



# WEAR CHECK

## OIL ANALYSIS REPORT

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

Area

[Z20832]

Machine Id

**KENWORTH T409 NYE379 (S/N 79835459)**

Component

**Diesel Engine**

Fluid

**VALVOLINE 15W40 (48 LTR)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC06176863</b>	WC05894211	WC05727765
Sample Date		Client Info		<b>03 Apr 2024</b>	27 Jun 2023	20 Dec 2022
Machine Age	kms	Client Info		<b>194738</b>	1129022	107849
Oil Age	kms	Client Info		<b>32815</b>	53173	45624
Filter Age	kms	Client Info		<b>32815</b>	0	45624
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	<b>15</b>	29	32
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	3	4
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	8	19
Lead	ppm	ASTM D5185m	>40	<b>1</b>	4	7
Copper	ppm	ASTM D5185m	>330	<b>2</b>	2	4
Tin	ppm	ASTM D5185m	>15	<b>1</b>	2	2
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

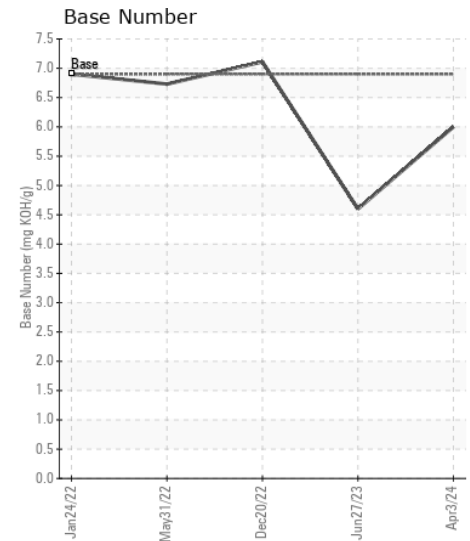
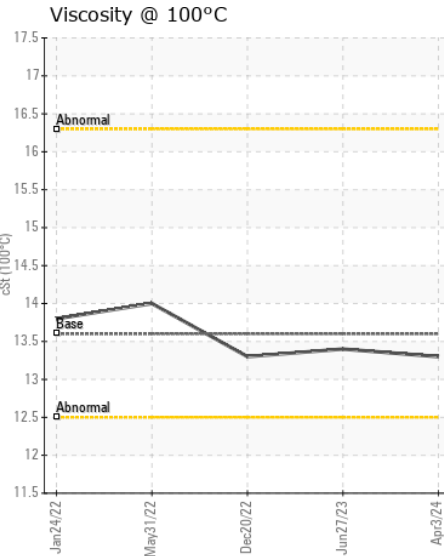
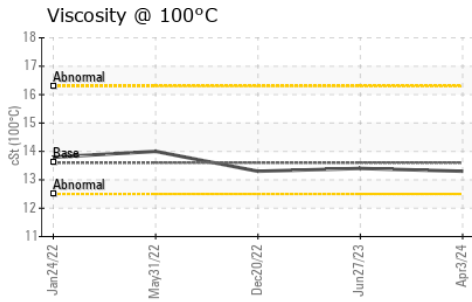
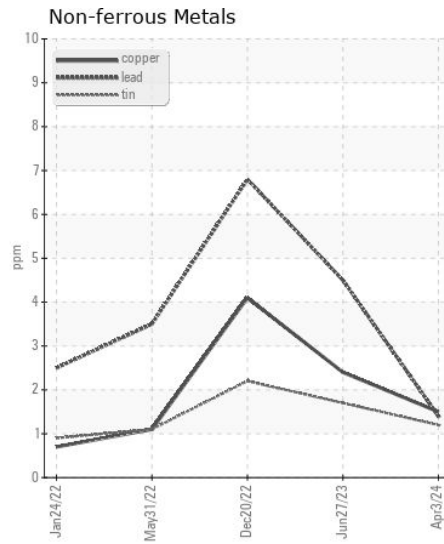
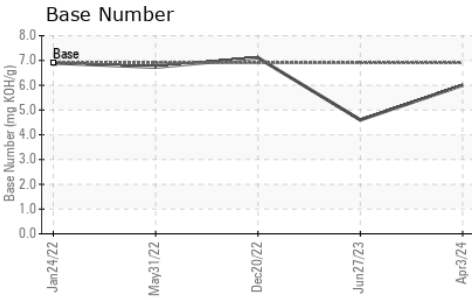
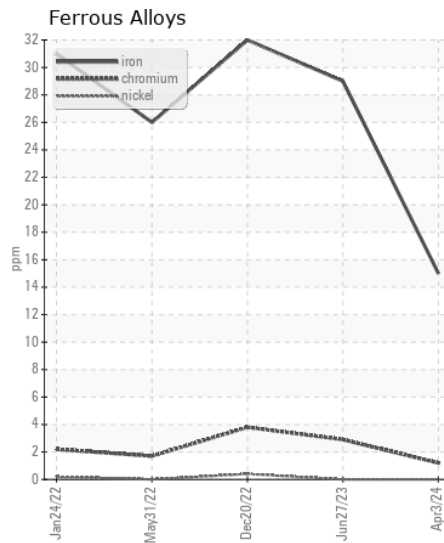
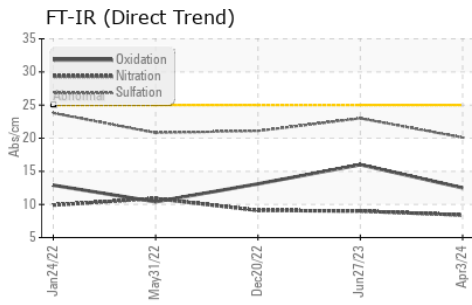
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>12</b>	29	83
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	13	89
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>0.5</b>	0.7	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.4</b>	9.0	9.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.1</b>	23.0	21.1
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>0</b>	7	32
Boron	ppm	ASTM D5185m	39	<b>4</b>	<1	4
Barium	ppm	ASTM D5185m	1	<b>1</b>	0	0
Molybdenum	ppm	ASTM D5185m	49	<b>4</b>	1	3
Manganese	ppm	ASTM D5185m	1	<b>&lt;1</b>	1	3
Magnesium	ppm	ASTM D5185m	616	<b>36</b>	21	33
Calcium	ppm	ASTM D5185m	1554	<b>2447</b>	2488	2404
Phosphorus	ppm	ASTM D5185m	899	<b>1002</b>	953	897
Zinc	ppm	ASTM D5185m	1069	<b>1069</b>	1133	1100
Sulfur	ppm	ASTM D5185m	2624	<b>3882</b>	4379	3982
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>12.5</b>	16.0	13.1
Base Number (BN)	mg KOH/g	ASTM D2896	6.9	<b>6.0</b>	4.6	7.11
Visc @ 100°C	cSt	ASTM D445	13.6	<b>13.3</b>	13.4	13.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC06176863  
**Lab Number** : 06176863  
**Unique Number** : 11022916  
**Test Package** : FLEET

**ALLIED CONCRETE PENROSE**

AUCKLAND,  
 NZ  
 Contact: STEVE FURSDON  
 steve.fursdon@hwr.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)

T:  
 F: