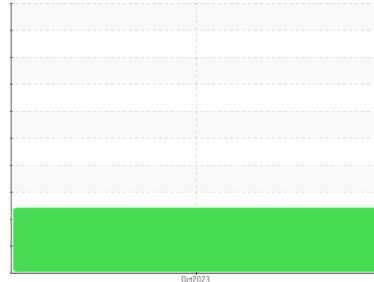




# PROBLEM SUMMARY

Sample Rating Trend



ISO



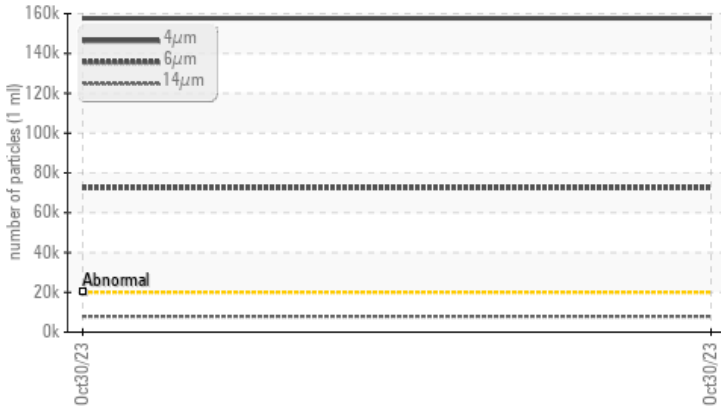
Machine Id  
**KENWORTH NYK438**

Component  
**Front Gearbox**

Fluid  
**CASTROL ELL 40 (14 LTR)**

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status	ASTM D7647	>	ABNORMAL	---	---
Particles >4µm	ASTM D7647	>20000	▲ 157676	---	---
Particles >6µm	ASTM D7647	>5000	▲ 72512	---	---
Particles >14µm	ASTM D7647	>640	▲ 7877	---	---
Particles >21µm	ASTM D7647	>160	▲ 2069	---	---
Particles >38µm	ASTM D7647	>40	▲ 60	---	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ 24/23/20	---	---

Customer Id: SOUBUR  
Sample No.: WC06010194  
Lab Number: 06010194  
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

To change component or sample information:  
Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

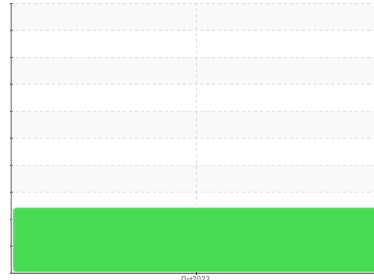
Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component if applicable.

## HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**KENWORTH NYK438**  
 Component  
**Front Gearbox**  
 Fluid  
**CASTROL ELL 40 (14 LTR)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of particulates present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC06010194</b>	---	---
Sample Date	Client Info	<b>30 Oct 2023</b>	---	---
Machine Age	kms Client Info	<b>414808</b>	---	---
Oil Age	kms Client Info	<b>240000</b>	---	---
Oil Changed	Client Info	<b>Not Chngd</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	<b>NEG</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >200	<b>33</b>	---	---
Chromium	ppm ASTM D5185m >10	<b>0</b>	---	---
Nickel	ppm ASTM D5185m >10	<b>&lt;1</b>	---	---
Titanium	ppm ASTM D5185m	<b>0</b>	---	---
Silver	ppm ASTM D5185m	<b>0</b>	---	---
Aluminum	ppm ASTM D5185m >25	<b>11</b>	---	---
Lead	ppm ASTM D5185m >50	<b>3</b>	---	---
Copper	ppm ASTM D5185m >200	<b>2</b>	---	---
Tin	ppm ASTM D5185m >10	<b>&lt;1</b>	---	---
Vanadium	ppm ASTM D5185m	<b>0</b>	---	---
Cadmium	ppm ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	<b>42</b>	---	---
Barium	ppm ASTM D5185m	<b>0</b>	---	---
Molybdenum	ppm ASTM D5185m	<b>0</b>	---	---
Manganese	ppm ASTM D5185m	<b>3</b>	---	---
Magnesium	ppm ASTM D5185m	<b>5</b>	---	---
Calcium	ppm ASTM D5185m	<b>599</b>	---	---
Phosphorus	ppm ASTM D5185m	<b>670</b>	---	---
Zinc	ppm ASTM D5185m	<b>0</b>	---	---
Sulfur	ppm ASTM D5185m	<b>2187</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >50	<b>6</b>	---	---
Sodium	ppm ASTM D5185m	<b>2</b>	---	---
Potassium	ppm ASTM D5185m >20	<b>0</b>	---	---

