



# OIL ANALYSIS REPORT

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

Machine Id  
**KENWORTH T880 T-887 (S/N 1XKZD40X3PJ225506)**

Component  
**Diesel Engine**

Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0934701</b>	WC0804177	WC0804169
Sample Date		Client Info		<b>16 May 2024</b>	27 Nov 2023	11 Jul 2023
Machine Age	mls	Client Info		<b>0</b>	92863	70188
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
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	>100	<b>19</b>	18	27
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	2	3
Nickel	ppm	ASTM D5185m	>4	<b>1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>10</b>	12	21
Lead	ppm	ASTM D5185m	>40	<b>2</b>	<1	2
Copper	ppm	ASTM D5185m	>330	<b>2</b>	2	3
Tin	ppm	ASTM D5185m	>15	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

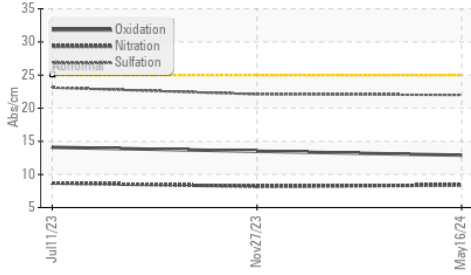
Silicon	ppm	ASTM D5185m	>25	<b>8</b>	7	10
Potassium	ppm	ASTM D5185m	>20	<b>22</b>	30	48
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.4</b>	8.2	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.0</b>	22.1	23.1
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

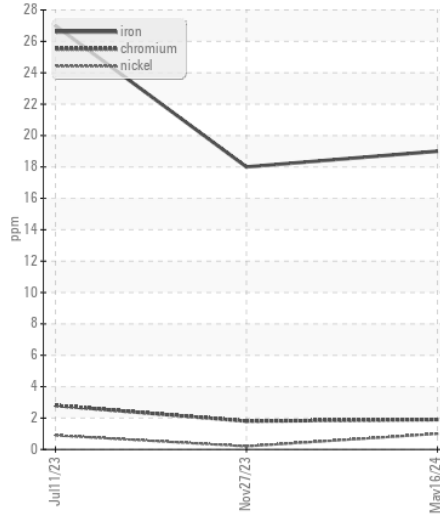
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	<b>4</b>	7	7
Boron	ppm	ASTM D5185m	250	<b>2</b>	0	0
Barium	ppm	ASTM D5185m	10	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>5</b>	2	4
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	1
Magnesium	ppm	ASTM D5185m	450	<b>69</b>	61	59
Calcium	ppm	ASTM D5185m	3000	<b>2296</b>	2371	2502
Phosphorus	ppm	ASTM D5185m	1150	<b>935</b>	935	939
Zinc	ppm	ASTM D5185m	1350	<b>1097</b>	1143	1110
Sulfur	ppm	ASTM D5185m	4250	<b>3658</b>	3695	4313
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>12.9</b>	13.5	14.1
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>5.3</b>	5.1	5.3
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.3</b>	13.6	13.3

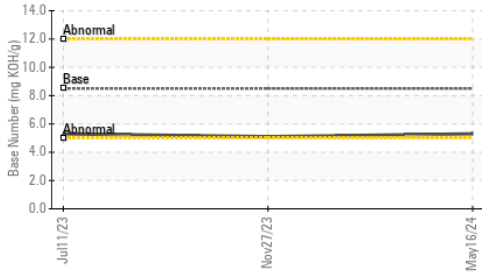
FT-IR (Direct Trend)



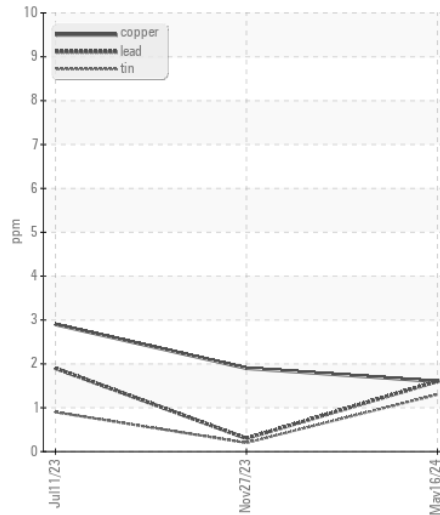
Ferrous Alloys



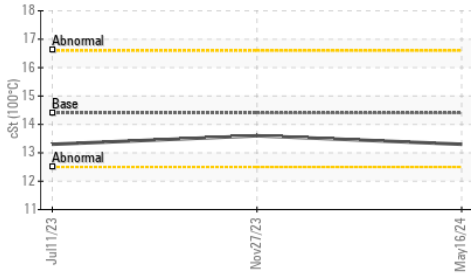
Base Number



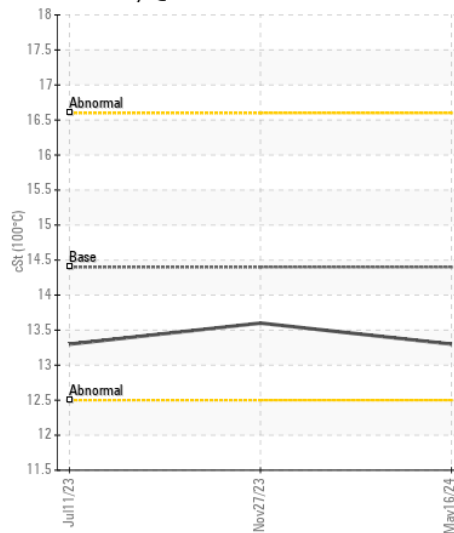
Non-ferrous Metals



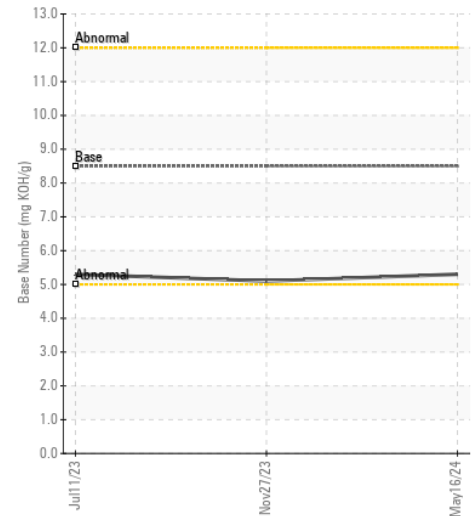
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0934701 **Received** : 28 May 2024  
**Lab Number** : 06192028 **Tested** : 29 May 2024  
**Unique Number** : 11048780 **Diagnosed** : 29 May 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

EAI EQUIPMENT A DIV OF PLEASANT CONSTRUCTION INC  
 24024 FREDERICK ROAD  
 CLARKSBURG, MD  
 US 20871  
 Contact: Service Manager

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: