



# OIL ANALYSIS REPORT

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

Machine Id  
**KENWORTH 53**  
 Component  
**Diesel Engine**  
 Fluid  
**SHELL ROTELLA T SB 0W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0911728</b>	WC0720876	WC0539339
Sample Date		Client Info		<b>17 Jun 2024</b>	14 Nov 2023	15 Jun 2022
Machine Age	kms	Client Info		<b>771177</b>	644773	371020
Oil Age	kms	Client Info		<b>90000</b>	135762	47084
Filter Age	kms	Client Info		<b>90000</b>	135762	47084
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>13</b>	28	18
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	3	4
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	2	2
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	1	<1
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## CONTAMINATION

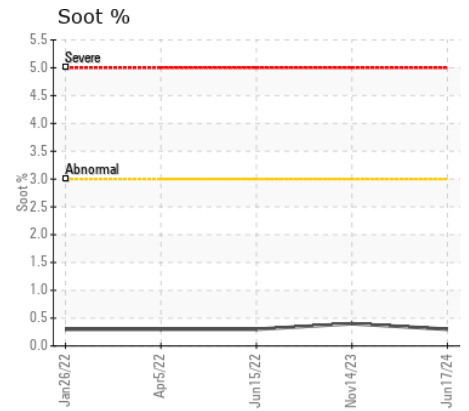
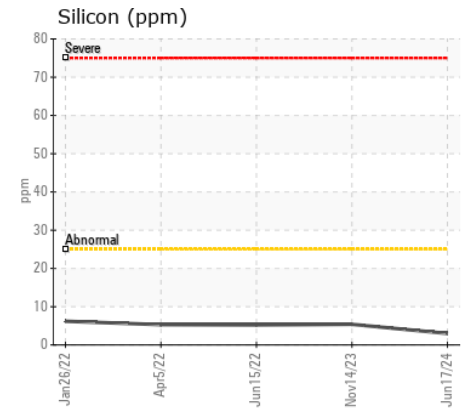
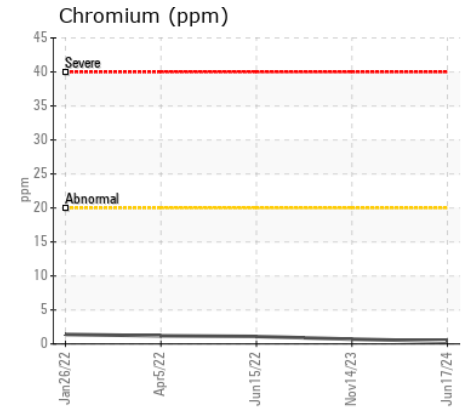
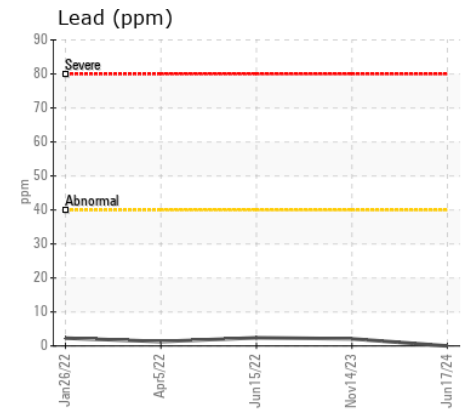
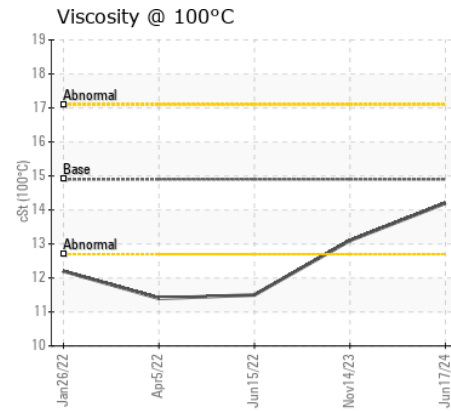
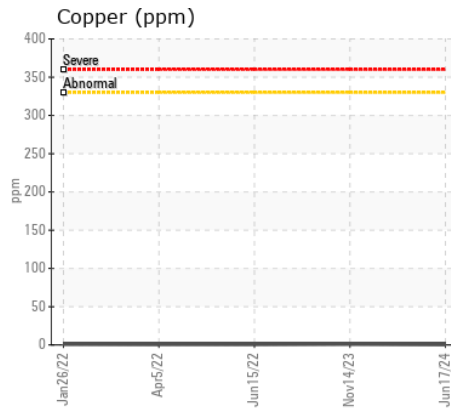
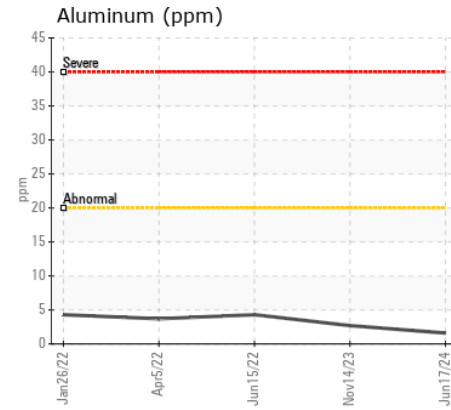
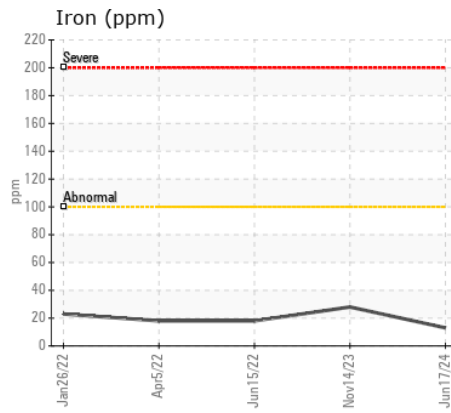
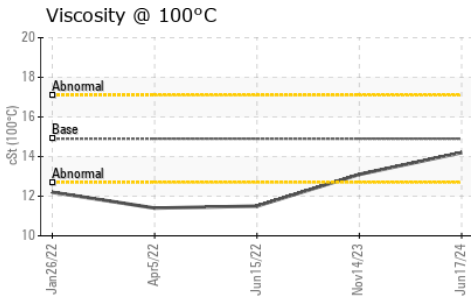
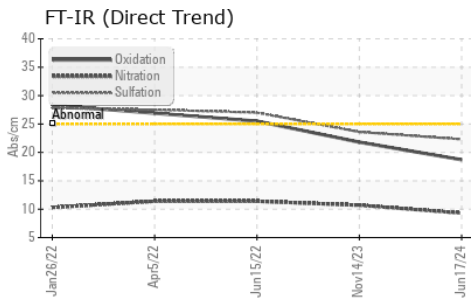
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	5	5
