



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id  
**LIEBHERR 31222**  
Component  
**Splitter Box**  
Fluid  
**LIEBHERR GEAR BASIC 90 LS (--- QTS)**

## RECOMMENDATION

The oil change at the time of sampling has been noted. 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

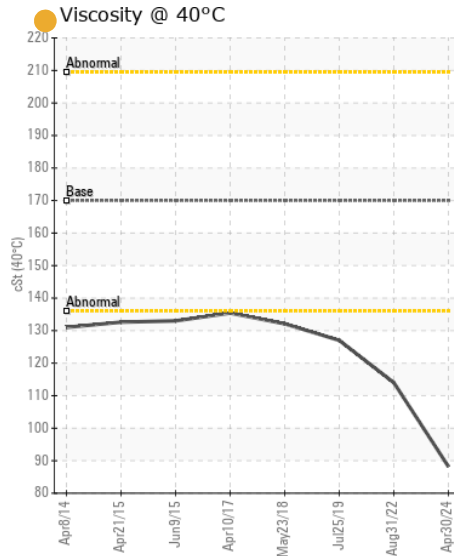
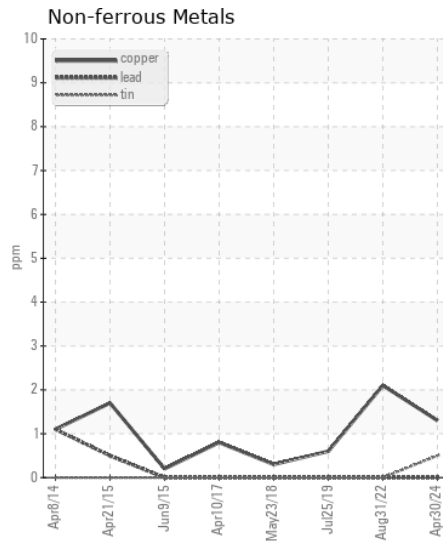
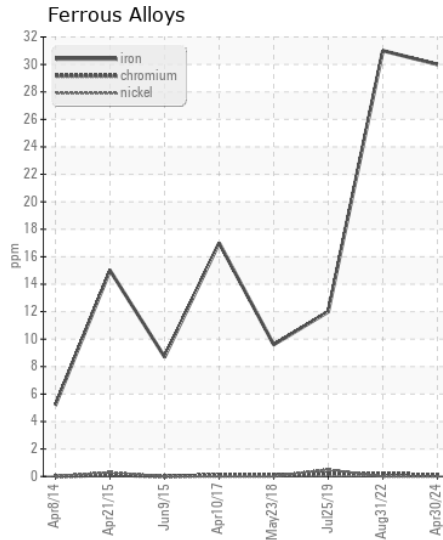
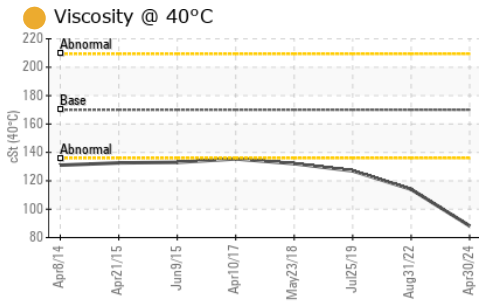
The oil viscosity is lower than normal.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0924610</b>	WC0688993	WC0342313
Sample Date		Client Info		<b>30 Apr 2024</b>	31 Aug 2022	25 Jul 2019
Machine Age	hrs	Client Info		<b>17247</b>	16179	15419
Oil Age	hrs	Client Info		<b>1000</b>	250	1000
Filter Age	hrs	Client Info		<b>1000</b>	0	1000
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	NORMAL	NORMAL

Iron	ppm	ASTM D5185m	>325	<b>30</b>	31	12
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>5	<b>&lt;1</b>	2	<1
Lead	ppm	ASTM D5185m		<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>30	<b>1</b>	2	<1
Tin	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	VLITE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

Silicon	ppm	ASTM D5185m	>20	<b>3</b>	2	3
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	8
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>LIGHT</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

Sodium	ppm	ASTM D5185m		<b>1</b>	1	1
Boron	ppm	ASTM D5185m	0	<b>83</b>	129	93
Barium	ppm	ASTM D5185m	0	<b>1</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>1</b>	3	1
Manganese	ppm	ASTM D5185m	0	<b>1</b>	2	<1
Magnesium	ppm	ASTM D5185m	<1	<b>16</b>	11	2
Calcium	ppm	ASTM D5185m	<1	<b>111</b>	80	56
Phosphorus	ppm	ASTM D5185m	2143	<b>941</b>	1317	1221
Zinc	ppm	ASTM D5185m	<1	<b>241</b>	128	52
Sulfur	ppm	ASTM D5185m	23468	<b>11446</b>	16324	17546
Visc @ 40°C	cSt	ASTM D445	170	<b>88.2</b>	114	127



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0924610  
**Lab Number** : 06177582  
**Unique Number** : 11023635  
**Test Package** : CONST

**Received** : 13 May 2024  
**Tested** : 16 May 2024  
**Diagnosed** : 16 May 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)

T:  
 F: (919)484-2136