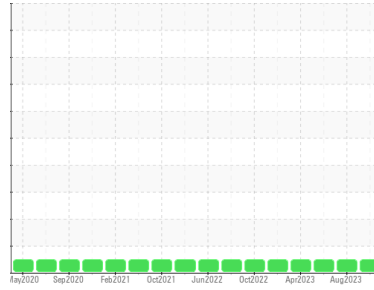




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**KENWORTH 95**

Component  
**Diesel Engine**

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

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### 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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>RW0004727</b>	RW0004501	RW0004387
Sample Date	Client Info			<b>09 Feb 2024</b>	12 Aug 2023	20 Jun 2023
Machine Age	hrs	Client Info		<b>5743</b>	5162	4850
Oil Age	hrs	Client Info		<b>581</b>	312	379
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>15</b>	16	13
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	2	2
Lead	ppm	ASTM D5185m	>40	<b>4</b>	3	1
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	0	<1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	<b>&lt;1</b>	7	8
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>64</b>	70	67
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>928</b>	1043	975
Calcium	ppm	ASTM D5185m	3000	<b>1125</b>	1322	1221
Phosphorus	ppm	ASTM D5185m	1150	<b>984</b>	1158	1118
Zinc	ppm	ASTM D5185m	1350	<b>1292</b>	1478	1375
Sulfur	ppm	ASTM D5185m	4250	<b>2885</b>	4070	3898

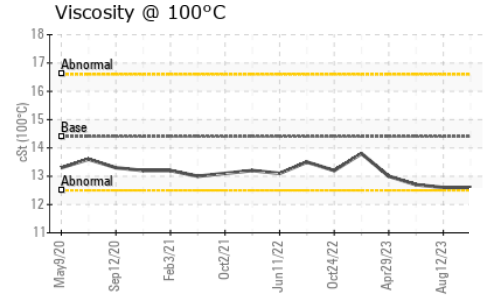
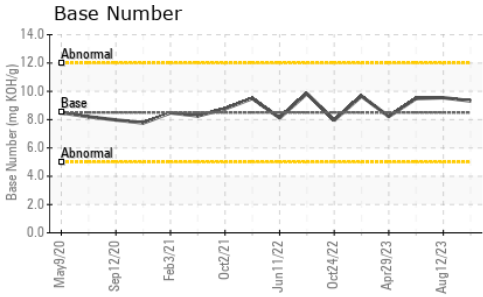
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>5</b>	4	4
Sodium	ppm	ASTM D5185m	>158	<b>0</b>	2	4
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	7	4

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.8</b>	0.6	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.8</b>	8.4	9.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.1</b>	20.0	21.1

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.9</b>	14.8	15.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>9.32</b>	9.55	9.49



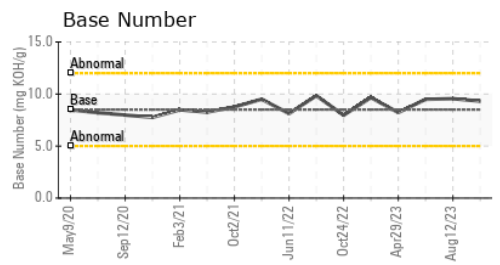
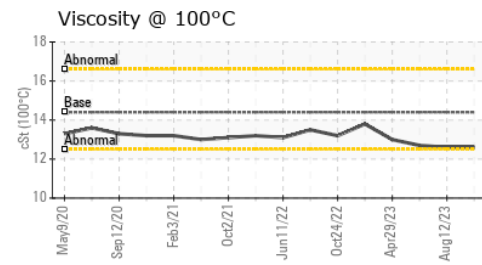
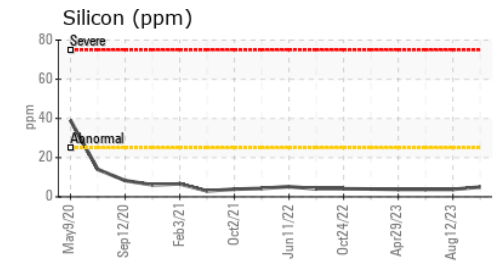
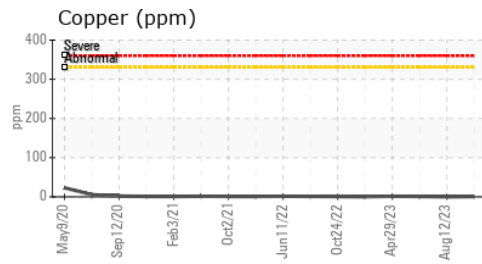
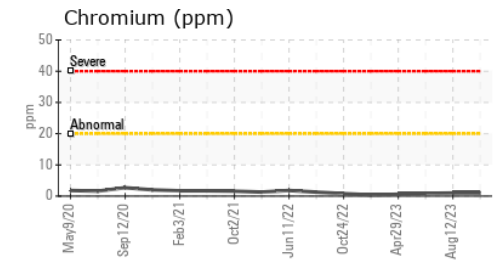
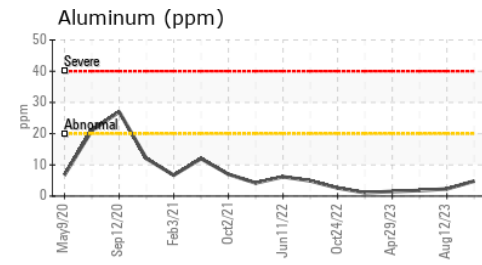
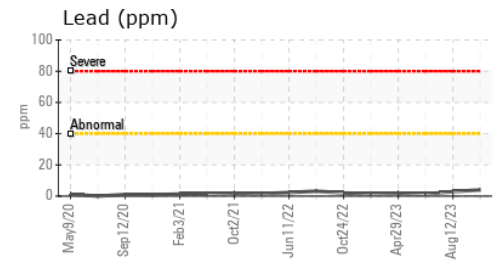
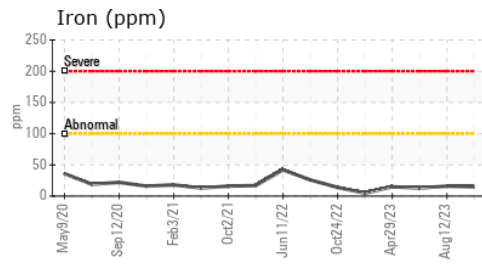
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	<b>12.6</b>	12.6	12.7

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RW0004727  
**Lab Number** : **06101132**  
**Unique Number** : 10899362  
**Test Package** : MOB 2

**HALLACK CONTRACTING, INC.**  
 4223 W POLK  
 HART, MI  
 US 49420

Received : 26 Feb 2024  
 Tested : 28 Feb 2024  
 Diagnosed : 28 Feb 2024 - Wes Davis  
 Contact: DAN HALLACK KARL BUTCHER  
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