



# OIL ANALYSIS REPORT

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

Machine Id  
**50153**  
 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>WC0934987</b>	WC0915499	WC0828242
Sample Date		Client Info		<b>29 Jun 2024</b>	15 Mar 2024	04 Nov 2023
Machine Age	mls	Client Info		<b>65729</b>	36597	5116
Oil Age	mls	Client Info		<b>29132</b>	31481	4710
Filter Age	mls	Client Info		<b>29132</b>	31481	4710
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

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>65	<b>34</b>	39	38
Chromium	ppm	ASTM D5185(m)	>5	<b>4</b>	2	<1
Nickel	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	1
Aluminum	ppm	ASTM D5185(m)	>35	<b>42</b>	67	28
Lead	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	4	2
Copper	ppm	ASTM D5185(m)	>180	<b>44</b>	161	55
Tin	ppm	ASTM D5185(m)	>8	<b>1</b>	3	2
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## CONTAMINATION

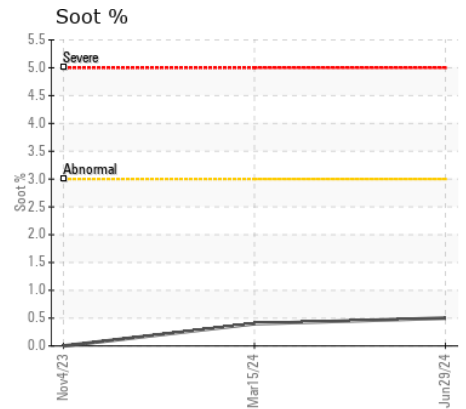
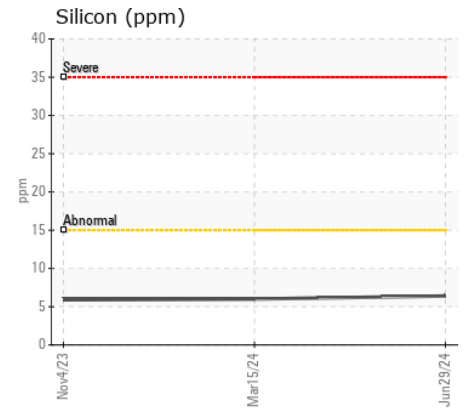
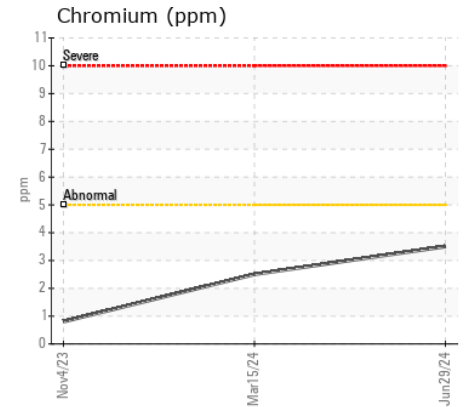
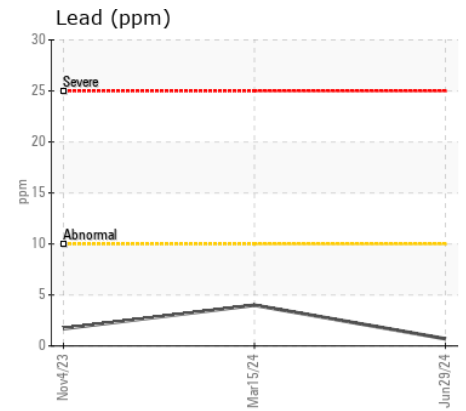
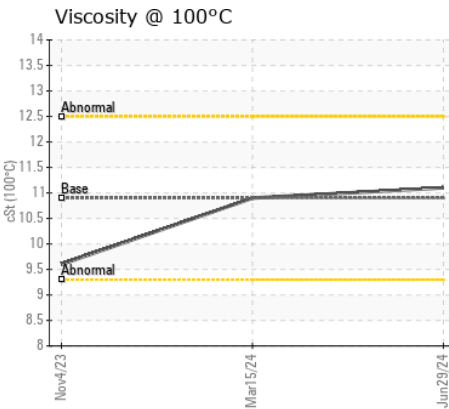
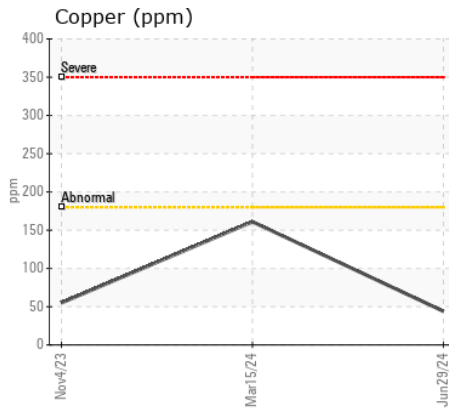
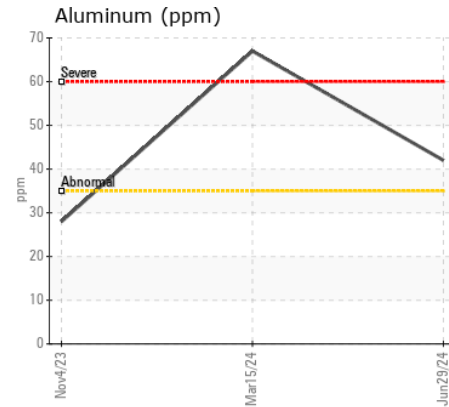
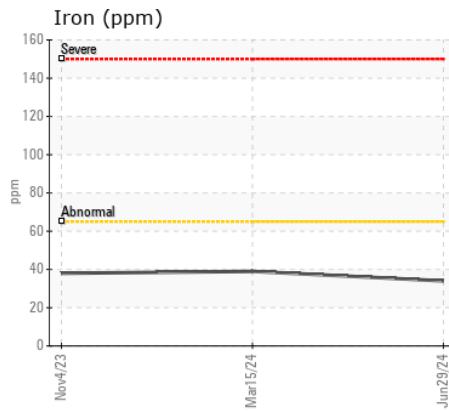
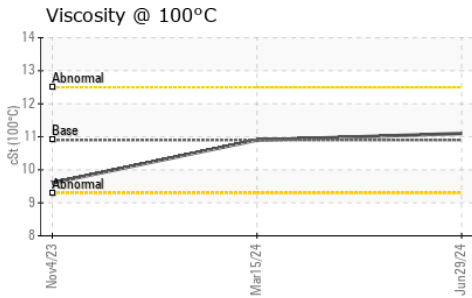
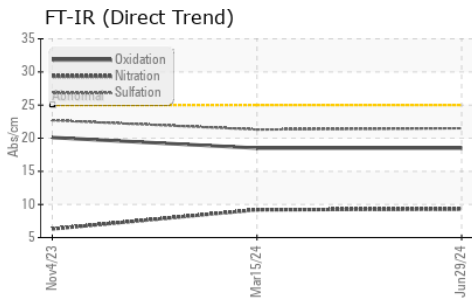