## FLUID CLEANLINESS

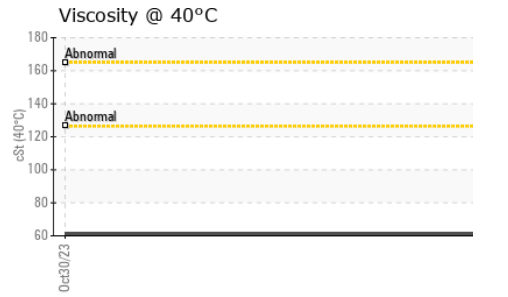
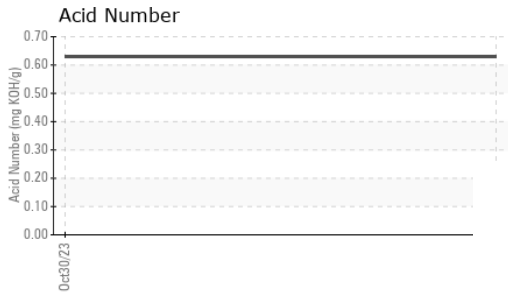
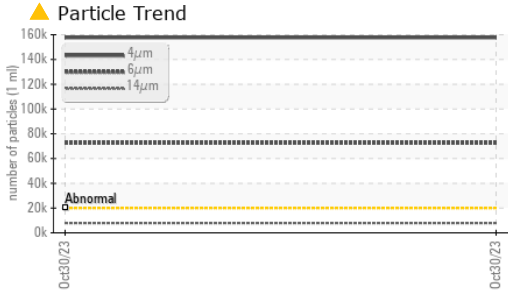
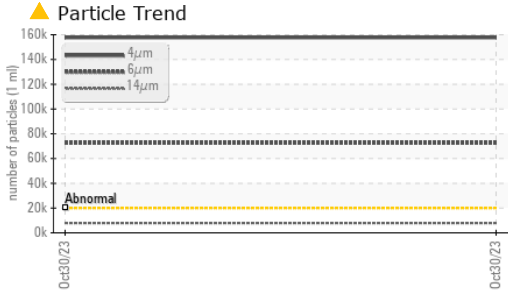
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >20000	<b>▲ 157676</b>	---	---
Particles >6µm	ASTM D7647 >5000	<b>▲ 72512</b>	---	---
Particles >14µm	ASTM D7647 >640	<b>▲ 7877</b>	---	---
Particles >21µm	ASTM D7647 >160	<b>▲ 2069</b>	---	---
Particles >38µm	ASTM D7647 >40	<b>▲ 60</b>	---	---
Particles >71µm	ASTM D7647 >10	<b>2</b>	---	---
Oil Cleanliness	ISO 4406 (c) >21/19/16	<b>▲ 24/23/20</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045	<b>0.63</b>	---	---



# OIL ANALYSIS REPORT



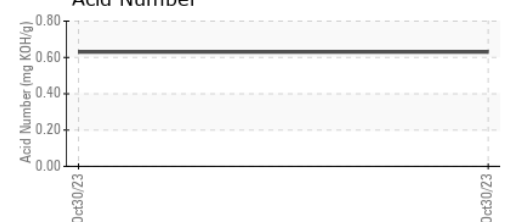
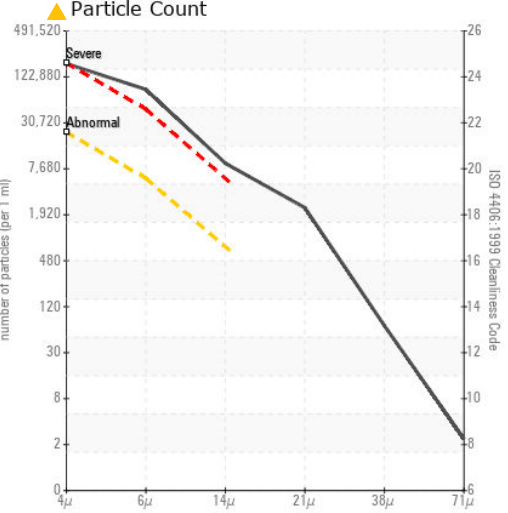
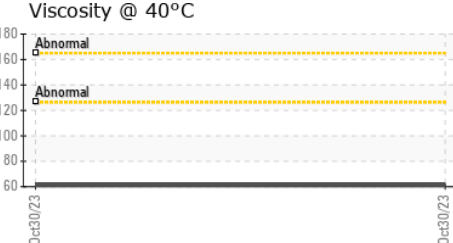
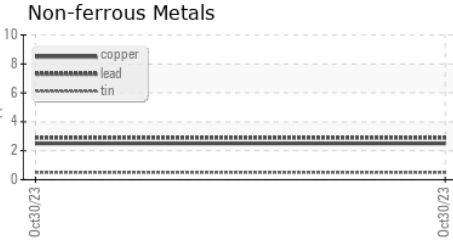
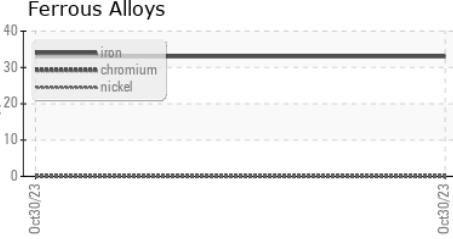
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Precipitate	scalar	*Visual	NONE	NONE	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	61.4	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color				no image	no image
Bottom				no image	no image

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC06010194      **Received** : 16 Nov 2023  
**Lab Number** : 06010194      **Diagnosed** : 20 Nov 2023  
**Unique Number** : 10749338      **Diagnostician** : Don Baldrige  
**Test Package** : FLEET ( Additional Tests: PrtCount )

**SOUTHPAC TRUCKS**  
 36 EARTHMOVER CRESCENT  
 BURBUSH, ZZ  
 NZ  
 Contact: ROB WILLSON  
 rwillson@spt.co.nz

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)