



# WEAR CHECK

## OIL ANALYSIS REPORT

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

Area

[20803]

Machine Id

**KENWORTH TLL42**

Component

**Diesel Engine**

Fluid

**VALVOLINE PREMIUM BLUE (48 LTR)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC06237336</b>	WC06176864	WC06047321
Sample Date		Client Info		<b>04 Jul 2024</b>	15 Mar 2024	18 Dec 2023
Machine Age	kms	Client Info		<b>599292</b>	540225	486922
Oil Age	kms	Client Info		<b>59067</b>	53303	65461
Filter Age	kms	Client Info		<b>59067</b>	53303	65461
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	<b>13</b>	12	13
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Lead	ppm	ASTM D5185m	>40	<b>2</b>	2	3
Copper	ppm	ASTM D5185m	>330	<b>0</b>	1	1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

There is no indication of any contamination in the oil.

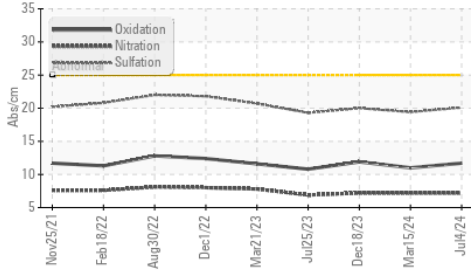
Silicon	ppm	ASTM D5185m	>25	<b>5</b>	5	6
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	4	2
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>6	<b>0.3</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.2</b>	7.2	7.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.1</b>	19.4	20.0
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

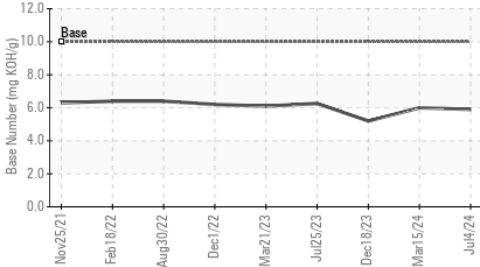
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>2</b>	0	<1
Boron	ppm	ASTM D5185m	2.9	<b>0</b>	2	2
Barium	ppm	ASTM D5185m	0.1	<b>0</b>	1	10
Molybdenum	ppm	ASTM D5185m	0.0	<b>0</b>	3	2
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	18	<b>34</b>	25	17
Calcium	ppm	ASTM D5185m	2936	<b>2545</b>	2579	2432
Phosphorus	ppm	ASTM D5185m	998	<b>992</b>	1040	902
Zinc	ppm	ASTM D5185m	1095	<b>1143</b>	1137	1114
Sulfur	ppm	ASTM D5185m	5469	<b>4206</b>	4066	3655
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>11.7</b>	11.0	11.9
Base Number (BN)	mg KOH/g	ASTM D2896	10.0	<b>5.9</b>	6.0	5.2
Visc @ 100°C	cSt	ASTM D445	15.2	<b>13.8</b>	13.7	13.4

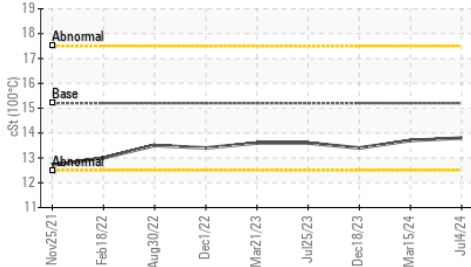
FT-IR (Direct Trend)



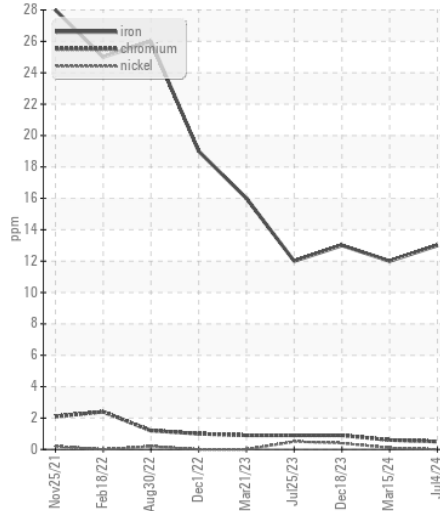
Base Number



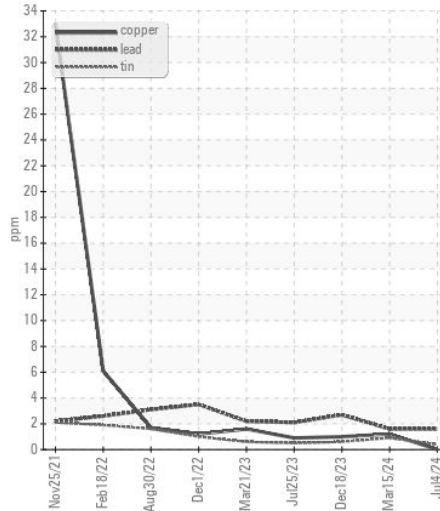
Viscosity @ 100°C



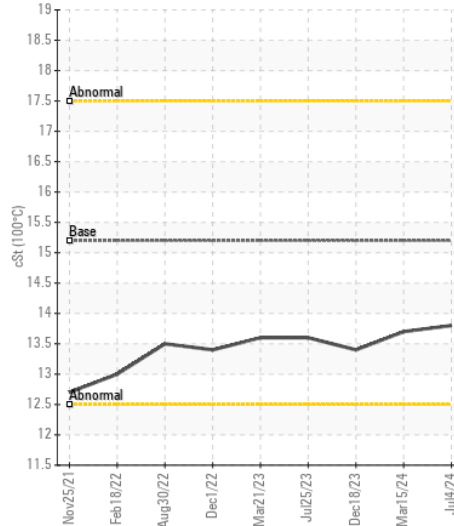
Ferrous Alloys



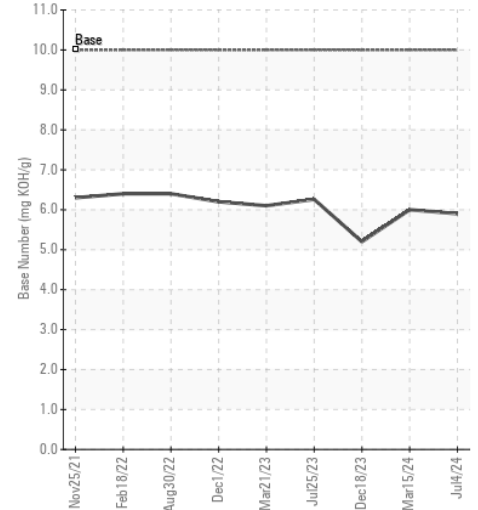
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC06237336

Lab Number : 06237336

Unique Number : 11126170

Test Package : FLEET

Received : 15 Jul 2024

Tested : 17 Jul 2024

Diagnosed : 17 Jul 2024 - Wes Davis

**TRANZLIQUID**  
81 HEWLETTS RD  
MOUNT MAUNGANUI, ZZ  
NZ

Contact: AARON LOYE  
aaron@truckline.co.nz

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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F: