



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**KENWORTH T800 3904 (S/N KCB42185)**  
 Component  
**Diesel Engine**  
 Fluid  
**SHELL ROTELLA T 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0917138</b>	WC0878904	WC0822283
Sample Date		Client Info		<b>14 Jun 2024</b>	15 Mar 2024	08 Aug 2023
Machine Age	mls	Client Info		<b>86684</b>	70886	25792
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>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>30</b>	103	15
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	3	3
Lead	ppm	ASTM D5185m	>40	<b>5</b>	24	2
Copper	ppm	ASTM D5185m	>330	<b>7</b>	30	97
Tin	ppm	ASTM D5185m	>15	<b>1</b>	6	<1
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

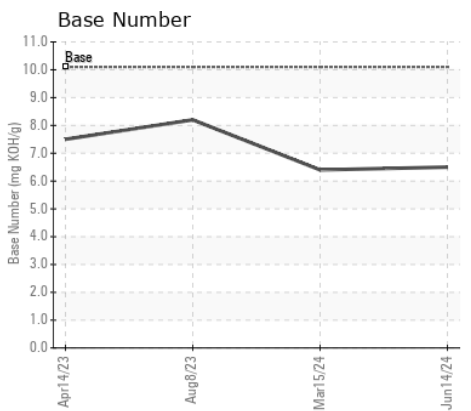
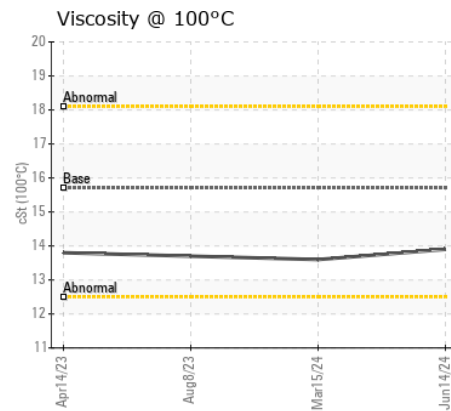
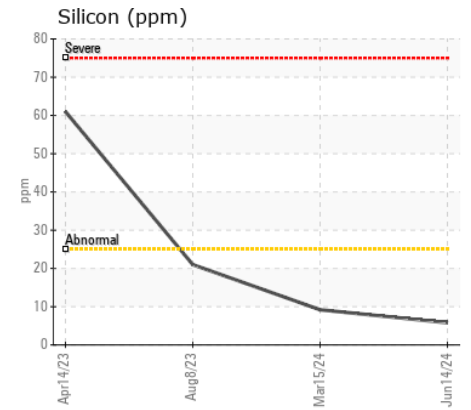
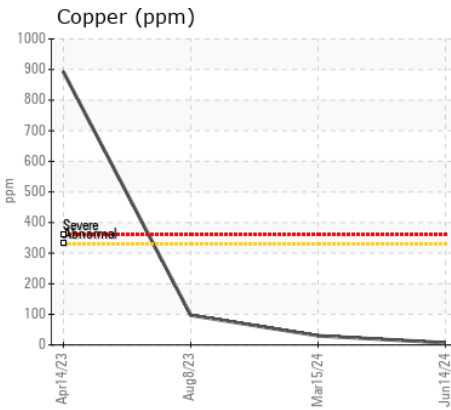
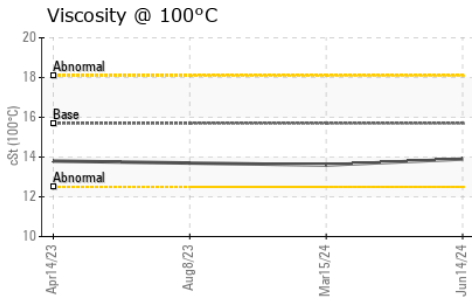
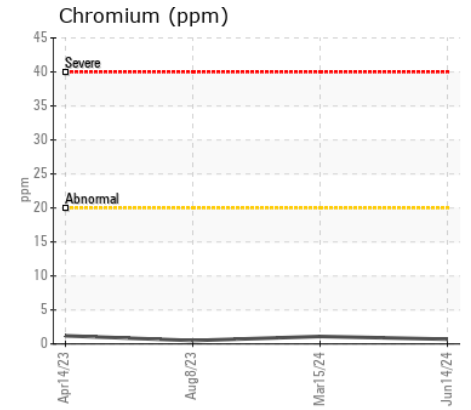
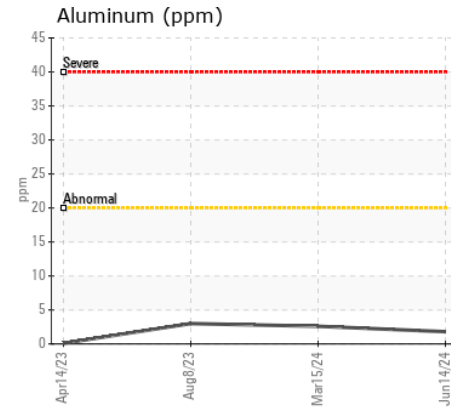
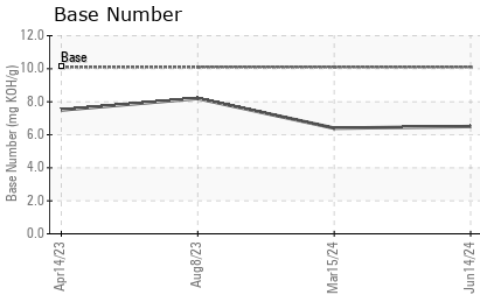
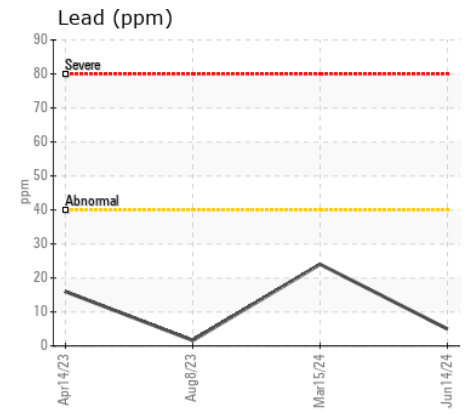
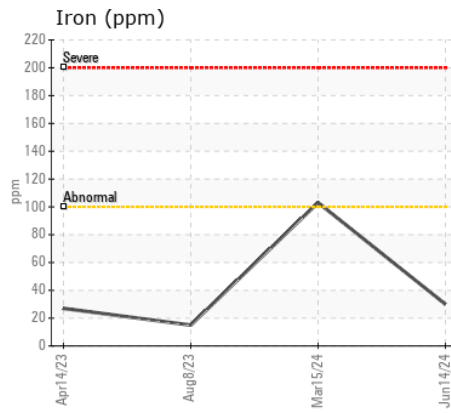
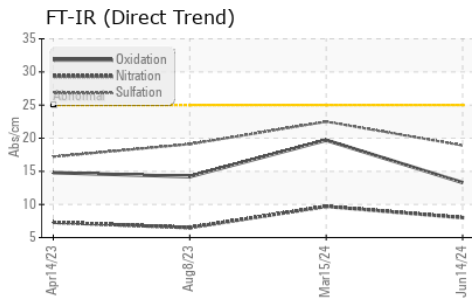
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	9	21
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	7	8
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>	0.7	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.0</b>	9.7	6.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.9</b>	22.5	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>6</b>	5	3
Boron	ppm	ASTM D5185m	316	<b>6</b>	8	13
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	1
Molybdenum	ppm	ASTM D5185m	1.2	<b>30</b>	59	57
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m	24	<b>377</b>	779	701
Calcium	ppm	ASTM D5185m	2292	<b>2101</b>	1347	1243
Phosphorus	ppm	ASTM D5185m	1064	<b>1013</b>	982	961
Zinc	ppm	ASTM D5185m	1160	<b>1218</b>	1260	1139
Sulfur	ppm	ASTM D5185m	4996	<b>3948</b>	2973	2828
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.3</b>	19.7	14.2
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>6.5</b>	6.4	8.2
Visc @ 100°C	cSt	ASTM D445	15.7	<b>13.9</b>	13.6	13.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0917138 **Received** : 14 Jun 2024  
**Lab Number** : 06211148 **Tested** : 19 Jun 2024  
**Unique Number** : 11084012 **Diagnosed** : 19 Jun 2024 - Sean Felton  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**JOHNSON BREEDERS**  
 3425 HWY 117N  
 ROSE HILL, NC  
 US 28458

Contact: GREG JONES  
 gregory.jones@houseofraeford.com

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)

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F: