



# OIL ANALYSIS REPORT

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

Area

[Z20326]

Machine Id

**KENWORTH TLL 6**

Component

**Front Diesel Engine**

Fluid

**VALVOLINE PREMIUM BLUE (45 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC05892628</b>	WC05781628	WC05534933
Sample Date		Client Info		<b>30 May 2023</b>	07 Feb 2023	20 Apr 2022
Machine Age	kms	Client Info		<b>1559561</b>	539742	497211
Oil Age	kms	Client Info		<b>33247</b>	95841	53310
Filter Age	kms	Client Info		<b>0</b>	0	53310
Oil Changed		Client Info		<b>Changed</b>	Changed	Not Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	<b>20</b>	48	21
Chromium	ppm	ASTM D5185m	>5	<b>1</b>	3	1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	5	4
Lead	ppm	ASTM D5185m	>150	<b>5</b>	18	7
Copper	ppm	ASTM D5185m	>90	<b>3</b>	10	9
Tin	ppm	ASTM D5185m	>5	<b>2</b>	6	4
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

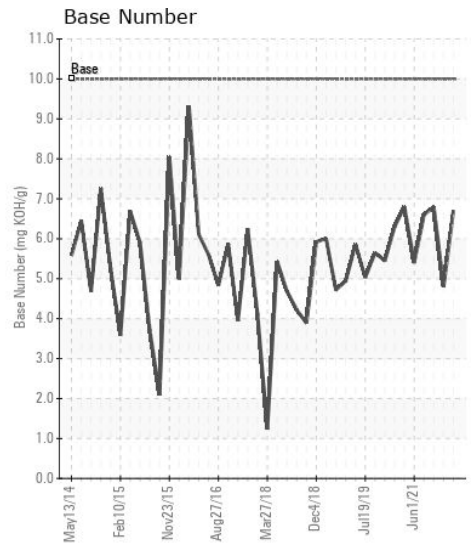
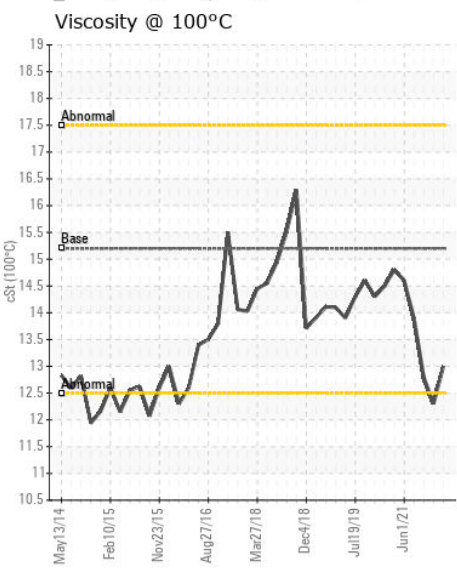
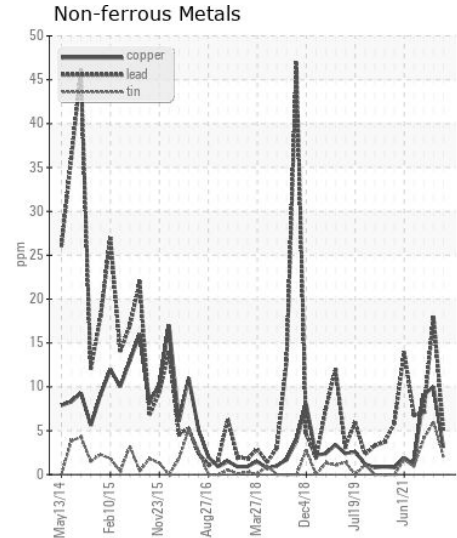
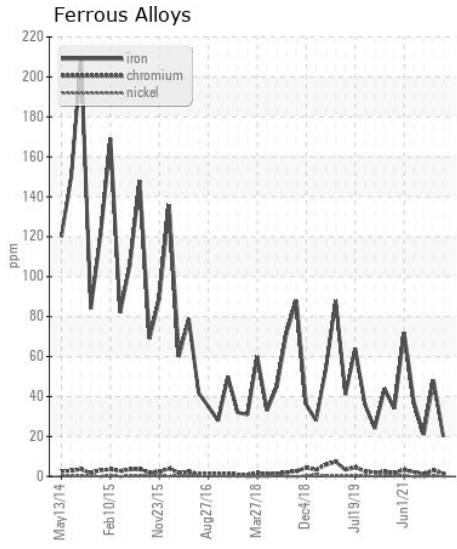
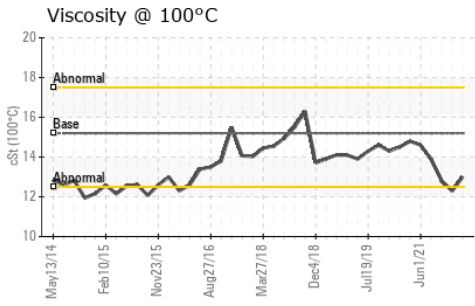
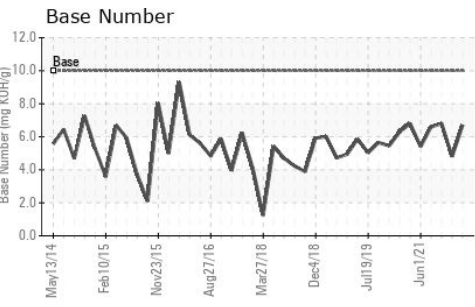
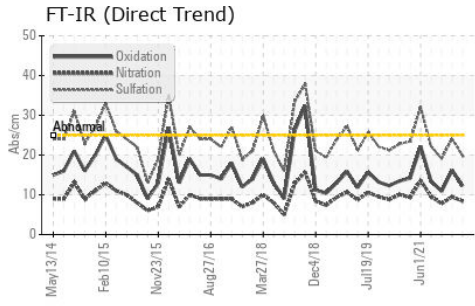
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>35	<b>17</b>	▲ 42	▲ 58
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	3	2
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	▲ 2.4	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>7.5	<b>0.5</b>	0.9	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.4</b>	9.5	7.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.8</b>	24.1	19.1
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>4</b>	16	21
Boron	ppm	ASTM D5185m	2.9	<b>2</b>	3	1
Barium	ppm	ASTM D5185m	0.1	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	2	2
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	2	2
Magnesium	ppm	ASTM D5185m	18	<b>17</b>	25	22
Calcium	ppm	ASTM D5185m	2936	<b>2377</b>	2185	2092
Phosphorus	ppm	ASTM D5185m	998	<b>923</b>	819	834
Zinc	ppm	ASTM D5185m	1095	<b>1107</b>	981	975
Sulfur	ppm	ASTM D5185m	5469	<b>4388</b>	3320	2694
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>12.2</b>	16.2	10.9
Base Number (BN)	mg KOH/g	ASTM D2896	10.0	<b>6.7</b>	4.8	6.8
Visc @ 100°C	cSt	ASTM D445	15.2	<b>13.0</b>	● 12.3	12.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC05892628  
**Lab Number** : 05892628  
**Unique Number** : 10548438  
**Test Package** : FLEET  
**Received** : 07 Jul 2023  
**Tested** : 10 Jul 2023  
**Diagnosed** : 10 Jul 2023 - Wes Davis

**TRANZLIQUID**  
 81 HEWLETTS RD  
 MOUNT MAUNGANUI, ZZ  
 NZ  
 Contact: AARON LOYE  
 aaron@truckline.co.nz  
 T:  
 F:

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)