

Machine Id  
**KENWORTH 2007 KENWORTH**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 40 (--- QTS)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LF0001836</b>	LF0001819	---
Sample Date		Client Info		<b>27 Jun 2024</b>	09 Apr 2024	---
Machine Age	mls	Client Info		<b>0</b>	0	---
Oil Age	mls	Client Info		<b>0</b>	0	---
Filter Age	mls	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>N/A</b>	N/A	---
Filter Changed		Client Info		<b>N/A</b>	N/A	---
Sample Status				<b>NORMAL</b>	ABNORMAL	---

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>19</b>	34	---
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	2	---
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	1	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	2	---
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	5	---
Lead	ppm	ASTM D5185m	>40	<b>3</b>	5	---
Copper	ppm	ASTM D5185m	>330	<b>11</b>	39	---
Tin	ppm	ASTM D5185m	>15	<b>1</b>	3	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

**CONTAMINATION**

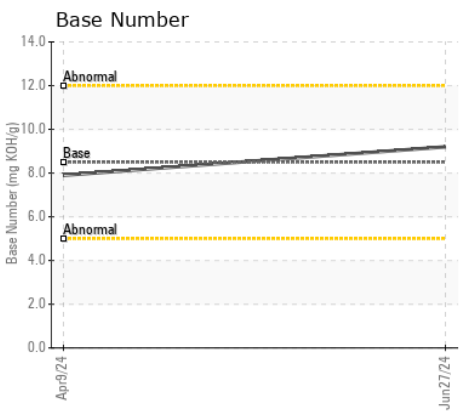
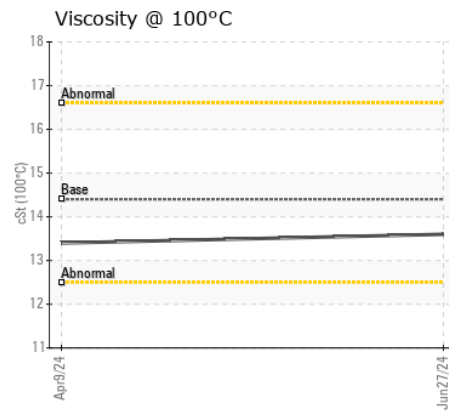
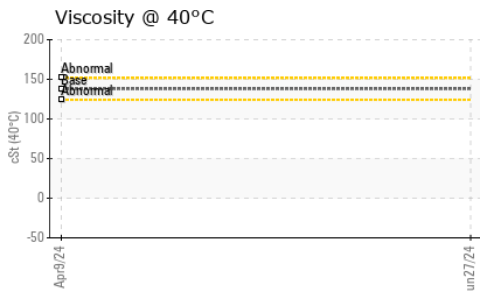
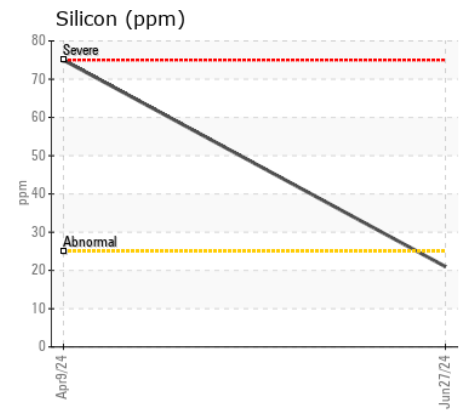
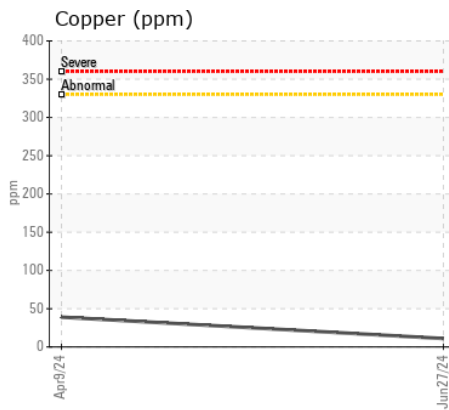
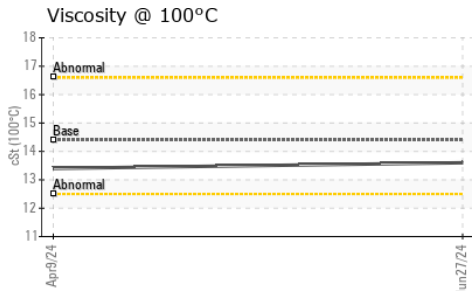
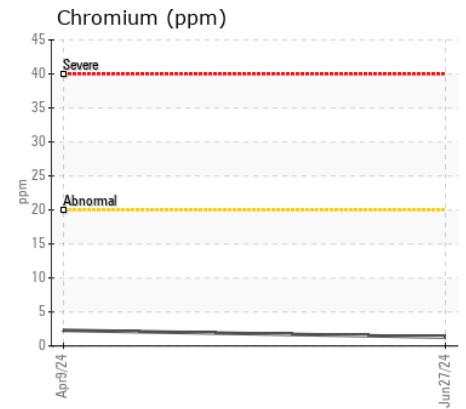
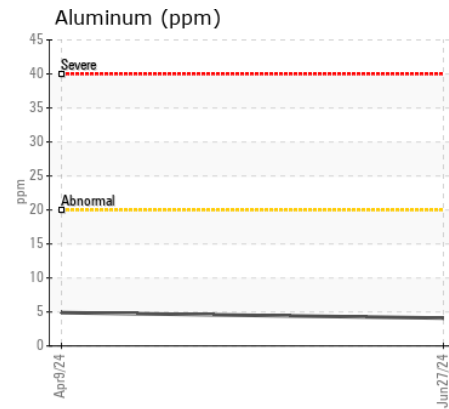
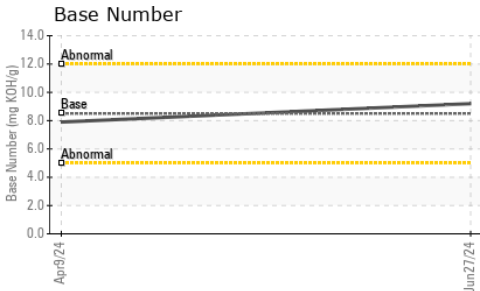
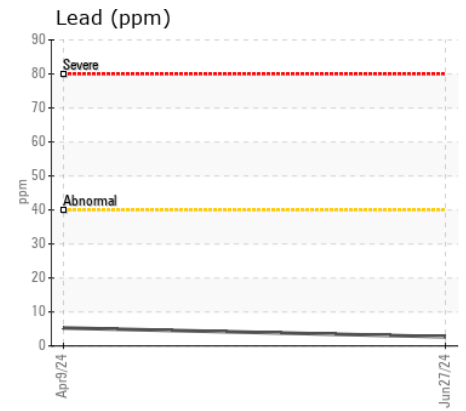
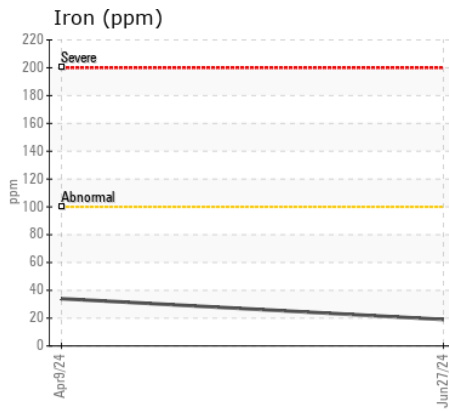
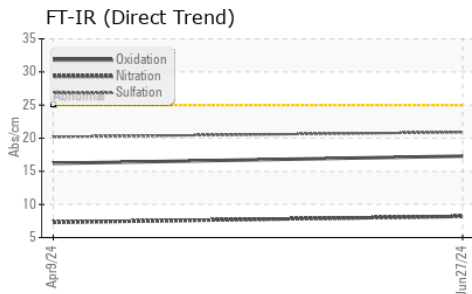
