



WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

[20834]

Machine Id

KENWORTH TLL 14

Component

Diesel Engine

Fluid

VALVOLINE PREMIUM BLUE (47 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC06237333	WC06047304	WC06004803
Sample Date		Client Info		19 Jun 2024	05 Dec 2023	26 Oct 2023
Machine Age	kms	Client Info		439555	378997	368690
Oil Age	kms	Client Info		60558	10307	49044
Filter Age	kms	Client Info		60558	10307	49044
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	13	16	11
Chromium	ppm	ASTM D5185m	>20	<1	2	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	2	3
Lead	ppm	ASTM D5185m	>40	2	4	2
Copper	ppm	ASTM D5185m	>330	0	2	1
Tin	ppm	ASTM D5185m	>15	<1	1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

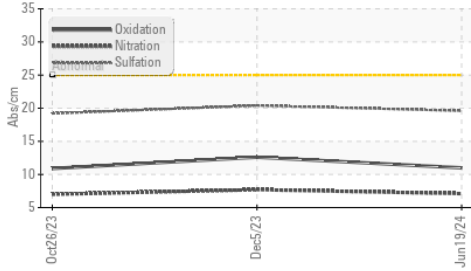
Silicon	ppm	ASTM D5185m	>25	4	10	4
Potassium	ppm	ASTM D5185m	>20	7	3	5
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	7.1	7.7	7.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.6	20.4	19.2
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

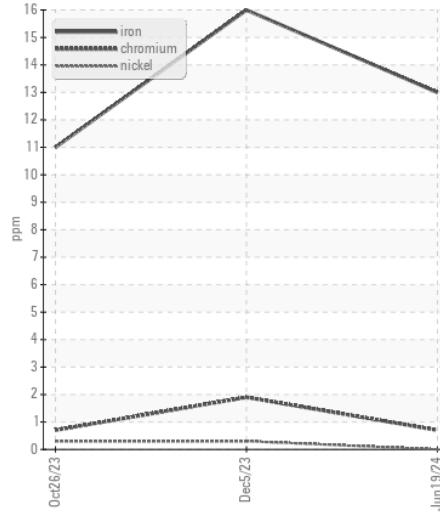
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	2	2
Boron	ppm	ASTM D5185m	2.9	0	21	2
Barium	ppm	ASTM D5185m	0.1	0	10	0
Molybdenum	ppm	ASTM D5185m	0.0	6	18	0
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	18	16	82	19
Calcium	ppm	ASTM D5185m	2936	2564	2183	2463
Phosphorus	ppm	ASTM D5185m	998	974	913	978
Zinc	ppm	ASTM D5185m	1095	1130	1125	1162
Sulfur	ppm	ASTM D5185m	5469	4129	3655	3717
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.0	12.6	10.9
Base Number (BN)	mg KOH/g	ASTM D2896	10.0	6.1	5.7	5.8
Visc @ 100°C	cSt	ASTM D445	15.2	13.3	13.9	13.6

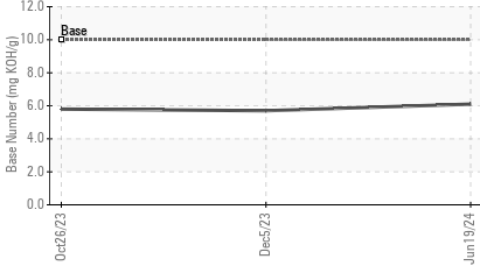
FT-IR (Direct Trend)



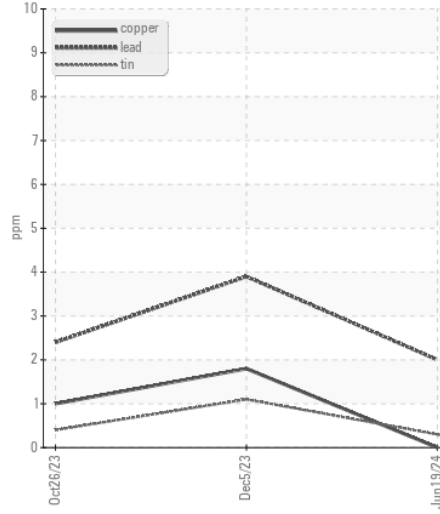
Ferrous Alloys



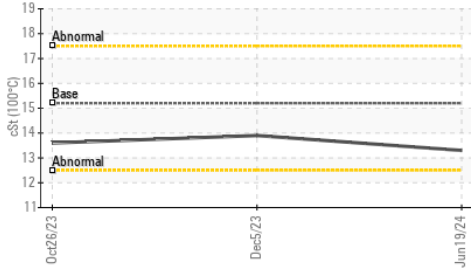
Base Number



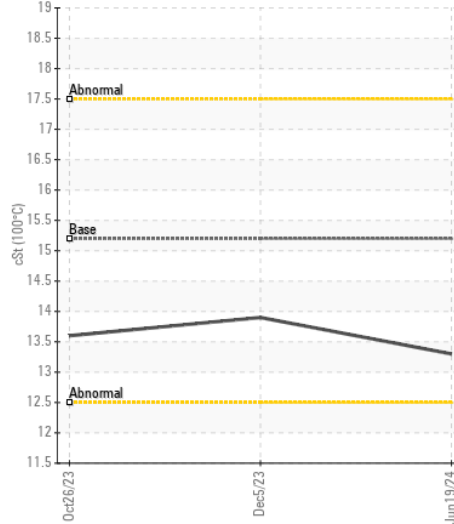
Non-ferrous Metals



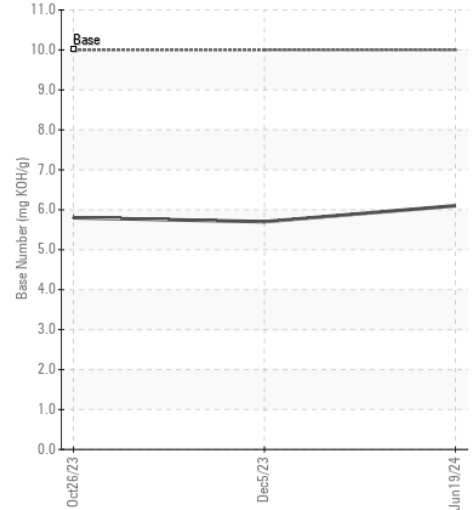
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : WC06237333

Lab Number : 06237333

Unique Number : 11126167

Test Package : FLEET

Received : 15 Jul 2024

Tested : 17 Jul 2024

Diagnosed : 17 Jul 2024 - Wes Davis

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)

TRANZLIQUID
81 HEWLETTS RD
MOUNT MAUNGANUI, ZZ
NZ

Contact: AARON LOYE
aaron@truckline.co.nz

T:
F: