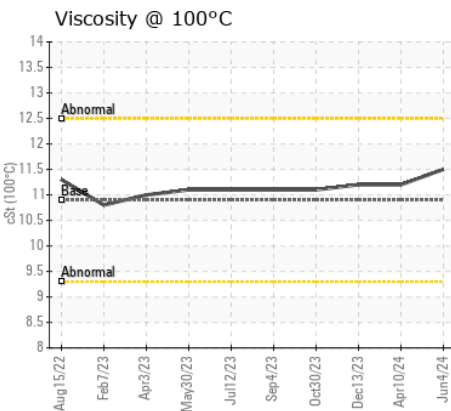
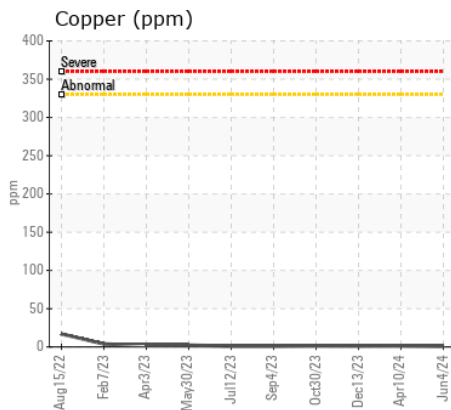
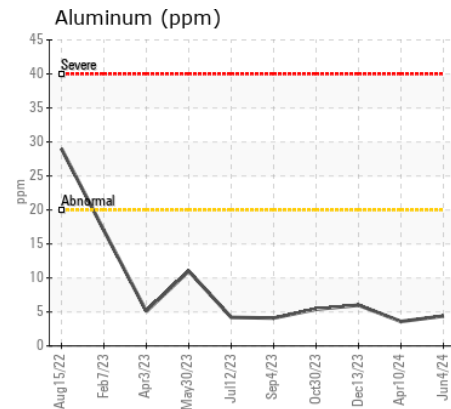
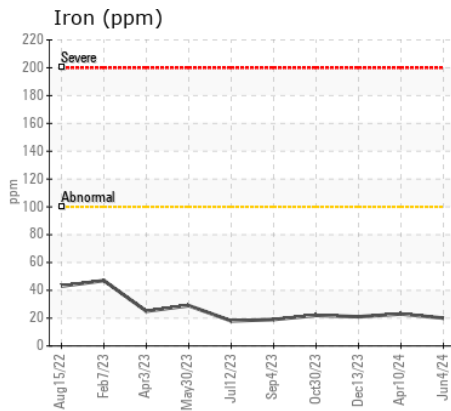
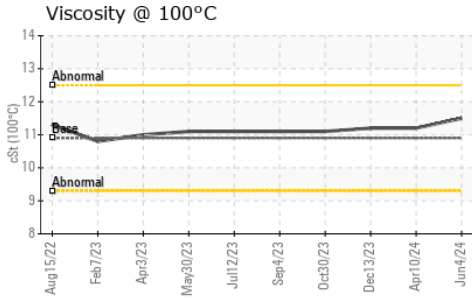
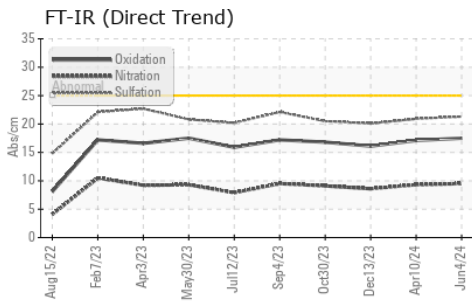
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>2</b>	2	4
Potassium	ppm	ASTM D5185(m)	>20	<b>5</b>	2	8
Fuel		WC Method	>5	<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*	>3	<b>0.5</b>	0.6	0.5
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.5</b>	9.3	8.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>21.3</b>	20.9	20.1
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	NORML
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	1
Boron	ppm	ASTM D5185(m)	250	<b>5</b>	5	4
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	100	<b>63</b>	63	62
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185(m)	450	<b>1006</b>	1018	997
Calcium	ppm	ASTM D5185(m)	3000	<b>1123</b>	1114	1106
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1002</b>	1001	1028
Zinc	ppm	ASTM D5185(m)	1350	<b>1236</b>	1253	1216
Sulfur	ppm	ASTM D5185(m)	4250	<b>2378</b>	2317	2541
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>17.5</b>	17.1	16.1
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	<b>11.5</b>	11.2	11.2



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0935016 **Received** : 06 Jun 2024  
**Lab Number** : 02640144 **Tested** : 06 Jun 2024  
**Unique Number** : 5789306 **Diagnosed** : 06 Jun 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: Visual )

**MANITOU LIN TRANSPORT**  
 75 MUMFORD ROAD  
 LIVELY, ON  
 CA P3Y 1L1  
 Contact: Todd Smith  
 tosmith@manitoulintransport.com  
 T: (705)562-3302  
 F: x:

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.