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>21</b>	▲ 75	---
Potassium	ppm	ASTM D5185m	>20	<b>10</b>	11	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.2</b>	7.3	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.9</b>	20.2	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---

**FLUID CONDITION**

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

Sodium	ppm	ASTM D5185m	>216	<b>3</b>	18	---
Boron	ppm	ASTM D5185m	250	<b>28</b>	216	---
Barium	ppm	ASTM D5185m	10	<b>0</b>	1	---
Molybdenum	ppm	ASTM D5185m	100	<b>53</b>	21	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	5	---
Magnesium	ppm	ASTM D5185m	450	<b>580</b>	190	---
Calcium	ppm	ASTM D5185m	3000	<b>1637</b>	2613	---
Phosphorus	ppm	ASTM D5185m	1150	<b>1193</b>	1195	---
Zinc	ppm	ASTM D5185m	1350	<b>1348</b>	1458	---
Sulfur	ppm	ASTM D5185m	4250	<b>3242</b>	4540	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.3</b>	16.2	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>9.2</b>	7.9	---
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.6</b>	13.4	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LF0001836 **Received** : 28 Jun 2024  
**Lab Number** : 06224235 **Tested** : 01 Jul 2024  
**Unique Number** : 11102432 **Diagnosed** : 01 Jul 2024 - Angela Borella  
**Test Package** : MOB 1 ( Additional Tests: KV40, TBN )

**D PALMER & SONS**  
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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)