Potassium	ppm	ASTM D5185(m)	>20	<b>3</b>	7	5
Fuel		WC Method	>5	<b>&lt;1.0</b>	0.9	<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>0.3</b>	0.4	0.3
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.3</b>	10.7	11.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>22.3</b>	23.6	27.0
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>	3	3
Boron	ppm	ASTM D5185(m)		<b>68</b>	18	28
Barium	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)		<b>7</b>	8	45
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185(m)		<b>79</b>	58	573
Calcium	ppm	ASTM D5185(m)		<b>1966</b>	2228	1763
Phosphorus	ppm	ASTM D5185(m)		<b>886</b>	978	821
Zinc	ppm	ASTM D5185(m)		<b>1090</b>	1229	968
Sulfur	ppm	ASTM D5185(m)		<b>2694</b>	3183	2109
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>18.7</b>	21.8	25.5
Visc @ 100°C	cSt	ASTM D7279(m)	14.9	<b>14.2</b>	13.1	11.5



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0911728  
**Lab Number** : 02644465  
**Unique Number** : 5802004  
**Test Package** : MOB 1  
**Received** : 27 Jun 2024  
**Tested** : 27 Jun 2024  
**Diagnosed** : 27 Jun 2024 - Wes Davis

**MCS MECHANICAL CONTRACTING SERVICE**  
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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.