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	<b>6</b>	6	6
Potassium	ppm	ASTM D5185(m)	>20	<b>83</b>	121	76
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	0.5
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>	0.4	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.3</b>	9.2	6.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>21.5</b>	21.3	22.7
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>3</b>	3	6
Boron	ppm	ASTM D5185(m)	250	<b>5</b>	10	61
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)	100	<b>62</b>	64	40
Manganese	ppm	ASTM D5185(m)		<b>1</b>	1	3
Magnesium	ppm	ASTM D5185(m)	450	<b>964</b>	954	494
Calcium	ppm	ASTM D5185(m)	3000	<b>1123</b>	1244	1711
Phosphorus	ppm	ASTM D5185(m)	1150	<b>915</b>	956	749
Zinc	ppm	ASTM D5185(m)	1350	<b>1155</b>	1120	903
Sulfur	ppm	ASTM D5185(m)	4250	<b>1730</b>	1989	2057
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>18.5</b>	18.5	20.1
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	<b>11.1</b>	10.9	9.6



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0934987 **Received** : 05 Jul 2024  
**Lab Number** : 02645813 **Tested** : 05 Jul 2024  
**Unique Number** : 5803352 **Diagnosed** : 05 Jul 2024 - Wes Davis  
**Test Package** : MOB 1

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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.