



# OIL ANALYSIS REPORT

Sample Rating Trend

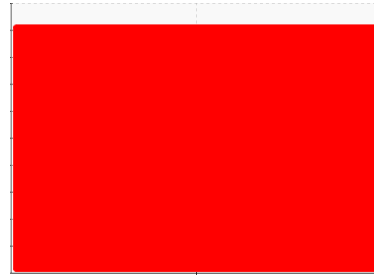
GLYCOL



Machine Id  
**KENWORTH 20**

Component  
**Diesel Engine**

Fluid  
**DIESEL ENGINE OIL SAE 40 (--- GAL)**



## DIAGNOSIS

### Recommendation

We advise that you check for the source of the coolant leak. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm.

### Wear

Iron ppm levels are abnormal. Cylinder, crank, or cam shaft wear is indicated.

### Contamination

Test for glycol is positive. There is a high concentration of glycol present in the oil.

### Fluid Condition

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>WC0864498</b>	---	---
Sample Date	Client Info			<b>28 Sep 2023</b>	---	---
Machine Age	hrs	Client Info		<b>1303637</b>	---	---
Oil Age	hrs	Client Info		<b>15000</b>	---	---
Oil Changed	Client Info			<b>N/A</b>	---	---
Sample Status				<b>SEVERE</b>	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method		>5	<b>&lt;1.0</b>	---	---

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		<b>6</b>	---	---
Iron	ppm	ASTM D5185(m)	>100	<b>123</b>	---	---
Chromium	ppm	ASTM D5185(m)	>20	<b>2</b>	---	---
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Silver	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>10</b>	---	---
Lead	ppm	ASTM D5185(m)	>40	<b>36</b>	---	---
Copper	ppm	ASTM D5185(m)	>330	<b>4</b>	---	---
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	---	---
Antimony	ppm	ASTM D5185(m)		<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	---	---

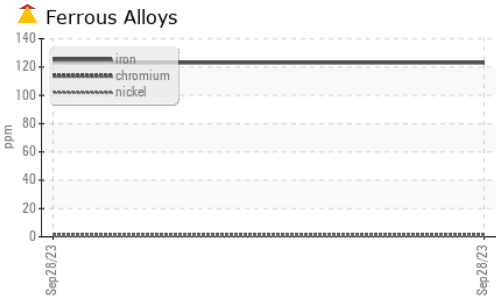
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	<b>27</b>	---	---
Barium	ppm	ASTM D5185(m)	10	<b>&lt;1</b>	---	---
Molybdenum	ppm	ASTM D5185(m)	100	<b>140</b>	---	---
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185(m)	450	<b>601</b>	---	---
Calcium	ppm	ASTM D5185(m)	3000	<b>1899</b>	---	---
Phosphorus	ppm	ASTM D5185(m)	1150	<b>883</b>	---	---
Zinc	ppm	ASTM D5185(m)	1350	<b>1052</b>	---	---
Sulfur	ppm	ASTM D5185(m)	4250	<b>2434</b>	---	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	<b>24</b>	---	---
Sodium	ppm	ASTM D5185(m)	>216	<b>801</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>137</b>	---	---
Glycol	%	ASTM D7922*		<b>0.189</b>	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	<b>1.4</b>	---	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>18.2</b>	---	---
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>30.0</b>	---	---



# OIL ANALYSIS REPORT



FLUID DEGRADATION	method	limit/base	current	history1	history2
-------------------	--------	------------	---------	----------	----------

Oxidation	Abs./1mm	ASTM D7414*	>25	<b>28.5</b>	---	---
-----------	----------	-------------	-----	-------------	-----	-----

VISUAL	method	limit/base	current	history1	history2
--------	--------	------------	---------	----------	----------

