



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**LIEBHERR 22668**  
Component  
**Right Final Drive**  
Fluid  
**GEAR OIL SAE 80W90 (8 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0905371</b>	WC0846638	WC0810122
Sample Date		Client Info		<b>22 Feb 2024</b>	19 Sep 2023	01 Jun 2023
Machine Age	hrs	Client Info		<b>6986</b>	6490	5994
Oil Age	hrs	Client Info		<b>500</b>	500	2000
Filter Age	hrs	Client Info		<b>0</b>	500	2000
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	<b>18</b>	26	38
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>0</b>	2	<1
Lead	ppm	ASTM D5185m	>25	<b>1</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>7</b>	12	13
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

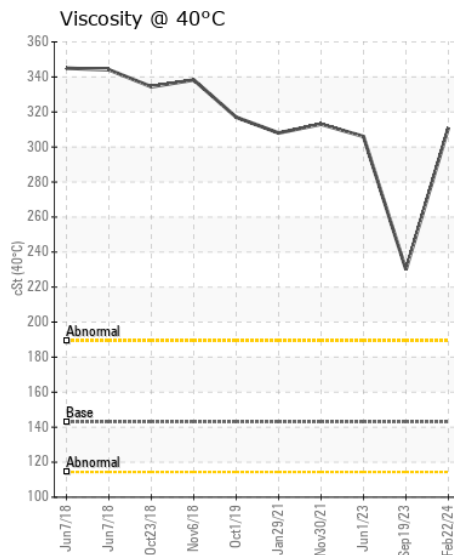
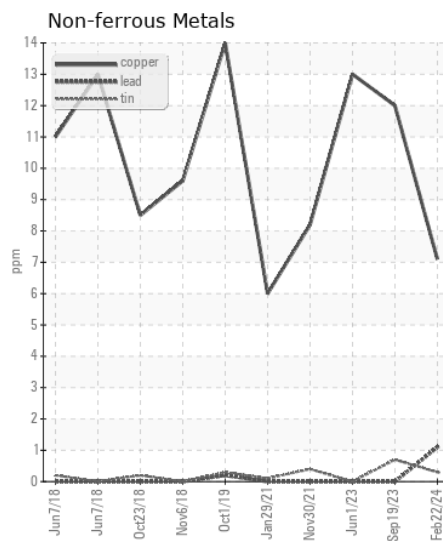
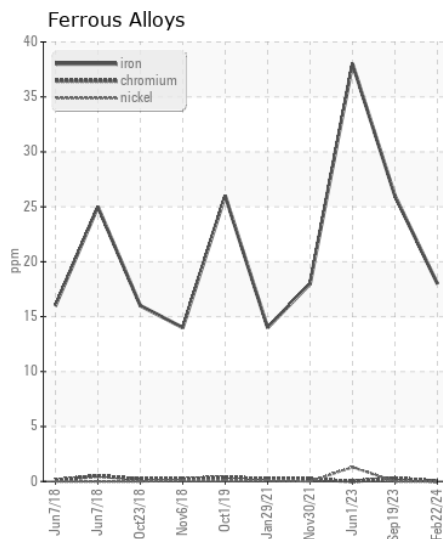
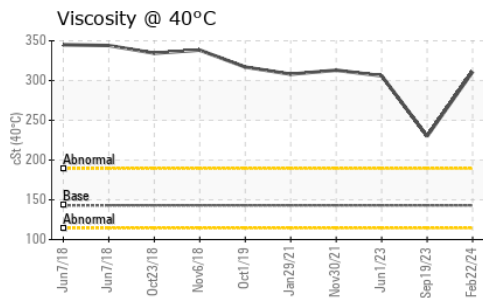
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>2</b>	14	7
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	3	0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
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

Confirm oil type. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>170	<b>2</b>	3	2
Boron	ppm	ASTM D5185m	400	<b>131</b>	163	107
Barium	ppm	ASTM D5185m	200	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	12	<b>&lt;1</b>	4	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m	12	<b>2</b>	14	<1
Calcium	ppm	ASTM D5185m	150	<b>39</b>	57	51
Phosphorus	ppm	ASTM D5185m	1650	<b>942</b>	1132	871
Zinc	ppm	ASTM D5185m	125	<b>25</b>	38	24
Sulfur	ppm	ASTM D5185m	22500	<b>20519</b>	24125	22335
Visc @ 40°C	cSt	ASTM D445	143	<b>311</b>	230	306



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0905371  
**Lab Number** : 06100465  
**Unique Number** : 10898695  
**Test Package** : CONST

**Received** : 26 Feb 2024  
**Tested** : 27 Feb 2024  
**Diagnosed** : 28 Feb 2024 - Don Baldrige

**SULLIVAN EASTERN INC-LIEBHERR**  
 2860 C SLATER RD  
 MORRISVILLE, NC  
 US 27560  
 Contact: CHRIS CALTON

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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