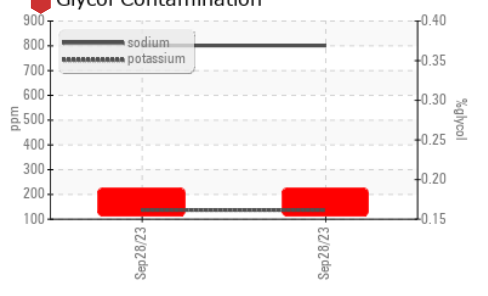
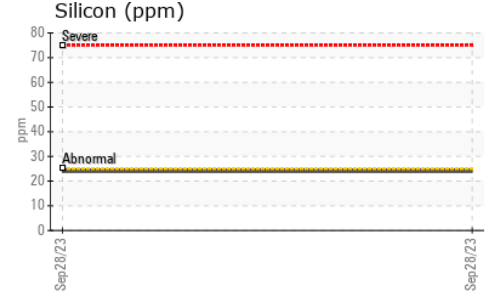
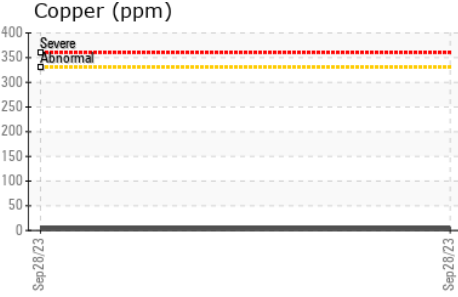
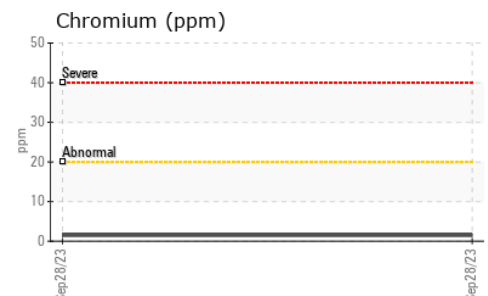
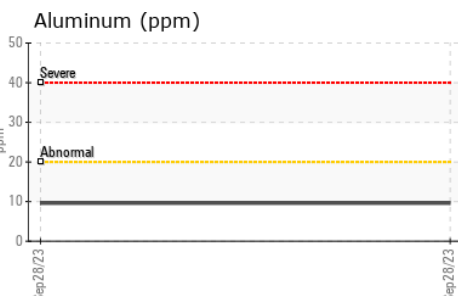
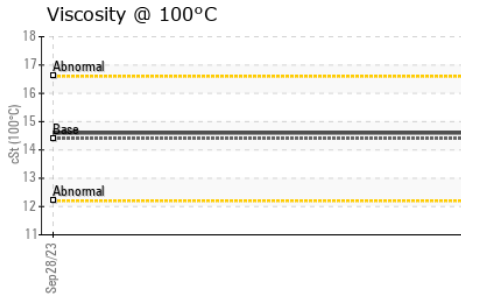
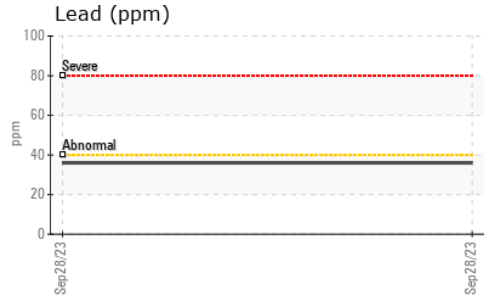
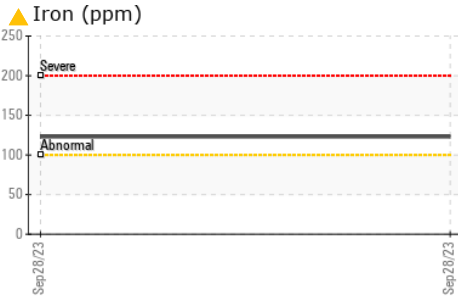
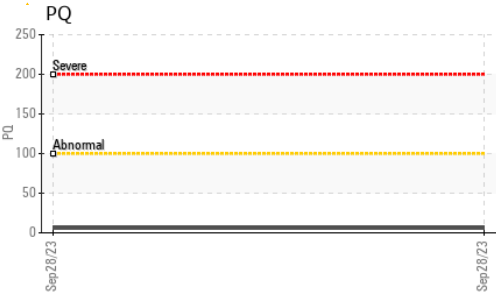
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	---	---
------------------	--------	---------	------	------------	-----	-----

Free Water	scalar	Visual*		<b>NEG</b>	---	---
------------	--------	---------	--	------------	-----	-----

FLUID PROPERTIES	method	limit/base	current	history1	history2
------------------	--------	------------	---------	----------	----------

Visc @ 100°C	cSt	ASTM D7279(m)	14.4	<b>14.6</b>	---	---
--------------	-----	---------------	------	-------------	-----	-----

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0864498      **Received** : 05 Oct 2023  
**Lab Number** : **02587112**      **Diagnosed** : 05 Oct 2023  
**Unique Number** : 5656178      **Diagnostician** : Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: Glycol, PQ )

**J. VERBRUGGEN TRUCKING**  
 R.R. #1  
 UNION, ON  
 CA N0L 2L0  
 Contact: Brad

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

T: (519)782-3372  
 F: (519)782-3373